

Portfolio of Original Compositions with Critical Commentary

Using Pre-existing Material through Spectra of Movement

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In addition to the commentary, a portfolio of scores and recordings/videos for most pieces in the portfolio can be accessed using the hyperlinks listed below:

1. *[inter]r[e]act I* (2021) for solo B-flat clarinet performed by Raymond Brien
[SCORE](#) [RECORDING](#)
2. *Occulta Scientia Siderum* (2021) for solo bass clarinet performed by Carlos Cordeiro
[SCORE](#) [RECORDING](#)
3. *Lux Obscurata* (2021) for solo guitar performed by Mauricio Galeano
[SCORE](#) [RECORDING](#)
4. *...a mist fell from my eyes...* (2021) for string quartet
[SCORE](#)
5. *De rerum naturis* (2022) for solo multi-percussion performed by Björn Rabben
[SCORE](#) [RECORDING](#)
6. *NORIBERGHENSIVM 1699* (2022) for quintet
[SCORE](#)
7. *O Clavis David* (2022) for mixed choir performed by Ensemble Pro Victoria, directed by Toby Ward.
[SCORE](#) [RECORDING](#)
8. *[inter]r[e]act II* (2022) for solo double bass performed by Shaya Feldman
[SCORE](#) [RECORDING](#)
9. *reliquiae, löschen* (2022–23) for solo vocalist performed by Stephanie Lamprea
[SCORE](#) [VIDEO](#)
10. *Tarnhût* (2023) for solo oboe performed by Richard Lines-Davies
[SCORE](#) [VIDEO](#)
11. *[inter]r[e]act III* (2023) for flutes and clarinets
[SCORE](#)

Appendix of scores:

1. *Mutationes in Motu* (2022) for solo flute
[SCORE](#)
2. *Beyond Borrowed Time* (2021) for piano trio [now rescinded from my portfolio and revised to become *NORIBERGHENSIVM 1699*]
[SCORE](#)

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Abstract

As a composer, I am engaged and interested in the use of pre-existing material in music, especially the use of Renaissance music in contemporary music. Owing to this, my music always refers, in one way or another, to Renaissance music. This thesis is split into the two most significant facets of my compositional approach: distance and combination. Distance comes in the form of the distance or space between my composition and the pre-existing material it uses – in other words, how similar (proximate) or contrived (distant) my pieces sound in comparison to the pre-existing sources they use. This distance is explored in the context of Ferdinand de Saussure’s terms *langue* and *parole* which, in the context of my music, mean uses of historical techniques and uses of musical material respectively.

Combination occurs when two contrasting elements combine to create an outcome which is neither one of the elements nor the other, producing multiple possible outcomes of, what I term here, fusion and fission. Both distance and combination are examined through two types of spectra of movement: single movement spectra and dual movement spectra. By exploring distance and combination through spectra of movement, I deviate from typical scholarly approaches which view the use of pre-existing material—specifically in twentieth- and twenty-first-century—as being in a yes/no binary, such as in J. Peter Burkholder’s ‘The Field of Musical Borrowing’ and David Metzger’s *Quotation, Meaning and Culture in Twentieth Century Music*. I argue that the use of pre-existing material, or two contrasting elements, are not simple yes/no binaries, but contain a complex middle ground which I explore in the context of my practice throughout this thesis. Finally, I propose future areas in which this approach to composition can be used both in my practice and others’ practice.

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Portfolio of Original Compositions with Critical Commentary

Using Pre-existing Material through Spectra of Movement

Part 1 – Introduction

1.1 Introduction to Spectra of Movement

In this chapter, I will introduce what I mean by spectra of movement and how they relate to my key concepts of distance, combination, fusion and fission in my compositional practice. A main intention in this project is to move away from the typical ‘yes/no’ binary which is attached to uses of pre-existing material in music. The phrase ‘using pre-existing material’ describes any piece of music which deploys material that already exists such as through direct quotation, structural modelling and reference etc. In short, I propose that the field of using pre-existing material contains a multitude of parameters which makes it a complex area: simply reducing the use of pre-existing material down to whether it is used or not (a yes/no binary) loses many of the nuances involved in this field. Therefore, I propose that the whole field of using pre-existing material in music should be viewed with the addition of the terms: movement, distance, and middle space. In other words, exploring how pieces which use pre-existing material can move between being close and far (or similar and contrived) to the original source through methods of distortion and obscuration – it is these methods of distortion and obscuration which I link to distance and the middle space between the composition and the pre-existing source. It is this movement between being close and far to a source that I term as ‘distance’. If the elements are close to each other, I term this as ‘proximate’, if they are far from each other, I term this as ‘distant’.

Another intention is to take the idea of moving away from the use of pre-existing material being a yes/no binary by introducing spectra of movement to contextualise my use of pre-existing material in terms of distance, both temporally (i.e. in terms of historical usage) and methodologically (i.e. in terms of the material itself). Finally, I add another dimension to spectra of movement and explore how two contrasting elements can combine along the spectrum of movement to result in either a ‘fusion’ or ‘fission’ of the elements. This is undertaken by pushing two elements as close as possible to each other so that they combine. Distance and combination are the two fundamentals of my compositional practice and

approach, and this project attempts to tie the two together using spectra of movement as the interrelationship.

In its simplest form, a spectrum of movement portrays the space (and amount of space) between two elements where either one or both are in motion. This ‘middle space’ is the ambiguous space *in between* the elements which is not specifically defined as one of the elements or the other. This is the area I explore in this project, as opposed to examining the more objective and definite end points of the spectrum as separate binaries. At least one contrasting element, in the context of this project, always contains motion. There is never a time when both elements simultaneously can be defined as singular, unchanging entities so the changing middle space *becomes* the composition as opposed to the elements themselves. This is primarily applied within the contexts of pre-existing sources in my music and the distance of my composition—in terms of the use of the pre-existing material itself or using pre-existing compositional techniques—to and from the pre-existing sources it uses.

Figures 1.1 and 1.2 outline the two types of spectrum used in this project. The middle space is the large space in between the polarised points on either side. Therefore, if either element gains motion—that can be one element moving towards the other element which is static, or both elements moving towards/away from each other—the amount of space between the two fluctuates meaning that the distance between one element and another also fluctuates through the increasing and decreasing amount of middle space. This concept of fluctuating space or distance through the motion of contrasting elements along a spectrum is where I base the foundations of part of my compositional methodology. The spectra present a visual illustration of this where the middle space is a constantly changing amount of distance between two different contrasting elements (dependent on various methodological approaches) which are never static simultaneously.

If one or both elements on the spectrum move, then the distance between the two fluctuates meaning that there are ‘physics’ in the reactions and interactions between the two elements. This potentially forms a plethora of movement spectra of which I will focus on two:

- 1) Single movement (where one element is static and the other is moving, figure 1.1)
- 2) Dual movement (where both elements are moving, figure 1.2)

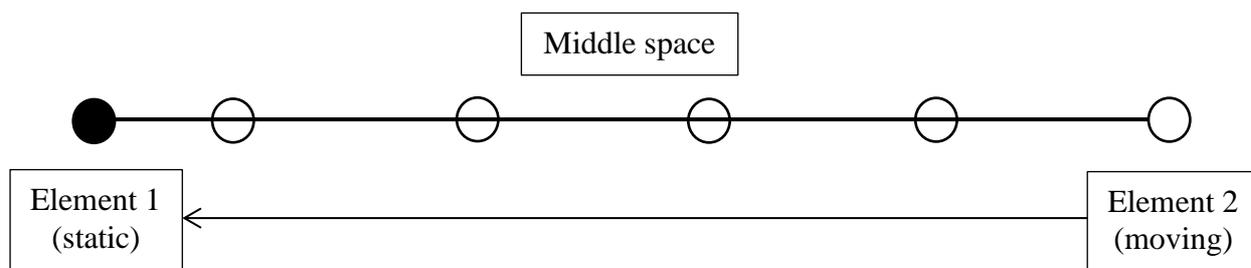


Figure 1.1: illustration of a single movement spectrum where only one element (element 2) is in motion

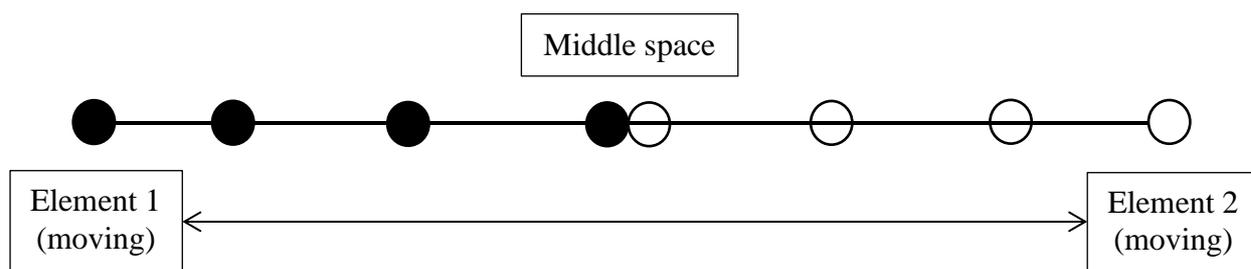


Figure 1.2: illustration of a dual movement spectrum where both elements are in motion¹

Both spectra illustrate the two channels that this project explores. In more conceptual terms, the single movement spectrum is used to investigate fluctuating levels of distance between an element that is static within time (such as a pre-existing source of material) and a constantly moving element (my composition which uses that static source of pre-existing material) and the ways in which the distance (the fluctuations between being proximate and distant can be used as an approach for a compositional methodology. Both spectra are primarily used to explore distance; however, when that gap disappears, the two elements inevitably combine so combination occurs when the gap between the two is ‘zero’. In other words, combination occurs when very close proximity between the two elements is surpassed, and the elements are forced to ‘collide’. The term ‘static’ describes an element that does not move and stays the same, such as a source of pre-existing material. ‘Moving’ describes an element that changes as it is created so, in this context, relates to the process of constructing a composition (i.e. the compositional process and not necessarily the composition itself) which moves depending on my compositional intention behind piece.

¹ There are also other versions of this spectrum for example: where one element *becomes* the other by swapping ends of the spectrum; when the elements begin together and pull apart; and when the elements begin at the given spectrum extremes and drift even further apart. I do not explore these in this project; however, I refer to them in more detail later in this thesis when discussing further possibilities that this project could explore.

To contextualise through the perspective of using pre-existing material, distance is how similar a composition that uses a source of pre-existing material sounds in comparison to the original source (or how distorted the composition is in comparison to the original source it uses). I use the term distance as a conceptual spectrum to explore this. If a composition is proximate to the pre-existing source it uses, the source is more recognisable and less distorted. If the composition is distant to the source, the source is less recognisable and more distorted. In other words, distance conceptually illustrates fluctuating levels of distortion of the pre-existing source it uses: the more distorted, the more distant; the less distorted, the more proximate.

The dual movement spectrum, on the other hand, conceptually illustrates the idea of two elements moving towards or away from each other so the distance between the two is measured on different points on the spectrum in comparison to the single movement spectrum where the distance is measured in terms of the space between the moving element and the static element. When the distance between the two is zero, combination occurs and, depending on what the elements are, they combine in different ways, resulting in either fusion and fission. These outcomes of combination produce areas which are applied, again, as foundational approaches to compositional methodology, of which I split into my own resultant categorisation system of five outcomes: superimposition, palimpsest, substitution, alternation, and erasure. This may all seem to be rather conceptual and contrived now; it will make more sense when examined in detail in the context of my compositional practice.

1.2 The Use of Pre-existing Materials

1.2.1 Terminology

My compositions in this portfolio all, in one way or another, contain pre-existing materials – that is to say that the compositional process and the materials I use in each of my pieces are derived from a source of pre-existing material. The pre-existing material is used in different ways in each piece, each of which will be unpicked later in this thesis. The use of pre-existing material within music has been present for centuries – from the parody masses of the Renaissance, through recent legal cases of copyright issues, to more contrived uses of existing structural models. The general use of pre-existing material throughout history contains countless facets which are methodological, subconscious, conscious, personal, direct, indirect, explicit, or implicit. However, the literature surrounding this large subject has, to my mind, used imprecise and conflated terminology which does not always accurately describe the

nuances within the field. The use of pre-existing material in music had been referred to specifically as ‘quotation’ or ‘borrowing’ until J. Peter Burkholder, in 1994, suggested that musical borrowing should be referred to as a ‘field’ as the terms above were too specific for such a large subject area.² In this, he grouped different types of musical borrowing into different typologies and described these typologies as being the plethora of ways in which musical borrowing has been (and could be) used – highlighting the different methods of using pre-existing material.

First, it is worth noting my aversion to using the terms ‘borrowing’ and (at least when talking generally about the whole field of using pre-existing material) ‘quotation’. The term ‘borrowing’ implies that one is to give the thing in which they have borrowed back to where one initially got it. This asks the question if borrowing has ever occurred within music or whether it is an imprecise term used to cover a field which is much larger than even what Burkholder sets out. There is no way that one could return a borrowed segment from a pre-existing source back to its original place: that is not how the use of pre-existing materials within music (or any other art form) has ever worked. In other words, the existing material is not *borrowed*, but rather *deployed*. The term ‘quotation’ is also problematic in the context of this area for the simple reason that it is one of the specific typologies of using pre-existing material and not a term which covers the field of using pre-existing material. Therefore, owing to these ambiguities of terminology, I will be simply referring to this field as the ‘use of pre-existing material’ as a replacement term for musical borrowing or other similar terms which have been used historically.

As much of my reading on pre-existing materials in contemporary music centres around David Metzger’s *Quotation and Cultural Meaning in Twentieth-century Music*,³ it is worth examining the language he uses in the book. He uses the term ‘quotation’ to describe a field which is far more nuanced and broader than what the term suggests: I argue that the book is not specifically about quotation; but, rather, different uses of pre-existing material within the context of cultural meaning in twentieth-century music. To exemplify the imprecise terminology in Metzger’s book and this whole discourse, Metzger describes *quotation* at one point as being ‘the placement of

² J. Peter Burkholder, ‘The Uses of Existing Music: Musical Borrowing as a Field’, *Notes* 50, vol. 3 (Mar., 1994), 851–870.

³ David Metzger, *Quotation and Cultural Meaning in Twentieth-century Music* (Cambridge: Cambridge University Press, 2003).

parts of a pre-existent piece in a new composition or performance'.⁴ This is contradicted to some extent a few pages later where he suggests that quotation 'typically involves a range of transformational techniques: fragmentation, expansion, rhythmic skewing and stylistic metamorphosis'.⁵ To my mind, these so-called 'transformational techniques' take away from the specificity of what quotation really is and contradicts Metzger's assertion that quotation is the placement of the pre-existing in new compositions/performances. If quotation is to use the transformational techniques he suggests, then it is not quotation, or not simply so: quotation is simply a segment of pre-existing material directly inputted into a new composition and is therefore a specific typology of using pre-existing material. The transformational techniques each in themselves are also separate ways of using of pre-existing material: it is these transformational techniques that build the field of deploying pre-existing material. In addition, the transformations, especially in relation to the pre-existing sources, are not concentrated on in terms of relationship but more in terms of the methodology on its own (and the semiotics behind its use). Therefore, Metzger's book is not just about quotation, but different deployments of pre-existing music in twentieth-century music in relation to meaning and culture. This exemplifies my point that terminology within this field has unhelpfully become conflated in scholarly texts.

Burkholder does take this further in suggesting that terms such as 'borrowing' and 'quotation' are 'not enough' and that we ought to 'differentiate between various ways of using pre-existing music'.⁶ He goes on to conclude that 'by broadening our view to encompass all uses of existing music, we can begin to see better the interrelationships among them and between one period or tradition and another'.⁷ In short, I propose that the term 'borrowing' should be avoided as the act of borrowing never actually occurs. Furthermore, the term 'quotation' should be used more specifically as one specific deployment of pre-existing material, so I use the phrase 'use of pre-existing material' to encompass this broad field.

1.2.2 Yes/no Binary

Discourse, especially on uses of pre-existing material in twentieth- and twenty-first-century music, tends to lean towards posing a sort of 'yes/no' binary in relation to uses pre-existing

⁴ Ibid, 4.

⁵ Ibid, 6.

⁶ Burkholder, 'The Uses of Existing Music', 855.

⁷ Ibid, 861.

material which inevitably excludes a lot of the nuances that come through approach, method, perspective, audibility and perception amongst other things. The ‘yes’ within this yes/no binary is much more complex than being able to be fit within a single definition. Uses of pre-existing material are dependent on multiple factors making the whole field nuanced and complex.⁸ This is the main reason behind why I am interested in exploring the use of pre-existing material in the context of distance. As a composer, I am interested in exploring the boundaries of how pre-existing materials can be used in music outside this yes/no binary. For example, obscuring when the pre-existing material is used and when it is not used to form this combined amalgamation of both within a middle space. The more ambiguous uses of pre-existing materials are on a more refined, nuanced and detailed level and are difficult to interpret (or fully understand) within the constraints of a yes/no binary. Scholars examining this discourse in relation to twentieth- and twenty-first-century music have typically fit their approaches neatly within the confines of a yes/no binary without taking the details of the nuances and middle-space between the yes and no into account, something of which, I argue, always contains a perspective of distance in one way or another.

Burkholder suggests interrelationships between the composition and the pre-existing material which are typically within the context of methodology with a relationship to semiotics. Burkholder lists three ‘motivating questions’ for the field of borrowing:⁹

- 1) Analytical questions (*what* is used as a source and *how*)
- 2) Interpretive or critical questions (*why* the source is used)
- 3) Historical questions (*where* the composer got the idea to do this)

Whilst Burkholder’s conclusion and motivating questions are interesting ones (and ones that are still relevant in this project), the literature is always based around whether it a use of pre-existing material or not without considering the ambiguous middle space in between the yes and no binaries – this area is always present in different ways, but rarely examined. The interrelationships he suggests are still decoupled from the use of pre-existing material itself and are a result of the yes/no binary historically applied to this field. The ways of using pre-

⁸ I use the term complex to mean that the field contains multiple channels, facets and areas dependent on multiple factors. These individual elements add together differently each time to produce different results making the field of using pre-existing materials a complex field and not a binary field.

⁹ Burkholder, ‘The Uses of Existing Music’, 864.

existing materials that fall *within* the binary are the approaches I am interested in. It is the idea that uses of pre-existing material cannot simply be placed in a yes/no binary. Uses of pre-existing material work *inside* the space between the yes and no making the field a complex field, and it is the movement or motion between from which I develop my first typology of movement spectra: examining the distance from my music to the pre-existing source it uses through methods of obscuration and distortion.

Furthermore, the existing literature around pre-existing materials concentrates on the *how* and *why* the specific source of pre-existing material is used, taking the ‘yes’ and ‘no’ as given. This points towards semiotics and attempts to give a reason *why* the composer used this specific source. This is prevalent throughout Metzger’s book and Burkholder’s paper, especially in relation to Charles Ives’s widespread use of pre-existent material. The interrelationships between composition and the pre-existing source are in terms of semiotics and not necessarily in terms of the distance between the pre-existing material in the composition in comparison to the source, especially when the distance fluctuates in motion. As the use of pre-existing materials is not always an exact ‘yes’, the middle space or ‘movement between the yes and no’ is a particular facet that should be attached to discourse around uses of pre-existing material along with semiotics and methodology.

Other writers on ‘musical borrowing’ have referred to the hiding of quotation or masking of quotation – writers such as Krystyna Tarnawska-Kaczorowska.¹⁰ Tarnawska-Kaczorowska begins to name the types (or modes) of quotation between the yes/no binary which goes a step further in comparison to Metzger and Burkholder in exploring this middle space; however, these uses are still static and not in terms of distance. She treats this middle space as being the ‘problem’ with musical quotation (even if the modes she refers to are uses of pre-existing material and not exactly modes of quotation).¹¹ Tarnawska-Kaczorowska notes the following types of ‘quotation’:

- Crypto-quotation – covert or masked quotation
- Hetero-codal quotation – quotation with a different verbal code

¹⁰ Again, this conflates terminology especially between quotation, borrowing and uses/deployments of pre-existing material.

¹¹ Krystyna Tarnawska-Kaczorowska, ‘Musical Quotation: An Outline of the Problem’, *Contemporary Music Review* 17, no. 3 (1998), 69–90.

- Para quotation or quotation signatures – e.g., ciphers
- Collage – entanglement of quotations¹²

These are, indeed, modes of using pre-existing material in music but their positioning within the yes/no binary further confuses the matter of how to understand uses of pre-existing material. Whilst Tarnawska-Kaczorowska's paper deals with extending the field of what 'quotation' is, it is still rooted within the yes/no binary. The modes she refers to above, depending on context, can all lie within a spectrum of movement of using pre-existing materials in the sense that they cannot simply be categorised as a 'yes' or a 'no' of whether they use pre-existing material or not, especially when the outcome of the use is taken into consideration, further confirming that the field of using pre-existing materials is much more complex than what can be described within a binary.

Tarnawska-Kaczorowska refers to crypto-quotation as being 'known—solely or first and foremost—to the creator author'.¹³ She does not elaborate on this; however, this mode is, to my mind, the most interesting when examined outside the context of the yes/no binary. There is more to masked quotation than it only being solely known to the composer, such as moving away from the semiotics into examining this concept through exploring the middle space itself and the methodologies of actually masking, obscuring or distorting the pre-existing material, followed by an examination of how proximate or distant the composition is to the source. Whilst this is true, it amplifies the middle space between the yes and no binary and leads onto the perspective in which part of this project explores.

Tarnawska-Kaczorowska also denotes two axes of quotation related to Ferdinand de Saussure's terms: *parole* (linear – the quotation of an individual utterance) and *langue* (vertical – the evocation of a certain stylistic convention).¹⁴ Whilst I still note that this is not actually about *quotation*, but rather the broader usage of pre-existing material, they form the two areas I am interested in but through distance as opposed to the yes/no binary. *Parole* relates to my uses of an actual source of material whereas *langue* concerns my relationship to historical technique and the distance my interpretation of that technique has compared to its historical use.

¹² Ibid., 82–83.

¹³ Ibid., 82.

¹⁴ Ibid., 76. The origin of *parole* and *langue* dichotomy come from Ferdinand de Saussure in Ferdinand de Saussure, *Course in General Linguistics* (New York: Philosophy Library, 1959 [1916]). This, therefore, suggests a fundamental concern with semiotics.

Discourse around uses of pre-existing materials in twentieth- and twenty-first-century music is, as referred to above, based on this binary of yes and no, losing the nuance of the vast middle space between the two and losing the complexity of the whole field. The nuance between the yes and no binary is more evident in early music discourse on uses of pre-existing material and form a general difference between the discourses on pre-existing materials in early music and in more contemporary music. The term *cantus prius factus* (a ‘song previously made’) accounts for all the techniques used around deploying pre-existing material.¹⁵ Fitch suggests that ‘the widely used term “musical borrowing” does not apply equally well to all polyphonic situations. It puts the emphasis on the end result (polyphony) rather than the starting point (chant)’.¹⁶ This further suggests that there is a space between the pre-existing material and the composition. This gap is covered with more nuance on texts regarding early music than in texts regarding twentieth- and twenty-first-century music. A possible reason for this could be the bigger focus on semiotics in contemporary music and more of a focus on listener perception and, perhaps, function in early music. It is the more nuanced, early music perspective of pre-existing material that relates more to the middle space between the yes/no binary exhibited in contemporary music.

1.3 The ‘New Complexity’

As a musician, I am mainly drawn to two areas of music. These areas (amongst others) are Medieval/early Renaissance music and the New Complexity.¹⁷ Within the music by composers typically categorised under the New Complexity descriptor, pre-existing materials are commonly used and relationships to historical forms of music are, in some cases, explicit. Take Brian Ferneyhough, for example, who directly acknowledges his relationship to early music as being a *Festigkeit* (solidity) of technique, colour and physical presence.¹⁸ Similar points are made by James Erber too who highlights a ‘deep interest in pre-enlightenment culture’ and a ‘fascination for the music of the Renaissance and the early Baroque’.¹⁹ There are also clear relationships to early music in pieces by Michael Finnissy (such as the Dunstaple references in

¹⁵ Fabrice Fitch, *Cambridge Introductions to Music: Renaissance Polyphony* (Cambridge: Cambridge University Press, 2020), 169.

¹⁶ *Ibid.*

¹⁷ There are multiple reasons as to why I am interested in these forms of music; however, this personal positioning is not particularly relevant here.

¹⁸ Brian Ferneyhough, interview by Samuel Andreyev, *Brian Ferneyhough on the Samuel Andreyev Podcast*, 19 Feb., 2021, YouTube podcast. <https://www.youtube.com/watch?v=kiI7cpFEBwCE>.

¹⁹ James Erber, *Fragile Continuities: Collected Writings on Music (1978–2021)* (Chipping Norton: Vision Edition, 2022), 1.

New Perspectives on Old Complexity (1993)) and Richard Barrett's *3 Chansons* (2021) which are realisations of three *chansons* by three different medieval French composers: Guillaume Dufay, Guillaume de Machaut and Gilles Binchois. Owing to my interest in Medieval music and early Renaissance music, and the frequent yet different personal relationships to early music within the New Complexity, I have been drawn to the music of the latter for several years both aesthetically and methodologically.

Considering that the New Complexity holds a fundamental influence in my work as a composer, it is useful (for the sake of clarity) for me to briefly describe what *I* mean by the relationship between music and complexity. Finnissy suggests that music [of the New Complexity] 'is only complex if you accept that human beings are complex, and that all art is complex'.²⁰ This, to my mind, is something worth exploring when it comes to examining the relationship between music and complexity. There is no doubt that Christopher Fox's note that music of the New Complexity is 'a complex, multi-layering interplay of evolutionary processes occurring simultaneously within every dimension of the musical material' is accurate; however, this only takes into the consideration the composer, the score and the process.²¹ John Holland describes complexity as a 'scientific field with many branches and perspectives'.²² This suggests that there are a multitude of angles and attributes which makes something complex. In music, the score, process, and composer are only part of the attributes that make a complex object or complex material. On the surface, the aesthetic nature of the notation of this kind of music is undoubtedly *complicated*, owing to the intricate and rigid processes used by the composers to achieve this.²³ But, more generally, as Finnissy suggests, all types of music and art are complex because human beings are complex. This means that complexity depends on multiple human and psychological factors individual and unique to each person, such as the performer themselves (in terms of experience, their psychology of interpretation etc), the audience, and the instrument itself (amongst other factors). Each of these parameters of complexity can be increased or decreased through objective complicatedness in its own way. Therefore, all music *is* complex depending on the person or people involved, not just in terms of the score itself – it is always different depending on the humans involved..

²⁰ Richard Toop, 'Four Facets of the New Complexity', *Contact* 32 (1988), 4–50 [5].

²¹ Christopher Fox, 'New Complexity' *Grove Music Online* (2001).

²² John Holland, *Complexity: A Very Short Introduction* (Oxford: Oxford University Press, 2014), 1.

²³ See Richard Toop, 'On Complexity', *Perspectives of New Music* 31, no. 1 (Winter, 1993), 42–57 for his discussion around complexity, complicatedness, and difficulty.

In the context of New Complexity, the notation is objectively complicated and requires a certain approach towards interpretation from the performer. This is dependent on the performer's exposure to that type of notation, the experience the performer has in performing it, the education the performer has had and even the time the performer has had to learn the piece. This is, of course true for all forms of music no matter what the notation looks like (or whether the notation actually exists) because it depends on the performer's exposure to and experience of performing a specific type of score; however, what makes the New Complexity different, is its high level of objective notational complicatedness which affects the overall complexity of the piece as it forces a specific type of performative interpretation. This is to say that the notation and the way the processes are used to compose the music are not complex as an unalloyed good. Complexity is achieved when additional factors are considered, such as the performer, the audience, the environment to name a few. In other words, musical complexity emerges from the personal approach to interpreting a score as opposed to the score itself. Therefore, when I refer to 'complexity' or 'complex music' in this thesis, I am simply referring to the music by the group of composers who have historically been placed under the New Complexity descriptor and the types of dense notational qualities that scores under this descriptor typically contain, especially my own.²⁴

1.4 Polyphony, Counterpoint and Assemblage

As polyphony plays an important role in my music and forms the foundation of my textural thinking especially when using combination, an explanation of what I specifically mean by polyphony is required. To understand what polyphony is in contemporary music, it is important to point out the historical differences between polyphony and counterpoint: two techniques that are, in contemporary thought, typically conflated. A general definition of polyphony is 'music in more than one part'.²⁵ This, very basically, suggests that the term polyphony represents all music in more than one, independently moving part. Historically, the term 'part' refers to lines or threads of music, suggesting that polyphony is music for more than one instrument/voice playing/singing an independent monophonic line. In other words, polyphony is the construction of a texture by a synthesis of related, semi-independent musical threads.²⁶ The opposite of

²⁴ There is, perhaps, a future project where the subjective complexity and objective complicatedness can be compared; however, I will not develop this further in this thesis.

²⁵ Frobenius Wolf, Peter Cook, Caroline Bithell, and Izaly Zemtovsky, 'Polyphony', *Grove Music Online* (2001).

²⁶ In other words, one could refer to polyphony as a synthesis of independent horizontally progressing lines.

polyphony is monophony, described as ‘music for a single voice or part’.²⁷ With the two basic definitions in mind, it leaves a potent middle ground between the two, with pieces such as J.S. Bach’s ‘Cello Suites’ in between the extremes. The Cello Suites are monophonic pieces in the sense that they are written for a single part on a solo instrument but contain an interlocking of semi-independent structural threads which combine to construct pieces, providing an early example of monophonic polyphony or ‘mono-polyphony’ (or, as it has been referred to, *style brisé*).²⁸ A key aim of this part of the project is to explore the outcomes if one begins to view polyphony and monophony as being on the ends of a movement spectrum, as opposed to contrasting binaries, and attempt to combine them together. Mono-polyphony (which I will examine in further detail later in this thesis in relation to pieces in my portfolio) is essentially polyphony (two or more separate polyphonic threads or lines) written on a single staff for a monophonic instrument. It is most effective using this technique for wind instruments; however, the mono-polyphony can become more absolute when writing for instruments that have capabilities of polyphony such as violin and cello.

In comparison to the definition of polyphony, counterpoint is fundamentally described as being ‘the combination of simultaneous sounding musical lines according to a system of rules’.²⁹ The term ‘counterpoint’ is often assumed to be synonymous with polyphony; to my mind, they are related, but different: counterpoint is a *type* of polyphony, but with specific rules, whereas polyphony is freer in the sense that each part is not directly dependent on this set of rules dictated by a melody and countermelody. Riemann provides some clarity between polyphony and counterpoint in the context of pedagogy by suggesting that ‘polyphonic composition is taught as free composition, in contrast to counterpoint [which is not]’.³⁰ This supports the notion that counterpoint is a more studious, rule-based strand of polyphony. The term ‘counterpoint’ was derived from the Latin phrase ‘*punctus contra punctum*’ or ‘note against note’,³¹ suggesting again that, whether working in opposition or conformity to a set of rules and principles, each note is, in one way or another, a requisite of each other in a stricter, more rigid way than in polyphony. This means that counterpoint can either work in accordance with

²⁷ ‘Monophony’, *Grove Music Online* (2001).

²⁸ The term ‘implied polyphony’ has been used to describe polyphony in solo instruments. See Stacey Davis, ‘Implied Polyphony in the Solo String Works of JS Bach: A Case for the Perceptual Relevance of Structural Expression’, *Music Perception* 23, no. 5 (2006), 423–446.

²⁹ Klaus-Jürgen Sachs and Carl Dahlhaus, ‘Counterpoint’, *Grove Music Online* (2001).

³⁰ Wolf, ‘Polyphony’.

³¹ Fitch, *Renaissance Polyphony*, 54.

a set of rules or against a set of rules but must contain some sort of direct duality (either an interaction or a reaction) between two or more notes.

Polyphony and counterpoint have both been used and adapted by composers in the twentieth and twenty-first centuries, such as in Stockhausen's *Kontra-Punkte* (1953) which is 'originated from the idea of resolving the antithesis of a multifaceted work of individual notes and temporal relationships to the point where a situation is reached where only that which is homogenous and unchanging can be heard'.³² The piece offers an opposition between linear and non-linear pitch relationships which eventually emerge into a dyadic counterpoint. Stockhausen's organisational strategies and hierarchies between instrumental groups, timbres, and textures along with the very direct title (translating to 'counter-points')³³ are related to a modern use of counterpoint, again linking closely to the idea that counterpoint is note against note and more rigid than polyphony.

Iannis Xenakis is a composer whose music could be described as being highly polyphonic. His works, such as *Terretektorh* (1965), *Nomos Gamma* (1969), and *Jonchaies* (1977), are all scored for very large orchestra and each piece contains a different sort of polyphonic outcome. Both *Terretektorh* (for eighty-eight instruments) and *Nomos Gamma* (for ninety-eight instruments) are spatialised works as the orchestra is scattered amongst the audience.³⁴ The spatial polyphony is the foundation of these pieces and signifies a very distinct approach to free polyphony in the twentieth-century. Xenakis uses a physical splitting of many polyphonic threads to construct spatial orchestral pieces. In *Jonchaies*, which is scored for one-hundred and nine instruments, stems directly from his theoretical work on sound synthesis and computer music.³⁵ The oscillating orchestral timbres, constructed using methods of sieve theory,³⁶ produce a textural narrative throughout the piece, built on a foundation of polyphony. It is difficult to look past the fact that the three Xenakis pieces, especially *Terretektorh*, signified a start of a direction in contemporary music that experimented with polyphony on a large scale.³⁷

³² Robin Maconie, *Other Planets: The Complete Works of Karlheinz Stockhausen, 1950–2007* (Lanham: Rowman & Littlefield, 2016), 105.

³³ The title may also relate to the contrast with Stockhausen's earlier work *Punkte* (1952).

³⁴ Iannis Xenakis, Roberta Brown, and John Rahn, 'Xenakis on Xenakis', *Perspectives of New Music* 25, no. 1/2 (Winter – Summer, 1987), 16–63, 24–25.

³⁵ *Ibid*, 25.

³⁶ For a description and analysis of Xenakis's use of sieve theory, see Dimitris Exarchos, 'Injecting Periodicities: Sieves as Timbres', *Sound and Music Computing Conference* (Lefkada: July, 2007).

³⁷ Brian Ferneyhough's output at around the same time offers pieces that take multi-part polyphony onto a grandiose level: *Firecycle Beta* (1969–70), *Transit* (1972–75) and *La terre est un homme* (1979). In addition to

Generally, polyphony lends itself to post-/non-tonal music more than counterpoint does. This is because counterpoint is fundamentally built on harmonic principles—and how those principles develop through time—to construct a composition where parts are distinguished according to hierarchy.³⁸ Whilst the concept of hierarchy begins to obscure the clarity of what I refer to as mono-polyphony in my compositional contexts, it holds an important clarification between the polyphony and counterpoint in the context of contemporary music. If we take counterpoint as being built upon harmonic rules, then it would be impossible to use contrapuntal methods in non-tonal music for the simple reason that non-tonal harmonic axioms do not exist. As shown above, Stockhausen devises his own rules in which he bases his counterpoint in *Kontra-Punkte*, so the principles of counterpoint begin to fall away and become removed, adapting into a personal contrapuntal style – a *parole* use of counterpoint. This means that the ‘rules of counterpoint’, which existed as a *modus operandi*, cannot exist in the same way because of a shift from general ‘convention’ to ‘rules’ distinctive to an individual composer’s style or an individual piece. This means a freeing up of strict contrapuntal principles and methods to the point where the rules are only relevant to a single piece or compositional approach which is practically free composition and if that includes a combination of multiple lines (even if those lines are constructed using a set of rules devised by the composer), then it tends more towards polyphony as opposed to counterpoint.

Literature such as *Polyphony & Complexity* seems to suggest, at least through the title, that the two are, in some ways, related to each other.³⁹ In addition to this, in 1998, a festival dedicated to the topic at the *bludenzer tage zeitgemäßer musik* took place from which *Polyphony & Complexity* directly grew.⁴⁰ Here is a connection between the New Complexity and polyphony (a term typically related to Renaissance music) and one that I, as a composer, find interesting and important in my approach to writing music. The connection between the New Complexity and early music is partly where this project originates from.

Terretektorh, Stockhausen’s earlier piece *Gruppen* (1955–57) scored for three orchestras and three conductors, and György Ligeti’s micropolyphonic pieces, *Atmosphères* (1961), *Melodien* (1971) and *Lotano* (1967), also signify the beginning of this surge of pieces in the late-mid twentieth-century that take polyphony to a grandiose scale. This idea of grandiose polyphony is an example of how the freeness of polyphony encountered in Renaissance music can be adapted into contemporary music.

³⁸ Wolf, ‘Polyphony’.

³⁹ Claus-Steffen Mahnkopf, Frank Cox, and Wolfram Schurig (eds.), *Polyphony & Complexity* (Hofheim: Wolke, 2002).

⁴⁰ *Ibid*, 7.

Therefore, *Polyphony & Complexity* is a sensible starting point to discuss polyphony in my music because of my influence from the New Complexity and my engagement in investigating the relationship between music and complexity. However, *Polyphony & Complexity* contains two downfalls. First, in the context of contemporary uses of polyphony, it tends towards large-scale polyphony, shown through the numerous examples of ‘poly-work’.⁴¹ Second, it does not actually discuss or clarify what polyphony is – it is plausible to suggest that the book is not about polyphony at all (or complexity for the same reason). The inclination towards larger-scale polyphony perhaps highlights that the avenues in which the contributors to this book explore are rather one-directional. The pseudo-philosophical approach to polyphony and the positioning of each composers’ respective use of polyphony within generalised or loose descriptions of complexity do not specifically cover what each composer gains or intends to gain out of using polyphony, especially in relation to complexity.

I will focus on Aaron Cassidy and Frank Cox’s contributions to *Polyphony & Complexity* owing to both contributions being about solo pieces. In Cassidy’s contribution, ‘Interconnectivity and Abstraction: *metallic dust* as a Testing Ground for Monophonic and Structural Polyphonies’, he distances himself from the stylistic and historical connotations of both ‘polyphony’ and ‘complexity’ citing that both of these terms ‘have been, from time to time, caught up in polemics and “style wars”’.⁴² From the outset, the separation from the more general concepts of polyphony and complexity shows a distancing from the historical aspects of the terms. He follows this up by describing the concept of polyphony as being ‘distanced from polyphony as a stylistic concern, [by which he does] not simply mean the historical “polyphonic style” of the Renaissance but also as a particular set of practices inferred by the direct, literal meaning of the term’.⁴³ By distancing himself from the historical connotations of polyphony, Cassidy generalises the term which suggests that his use of polyphony in *metallic dust* (1999) is not an *adaptation* of historical technique in a contemporary context, but a redefined *version* of the technique (an example of a *langue* use of pre-existing material). By distancing oneself so far from the historical aspects of polyphony, I question how generalised (or distant from historical convention) polyphony can be before it is not polyphony anymore.

⁴¹ The book does, however, contain two chapters that look at polyphony in the monophony: Aaron Cassidy’s ‘Interconnectivity and Abstraction’, and Frank Cox’s “‘Virtual’ Polyphony” which will be discussed later in this chapter.

⁴² Aaron Cassidy, “Interconnectivity and Abstraction: *metallic dust* as a Testing Ground for Monophonic and Structural Polyphonies”, in *Polyphony & Complexity* Mahnkopf et al., eds., 147.

⁴³ Ibid.

In a historical context, polyphony contains relationships between pitch and rhythm (not on the same level as counterpoint, but in a looser way). If these parameters are removed from a polyphonic composition (be it from the sixteenth-century or the twenty-first-century), is the piece polyphonic? This, then, becomes similar to my question above of whether Stockhausen's *Kontra-Punkte* can be classed as counterpoint. By distancing oneself away from the historical connotations and practices, polyphony (and counterpoint, for that matter) become whole new, 'redefined' techniques.

Cassidy cites numerous approaches to his use of polyphony. First, a polyphony of varying approaches (or a decoupling of component performing techniques); second, a polyphony of parametric strata; third, a polyphony of the physical and aural elements of a performance; and fourth, a structural polyphony of larger musical objects, processes, and techniques.⁴⁴ This takes Cassidy's use of polyphony onto a more conceptual and directly physical level, as opposed to a being on a musical level.⁴⁵ Cassidy mentions a 'decoupling of the actions of the mouth and the fingers of the performer' as a mode of polyphony.⁴⁶ This is shown through his use of two staves for the solo instrument on the score: the upper staff for the mouth and the lower for the fingers.⁴⁷ Whilst this is clearly an interplay between two definite musical threads, it is perhaps rather over-generalised to refer to this as a type of polyphony. In short, the issue that this puts forward is the question of how general or conceptual can polyphony be before it is not polyphony, or it is too distant from being polyphony? In other words, is it possible to disregard historical contexts and techniques when referring to polyphony in contemporary music?

This, however, is not suggesting that *metallic dust* does not contain polyphonic elements, as the imbrication of the two threads, or the reliance each thread has on the other, produces offshoots of polyphony through cross rhythms.⁴⁸ These cross rhythms are a result of the notation, so this, to my mind, is a notational technique, not a polyphonic technique. Also, it is worth mentioning that polyphony, at least in the historical sense, is a type of texture. The process of decoupling is a technical and notational process and not a texture *per se*. The offshoots produced by the process are polyphonic, but the process in which Cassidy described

⁴⁴ Ibid, 148.

⁴⁵ By musical level, I mean polyphony on the level of pitch and rhythmic relationships – a more historical level of polyphony.

⁴⁶ Cassidy, "Interconnectivity and Abstraction", 150.

⁴⁷ Ibid, 150–151.

⁴⁸ Ibid, 151

as being a type of polyphony is rather dubious. There is a difference between an assemblage of parameters (physical, musical, and conceptual) and the textural technique of polyphony, or there is a difference between assemblage and combination, and this is undoubtedly assemblage.

Cassidy then goes on to discuss ‘structural polyphony’ in his piece *Garden of Forking Paths* (1998) for four spatially displaced saxophones. He describes that this piece ‘strategi[s]es various polyphonic and referential treatments of larger material types such that linear and nonlinear structural relationships are *themselves* operating as elements of a polyphonic system’.⁴⁹ He goes on to state that the piece was ‘conceived more as four simultaneous solos than as a true quartet’.⁵⁰ This points more towards a poly-work as opposed to being polyphonic proper. He does, however, refer to more historical techniques such as isorhythm and how different types of isorhythm form the material types and process used to compose the piece.⁵¹ This reference to isorhythm suggests that Cassidy has not wholly disregarded historical aspects of polyphony, in contrast to what he states at the beginning of his chapter. However, it is clear in his text that the isorhythmic techniques are used as a *type* of material that make up his approach to polyphony being conceptual and structural as opposed to being textural or technical. In this context, Cassidy removes polyphony from a local level, placing it onto a hyper-global level as the polyphony is purely in the structure.

Whilst not suggesting that *all* types of contemporary polyphony must relate to historical uses, I propose that polyphony is not a technique that can be over-generalised to mean an *assemblage* of any combination of different structures, concepts, and parameters. It is more specific than that and contains some material relationships, such as pitch and rhythmic relationships. In short, polyphony is a type of *texture* and *technique*, not a general *concept*. In other words, conceptual applications of polyphony are more, to my mind, forms of assemblage and not polyphony proper. Polyphony (and counterpoint) are both types of assemblage, but assemblage is a loose term which covers many forms of combining elements. Polyphony is just a single type.

Frank Cox’s contribution to *Polyphony & Complexity*, “‘Virtual’ Polyphony: *Clairvoyance*, for solo violin’, proposes that a solo work ‘is an ideal vehicle for [the theme of polyphony and

⁴⁹ Ibid, 154.

⁵⁰ Ibid.

⁵¹ See Ibid, 154–155.

complexity]’ because of ‘restriction’ and because the work was, ‘from the start, conceived polyphonically’.⁵² In comparison to Cassidy’s global, conceptual view of polyphony in *metallic dust*, Cox’s view of polyphony in *Clairvoyance* (1989) is more local and relates much more to historical contexts. He splits his analysis into three sections: rhythmic/metric web, figure/texture, and pitch organisation.

In the ‘rhythmic/metric web’ section, Cox refers to rhythmic taleas which he uses to achieve a non-regular rhythmic/metric hierarchy.⁵³ This adds to my point that Cox is referring to more historical perspectives of polyphony in *Clairvoyance* compared to *metallic dust*. The use of *talea* and the way his *taleas* unfold and develop through the three sections of the piece is a foundation on which the rhythmic and metric aspects of the piece is based upon. It is not, however, until his analysis of pitch organisation that Cox refers to his idea of ‘virtual polyphony’. He describes this as ‘the creation and development of harmonic/(stratified) contrapuntal webs’ and ‘a quasi-polyphonic development of different aspects of the pitch structure’.⁵⁴ The second of Cox’s descriptions suggest that the links to actual polyphony are blurry. Despite Cox’s use of early musical technique using *taleas*, these approaches to polyphony do seem rather conceptual (albeit in a different way to Cassidy’s approach). Cox does not seem to go into too much detail about what virtual polyphony is. He provides a rather in-depth analysis of *Clairvoyance* but does not seem to directly relate the approaches to his concept of polyphony (or complexity, for that matter). Whilst there are some links to the historical aspects of polyphony, it could be argued that Cox’s contribution is not actually about polyphony or complexity at all owing to confluences between assemblage and polyphony. This relates to my point above suggesting that *Polyphony & Complexity* is not about either of the two subjects. The book assumes that polyphony is assemblage, conflating the two.

Brian Ferneyhough explicitly refers to polyphony in his solo flute piece *Unity Capsule* (1976). This is, perhaps, a logical comparison to how I approach polyphony in my methodologies. In *Unity Capsule*, and his other solo flute piece *Cassandra’s Dream Song* (1973), Ferneyhough suggests that ‘the accent is on the instrument’s ability to offer a high density of information on a certain number of levels *simultaneously*, while filtering through the highest degree of *unity*

⁵² Frank Cox, “Virtual Polyphony: *Clairvoyance*, for solo violin”, in *Polyphony & Complexity* Mahnkopf et al, eds., 162.

⁵³ *Ibid*, 163.

⁵⁴ *Ibid*, 173.

imaginable – that of a single monodic instrument’.⁵⁵ This gives a basic sense that Ferneyhough is combining multiple independent lines (or threads) simultaneously resulting in a single monodic line with a high density of information. Furthermore, Ferneyhough states that ‘[a]t no point in the discourse do all the elements come into play simultaneously, so that the final texture of the work, at least in part, is defined by what is omitted rather than through those techniques and articulative dimensions acoustically transmitted. Fundamentally, therefore, this composition is *polyphonically* organised’.⁵⁶ He goes on to put the onus on the listener ‘to unravel the numerous ‘clues’ offered and [...] reconstruct the work in [their] own image at the outset’.⁵⁷ This suggests that the polyphony is perceptual or, in Cox’s words, ‘virtual’ at least in the way Ferneyhough describes it. Whilst there are obvious structural approaches to achieving the polyphony (namely, the organisation of each element), the overall intention seems to be achieving that of *perceived* polyphony. Ferneyhough goes on to describe another ‘polyphony strand’ generated by ‘perceptual overlapping’.⁵⁸

Lois Fitch refers to this overlapping as ‘interference form’, quoting an interview Ferneyhough gave in 1991.⁵⁹ This is a technique Ferneyhough uses in multiple solo works and links to the idea of multiple lines overlapping and thus ‘interfering’ with each other. In reference to *Intermedio alla Ciaccona* (1986) for solo violin and, indeed, all his solo works, Ferneyhough aims to ‘[evoke] facets of a “fictional polyphony”, not by means of polyphonic strands of sound, but rather through what are usually considered ‘secondary’ parametric levels of organisation’.⁶⁰ Interference form is a technique that Ferneyhough used extensively in *Trittico per G.S.* (1989) for solo double bass. He denotes the interferences of polyphonic strands with vertical lines joining the two together to visually convey a change of polyphonic strand.⁶¹ To my mind, this type of polyphony is not undertaken through a direct combination of strands, it is multiple single monophonic strands overlapping or dovetailing. This means that the strands are not integrated or connected into each other, they connect to each other more linearly – or result in an alternation. This more linear or overlapping form of polyphony is shown by the multiple staves used in solo pieces like *Trittico* and *Mnemosyne* (1986) for bass flute and tape

⁵⁵ Brian Ferneyhough, *Collected Writings*, James Boros and Richard Toop, eds. (Amsterdam: Harwood, 1995), 99.

⁵⁶ *Ibid*, 100.

⁵⁷ *Ibid*.

⁵⁸ *Ibid*, 102.

⁵⁹ Lois Fitch, *Brian Ferneyhough* (Bristol: Intellect, 2013), 66.

⁶⁰ Ferneyhough, *Collected Writings*, 135.

⁶¹ For a substantial analysis of interference form, see Fitch, *Ferneyhough*, 66–77.

meaning that the polyphonic strands are not directly combined to create a single line of monophonic polyphony – each strand is denoted as an individual strand.

Additionally, interference form is rather broad, especially in *Unity Capsule*. Whilst the contrasting strands are present, Fitch also positions interference form in the context of the extensive written performance instructions on the score.⁶² This takes interference form outside that of actual polyphony and into a world of de-coupled parameters (as referred to above with Cassidy's *metallic dust*) and thus a broad and over-generalised description of polyphony. I argue that 'parametric polyphony' is not actually polyphony, as polyphony is something much more specific than that. Parametric (or structural) polyphony is an assemblage of an array of multiple different types of parameters. In short, an assemblage of a multitude of different parameters (both musical and non-musical) is not polyphony. Furthermore, Ferneyhough's label of 'fictional polyphony' is a hint towards intending to achieve virtual or perceived polyphony.

In a broader sense, Ferneyhough is and has been deeply engaged with the importance of texture in his music (polyphony is something that Ferneyhough refers to many times in different essays). He refers to 'internal polyphony' in the solo organ piece *Sieben Sterne* (1970) by which some sections in the piece 'are presented to the eye in such a fashion as to allow the performer practically unlimited scope in shaping the basic material according to [their] own wishes and needs'. This, again, suggests a perceived virtual polyphony: the polyphony is only present in the way the performer chooses to interpret it. The texture here becomes somewhat indeterminate, taking polyphony into an extra-musical level or a conceptual level which takes away from what polyphony is. Furthermore, it would be plausible to suggest that the term 'polyphony'—in the context of contemporary music and, perhaps, even more potently in the New Complexity—has been over-generalised to include anything when multiple layers of parameters are assembled simultaneously, taking away from what, historically, polyphony entails.

Outside of musical practices, Mikhail Bakhtin wrote extensively on polyphony and there have been more recent writings in the field of organisation studies on the concept. The first chapter of Mikhail Bakhtin's *The Problem with Dostoevsky's Poetics* (1984) addresses Dostoevsky's

⁶² Ibid, 71.

polyphonic novel. For some scholars, Dostoevsky's voice merges with the voices of one or another of his characters; for others, it is a peculiar synthesis of all these ideological voices; for yet others, Dostoevsky's voice is simply drowned out by all those other voices.⁶³ From the outset of the chapter, Bakhtin highlights that Dostoevsky's novels contain multiple (sometimes polemical) philosophical stances throughout which points towards a sort of literary polyphony. At first, it seems as if polyphony, in this context, is referring to many voices (similar to that of the historical definition of music polyphony) but he actually intended it to refer to the author's position in the text.⁶⁴ Bakhtin goes on to describe the chief characteristic of Dostoevsky's novels as being 'a plurality of independent and unmerged voices and consciousnesses, a genuine polyphony of fully valid voices'.⁶⁵ In contrast to musical polyphony, novelistic polyphony is a relatively new concept. Bakhtin claims that Dostoevsky is the 'creator of the polyphonic novel',⁶⁶ and that 'all the elements of novelistic structure in Dostoevsky are profoundly original [...] constructing a polyphonic world and destroying the established forms of the fundamentally *monologic* (homophonic) European novel'.⁶⁷ As established previously, polyphony is a musical texture that stretches back many hundreds of years, where novelistic polyphony stretches back to the mid-nineteenth century so it is likely that Bakhtin derived his polyphony from musical polyphony (and, in fact, homophony) when applying the term to Dostoevsky's novels.

Vyacheslav Ivanov cites Dostoevsky's fundamental principle as 'the affirmation of someone else's "I" not as an object but as another principle'.⁶⁸ Bakhtin goes on to suggest that Ivanov 'proceeded to monologize this principle',⁶⁹ when it is a fundamental part of Dostoevsky's polyphonic novel according to Bakhtin. This clarifies Hugo Letiche's point that Bakhtin's polyphony refers to the author's position in the text and therefore suggests multiple philosophies from different perspectives (both fictional and non-fictional) in a text and is not as simple as a novel containing multiple voices as such. However, the kind of resultant unity which Ferneyhough refers to in *Unity Capsule* is yet to be discovered in Dostoevsky's literature according to Bakhtin.⁷⁰ This possibly means that a sum of the singular perspectives in

⁶³ Mikhail Bakhtin, *The Problem with Dostoevsky's Poetics* (Minneapolis: University of Minnesota Press, 1984), 5.

⁶⁴ Hugo Letiche, 'Polyphony and its Other', *Organization Studies* 31, no. 3 (March, 2010), 261–277 [261].

⁶⁵ Bakhtin, *Dostoevsky's Poetics*, 6.

⁶⁶ *Ibid.*, 7.

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*, 11.

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*, 43.

Dostoevsky's novels cannot be combined to produce a combined whole, deviating away from what polyphony intends to achieve in music. Of course, in literature, it is impossible for multiple lines to sound at once in a written text, so Bakhtinian polyphony contextualised in literature is fundamentally something that is more metaphorical than absolute and therefore with a certain amount of distance or removal from its musical origins. I propose that this ought to apply to anything labelled as 'polyphonic'. This is where polyphony begins to link to complexity. In its simplest form, complexity describes 'objects with many interconnected parts'.⁷¹

The thought that polyphony is a simple assemblage of any number of elements is an over-generalisation – assemblage is a part of polyphony but does not equate to the final thing. Polyphony is a combination of multiple elements, which takes assemblage onto a specific, more refined level as the elements themselves contain some sort of interrelationship. This means that the labels of polyphony (and counterpoint), especially used in reference to contemporary music, are not exactly accurate. It would be plausible to suggest that *Polyphony and Complexity* does not actually refer to either of these themes and it does not link the two together (whether that link is antithetical or not) in any way at all. It comes with the presumption that any assemblage of elements is polyphony, disregarding what polyphony is in the historical context. Whilst it could be argued that it adapts the term into today's context, disregarding historical contexts and meanings makes this impossible. This over-generalising of the term means that any assemblage of multiple elements can be polyphony, even without a resultant, unified whole. I propose that polyphony is a combination of multiple interrelated elements, and this is where my processes of combination are rooted: the elements which combine are contrasting and the intention behind my combination processes is to find interrelationships to create polyphony. Polyphony sits in the middle between counterpoint and assemblage.

1.5 Listener Perception of Pre-existing Materials

Through my interest in the New Complexity, tying together the listeners' perception of pre-existing music within a context of New Complexity is a sensible place to start. There is a

⁷¹ Holland, *Complexity*, 1. As all complex objects contain interconnected parts, the object must be a unified whole. Musical polyphony is a direct example of a complex object as a unified whole emerges through the interconnectivity of a multitude of polyphonic threads.

seemingly modernist perspective that a prolonged audibility of pre-existing materials in a composition is not to be used. This is certainly evident in the music of Brian Ferneyhough and James Erber, but maybe less evident in Michael Finnissy's music. However, in the latter's music, pieces which use pre-existing materials are typically described as being 'transcriptions' or 'arrangements' and are therefore deliberately related to the pre-existing source so the perception of recognising the source is easier than in Ferneyhough's *Unsichtbare Farben* (1997–99), for example.⁷² As I credit my main influence as being from the New Complexity this approach to concealing and hiding my uses of pre-existing material stems from that influence.

The concept of the middle space between a yes/no binary engages my interest in exploring a possible listener perception of whether pre-existing material is used or not, using compositional methodologies to obscure and distort the pre-existing materials I use. This is not to say, however, that I place the listener perception of these materials as my most important interest. For a listener to be able to *recognise* the pre-existing material I use, they must be able to have some level of prior knowledge of the pre-existing source to recognise the material along with a certain level of familiarity with the material – this is all dependent on how obscured or distorted the pre-existing material is. Of course, if the pre-existing material (in its original form) is very different to the rest of material in the piece, it will be likely that the listener will be able to *perceive* the contrasts regardless of whether they are familiar with or can recognise the piece. But I am not interested in referring to audibility or perception in the context of recognising the pre-existing material that is deployed. Therefore, my explorations of using obscured or distorted versions of pre-existing material in my music is purely theoretical when it comes to listener perceptions. It is the idea that a listener *could* perceive the pre-existing material, but it does not matter if they do not; there is a possibility that they will depending on their familiarity of the pre-existing material but equally a possibility which they will not. These explorations of using pre-existing materials are mainly for myself and my methodological explorations of this middle space through an investigation of distance to and from a pre-existing source. If the listener does recognise the pre-existing material that I deploy, then that is a secondary outcome of their listening outcome and not a direct or primary compositional intention of mine. Perception—in the context of this thesis—is, therefore, *theoretical* and not *absolute*.

⁷² See Michael Finnissy, *Verdi Transcriptions* (1972–2005) and *Gershwin Arrangements* (1975–1988).

Part 2 – Distance

2.1 Introduction to Distance

Distance is a term I use to cover how similar or contrived a composition is to the pre-existing source it uses. I use distance as a metaphorical marker of how proximate (similar) a piece is to the source or how distant (contrived) a piece is to the source. This covers the middle ground between the yes/no binary, so each piece in this chapter explores a fluctuating motion between levels of distance to and from the pre-existing source the composition uses. I position this concept of distance onto a spectrum (see figure 2) which illustrates a continuum of changes between the construction of the composition and the pre-existing source the material is derived from. One end of the spectrum is distant to the pre-existent source (that is to say that the composition sounds less like the source), and the other end *is* the pre-existing source (that is to say that the closer the composition moves towards that source, i.e. the more proximate, the more it sounds like pre-existing material).

Below, I examine the construction of my own compositions through the lens of a single movement spectrum. This stems from my interest in exploring this middle space between the yes/no binary in the context of using pre-existing material in music. To make the abstract conceptualism of this middle ground more concrete, I use the single movement spectrum as the basis of forming my methodology. Furthermore, I will argue that examining my compositions using the single movement spectrum of distance offers a more flexible approach to how I use pre-existing materials as opposed to the typical binary. This flux of distance also allows more space to open up my approaches to using pre-existing material. Figure 2 illustrates a basic single movement spectrum in the context of my composition and the pre-existing source my composition uses.

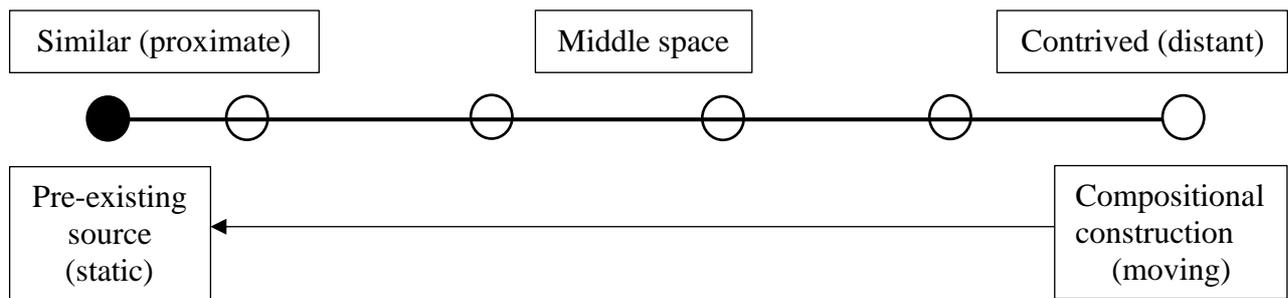


Figure 2: single movement spectrum in the context of my composition and a pre-existing source

The open circles in figure 2 illustrate the fluctuating distances between the pre-existing source and the possibility for the lengths of these distances to fluctuate throughout the construction of a composition meaning that my focus on the interrelationship between the way the composition is constructed, and pre-existing source moves away from semiotic and purely methodological perspectives onto the motions of distance to and from the pre-existing source. In theory, the more distant the compositional construction to the pre-existing source, the further it is from sounding like the pre-existing material. The more proximate, the closer it is to sounding like a use of pre-existing material. It is worth noting that the pre-existing material is static in that it does not change – this is the source from which the composition moves between changing distances. Also, the compositional construction refers to the way the composition is constructed and therefore, at least in the terms of my compositional approach, is always in motion moving through levels of distance to and from the static source. In this chapter, the compositional construction never actually becomes the source, but gets pushed towards being very proximate to the source and it is this movement between that a motion of distance is measured – i.e. always within the context of the source which is being used. This ambiguous middle space itself contains multiple levels and below I examine how I work with those levels in my music.

2.2 Distance in Context

In this section, I argue how music by other composers could be viewed through the lens of distance as opposed to the more typical polarising yes/no binary I illustrate above, hypothesising that there are a multitude of approaches to composition that can be examined with a spectrum of movement, especially through distance. Historically, various texts have dealt specifically with uses of pre-existing by the likes of George Rochberg, Charles Ives, and

John Oswald.⁷³ Below, I will analyse more twenty-first-century approaches to using quotation through this lens of distance. Multiple twentieth- and twenty-first-century composers have used pre-existing material and different levels of perceptibility of the material in their pieces.

Samuel Wilson refers to distance (and proximity) in Giya Kancheli's Symphony No. 5 (1976) in the context of a 'distinct musical object'.⁷⁴ This discussion of proximity and distance is fundamentally based around subjectivity and nostalgia and is much more of a personal or psychological (semiotic) evocation of proximity and distance in comparison to the more material, technical and theoretical approaches in my practice. Wilson contextualises proximity within the dialectics between 'object' and 'subject' by suggesting that the two are not necessarily 'identical or interchangeable' but rather 'a proximity, a closeness, and an identification of subjectivity with its object'.⁷⁵ Using this dialectic in the context of my practice, the original source, convention, or technique is the object whilst the composition is the subject, and the distance is judged by the space between subject and object. I propose that this space is made up of multiple levels depending on multiple factors, namely: the materials used; the intensity of timbre and texture; the composer's intention; and material/technical limitations amongst other factors and, therefore, the distance which is measured is unique to each composition. This means that context and situation are important to judge distance.

2.2.1 Distance as De-Composition/Deconstruction: Gorton and Mitterer

David Gorton is 'fascinated with how we, and he, converse with the past, and how various pasts talk with each other, and much of his work reflects these dialogues'.⁷⁶ Lots of his music explores a de-composition of existing compositions, such as *Lachrymae Variations* (2014), *Forlorn Hope* (2011), and *Concerto per flauto a becco e violino su temi Torelli* (2018). *Lachrymae Variations* are a set of variations on a set of variations with the compositional materials taken from versions of the *Lachrymae* made by other composers.⁷⁷ Like the type of pre-existing material used in my solo clarinet piece *[inter]r[e]act I* (2021), which will be discussed in detail later, this is a form of secondary quotation where the composer essentially

⁷³ See Metzger, *Quotation and Cultural Meaning*.

⁷⁴ Samuel John Wilson, 'An Aesthetics of Past-Present Relations in the Experience of Late 20th-and early 21st Century Music', PhD Thesis, Royal Holloway, University of London, 2013, 71.

⁷⁵ *Ibid.*, 83.

⁷⁶ 'David Gorton – Consort Set in Five Parts (After William Lawes) (2019)', peter-sheppard-skaerved.com, 2023, <https://www.peter-sheppard-skaerved.com/2020/03/david-gorton-consort-set-in-five-parts-after-william-lawes-2019/>

⁷⁷ David Gorton, 'Variations on Variations', *Variations on John Dowland*, CD sleeve notes (London: Toccata Classics, 2017), 4–5.

uses quotations by other composers from an original source. Gorton uses material from a variety of composers who wrote variations on John Dowland's *Lachrymae*, namely William Byrd, Giles Farnaby, Thomas Morley, William Randell, Heinrich Scheidmann and Jan Pieterzoon Sweelinck.⁷⁸ From the outset, there is a sense of de-composition and relative distance from the original Dowland material; however, there is still a clear presence of the Dowland in the first few variations. Gorton layers further related materials on top of each other using an Ivesian collage technique to create what he describes as, 'complex counterpoint'.⁷⁹ This is in fact not counterpoint but, rather, a type of assemblage. Gorton layers more and more material meaning that the distance from the original source grows greater and therefore becomes more distant from the original source. The piece builds distance from the Dowland incrementally until microtones are introduced in the final variation.

Concerto per flauto follows a similar but more convoluted process of de-composition compared to the *Lachrymae Variations*. The *Concerto per flauto* is composed using materials from Giuseppe Torelli's opus 6 *Concerti musicali*, specifically materials from the Augsburg print of concertos: 3, 4, 5, 6, 8, 9, and 10.⁸⁰ Peter Sheppard-Skaerved explains that the piece 'attempts to arrange [Torelli's] material into the kind of concerto ritornello that was emerging throughout the decade following Torelli's death. But the aim ultimately fails and the material resists and pulls in other directions'.⁸¹ There is a combination of the use of pre-existing source material with an application of a historical formal structure. This gives Gorton the opportunity to use the deconstructed Torelli material to 'de-compose' his ritornello formal structure, furthering the distance from an original or 'conventional' ritornello form. Gorton deploys similar layering techniques in *Concerto per flauto* as seen in *Lachrymae Variations* in that he adds angular and isolated string figures to draw the listener's attention away from the ever-present source material. This idea of decomposition is like a slow removal of layers of the original source which represents a slow movement of distance away from the original source.

Loosely like Gorton, Wolfgang Mitterer uses layering processes to obscure ever-present source materials. He frequently uses live electronics to manipulate the actual source material too. This is seen in the tape solo *Hallo Mr Bruckner* (2009) where multiple quotations (three are audible)

⁷⁸ Ibid, 5.

⁷⁹ Ibid.

⁸⁰ 'David Gorton – Concerto – First listen!', peter-sheppard-skaerved.com, 2023. <https://www.peter-sheppard-skaerved.com/2018/11/david-gorton-concerto-first-listen/>.

⁸¹ Ibid.

from the third movement of Bruckner's Symphony no. 8 are heard for a few seconds on their own and then repeated numerous times interrupted by seemingly unrelated electronic material. The Bruckner quotations and the electronic material do not get overlaid until the towards the end of the piece where a new Bruckner quotation (the opening of the third movement of Bruckner's Symphony No. 8) is introduced with new electronic sounds creating a combination of new materials overlaid, again which obscure the Bruckner through a movement of distance. The significance of this is that the first quotation that can be heard is very clear and proximate to the original source and, as the piece progresses and the quotation and material changes, the quotation becomes more distant from the original source giving a sense that distance in the context of decomposition is something evident in Mitterer's music. Mitterer's deconstruction and decomposition of pre-existing material is much more explicit in comparison to Gorton's which is slightly more subtle.

There is, perhaps, an even clearer and somewhat jovial use of Beethoven's material in his 2018 album *Nine in One* which bears the subtitle 'you really can listen to Beethoven!'.⁸² In this album, he takes all the symphonies by Beethoven from a specific recording by Gustav Kuhn and the Haydn Orchestra of Bolzano and Trento and manipulates them in a way which gives a twenty-first-century perspective on listening to Beethoven, relating to the subtitle of the album. This is a recontextualisation of historical material, so the distance becomes a *langue* use of pre-existing material as opposed to a *parole* use – a *Verfremdungseffekt* of Beethoven's material.⁸³ Around thirty seconds into the piece, Mitterer introduces the famous opening motif of Beethoven's Symphony no. 5 in a somewhat clichéd way, limiting the amount of his own material he layers over the Beethoven material. The most common method of distancing subject from object is through splicing different samples of the Kuhn recording, layering them on top of each other and changing the order. There is a real sense that Mitterer is intending to include the Beethoven quotations from each symphony which are generally conceived as being the most well-known (and therefore easily perceptible) very soon into each track. It would, perhaps, be more accurate to refer to the deconstruction of Beethoven in *Nine in One* as a *reinterpretation* or *recontextualisation* of Beethoven symphonies, going onto the ground between reinterpretation, adaptation, and recontextualisation therefore making this piece an example of temporal distance and *ostranenie*.

⁸² Wolfgang Mitterer, *Beethoven/Mitterer: Nine in One* (Vienna: Col Legno, 2018), CD.

⁸³ I discuss *ostranenie* and *Verfremdungseffekt* in more detail later in this thesis.

Inwendig losgelöst (2006) by Mitterer is a piece for Baroque orchestra, ensemble and electronics which takes Telemann's *Wassermusik* (1723) as its central body of material. This deals with theoretical distance more than the temporal distance in the *Nine in One* album. The fluctuation of distance between very explicit fragments of the Telemann compared to obscured, implicit layered fragments of the Telemann is stark and direct. In *Nine in One* the whole material is Beethoven's material and, even if the fragments that Mitterer uses are well-known fragments, the listener needs to know all the Beethoven symphonies to base a new, recontextualised twenty-first-century perspective on listening to them. In *Inwendig losgelöst*, the instrumentation itself creates an immediate polarisation to the extent that the listener does not even need to be aware of the Telemann to understand its function in the piece: it is old combined with new with the distance between the two tightly controlled by Mitterer. This control over distance is, to my mind, the foundation of the piece. There are categories of parametric control used by Mitterer, all of which are rather explicit:

- Electronic processing – electronic manipulations of tempo and pitch on the Telemann material
- Layering – layering of material to obscure the Telemann material especially with the flute oboe, clarinet and string parts overlaying the manipulated Telemann
- Reference – the use of an electronic harpsichord playing unrelated material to the Telemann but as a reference to Telemann's music

These three techniques are the main techniques used by Mitterer to achieve this movement of distance through layers of distortion to Telemann's *Wassermusik*. The way in which Mitterer deploys these techniques always explores audibility meaning that boundaries of distance are small and always in small increments. Whether the Telemann is *recognisable* to the listener as being specifically *Wassermusik* or by Telemann is irrelevant because it is clear which material is Mitterer's, which is Telemann's, and which is a fusion of both. In other words, the use of *Wassermusik* could be theoretically interchangeable with any piece from the written in the same period as the Telemann; therefore, the levels of explicitness I refer to are in the context of this piece and the difference or polarisation of material types. So, in a sense, it does not matter which material is used in the piece, it is the concept of manipulating source material (that is clearly not Mitterer's) which explores a movement between different levels of distance

from the Telemann, so the perceptibility of the Telemann changes dependent on the manipulations in which Mitterer deploys onto the material.

2.2.2 Sonic Distance (Saturation): Bedrossian & Cendo

Sonic distance is more akin to the way sound *itself* moves along a spectrum from one state to another – I use this to offer an example of movement outside of the use of pre-existing materials. An example of this is in the works by two composers typically labelled under the ‘saturation’ descriptor: Franck Bedrossian, Raphaël Cendo, and Yann Robin. To my mind, the sonic distance in saturation music comes from the movement between specific pitch notations to unpitched, noisy timbral sounds. Whilst this can be seen in the spectral works of Gerard Grisey and Tristan Murail, there is more of a specific approach to the sound itself in terms of what is pitched and what is not, and there is a visible sonic distance between both. In Cendo’s *IN VIVO* (2007–10) for string quartet, he notes in the performance directions multiple levels of scratch tone (or excessive bow pressure) as separate entities: first, as ‘Scratch tone. Totally saturated sound. Dense granulation’, and ‘Semi-scratch tone. Partially saturated sound. Medium granulation’.⁸⁴ This suggests a level of saturation which can work within a spectrum and, in the score, we see this transition to full saturation throughout the piece, and therefore illustrating a spectrum of movement between pitched and unpitched with indeterminate registral notations somewhere in the middle of the spectrum. Similar approaches can be seen in Bedrossian’s *Tracés d’Ombres* (2007) and rather effectively in the solo accordion piece, *Bossa Nova* (2008).

See figure 3, which is an example from the first movement of *IN VIVO*, that shows this constant fluctuation between levels of saturation and between pitched and unpitched sounds. Sonic distance is a processual type of distance where the fluctuating movement is measured from different states within the piece as opposed to from a historical source. Therefore, in sonic distance, both ends of the spectrum are actually heard (i.e. complete saturation (unpitched) and unsaturation (pitched) are both present within the piece). The example in figure 3 shows that fluctuation between saturation and unsaturation with the noteheads in the completely saturated sounds being crossed out denoting that they are unpitched. Later in this thesis, I will analyse my piece *[inter]r[e]act II* (2022) for solo double bass which combines two types of material: polyphonic and timbral. Both material types can be seen as being subsets or recontextualisations of unsaturated and saturated material but in more exact or specific ways.

⁸⁴ Raphael Cendo, *IN VIVO* (Paris: Gérard Billaudot, 2011), 2.

Whilst it predominantly explores combination, there is a close link to sonic distance as the two types of material are aurally contrasting.



Figure 3: bb. 105–105 of Raphael Cendo's *IN VIVO*⁸⁵

2.2.3 Polarised Distances: Erber and Barrett

In James Erber's writings on his own music (and, indeed, on other music), there is a rather explicit personal relationship to early music – from the use of William Byrd's *Emendemus in Melius* (1575) in *Music for 25 Solo Strings* (1981–84) to the musicological text on Marco da Gagliano's *Sacre Cantiones II* (1622). First, however, I will focus on Erber's text on texture as a formal determinant.⁸⁶ Erber's links to early music are very prominent, especially when discussing early music technique. In *Night-Music with Doubles* (1979–1980, rev. 1982), Erber cites his interest in older music, especially in his output up to the mid-1990s, going on to reference the importance of 'Doubles' in his compositional technique.⁸⁷ Erber uses this technique to contract and expand his rhythms therefore allowing for material development throughout. The explicit nature of Erber's relationship to early music is, to my mind, an integral feature of his music and forms the crux of his compositional process. It is worth noting that

⁸⁵ Ibid, 13.

⁸⁶ See Erber, *Fragile Continuities*, 21–34.

⁸⁷ Ibid, 21. Doubles is a seventeenth-century term for variations.

Erber has ‘never been interested in quotation or the recreation of an archaic sound world. In [his] view, both lead to music with a spurious immediacy and of inauthentic experience’.⁸⁸ Erber clarifies this in *àNeM* (1993–96)—a piece which takes Giovanni Maria Trabaci’s *Durezza e ligature* as a starting point—by not being concerned ‘with attempting to create a late twentieth-century analogy with the piece’s harmonic language’.⁸⁹

This aversion to *recreating* early music positions Erber’s structural use of early music as being distant from the sources his music uses. Erber refers to audibility in his use of Byrd’s material in *Music for 25 Solo Strings* by suggesting that ‘the [Byrd] motet forms an integral part of the texture, its rhythmic structure even becoming audible in the tutti preceding the coda’.⁹⁰ Within the relative context of *Music for 25 Solo Strings*, this section is closer to the Byrd than other sections; however, it still sits towards being relatively distant to the pre-existing source in general terms. I suggest this for two reasons: first, rhythmic structures arguably tend to be one of the more distant parameters to pre-existing sources when used on their own; and second, owing to the aural obscurity of Byrd’s material in previous sections of the piece, the slight move towards proximity at the end is not overly noticeable. By studying Erber’s approach to using early music, this seems to be his intention. This confirms that, whilst *Music for 25 Solo Strings* is derived from *Emendemus*, it is still distant from it.

In contrast to *Music for 25 Solo Strings*, Richard Barrett’s *Vanity* (1990–94) serves as an example of a piece which contains pre-existing material in very close proximity to the original source through its use of a direct quotation.⁹¹ At the very end of *Vanity*, Barrett explicitly uses an excerpt from the second movement of Schubert’s ‘Der Tod und das Mädchen’ string quartet in a way which puts into question what the listener has heard previously. The close proximity to the original source becomes deceptive in the context of the whole of *Vanity* because it causes the listener to rethink about the material preceding the Schubert quotation. Barrett describes the ornamental turn at the cadence at the end of *Vanity* as a “special case” of the peregrinations around single pitches that permeate the whole composition’.⁹² This suggests that, at least in

⁸⁸ Ibid, 1.

⁸⁹ Ibid, 27.

⁹⁰ Ibid, 32.

⁹¹ It is worth noting that any form of quotation is always proximate to the original because it is used within a different context to the original source. Even an exact replication of pre-existing material is not technically exact if it is in a different context to its original use.

⁹² Richard Barrett, ‘Vanity – The Beginnings of an Analysis’, richardbarrett.com. <https://richardbarrettmusic.com/VanityAnalysis.html>.

some parameters, the material preceding the Schubert quotation is very distantly derived from the Schubert source (or a very small part of the Schubert quotation – the ornamental turn) and perhaps arguably even more distantly derived from the pre-existing material than *Music for 25 Solo Strings*. The distance starkly changes and becomes more proximate to the original source to the point where all listeners familiar with ‘Der Tod’ will instantaneously recognise the quotation. Even if listeners are not familiar with that specific Schubert piece, the change of sound world is very apparent so there is a noticeable shift which all listeners are likely to grasp onto, working in a similar way to the Telemann material in the Mitterer. This forms an example of a stark shift between polarised distances to the pre-existing material as a deceptive use of pre-existing material.⁹³

2.3 Distance and Movement Spectra: My Approaches

In my compositions, I use two decision-making approaches to using the single movement spectrum: systematic and intuitive. Systematic uses focus on pre-determined and rigid pre-compositional approaches to explore distance, whereas intuitive uses are more immediate and focus on the less rigid compositional element and more on creative sense. Both uses of the single movement spectrum contain individual methodological frameworks each of which fit into systematic and intuitive uses.

There are multiple methods I have used in this project which investigate the distance to and from a pre-existing source. This comes both in the pre-compositional and the compositional work of each composition. Many pieces in this portfolio, especially pieces scored for solo instruments, explore this combination of two contrasting or separate polyphonic threads which are pre-compositionally constructed with the distance to a pre-existing source along a distance spectrum in mind.⁹⁴ *Occulta Scientia Siderum* (2021) and *Lux Obscurata* (2021) were composed concurrently and utilise the use of distortion spectra in the pre-compositional construction of the pieces. The distortion spectra are a systematic way of exploring distance in the context of distorting the pre-existing material in various different ways.

⁹³ An additional and non-musical example of distance can be seen in Caryl Churchill’s *Blue Kettle*, the second play in *Blue Heart* (1997). In *Blue Kettle*, words within the script are replaced with ‘blue’ and ‘kettle’ and this increases in frequency as the play progresses. This is an example of how a plot can move from something absolute (i.e. with a low frequency of word changes) to something further removed (i.e. with a high frequency of word changes).

⁹⁴ The combination of threads will be discussed in the ‘combination’ chapter.

2.4 Systematic Approaches

2.4.1 Distortion

The pitch and rhythm in *Occulta Scientia Siderum* and *Lux Obscurata* are constructed using a list of increasing levels of distortion or obscuration. I refer to this as a ‘distortion spectrum’. The levels of distortion increase along the spectrum and are, in this instance, applied to the pre-compositional construction of each piece. The distortions are additions of manipulations onto the isolated parameters of the pre-existing material (i.e. pitch and rhythm) so the term ‘distortion’ is always referred to in relation the pre-existing material my composition uses. The more manipulations to each parameter means the more distorted the original source material is and therefore more distant to the original, and vice versa: the fewer manipulations means less distortion and closer proximity to the pre-existing material. As I fluctuate between levels of material manipulation, I refer to this as a distortion spectrum.

The spectra are unique to each piece meaning that the lists for *Occulta* are slightly different to the lists for *Lux*. The intention behind using these spectra is to put investigations of distance into systematic practice. This allows for the possibility to manipulate isolated parameters of the pre-existing distortion levels to formalise a pre-determined textural plan of fluctuating distortion through the mono-polyphony both pieces use.⁹⁵ This fluctuating distortion structure is essentially textural plan of the final piece using rigid forms of a systematism. In these pieces, the pre-compositional constructions are two separate polyphonic threads which later become combined, a process which be analysed later in this thesis. In this chapter, I will focus only on how the threads are constructed through the lenses of distance, distortion and obscuration.

2.4.1.1 *Occulta Scientia Siderum*

The material in *Occulta Scientia Siderum* (for bass clarinet) is derived from John Dunstaple’s fifteenth-century motet *Ascendit Christus super celos* in ways ranging from direct quotation to ambiguous hidden references – both at opposite ends of the distance spectrum. I have always been intrigued by the composers of fifteenth- and sixteenth-century England, such as John Dunstaple, Walter Frye, Nicholas Ludford, and Leonel Power mainly owing to the differences in their approach in comparison to Franco-Flemish composers at the time, another group of composers I greatly admire. The material derived from *Ascendit* is deployed in two semi-

⁹⁵ More about the uses of mono-polyphony in these pieces appears later in this thesis.

independent polyphonic threads which are then combined to form ‘mono-polyphony’. Furthermore, the way I implement the distortion spectrum dictates how proximate or distant my material constructions are from the source. This means that each polyphonic thread constantly fluctuates between multiple small levels of material manipulation and, through this, through different levels of distance to and from *Ascendit*. Each polyphonic thread has its own independent distortion spectrum, so each thread has its own fluctuating distance to the Dunstaple. Below, I outline my process for constructing the separate polyphonic threads in this piece.

First, I isolate the rhythmic and pitch parameters of the Dunstaple material and assign each of the two polyphonic threads its own distortion spectrum (one for pitch and one for rhythm) and these spectra are then assigned to subsections within each section of the three-section formal structure. The texture journeys through fast-changing distortion levels which highlights the fluctuations of distance to the existing material. Figures 4.1 and 4.2 show the rhythmic and pitch distortion spectra respectively. I pair a single pitch distortion level with a rhythmic distortion level in each subsection of the piece (see figures 5.1–3). This allows me to structure how the existing material appears in the piece and control the fluctuations of distance through the texture. In short, these distortion spectra allow me to gain pre-determined control over the shape of the piece through the fluctuating levels of distortion.

The piece is split into three main sections (A, B and C) and each of those sections contain smaller fragmentary subsections, with each assigned one pitch distortion level and one rhythmic distortion level. The numbers on the pitch distortion level rows and the letters on the rhythmic distortion level rows refer to figures 4.1 and 4.2.

Distortion Level	Description
<i>Zero</i>	Silence (no material inputted into the subsection)
A	No tuplet densities (directly quoted material)
B	Random addition of grace notes to level B
C	Random single-layer tuplets to level B
D	Random addition of grace notes to level D
E	Random nested tuplets to level D
F	Random addition of grace notes to level F

Figure 4.1: rhythmic distortion spectrum in Occulta (single-layer tuplets are any tuplet which is not a nested tuplet)

Distortion Level	Description
1	Same pitches as existing material
2	Same pitches as existing material rearranged in a different order
3	Random semitone alteration/quartertone alteration of level 1
4	Random semitone alteration/quartertone alteration of level 2
5	Microtonal additions (through lip glissandi) to level 2
6	Transposition of first half of level 4
7	Transposition of second half of level 4
8	Transposition of all of level 4 with filtering of pitches in level 3

Figure 4.2: pitch distortion spectrum in Occulta

Section A (33 bars)

Subsection	1	2	3	4	5	6	7	8	9	10
Pitch distortion level	4	8	N/A	7	3	N/A	6	1	7	3
Rhythmic distortion level	E	D	Z	E	D	Z	E	C	D	E
Length (bars)	3	5	2	4	2	3	4	2	5	3

Figure 5.1: combined parametric distortion assignments for section A of Occulta Scientia

Siderum

Section B (42 bars)

Subsection	1	2	3	4	5	6
Pitch distortion level	5	3	N/A	7	6	8
Rhythmic distortion level	C	A	Z	B	C	B
Length (bars)	7	8	6	6	8	7

Figure 5.2: combined parametric distortion assignments for section B of Occulta Scientia

Siderum

Section C (10 bars)

Subsection	1	2	3	4	5
Pitch distortion level	7	3	8	4	7
Rhythmic distortion level	D	E	D	E	D
Length (bars)	3	1	2	1	3

Figure 5.3: combined parametric distortion assignments for section C of Occulta Scientia

Siderum

The pitch and rhythmic distortions fluctuate between different levels as seen in figures 5.1–3. The distortion levels outline the structure of the piece and indicate a textural shape, and the multiple small levels of fluctuation highlight the distance to and from *Ascendit*. The subsection lengths in section B are longer than the episodes in sections A and C meaning that the fluctuations slow down in the middle section, affecting the rate of change through the levels of distortion and thus the rate of change of distance, so distance is represented through distortion.

These distortion levels are applied to both threads which eventually combine. Figure 6 shows the single movement spectrum for either of the thread 1 in relation to the Dunstaple material:

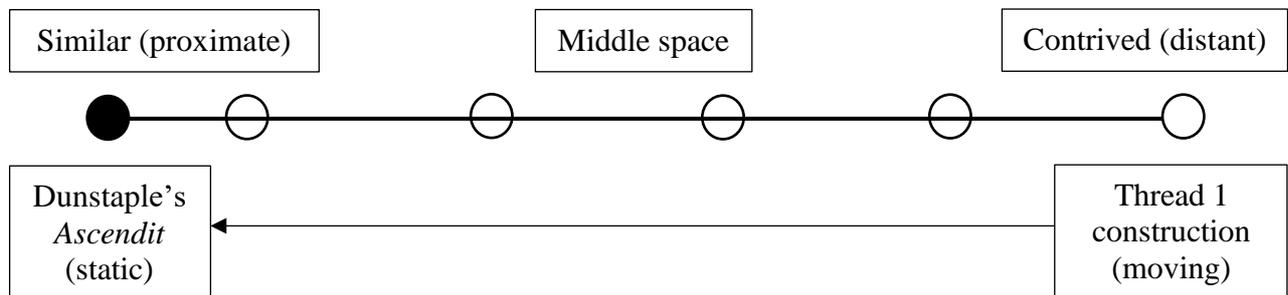


Figure 6: single movement spectrum using polyphonic thread 1 of *Occulta Scientia Siderum* as an example

2.4.1.2 *Lux Obscurata*

Lux Obscurata (for solo guitar) takes material from Francis Pilkington's *Thanks, Gentle Moon* as a *cantus firmus* (hereafter, CF – CF is shown in figure 7). The material surrounding the CF is constructed using the same means as in *Occulta* (the process of combining the two threads will be unpicked later). The way that distance is explored in *Lux* is different than in *Occulta*. In *Occulta*, both threads have their own independent fluctuations of distance through the isolated parametric distortion spectra (in other words, both threads are constantly changing), whereas, in *Lux*, one thread is a direct quotation of the melody from *Thanks, Gentle Moon* (the CF) and the other thread surrounds that melody in constantly fluctuating distortion levels (one thread is static and the other one is in motion). This means that the pre-existing material is always present almost like a quotation throughout but is obscured by the surrounding polyphony of fluctuating distortions and, therefore, fluctuating distance.

Verse

Refrain

Figure 7: soprano line from Francis Pilkington's *Thanks, Gentle Moon* used as the cantus firmus in *Lux Obscurata*

The rhythmic distortion spectrum is the same as used in *Occulta*, but the pitch distortion spectrum is different (see figure 8). *Lux* uses a three-section structure each of which split into smaller subsections; however, I introduce a refrain of two or three bars at the end of each section (see figures 9.1–4). These refrains are a reference to the verse-chorus form in *Thanks, Gentle Moon*. Like *Occulta*, this is a systematic, pre-compositional way of exploring distance and both polyphonic threads become fused together in the next step of the composition.

Distortion Level	Description
1	Same pitches as existing material
2	Same pitches as existing material rearranged in a different order
3	Random semitone alteration of level 1
4	Random semitone alteration of level 2
5	Transposition of first half of level 4
6	Transposition of second half of level 4

7	Transposition of all of level 4
8	Level 7 filtered with pitches of level 1
9	Level 7 filtered with pitches of level 2

Figure 8: pitch distortion spectrum in Lux Obscurata

Section A (25 bars)

Subsection	1	2	3
Pitch distortion level	4	3	2
Rhythmic distortion level	C	D	B
Bar length	7	9	9

Figure 9.1: combined parametric distortion assignments for section A of Lux Obscurata

Section B (34 bars)

Subsection	1	2	3	4	5	6
Pitch distortion Level	5	6	4	6	7	5
Rhythmic distortion level	C	Z	D	E	A	D
Bar length	5	8	3	7	5	6

Figure 9.2: combined parametric distortion assignments for section B of Lux Obscurata

Section C (30 bars)

Subsection	1	2	3	4	5	6	7	8	9
Pitch distortion level	6	8	4	7	9	6	8	7	9
Rhythmic distortion level	D	E	C	E	F	B	D	E	F
Bar length	3	5	3	3	4	3	4	3	3

Figure 9.3: combined parametric distortion assignments for section C of Lux Obscurata

Refrains

Refrain	1	2	3
Pitch distortion level	9	4	1
Rhythmic distortion level	F	C	A
Bar length	2	2	3

Figure 9.4: combined parametric distortion assignments for the refrains in Lux Obscurata

Lux Obscurata was workshopped in November 2021 by guitarist Seth Josel and later performed by Mauricio Galeano in Chemnitz in September, 2022. Josel commented on the piece suggesting that, owing to the scordatura, ‘unconventional’ fingerings were needed to play the written pitches. This meant that I needed to note the fingerings throughout, causing unusual finger crossings in the upper register, whilst more conventional fingerings were used for passages in the register without scordatura. Josel noted that this gave a visual aesthetic of the alternation between conventional and unconventional playing technique. This links to my interest in experimenting with different approaches to working with distance. In the case of *Lux*, distance could be viewed in the context of conventional playing technique. The piece offers a future offshoot which explores this typology of distance.

To summarise, both *Lux* and *Occulta* offer two methodologies which explore distance through systematic approaches to distortion. *Occulta* has a more double wave-like approach where both threads move independently away and towards each other where each meets together. The meeting points form examples of proximity where the far distance between the waves form an example of being contrived (see figure 10.1). *Lux*, on the other hand, contains a static line which is the CF and the distance to and from that is conveyed through the fluctuating levels of distortion in the other polyphonic thread (see figure 10.2). The static element in both pieces are the respective pieces of pre-existing material.

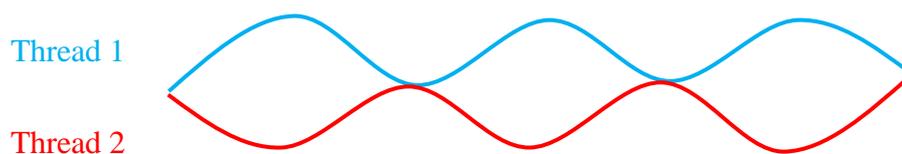


Figure 10.1: movement of two threads in Occulta Scientia Siderum

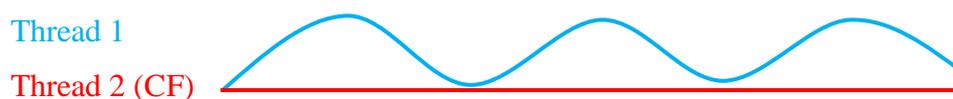


Figure 10.2: movement of two threads in Lux Obscurata

2.4.2 Structural

Structural explorations of distance take a more global-level approach by focussing on the formal structure of a piece as opposed to the local-level approaches to material as seen in *Occulta* and *Lux*. Both *De rerum naturis* (2022), for solo percussion, and *reliquiae, löschen* (2022–23), for solo vocalist, are pieces that explore distance primarily through the formal structure itself and not directly through the pitch and rhythmic material (at least at the local-level). Therefore, these explorations of distance are more global-level as opposed to the distortion spectra above which are more local-level explorations. This is perhaps a little looser when it comes to *reliquiae*, but for *De rerum*, this piece directly explores distance based on structure and subsectional length. This time, not through the distortion of material in rigid micro ways, but distorting the material through movements through the structure.

2.4.2.1 *reliquiae, löschen*

reliquiae, löschen, written for soprano Stephanie Lamprea, explores allusion, reference, and relationship to the *Totentanz* or *Danse Macabre* (the dance of death). For many years I have been intrigued by the use of the *Totentanz* in culture throughout multiple centuries, from mural paintings to artistic interpretations to musical adaptations to literary influences on woodcuts. I began composing a piece for solo singer and two dancers in 2018 which used the *Totentanz* as its main influence.⁹⁶ From this piece, I developed more of an interest in the *Totentanz* and its relationship to certain types of culture and art. These depictions tend to be mural paintings and can be seen in churches across Europe, such as in Holy Trinity Church in Hrastovlje, Slovenia; the Church of St Mary of the Rocks in Beram, Croatia; as well as others in Lübeck and Tallinn.

Surmatants is the depiction located in Tallinn and is by the Lübeck-based painter of the fifteenth-century, Bernt Notke. This is currently housed in the Art Museum of Estonia but was originally located in the St Anthony Chapel of St Nicholas's Church, Tallinn.⁹⁷ The fragment of the work that is left consists of thirteen figures led by the first dancer (the Pope) who is followed by his mortals. Below the figures is a text in Low German which is a dialogue in verse between death and the other characters (see figure 11).⁹⁸ The piece explores distance to a pre-existing source in three different ways: movement, text, and music.

⁹⁶ This piece remains incomplete, but the structural and conceptual material I had for the piece were used as a starting point for *reliquiae, löschen*.

⁹⁷ 'Dance of death', Eesti Kunstimuseum, 2023, <https://nigulistemuseum.ekm.ee/en/introduction/permanent-exhibition/dance-of-death/>.

⁹⁸ Ibid.



Figure 11: Bernt Notke's *Surmatants* (15th century)

When I refer to 'musical material' in the context of this piece, I specifically mean pitch and rhythmic material. The musical material in this piece is derived from five phrases of August Nörmiger's *Mattasin oder Toden Tantz* (1598). Nörmiger's interpretation of the *Totentanz*, from his *Tabulaturbuch auff dem Instrumente*, is cited as being the earliest music that can be linked to the *Totentanz*.⁹⁹ This is what drew me to using the Nörmiger as the existing material I used in this piece. The *Totentanz* has been used by various composers through different periods of music, from folksong to contemporary music,¹⁰⁰ as well as composers such as Liszt in *Totentanz* (1849), Mahler in *Das klagende Lied* (1880–99), Ligeti in *Le Grand Macabre* (1978), Ferneyhough in the second movement of *Dum Transisset* (2007), and Francesco Filidei in *Giordano Bruno* (2015). But, owing to the age of the Nörmiger, I chose this piece as the pre-existing source material from which I construct my own material.

⁹⁹ Malcolm Boyd, 'Dance of Death', *Grove Music Online*, 2001.

¹⁰⁰ For folksong uses of the *Totentanz*, see Newton Arnold, 'Henri Stegemeier, The Dance of Death in Folksong', *The Germanic Review: Literature, Culture, Theory* 16, no. 3 (1939), 216.



Figure 12: August Nörmiger's *Mattasin oder Toden Tanz* taken from <https://www.totentanz-online.de/medien/musik/noermiger.php>¹⁰¹

Figure 12 shows Nörmiger's *Mattasin* with a clear structure of seven phrases, each of which is separated by quaver rests. On a practical level, this fits perfectly with the seven skeletons seen in the Notke work in figure 11 meaning that interrelationships between the structure and artwork can be formed. The skeletons eventually form the movement structure which combines with the musical structure. This will be discussed in further detail later in this thesis.

The Nörmiger material is used in a way in each section which gradually moves away from being in close proximity to the original source to becoming more distant from the source as the section progresses. The next section then restarts in close proximity to the Nörmiger at the beginning, again moving gradually away to becoming more distant. The phrases from the Nörmiger are always taken from the uppermost line on the upper stave of figure 12 and are segmented into five phrases, each of which are assigned to the five sections within the musical structure. The five phrases are taken from figure 12 and relate to the phrases preceding the

¹⁰¹ 'August Nörmiger: *Mattasin oder Toden Tanz* in *Tabulaturbuch auff dem Instrumente*, 1598', Totentanz-online, 2023, <https://www.totentanz-online.de/medien/musik/noermiger.php>.

quaver rests. I take the first five phrases of the piece and do not use all seven phrases. This is because I did not want the same number of phrases matched with the same number of dancers depicted in the Notke. This is because of the overlaps between structures I wanted to create to make the combination process more interesting. The first part of each musical section (the beginning of which are denoted by the beginning of notation type 1) contains pitches which are within close proximity to the Nörmiger.¹⁰² For example, in b. 1 of the piece, the pitches are G-A-B-A-G, the same five pitches (without the repetitions) in the first phrase of the Nörmiger. As each section progresses, the pitch material gets further away and, therefore, more remote from the Nörmiger until the final few bars of each section where the pitch material is written intuitively and is completely unrelated to the Nörmiger. The distance spectrum here is rather large, beginning from being relatively proximate (at least in theory) to the Nörmiger to being very distant. This movement though the distance spectrum is used in each of the five notation type 1 sections, using the different phrases. This also offers the first example of how the distance spectrum can be seen as being used in simple linear motion. This is achieved by gradually removing the number of pitches I use from the pre-existing source as the section progresses, thus moving from being proximate to being distant.

2.4.2.2 *De rerum naturis*

The preliminary intention behind *De rerum naturis* (for solo multi-percussion) was to use singular pitches from a pre-existing source spread out in order through the piece and interspersed with unrelated rhythmic material in non-pitched percussion sections. Pitch quotations of the plainsong mode of *Veni Creator Spiritus* are used in the glockenspiel. The nature of my intentions behind *De rerum* redirected me into categorising how I think about material construction into two categories of decision making because the systematism is directed towards the formal structure as opposed to local-level constructions. The two categories are systematic and intuitive. This increased awareness of the decisions I make are, in this chapter, focussed on intuition on the local level of my material construction, and systematism on the global level.¹⁰³ This places less emphasis on the active and strict construction of pitch and rhythm, as in *Occulta* and *Lux*, to a freer, more intuitive construction

¹⁰² This piece uses two types of notation: type 1 (5 stave) and type 2 (three stave). I discuss this further later in this thesis.

¹⁰³ By local level material constructions, I refer solely to the actual construction of pitch and rhythm. Global level constructions refer to form and structure, whilst the use of dynamics and instrumental timbre sit between both.

of pitch and rhythm.¹⁰⁴ Furthermore, the gaps between the singular quotations form a different way of exploring distance: the shorter the gap between the pitches, the more proximate; the larger the gap, the more distant.

The title of the piece, *De rerum naturis* (tr. 'on the nature of things') alludes to the encyclopaedia written by Rabanus Maurus between 842 and 847 which contains twenty-two books synthesising intellectual history until the 9th century.¹⁰⁵ The piece, however, does not take inspiration from this specific source, or from the poem of a similar title by Lucretius, *De rerum natura*, for that matter. Instead, the title uses Maurus's most famous publication as a loose connection to the abundance of hymns he wrote, many of which were set to Gregorian chants. Perhaps the most famous of these hymns is *Veni Creator Spiritus* (tr. Come, Creator Spirit), and *De rerum* uses the pitches from this plainsong mode as the quotation throughout the piece.

The global level constructions of form and structure hold the same level of rigour (and systematic decision making) as used in other pieces in my output. I use the formal structure to control the fluctuating motion of distance, and because of this, the 34-part subsection structure of the piece is constructed in advance.¹⁰⁶ To summarise, the formal structure forms the foundation which explores distance, as opposed to previous pieces where the local level constructions (construction densities) explore distance. Through this formal structure, I plan the length of the gaps between each pitch quotation of the plainsong used in the piece, so distance is measured through time and the amount of time between the singular pitch quotations of the plainchant in the glockenspiel. The material in the gaps between the pitch quotations is constructed intuitively; therefore, this switch of rigidity between local and global levels has allowed me to explore more freedom in local constructions whilst keeping a high level of structural rigidity – something, at least at the time of writing, I needed as a foundation in my music.¹⁰⁷

¹⁰⁴ In *De rerum*, only the rhythm is considered in relation to the three levels referred to above as the sporadic uses of pitch in the glockenspiel quotations of pre-existing material.

¹⁰⁵ 'Rabanus Maurus', Encyclopaedia Britannica, 2022, <https://www.britannica.com/biography/Rabanus-Maurus>.

¹⁰⁶ The exploration of proximity in this piece is arguably more theoretical than in previous pieces because it depends on memory, space, and time, as opposed to direct aural or processual aspects of proximity.

¹⁰⁷ It is important to note that it is not my intention to move away from the sound world I normally work in; however, I have explored a shift in the way I approach compositional structure and material construction to create the sound world I am engaged with.

The piece's subtitle is 'singularity' which itself holds a double meaning. First, the plainchant quotations are used in the form of singular pitches as I refer to above. As metrical rhythm is less precise in plainchant (owing to the neume notation), I disregard precise rhythmic quotations in *De rerum* meaning that quotation in this piece works entirely with pitch. The quoted pitches are in the exact order they appear in the plainsong mode but spread throughout the duration of the piece and always fall in the glockenspiel, interspersed with the unrelated unpitched material. The relationship to 'singularity' comes by using singular pitch quotations every time I use a pitch in the glockenspiel. These pitches are almost like isolated capsules of the plainsong material that appear in the unfolding rhythmic/registral polyphony. Second, singularity refers to how the rhythmic material (in all instruments apart from the glockenspiel) unfolds. The piece begins with singular hits of the woodblock which act as a singular point from where the dense polyphonic material in the middle sections emerges from, before reducing back down to the same singular point at the end of the piece in one of the tom-toms. I liken this to an emergence and dissipation of matter from and to a singular point.

The quotations in *De rerum* dictate the construction of the formal structure. The quotations consist of single pitches from the Gregorian chant of *Veni Creator Spiritus* (see figure 13).

VIII
V E-ni Cre- á-tor Spí-ri-tus, Men-tes tu- ó-rum ví-si-
 ta: Im-ple su-pérna grá-ti-a Quæ tu cre- ásti pécto-ra.

Figure 13: plainsong mode for *Veni Creator Spiritus*

First, I set the plainsong beginning on G and segment (or isolate) each pitch depending on the syllable of the text (if there is a melisma, I isolate the number of pitches assigned to that melisma). Including the amen, there are 34 segmentations of the pitches (see figure 14.1) which means that I follow every pitch with a subsection (34 subsections), each of which vary in length (see figure 14.2). Apart from the first subsection, which begins with the pitch quotation, the following subsections end with the pitch quotation bookmarking the beginning of a new subsection. It is worth noting that the subsections do not necessarily contain distinctly different

material but are a way of pre-determining how close or far the singular pitch quotations are from the previous quotation and the upcoming quotation.

The subsections are grouped together into five, larger sections to which I apply instrumental and timbral restrictions, as well as very loose and basic tuplet restrictions (see figure 14.3). This is the only control I have over the rhythmic material in the piece and the varying number of bars assigned to each subsection is my main way of controlling the levels of distance to the plainsong. The more bars in the subsection, the more theoretically proximate to the plainsong and conversely. So, as opposed to material-focussed explorations of distance, *De rerum* works with distance solely on the formal level using subsectional length, and distance through time.

In the score of *De rerum*, the pitches in figure 13 are clearly visible in the glockenspiel as the piece unfolds. I do make two slight changes to the original plainsong material by occasionally using octave displacements as well as using some triplet rhythms, so the quotations fit into the polyphony. These slight alterations do not affect the singular pitch quotations. Using singular pitches sporadically spread throughout the piece does, however, put into question whether this can be classed as quotation. This is because I interrupt the flow of the quotations with material completely unrelated to the pre-existing material which puts the singular quotations into the background. However, I argue that the singular quotations are a valid means of quotation for two reasons. First, these specific quotations come from Gregorian chant where precise rhythm (and rhythmic notation) is not exactly used. This means that the rhythm is flexible. Owing to the absence of precise rhythm in the plainchant, the way in which I use the singular quotations in *De rerum* lends itself to using plainchant as the pre-existing source. The argument would, perhaps, hold less validity if I was to use pre-existing material which contained precise rhythmic elements. Second, all pitches from the pre-existing material are used so, in a sense, I directly quote the plainchant in its entirety, but just slow down the way it unfolds whilst adding unrelated material in the gaps between each singular pitch quotation.

As *De rerum* uses the formal structure to explore distance, three elements become supplementary features of the exploration: time, memory, and space. The unfolding of the plainchant occurs at a faster rate between short subsections compared to longer subsections, where there is more material in between and a longer time between both quotations. In figure 14.2, the different subsection lengths are shown, and I ensure that no subsection length exceeds nine bars as subsections which are too long will venture too far from the pre-existing material.

Time, memory, and space are three concepts which could, perhaps, be explored in future projects; however, this project is not the space which will allow me to expand upon these points.

Segmentation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Pitch(es)	G	A	G F	G	A G	C	D	C	C	G	A	C	D C	D	E	D	C	D E	C B	A G	C D	G	A	C	B C	A	G F	A	A B A	G	F	G	G A G	F G

Figure 14.1: 34 phrase segmentations of the plainchant with assigned pitches

	A						B										C							B1					A1					
Subsection	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Bars	8	4	7	5	6	6	5	7	4	8	2	0	4	1	6	3	8	5	3	7	5	3	2	9	4	0	5	3	7	6	4	0	4	5

Figure 14.2: subsection number with the number of bars it contains

Section A: Subsections 1–6 limited to triplets, dots & quintuplets (limited also to cowbell, woodblock & occasional side drum) [<i>ppp-mf</i>]
Section B: Subsections 7–16 as above + all other primary tuplets (as above + tom toms) [<i>p-f</i>]
Section C: Subsections 17–23 as above + secondary tuplets (tutti) [<i>ppp-fff</i>] Material constructed using canonic techniques
Section B1: Subsections 24–28 same as subsections 7–16 (bass drum, tom-toms, side drum & occasional cowbell) [<i>mp-f</i>]
Section A1: Subsections 29–34 same as subsections 1–6 (limited to tom toms & side drum & occasional woodblocks) [<i>ppp-mf</i>]

Figure 14.3: larger section groupings of subsections with dynamic and instrumental restrictions

Both *reliquiae* and *de rerum* explore distance through the structure and a pre-determined plan of fluctuation using two different methods. In *reliquiae*, a method of gradually moving distance which repeats over a five-section structure is used to explore this whilst, in *De rerum*, the gap between each singular pitch quotation is the theoretical or structural exploration of distance. In *reliquiae*, the material itself moves through the distance and in *De rerum*, the singular pitch quotations are separated through fluctuating movements of time, so fluctuating time is used under two approaches. This shifts the exploration from the local-level in *Occulta* and *Lux* to the global-level in *reliquiae* and *De rerum*.

2.5 Intuitive Approaches

2.5.1 Textural

Textural distance is compositionally intuitive and involves the use of textural layers or densities, each of which obscure the pre-existing material the composition uses. This relates to the parametric construction densities used more systematically in *Occulta* and *Lux* and could be viewed as an intuitive version of this process. As this is done more intuitively, there is less in terms of pre-compositional or pre-determined planning, so the textural densities are freer and less rigid and based on intuitive compositional decisions.

2.5.1.1 *O Clavis David*

O Clavis David (2022), for mixed double choir, was written as a festival commission for Ensemble Pro Victoria (from this point, EPV) and the 2022 Harrogate Advent Festival. The piece utilises the text and music of the so-called plainsong “‘O’ Antiphon’ of the same title. The reason behind using one of the ‘O’ Antiphons has two strands. First, as a choral singer, I have been singing the ‘O’ Antiphons since I began singing and are part of what is one of my favourite liturgical events in the Anglican calendar (in terms of the music that is typically sung): the advent procession. Second, on the surface, the ‘O’ Antiphons offer interesting and dramatic texts, as well as plainsong chants which can be used as a good starting model to develop pieces out of, which is basically what I have done in *O Clavis*.

When asked to compose an advent piece for EPV, using the ‘O’ Antiphons in one way or another, was an instantaneous thought. The compositional approach and aesthetic in *O Clavis* is where I drift away from how I normally work. In previous pieces, the approach (or *how* I go about what I intend to achieve or answer in a composition) usually springs up from an offshoot

in a previous piece. These offshoots can come in multiple different ways: deleted bits of material; certain bits of material that cannot fit within the context of that piece; issues that I have critiqued; or, simply, developments of a previous approach. This means that each of my compositions work temporally or, in other words, in a gradual, constantly developing string which makes up my current output. If you remove a piece out of this string of works, the interconnections will make much less sense. I see similarities in my approach to how Richard Barrett urged listeners to view Richard Emsley's music as seeing 'each composition as part of a gradually unfolding process within his oeuvre'.¹⁰⁸ I also see similarities to Harrison Birtwistle's output which, to my mind, makes more sense when viewing all his works temporally from his first piece to his last.

After finishing composing *O Clavis*, I initially made the decision not to include the piece in the portfolio for this project as I thought the piece sat outside of that temporal string of interconnecting approaches and processes; it is almost like an aside to the temporal strand so, on the surface, it seemed sensible not to include the piece in the portfolio. The piece has the same fundamental intention—exploring the possibilities of pushing the proximity to the plainsong as close to the original without it becoming a direct quotation—but the way I approach the piece does not contain offshoots from previous pieces. Also, it does not contain a pre-compositional approach in any way similar to previous pieces.

My approach to composing *O Clavis* was almost entirely intuitive, containing little systematic or pre-determined decision making. The initial reason for this intuition is due to a shift in approach to rhythmic notation, especially in the context of what the rhythms *look* like compared to previous pieces. This shift was a somewhat active decision; however, the reason behind it requires some further analysis. Before writing a note of the piece, two things were certain to be included:

- 1) The use of plainsong from an O Antiphon
- 2) A fluctuating movement between levels of distance to the plainsong using intuitive movements of distortion

¹⁰⁸ 'Richard Emsley: A View of His Music', Richard Barrett, 1988, <http://www.richardemsley.com/index.php/barrett-article/>.

I created a loose pre-compositional plan for the piece where I segmented the phrases of the *O Clavis David* plainsong antiphon and decided that each phrase would use a different technique or method of slightly obscuring the original plainsong pitches. The techniques themselves were not pre-determined and were deployed intuitively. A loose pre-determined decision was taken to split the eight voice parts into four groups of two, which change pairings throughout the piece.¹⁰⁹

This was pre-determined because of my interest in prolation, and it was my intention beforehand to use part pairings with prolotion techniques to obscure the plainsong. The difference between these systematic decisions and systematic decisions made in previous compositions is that they contain no musical structural material. I do not write out the prolotion systematically beforehand as I have done in previous pieces – the prolations themselves are intuitively written (and thus not accurate prolations, only derivations or adaptations of prolations – perhaps a *langue* use of the prolotion technique). The textural and timbral intensity of the piece was not pre-determined in any way at all, so the intuitive nature of this means that I analysed the piece after its completion through the lens of distance spectra and levels of distortion. This approach raises the question of the function of pre-determined, systematic approaches if this more intuitive and somewhat immediate approach can explore the motion of distance. I argue that both produce very different types of results and both open different possibilities of exploring the same thing but on different levels.

I began composing the piece by using only the interval of a perfect fourth (C–F) for around seven bars. This relates to the opening interval of the plainsong and is thus very close to the original if one can make the relationship between my piece and the plainsong material. I interrupt these fourths by the addition of semitones either side of the F (both G-flat and E as well as the odd E-flat). As this develops, I add transpositions of the fourth interval (D-flat–G-flat in b. 13 and E-flat–A-flat in b. 14) to create a cluster-like harmonic structure. This opening statement of the developing fourth ends in b. 16 and the next phrase of plainsong begins. The next phrases use the voice pairings, mostly in unison, to quote different overlapping phrases of the plainsong. First, TII and BI sing the ‘O Clavis David’ plainsong phrase in unison in the E-flat mode from bb. 18–25 again surrounded by this constantly developing (in terms of

¹⁰⁹ It is worth noting that I do not rigidly stick to these pairings, but there are places where they work together to obscure the plainsong material.

distortion) harmonic cluster in the other parts, but in very close proximity to the plainsong. When this TII/BI phrase ends, the plainsong is hocketed to AI and TI who sing the next phrase (et sceptrum domus Israel) in the E mode. The 'Israel' in AI and TI in bb. 28–29 is where the first prolation begins (AI with triplet crotchets, TI with straight crotchets). The next phrase (qui aperis) enters in BII and SI before the previous phrase has finished (bb. 26–29). This phrase, again, uses prolotion between the parts. Now, more voice parts are singing separate phrases of the plainsong, the number of parts available to develop the harmonic clusters reduce meaning that the texture becomes more polyphonic, building to a unison F-sharp in TII and SII in b. 31 followed by a dissolving unison triplet figure in SII, AII, TII, and BII, eventually reducing to silence in b. 33 essentially ending section 1 of the piece.

The next section begins in b. 34 repeating the 'qui aperis et nemo' phrase again in the part pairings and, again, with prolations within those pairings. The pairs stagger their entries with all parts singing the same plainsong phrase in different meters. This subsection ends in b. 43, followed by a return to the developing cluster harmony in the T and B parts in b. 44. A homorhythmic and parallel 'claudit' which directly quotes the plainchant begins at b. 45 in the upper parts and then hockets itself throughout the choir, climaxing at the cluster chord in b. 51 and quickly reduces to nothing in b. 55, ending section 2.

A return to the opening of section 2 begins at b. 56 with the rising perfect fourth figure, this time without further development. An inverted plainsong quotation enters on 'claudis, et nemo aparit' in the two soprano lines both in unison, with the cluster chords beneath somewhat resolving into an E-flat minor/D-flat major chord followed by a unison and unaccompanied 'veni' (meaning 'come', perhaps the most vital word in the antiphon and therefore proximate to the original) in the soprano parts moving, again, into inverted versions of the plainchant. The clusters appear again in the ATB parts, followed by fragmental quotations of the plainchant in the A and T parts from bb. 74–77. The 'sedentem' acts as another end of a subsection leading into the beginning of the final section starting with the unison 'in tenebris' in the T and B parts. The alto parts join the T and B parts in b. 91 and flow back into the harmonic clusters. The S parts then sing a stretched, augmented version of the plainsong very quietly above the clusters, eventually ending with only the two S parts on the same pitch I the piece began with.

This brief analysis of *O Clavis* points to the main sections of the piece as well as the different techniques I intuitively used to explore the distance to and from the plainsong and is thus an

example of intuitive explorations of distance through manipulations of distortion level both through prolation and a layering of harmonic material which add to the obscuration of the plainsong. This piece can be seen as an example of intuitive distortion. By analysing the piece after composing it (and, more importantly, looking at the techniques I have used intuitively) I can make more concrete links to previous pieces. However, it still places into question the function of the systematic approach in previous pieces. I argue that there is more scope in controlling texture through a systematic approach meaning that there is more awareness of what I am actually exploring. Adding intuitive flexibility to systematic approaches opens even more possibilities to explore proximity. *O Clavis* is predominantly intuitive since I did not intend on the piece being part of this project's portfolio. Owing to the intuition and lack of systematic decisions, the approaches to distance are spontaneous and do not have the same rigour and parametric rigidity in comparison to pieces that explore distance through systematic decisions, but are somewhat more natural. Both are completely valid, but each produces completely different results and more systematic approaches open more concrete (possible pre-determined) possibilities to explore fluctuating and moving distance.

As I state above, it is worth noting my aversion to composing choral music in general. I tend to stray away from composing it owing to its closeness to my performance practice: I feel as if there is too much of an embodiment of my practice within myself that I am uncomfortable in putting forwards towards composition. In other words, there is a conscious separation between compositional practice and performance practice. This was, no doubt, the largest obstacle in composing *O Clavis*. There are possibly two ways in which I could counteract this: first, by writing music that is outside of my compositional interests, pointing more towards my performance practice; and second, taking elements of both practices and combining them together as a conceptual or extra-musical type of combination. I took the second direction in *O Clavis* as keeping the integrity of my compositional language is imperative for me and is a reason why this piece is being included in this portfolio.

The uses of prolation and the whole shift in perspective exploring distance are examples of how I have stuck to my compositional interests; however, I heavily reduced the rigidity and systematism in constructing pitch and rhythmic material, especially the latter. Less rigidity in these constructions has led me, after composing *O Clavis*, to concentrate more on pitch relationship and inserting more intuition and, perhaps, creativity into pitch structures. Whilst a certain level of systematism is something that I always intend on including in pitch

constructions, more intuition will allow for more flexibility, more creativity, and less arbitrariness. In past compositions, pitch has been so rigidly constructed that it becomes separated from the piece and becomes a structure *in itself*, losing its imbrication within the piece. This is a symptom of parametric constructions, or constructions within a microscopic lens: the macro or global elements in terms of fluctuation are lowered as the micro constructions are so potent. In other words, each parameter becomes more and more separated and results in a piece that is not as homogenous as it possibly could be. Referring to my previous comment on a string of compositions and owing to this perspective shift, *O Clavis* plays an integral role in how I approach my compositional materials and this added intuition can be viewed in the pitch and rhythmic structures of *reliquiae*, *löschen* and *[inter]r[e]act II* (2022), as well as *Tarnhût* (2023).

2.5.2 Referential

This concerns references to pre-existing practices or techniques and not pre-existing musical materials themselves – in de Saussure’s terminology, this would be a *langue* use of pre-existing material as opposed to a *parole* use. This means that, at least on the surface, the distance from the pre-existing source is already quite distant (at least in terms of temporality), and as I am not interested in replicating techniques, explorations of distance come through a somewhat contrived and recontextualised way. Referential distance, in comparison to the other typologies of distance, is less prominent because of the nature of reference. Reference is looser and less exact than an actual source of pre-existing material. The use of pre-existing material contains a specific source of material in contrast to reference which takes practices or ways of writing from pre-existing music.

2.5.2.1 *Tarnhût*

Tarnhût is the old German word for *Tarnkappe* or the ‘cap of invisibility’. This is something that appears in fairy tales and folklore of many different cultures under different names. In classical mythology, the term ‘cap of invisibility’ (or ‘cap of Hades’ or ‘helmet of invisibility’) was believed to have been gained by Hades when he was allotted the world of the dead, even if Hades himself is never represented using the helmet.¹¹⁰ In short, the cap of invisibility is a cap or helmet which is placed over a person or character causing them to disappear. In Germanic literature, albeit rarely, the *Tarnkappe* is used in various Brothers Grimm fairy

¹¹⁰ A. Heinrichs and Ellie Mackin Roberts, ‘Hades’, *Oxford Classical Dictionary* (Dec., 2015).

tales.¹¹¹ More frequently, it can be seen in multiple Wagner operas such as in *Das Rheingold* when Alberich places on the *Tarnkappe* and vanishes.

The use of this title references my interest both in using less direct connotations to a source as well as more historical uses of terms and materials. This, in a loose sense, links to a more distant positioning on the distance spectrum by being relatively far removed from what the conceptual intention of the piece is: invisibility. The idea of invisibility comes from the intention of exploring erasure in my music. Initially, erasure was a result of combination; however, in this instance, erasure is pre-determined and forms the formal structure of the piece. Invisibility is a more conceptual idea which complements the more structural and concrete structural approach of erasure.

Tarnhût was composed in 2023, commissioned by the DYCE project and premiered in Oslo by oboist Richard Lines-Davies. It is obvious to say that collaboration plays an important role when composing pieces with a performer and *Tarnhût* is no exception. In addition to typical collaborative processes, the pre-existing material from which I construct my own material was chosen by Richard, so it is material which is more familiar to him than it is to me. The pre-existing material used is an excerpt from Heinz Holliger's *Sonate für Oboe* (1956–57, rev. 1999). Richard sent me the score and recording of an excerpt (bb. 33–45, see figure 15) which is the foundation from which I constructed my own material through using a less rigid form of the parametric construction densities used in previous pieces to using references to the linear contour of the piece. As opposed to using the whole excerpt of the Holliger, I took a short fragment to use as the pre-existing material in the piece: bb. 37/2–39. The intention of doing this is to limit the amount of pre-existing material I use, so multiple perspectives and different approaches to using that material form the basis of the material construction and structure of the piece. By limiting the amount of pre-existing material used, I focus more on specific pitch relationships and development and less on somewhat arbitrary and hyper-rigid pitch structures. Also, this is the only piece in this portfolio that uses pre-existing music from the twentieth-century. From the outset, this source is already within closer proximity (both temporally and aesthetically) compared to the early music used in other pieces.

¹¹¹ Maria Tatar, *The Annotated Brothers Grimm* (New York: W.W. Norton, 2004), 332.

Figure 15: bb. 33–45 of Heinz Holliger’s *Sonate für Oboe* (1956–57)

The concept of erasure underpins the piece. The form is split into five sections, each separated by a gap (in seconds) of silence. In the pre-compositional process, these gaps were filled with extremely dense mono-polyphony using the fragment of Holliger’s material shown in figure 16. I refer to these sections of silence as ‘invisible’ sections and reference the idea that the *Tarnhût* has been thrown over the section creating silence and thus invisibility. In a structural sense, these sections are simply erased mainly because the original material is so dense that there is too much material concentrated within a short space of time. This is something I wanted to avoid so the global structure of the piece was taken more into account as opposed to the minutiae of detail on the local-level. The sections preceding the invisible sections augment, adapt and reuse the erased material that was previously in the invisible sections – I refer to the preceding sections as sections 1–5.



Figure 17.3: erased material in invisible section 3

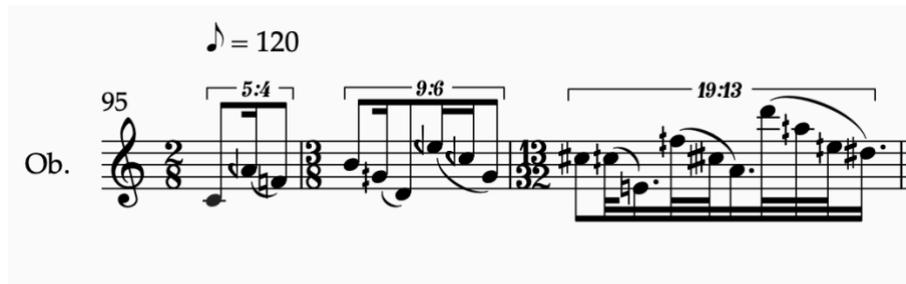


Figure 17.4: erased material in invisible section 4



Figure 17.5: erased material in invisible section 5

As shown in figures 17.1–5, each fragment in the invisible sections is three bars in length and each fragment is a different iteration of (or variation on) the excerpt of Holliger’s material in figure 15. When these iterations are erased in the invisible sections, I merge the three bars into one and work out the time (in seconds) that each bar lasts using the formula $d = x(y)/t$ where d = duration (s), x = number of beats in a bar, y = type of beat, and t = tempo. Figure 18 shows the formal structure of the piece, with the invisible sections denoted as I1–I5 = with the duration of the section in seconds. The preceding sections are denoted as 1–5 with the section length noted as the number of bars.

1	I1	2	I2	3	I3	4	I4	5	I5
25	7"	33	4"	14	9"	19	5"	35	5"

Figure 18: formal structure of *Tarnhût*. Invisible sections in seconds; preceding sections in number of bars

I use the rigid, systematically-constructed variational material in the invisible sections much more intuitively and freely in the preceding sections meaning that some material is added and some of the material is not even used. This gave me a palette of material to use beforehand in the ways I instinctively saw best. In addition, and as a resultant offshoot of composing *O Clavis*, the pitches used in the piece are less arbitrary and less gestural than in previous pieces. This means that the pitches have different relationships on both a global and local level as opposed to the locally focussed pitch constructions in previous compositions. This complete erasure of sections to create sections of silence is the most explicit use of invisibility in the piece. Also, each section of the piece holds a different expression direction, such as ‘determined, clear’ in section 1 and ‘unstable, delicate’ in section 3. These stray away from what I typically use in other compositions – expressive directions are very uncommon. This was a way of combining my interests compositionally and Richard’s interests as a performer. These expressive marks are not conceptual or extra-musical, but they relate to the type of sound I intend for each section to convey, meaning that the expressions are much more direct and relate to the material on the page as opposed to trying to *make* the material sound like the expression marks.

Reference is also another way of using the pre-existing material. A common theme in the Holliger is the ascending three-pitch fragments seen in figure 16. These are used throughout *Tarnhût* and are, perhaps, the clearest and closest in terms of distance to Holliger’s material. The pitches used are always different but are constructed using similar melodic relationships to how I view Holliger’s pitch relationships in figure 16. Bb. 32–33 is an example of this reference in *Tarnhût*. Therefore, distance comes through the recontextualisation of the ascending pitch fragments seen in the Holliger.

Finally, another form of invisibility results in a palimpsest and is done through breath tones on the oboe.¹¹² This is a technical use of invisibility as opposed to a structural use through the erasure of sections. These breath tones are used to leave a barely audible remnant of the

¹¹² I write in more detail about palimpsests later in this thesis, specifically in part 3.

material producing almost invisibility. The breath tones are used relatively frequently in *Tarnhût* and will likely be more audible to some listeners compared to others. This means that the invisibility on this occasion depends on the listener as well on how the breath tones are approached by the composer. The pre-existing source that *Tarnhût* uses is temporally in closer proximity than sources used in previous pieces. The references used in the piece are also closely related to the arpeggio fragments in the Holliger, so the references are obvious and therefore in relative proximity to the source material. The general nature of reference, though, means that the window or parameters of distance on the spectrum in which it works is always closer to the distant end of the spectrum, so proximity is always relative to the positioning on the spectrum in the first place. In short, references will always be closer to the distant end of the spectrum as they are not direct uses or inputs of concrete (or static) pre-existing materials.

2.5.3 Technical

Technical distance is intuitive and uses the distance spectrum in the context of historical compositional techniques and how they are deployed both in the context of my compositions and in comparison to the original way they were used historically. In other words, it concerns time, recontextualisation/adaptation, and de-familiarisation as well as analyses of the intuition behind using these techniques. From this idea of re-contextualisation or adaptation of these techniques within a contemporary context, the use of *ostranenie* or estrangement is prevalent. Within the context of my use of historical techniques, the distance spectra are used through the lens of proximity to the original (historical) way of using that technique and, therefore, this becomes a spectrum of de-familiarisation or *ostranenie*.

2.4.3.1 *Ostranenie/Verfremdungseffekt*

Ostranenie is a central concept in Russian Formalism and was coined by Viktor Shlovsky in reference to Leo Tolstoy's *War & Peace* and the way one can view things out of context to defamiliarise them.¹¹³ Shlovsky coined this term in his 1917 essay, 'Art as Technique'.¹¹⁴ Similar to *ostranenie* is Bertolt Brecht's *Verfremdungseffekt* (or estrangement theory) where he, as a stage director, attempted to create a sense of distance between the actor and the character that would put the audience in two minds about what they are watching.¹¹⁵ In other words, the audience is alienated, meaning that, in Brecht, one ought to *always* be aware that

¹¹³ Ian Buchanan, 'Ostranenie', in *A Dictionary of Critical Theory* (Oxford: Oxford University Press, 2018).

¹¹⁴ Viktor Shlovsky, 'Art as Technique', *Literary Theory: An Anthology* (Malden: Bakewell Publishing, 1998).

¹¹⁵ 'Estrangement-Effect', *Oxford Reference* (1998).

what they are watching is a *dramatic presentation* and should not give into the suspension of disbelief. The distance between actor and character is there to ensure that the audience knows that they are watching an actor perform a character: the actor themselves never disappears as they may do in method acting. It is like a separation between actor and character with an intentional and conscious distance between the two. *Verfremdungseffekt* gestures towards a sort of historical or temporal distance through the idea that there is this sort of static and foregrounded distance between actor and character in a similar way that I acknowledge that there is a temporal distance between the historical source and the contemporary source that recontextualises the historical source, but I suggest that the distance in question contains motion depending on how the historical source is used. Therefore, I propose that distance is more than a single concept between two sources, but rather a space between two different sources that is constantly in flux. This means that Brecht's theory offers a point towards the kind of historical distance I explore in this thesis; however, I add the hypothesis that distance contains movement in one way or another, whether it is in terms of distance itself or in terms of combination and is wholly dependent on context.

In terms of technical distance, this idea of recontextualisation, adaptation and distance to an existing source, practice or technique can be viewed in terms Shlovsky and Brecht's version of *ostranenie*. Frederic Jameson suggests that *ostranenie* generates a new way of thinking literary history in terms of ruptures and breaks rather than continuities.¹¹⁶ The idea of taking techniques typically used in historical contexts (such as mensural notation, isorhythm and prolation) and adapting them into a contemporary context—one which suits my compositional approach—is not undertaken with the sole intention to defamiliarise these techniques. My intention is to examine the distance between my 'out of historical context' use of the technique and the historical use itself. This means that there are varying levels of distance (in the Brechtian sense) between the original, historical use of these techniques and my more contemporaneous use of the techniques. The distance spectrum is illustrated through *ostranenie* and recontextualisation and the distance the recontextualisations of the technique have towards the historical way of using the technique.

¹¹⁶ Buchanan, 'Ostranenie'.

2.5.3.2 *De rerum naturis*

As I state above, the rhythmic material of the piece is devised using more flexible and intuitive means in comparison to what I have used in previous works with rigid distortion spectra. When exploring distance on the global-level, it opens the possibility to be freer with the material constructions. This is one of the reasons I move away from restrictive material constructions in this piece. Another reason I move away is because of stylistic approach or perspective. I feel as if the local small-scale level of my style has the possibility of being rather one-dimensional owing to the restrictions I impose on material construction. Moving to freer methods has allowed me to include more intuition into the ways I construct my material, as opposed to previous pieces which mostly contain systematic, pre-determined decisions. This allows me to have more intuitive control over the dimensionality of my material. That said, the formal structure of the piece, as seen above, contains all pre-determined elements. This means that the freeness of my material constructions opens the possibility to be very strict and precise with the formal structure, especially as this is what I use to explore distance spectra in the piece.

Above, I refer to two categories of decision making: systematic and intuitive. My intention through the following analysis is to produce a post-composition structural and constructional analysis of the piece which focuses especially on stylistic intuition, especially in the local level construction on material.¹¹⁷ In terms of systematic decision making, only the formal structure and the placement of the singular pitch quotations fall into this category. Therefore, I will not go into further detail about systematic decisions in this chapter since it is discussed previously. The main intuitive element is my way of constructing material using early musical techniques, such as canonic techniques, prolation, and isorhythmic techniques.¹¹⁸ The latter is the technique I tend to use most often, and I consciously used isorhythmic techniques throughout *De rerum*. Figure 19 shows what is, to my mind, one of the most potent examples of isorhythmic technique seen in both polyphonic threads. The isorhythmic technique used here is *color* and *talea*, and this is an example of how *ostranenie* can work within *langue* uses of pre-existing material.

¹¹⁷ With the pre-constructed formal structure (see figures 14.1–3), my intention was not to create a block-like structure in terms of the material development, but more to use the subsections as a fluctuation of proximity as the longer the subsection, the more unidentifiable the plainchant and vice-versa.

¹¹⁸ It is worth noting that I did not actively plan to use early music techniques to construct my rhythmic material before the piece. These techniques are my ‘go-to’ techniques probably relating to my musical training and education in cathedrals of the Anglican choral tradition.

Figure 19: bb. 70–75 of *De rerum naturis*. Red brackets show a phrase which uses isorhythmic techniques

To a lesser extent, I use elements of canonic notation to construct rhythmic material. I do not use exact canons, but I use elements of the technique to construct material in places. Figure 20 shows a phrase that takes various elements from canonic technique. This is evident in b. 83 with the staggered entry of both polyphonic threads. The lower thread follows the basic contour as the upper thread but in different registers, even though the rhythm is slightly different, and the tuplets are different. This is shown in the 7:5 tuplet in the upper thread against the 6:5 tuplet in the lower thread with the canon-like contours. These techniques sit on a temporal distance spectrum and move along this spectrum towards the static element which is signified by the ‘historical’ use of the technique (the historical use is static within time). In places in *De rerum*, the canons, isorhythms and prolations are in relative proximity to the historical and, in places, they are rather distant recontextualisations of the historical use pointing towards the theory of *ostranenie*.

Figure 20: bb. 81–84 of *De rerum naturis*. Red brackets show a phrase which uses elements of a canon

Whilst the formal structure of the piece contains rigorous aspects, the way I distribute my material is intuitive. There are multiple points throughout the piece where I use contrasting textural fragments (figures 21.1–2 show two examples of this). These textural contrasts stick out clearly in the texture and act like ‘markers’ or ‘symbols’ of textural change. Whilst the texture in the main body of material increases in intensity, register, and timbre, the material is still related to the singular point from which it emerges. The textural contrasts in figures 21.1–2 do not seem to bear any relation to the textural narrative, they seem to be unrelated fragments.

Figure 21.1: bb. 38–41 of *De rerum Naturis*. Red brackets show texture change

Figure 21.2: bb. 62–63 of *De rerum Naturis*. Red brackets show texture change

These textural contrasts, perhaps, bear a relation to some works by Salvatore Sciarrino, specifically the solo flute piece *Come vengono prodotti gli incantesimi?* (1985). Upon first hearing this piece, one is presented with almost inaudible rapid tongue attacks interspersed with sporadic louder and *sforzando* tongue attacks.¹¹⁹ The opening textures are synonymous with Sciarrino’s style, a style once described by Nicholas Hodges as being ‘like the eruption of a volcano viewed from afar’.¹²⁰ Hodges goes on to describe the surface of Sciarrino’s music as being ‘often quiet and highly detailed’ with a ‘predilection for a fully integrated use of the whole continuum between unpitched sound and pure pitched tone’.¹²¹ This spectrum between unpitched sound and pure pitched tone is especially prevalent in *Come vengono* (in a similar way, yet through a very different sound world, to Cendo’s *In Vivo*). Upon listening to the piece, I feel as if the textural narrative works in the background and quietly transforms from the almost inaudible tongue attacks into the more prominent tongue rams later in the piece. This textural narrative is, however, interspersed by various flute techniques which act as textural contrasts. The most prominent is the jet whistle technique which is used fairly frequently in the opening. This seems to be, at least to my mind, a reference point causing me to listen for changes in how the material develops. Whether this was Sciarrino’s intention (or intuition) is

¹¹⁹ Megan Lanz notes that tongue attacks at this quiet dynamic are ‘slightly different from the more common tongue ram technique’ which requires a louder dynamic. See Megan Lanz, ‘Silence: An Exploration of Salvatore Sciarrino’s Style through *L’opera per flauto*’, PhD Thesis, University of Nevada Las Vegas, 2010.

¹²⁰ Nicholas Hodges, “‘A Volcano Viewed from Afar’: The Music of Salvatore Sciarrino”, *Tempo* 194 (Oct., 1995), 22–24 [22].

¹²¹ *Ibid.*

unclear as he himself has not written on this, but this is certainly how the material progression appears to me: these textural reference points are interesting markers which are stark to the listener. *Come vengono* is a good reference point for me to use in the context of intuitive decision making.

Owing to my systematic approach to formal structure, and the way I distribute my musical material usually using a subsectional structure, the idea of intuitively ‘bookmarking’ formal episodes seems valid. However, it was a systematic decision I made before writing the piece that I did not intend on each episode being a block of material, I wanted the development of material to be fluid and linear – from a singular point of creation to a mass of dense matter back to a singular point of dissipation. This means that not only was I actively intending to avoid bookmarking subsections, but I was intending for the piece to be fluid and the changes of sections unnoticeable. This said, however, the textural contrasts are not as stark as they are in *Come vengono*, and they still contain a sense of fluidity.

The contrasts are used intuitively to combat a sort-of compositional ‘anxiety’ that the unfolding of material and the textural narrative are somewhat one-dimensional or predictable, and perhaps relate to the idea of fusion: a fusion of ‘foreign’ material interrupting the fluidity of the textural structure. I inputted these textural contrasts to add another dimension to the timbre as opposed to act as textural bookmarks. The sonic experience of these textural bookmarks may point towards a different explanation in the perspective of the listener, and they may come into the foreground of the constantly unfolding textural narrative. There is a difference between timbral contrasts and textural contrasts, and my intention was to use this material to add a further dimension to the timbre and sound world as opposed to using them as sonic references that stick out of the texture and ask the listener what they may mean, or what they actually *do* in the piece. Whilst composing the piece, these timbral contrasts were not too important. It is only after finishing composing the piece that I realise they may appear to hold a function I did not initially intend for them to. This piece offers a global-level approach to distance using elements of memory, space, and time to achieve this. The piece also opens my relationship to early music, especially as it is intuitive for me to use early musical techniques to construct material. It also allows me to view my relationship to historical compositional technique through a temporal distance spectrum and through the context of *ostranenie* or re-contextualisation.

2.5.3.3 ...a mist fell from my eyes...

The title, *...a mist fell from my eyes...* (2021), alludes to part of a quotation by Edvard Grieg. At the time of composing this piece, I was interested in the meeting and correspondences between Grieg, Brahms, and Tchaikovsky, but mainly between Grieg and Brahms. Grieg met Brahms in Leipzig in 1878 but became more acquainted in 1896 in Vienna. Grieg compared Brahms's music to the ruins of beautiful ancient temples.¹²² It is from this relationship between Grieg and Brahms that *...a mist...* is formed.

The string quartet takes material from Grieg's *Peer Gynt* (1875) as its starting source and takes technical references from Brahms's *Geistliches Lied* (1856) through the form of fragmental double canons written at the minor 9th, which is what *Geistliches Lied*, before the 'amen', is written using. Two types of pre-existing material are used in this piece: one from Grieg and one from Brahms. The Grieg material consists of, as noted above, pitch and rhythmic fragments from various movements of *Peer Gynt* and the Brahms material is a technical use of the canon.

The double canon structurally relates to the title, *...a mist fell from my eyes...*, as the canon gets more visible as the piece progresses. At the beginning of the piece, the canons are very hidden and obscured by the surrounding polyphony and at the end of the piece, the canons are the only segments of musical material that are visible, producing a two-part result. First is that of the increasing proximity towards the more visible use of the double canon from beginning to end (see bb. 56–61); and second, the increasing proximity relates to the title in that the mist is falling away creating more visibility of the double canon. This means that the distance to the historical use of a canon increases and becomes more proximate as the piece progresses and is thus another way of describing the decreasing distance between my use of the double canons and typical historical uses of canons. This means that the ways the canons are used move from complete recontextualisation to relative (theoretical) familiarity as the piece progresses.

The use of the canons forms an example of technical proximity which also works in two parts. First, the visibility of the canons (conceptual distance); and second, the proximity to more conventional uses of double canons, especially in relation to *Geistliches Lied* (technical distance). The latter informs the notational distance in that the more 'conventional' the use, the

¹²² 'Johannes Brahms and Edvard Grieg', The Fryderyk Chopin Institute, 2023, https://greatcomposers.nifc.pl/en/grieg/catalogs/persons/4565_johannes-brahms.

more visible and vice versa. Owing to the use of mono-polyphony, the canons become merged into the polyphony and are thus rather invisible and obscured in the first half of the piece. As the polyphony decreases in intensity towards the end of the piece, there are fewer interactions between multiple polyphonic threads meaning that the canons work visibly between instruments as opposed to between threads and are thus in closer proximity to the Brahms's use of the canon in *Geistliches Lied*. In the first half of the piece, the canons are more prevalent in the pre-compositional structure of eight polyphonic threads but as they fuse together, the canons merge into each other.

2.6 Summary

The pieces analysed above exemplify my approaches to using the single movement spectrum in terms of the distance to a pre-existing source. This spectrum can be contextualised in a multitude of different ways. One endpoint of the spectrum is always the construction or process of composition and the opposite endpoint can be any variable from which the distance between the composition can be fluctuate. Each of the pieces analysed above introduce a different example of how movements in distance between a compositional process and the static pre-existing source the composition uses can be achieved. The methodologies above show three main ways in which this distance can change: through distortion, structure, and recontextualisation. Wherever an absolute or conceptual distance between and composition and another state is possible, a single movement spectrum can be used through multiple different perspectives as noted above. In addition, there is a further area that a single movement spectrum could explore: that of 'becoming'. I will expand on this further in this thesis, but essentially, it is when combination occurs on a single movement spectrum (i.e. when the element in motion *becomes* the static element – in other words, combination on a single-movement spectrum). Furthermore, the following chapter in this thesis, examines combination which occurs when close proximity between two elements (on either spectrum, but mainly the dual movement spectrum) is surpassed meaning that the distance between the elements (under different perspectives) becomes zero and therefore are forced to combine.

Part 3 – Combination

3.1 Introduction to Combination

The second key theme that this project explores the combination of two contrasting elements. In this project, combination moves away from the distance between my composition (or compositional process) and the pre-existing material it uses, to examine the movement of two contrasting elements (mainly contrasting types of material which still contain references to pre-existing material) moving towards each other on the spectrum and combining with each other. The combination itself depends on elements of distance so these explorations can be seen as a further extension of the methodologies used above. Combination occurs when the physical proximity between two elements is surpassed, and the elements are forced to combine. This chapter explores the ‘physics’ and outcomes of what happens when two contrasting elements combine, with the final composition being the result of the outcome of combination.

Part of my interest in combination stems from the two areas of music in which I am engaged: contemporary composition and Anglican cathedral choral singing. I have always been aware of a separation between these two worlds and, until completing *O Clavis David* towards the end of 2022, always accepted this division as being absolute. This acceptance of separation is, perhaps, a reason I had stayed away from composing choral music in the past; however, through composing *O Clavis*, I consciously attempted to combine my performance practice and compositional practice. Partly, this was because the rhythmic aesthetic I had used in previous compositions was not applicable to this piece; therefore, I attempted to compose this piece as a singer using more instinctive and performative approaches in the compositional process. Most compositions in this portfolio contain a form of combination in one way or another, whether it is processual combination or more conceptual forms of combination. This is the area where distance and combination become intertwined.

Another part of my interest in combination looks at combining two contrasting musical elements which, at least on the surface, look like they cannot be combined. It is this middle space between or attempted fusion of two contrasting elements that combination or, in fact, this whole project is based upon. This perhaps stems from my interest in the New Complexity and post-serial ways of parametric composition. Many pieces written earlier on in this project contain separate parametric construction – that is to say, the isolated construction of the rhythm,

pitch, meter, and form. The isolated constructions then become combined together even if they do not fit naturally within each other. This has always been an approach I have used, even if I had not thought about it in terms of combination. This way of composing through parametric separation has been used by many composers in the twentieth-century, not least by composers of the New Complexity. In this chapter, I argue that combination can be created through both polyphonic and non-polyphonic methods to show motion and fluctuations in the space between contrasts, and the resultant physics when the contrasts combine – falling into a fusion and fission spectrum.

Combination occurs when both elements on the spectrum move towards and away from each other. Two things occur here: fusion and fission (or divergence and convergence, or repulsion and attraction), and five possible outcomes are created:

- Superimposition – when both elements can be used simultaneously
- Palimpsest – when an imprint of one element is in the background of the other
- Alternation – when both elements alternate between each other
- Substitution – when one element is erased and replaced by the other
- Erasure – when both elements are erased

During combination, both elements move towards or against each other on a dual movement spectrum, or one element moves towards the other static element on a single movement spectrum. In general, there are two overall ‘physical’ categories of combination: fusion and fission.¹²³ Simply, fusion is when the two elements combine, and fission is when the two elements cannot combine. As shown above with the five outcomes of combination, a fusion/fission binary is not possible, so the outcomes of combination themselves become a spectrum. The spectrum of the outcomes of combination shown in figure 22 will be used in the context of each piece, which uses a form of combination and the process each piece uses.

¹²³ There are different ways in which the physical process of combination can be describe; however, fusion and fission provide a direct, conceptual, and quasi-visual illustration of what I am doing methodologically.

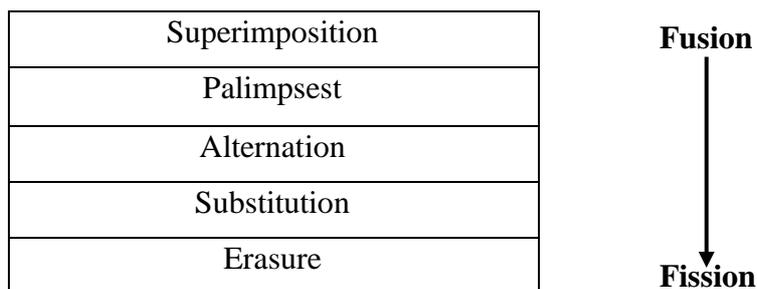


Figure 22: fusion to fission spectrum of combination outcomes

3.2 Palimpsests

In textual studies, a palimpsest is a manuscript page from which the text has been scraped off or washed away in preparation for a reuse of the manuscript page for another document.¹²⁴ In palimpsestic manuscripts, the erasure of the original text remains as a sort of imprint which can sometimes be identifiable and sometimes not under the new manuscript layered over the top. Palimpsests play two roles in my music: first, through combination – that is, when two elements combine with one dominant element in the foreground and the less dominant element in the background like an imprint. Second, through temporality – above, I refer to this as distance through the lens of *ostranenie*. This is when historical techniques through time become eroded through recontextualisation in contemporaneous contexts. Patrick Brendan Foley describes this type of palimpsest of being the layers of time that have built up as well as eroded to form what exists at the present'.¹²⁵ Furthermore, Demetri Porphyrios suggests that ‘the formalist theory of *ostranenie*, with its emphasis on cognitive defamiliarisation, is by no means incompatible with the aesthetics of imitation [through the distancing between the artifact and the model]’.¹²⁶ It is from this idea of distance and recontextualisation between composition and pre-existing material that temporal distance works: another derivation of palimpsests. The main area in which I directly explore palimpsests (through combination) is more concrete and processual. The combination is possible but through a hierarchical understanding of the two elements combining. Owing to the foregrounding and backgrounding of the elements through the hierarchical structure, the element in the background becomes an imprint to the element in the foreground, like that of a palimpsestic manuscript.

¹²⁴ Martyn Lyons, *Books: A Living History* (California: J. Paul Getty Museum, 2011), 215.

¹²⁵ Patrick Brendan Foley, ‘Palimpsest and the Architecture of Time’, Master’s thesis, Virginia Polytechnic Institute and State University, 2010, 15.

¹²⁶ Demetri Porphyrios, ‘Art and Artefact as Palimpsest’, *Perspecta* 49 (2016), 147–52 [149].

3.2 Mono-polyphonic Combination

My interest in polyphony stems from my engagement with Renaissance music and the combination of semi-independent lines. This interest in polyphony—from both a performance and compositional perspective—is why I use combination in my compositions. Mono-polyphonic combination is the combination of two semi-independent, monodic lines (which I refer to as polyphonic threads) to form mono-polyphony or polyphony on a single staff for a solo monophonic instrument. The intention behind using these threads is to combine them to produce the outcomes within the fusion to fission spectrum above. Initially, I referred to this whole process as a superimposition of threads; however, that is not accurate as complete superimposition at all times is impossible – lots of material must be deleted between threads so both can combine. Therefore, the possibilities of combination are, like distance, not a binary yes or no as to whether two elements can combine. Combination requires this spectrum which changes depending on the qualities of the elements combining, so the outcomes are always different depending on context and the control I give myself over pre-determined elements.

3.3.1 *[inter]r[e]act I*

[inter]r[e]act I (2021) for clarinet in B-flat is the first piece written in the portfolio that focusses on the combination of two semi-independent polyphonic threads to create a piece of mono-polyphony. Through this combination, my initial aim was to find points of interaction and reaction between the threads. When planning this composition, my thought behind the combination of threads contained the yes/no binary in that the threads could either combine or they could not. Therefore, initially, the piece only concentrated on reactions and interactions (or fusion and fission) and not the spectrum in between.

The title is a portmanteau of the words ‘react’ and ‘interact’ as points of reaction and interaction are key elements of the piece. This is a process of combination which creates mono-polyphony between two semi-independent polyphonic threads, each of which use material derived from two sources: thread one from Walter Frye’s *Ave Regina Coelorum*, and thread two from Jacob Obrecht’s *Missa Ave Regina Coelorum* (the Obrecht mass is based on the Frye) and I refer to this as a secondary use of pre-existing material.¹²⁷ This piece forms the fundamental

¹²⁷ Secondary uses of pre-existing materials are where compositions use pre-existing material from a source which also uses pre-existing material. In this case, the secondary use of pre-existing material is *[inter]r[e]act I*, the primary use of pre-existing material is the Obrecht, and the source material is the Frye. Another example of secondary uses of pre-existing materials comes in Klaus Huber’s *Tempora* (1970) which uses Bach’s chorale, *Es ist Genug* in combination with Alban Berg’s Violin Concerto. The latter uses a piece which also uses *Es ist*

groundwork for later pieces that explore similar things in slightly different ways. Therefore, it is perhaps sensible to view this piece as an etude which helps form my later work with combination. The construction of separate parameters in each polyphonic thread of *[inter]r[e]act I* is different. Specifically, pitch and rhythm are constructed using either the Frye or Obrecht material as starting points. The metrical and tuplet networks are not generated using existing material, but they are detailed below. I will lay out these constructions before explaining how the threads combine.

Time Signatures

Both threads use the same time signature cycles for practical reasons when it comes to the combination of both structures – this is an example of using interrelationships between the threads to keep the integrity of the polyphony. The piece is split into four sections (A, B, C, D) and each of these sections hold different metric tempo relationships and different time signature cycles.

Section A: time signatures are derived from a self-created number cycle: 6, 4, 7, 2, 5, 8, 6, 8, 4, 2, 9, 4, 7, 2, 8, 8
Section B: time signatures are derived from a rearranged Fibonacci sequence combined with another Fibonacci sequence beginning on a different number to produce the sequence: 2, 3, 5, 6, 8, 9, 13, 15
Section C: time signatures are derived from Recamán's sequence (excluding 0 and 1): 3, 6, 2, 7, 13, 20, 12, 21, 11
Section D: time signatures are derived from the prime number sequence: 2, 3, 5, 7, 11, 13, 17, 19

Figure 23: time signature structure for [inter]r[e]act I

Pitch in Thread 1

The pitches here are split into two separate intervallic pitch groups for each section along with their transpositions. The group 1 (or 'A') pitches are derived from the corresponding section A time signature sequence shown, the group 2 (or 'B') pitches are derived from the section B

Genug. See Klaus Huber and Claus-Steffen Mahnkopf, *From Time – to Time: The Complete Oeuvre* (Kassel: Wolke, 2010), 165–168.

sequence, etc. This produced the following sequences from which I produced each pitch sequence for each group:¹²⁸

Group 1 (A) 1) 6, 4, 7, 2, 5, 8, 6, 8 2) 4, 2, 9, 4, 7, 3, 8, 8
Group 2 (B) 1) 9, 6, 5, 15, 2, 3, 13, 9 2) 5, 10, 4, 16, 1, 4, 12, 9
Group 3 (C) 1) 3, 6, 2, 7, 13, 21, 12, 21 2) 11, 4, 5, 3, 6, 14, 19, 13
Group 4 (D) 1) 17, 3, 13, 7, 5, 18, 3, 11 2) 14, 16, 4, 6, 6, 17, 3, 10

Figure 24: interval sequences for pitch in thread 1

Pitch in Thread 2

The pitches used in this thread are taken directly from Frye's *Ave Regina*. The pitches are sourced from the superius part of the Frye and are segmented into seven groups. Each of these groups become seven different *colors*. The pitches are shown in figure 25:

1) C, A, B ♭, D, C, A, G, B ♭, A, G, F, E
2) A, A, G, F, A, G, C, B ♭, A, G, F, F, E, F
3) A, G, B ♭, A, G, F, E, D, C, G, F, E, D, C
4) C, B ♭, A, G, E, F, G, E
5) C, D, E, C, G, A, B ♭, C, A, G, A, F, E, G, F, E, D, C
6) F, G, B ♭, A, G, F, F, E, F
7) E, D, C, G, A, B ♭

Figure 25: seven pitch colors in thread 2

The seven *colors* in figure 25 match with the rhythmic *taleas* shown in figure 28. In addition to the isorhythmic structure used in thread 2, I interrupt the structural flow by inserting a direct reference to the Obrecht in every quadruplet or octuplet, where I use either a descending or ascending scalic tetrachord, something which occurs frequently throughout the Obrecht

¹²⁸ Each number, apart from the first of the series which refers to the pitch class number of the 24TET scale, refers to the size of the interval between each pitch: 1 = 1/4 tone.

mass.¹²⁹ These insertions act as a sort-of layering of references: an extra palimpsestic aspect to the implementation of the pre-existing source. Layering is used as a fundamental aspect of my quintet, *NORIBERGHENSIVM 1699* which I discuss in detail below.

Rhythm in Thread 1

Two rhythmic fragments from the Obrecht mass are used in *[inter]r[e]act I*. The first is used in its original form in every dectuplet and is the exact ten-beat rhythmic fragment shown in figure 26. The second is implied in all the octuplets in thread 1 and is formed from a specific rhythmic fragment in the alto part of the Obrecht. In addition to these uses of specific fragments of Obrecht’s rhythm, I use a rhythmic construction process for the rhythm where the two rhythmic derivations above do not cover. These rhythms are constructed using the four-stage process shown in in figure 27:

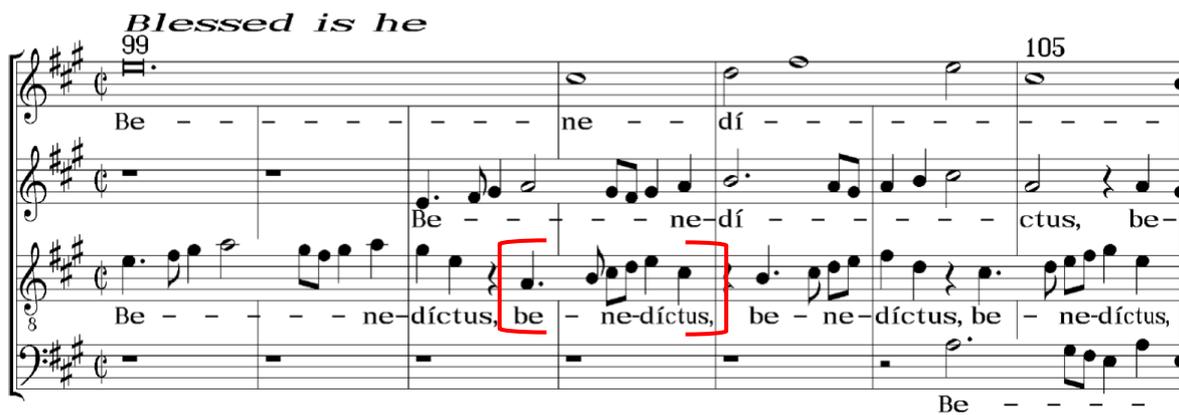


Figure 26: bb. 99–105 of Jacob Obrecht’s ‘Benedictus’ from *Missa Ave Regina Coelorum*

¹²⁹ I analyse this tetrachordal quotation in greater detail under the ‘Rhythm in Thread 2’ subtitle.

Stage 1:

A basic subdivision of the tuplets into a regular pulse which fits into the structure of tuplets already inputted

Stage 2:

Random fragments within the basic subdivisions of the pulse go through an intuitive modification of nested tuplets.

Stage 3:

A number sequence is used to highlight further fragments as a filter to the nested tuplets through the introduction of dots and ties.

Stage 4:

A combined number sequence is used to introduce rests to stage 3 constructing a final skeleton rhythmic plan for thread 1.

Figure 27: rhythmic construction process in thread 1

Rhythm in Thread 2

The rhythm in thread 2 transforms some of the existing tuplet structures by cyclically inputting the superius part of Frye's *Ave Regina Coelorum* in the piece. This is not a direct quotation of the Frye, but an implied use of the material which fits into, or fuses, with the tuplet structure using isorhythmic techniques. The seven *taleas* that match with the seven *colors* above are shown in figure 28.¹³⁰ Similar to the rhythm in thread 1, every quadruplet in thread 2 uses four quavers in an either ascending or descending stepwise motion referencing multiple similar motifs in the Obrecht, as seen in figure 29.

- 1) 6, 4, 2, 4, 2, 4, 2, 2, 2, 1, 1, 6
- 2) 4, 4, 4, 4, 2, 2, 3, 1, 2, 3, 1, 4, 2, 4
- 3) 4, 4, 4, 4, 4, 2, 4, 4, 2, 4, 2, 4, 4, 4
- 4) 4, 2, 4, 2, 2, 2, 2, 4
- 5) 2, 2, 2, 4, 2, 2, 2, 4, 2, 4, 4, 2, 2, 3, 1, 1, 1, 4
- 6) 2, 2, 2, 4, 1, 1, 4, 2, 6
- 7) 8, 4, 4, 2, 4, 4

Figure 28: seven rhythmic taleas in thread 2

¹³⁰ The number refers to the number of beats that the note is worth. The number of beats is relative to the pulse within the relevant tuplet it is being inputted into.

in the name

Figure 29: bb. 120–126 of Jacob Obrecht’s ‘Benedictus’ from Missa Ave Regina
Coelorum

Process of combination

[inter]r[e]act I is the first piece in this project which combines two contrasting elements. In this case, it is the combination of two somewhat contrasting polyphonic threads. This type of combination, in theory, creates a superimposition and a substitution of the threads. However, owing to the similarity (and autonomy) of material used in both threads, and the abundance of nested tuplets, superimposition did not really take place, apart from only very infrequently – substitution was the main result of the combination. My intention before composing the piece was to have a post-combination result of either fusion or fission which did not work because of the autonomy of material between both threads (or lack of interrelationship). The high level of autonomy between threads creates similar textural densities which makes fusion practically impossible. In the context of this methodology, too much autonomy produces more predictable results in that substitution is needed to make the combination work. This exemplifies the point that pre-determined interrelationships are needed between the threads to allow combination to create a successful form of mono-polyphony, and not just assemblage. In short, the lack of interrelationship means that specific mono-polyphony is not actually produced. Owing to this, substitution is the main outcome of the combination meaning that the result of combination is more fission than fusion. This is not to say that the piece ‘failed’ as such; however, it laid down further considerations to be taken for a fusion of threads to occur to form mono-polyphony. For superimposition to work, a degree of interrelationship is required. In other words, the two elements on the dual movement spectrum did not move close enough together for successful forms of combination to occur.

This led me onto noting down areas which needed a certain level of control to pre-empt the results of the combination, so the results were not completely spontaneous and contained more control in terms of the interrelationships between threads, and less autonomy between the elements on the dual movement spectrum. These areas consist of the tessitura between threads; polyphonic interrelationships; a pre-empting of combination; and a control of textural intensity within each thread. I took these four areas and applied them to both *Occulta Scientia Siderum* and *Lux Obscurata*, both of which directly relate to *[inter]r[e]act I* in the sense that they deal with the outcomes and findings behind producing superimposition that the piece encountered. Therefore, the two pieces below are denoted as being natural offshoots from *[inter]r[e]act I*.

3.3.2 *Occulta Scientia Siderum*

Outside of the explorations of distance spectra I laid out earlier in this thesis, *Occulta Scientia Siderum*, also examines superimposition and substitution as specific pre-determined results of the combination between two polyphonic threads, refining and detailing the intentions behind *[inter]r[e]act I*. This, like *[inter]r[e]act I*, creates mono-polyphony with substitution and superimposition, but with a pre-determination of when and where the substitution and the superimposition occur. To address the outcomes encountered in *[inter]r[e]act I*, I take the four areas I refer to above as a starting point in *Occulta*. In addition to using the pre-planned list of incrementally increasing pitch and rhythmic construction densities to give a textural plan for each thread, and by creating a plan of fluctuating textural densities pre-determining where the two threads would result in substitution and where they would result in superimposition, I planned a range of fluctuating tessituras to give more impetus to the fluctuating distortion levels, adding a further vertical dimension to the mono-polyphony. Finally, I ensured that I was aware of how the polyphonic threads related to each other, so the pitch and rhythmic material was not arbitrary when combined, but contained relationships, a sense of coherence, and less spontaneity.

The polyphonic threads essentially hocket Dunstaple's *Ascendit* throughout the piece. In the first half of section A (bb. 1–19 in figure 30), polyphonic thread 2 contains the original material from *Ascendit* whilst polyphonic thread 1 contains material *derived* from *Ascendit* but manipulated according to parametric construction densities. From b. 20 onwards in figure 30, the threads begin to hocket: thread 1 now takes the material from *Ascendit* whilst thread 2 takes the material constructed according to the construction densities. The original material from

Ascendit is present throughout the piece but is adapted using primary tuplets to fit into the time signature network.

I will only focus on bb. 1–19 to provide an insight into how the threads are combined to create the final piece – the succeeding sections of the piece use the same process to achieve the results. Figure 30 shows the pre-compositional plan for bb. 1–19 with the succeeding bb. 20–21 where *Ascendit* is hocketed to thread 1. Once the material has been inputted into both polyphonic threads in the pre-compositional structure, the combination takes place to form the final version (see bb. 1–25 in full score). Below, I introduce the process and outcomes of combination along the dual movement spectrum (where each thread sits at the opposite end of the spectrum), and how the pre-compositional structures are combined to form mono-polyphony.¹³¹

¹³¹ The relationships between the separate threads in figure 28 can be seen in comparison to the combined threads in the full score

Thread 1

Thread 2

5

7

11

13

2

$\text{♩} = 288$

Figure 30: bb. 1–21 of the two polyphonic threads of Occulta Scientia Siderum. Note that this is not transposed

Once the basic combination of the two threads is complete, the mono-polyphony is either ‘possible’ or ‘impossible’. When the polyphony is possible—that is to say, when both polyphonic threads are playable at the same time such as b. 20 in the full score—the result is that of superimposition, because the threads can be combined and played together without any alteration. When the polyphony is impossible—when too many notes are present to be played at the given tempo, or when two sustained notes are written at the same time—the result is either substitution or palimpsestic. Two main methods are used to counteract this: The first is to ask the performer to sing through the instrument (palimpsestic); and the second is to substitute one thread with another according to a hierarchical understanding of their interrelationships (substitution).

The simplest way around polyphonic impossibility is through vocal multiphonics. For example, b. 8 in figure 30 contains a sustained note in thread 2 meaning that polyphony is impossible if the integrity of both threads is to be maintained. I turned the sustained note in thread 2 into a vocalised note in the final score, whilst thread 1 is played conventionally (see b. 8 in full score). Multiphonics which include one of the pitches in either of the two threads as the fundamental are also used. Both are palimpsests, as an imprint of one of the threads is left over with a more dominant thread taking over.

Where the polyphony is impossible and vocalisations or multiphonics are also impossible (or ineffective), substitution is used. This is undertaken through a deletion of one of the threads according to intuitive hierarchies between the threads. Substitution is always monophonic and never mono-polyphonic due to one of the polyphonic threads being completely deleted out of the texture. The monophony offers a contrasting sound to the mono-polyphony as it tends to be smoother and less angular than the latter. To choose which thread is to be deleted, I formed an intuitive hierarchical structure between two threads at the given time. I deleted the thread which, to my mind at the point in the piece, was the least interesting and contextual to what preceded or succeeded.

Occulta is a piece which, like *[inter]r[e]act I*, acts as an etude dealing with the methodologies of simultaneously combining two polyphonic threads to result in superimposition, palimpsests, and substitution. Through the simultaneity of the methodology, the elements which this piece explore are two-fold: first, the combination to produce either superimposition, palimpsests, or substitution; and second, using fluctuating distortion levels as a tool to create fluctuations of

distance to and from a source of pre-existing material as detailed above. Furthermore, *Occulta* successfully deals with the outcomes encountered in *[inter]r[e]act I* and exemplifies the need for a higher degree of control over the pre-determined elements of the compositional process to reduce the spontaneity in the combination and create more interrelated forms of monophony and mono-polyphony.

3.3.3 *Lux Obscurata*

Lux was composed simultaneously with *Occulta*. Both pieces examine distance in a different way (as shown above), and both use mono-polyphony through different forms of combination. Both *Lux* and *Occulta* use two polyphonic threads, but *Lux* uses a static thread which directly quotes the vocal line of Pilkington's *Thanks, Gentle Moon* as a CF. This means that, apart from the odd octave displacement and rhythmic change to fit within the time signature structure, the Pilkington material is used as a direct quotation from which the other polyphonic thread fluctuates in distortion level around the CF. This differs from *Occulta* where *both* threads have their own plan of fluctuating levels of distortion.¹³²

Thread 2 uses material constructed out of derivations of the directly quoted Pilkington material in the same bar to produce mono-polyphony. This means that the combination is done on a bar-by-bar basis, as opposed to constructing two threads independently and combining them together – there is less of a pre-compositional approach in *Lux* compared to *Occulta*. The material is constructed using the distortion levels outlined above and, as the material is combined during the actual compositional process (as opposed to pre-compositional process) the mono-polyphony is always 'possible'. This means that the result of the combination is that of superimposition, again suggesting that a superimposition as a whole result can only be possible if a certain amount of control of autonomy between the threads is allowed, as well as less spontaneity in the combination. *[inter]r[e]act I*, *Occulta* and *Lux* are grouped as three

¹³² I do not intend on detailing the pitch and rhythmic construction processes for this piece as the way the material is combined is most important (I use similar processes to *Occulta* to construct pitch and rhythm). *Lux* uses two polyphonic threads (thread 1 is the CF, and thread 2 the material that surrounds the CF). The time signature structure also acts as a tool to move the distance of the c.f away from the original Pilkington material - The time signatures at the beginning of the piece are constructed by fragmented phrases from the Pilkington material. These time signatures develop from the original sets into new sets causing the metrical shifts in the CF. This is done through metrical and temporal shifts and, also, through the scordatura tuning of the guitar which alters the CF by quartertones in places (The scordatura is as follows: E-A-D are tuned as normal, G is a quartertone flat, B a quarter tone sharp, and top E a quartertone flat. My intention behind the scordatura was, first, to make me actively think about the tessitura; and second, to slightly alter the higher register of the CF.

compositions that use combination to create mono-polyphony in related yet individual ways, with all producing different outcomes along the fusion to fission spectrum.

3.4 Polyphonic Combination

Polyphonic combination is the combination of multiple threads between multiple instruments where mono-polyphonic combination is the combination of threads within a solo monophonic instrument. In this context, polyphony can be single threads applied to each instrument and combined to form polyphony or the two-stage combination of mono-polyphony where two or more threads are combined for a solo instrument and then further combined with other instruments which are mono-polyphonically combined. This is a more historical approach to polyphony where there are pre-determined interrelationships between multiple instruments which create polyphony through a combination of threads.

3.4.1 *[inter]r[e]act III*

[inter]r[e]act III (2023) for flutes and clarinets takes and combines mono-polyphonic fragments from *[inter]r[e]act I & II* (the latter of which I will discuss below), as well as *Occulta* as the main body of material. I split the mono-polyphony into (absolute) polyphony between the flute and the clarinet giving a different perspective on combination. Whilst this piece is not a specific exploration of combination or distance (it is more of a secondary exploration of these concepts using the basis of explorations in previous pieces), by splitting the polyphonic threads between two instruments, I had scope to use more articulations than is possible in mono-polyphony. This means that a different perspective or type of combination of the material in the previous pieces is opened. This piece provides an example of singular polyphony in that the polyphony is formed through two monophonic lines split between two instruments. This piece is an example of separating existing combined polyphonic threads back into their monophonic state. There is another version of this composition where I combine the original polyphonic threads into polyphony (as opposed to mono-polyphony); however, the three steps of combination and decoupling is interesting in that it is another example of distance to the original thread constructions. The combination process goes through numerous stages meaning that the distance from the original thread constructions becomes blurred and recontextualised, offering a further example of *ostranenie* within my own pieces across my output.

3.4.2 ...a mist fell from my eyes...

The pitch and rhythmic material in ...a mist... use similar processes of fluctuating levels of distortion as used in previous solo pieces, this time relating to Grieg's *Peer Gynt*. However, the mono-polyphony is contextual within larger-scale polyphony between four instruments. I assigned each of the four instruments two polyphonic threads, creating eight threads throughout and, following this, created a network of when each thread was silent and when it contained material. This network formulates a fluctuating textural intensity both locally within the instruments themselves and globally on the formal level. On the local-level of material construction, the threads are paired in different duos throughout so that the material can be used within a derivation or adaptation of a double canon at the minor 9th.¹³³ This relates to the temporal string of compositions referred to in the context of *O Clavis* as this string quartet extends the perspective of polyphonic and textural fluctuation by including both global and local levels of this. In other words, it is a contextualisation of the mono-polyphonic technique used in the solo pieces within a larger scale, absolute polyphony between instruments. This means that the interrelationships between the threads occur between different instruments as opposed to the same instrument.

3.5 Assemblage

According to my description above, polyphony is something more specific than an assemblage of multiple parts – polyphony is the combination of two or more separate threads which, to my mind, needs a loose connection to the historical uses of polyphony otherwise it becomes assemblage. This means that, when taking a more global view of combination, it becomes assemblage as opposed to being polyphony; however, *elements* of polyphony (which are outlined above) are still present but seen as tools of my compositional palate as opposed to a whole process.

3.5.1 [*inter*]*r*[*e*]*act II*

The three of [*inter*]*r*[*e*]*act I*, *Occulta* and *Lux* stand as foundations (especially [*inter*]*r*[*e*]*act I*), which explore the combination of two polyphonic threads in different ways and through differing levels of autonomy between the threads. It would be reasonable to suggest that these

¹³³ The interval of a minor 9th is used with what I refer to as aggregate pitches around the minor 9th. That means all intervals up to a semitone either side of the minor 9th.

three pieces lay down the basics of my technique which I apply elements to in the processes of later pieces in the portfolio, which are less etude-like. The clearest application of the techniques are used in *[inter]r[e]act II* for solo double bass, which was completed in late 2022 and performed by Shaya Feldman in Tel Aviv as part of the 2023 CEME Festival.

[inter]r[e]act II was written more than a year later than *Lux* but still concentrates on the idea of a combination between two contrasting elements in a way like the three pieces above. The pieces written between *Lux* and *[inter]r[e]act II* take combination and distance towards a different direction, where *[inter]r[e]act II* revisits some of the concepts used previously and expands on them in a non-etude-like context. This piece looks at combination in a more global perspective, concentrating on combining two contrasting types of material, as opposed to polyphonic threads. I name the material types as ‘mono-polyphonic material’ and ‘timbral material’. The former looks at the CF technique of combination used in *Lux* using the tenor line of Monteverdi’s *Nigra Sum* from his 1610 *Vespers* as the CF. The latter looks more instinctively at the sounds (usually non-pitch-centric) the double bass can produce, prioritising this over rigid or systematic parametrical constructions. This offers enough of a contrast between the two types of material whilst still allowing the possibility of combining the two together to form a combination between them. The two types of material can also be distinguished by defined pitch material and unpitched material. Like the semi-autonomous threads in *[inter]r[e]act I* and *Occulta*, I essentially compose two pieces of music: one for each of the types of material.

The title is part of the text in the Song of Solomon, ‘Nigra Sum’ which, as stated above, is a tenor solo movement in Monteverdi’s *Vespers*. Following on from the titling of other pieces in the portfolio, it references my performance practice as a singer in the Anglican choral tradition. *Nigra Sum* by Monteverdi is a piece in my repertoire as a singer and is the primary reason why it is used in *[inter]r[e]act II*. In addition, the musical material of *Nigra Sum* repeats, giving the opportunity to adapt the same material in both material types. Repetition in the pre-existing source materials I use has become something I am drawn to. This is mainly because of the ways in which I can adapt the same material within my compositional processes, and it also acts as a limit or constraint on the amount of material I can construct, leaving more space for material development.

The way the combination works is pre-determined through the metrical structure of the piece. The metrical structures of both material structures begin the same and then become independent. When the time signature structures are the same, the material types alternate between each other; when the time signature structures are different, the material types combine (in different ways) with each other. I leave blocks without any musical material in each of the material types so both types of material alternate between each other creating the textural and timbral contrasts I refer to above, resulting in alternation. This could arguably be substitution; however, neither material types are substituting or replacing each other, they are otherwise alternating *with* each other.

Outcomes of alternation and palimpsests are exhibited towards the end of the piece where the metrical structures become independent. For this reason, I will focus on the material from b. 63 to the end. This is the point where the two metrical structures become independent and contrast each other. Here, a combination of both material types repel against each other creating an alternation between the contrasting material. In b. 63, the *sul pont.* figures form a juxtaposition to the more pointed and angular (and louder) figures which then form a brief mono-polyphony in bb. 64–65 (see figure 31).

Figure 31: bb. 62–65 of [inter]r[e]act II. Polyphonic material: yellow; timbral material: green

This piece exhibits a fast alternation between the two contrasting elements and is thus not a form of fusion, but a form of fission. The new metrical structure is produced out of a combination of the two independent metrical structures. This was not the preliminary intention but is the result of the methodology I set out to combine two contrasting materials. To complete

this metrical combination, I combined both material types onto a single staff without the time signatures and added time signatures in the necessary places which fit into the linear motion of the phrases. Therefore, in conclusion, this piece, at least in terms of material combination, does not go further than alternate between two contrasting types of material at fluctuating speeds. However, towards the end of the piece, metrical combination occurs creating an erasure of both existing metrical structures and creating a new structure out of the fusion of both. This also proposes that actual mono-polyphonic and polyphonic outcomes tend toward resulting in fusion. More detailed approaches to metrical fusion is an area that I plan on exploring after this project and is thus an offshoot provided by this project.

3.5.2 *reliquiae, löschen*

This piece contains two types of notational material, intentionally set to be two contrasts which eventually combine. The result of the combination was pre-determined to be that of substitution and alternation. In the more indeterminate type of notation (type 2 notation), my intention was to take away precise elements of pitch and replace them with a semi-indeterminate registral notation type within a 3-line staff. The top line denotes the performer's extreme high register, the middle line being the middle register, and the bottom line being the extreme low register (see figure 32). The spaces in between denote the register in between middle and extreme high, and middle and extreme low respectively.

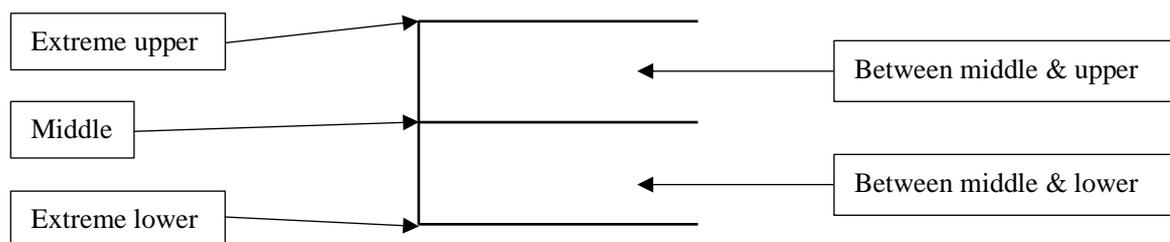


Figure 32: *indeterminate three-line staff in reliquiae, löschen*

This led me to thinking instinctively about contour and shape as opposed to the more precise notation type 1 subsections, and to readapt some of the deleted material from the type 1 notation subsections. This form of deletion is a type of erasure in that it is reused in a different context. This means that combination here works on two levels: first, through the alternation between two contrasting notation types; and second, through the readaptation of deleted material from previous sections used in new contexts, almost as residues of preceding material which I view

as a different dimension of a palimpsest, as well as links to *ostranenie* in that there becomes a distance and recontextualisation of material within the same piece.

The structure of the piece *could* be split into seven sections, each of which would be assigned a skeleton tableau and one of the seven phrases (in chronological order) of the Nörmiger (see figure 12 above). However, this fusion between movement (which itself contains seven sections) and musical structures would be the same in a metrical sense, reducing the points at which the two would produce fission. It was not my intention to make the types of material cohesively fuse together but, rather, pre-determine points where fission would occur. To aid this, I used the first five phrases of the Nörmiger (as opposed to all seven) to create five sections of musical formal structure. This means multiple formal structures are moving simultaneously – the movement structure, with seven sections, and the musical structure with five sections, so a five against seven combination. The most surface-level and distinct structure is the movement structure as it is visual both on the score and in performance. This does not, however, link too closely to the musical formal structure which is constructed using an alternation between notation types: type 1 is determinate, and type 2 is semi-indeterminate. These notation types alternate throughout and have a loose connection to the movement structure in that static tableaux are assigned to type 1 notation, and the movements to the next tableaux are assigned to type 2 notation. Each musical section contains one of each type of notation meaning that there is an alternation between the two in each section whilst the movement structure works simultaneously.

Like *[inter]r[e]act II*, the more global perspectives on combination become more distant from actual polyphony. These two pieces form examples of assemblage through combination and are perhaps more akin to what Cassidy refers to as so-called ‘structural polyphony’ in *metallic dust*. Both pieces remove constraints on the local-level of combination and combine contrasts on the global-level.

3.6 Layering

Layering is related to collage in the sense that new material is laid on the top of old material. I use layering to pre-determine a palimpsestic or, sometimes, superimposed outcome of combination. In relation to combination, layering offers a different dimension (in terms of the axis) of how material can be combined. As opposed to a direct combination of two polyphonic

threads which, to my mind, is like horizontal combination, layering is more vertical or three-dimensional as the new material is being placed *on top* of the old material. In terms of the combination spectrum, the new element moves towards the old element, whilst the old element moves to adapt to the new element.

3.6.1 *NORIBERGHENSIVM 1699*

NORIBERGHENSIVM 1699 (2021, rev. 2022) is a complete rewrite and revision of my piano trio, *Beyond Borrowed Time* (2021, now removed from my oeuvre but included in the appendix for reference in this thesis). First, it is worth briefly discussing my intentions behind *Beyond Borrowed Time* and why I think the piece did not work. *NORIBERGHENSIVM* is scored for the piano trio (piano, violin, and cello) plus bass clarinet and flute.

Beyond Borrowed Time was written when I was engaged with looking at different modes and typologies of using pre-existing material.¹³⁴ The focus of this piece was on temporal or metrical borrowings and took the time signature structure from Stockhausen's *Klavierstück I* (1952), using the structure shown in figure 33. The structure of the piece is loosely based on sonata form (see fig. 34.1–2), but this relationship is very loose and whilst it could be viewed in the perspective of technical distance, the connection is a little too loose for it to be a successful approach to investigating this. It is worth noting that, in *NORIBERGHENSIVM*, I do not rigidly stick to the time signature structure in figure 33, but add, remove, or edit accordingly depending on the new material and my intuition.

<p>5/4, 2/4, 3/4, 3/8, 4/4, 6/4, 3/4, 4/4, 2/4, 5/4, 4/4, 2/4, 6,8, 6/8, 6/8, 4/4, 2/4, 2/4, 5/16, 5/16, 5/16, 5/16, 2/4, 3/4, 6/4, 2/16, 5/16, 5/8, 5/8, 6/8, 6/4, 2/4, 2/4, 2/4, 4/4, 9/16, 3/16, 2/4, 4/4, 5/8, 5/8, 5/8, 2/4, 2/4, 2/4, 2/4, 4/4</p>
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(+ retrograde straight after to form a temporal palindrome)

Figure 33: time signature structure in Beyond Borrowed Time

¹³⁴ At the time, I referred to this as musical borrowing.

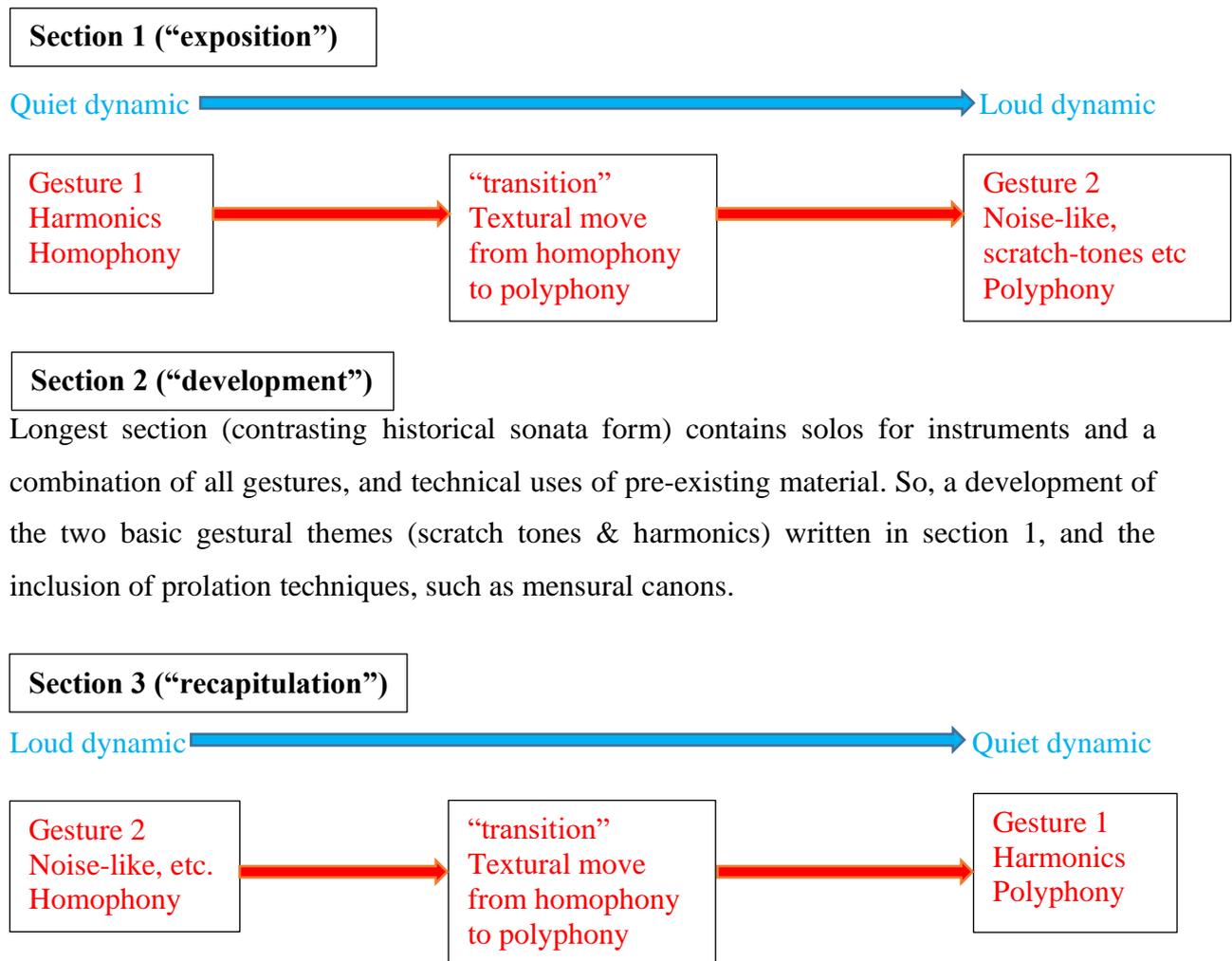


Figure 34.1: basic formal structure of *Beyond Borrowed Time* loosely related to sonata form

Section 1 (24 bars)			Section 2 (47 bars)					Section 3 (23 bars)		
Gesture 1 (9 bars)	Transition (6 bars)	Gesture 2 (9 bars)	Violin solo (12 bars)	V+C duo (5 bars)	Cello solo (12 bars)	Piano solo (9 bars)	Tutti (9 bars)	Gesture 2 (8 bars)	Transition (5 bars)	Gesture 1 (10 bars)

Figure 34.2: bar lengths in each section of *Beyond Borrowed Time*

In short, I decided to revise *Beyond Borrowed Time* simply because I was not happy with the way the piece was structured and the way the material was distributed, developed, and implemented. Also, the links to the pre-existing time signature structures were somewhat loose and arbitrary and I thought there was space to apply more of my compositional interests to the piece to recompose it.

NORIBERGENSIVM takes the outline of *Beyond Borrowed Time* as its starting point, but with both the structure and pitch/rhythmic material being heavily revised. The structure of the piece is the first parameter I revised. There was too much material in *Beyond Borrowed Time* that was placed within single instruments, with the violin and cello playing highly complicated double stops to cater for the amount of material and dense information within the parts. Therefore, to counteract this, I added the flute and bass clarinet—two instruments that use similar registers to the violin and cello respectively—to redistribute the material.¹³⁵ After I completed a basic sketch of the redistribution of material, I found that the piece is split into six main bodies which I made into six different movements.

From this change to a six-movement piece, I utilised the number six itself in the revision. This led me to using a source of pre-existing musical material in the piece which also utilises the number six. The first piece which came to my mind was Johann Pachelbel's *Hexachordum Apollinis* (1699), which is split into six movements of both arias and variations. Each movement in *NORIBERGHENSIVM* takes a fragment from the related movement of the Pachelbel (movement one of *NORIBERGHENSIVM* uses material from movement one of *Hexachordum* etc). The number of fragments used relate to the date that *Hexachordum* was composed: 1699 – I use either one, six or nine fragments of Pachelbel's material in each movement of *NORIBERGHENSIVM* to produce fewer or more combinations depending on the number. These fragments are used as layers on top of the material already present from *Beyond Borrowed Time*. Therefore, they appear as fragmental palimpsests almost in reverse: the temporally 'old' material (*Hexachordum*) is layered on top of the temporally 'new' material (from *Beyond Borrowed Time*). Combination in this context comes in the form of layering and intuitively adding references and fragmental quotations into the already present material, so it results in being palimpsestuous, fusing all the forms of material together. Again, this demonstrates a more vertical approach to combination. This could be seen as an example of forced fusion as the new material is forced on the old material and not thought of in terms of interrelationship. In other words, I *make* the material work in the next context; both elements move towards each other to adapt to the combination.

¹³⁵ This also links to *[inter]r[e]act III* where I rewrite monophonic polyphony into actual polyphony. Whilst the redistribution of material is undertaken for a different reason, both pieces broaden the polyphonic magnitude and redistribute mono-polyphony into actual polyphony.

By revising *Beyond Borrowed Time*, it allowed me to apply compositional interests into *NORIBERGHENSIVM* which were not in the forefront of my mind when writing *Beyond Borrowed Time*. This created an opportunity to use combination more concretely through layering, again with a pre-determined, palimpsestuous result. Other compositions in this portfolio use layering as a technique within the pre-compositional structure so the layers themselves are only visible to me as they become the material in the final piece. The difference between *NORIBERGHENSIVM* is that the additional material is intuitively layered on top of the old material, and this is comparable between the scores of *Beyond Borrowed Time* and *NORIBERGHENSIVM* as opposed to being within compositional sketches or plans.

3.6.2 *Occulta Scientia Siderum*

After the combination of the two threads in *Occulta* was complete, additional layers were added to the score with the intention of providing this further vertical dimension to combination. These additional layers come in the form of indeterminate vocalisations—which semi-graphically follow the linear contour of the directly quoted material from *Ascendit*—and are added to the piece, e.g., bb. 61–67. These indeterminate vocalisations are used as hidden references to *Ascendit*. In addition to the vocalisations, I also make use of the interval of a third (both major and minor, as well as compound), which are added at random points throughout the piece based on intuition. To insert the additional intervallic third material, bars are either added in random spots throughout the score, or completely replaced, which also adds a further element to the resultant substitution. The intervallic third material is significant as Dunstaple developed the *contenance angloise* style which is characterised by triadic harmonies, and is the reason why this specific interval is used (see figure 35).¹³⁶ The intervallic third material are treated as references to Dunstaple; they act as moments that interrupt the textural narrative of the piece and also offer, to use Tarnawska-Kaczorowska’s label, a ‘cryptic’ reference to *Ascendit* (or to Dunstaple in general), similar to the vocalisations above.

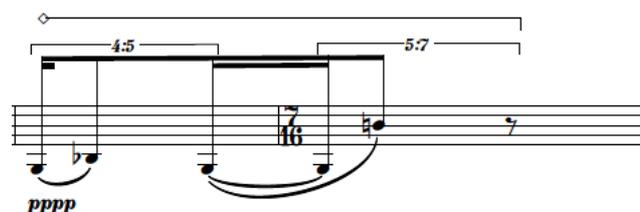


Figure 35: bb. 18–19 of *Occulta Scientia Siderum*. The intervallic third reference

¹³⁶ See Margaret Bent, *Dunstaple* (London: Oxford University Press, 1981).

3.7 Textual

Textual forms of combination move away from directly ‘musical’ forms of the approach. This concerns the combination of two contrasting texts to create a new text which contains elements of both original texts which is done by pushing the two texts as close to each other as possible. In the case of this project, it always results in a palimpsest as both texts are always present but one of the texts is more dominant than the other, but further explorations of this (where other outcomes are the result) are possible.

3.7.1 *reliquiae, löschen*

The text is a macaronic combination between two different texts: Johann Wolfgang von Goethe’s *Totentanz* (1815) and the final text in the Catalanian *Llibre Vermell de Montserrat, Ad mortem festinamus* (1399). Both texts not only work simultaneously but go one step further by fusing into one another. Multiple texts concurrently working at the same time is an influence taken from Aaron Cassidy’s *I, purples, spat blood, laugh of beautiful lips* (2006) for voice and live, computer-generated pitch material. In this piece, Cassidy combines three closely related texts which are translations of each other: Arthur Rimbaud’s *Voyelles*, Christian Bök’s *Voile*, and an English translation of the Rimbaud text.¹³⁷ In this, the three texts are not only closely related, they are variants of exactly the same text – the Rimbaud is the original and the English is *Voyelles* translated whilst Bök’s *Voile* is a homophonic translation of the Rimbaud in which the *sounds* of the words, rather than their semantic meanings, are translated from French to English.¹³⁸

In *reliquiae, löschen*, my intention was to move in a different direction from the Cassidy and combine two homophonically contrasting texts but semantically (at least in terms of the subject matter: the *Totentanz*) similar. The Goethe is in German and *Ad mortem* is in Latin, creating a fused macaronic text. The fusion of texts work by assigning phrase pairings from each text as shown through the matching colour-coded texts in figures 36.1–2.

¹³⁷ ‘I, purples, spat blood, laugh of beautiful lips’, Aaron Cassidy, 2023, <https://aaroncassidy.com/product/i-purples/>.

¹³⁸ Ibid.

Der Türmer, der schaut zu Mitten der Nacht
Hinab auf die Gräber in Lage;
Der Kirchhof, er liegt wie am tage.
Da regt sich ein Grab und ein anderes dann:
Sie kommen hervor, ein Weib da, ein Mann,
In weißen und schleppenden Hemden.

Figure 36.1: first stanza of Goethe's Totentanz. Each line of the stanza is colour-coded to match with the colour in figure 36.2

Vita brevis breviter in brevi finietur,
Mors venit velociter quae neminem veretur,
Omnia mors perimit et nulli miseretur.
Ad mortem festinamus peccare desistamus.

*Ni conversus fueris et sicut puer factus
Et vitam mutaveris in meliores actus,
Intrare non poteris regnum Dei beatus.
Ad mortem festinamus peccare desistamus.*

Figure 36.2: Ad mortem festinamus from Llibre Vermell de Montserrat. Colour-coding relates to figure 36.1

I use five of the six colour-coded combinations of the two texts seen in figure 36. I erase the final highlight (teal coloured highlight) of each text so I can assign a text chronologically to one of the five musical sections. This works by using the vowels of one of the texts and the consonants of the other and vice versa. In the type 1 notation, the vowels of the Goethe are fused with the consonants of *Ad mortem*, and they swap in the type 2 notation sections – the vowels of *Ad mortem* are fused with the consonants of the Goethe. This results in a palimpsest of both texts from the fusion process. This is because one text contains a more dominant element (the vowels) whilst the other contains the less dominant element (the consonants). Cassidy's use of textual combination could be viewed as being superimposition and alternation as all three texts are present; they are sometimes fused together and sometimes they quickly alternate between the two to create an allusion of superimposition. In the context of text in *reliquiae, löschen*, specifically vowels and consonants, they both substitute each other creating a new text which contains the consonants of one and the vowels of the other, and vice versa

which forms a palimpsestic version of the texts: in a sense, a new language. I propose that vowels are the more dominant element of text in comparison to consonants; therefore, when the vowels of a text are used, that text becomes the dominant text within the textual palimpsests whilst the consonants are the palimpsestic imprint or residue.

3.8 Summary

The two types of movement spectrum are results of my interest in viewing the use of pre-existing material in the context of distance as opposed to a yes/no binary. This use of distance spectra, both locally and globally (i.e., polyphonically and non-polyphonically), gives practical, theoretical, and conceptual approaches to the use of pre-existing material in my practice and can be used in the context of other composers' music that uses pre-existing material. The relationships between the two parts of this project I set out at the beginning of this thesis relating to distance and combination are both results of my move away from interpreting pre-existing material in the yes/no binary to interpreting these uses in a more fluid and dynamic way. This fluidity allowed me to think about the uses of pre-existing materials in terms of a spectrum, leading me onto contextualising those spectra into my practice as opposed to just theory and concept. Each piece in this project, as shown above, uses its own approach to examining distance and combination – two typologies which are interrelated through the types of movement spectra. Also, the closer to each other the contrasting elements are along the dual movement spectrum, the more likely they will fuse together. The further apart they initially are, the more likely a resultant fission will occur.

Part 4 Conclusion

4.1 Future Directions

This project has laid down foundations which explore distance and combination using two types of movement spectrum. This project covers the foundational approaches to using movement spectra in detail and offers a foundation from which this can be further explored in the future. Below, I note four possible areas in which these explorations using movement spectra could take place:

- Becoming (when one element becomes another along the single movement spectrum)
- Further detailed explorations of textual combination
- Conventional/unconventional playing technique
- Collaborative approaches

4.1.1 *Becoming*

This project focuses only on single movement and dual movement spectra, but only through the space in between the elements on the spectrum (distance) or when the elements either fuse or repel (combination). There is another level of this: when one element *becomes* the other element. So, in the context of my practice and pre-existing material, this would conceptually occur when the pre-existing source becomes my composition, so works within the single movement spectrum where the pre-existing source is static. This could be seen as being an example of deconstruction in the Gorton sense, where the pre-existing material devolves into something relatively unrelated. However, in Gorton's *Lachrymae Variations*, the final variation still has a relative sense of proximity to the Dowland material. The pre-existing material moves along the distance spectrum and *becomes* Gorton's material. In Barrett's *Vanity*, it could be argued that his material becomes the Schubert quotation at the end (and thus juxtaposing Gorton's devolution of the pre-existing material). This would mean that Barrett's material moves along the distance spectrum and becomes the Schubert material, working in the opposite direction compared to the spectrum in relation to Gorton's music. This is a valid way of how the distance spectrum can work; however, my interests lie in the space where the use of pre-existing material is neither a yes or a no, but blurry and obscure. If elements become one another in a distance spectrum, the explicitness of the yes/no binary becomes more prevalent taking away from the potency of the blurry and hazy middle space that this project is

fundamentally based upon. This said, however, there is certainly scope to apply distance spectra when elements become each other within the context of plentiful other compositions which use pre-existing material throughout history.

4.1.2 *Textual combination*

As noted above, there are further approaches to textual combination that can be taken. The textual combination in *reliquiae, löschen* produces palimpsestic results and the textual combination in *I, Purples* creates substitution and alternation. There are further ways in which textual combination can work such as through superimposition and possibly through erasure. Superimposition would occur when there are semantic relationships between the texts. There is a possibility where the texts of the Cassidy could be combined to be superimposed; however, Cassidy gives the illusion of superimposition through fast alternation and substitution and is shown through the decoupling of texts on three separate lines – another form of decoupling. Superimposition through text, like (mono-)polyphonic combination, needs interrelationships between the prosodic elements of multiple texts. This means seamless transitions between vowel sounds and shapes so multiple texts can be transformed into each other and therefore superimposed. To make this a successful form of macaronic, semantic, and prosodic superimposition, it would require finding two texts which are in different languages, which relate to the same or similar subject and, most importantly, which are prosodically similar so vowels and seamlessly transition into each other to form textual superimposition.

4.1.3 *Conventional/unconventional playing technique*

This approach stems from guitarist Seth Josel's comments on *Lux Obscurata* after a workshop he gave on the piece. Owing to the scordatura, Josel suggested that he needed to 'form a different approach to his playing technique so the fingering would match what is written on the score'. This meant that a slightly unconventional (yet still recognisable) visual aesthetic to the performance was a result of the scordatura. This creates a movement spectrum between conventional playing technique and unconventional playing technique, with the middle ground between both being the place that can be explored. The reason this area has not been explored in this project is because of its possibility and size: it could be seen as another separate project.

During this project, I have explored conventional and unconventional playing techniques in my solo flute piece, *Mutationes in Motu* (2021) written in collaboration with flautist and composer, Jenni Hogan. This piece uses a breathing structure as well as a movement structure;

however, the autonomy between the two structures and the musical materials (multiple parametrical structures within that) created a sense of decoupling. This said, the foundations of the piece (especially in terms of how the movement and breathing structures worked) have laid down possibilities for a future project that explores distance in terms of conventionality. For *Mutationes*, I noted down types of movements that stayed within the relative conventionality of flute technique. These consisted of vertical movements, hand swaps, and one-handed playing. Whilst these are clearly somewhat unconventional, they are only relative. This means that they are neither conventional or unconventional and explore that space between the two. Each of these techniques have a different space along the movement spectrum; therefore, contain different distances to either conventionality or unconventionality. There is scope to explore this further and discuss each technique in terms of distance. This would require a static spectrum where conventionality and unconventionality are placed at the polarising ends, and the techniques themselves are placed on the spectrum depending on their distance to each end. These movements can then be combined within the musical material to create an imbrication between the two and construct a formal structure through the types of substructures. This is a type of combination – the combination of juxtaposing *types* of structure. An example of this is the combination of movement structures, breathing structures and musical structures through imbrication, meaning that each of them need to be constructed for the whole, global-level form to work. If you remove one of the structures, then the global-level form will not work. This close, imbricated approach to combination outside of solely musical material, takes my interest in integrated interrelationship and polyphony and applies it to more global-level approaches to combination in the context of form and structure.

4.1.4 *Integrated collaborative approaches*

Again, this stems from my collaborative work with Hogan on *Mutationes in Motu*. The collaborative process, whilst close, was not as integrated as it could have been, and this closer integration or systematic collaboration is an offshoot from this project. To become even more integrated in collaboration, I propose that I incorporate the dual movement spectrum into collaboration. This would mean placing my approach to and ideas of composing the piece at one end of the spectrum with the performer's ideas, interests, and approaches at the other. The nature of collaboration means that some interests and ideas will be similar whilst some will be further apart. This therefore brings in the distance spectrum as there are variable levels of distance between different approaches between composer and performer. By focussing on the

interests which are far from each other, the combination will become more interesting as it will involve the attempted fusion and adaptation of contrasting interests.

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