

Composing Network Forms:
an evolving artistic practice

Volume two of two: academic commentary

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Abstract

This collection of music and the commentary that accompanies it offer a window into four years of research in music composition. Beginning with the paradoxical question of creating *continuing discontinuity* in musical form, the project quickly widens and refocuses, examining the fabric from which form emerges, and the logic through which it speaks, suggesting *network form* as one possible answer. Working with disparate materials spanning the notated and improvised, the remembered, borrowed, and imagined, this research is concerned with bringing a diversity of objects into conversation, and with standing in amongst the material web. In this context the act of composition becomes both an observational and mediatory practice, softly spoken details as important as grand statements. The music that emerges does so through a language of brightly coloured character, charged intricacy, and varying degrees of directness.

The portfolio of scores in volume one, written between 2020 and 2024, ranges from solo to ensemble works, forces including acoustic instrumental, vocal, and flexible ensemble. The commentary in volume two sets out three phases in the research. The first phase focused on the paradoxical idea of *continuing discontinuity* and the possible answer of *network form*. The second on the material fabric of these forms and the increasingly important role of intricacy and expanded awareness in my practice. The third phase, building on a musical language now rooted in *network form*, considers extended networks and understanding these forms as an expressive force concerned with the real and imaginary, the personal and shared.

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Introduction: zebra crossings and a parasol by the beach

When I was young I had a brilliant uncle who told completely outlandish stories. He said that if you stood on one specific zebra crossing on one specific street you could block the traffic all the way into Brighton. We walked along Peacehaven's stoney beach where he had once made impromptu sculptures using whatever he could find, and he told me how hanging mirrors in a room could make even the gloomiest of places brighter. We were probably being followed by his streetwise cat, and I never knew for sure where they lived. One Christmas he gave me a handmade parasol which at the time I took for what it was: a beautiful delicate gift. Only later did I realise the silvery metallic top was an old stamp, letters of the alphabet and numbers 0 to 9 embossed in tiny rotatable lines. The parasol's paper was bright, covered with beautifully painted birds and flowers. The central mechanism was functional but clunky, giving away its handmade roots. The handle was driftwood, capped with rudely blue plastic, at odds with the intricacies above. But that parasol when it was given to me was something whole, a composite whole; one object made up of many previously separate objects with other uses of their own, which together became something new.

As I began the process of making sense of the past four years these stories felt relevant to my music in several ways. Most directly the parasol embodies how I have come to think about form: many separate objects maintaining individual identities at the same time as forming something whole in combination. This concept is audible in *Stormfield Songs*, propelled by the tying together of multiple materials, and in the interwoven harmonic worlds and characters of *The Time Being*. The blocking of traffic from one zebra crossing is equally important: an example of how one action affects seemingly unrelated situations and far off happenings. This idea of action and reaction, and the resulting chains of logical consequence, have become vital to my music as illustrated in the discussions of *In Tiled*, *Wolf*, and *Of Far*

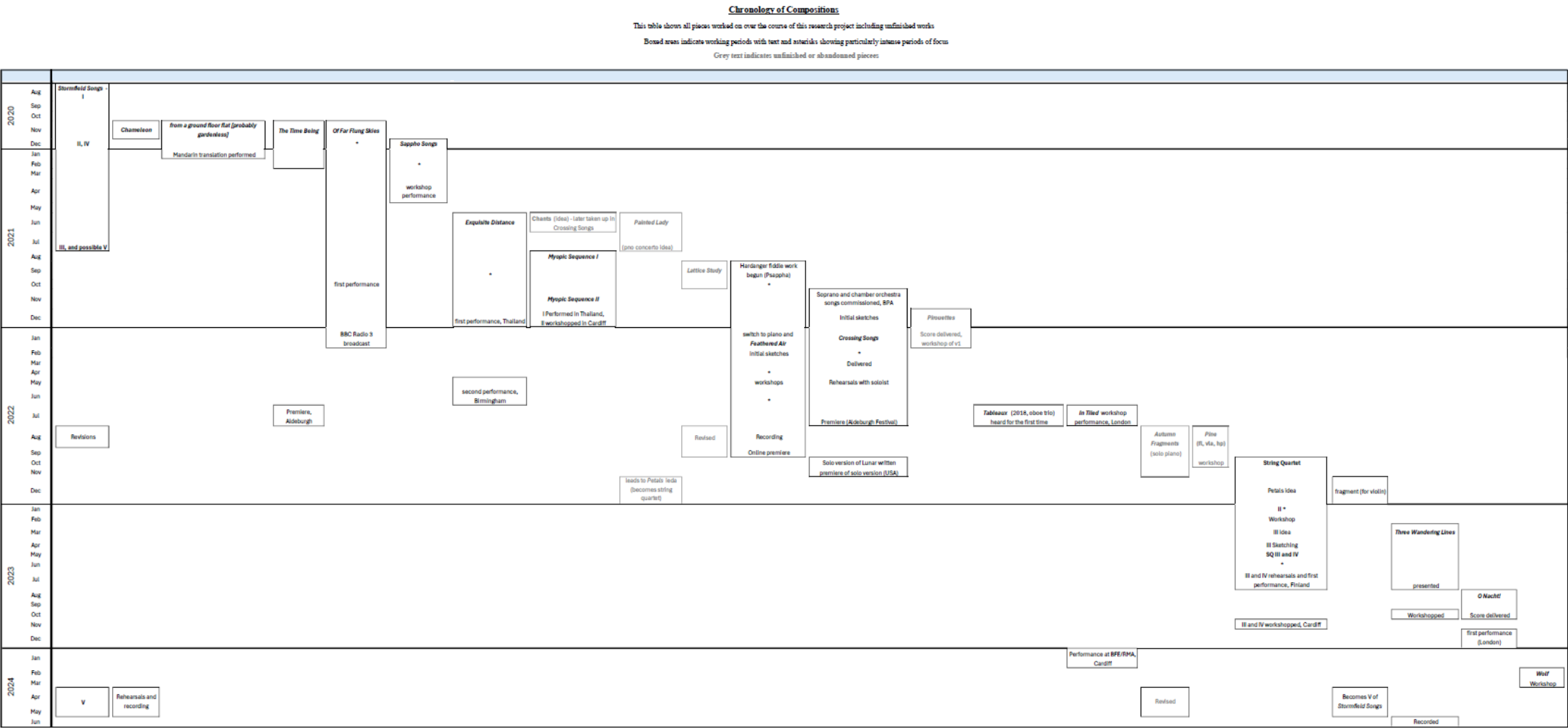
Flung Skies. Next, the cat, unknowingly the root of several pieces, exemplifies the link between reality and fiction in my practice, particularly evident in *Beacons* and *Three Wandering Lines*. Finally, the mirrors used to brighten up a gloomy space echo what composition has often been for me: a private expressive force concerned with intricacy and brightening. This can be seen in *Garlands*, *Feathered Air*, and *Crossing Songs* – all works which come from a space of observation, self-inquiry, seeking control over circumstance, and story making.

I tell these stories of my uncle not only for their inherent nostalgia value, but precisely because they weave together so many elements of my practice – they are in a sense the first example in this commentary of a *network form*. The text that follows is another network form; context, work, and process woven together into an overarching commentary. **Part one** begins by examining the paradoxical challenge of *continuing discontinuity* from which I began this research and the possible solution of *network form*. Form as a question of balance and material conversation; an amalgamation of differently weighted objects that together become something new. **Part two** moves to more internal matters, concerned with the intricacies of the material itself, meeting points between materials, and between material and inspiration, piece and process. **Part three** reflects on extended networks and expressivity, exploring issues of collaboration, and the intersection between the imaginary and the real in my music, considering the journey to this point, and what might lie ahead.

The following page shows a chronology of the working periods for the music in this portfolio. Two things are worth noting: first the timing in relation to the global Covid19 pandemic which undoubtedly coloured much of this research, and second, the high level of overlap between working periods, the music forming a something of a network in itself.¹

¹ Rachel Clarke's *Breathtaking* (London: Abacus, 2021) provides a detailed insight into some aspects of the experience of the Covid-19 pandemic. Whilst Covid-19 is not the focus of this commentary, the pandemic altered life completely for a time and was one of the biggest discontinuities I have experienced to date. It brought with it echoes of previous discontinuities which would later find their way into my music.

Table 1: chronology of compositions



Part I: Finding network form

‘Of course, music exists in time and there are entrances and exits.

In painting everything is present and you see it all at once’

Christian Wolff (discussing the work of Morton Feldman)²

When setting out on this project my aim was to find methods of drawing a multiplicity of objects together into one music. Responding in part to early criticisms of my work having ‘too many ideas’ or seeming discontinuous in its shape, I wanted to develop methods of dealing with collections of objects. Importantly, I hoped to avoid the flattening of this discontinuous nature and instead to retain the variety and kaleidoscopic brightness that comes with taking in many things at once, to write music which lives through an interweaving of ideas and continual change, not to try to limit or direct the language into any one stylistic or developmental straight jacket. In short, I hoped to create a language of what I had begun to think of as *continuing discontinuity* and my first concern, as examined in this first section of the commentary, was with what that might mean for musical form. Below I outline the contexts from which this research emerged, some possible meanings of the phrase *continuing discontinuity*, my early experiments in material collision, and how I arrived at an approach to composing in which material creates form and form creates material - forms full of cross fertilization, simultaneities, and symbiosis.³ In other words, *network forms*.

² Christian Wolff discussing the music of Morton Feldman in: Walker Smith ‘Feldman on Wolff and Wolff on Feldman: Mutually Speaking’ in *The Musical Times*, Vol 142, No 1876, 2001. 26.

³ There is a parallel with biological symbiosis here. Whilst none of my work has been directly responding to symbiosis in nature, I have been continually aware of that parallel in relation to biodiversity, particularly in forests and recent developments in our understanding of the role of mycorrhizal fungus and underground root networks as discussed in Simard & Tippet (Podcast: *On Being*, 2021), and Simard (London: Springer, 2018).

Intersecting lineages: context for *continuing discontinuity*

The meaning of *discontinuous* is elusive. As well as in discourse on music, it is used variously to refer to: a specific characteristic of data in coding, fault lines and the movements of seismic waves in geology, theories of flow states, and in research on relativity, time and granularity.⁴ At the time of writing, there is not an entry specifically defining *discontinuity* in Grove Music online, although it is referred to in articles on topics including postmodernism, tonality, rhythm, Italian madrigals, Stravinsky, hermeneutics, time, spectral music, style, futurism, and symphony.⁵ For my purposes here, dictionary definitions serve as useful anchors:⁶

Merriam Webster: Discontinuity (*noun*): lack of continuity or cohesion

Collins English Dictionary: Discontinuity (*variable noun*): Discontinuity in a process is a lack of smooth or continuous development'

Cambridge English Dictionary: Discontinuity (*noun*): the fact that something changes or stops rather than continuing in the same way

Notably the first two of these definitions are founded on *lack* of a quality and read somewhat negatively. The pieces in this portfolio examine various ways in which the lens of *continuing discontinuity* can provide a valuable starting point for creative work. How, rather than being a lack of anything, valuing discontinuity can lead to the foregrounding of difference and detail, bringing musical ideas into conversation with one another. How this process demands a material led approach to form, placing the composer as observer and, later, mediator within each new material web.

⁴ Carlo Rovelli discusses continuity, granularity, and relative time in *The Order of Time* (London: Penguin, 2017).

⁵ Grove music online [last accessed 19/4/24].

⁶ Online access: www.merriam-webster.com/dictionary/discontinuity , www.collinsdictionary.com/dictionary/english/discontinuity , and www.dictionary.cambridge.org/dictionary/english/discontinuity respectively [last accessed 19/09/24].

Originally a violinist, the earliest music to which I connect these ideas is string music, and sustained sound. Many hours of orchestral and quartet rehearsals schooled me in interlocking lines and sudden shifts in role. Similarly, the vibrancy and momentum of the music of Rodrigo Y Gabrielli and Portico Quartet offered lessons in repetition, fragmentation, and urgent continuity. The song *Set the Fire to the Third Bar* and the merging of the voices of Martha Wainwright and Snow Patrol's Gary Lightbody was an early example of something directly expressive through immediate and sustained contrast. The hum of the motor of a boat - that rounded multilayered rumbling sound constructed of hundreds of juddering sonic attacks that you feel as much as hear - is another early example of sustained discontinuity I remember being aware of early on. In terms of instrumental form, Telemann's *12 Fantasias for solo violin* have been a constant influence, characterised by constant motion, a roving harmonic language, and the drawing together of highly contrasted smaller sections which appear far more separate in the score than in performance.⁷ Ernst Herman Meyer describes something similar in the earlier fantasias of Orlando Gibbons:

when B starts, A and B are accepted as a pair, when C starts, B and C are felt to belong together and so on. [...] when the second section appeared, the first was retrospectively conceived to be the introduction to the second.⁸

This gap between the structure as written, how that structure is perceived in performance, and then how that perception can change as a work progresses offers another type of discontinuity. Whilst teaching at Dartington summer school in 2019, Sir Harrison Birtwistle talked about something similar in terms of the 'footprint' of a piece.⁹ How what we hear becomes a footprint

⁷ Telemann *12 fantasias for violin without bass* (1735) (Kassel: Barenreiter Verlag 1955).

⁸ Meyer, Ernst Hermann, 'Form in Instrumental Music of the Seventeenth Century' in *Proceedings of the Musical Association*, 1938-1939, 65th Sess. (London: Taylor & Francis, 1939) 51.

⁹ I attended Dartington Summer School in August 2019 and spent a week composing under the mentorship of Sir Harrison Birtwistle as part of a small cohort of student composers. This concept of the *footprint of a piece* was introduced by Birtwistle during one rehearsal through the example of a glissando: how we do not hear every individual pitch as it happens, but instead perceive the direction of the gesture as a whole – an impression or approximation which exists before and after the sound itself.

left in our memory by the music – never exactly what happened, instead an approximation or impression. With this concept of the footprint of a piece in mind I sketched out the initial bars of *Beacons* for clarinet trio.¹⁰ *Beacons* is the first work in which I was consciously exploring ideas of discontinuity as the basis of my material, a piece it would take me many more months to complete, and the last of my music I would hear live before the onset of the pandemic.

Resolute
♩=168 / ♩=56

Example 1: *Beacons*, opening: three superimposed gestures and a frame

The opening statement of *Beacons* is three superimposed gestures derived from the same harmonic material, all present immediately at the opening of the piece with a pair of registral extremes framing this initial statement, see Example 1. Three different viewpoints on the same harmonic material happening simultaneously without exact repetition.¹¹ The work draws on a variety of influences: the concept of arborescences – the proliferation of many lines from one – as found in Xenakis' *Evryali* for piano (1973), as well as the lyricism in Birtwistle's Piano Trio (2011) and Bruch's Eight pieces for clarinet, viola and piano Op.83 (1910).¹² *Beacons* follows

¹⁰ *Beacons* was selected as the winner of Musicon Durham's call for scores and performed by the Alpaca Ensemble in February 2020. A recording of the premiere is included in the supplementary material to volume 1.

¹¹ This focus on creating a variety of viewpoints of one object, how we perceive groups of objects and the role of repetition in shaping perception is informed partially by Daniel Levitin's *This is Your Brain on Music* (London: Penguin, 2006, 146, 167).

¹² Xenakis, Iannis, *Evryali pour piano* (1973), Edition Salbert (1989), further discussed in Harley, James 'Arborescence' In *A Xenakis Dictionary*, ed. Dimitris Exarchos. Association Les Amis de Xenakis. <https://www.ianis-xenakis.org/en/arborescence>.

divergent lines from this opening gesture, allowing form to emerge out of the material conversation, collisions, combinations, and interruptions as the work progresses, a process we will look at in more detail in my more recent work.

Returning for now to broader context for this research, and to pick one example of many, something similar to the structural pivoting of the fantasias of Gibbons and Teleman is at play in the harmonic language of Ravel's 1903 String Quartet. As demonstrated by Sigrun B. Heinzelmann in the 2011 book *Unmasking Ravel*, the first movement uses distinct pitch collections which contain shared subsets, internally referring to each other whilst pulling in different tonal directions.¹³ This referential construction allows for a high level of harmonic flexibility and ambiguity from a tightly defined base – something I have worked to develop in my own music over this research period. Also highlighted by Heinzelman, and something which features throughout this portfolio, is the importance of motivic transformation in Ravel's music and, related to this, the process of completely withholding and later returning to a previously absent object.¹⁴

Following the thread of harmonic language for now, it is impossible to begin to discuss discontinuity in composition without acknowledging the central role of tonality and how composers have depended on it and sought to escape from it.¹⁵ I do not subscribe to any one harmonic method, but have drawn influence from a range of approaches as will be examined where relevant in what follows. The development of serialist thinking and particularly interval based methods of material generation are relevant throughout this portfolio. Tonal colour and

¹³ Heinzelmann Sigrun B., Antokoletz E, Bhogal G, et al. 'Playing with Models: Sonata Form in Ravel's String Quartet and Piano Trio.' In: Kaminsky P, ed. *Unmasking Ravel: New Perspectives on the Music*. (Rochester: Boydell & Brewer, 2011) 153-155.

¹⁴ Ibid. 158.

¹⁵ Ton de Leeuw provides a fascinating insight into this subject particularly in relation to the idea of unity within a composition in the chapter 'From Free Atonality to 12-Note Music' in *Music of the Twentieth Century* (Amsterdam: Amsterdam University Press, 2005) 135-162.

moments of functional harmonic language are intentionally strong forces in my music too.¹⁶

To set the scene it is important to mention at the outset the influence of Berg, Schoenberg, and Debussy in relation to pitch and harmony, particularly the *Altenburg Lieder*, Five Pieces for Orchestra Op. 16, Preludes Book 1, and *Jeux* respectively. Also more recent music which seemingly turns full circle. Here I am thinking about the sheer consonance in Howard Skempton's *Lento* (1990) and Cassandra Miller's *Perfect Offering* (2020), the reimagined role of tonal material as both fleeting object and foundational structure in the work of Thomas Adès, particularly his 1994 string quartet *Arcadiana* and 2024 string quintet *Wreath*, the extended microtonal context of the work of Lisa Illean, particularly *an acre ringing, still* (2023) and the array of tonality and microtonality held together in Hans Abrahamsen's *Let me tell you* (2013).

My approach to pitch and harmony in the majority of this portfolio can be traced back to *Tableaux* for oboe and string trio, a work I wrote as part of a study of the music of Oliver Knussen.¹⁷ Julian Anderson's articles examining Knussen's harmonic practices since 1988 were indispensable in this endeavour and set me on the track of interval rotation that has featured strongly, although not exclusively, in my compositional process ever since.¹⁸ *Beacons* too uses this harmonic basis of a pitch set and its rotations, see Figure 1. The annotations hint at a far less mathematical process of meeting the material, something we will explore later in this commentary.

¹⁶ Influences on the development of my approach to harmony include: Schoenberg's *Structural functions of Harmony* (London: Faber, 1983), George Perle's *Twelve-Tone Tonality* (California, 1996), Charles Wuorinen's *Simple Composition* (Peters, 1979) and David Lewin's *Generalized Musical Intervals and Transformations* (Oxford, 2010).

¹⁷ The score of *Tableaux* can be found in Volume 1, appendix 1, 323-336. *Tableaux* was written as part of my Masters in composition at Cardiff University in 2018 and first performed as part of a workshop by Zacharias Wolfe (oboe), Holly Nelson (violin), Justin Julian (viola), and Iza Stefanska (cello), conducted by Rowan Baker in 2022, a recording of that workshop performance is available in the supplementary material.

¹⁸ Anderson, Julian, 'Harmonic Practices in Oliver Knussen's Music since 1988: Part I', in *Tempo*, 221 (2002), 2-13, and 'Part II', in: *Tempo*, Vol. 57, No. 223 (2003), 16-41.

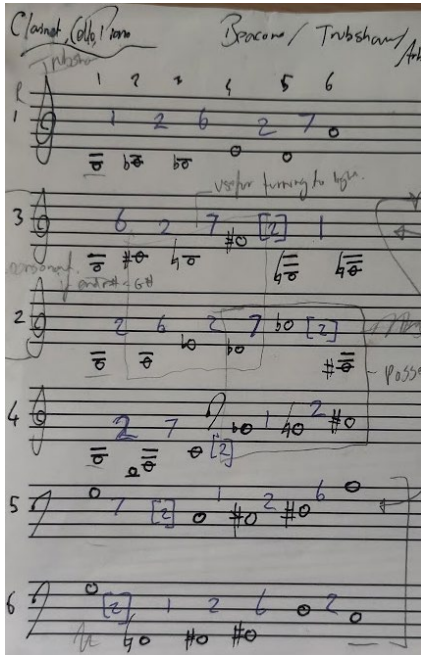


Figure 1: material for *Beacons*

Motivic development and fragmentation appeared earlier in this discussion in relation to Ravel's String Quartet and I now want to pull at this thread a little further as crucial to controlling discontinuity. A simple idea lies at the root of motivic development; reduce a musical idea to its constituent parts and transform those parts into variations on the original, or further into something new. It is through this process of motivic development that it becomes possible to traverse huge distances and timeframes whilst retaining a sense of organic growth. But what can be called a motif is more up for grabs than ever. Where once a motif was something as specific and grand as the *da-da-da daaa* at the beginning of Beethoven's Symphony No. 5, it may now be the use of a particular range on a particular instrument, a particular interval expressed in a particular way, or a particular type of motion.

Oliver Knussen's *Masks* (1969) is a fascinating example of how strands of fragmented material can be entwined to form a continually discontinuous line. The work for solo flute snaps between characters, each defined by material and physical position of the performer on the stage, the different positions on the stage notated with as much care in the score as the

music itself.¹⁹ Other examples of this focus on micro material can be heard in the compressed expressivity of Kurtág’s *twelve microludes for string quartet* (1979), the focus on timbral variation as a structural device in Saariaho’s *Petals* (1988), and the use of visual and sonic gesture as motivic material in Lachenman’s *Tocatina* for solo violin (1986). My understanding and approach to character as a compositional tool was much influenced by this attention to micro materials, and the character switching observed in Knussen’s *Masks*. Knussen’s flautist literally inhabits different characters, switching between them with no warning, and reminded me of plays I had seen when a cast far smaller than the number of characters involved switched between roles as the story unfolded. Similarly, as I began this research I read Nick Paine’s short play *Incognito* and was reminded again of the small details that combine to form character: details of voice which are as present in musical line and gesture as they are in written or spoken text.²⁰

In hindsight the beginnings of my use of micro motivic material as a tool for continuing discontinuity also began in *Beacons*. The three initial ideas from Example 1 intertwine through bars 1-6 as shown in Table 2:

Table 2: character switching in *Beacons*, bars 1-6

Bar:	1	2	3	4	5	6
Cl	A	C			C	B
Vc	B	A			C A	B
Pno	C	B			A A B	C

Importantly, all this happens in *Beacons* in a matter of seconds at the opening of the piece. These hyper fast switches of character are not intended to be tracked exactly on first hearing, they are hidden by their immediate presence in the statement of what is essentially one initial gesture. One further root of this idea in my mind is the concept of anchoring or ‘anchoring

¹⁹ Knussen, Oliver, *Masks* (1969) (London: Faber Music, 1990).

²⁰ Paine, Nick *Incognito* (London: Faber & Faber, 2014).

bias’ as theorised by Amos Tversky and Daniel Kahneman in the 1970s. Anchoring is the way in which an individual’s judgement can be influenced by a reference point within a set of information – usually presented first, separately, or in opposition to anything else present.²¹ I was introduced to this idea in the context of data analysis but clearly it has infiltrated my approach to musical material as a powerful tool for giving more or less weight to certain fragments.

Whilst the context for continuing discontinuity deserves a far broader discussion (not least in relation to improvisation, moment form, treatment of time, durational practices of artists such as Marina Abramović), for the sake of telling the story as it happened, further contextualisation will be provided where relevant in what follows. The combination of these approaches to character switching, pitch, and space between written and perceived in my practice set me on a path of experimentation with form. Next I consider the route this path took after *Beacons* beginning with several solo works written early on in this research.

²¹ The concept of anchoring bias was developed by Amos Tversky and Daniel Kahneman in ‘Judgement under Uncertainty: Heuristics and Biases’ in *Science*, New Series, Vol. 185, No.4157 (Sep 27, 1974) 1124-1131, and the later book: Kahneman D, Slovic P, Tversky A, Eds. *Judgement under uncertainty: heuristics and biases*, Cambridge University Press 1982.

Frames, corners, and character in single line forms

Solo lines are a useful way of limiting the parameters of a compositional question, and a good starting point for reflecting on the music in this portfolio. Here, they provide focus on logic, direction, and discontinuity as a formal device. In the following pages I consider two solo works and how each develops the ideas of continuous discontinuity discussed above.

Chameleon, a vibrantly coloured and sometimes frenetic piano solo, offers a view of continuing discontinuity in miniature. *Stormfield Songs*, a cycle of five movements for solo violin, explores the importance of heightened character in this context, and introduces framing as a formal technique in my music.

Refocusing and redirection in *Chameleon* for solo piano

At only 35 bars long, *Chameleon* is constructed from highly concentrated material.²²

Throwing the pulse, harmonic flexibility, and micro mosaic are all techniques which emerged through this material, and which return in later pieces, becoming vital ingredients in the development of my compositional language and approach to discontinuity. In *Chameleon* these techniques combine to form something continually shifting in direction, improvisatory in a sense, yet intricately planned as examined below.

An almost continuous stream of semiquavers makes up the material of *Chameleon*, and the most immediate challenge is to find a way through the inner phrase structures, and moving sense of pulse. The score is presented without time signatures, beamed to show intended beat stresses, sometimes augmented with accents or tenuti. Given that both the time signature and pattern of beat stresses are continually changing it would be inappropriate to add any further

²² A recording of *Chameleon* by pianist Ana Beatriz Ferreira is available in the supplementary material provided.

specification to the score. In an ensemble context, time signatures with bracketed beat stress configurations could be used here, but in a solo context they would arguably provide an additional element of visual complexity where the beaming and bar lines are sufficient. Including time signatures for the sake of analysis though, the first nine bars, up to rehearsal figure **A**, are set as follows:

9/16 – 12/16 – 13/16 – 8/16 – 9/16 – 8/16 – 6/16 – 7/16 – 6/16

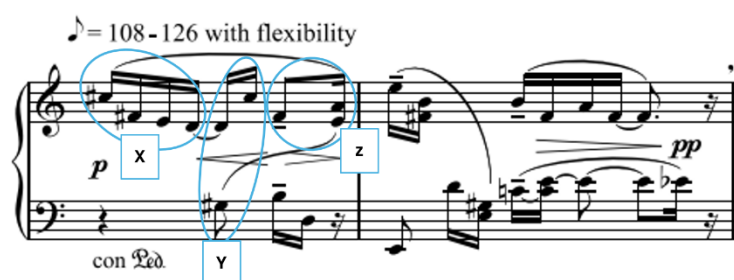
A then continues at 6/16 for two more bars, allowing the emergence of a brief sense of steady pulse aligned with the first climax of the piece. This alignment of steady pulse with a structurally significant moment is repeated at bars 15-16, and in the passage after **B** from bar 22, although here alternating between groups of four and three. In the first nine bars as described by above it is useful to note how the expansion and contraction of bar length is at odds with the larger phrase structure implied by the material. Looking simply at bar length it might be tempting to suggest phrasing split into three groups of three bars:

[9/16 – 12/16 – 13/16] [8/16 – 9/16 – 8/16] [6/16 – 7/16 – 6/16]

But the story is more complicated: a slight breath in the flow creating a break between bars 2 and 3, the leading bass blurring any boundary between bars 3 and 4, and bars 4–9 forming a collection of three pairs, overlaying any sense of 3 + 3 + 3.

Now considering motivic material, *Chameleon* is an expansion of the collection of micro-motifs presented in the first bar of the piece, see Example 2, another example of the anchoring technique shown in *Beacons*. As the music progresses this material is seen from different angles, continually extending in new directions before becoming something new.

Example 2: micro materials in *Chameleon*, bars 1-2



At the opening of *Chameleon* three fragments, here labelled X, Y and Z, appear as one phrase before becoming fragmented and pulling in new directions. The downward spilling motion of X returns at the beginning of bars 3, 6, 10 etc. each time transformed, and each time marking the beginning of a new direction. Y is the first interruption of this flowing motion, a quick contrary diversion, the entrance of the diminished fifth destabilizing the harmony. Z reaffirms the importance of the interval of a third and the contrary motion of X vs. Y, it also introduces the tenuto for the first time and the lilting element to the music which remains persistent throughout. The two notes not included in the motifs in Example 2, falling B-D semiquavers in the left hand, simultaneously extend Y and Z, binding the materials together.

There is one further element present in these first two bars important in creating a throughline in *Chameleon*: the repetition of a single pitch. Hidden within the melody, the repetition of F# in the right hand is an important precedent for repeated pitches which emerge later in moments of particular forward motion: the repeated E from bar 5 to bar 10 for example, the Eb/D# in 11-12, and C# in 15-17, adding another layer of emergent pulse.

The last element of this piece worth highlighting is the structural use of range. As the music expands into bar 2, for example, the range in use expands in both high and low directions before returning to the centre. This is a simple compositional device and plants the seed of expectation for the same expansion and return over longer stretches of music. The focus on upward motion in the early part of the piece and density (at around rehearsal figure A) of use of high range, necessitates an equal and opposite movement later. This is taken to an

almost cadential extreme in bars 15-16, and answered by a quick return to still higher regions in bar 18. In this way, range in *Chameleon* is not simply a space into which the music might venture, but a fundamental ingredient in the material balance.

The central point in *Chameleon*, is not the harmonic language, or motivic material, or flexibility of pulse described above. The point is the optionality and density of possibility that combining these techniques offers: the sense of mobile balance and compression of a miniature web of material, a web of heightened character, into a small space in time.

Character definition and interlinked frames in *Stormfield Songs*

Whilst *Chameleon* was a miniature, driven by the internal pull of tightly interlinked material, my next project – *Stormfield Songs*, contained the opposite challenge – a cycle of movements, each to stand alone, and yet fundamentally my language remained tightly internally related as we shall see in the discussion of frames below. At the outset I knew each movement had to be clearly distinct from the movements on either side of it to counterbalance the presence of interlinking material. Each movement needed character strong enough to stand on its own and in relation to a wider collection.

Whilst working on the idea of strengthening fragmented or compressed character in my material, as it is in *Chameleon*, the writing of Caroline Levine – specifically her book *Forms* was instructive.²³ Levine surveys approaches to form across the arts and in relation to political, social and historical contexts. The discussion covers ideas of affordance, wholeness, overlapping networks, boundaries, structural rhythm, hierarchy and network. Most important to my work as it progressed were the concepts of *contending wholes* – how several whole structures may overlap and negotiate for position in one combined whole whilst retaining their

²³ Caroline Levine *Forms: Whole, Rhythm, Hierarchy, Network*, Princeton: Princeton University Press, 2015

individual identities which we will return to in relation to *The Time Being* (2020) below, and *affordance* – the idea that an object, or in the case of music, material, brings with it certain possibilities and suggestions. Considering the *affordances* of material means focussing not on the purpose or surface level, but on potential. Levine offers the following examples:

Glass affords transparency and brittleness,
steel affords strength, smoothness, hardness, durability.²⁴

The materiality here may seem at odds with the abstract space of musical material, but if musical material is taken to exist as tangibly as glass or steel then it becomes relevant. Thinking in terms of affordance is helpful in the process of material generation and selection; faced with possible material it is interesting to consider what it affords the whole - if the answer is not very much, then perhaps that material is not useful in that context. On the other hand, if the material holds a high level of potential and affords the whole many different characteristics, then it is vital to understand what those characteristics are, how they will affect the identity of the collection of material that makes up the whole, and ensure that material is as fully expressed as possible by the end of the work.

These ideas were fresh in my mind as I worked on *Stormfield Songs* for solo violin, closely attuned to strength of character, boundaries around ideas, and making those boundaries more or less permeable. Figure 2 (below) shows initial plans made shortly after the performance of the first movement. In each movement the character is established within the first three to four bars as seen in Figure 3. Clearly there is a jump between these two stages. Some of the movements planned in Figure 2 are transformed into different guises by the time they are written out – a result of the protracted writing process of this work and my increasing flexibility in thinking about plans. Returning to Figure 3 for now, it is worth considering the different affordances

²⁴ Levine (Princeton: 2015) 6

Figure 3: condensed character in *Stormfield Songs*

Con moto $\text{♩} = 132c.$ I - *as a low flying swallow*

With swagger $\text{♩} = 56c.$ II - *Jaunt*

Dart like, skittish $\text{♩} = 208$ III - *Mouse*

Stark, focused $\text{♩} = 126c.$ IV - *Song*

Con moto $\text{♩} = 184$ V - *Fragment*

An important technique which has emerged as vital to creating webs of material such as those introduced so far, and relevant to almost all the pieces in this project, is the use of material *Frames*, sometimes individual, sometimes – as in *Stormfield Songs* – interlinked.

Material frames in my music are a specific type strategic repetition. Where simple, or modified, repetition can be fundamental to the generation of material and pulse, texture, or line and proportion, a *frame* (as I employ the technique in this portfolio) is specifically, and strategically paired repetition, usually of short fragments. For a frame to exist, something is stated, withheld for a certain space in time, then restated. It may be transformed but must be a recognizable restatement, so that when the repetition occurs the pair of similar objects form a significant connection from one moment in the work to another, however brief, however unexpected or expected.

Frames are also in operation in *Stormfield Songs* – now between movements as well as within them. Figure 4 illustrates several examples of this:

Figure 4: interlocking frames in *Stormfield Songs*

I, bar 5:

I, bar 50:

I, bar 50:

II, bars 1-2:

II, bar 35:

III, bar 1:

II, bar 3:

III, bar 4:

II, ending:

III, ending:

I, bar 4:

IV, bar 11:

IV, bars 16-17:

Here, a *frame* is formed around the first movement by the D- F# trill in bars 5 and 50. The tremolo then transformed into ‘molto vib!’ in the almost slapstick opening of mvt. II. The material from mvt. II bar 35 is transformed to become the beginning of mvt. III, and the finely balanced pauses in motion in movement II around bars 3, 5, and 11 and elsewhere, become the suddenly freezing mouse on alert in mvt. III. Movements II and III share an ending – the material transformed slightly, but intentionally recognisable as the same. Movement IV *Song* shares much with the first movement in terms of material, although not in effect. Here the upwards motion is taken to its extreme point in the cycle, and the constant motion of I answered by the concentration of sound in the high register, and relative stillness. The grace note, first heard in bar 4 of mvt. I, now becomes a driving force behind the development of

material in IV, stretched to become written out stepwise motion, and leading runs often spanning wide registral space. All of these elements play into the fifth movement, written much later than the rest, drawing together something from each preceding movement and finding something new.²⁵

Whilst working on *Stormfield Songs*, I looked back at the score of *Beacons* with this idea of frames and the importance of heightened character in mind. Although at the time of writing the form of *Beacons* had emerged intuitively, I now found that the concept of frames had been very much present there too:

Table 3: *Beacons*, structural outline by rehearsal figure showing outer, mid, and inner frames

Bar:		8	17	27	38	47	57	64	74
Fig:	opening	A	B	C	D	E	F	G	H
Material:	Oppositions entwined	Separation/ Space	Solo/ Free	Glittering, surges 1-3	Surge 3 extension	Turn/Chimes	Lyrical	Circling & back reference	New Bright
Outer frame: A - G									
Mid frame: B - F									
Inner frame: C - E									

Next I consider how these methods translated into two ensemble works in the initial phase of this research.

²⁵ A recording of *Stormfield Songs* by violinist Fenella Humphreys is available in the supplementary material provided.

Three contending wholes in *The Time Being*

The Time Being was my most ambitious exploration of the techniques discussed up to this point.²⁶ Drawing together the imaginary and the technical, the work was an exploration of consequence and interlinking of material. I was concerned with how to build logic within a network of moving parts, modelling my idea of logic here on a kind of time-animal - something alive and multiple, held within one form. I was reflecting on the multiple types of Time, and our variable experience of it, as discussed in the work of Carlo Rovelli, Jonathan D Kramer, and in relation to composition in Stockhausen's writing on micro-time, macro-time, phases and phase groups.²⁷ As Rovelli describes it in *The Order of Time*: 'Continuity is only a mathematical technique for approximate very finely grained things. The world is subtly discrete, not continuous.'²⁸ And: 'for everything that moves, time passes more slowly'.²⁹

These concepts, alongside the idea that perception of time can be linked to mass and altitude (again, discussed in Rovelli), suggested a type of music I had not attempted before.³⁰ This idea of subtly discrete moments, or objects, combined with my recent focus on affordance and heightened character allowed me to approach *The Time Being* as something with its own sense of time, a sense of time directly related to the density of musical change, and separate to clock time. Once again I was thinking about a collection of musical objects, each object in my mind was defined by its central character, colour, and mass – i.e. shape and weight in relation to other objects. This collection of objects, in the finished piece, would be held together by internal relationships, attractions, and expectations built within the piece as it progressed. As well as the literature on time

²⁶ A recording of the premiere *The Time Being*, performed by the Britten Pears Contemporary Ensemble conducted by Jonathan Berman, at Aldeburgh Festival 2022 is available in the supplementary material provided.

²⁷ Morgan, Robert P. 'Stockhausen's Writings on Music' in *The Music Quarterly*, Winter, 1991, Vol. 75, No. 4 (Oxford University Press, 1991) 196-197

²⁸ Rovelli, Carlo, *The Order of Time* (London: Penguin, 2019) 75.

²⁹ Ibid. 35.

³⁰ Ibid. 69.

mentioned above, my work on *The Time Being* was accompanied by a repeated engagement with the abstract sculpture of Barbara Hepworth. The three life-sized sculptures *Parent I*, *Ancestor I* and *Ancestor II* from *The Family of Man* which currently stand at Aldeburgh, themselves offering a perspective on this kind of multi-object combination, shaped my own work as it emerged. Later I read Hepworth’s description of the creation of this piece as documented by journalist John Carpenter at a 1952 exhibition, and it felt close to my experience too: ‘Abstract sculpture, she said, is ‘emotionally exhausting work.’’³¹

Example 3: opening gesture of *The Time Being*

The Time Being is derived from pitch rotation as seen in *Beacons*, but now using three different pitch sets and their rotations. The melodic fragments I used as a basis for this process are shown in the top three lines of Figure 5 below. The accented fragment on the fourth line was taken from another earlier work of mine. In this new context it became the root of the ticking gesture present from the opening of the work in the woodblock (see Example 3), resulting eventually in the sparkling drive of the closing passage as will be further examined below.

The musical score for the opening gesture of *The Time Being* is presented in a multi-staff format. The tempo is marked 'Con moto' with a quarter note equal to 132 beats per minute. The score includes parts for Flute, Oboe, Clarinet in Bb, Bassoon, Horn in F, Trumpet in C, Trombone, Percussion 1 (Wood blocks), Percussion 2 (Marimba), Harp, Celesta, and Violin I. The Flute, Oboe, Horn in F, and Trombone parts begin with an 'Air note' marked 'p < mf'. The Clarinet in Bb and Bassoon parts begin with a 'pp' dynamic. The Percussion 1 part features a 'mf' dynamic. The Percussion 2 part features a 'mf' dynamic. The Harp part features a 'mf' dynamic. The Celesta part features a 'mf' dynamic. The Violin I part features a 'mf' dynamic and a 'ppp' dynamic. The score is written in 4/4 time and includes various musical notations such as notes, rests, and dynamics.

³¹ Bowness, Lucy, *Barbara Hepworth Writings and Conversations* (London: Tate Publishing, 2017) 264.

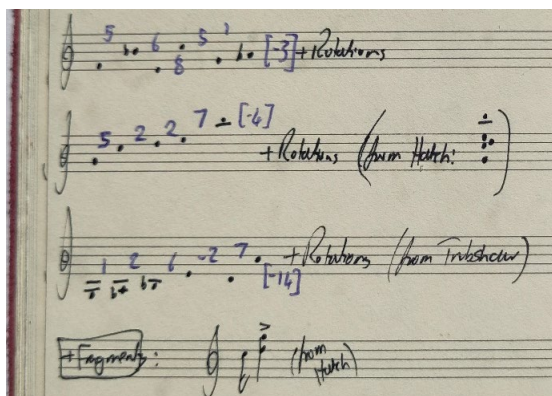


Figure 5: material for *The Time Being*

Again, in these rotations, the blue numbers between pitches refer to the intervals measured in semitones. Working in terms of numbered intervals rather than traditionally labelled seconds, thirds, fifths etc. has been a helpful way of creating some distance between my materials and the inherent tonal colours they contain. It means that leaning into the tonal colours, when I do, is a conscious choice, and that the intervals can be seen in relation to one another across the three different rotations without much extrapolation, and without becoming too concerned with the pitches forming each interval. So, 7 = a perfect fifth, 2 = a major second, 5 = a perfect fourth, 6 = an augmented fourth/diminished fifth etc.

Working from these three starting points gave me a constant source of material. As the piece developed I returned again and again to these rotations, which I came to think of as webs of material in themselves. As and when the piece needed something new, these rotations provided it. Writing *The Time Being* became a constant balancing act concerned with keeping tabs on each new musical object from entry to exit, tying up loose ends, and ensuring each character was developed to its fullest potential in the context of this piece. If any one character outweighed the others for too long the balance would be destroyed. Figure 6 shows an early structural plan for the work:

Creeping death
Tick

Lacerated soles
exposure of E3
tick
hint @ [E] [EL]
one/dong (a pair)

Still quiet
one tick
tick -> ch

one tick
tick -> ch

High
one tick
tick -> ch

one tick
tick -> ch

One example of this can be found at rehearsal figure **D**, see Example 4: the oboe solo emerges from a sudden break in the texture, soaring over a rotating sphere of interlocking motion in the orchestra.

D Poco più mosso $\text{♩} = 92$

The musical score for measures 45-48 of 'Poco più mosso' (♩ = 92) features four staves: Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), and Bassoon (Bsn.).

- Flute (Fl.):** Measures 45 and 46 are whole rests. In measure 47, there is a triplet of eighth notes (Bb, A, G) marked *p*. Measure 48 is a whole rest.
- Oboe (Ob.):** Measures 45 and 46 are marked *pp* and feature a 'solo' line. Measures 47 and 48 are marked *mp espress.* and *pp* respectively, with a long slur spanning all four measures.
- Clarinet (Cl.):** Measures 45 and 46 are marked *p*. Measures 47 and 48 are marked *mp* and *p* respectively.
- Bassoon (Bsn.):** Measures 45 and 46 are marked *mp*. Measures 47 and 48 are whole rests.

30

This is an expansion of the lines found in the solo cello at bar 20, and more generally the texture at B, resulting in the first of several clarinet solos from bar 28 passed to the bassoon at bar 33. The seed for this expansion of line is planted even further back, in bars 4-5 when the pointed scurrying motion of the first gesture (bars 1-2) is restated in a broader, elongated voice. This opening up of something previously stated in short also happens on a larger structural level at E, where the stretching out of line becomes an entire passage - and the slowing of time as it relates to the density of musical events, only to pivot back, at bars 65-66, to the more insistently mobile texture out of which these longer lines emerged.

Finally I want to I highlighted the importance of the woodblock as the root of the ticking gesture in *The Time Being* and examine how this one unsuspecting detail – first heard in the second quaver of the piece, becomes a central force for continuity through the larger web of material. In bar 1 as shown above, the upbeat is articulated as a short, sonically light, attack with forward motion given by the crescendoing airnote in the flute and brass. The woodblock articulates the offbeat of that first attack, adding impetus to the end of the crescendo and seeding the expectation that forward motion in this piece may be answered by a short sharp percussive ‘tick’. Or at least that long will be balanced by short, or soft/airy sound will be balanced by something more percussive, short, punchy. This counterbalancing of one attack with another is continued in the first gesture, i.e. in bar 1: the short but heavy (in its depth) pizz in the lower strings, shadowed by cresc. vla trem, answered by the feathery diminuendoing harmonics in the upper strings. At a more gestural level in the next passage, the watery undulation of harp, piano, and flute from bars 7-8, is counteracted by the heavier machine like staccato brass from the upbeat to bar 10 through to bar 12. The sense of short attack then elongates into the accented string semiquavers and longer line of the bustling piccolo from bar 16. This, answered by the comparatively longer, lyrical fragment of an interjection from the

cello in bars 20-23, framed by the woodblock in 19, and upper strings pizz in 23. On a structural level, this language of interjecting opposites, and fragments framed by contrast, is why – in bars 66-67, the structural corner that is turned between rehearsal letter F and G, happens around such a suddenly simple paired back moment: a moment of pause, or hiatus before the piece begins its approach of the ending. The ending, when it comes, is a broader expansion of the contrast of woodblock and airnote, or watery colours and brassy punch. From H, this contrast of short and long is translated into a conversation between high punctuating sparkle, and low, rooted deep churning motion that continues right the way through to a final twist into something suddenly brighter and lighter in the final few bars.

Integration of Text: hierarchy and balance in *Garlands*

In the works discussed so far the balance between characters has depended on component parts having independent identity even when, as in *Beacons*, they are drawn from the same harmonic basis. By the time I was faced with the challenge of setting text this kind of material balancing act had become a staple of my practice and yet it felt immediately threatened by the presence of words. Words inevitably bring with them a sense of hierarchy, the spoken word perceived as more communicative than any instrumental sound. Similarly, the presence of any soloist suggests the piece will be held more by their line than any other. *Garlands*, or as I initially thought of it *Sappho Songs*, was my first attempt at solving this problem of imbalance.³²

<p>-18 With eyes like that, stand still, Gaze with candour from that beauty, Bold as friends before each other.</p> <p>-11 The little girls Wove crowns Of leaves.</p> <p>-75 All night long, like nightingales, We shall stay awake and sing.</p> <p>-25 To follow however far into whatever luck The wild hitherward of her headlong heart.</p>

³² A recording of a workshop performance of *Garlands* by The Riot Ensemble at Cardiff University is included in the supplementary material provided.

The text for *Garlands* (see right) is built on four fragments by the Ancient Greek poet Sappho.³³ Rather than set the fragments one after another, I fragmented the text further, creating groups of words to be used between complete fragments. See Figure 7 (right).

Figure 7: text subgroups for *Garlands*

Group 1	Group 2	Group 3	Group 4
Follow		Stand	
Bold		Night	
Leaves	Gaze	Sing	Other
Friends	(Whatever)	Little	Wild
Long	(Hitherward)	Nightingales	Wove
Awake		Heart	Eyes
		Still	Candor
		Far	
		Headlong	
		Crowns	
		Shall	
		Luck	
		Stay	

Chosen for their expressive content, and origins - fragments already out of their ancient Greek poetic context - these words seemed more malleable to

me than a complete text. The alternation of fragments with semi-randomised word groups brought with it an alternating sense of direction too: the complete fragments pulled forwards with direct expression, whilst the randomised word groups formed comparatively static moments of interwoven meaning.

Whilst using words formed part of my material maze, I was intent on communicating their richness. Following my recent analysis of structure in *Beacons*, I was thinking in terms of focal points and, again, of frames as seen in Figure 8 (below).

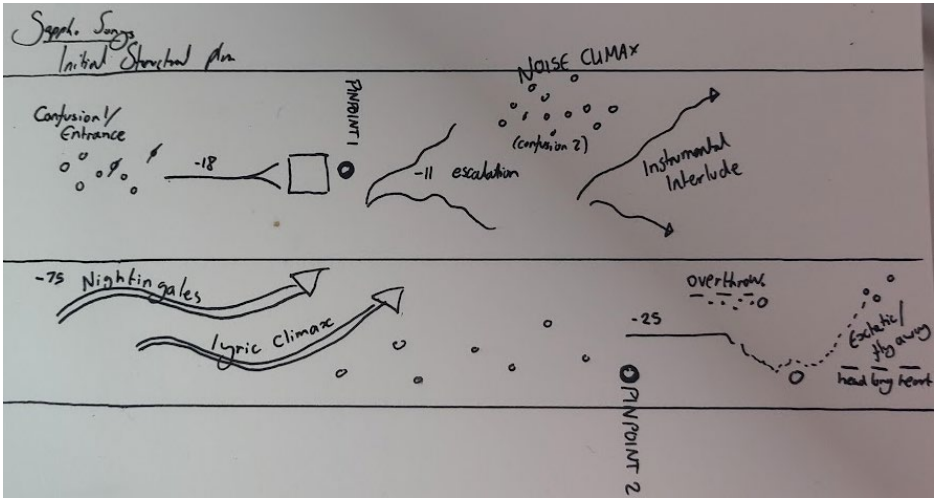


Figure 8: structural plan for *Garlands*

³³ Sappho, *Poems and Fragments*, Translated by Josephine Balmer (Northumberland: Bloodaxe Books, 2018).

The name *Garlands* was a result of the way these fragmented strands of text, melody and instrumental colour weave together. No individual line from this work stands alone, they are instead intensely interrelated. In order to balance the strength of meaning in the text I knew the instrumental writing needed the same expressive weight, various instrumental combinations and sonorities breaking through the texture just as clearly as the voice in turn, the overall structure reflecting this flexibility.³⁴

Working with the same harmonic method as described above, but now a new set of nine pitches and its rotations as shown in Figure 9, I was thinking in terms of balancing consonance and dissonance, and the gravitational pull of sustained pitches rather than specifically functional tonal language, although there are vital moments of tonal reference throughout resulting from the intervallic material present.

Figure 9: first rotation of harmonic material for *Garlands*



The ending of *Garlands*, when it comes, is not so much an ending as a leaving behind, continuation into silence: the soprano continuing as if forward to another episode while the ensemble writing subsides. To underline this sense of continuation, and to prepare the ending, there are several new elements in the material at this late stage:

³⁴ These ideas of textual flexibility, intricate relationships between parts and abstract meanings contained in the text and soundworld were influenced by works including: Harrison Birtwistle's *Trio* (2010), Jonathan Harvey's *Song Offerings* (1985), Meredith Monk's *Early Morning Melody* (1990), and Schoenberg's *Das Buch der hängenden Gärten* Op.15 (1908-9) and increasing my own attention to subtleties of each moment as will be discussed further in Part II.

1. Bell-like tolling and slowing of pace through dotted quaver pairs, bars 134 and 136 below, later taken up by cello, viola and clarinet in bars 144-145:

Example 5: *Garlands*, 134-136

2. Repeated pitches, present since the opening, now used almost exclusively to emphasise arrival points in the phrasing: sop 128-129 (C#), 129 – 30 (E), 133 (B) 136-137, 142, 143

Figure 10: *Garlands*, pitch repetition in the soprano line, 126-144

3. Silence: last heard in the first quaver of bar 8 (if at all), small silences return to punctuate the flow in bars 111, 133, 135, 142 and are implied in 126 and 129.

Example 6: punctuating silences in *Garlands*, 133-136

Garlands represents the first meeting of my fledgling musical language with the problem of setting text.³⁵ It presented a direct challenge to the idea that all material could take on equal meaning, that a network could be constructed from component parts kept continually in motion and balance – a text, however disguised, ambiguous, or hidden in amongst the overall picture, inevitably brought assumed meaning, external reference, and the sense of a central role or line to my music, reducing the agency of the materials to cross-fertilise and evolve freely by tying them to external or inherited meaning. Integrating the text with the purely sonic materials became about maintaining a balance between all of these materials – the purely sonic and sung words holding equal space within a network form with expressive force of its own.

³⁵ It is predated only by *Speak, Rose* (Shipsey, 2018), a setting of a four word Sapph fragment, first performed by Lizzie Watson at an event by newCELF, Cardiff in a programme alongside a host of other new works, Pauline Oliveros' *Tuning Meditation* (2007), and Judith Weir's *King Harald's Saga* (1979) sung by Fleur de Bray. That concert has stayed with me and directly shaped how I approach writing for a solo singer, and the soloist as a complete presence as seen in this portfolio in *Garlands* (2021) and *Crossing Songs* (2022).

Part II: Networks of Awareness and Material Meeting Points

‘Listening for the least differences possible to perceive – perception at the edge of the new. Jumping like an atom out of orbit to a new orbit – creating a new orbit – as an atom occupies both spaces at once one listens in both places at once. Mothers do this.

One focuses on a point and changes that point by listening.

Quantum listening is listening in as many ways as possible simultaneously – changing and being changed by the listening.’

Pauline Oliveros ³⁶

This middle period of research represents a fundamental shift in my practice. Beginning with *Of Far Flung Skies* in which I stretch network form over a larger canvas than I had previously thought possible, the project quickly turns in on itself. As we began to see in *Garlands*, I became focussed simultaneously on larger scale formal processes of transition, and on expression, on detail and developing greater awareness of the inextricably linked internal and external aspects of composing. Before returning to the music, it is worth introducing another aspect of context for continuing discontinuity at this point: the continuities and discontinuities of awareness, and the human ability to manipulate or fine tune attention as referenced in the quote from Pauline Oliveros’ text on *Quantum Listening* above.

Perhaps an inevitable next step from my exploration of the idea of affordance, and the noticing of detail and relationships it encouraged, I became interested in where this focussing and directing of attention might lead. During this period, a particularly painful time in terms of the pandemic and my own health, I had turned away from playing notated music almost completely, and towards improvising. More as a means of getting through this time than as a

³⁶ Oliveros, Pauline: *Quantum Listening* (London: Ignota Books, 2022) 30.

conscious part of my compositional practice, experimentation with various approaches to meditation, deep listening, and flow states had become a regular part of my days. It is now clear that these practices had far reaching effects on the music as I wrote it, widening my access to material, particularly in the case of *Crossing Songs*, and freeing up a separation that had previously existed between what I felt expressively, and what I believed was suitable material for composition. My practice began to be informed by theories of the mind as well as theories of music itself: Edouard Glissant's *Poetic Intention* and its notions of whole, duality, and richness caught my interest, as did Stephen Batchelor's *Buddhism without Beliefs*, Stephen Nachmanovitch's *Free Play*, and David Toop's *Ocean of Sound*.³⁷

The return to improvisation mentioned above was a resurgence of a practice I have held for some time, although I would not call myself an improviser in any public sense. I first improvised regularly with the Durham New Art Music Ensemble of which I was a founding member in 2010, later in experiences I had under the mentorship of Peter Weigold at Cheltenham Music Festival in 2015 and his *Academy Inegales* in 2017, and as part of the Impuls composition academy with Simon Löffler on his *Music Extended* course in 2018. Perhaps most relevant to this research period, though, is *The Hooting Cow Collective*, an ensemble I cofounded in Cardiff in 2017 and have been working with sporadically ever since, to whom we will return in the discussion of *Another Maze* - my contribution to our collaborative work *Exquisite Distance* - later in this commentary.³⁸

These experiences for a long time felt quite separate to my practice as a composer but it is clear now that they are fundamental roots of my approach. In these improvisatory settings I

³⁷ Glissant, Edouard (New York: Nightboat Books, 1996); Batchelor, Stephen (London: Bloomsbury, 1998); Toop, David (London: Profile Books, 1995).

³⁸ The name Hooting Cow Collective is a reference to two of the first pieces we performed together. First John White's *Hooting and Drinking Machine* (1971), and second, a co-created work after the poem *The Purple Cow!* (1895) by Gelett Burgess.

found creative approaches to working with both the sparsest of instructions, and intricately governed algorithmic pieces, also an appreciation for the magic of live, free, collaboration, and a role for the less traditionally notated aspects of my work.

Amongst the music explored with these groups a few stand out as strong influences on my own work. Stockhausen's 1968 text piece *Aus den Sieben Tagen* was foundational in my experience as an improviser and composer, questioning what constitutes composition and the methods we choose to communicate with performers; how this communication can purposefully add or remove levels of ambiguity, and steer performance without obstructing it. Christian Wolff's *Edges* (1968) fed into my early thinking on building connections between groups of materials.³⁹ Wolff suggests edges of sound worlds leaving the piece somewhere between what is on the page, something for improvisors to find a way through together. Morton Feldman's *Projection IV* (1951) for violin and piano was another early influence – a piece I have performed twice, in 2013 and 2019. Feldman's approach to defining materials in relation to each other using box notation, narrowing the focus onto specific decisions about pitch and timbre, demonstrated a different way of approaching notation and creating musical form in time. Pauline Oliveros' *Rock Piece* (1979) was another foundational experience – here I found an absorbing form of collective listening, ritualistic process, and silent joint decision making.

Through all of this I found improvising and orchestral playing had something in common; a particular type of listening. Listening to detail, to the inner makeup of a sound, and to the smallest deviations in timbre, trajectory, and sonic combinations. This *zoomed in* listening has led naturally to a preoccupation with detail and intricacy in my work which comes to the foreground in this period of my research. To return to the dictionary definitions of discontinuity presented at the opening, if we are to take discontinuity to mean a process by

³⁹ Wolff, Christian, *Edges* (London: Edition Peters, 1968).

which ‘something changes or stops rather than continuing in the same way’⁴⁰, then detail is important because it is only in understanding detail that we can see these entrances and exits of musical somethings. It is through attending to tiny details of sound and music that it is possible to consider how processes of development and discontinuity may progress simultaneously, how to plant the seeds of ideas without giving them away, and how to build webs and networks in time regardless of the exact language, sonic or otherwise.

To me improvisation offered a kind of immediate form of composition. It allowed for more direct contact with the sound itself, and broke down the roles of composer, performer and audience. The role of notation in this setting changed too – the process of making a piece so much more complex than could be captured on a piece of paper. Vitally, the whole process relied absolutely on the live situation, attentions, and histories of each person in the room – if any one improviser was not there, the improvisation would be fundamentally different. As Heble and Stewart describe it with the help of saxophonist Steve Lacy:

Indeed, a significant portion of an improviser’s musical vocabulary is shared with, or at least informed by, that of other improvising musicians, especially the ones he or she has listened to and learned from. As improvising saxophonist Steve Lacy put it, “Each player who comes along affects the common pool of language. When you hear a new player— and you make it your business to hear anyone who comes along and has something new—then you have to go back and rethink everything.”⁴¹

This is already mirrored in my approach to material in Part I. I was considering each material as something with an impact on the whole just as an improviser might bring a language to a group and be sensitive to how it combines with others present. This listening in and focus on sound itself brings with it a huge history of work, which fed into my practice at this point: John

⁴⁰ Cambridge English Dictionary online [last accessed 25/08/2024].

⁴¹ Heble and Stewart, ‘Solo Dialogics: Autodidactic methods of learning to improvise, in *Jamming the Classroom*’ (Michigan: University of Michigan Press, 2023) 20.

Cage's 4'33'' and the framing of the experience of silence (and chance sounds) as music; the fascinating work of Joan La Barbara, both with Cage and with other of her contemporaries, and on the development of extended vocal techniques through her own composition and improvisation practice; Meredith Monk and the integration of ritual, minimalism, and the avant-garde in her 1981 album *Dolmen Music* for example. Finally, the concept of *Deep Listening* as coined by Pauline Oliveros:

The key to multi-level existence is Deep Listening – listening in as many ways as possible to everything that can possibly be heard all of the time. Deep Listening is exploring the relationships among any and all sounds whether natural or technological, intended or unintended, real, remembered or imaginary. Thought is included. Deep Listening includes all sounds, expanding the boundaries of perception.⁴²

Through valuing this expansion of attention Deep Listening encourages a wider engagement with noticing, connecting and the act of imagining. Composers whose work in expanded perceptual space has influenced me include: Feldman particularly his *Piano and String Quartet* (1985), the first of his music that I experienced live, and Jonathan Harvey, particularly *Song Offerings* (1985) and, in its own way, *Haiku* for solo piano (1997). Both Feldman and Harvey acknowledged the importance of heightened states of awareness in their process as composers, Harvey discusses these ideas at length in his book *Music and Inspiration*.⁴³ Feldman, talking about the compositional process, explains: 'You have to have control of the piece – it requires a heightened kind of concentration. Before my compositions were like objects, now they're like evolving things.'⁴⁴ More recently the work of Tansy Davies, particularly *Soul Canoe* (2019), and *Nightingales: Ultra-Deep Field* (2020) for string quartet, has been an important influence on

⁴² The Center for Deep Listening website: <https://www.deeplistening.rpi.edu/deep-listening/> [last accessed 17/4/24]

⁴³ Harvey discusses these ideas in his book *Music and Inspiration* (London: Faber & Faber, 1999)

⁴⁴ Feldman in the Universal Edition Catalogue as referenced in Walker-Smith, 2001, 26

my work. Davies describes something similar to deep listening or a meditative state as part of her compositional process in her programme note to the string quartet:

Spring in rural Kent, felt intense: hyperreal even. Everything seemed heightened: the colours, the air, the quiet, the birdsong.. The vital nature all around became an addiction. I continued to work with the patterns I had made; playing with them and experimenting with endless combinations and ways to bring them to life. I needed my material to begin to lead the way somehow – so I could start to ‘collaborate’ with it – in the search for meaning, feeling and some kind of life-force.⁴⁵

In his conversations with Fiona Maddocks Sir Harrison Birtwistle comes close to the topic too. In talking about the relationship between detail and form in pottery, Birtwistle explains: ‘I like the pure, unadorned statement. It’s a kind of Zen thing.’⁴⁶

This engagement with focussing of perception, tuning towards the detail and complexity of presence in the broadest sense, is relevant to the idea of continuing discontinuity because it takes the idea from something purely theoretical to do with form into the human sensory experience of any one moment, and the collection of moments that make up any passage of time. Through intentionally expanding awareness and engaging with altered states of mind, it becomes possible to see more clearly the detail within our own seemingly continuous experience.

Encountering these ideas and beginning to value the interactions between the many sides of my practice fundamentally altered my work as a composer. What follows is a collection of works in which I moved from working mainly with ideas of network form as discussed in Part I, towards working with directed attention and awareness practices and a wider acknowledgement of what I could call material. A kind of reinstatement and revaluing of the subconscious alongside the conscious. These two sides inform each other to create work

⁴⁵ Davies, *Nightingales: Ultra-Deep Field* (Faber Music, 2020) – online access to programme note via www.fabermusic.com, [last accessed 19/4/24.] The .. after ‘birdsong’ is intentional.

⁴⁶ Birtwistle & Maddocks, *Wild Tracks, A conversation diary*, (London: Faber & Faber, 2014) 31.

that has, I hope, benefited from an opening up of what counts as material and how it is attended to. To begin, we take a step back to the work in which I first stretched network form over a longer time frame and the attention to longer line that this necessitated.

Long range navigation: a study of transition in *Of Far Flung Skies*

When tasked with writing a piece for the City of Bristol Brass Band and their Learner Band as part of Making Music's *Adopt a Composer* scheme I began from a place of curiosity.⁴⁷ Having never written for brass I now had two bands, two conductors, and a huge musical machine I was just getting to know. We began working together through a series of meetings culminating in a whole day workshop with both bands in which I explored various materials with the players and introduced some improvisatory work and game pieces I had been experimenting with at the time. This process was crucial to what would eventually become a fully notated work as it allowed a full exploration of the sonic possibilities and challenges available, and helped the band to meet my work in a way that allowed time, questioning, and sharing of the experience.

After these initial workshops I had a collection of materials taking shape, a huge amount of recorded brass sound to return to for reference, the concept of a journey through four different skies, and an invented set of rules by which I would write the work.⁴⁸ These rules or 'sky logic', as shown in Example 7, were concerned with basic relationships in the music I was imagining. This *sky logic* shares something with the story of blocking the traffic into Brighton

⁴⁷ The *Adopt a Composer* scheme, later renamed *Adopt a Music Creator*, is funded by PRS Foundation, the Philip and Dorothy Green Trust, and Creative Scotland, and run by Making Music in association with Sound and Music and BBC Radio 3. A recording of the premiere of *Of Far Flung Skies* performed by the City of Bristol Brass Band and Learner Band, conducted by Ian Holmes, at St. Georges, Bristol, is available in the supplementary material provided.

⁴⁸ I was of course also deeply influenced by the relatively small amount of brass repertoire I had got to know up to that point including: Harrison Birtwistle's *Silbury Air* (Universal Edition, 1977, 2003), Thomas Doss' *Spiriti* (Mitropa Music, 2010), Liz Lane's *Antiphony* (Composers Edition, 2009) and *Slate, Sea, and Sky* (Composers Edition, 2016/19), and Toru Takemitsu's *Signals from Heaven* (Schott, London 1987).

from one zebra crossing: it outlines a set of possible actions and consequences, relative behaviors, at work behind a broader process of change.

Example 7: Sky Logic: a set of rules for material interaction in *Of Far Flung Skies*

- *Long lines encompass diverse colours*
- *Change is either imperceptibly gradual or thunderclap sudden*
- *After sudden change comes confusion, before settling*
- *Paths started always continue, often across the band*
- *Pinprick bright decorations form the backdrop for soaring free lines*

With these rules in place and a set of materials to begin with, I began the process of constructing a material network larger than any that I had previously made. The larger time canvas and melded brass sound came with the need for broader focal points, longer range motion, and a less immediately intricate treatment of material.⁴⁹ Whilst the foundations of material interaction, collision and cross fertilisations are the same as in the smaller material networks already discussed, the space over which these interactions occur is more drawn out, requiring greater nuance in terms of transition.⁵⁰

⁴⁹ The expansive ending of Birtwistle's *Mask of Orpheus* (1973) which I had seen shortly before the onset of the pandemic was particularly relevant to my thinking in terms of opening spaces within large time scales, as was the melded sound of Witold Lutoslawski's *Symphony No. 2* (Chester Music 1967) and Arlene Sierra's *Aquilo* for orchestra (Cecilian Music, 2001).

⁵⁰ The issue of transition deserves a complete study of its own. Some works I have found instructive in terms of transition and the appearance and disappearance of new (and old) objects are: Howard Skempton's *Lento* (Oxford University Press, 1990), Jo Kondo's *A Shape of Time* (York University Press, 1980), Oliver Knussen's *O Hototogisu!* (Faber Music, 2017), Olga Neuwirth's *Aello, ballet mechanamorphe* (Ricordi 2016/17) and *Torsion* (Boosey & Hawkes, 2001).

As I see it there are four distinct types of transition at work in this piece:

Sudden break: most clearly this occurs between movements II and III. There is also a sudden break between I and II although here prepared by the reliance on held pitches as hinges (see below), and the final swell in bars 50-54.

Hinge: here I mean where one relatively small piece of material acts as a turning point for a larger move in the structure. In movement I several small hinges in the form of briefly held pitches are seen in succession: soprano cornet bars 4 and 12, balcony solo at bars 9 and 16. At each of these points, below the held pitch there is a fast shift in the material character dominating the texture.

There is a broader and repeated structural hinge action in the final movement: the spiralling upwards motion of bar 222 repeats and expands into longer lines, always preceding structural shifts as at bars 250 and 299, and the trombones 307-308.

Morph: the passage described above from bars 4-16 in the first movement also contributes to the first example of morphing in the work. With each switch of material the rhythmic impetus of the whole increases until at rehearsal figure B a rhythmic drive emerges much more clearly.

There are several other examples of morphing throughout the work, but particularly poignant is the transition into the 'clown' section through a process of fragmentation of the chorale and subsequent lengthening of line in a new direction from bars 159-180.

Stilling: this may be considered a subtype of morphing, but has a more specific function. Where morphing covers the gradual transformation of one location in a piece to another, stilling is the broadening or slowing within one specific location, just as happened in the centre of *The Time Being*. Not a reduction in tempo necessarily, but a material zoom in which something which was previously high energy becomes stiller. This process can be seen in movement III from rehearsal figure I to L: preparation for the sudden chorale like entry at 154.

Developing these approaches to transition in *Of Far Flung Skies* allowed for the application of my ideas of continuing discontinuity and material networks over a larger scale, but it left me with questions too. The experience of the work as I felt it was still one in which parts were audibly jostling for position. As a listener the process of relationship making and remaking was a little more drawn out than I hoped it would be. Whilst in places the music seemed organic and self-driven, it had a fragility to it, a risk of stiltedness and loss of direction, which demanded a huge amount of rehearsal time from both bands, problems I worked to resolve in subsequent pieces.

Tightening the weave: proximity in *Garlands*

The varied approach to transition in *Of Far Flung Skies* offers a number of different ways in which one material may meet another horizontally, but the vertical aspect of material meeting points is equally important. These meeting points (horizontal and vertical) have become fundamental to how my music holds together. Whilst horizontal meeting points, as we have seen, function as transitional, vertical meeting points act to strengthen relationships between parts, offering clear moments of coalescence, binding an ensemble together even when the material itself is multiple and fragmented. They also offer a possible solution to the problem or fragility discussed in relation to *Of Far Flung Skies*.

To demonstrate this idea I want to return to *Garlands*. Written after *Of Far Flung Skies*, *Garlands* inherits from the larger work this concept of bound parts within the ensemble; momentary meeting points across a larger space. The continual pairing that occurs between parts in *Garlands* is never permanent, and never for long. Individual parts briefly touch each other in motion, landing on one melody, the same rhythm, or a single shared pitch, not always exactly, and never for long as illustrated in bars 1-2 and 140-142 below (score in C):

With heightened energy, contained
 $\text{♩} = 108 / \text{♩} = 72$

Example 8: momentary pairing in *Garlands*, bars 1-2

The work opens with a combined A \sharp , stated and restated in a new combination, a B \flat in bar 1 momentarily joins cello and clarinet before the B \sharp joins the clarinet and harp, the A \flat and B \flat then join the clarinet and cello, before the G \sharp originally stated by the harp in bar 1, returns to join the harp and cello. This tracking of pitch between parts sets the scene for a tightly woven texture of fragments from the start.

Example 9: momentary pairing in *Garlands*, bars 140-142

The weave continues to the end and is present still in Example 9 although the meetings are now not always so exact: the C# of the harp in 140, later paired exactly with the harp, is answered first a dotted quaver later by the clarinet. This idea of paired voices, common to orchestral and brass band writing alike, is fragmented here to match the equally fragmented text. In this new context, rather than strengthening one line or another, it creates cross links, or nodes within the wider ensemble writing, strengthening the web of relationships as a whole.

From one point to another

All the works discussed up to this point have been concerned with collections of objects and forging connections between multiple characters. The next two works discussed are experiments with an alternative question: how form may be rooted in variety and interaction when starting from a singular material point, and not a collection of objects as has been the case so far. Following my work on *Of Far Flung Skies* and *Garlands*, but before I heard either work, I was at a loss for what else I could do with collections of objects and had begun to feel trapped by the endless maze these collections seemed always be leading to. I needed to find a new way in and I found it through the focus on detail and awareness discussed above.

Here again, Carlo Rovelli's text on time became relevant to my thinking. I began to work on focussing and stretching my material to create a kind of perpetual present, or spun out moment, rather than any directional narrative. In relation to the theory of *blur* in time, Rovelli writes:

If I observe the microscopic state of things, then the difference between past and future vanishes. The future of the world, for instance, is determined by its present state – though neither more nor less than is the past. We often say that causes precede effects and yet, in the elementary grammar of things, there is no distinction between 'cause' and 'effect'.⁵¹

I wondered what music might result from taking something microscopic and limiting the space to that material, severely restricting the range of my previously roving attention onto one point and working only with what was immediately possible from there.

Singular focus in *Myopic Sequence*

Taking its name from a limited field of vision, *Myopic Sequence* exists in two versions: the first for solo saxophone, the second for saxophone and piano. The material for these works is hugely compressed compared to all the works discussed so far: six quavers, pitches (in C) and intervallic relationships (in number of semiquavers) shown below:



Figure 11: intervallic relationships in *Myopic Sequence*

Several patterns are worth noting here. First the continuation of two parallel lines formed by the alternation of upper and the lower registers. Next, the contraction of [3] in the interval in all the lines present: 4 reduces by 3 to become 1 in the upper line, and 7 reduces by 3 to

⁵¹ Rovelli (London: Penguin, 2019) 30.

become 4 in the lower line. Simultaneously there is a space of [3] between the concurrent movements 7 and 4 in the first step between pairs, and 1 and 4 in the second step between pairs. This reliance on the intervallic space of 3 semitones is confirmed by the sequence of three pairs of quavers in which the intervallic content (pair by pair) is 12-9-6 as shown in Figure 11. Again, a contraction of 3 semiquavers with each step. So, whilst there is an overall sense of upward motion, the material is always drawn inwards by these internal patterns of contraction. The intervallic symmetries and obsessive restatement of the relationship of [3] lend a certain predictability to what is on the surface an intentionally erratic melodic line. This complete focus on one line forged from such a tightly defined fragment gives the music a sense of united direction and urgency which I sought to strengthen as I refined the work.⁵²

Two other details are vital in drawing out the inherent variety of the initial material. First the accent introduced at bar 8 in the sax and piano version which becomes a staccato and, later, tongue slap. Second, the stasis, or momentary pause in motion created by either a held pitch or complete silence. When working with such limited pitch content the power of these starkly contrasted types of motion became vital to any sense of development, internal tension or direction. These tiny differences in what, in another context, might serve to articulate or highlight a larger musical thought, here become themselves material for expressive purpose.⁵³ This focus on intricacies so small they might not often be considered musical in themselves is taken a step further in *Another Maze* – my contribution to *Exquisite Distance* which we explore on the following pages.

⁵² The sense of direction here was consciously drawing on several much larger works including: Jonathan Harvey's *Tendril* (1987), Oliver Knussen's *Study for "Metamorphosis"* (1972), and Coursing (1979), Arlene Sierra's *Balistae* (2000).

⁵³ A workshop recording of *Myopic Sequence* for saxophone and piano given by Naomi Sullivan (saxophone) and Kumi Matsuo (piano) is available in the supplementary material provided.

Intricacy and direction in *Another Maze*

Exquisite Distance is a work collaboratively created with the Hooting Cow Collective, an experimental music group I cofounded in 2017 and have been working with ever since. In its complete form *Exquisite Distance* consists of six pages, each page written by a different composer, each composer responding in their own way to the page that came before their own.⁵⁴ To perform the work it must first be interpreted by improvisers located somewhere away from the main group. These initial interpreters record their contribution remotely and return it to the group. The remainder of the group then respond in performance, in real time, to the videoed version and score, creating a kind of hybrid performance – impossible to repeat exactly, yet always following the contour and implications of the score. Here I focus on *Another Maze*, the third page of the complete score and my contribution to the piece.

For me the performance situation itself became a starting point just as much as the preceding pages. The resulting work uses a language of three types of sound given in a key at the top left of the score, shown in Figure 12:

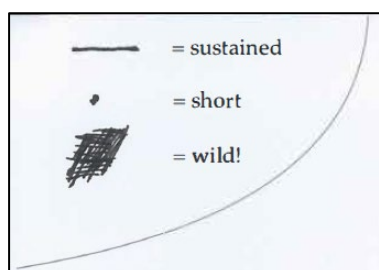
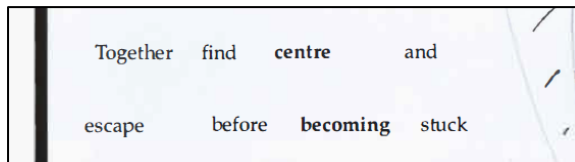


Figure 12: categories of sound in *Another maze*

Using these materials and the restrictions of a single page and ink on paper, the work emerges from the interactions between these categories. The score is a combination of graphically notated shapes and strategically placed text. I was working with how direction, interaction, and texture can be implied or suggested – appropriate for this improvisatory context and allowing a huge amount of detail even within one page. The deeply individual gestures on the edges of

⁵⁴ A recording of *Exquisite Distance* given by the Hooting Cow Collective at the Music Since 1900 conference, Royal Birmingham Conservatoire, is included in the supplementary material provided.

the image are contrasted with the bounded, more tightly wound material present in the maze like circles, interlaced to create a kind of gravitational pull on the page. The performers are given intentionally ambiguous direction by the written text which suggests a way into the work approximately a third of the way up the page on the left hand side – here again we see opposing pairs and two levels of meaning, similar to the opening material for *Myopic Sequence*:



Example 10: ambiguous instruction in *Another Maze*

Just as in *Myopic Sequence* where pitch material became tightly woven by reliance on the initial intervallic set, in my page of *Exquisite Distance* the material, now visual, is tightly united by its own internal language of intricacy, repetition, and relative levels of expressivity contained within more or less clear boundaries. Indeed if you read the page from left to right, beginning with the text instruction, see Example 11, there is an implied sense of motion containing various types of transition, material interaction, and meeting points, not dissimilar to the techniques discussed so far in this commentary. As I worked on *Another Maze* I was reminded of the harmonograph patterns illustrated in Anthony Ashton's *Harmonograph, a visual guide to the mathematics of music*.⁵⁵ My intention was not to directly reflect sound in an image as a harmonograph does, but to suggest possible characters, direction, and interactions.



Example 11: a possible reading of *Another Maze*

⁵⁵ Ashton, Anthony, *Harmonograph, a visual guide to the mathematics of music* (California: Wooden Books, 2005)

Material led form in Wolf

In both *Myopic Sequence* and *Another Maze*, the tightly defined source material, and a focus on the intricacies of that material, led to a sense of focus in the forms that emerged during my composition process. However, many of the compositional decisions beyond the choice of material were intuitive, reached by trial and error, and sometimes seemingly unrelated to the starting material in any tangible way. Below I discuss a more recent work, *Wolf* for solo percussion, as an example of a more programmatic link between starting material and final form. As with the earlier pieces in this portfolio, *Wolf* is a work in which the inspiration and imaginative side of the story was vitally important as will be discussed further in part III. But alongside that centrality of character, I wanted to work in a way that was more completely governed by my starting material. Where the network of pitches I began from could become truly the root of the work on a broader formal level as well as the micro bar by bar level.

When asked to write a piece for solo percussion I initially imagined the work would be for vibraphone. I began working with a series of pitches and its rotations, and the interrelated pattern of interval numbers as shown on the following page.

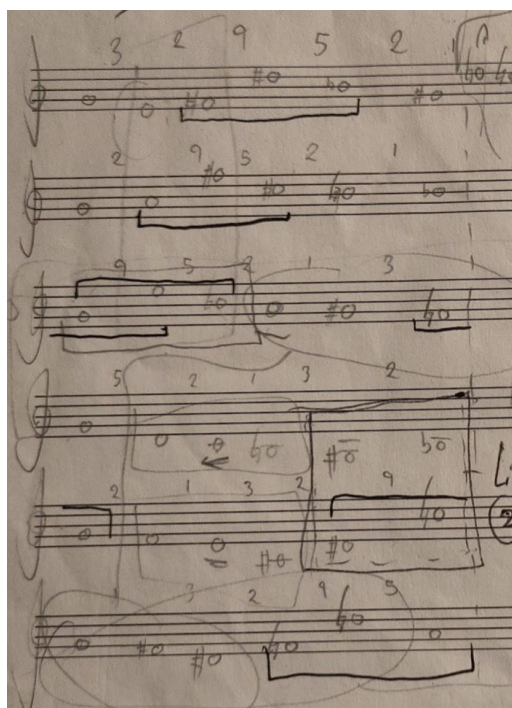


Figure 13: complete rotations for *Wolf*

3	2	9	5	2	1
2	9	5	2	1	3
9	5	2	1	3	2
5	2	1	3	2	9
2	1	3	2	9	5
1	3	2	9	5	2

Figure 14: rotations for *Wolf*: intervallic content only

This set of rotations is one I had not used for some time and it was interesting to return to it now from a new perspective.⁵⁶ I split the range covered by the rotations into three roughly even areas: low, middle and high, as shown in Figure 20, and decided there would be a fourth, centring, sound on each instance of G natural.



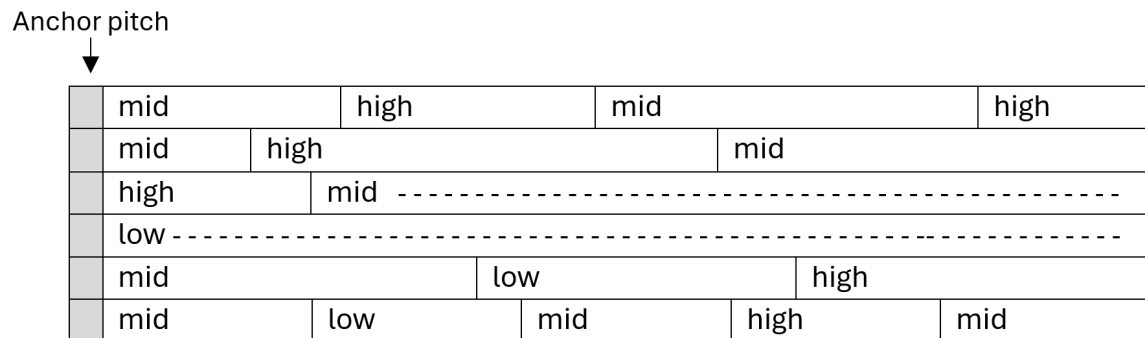
Figure 15: grouping by range for *Wolf*

The idea of a piece based around these three areas of sound plus a repeated centring sound quickly became stronger than the specific decision to use the vibraphone. Figure 16 shows how the pitches from the rotations shown above translated through these groupings to give a pattern of low middle and high before any rhythmic decisions were made. By the time I

⁵⁶ Its original use was as the basis of my material for *Samara* (2018) for orchestra

had this plan I knew that exact pitch was not important to this work. Despite its basis of pitch rotations being so carefully mapped out, the piece would be rooted in conversation between the three sonic areas of high, middle and low, and therefore could happen on any instrument.

Figure 16: proportion & pitch group plan of Wolf



As had happened with *In Tiled* and *Of Far Flung Skies*, here I again felt the need for a set of rules to guide the transformation from an interrelated web of numbers and pitches to something meaningfully musical. The process I arrived at is described below:

Rule 1: basic rhythmic unit: each interval number translates to the given number of consecutive quavers. Therefore 3, 2, 9 translates into bars 1-2.

Rule 2: Direct translation: the basic motion is progression along the grid from left to right: 3, 2, 9, 5, 2, 1, 2, 9, 5 etc.

Rule 3: Expanded translation: this motion can be further expanded by a second layer of articulation of the grid: with each main step along the grid, the number arrived at will result in an equal number of steps along the grid before moving on. So, starting at 3 and with a / denoting the move from one starting position to the next in the grid, the series of numbers to be translated into quavers is:

3, 2, 9 / 2, 9 / 9, 5, 2, 1, 2, 9, 5, 2, 1 : this results in the material for bars 1 to the third quaver of bar 7.

Rule 4: Pitch: pitch is governed by the original pitches of the rotation filtered through the low, middle, and high groupings.

These rules led quickly to a large amount of material out of which I hoped a piece could emerge. The next steps involved a reassessment of the material for its expressive qualities. Now working with this translated material in conjunction with the variety of possible titles that had associated themselves with the work, I focussed on stealth, pacing, sudden rushes of movement and circling of space as described in the programme note, and on what details within the collection of material I had already created might be best suited to the task. Of the many details I could mention here, one that became central to the success of the work was the accent. In *Wolf* accents primarily serve to articulate each step along the numeric grid that governs the material. As the composition developed they took on additional importance: the more forceful *staccatissimo* marking each recurrence of '1' on the grid, and later becoming fundamental to the repeated interjections that punctuate the second half of the piece, centring the sound as it races toward the end.

One further duality exists between *subtle* and *extreme* accentuation, creating an additional layer of conversation between contrasting sonic types, complicated by their relationship to the overall dynamic contour. The *subtle* accents at *p* at the opening for example will have an entirely different effect to the *subtle* accents at *ff* in bar 77, but both are creating the same focussing of the ear within a small sonic space, almost like the focussing of attention of a wolf on the hunt.

In writing *Wolf* I had almost entirely been led by the combination of numbers handed to me by that old set of rotations. The decision to work solely within that grid of material and experiment with how a fundamentally pitched material source might govern a piece with no specific pitches was a rewarding one. My compositional decisions early on happened swiftly and clearly allowing greater focus on the subtlety of expression and for further shaping of form and momentum. There were two distinct levels of work here: first the semi algorithmic

laying out of content for the piece, and a second level focussed on finding the shape, direction, and strongest sense of expressivity within that content.

So far *Wolf* has been played in two versions: first on five tom toms, and second, using three sound worlds found within a singular bass drum.⁵⁷ Both worked well in quite different ways. The version on 5 toms brought with it echoes of Xenakis' *Rebonds* and a highly varied yet intensely directional sound world. The version on one bass drum was more introspective despite its deep broad sound. There was a sense of live exploration of the possibilities held within one object, a greater attentiveness to slight difference, and a fine tuning of the ear within that more blurred timbral space. I have intentionally left the score open in terms of instrument choice. The sound world of the piece is, after all, dependent on the internal logic of the material far more than it is on the exact accent that material is spoken in.

Considering the central portion of this research, and Part II of this commentary as a whole, it is clear the expressive aspect of my work was becoming increasingly woven into my formal concerns. By the end of this middle period of work I was focussed far less on exact steps through material webs (as I had been in *The Time Being* and *Of Far Flung Skies* for example), and far more on drawing out the expressive side of my materials, as discussed further in part III of this commentary.

⁵⁷ A recording of *Wolf* on five tom toms performed in a workshop by percussionist Harriet Riley is available in the supplementary material provided.

Part III: Material that Speaks

‘Music in particular, all art, it’s not a mirror, it’s a door’

Mishka Rushdie Momen ⁵⁸

In Parts I and II of this commentary I have focussed mainly on technicalities. On how my music related to the initial question of continuing discontinuity in this research, and my path to the now guiding idea in my practice of *Network Forms* – still fundamentally a technical issue of balance, transition, and line. In the final part of this commentary I return to the subject of the imaginary, and of affordance, and to the way music exists for me in an extended network of meanings; somewhere between the composer, the material, the performer, and the listener, each bringing their own associations and understandings to the web. As my ability to work within networks of material became more fluent, the central question in my mind became about expressivity, and story, and the creative translation that goes on as music written on a page makes its way to the memory of a listener. I had also begun to wonder how far these networks of material could really go. Was network form simply a compositional trick with only a few genuine solutions, or could it continue to grow in scale, in expressivity, and in flexibility too? To this end, in the following pages I discuss two small scale works: *Feathered Air* for solo piano and *Three Wandering Lines* for solo clarinet, and two larger scale works: my first string quartet, and *Crossing Songs* for soprano and sinfonietta.

⁵⁸ Mishka Rushdie Momen speaking on BBC Radio 4’s *Women’s Hour*, 31st July 2024, starting at 50:45 [recording last accessed 3/8/2024 via BBC Sounds].

Crossing Songs was premiered at Aldeburgh Festival in 2022, in the same concert as *The Time Being* alongside a host of other new works. The next weekend many of the same performers and composers gathered in London to work through material in various stages of completion.⁵⁹ This was the first time in two years that we had been able to all be in the same room for any extended period of time. Pandemic restrictions were finally easing in a meaningful way and the return to live music making together felt life affirming, fresh, and full of promise. Of my music, we worked on a new iteration of *In Tiled* for improvisers and tile keeper in a crowd, and I had the chance to hear *Tableaux* for oboe and string trio for the first time.⁶⁰ Two weeks later *Feathered Air* was recorded and premiered online by Benjamin Powell as part of Psappha's brilliant 'composing for...' scheme. Experiencing these pieces so close together, drawn from such different points in my practice, provided a rare chance to feel connected to all of those moments at once. I saw how this research traced back to *Tableaux* in terms of harmonic language and line, developed further in *The Time Being*, and was at the root of in *In Tiled* too. How, in each of these works, no matter what the language consisted of, expressivity and prioritisation of the imaginary, ambiguous, or abstract were vital parts of the story. I was reminded of how, when rehearsing early sketches for *The Time Being*, conductor Jessica Cottis had commented that the music had an underlying DNA of Romanticism, but behind many closed doors.⁶¹ This gave me much food for thought now, as I saw all these pieces in relation to one another. The job of the performers was to understand those two forces of expression and containment, but perhaps I could do more to open a few doors a little more clearly and for a little longer. By the time I finished *Crossing Songs* and *Feathered Air*, I had begun to understand how to do that.

⁵⁹ My thanks go to Britten Pears Arts for their support of this additional working time and allowing us to experiment with how we might collaborate in the future.

⁶⁰ See Volume one, appendix one for the scores of *Tableaux* (2018) and *In Tiled* (2019).

⁶¹ My thanks go to Jessica Cottis for this insightful observation, originally made in relation to early sketches for *The Time Being*, and further discussed as I drew all these threads together in 2024.

Crossing Songs: abstraction and the internal maze

Crossing Songs was commissioned by Britten Pears Arts for the Aldeburgh Festival in 2022.⁶²

The process of writing this work was both intensely collaborative, and deeply solitary. The soprano Emily Thorner and I had talked in 2020 about working together but, now we had the chance to do that, everything I thought I knew about the piece was immediately in flux. I put all prior decisions about what I would do in this new work to one side and gave space to the idea that my plans might all need to be remade. We talked about the nature of the work, the possibilities this opportunity opened up, and what kind of a piece would make best use of Emily's unique voice, and my emerging language. We then moved to a process of iterative improvisation and experimentation, before I took the findings of that time away and began a far more isolating phase of composing the work itself. The first phase of collaborative work, improvisation and experimentation was, after such a long period of pandemic separation and individual work, a complete joy. To begin with I sent Emily prompts in the form of descriptive words and, later, a copy of *Another Maze* with very little explanation. In return she sent me recorded improvisations that pushed at the edge of what I knew was possible with her voice. Emily asked me for a piece unlike any that I had written so far, something drawing on the core of my understanding, pulling away from what might be easily explained and towards something more personal. The writing process of *Crossing Songs* happened largely during periods of pandemic lockdown or restriction amongst other challenges. Somehow this alignment of opportunity with a vast amount of time alone led to the work becoming much more closely linked to my own memory and experience than I had initially imagined it would. As is often the case, the process of consciously working on the piece began before there was anything approaching material on the page. I took everything I had learned from the

⁶² A recording of the premiere given by Emily Thorner (soprano), the Britten Pears Contemporary Ensemble, and Jonathan Berman is included in the supplementary material.

improvised materials and conversations with Emily, in combination with my own growing sense of where this piece was coming from. Gradually I gained a sense of shape, narrative arch, and emotional world of the work.

Alongside the collaborative work with Emily, and internal excavation of my own personal starting points, I had begun to explore texts in relation to the shape of the work that was beginning to form in my mind. Around this time fiction became a very conscious counterpart to what was increasingly internal creative work, when I was not working on the piece I lost myself in fictional and abstract worlds: Siri Hustvedt's 2003 novel *What I Loved* with its spiralling long form story, Kazuo Ishiguro's *A Pale View of Hills* (1982) and *Klara and the Sun* (2021), the sculpture of David Nash, and, a fascinating interview with Mary Oliver about her relationship with creative work as a form of processing.⁶³ In this meandering exploration of text I landed on two writers whose language felt suited to the piece forming in my mind. First, Italo Calvino's *The Distance of the Moon* – whilst not used in any direct way in this work – resonated strongly with me for its depictions of attempting the impossible, solitude, and closeness. The story stuck in my mind, and later became an important inspiration for *Lunar*.⁶⁴ Second, a volume of the poetry of Rabindranath Tagore with its mixture of long and short form work, fragments and aphorisms next to extended poetic work, always prioritising the senses, experience, and story. With the layers of personal meaning I had been excavating through internal work, and the fictional world of Calvino's characters climbing from boats to the moon strong in my imagination, I selected a collection of fragments from Tagore's poetry which formed three subgroups and became the basis of *Crossing Songs*.

⁶³ Nash, David, *200 Seasons at Capel Rhiw*, ed. Nicholas Thornton, (Cardiff: National Museum of Wales Books, 2019) ; Podcast: Mary Oliver on *On Being with Krista Tippett*, March 2022

⁶⁴ Italo Calvino, *The Distance of the Moon* (London: Penguin, 2018)

These fragments are set out as they appear in the three movements of *Crossing Songs* below ⁶⁵:

Lunar

[Child] You will find, eternal traveller, marks of your footsteps across my songs,
The crossing of a sea.

I only said “when in the evening the round full moon gets entangled in the branches of
that Kadam tree, couldn’t somebody catch it?”

Stray Birds 306, 242, and *The Astronomer**

Chants

Not hammer strikes

Dark Night

By what dim shore of the ink black river, by what far edge of the frowning forest,
through what mazy depth of gloom?

The little flower lies in the dust. It sought the path of the butterfly

Vagrant Birds 126, 120, *Gitanjali*, and *Stray Birds* 264

Rainbow Ocean

Be still, my heart, these great trees are prayers,

This life is the crossing of a sea, where we meet in the same narrow ship.

[Now] We reach the shore, and go to our different worlds

[Go now, and carry her with you]

Stray Birds 95, 242

* for each song the source of the text is listed in order of appearance, one line per
source. [boxed text] indicates an alteration or addition of my own.

Once I had the foundation of the work, I again turned to pitch rotation as a basis for material for songs I and III as shown in Figure 17. Notably, *Lunar* begins from the same source as *Garlands*, although by the end it weaves in material drawn from another place entirely, a precursor to that used in *Rainbow Ocean*.

⁶⁵ Fragments from *Rabindranath Tagore, Selected Poems* (London: Harper Collins, 2013)

Figure 17: harmonic material for *Crossing Songs*

Material for *Lunar*:



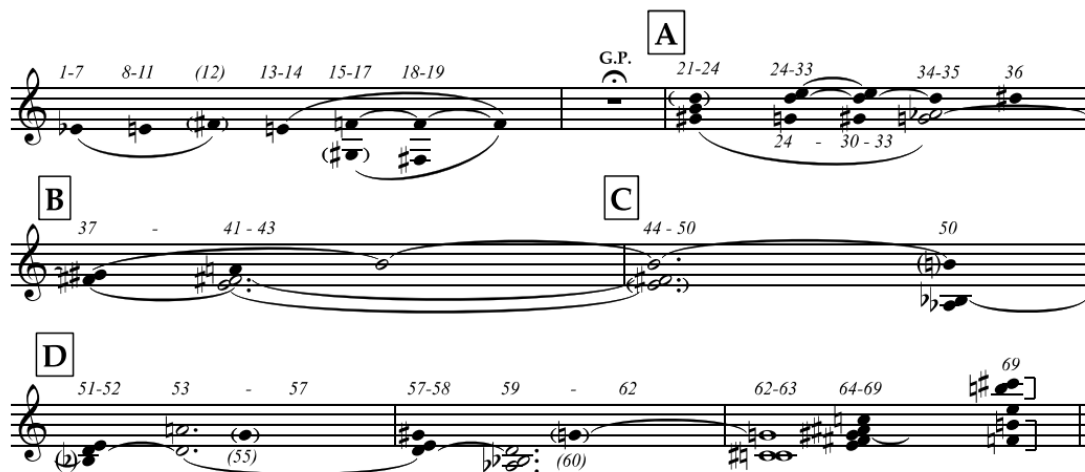
Material for *Rainbow Ocean*:



From here there was a long process of meeting these materials in relation to the fragmented text I had built for myself and working through the various opportunities and consequences contained within this material space. Below I examine some techniques through which the completed work speaks.

Taking the first song, *Lunar*, as an example, and as we saw previously in *Of Far Flung Skies*, sustained pitches serve as anchors throughout. Figure 18 maps the internal line of sustained pitch, brackets indicate where the sustain is marginal:

Figure 18: sustained pitch and pivot points in *Lunar* from *Crossing Songs*



There are several aspects of the motion set out here which offer insights into the piece as a whole. First the opposition of closed and open space, for example the opening passage in which the pitches are always moving within intervals of 1 or 2 semitones of each other, opposed with the more open spaces of A and bar 62 onwards. This alternation of open and closed space persists throughout, forming a pattern of expectation and implied direction. The focus on the space of a semitone or two is also persistent throughout, and the alternation of G sharp - G natural – G sharp, as in the bottom line at A and in the centre of the texture from bar 55 onwards, returns as a unifying force in the opening passage of *Rainbow Ocean* in the clarinet marked by double bass *pizzicato*.

Here again, closeness is contrasted with something broader, the move to much more open harmony in bar 12 beginning the journey to a more wholesale opening-out in its final passage when, at bar 62, we see a completely new colour emerge. This opening-out at the end, the end becoming something new, intentionally repeats in the final passages of *Chants* and *Rainbow Ocean*. The sense of imagination and hopefulness in the final line of text to each song pulling the sound world in a new direction each time. On a larger scale this process of opening out is present in the three movements as a complete statement; the first two movements occupy places of tension whilst the final movement sees a transformation to something childishly bright in comparison. The wider structural shift here offers an important point of arrival in the complete cycle. Points of arrival, and of opening, as seen here and in the sudden entrance of a chorale-like passage in *Of Far Flung Skies*, offer moments of space, sometimes - quite literally – breath, in otherwise tightly interconnected structures. Whilst the chorale in *Of Far Flung Skies* came as a shock even to me as I wrote it, the moments of arrival in *Crossing Songs* were much more consciously placed.

Openings, translation, and emergent melody in *Feathered Air*

Almost simultaneously with *Crossing Songs*, I wrote a 6-minute piano solo *Feathered Air*, another work born out of sustained collaboration and concerned with the place of intricacy and internal focus where *Exquisite Distance* and *Myopic Sequence* left off. As part of Psappha's 'Composing for...' scheme I began working with the hardanger fiddle player Clare Salaman and became immersed in the music she shared by way of introduction to the instrument, particularly the albums *Lyensing* by Nils Økland and Benedicte Maurseth's *Alde*. This music felt completely new to me, but also familiar to the mobile stasis, intricacy, and varied motion I had been concerned with in *Another Maze* and *Myopic Sequence*. I began to play with material and tunings on my violin, an inadequate but functional testing ground for what might work on the hardanger fiddle. Gradually, and with the help of another workshop with Clare, my ideas for the piece solidified. Very sadly, shortly into the scheme Clare Salaman died, but not before she had left a tangible mark on the pieces which would result from that time.

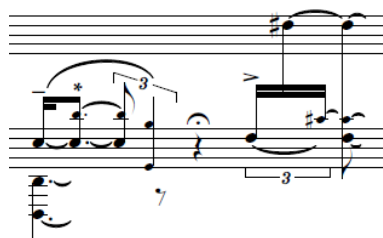
The pianist, then Artistic Director of Psappha, Benjamin Powell, generously agreed to work with the group following Clare's death to translate those fledgling hardanger fiddle pieces into works for piano. *Feathered Air* is the result of that process and has its roots firmly split between both instruments. As well as the music for Hardanger fiddle I had been working with in the initial sketches for the work, I now drew influence also from a range of writing for piano: George Benjamin's *Piano Figures* (2004), Sam Hayden's piano disc *Becomings*, (2016), and Ligeti's *Études* (1995) felt particularly relevant in terms of economy of material and flexibility of touch. The programme note, written soon after this experience with Clare and Ben is a helpful introduction to the time in which I was writing this work:

PROGRAMME NOTE

Feathered Air grew directly out of the first meeting on this *composing for* scheme with the Hardanger fiddle player Clare Salaman and her wholehearted warmth that day. The piece is in some ways an act of translation from one instrument to another, and my thanks go to Benjamin Powell for all his help in working through these ideas so sensitively at the piano. In essence *Feathered Air* is my response to a brief meeting with the hardanger fiddle, and the bright yet calm energy of Clare. I hope some of the intricacy, directness of character, and nuanced movement of the music which Clare so generously shared with us that day has made its way into this piece for piano.

The title can be understood as a whole, or as the two roots of the piece. *Feathered*, as in intricately compact, symmetrical, tapering. Thousands of tiny strands, just touching, forming a glistening surface, centred on a strong, dart like, core. *Air* as in that untouchable centre, and a softly stated musical line, continually floating onwards. It is music negotiating the space between centre, surface, and edges; something with direction, and evolving brightness, with a core made more or less visible.

In essence *Feathered Air* is about those untouchable edges of perception, a kind of continually vivid presence, hinted at by the presence of ‘light touch’ notes in the score – pitches only just audible, on the edge of the work as a whole, see Example 12.



Example 12: light touch notes in *Feathered Air*, line 1

Just as in *Crossing Songs*, sustained pitches are vital to the overall harmonic line of the work. Pitches sustained through repetition become woven into longer lines, emerging and falling away as part of the wider ebb and flow of the music. At rehearsal figure A we see this in the repetition of G#, C# and D in the right hand and D and F# in the left hand, the importance of pitch repetition highlighted in the lowest voice at bar 18.

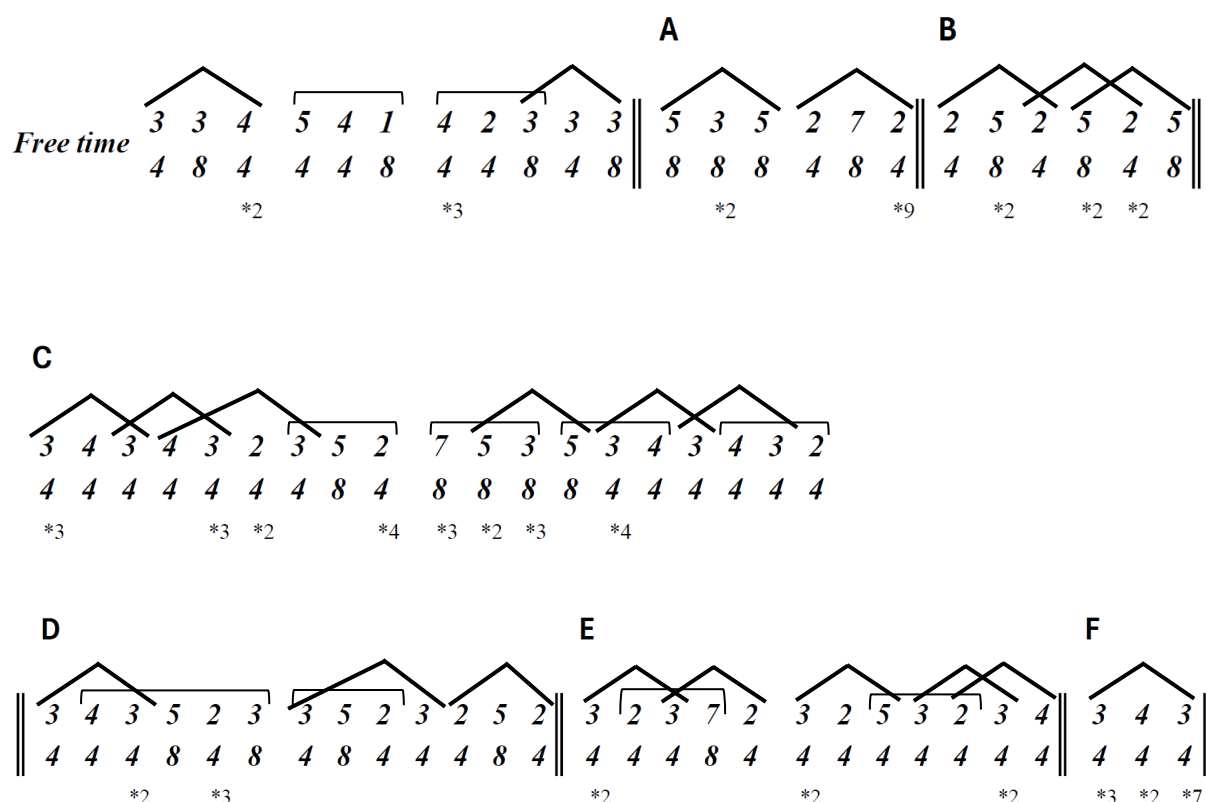
Example 13: *Feathered Air*, bars 16-18

A a touch slower ♩ = 44c.

This ebb and flow is strengthened by the metric organisation of the work with a continually evolving sense of pulse, the pattern of beat stress only ever stabilising at moments of arrival as shown in Figure 19 on the following page.

Each triangular grouping indicates an *expansion and contraction* of bar length. Rectangular groupings indicate either *successive expansion* or *successive contraction* of bar length. This is important given the relative weight of the start of most bars and how the pattern of emphasis demonstrated below creates a sense of evolving pulse at the bar and phrase level.

Figure 19: bar level pulse flow and subgroups in *Feathered Air*



Of course, these patterns may not be immediately perceivable by the listener. By outlining them here I aim to demonstrate how the treatment of pulse serves to tie the work as a whole together whether or not it is perceived in detail.⁶⁶ In reality pulse is likely to be felt as an impression of these kinds of relationships; the ebb and flow present, but the ways in which those currents interlock perhaps less obvious.

⁶⁶ My approach to rhythm and pulse in relation to melodic motion and perception is informed by Cooper & Meyer's *The Rhythmic Structure of Music* (London: University of Chicago Press, 1963) particularly their discussion of architectonic levels and perception of rhythmic groupings, also Leonard Bernstein's Norton Lectures: *The Unanswered Question: Six Talks at Harvard*, particularly those on musical Syntax and Semantics in relation to phrase and rhythmic structure (Cambridge: Harvard University Press, 1990)

This focus on internal pulse relationships is a continuation of the use of intricacy and fragmentation in my work. Seen on a larger scale here than in *Chameleon* or *Another Maze* (for example), it now serves to create space for more directly expressive lines.

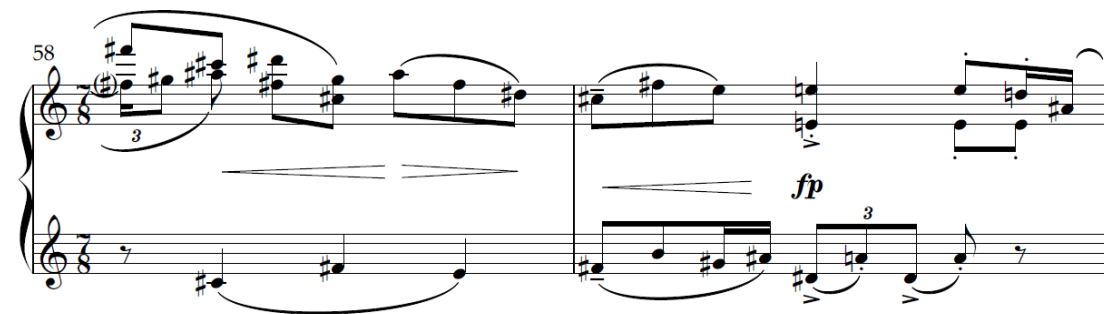
Example 14 shows the horn call motif, the clearest of these melodic emergences, first seen in the final notes of the opening passage, later the lowest voice in bar 58 and, expanded, in 113-118.

Example 14: melodic emergence in *Feathered Air*: horn calls, bars 1, 58, 113

Horn call 1:



Horn call 2:



Horn call 3:



Briefly at bars 16-18 and in the central section of the work, see Example 15, there are examples of melody, and its related sense of direction, emerging suddenly from previously circling textures. Taking a wider view, the passage at rehearsal figure C functions as a structural broadening of line within the work as a whole.

Example 15: further emergent melody in *Feathered Air* (bars 41, 92, 98)

Example 15 consists of three musical excerpts from the piece *Feathered Air*. The first excerpt, starting at bar 41, is marked 'Con moto cantabile' with a tempo of 112. It features a melody in the right hand, primarily in eighth and sixteenth notes, with some triplets. The left hand provides a steady bass line. The second excerpt, starting at bar 92, is marked 'Free, singing' with a tempo of 88. It shows a more expressive melody in the right hand, with slurs and dynamic markings like 'p dolce' and 'mp'. The third excerpt, starting at bar 98, continues the melody with dynamic markings like 'p dolce', 'cresc.', and 'mp'. It includes triplets and slurs, indicating a flowing, expressive character.

As we have seen *Feathered Air* may be considered an extended network form in miniature. In another context, the materials that form the basis of this work may be considered intricacies, yet here they become the core of an expansive, flowing, expressive world.⁶⁷

⁶⁷ I am grateful to Psappha for the opportunity to develop this work through their *composing for...* scheme, and for their support throughout the process. A recording of the online premiere of the piece, given by pianist Benjamin Powell, is available in the supplementary material provided.

A Short Hiatus: on pausing, silence, and picking up again

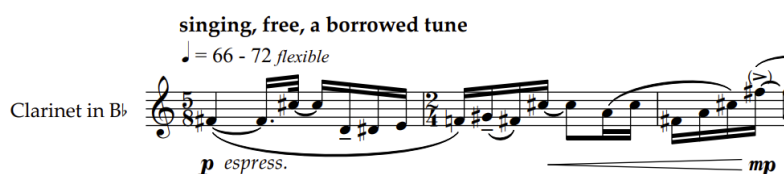
Crossing Songs and *Feathered Air* held so much material tightly together, both musical and extra-musical. The writing processes came almost simultaneously, drawing me into highly introspective states for elongated periods of time. Regardless of the roots of the material I chose, in the end it was held together by what I had begun to think of as a kind of material gravity, mobile balance, and sense of inevitability. The concept of working with collections of materials as networks, and finding from each group of materials an effective, communicative network form was now embedded in my thinking. It was also, every time, an all-consuming undertaking. This, combined with my newly conscious engagement with my own experiences, meant that *Feathered Air* and *Crossing Songs* had come at a cost; I had understood how to access my voice in new ways, but that process had fundamentally changed my practice as well as enhancing it. It took me several months to return to composition. When I began writing productively again, it was through a renewed engagement with fiction, ambiguity, the idea of affordance, and the power of the imaginary as a way to hold my practice a little more lightly.

Affordances of found objects: *Wandering Lines*, and other stories

Understanding material in terms of its affordances, as discussed earlier in this commentary, now led to more intentional choices both in terms of notated material and sources of inspiration. Around this time I read the wonderful book *Spirals in Time* by Helen Scales on seashell shapes, collecting, and the history contained in each one.⁶⁸ Again the idea of collecting surfaced, now connected with each object's past and how much or little we know of it. Ideas for the final two movement titles of my string quartet solidified slowly: *Petals in Glass*, and *Kernel*. Whilst those ideas took root though, I began work on three miniatures for solo clarinet: *Three Wandering Lines*.⁶⁹

Three Wandering Lines began as a study of fragments from music I admired, a place to play with ideas between periods of work on my string quartet. These found fragments became a helpful way into composing, making the work immediately and intricately concerned with material rather than any larger abstract plan. The first movement begins from a transformed fragment from Rachmaninoff Symphony No. 2 (1907) and holds much potential for unending lines, changes of direction, extension, and lyricism, see Example 16:

Example 16: *Three Wandering Lines* I – opening fragment



⁶⁸ Scales, Helen, *Spirals in Time* (London: Bloomsbury, 2015)

⁶⁹ A recording of *Three Wandering Lines* made by clarinetist Emily Wilson is available in the supplementary material provided.

The second movement begins with harmonic material of my own from clarinet trio, *Beacons* (2019), see Example 17:

Example 17: *Three Wandering Lines II* – opening fragment

like a light footed cat
♩. = 108 or as fast as possible

Clarinet in B♭

f ————— *mf* *fp* ————— *f* > *p*

The final movement begins from a transformed chromatic fragment, see Example 18. This chromatic motion of course could have come from any number of sources, but the place I found it now was Ligeti's *Lontano* (1967).

Example 18: *Three Wandering Lines III* – opening fragment

slow, still, soft
each line should last c.20-30 seconds

Clarinet in B♭

ppp *semplce* ————— *p* *ppp* ————— *p*

accidentals hold for immediately repeated pitches within slurred group

The original locations of these fragments gave them history, behaviour, and strength of character in my imagination. These fragments were only starting points though. Yes, they brought with them preformed characters and inherent potential, but in each case the line had to go on to justify its own existence and form a logic of its own. This is achieved through a combination of methods described already in this commentary: the fluctuation of pulse is as important as the limited harmonic language, the recurrence of tiny details within each line is intentionally multilayered and persistent forming interlocking frames and back references as seen in many of the scores discussed so far. Intricate details of articulation and fragmented repetition again emerge as an expressive force, present sometimes in high concentrations and in other places sparingly – intentionally placed to accentuate the lines. In short, I was working

with the language I had developed over the course of this research, but working with it in a much more fluent way. Working at the meeting points of my language with external materials, and what those musical objects might afford the whole.


Similarly, this power of affordance carries through to how the string quartet movement titles began to form musical possibilities in my imagination. *Petals in Glass* brought with it the juxtaposition of something growing, thin, and rounded, with something solid, hard-edged, and still. *Kernel* brought with it ideas of compression, subsets of elements, the core of an argument, a whole seed of something bigger, and the inner softer part of a fruit stone, or nut. Whilst it is not necessarily possible to map out exactly how these imagined qualities translated into musical content, or in what order that happened, it feels important to me to acknowledge that there is so much of composition happening in this way – under the cover of what we might call inspiration – and that we allow to happen sometimes unconsciously. Growing an awareness of those unconscious layers of work, listening to what was most central to an idea and drawing it out more clearly has now become a constant focus in my practice. In the same way as had happened with the titles of the string quartet movement, the final work written during this time, *Wolf*, again grew from a collection of imagined objects and how those objects afforded various overlapping qualities to a whole that I could translate into something musical. As is described in the programme note to the work, see Volume one, the work grew out of the interaction of many reference points. These may be usefully grouped into three broad categories, affording the work quite different properties: objects (Snowflake Obsidian, a straight arrow, the grain of wood), behaviours (transmutation of volcanic glass into rock, Wolfish prowling), and senses (attention to detail, laser focus, and peripheral vision). The same material conversation which was happening in the network forms of Part I between notated musical characters is happening here between the various sources of inspiration, woven together into the foundation of something new.

String Quartet: tracing paths and building a toolbox

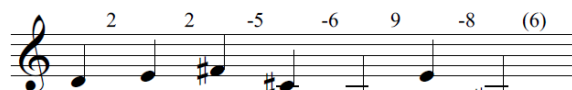
My string quartet was pieced together far more slowly than either *Three Wandering Lines* or *Wolf*, a new movement written each time I had the chance to work with a string quartet in person.⁷⁰ It spans the entire timeframe of this research providing a useful map of some of the ways in which my language has developed during this time.

To begin with it is helpful to map out the pitch material for the work, see Figure 20. In each case the specified pitch set is used along with its rotations as the basis of a movement, sometimes in combination with additional materials or, in the case of movement III, interwoven note by note with another set.

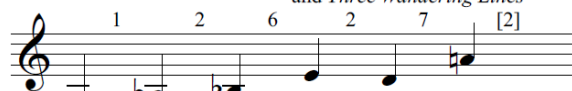
Mvt I, *Aria*



Mvt II, *Mobiles* - also Mvt III, *Petals in Glass*



Mvt III, *Petals in Glass* - also *Beacons*, *The Time Being* and *Three Wandering Lines*



Mvt IV *Kernel*

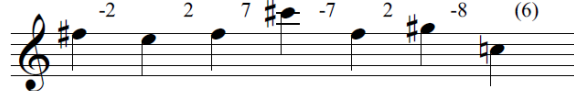


Figure 20: String Quartet pitch material

⁷⁰ My thanks go to all those involved in facilitating the composition of this work. The first movement was written as part of the Peter Reynolds Composition Studio at the Vale of Glamorgan Festival in 2019 and first performed by the Armida Quartet with mentorship from Robert Fokkens, and was later developed further at Dartington with the Gildas Quartet. Movement II was written for a workshop performance at Cardiff University with the Mavron Quartet in 2022. Movements III and IV were written for the Bozzini Quartet as part of the *Time of Music Festival* composition Academy with mentorship from Liza Lim in Viitasaari, Finland, 2023. A recording collated from these performances is available in the supplementary material.

Several points are worth noting in relation to the intervallic content: first the recurrence of the tone [2] throughout, second the absence of the perfect fifth [7] in the first two movements, then its appearance in the third movement and strengthening via repetition in the fourth movement. Aside from the pervasive repetition of the interval of the tone, the only other interval that is present in all sources is [6] the augmented fourth/diminished fifth - pervasive through much of my work - and here acting as a bridge between [5], the perfect fourth in the first two movements, and [7], the perfect fifth in the final two movements. This is not to say that the music should be thought of as tonal in a functional sense, but to recognise that the power of those relationships and the presence of this journey from the ambiguous, sometimes consonant [5] to the strongly consonant [7] via the strongly dissonant [6] across the wider structure of the quartet as a whole.

The first movement, written before the outset of this research, is far less developed in its language than the later movements. My focus here was on creating an outlet for something lyrical and open, strongly led by one voice, here the cello. The movement already exhibited a concern with the continuously discontinuous in two ways: first the concern with a connection between the seen and the heard as clear in the opening gesture – a broad sweeping bow motion usually accompanied by a huge sound in quartet repertoire is here mismatched – the *loud* visual effect paired with something sonically unexpected: soft, intricate, receding. Second, the presence of interruptions to the line from as early as bar 2 and the cello *pizz.* This opening intricacy becomes structurally important, echoed by the interruption of the lilting quavers in 16, and staccato semiquavers in 21, the expansion of these gestures to a whole passage before D and broadening of the piece around a central line as it continues.

The strength of singular line in the first movement is counterbalanced by extreme sharing of line in the second in which the texture is constructed almost always of three interwoven lines. There are only occasional moments where those lines meet exactly as they

had done in the interruptions of movement I. The work is suddenly focused on complete integration of parts and the internal focus that brings, like the transfixed state of watching the multiple similar shapes hanging from a child's mobile rotating slowly in the air. In the third movement the sound world shifts completely again, this time to something static and spacious, wider in timbral space. There is something of both the first movement's opening gesture, and the second movement's momentary collisions here.

On the following page Figure 21 shows the opening gesture of movement I, the first instance of a clear punctuating rhythmic unison in mvt. II, and the opening gesture of mvt. III combining these ideas in a new harmonic language.

Figure 21: String Quartet – punctuating material in movements I, II, III

Tranquillo ♩ = 76
Wood+m.s.p.

Mvt. I, bars 1-2

Wood
C
m.s.p.
* harmonic finger pressure, gliss quickly to as low as possible.
pizz. gliss.
ppp

Mvt. II, bars 9-12

mp
pp
pp
pizz.
mp
mp
mp

Translucent, edged ♩ = 44c.

Mvt. III, bars 1-3

ppp
p
pizz.
G.P.
ppp
p
pizz.
ppp
p
pizz.

The third movement *Petals in Glass* was my way back into composition following *Crossing Songs*. The focus on timbral variation and use of harmonic material of two interwoven lines as they happened, rather than with any forceful shaping or crafting, was a helpful route to take here. I spent as much time whilst working on this movement imagining and listening to the material as I did notating it. I was aware at once of shaping the wider structure, and attending to the closeness and weight of sounds, both to one another, and to the listener in time and expectation.

In terms of how the two harmonic worlds are interwoven in this movement, the process was simple, and also personal. I alternated between rotations of each of the pitch sets specified in Figure 20, writing out the pitches in order as they appeared in the rotations, then listening and responding to how the two sets combined. Beginning with the chain of interlinked pitch material but no rhythm, dynamics, or pacing meant the next stage was both limited and free. I worked my way along the pattern of pitches and drew out the shape of the movement – elongating moments and shortening others, pulling the focus of the music towards the climactic central passage and allowing for the drawn out fading away from that intensity leading to the end of the movement. I did not know this shape was in the pitches before I chose them. The work was somewhere between the impression I held of the piece in my mind, and how that combined with the chain of pitches I had created for myself as source material. As I worked my impression of the movement evolved to account for the details and interactions I was uncovering from within the material and my view of the material in relation to that impression changed too.

The process of writing the fourth movement was somewhat similar, although now the starting materials were more fully formed characters. The challenge lay in interweaving these characters, balancing quick and complete changes of mood with an overall sense of progression. This approach is echoed in *Stormfield Songs V*, and may be seen as a tightening

of the techniques developed earlier, particularly in *The Time Being* and *Of Far Flung Skies*. Considering the string quartet as a whole in the final moment of this research though, it is worth saying there is unfinished business here. Due to the nature of how this quartet was written; movement by movement as the opportunity presented itself, over the full span of this research project, my language has evolved so much from movement I to movement IV that in a sense the first two movements could now be rewritten with the final two as their guide. For now though, it stands as it is – a record of just how much working with, and through, this lens of *continuing discontinuity*, and the resulting concept of *network form* has led my music to evolve over the four years of this research in composition.

Conclusion

In this commentary I have traced the path my music has taken over the past four years. I hope that in doing so I have offered insight into my own work, and ideas and approaches that other composers and creators might find interesting in relation to their own practices. This research has led me from a paradoxical question about the concept of *continual discontinuity* in music, to a more practically applicable, yet flexible approach to musical form as network.

I began this commentary with the story of my uncle collecting sea worn objects on a beach and using them in combination to create something new, functional and beautiful in which the individual objects were both present and consumed. This concept of what we perceive as individual within a whole was taken up too by the quote from Christian Wolff about the music of Morton Feldman and the idea of entrances and exits in a painting as opposed to in music. In the initial stages of this research I was engaged with these issues primarily as a question of form, with how I might draw collections of musical objects into conversation and with what types of form might emerge as a result. I outlined tools, many of them repurposed from other contexts and older musics, invaluable in this pursuit: framing, anchoring, and various approaches to transition. These tools, and the resulting concept of *network form*, became vital to my working process, and to the dependency between form and material in my music.

As the research continued, through attending to the character of musical objects in conversation more closely, my work took an unexpected turn. I began to look inwards, toward detail, intricacy, to listen more closely to potential materials – whatever form they took. This internal focus perhaps arose also in response to the specific timing of this research and the environment in which I was composing during the months and years impacted by the Covid-19 pandemic. But that situation, with all its restrictions and challenges, also afforded me more time alone than I had ever previously experienced, able to experiment with approaches to

composing, to noticing, and to listening more deeply. This middle section of research, characterized by the centrality of detail, more internal focus, and an increasingly collaborative creative world as we emerged from the pandemic, led to a fundamental shift in my work; an increased understanding of my own compulsion to write, to make, to create. Simultaneously, developing the fabric of my music on such an internal level allowed me to see how that fabric might encompass a wider range of materials than I had previously imagined would connect together. How the process of composing with notated material was for me the same as the process of making something in time with words or shapes or people in a space. All of these languages became equally valid under the broad scope of *Network Form*, and the paradox of something continuously discontinuous. Increasingly I understood that this thing called composition was for me a language through which I was relating things that were internal and external, observational and emotional, personal and communal. My understanding of *Network Forms* expanded to encompass all of that alongside the notated and planned aspects of composing discussed in Part I.

I began the final section of this commentary with that quote from Mishka Rushdie Momen describing music as a *door* rather than a *mirror*. I find this comparison, and the question it implies about the role of the composer and performer, endlessly fascinating. To my mind music can be both a mirror and a door. Importantly, it can do both jobs at once. As the techniques developed during this research have become more embedded in my language, this is the question that has begun to occupy me more than the technical problems of continuity vs discontinuity, or the exact lines of connection within a form. Whilst those technical aspects of my language have remained present, they have become more fluent, happening on a more unconscious level. Meanwhile I have been able to push at the boundary between real and imaginary more intentionally, with more attention to the experience of each piece as a whole. The more I have worked with these ideas of awareness and the imaginary alongside the

technical aspects of network forms, the more I have felt that composition and group improvisation have a huge amount in common. The way I approach a collection of materials is centred on listening, understanding, and making space, just as in a group of improvisers, musical or otherwise, there must be a process of listening, concurrent learning, and collaboration towards a satisfying musical form. As a composer, holding that entire material conversation in the mind at once and working in the spaces between those materials can be disorientating, intense, frustrating, and, sometimes, freeing. There is very rarely a clear up or down, forward, or backward – instead a myriad of choices at every turn.

It seems to me now that the question I asked at the beginning about how to deal with multiple musical ideas within one form - how to create continuity out of what seemed fundamentally discontinuous - was actually a question far broader than musical material. Working through this paradigm has led me to understand how my practice as a composer is about materials and techniques yes, but it is also more deeply rooted than I had realised, it stretches into everyday life - the past, the present, and future, into the imaginary, the real, and the abstract. This research has led me simultaneously to greater technical ability, flexibility, and understanding and, equally importantly, to a wider acceptance of my artistic practice as something intensely personal. I am proud to have come this far along that particular road, and also relieved to have found ways in which to, occasionally, hold the challenge a little more lightly. I hope the path will continue to be unpredictable long into the future, and that this work, whilst rooted in technique, patience, and practice, can continue to grow through the sometimes magical combination of observation, persistence, curiosity, and the imaginary.

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