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**Mynd: A Sonic Representation of a Seemingly Quiet and Vast Landscape - Its Ecology, Geology, Past and Present Histories.**

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*Mynd*: A Sonic Representation of a Seemingly  
Quiet and Vast Landscape – Its Ecology, Geology,  
Past and Present Histories



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Commentary for the Portfolio of Compositions

Commentary submitted in partial fulfilment of the requirements for the  
Masters by Research in Composition, Bangor University (Wales)  
(November 2022)

## Declaration

'I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards. I confirm that I am submitting this

work with the agreement of my Supervisor(s).'



'Yr wyf drwy hyn yn datgan mai canlyniad fy ymchwil fy hun yw'r thesis hwn, ac eithrio lle nodir yn wahanol. Caiff ffynonellau eraill eu cydnabod gan droednodiadau yn rhoi cyfeiriadau eglur. Nid yw sylwedd y gwaith hwn wedi cael ei dderbyn o'r blaen ar gyfer unrhyw radd, ac nid yw'n cael ei gyflwyno ar yr un pryd mewn ymgeisiaeth am unrhyw radd oni bai ei fod, fel y cytunwyd gan y Brifysgol, am gymwysterau deuol cymeradwy. Rwy'n cadarnhau fy mod yn cyflwyno'r gwaith hwn gyda chytundeb fy Ngoruchwyliwr (Goruchwylwyr)

## Abstract

This submission comprises a written commentary and portfolio of musical compositions. The portfolio contains sixty minutes of music across twelve tracks on an album titled *Mynd*, that explores “A sonic representation of a seemingly quiet and vast landscape, its ecology, geology, its past and present histories.” The music seeks to represent these three areas through a combination of field recording, live composition in the landscape, and studio-based music creation, researching sonic combinations of electro-acoustic methodologies with modern-instrumental arrangements. The thesis explores the notion of authentic representation of this place in the music across all the pieces, exploring the human story, ecology and geology of this landscape. The commentary introduces the methods of my practice-led research, showing how these compositions were created, and examines the method and meaning behind the music, including areas of enquiry that influenced the pieces.

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## Introduction

Can music represent a specific place and frame its story, atmosphere and contours with authenticity, evoking the same kind of truth that a book of poetry or a collection of photographs might have? How does it feel to be in a certain landscape or place and what does this sound like in music? These questions have inspired much musical exploration and my own music for a while now and my Masters by Research seeks to investigate this in greater depth at a designated location. This research project focusses mainly on practice-led research, composing and researching primarily in the landscape. I believe there are three main areas which can be interpreted in a geographical location: the underlying shape and structure of the landscape which gives it its contours, character and shape; therefore, its geology. Secondly, the life and natural forces which cover the landscape and affect its sonic and visual palette: its ecology. Thirdly, the human relationship to the landscape: how humans interact with the landscape – their past and present histories. All three contain elements which can directly influence musical composition, whether rooted in literature, studied in research or presently active in the landscape, and all three provide a rich foundation of research into how the landscape can be examined. The place I'm looking at is within the designated 'area of outstanding natural beauty' (AONB) in the Shropshire hills; the Long Mynd, which sits near the mid-borderlands between England and Wales at 52°30'0" North and 2°49'60" West.<sup>1</sup>

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<sup>1</sup> Get Outside OS 'The Long Mynd Shropshire', <https://getoutside.ordnancesurvey.co.uk/local/the-long-mynd-shropshire>, last accessed 22<sup>nd</sup> April 2022.

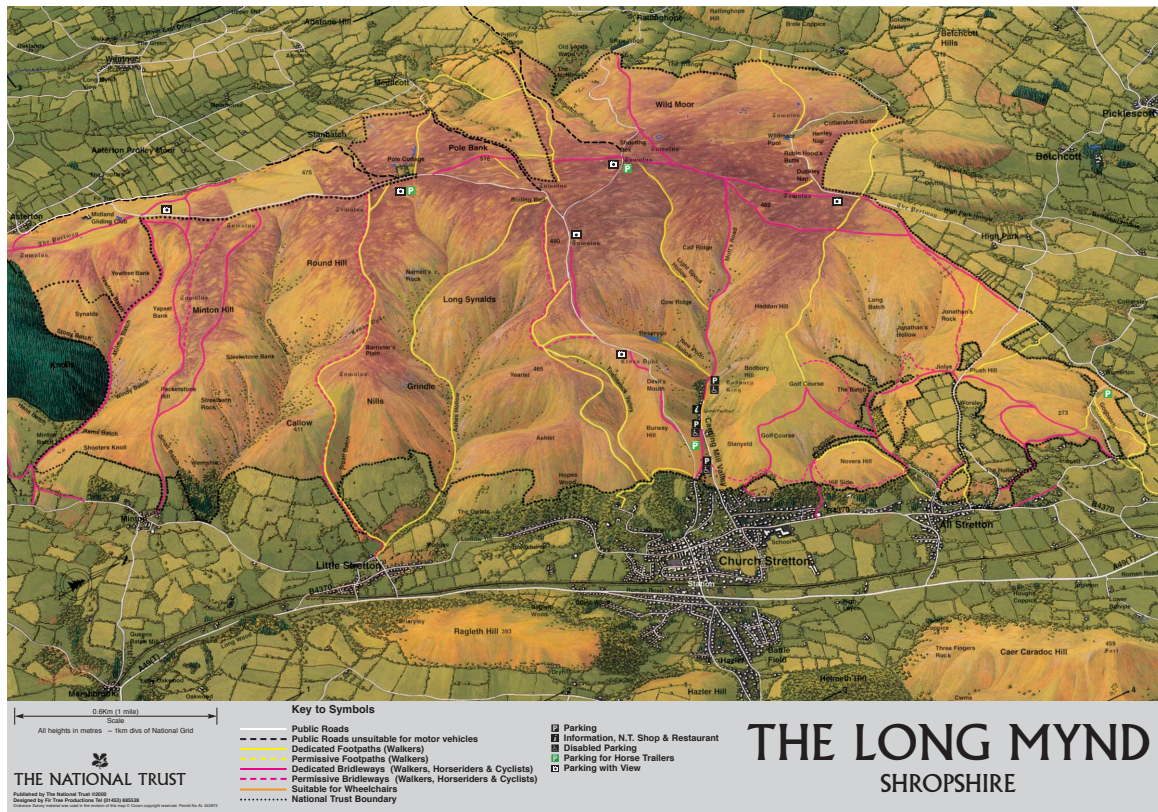


Fig 1. 'The Long Mynd Shropshire' map published by the National Trust (used with permission).

The landscape is a place of special interest and global significance in the field of geology, containing ten different types of rock from the twelve geological periods on earth, and is responsible for the naming of types of rock: Caradoc, Wenlock, Ludlow, Onnion, Londmyndian, Sheinwoodian.<sup>2</sup> I believe this variety is what gives the Shropshire hills AONB such a unique beauty, whose ridges and valleys provide a stunning vista in the southern regions of the county. I'm interested in how this landscape can influence musical composition. Geological research has discovered that this landmass has travelled from the southern regions near Antarctica to this northern temperate climate over hundreds of millions of years.<sup>3</sup> Although their scale today cannot match that of the Alps or nearby Snowdonia landscapes (although it once did), they offer a significant breadth of diversity within a compact area.

Access to the ridges and surrounding valleys in the modern day is easy, with many rural roads and tracks allowing immediate access to the hills and valleys to explore its different locations and geological structures. This location is currently a place of leisure for all types of outdoor activity and has been a tourist destination since the Victorian era, when the train-line finally reached the main

<sup>2</sup> Shropshire Hills AONB 'geology' <<https://www.shropshirehillsaonb.co.uk/a-special-place/special-qualities/geology>>, last accessed 22<sup>nd</sup> April 2022.

<sup>3</sup> Barrie Raynor, 'Geology', in *The Long Mynd, It's History and Wildlife*(Church Stretton: Greengates Publications, 2013),p.1



town of Church Stretton in 1852.<sup>4</sup> The ease of access helped my practice-led research, which meant frequent visits to the locations within the Long Mynd and surrounding area to gather inspiration and primary research, resulted in a truer picture of the places over a concentrated period of time and space. I brought several instruments into the landscape and partnered with the National Trust by taking up an artist residency at Cardingmill Valley.

Music inspired by geology has influenced several composers across the world, such as the tapping and rubbing of rocks in Terje Insungset's *Suites of Nature, Vol 1 – Essence of stone*, and Pinuccio Sciola's singing stones, which he sculpted out of rock and cut in such a way that they resonated when touched. This can be heard on the YouTube video of his large musical sculpture garden in Sardinia.<sup>5</sup> Further research led me to the use of rock in instruments such as lithophones, which are xylophone-like instruments made from carefully chosen pieces to allow for a tuneful timbre which can be seen extensively used in contemporary music on the Lithophone website.<sup>6</sup> My visits to sites upon the Long Mynd to create my own 'rock music' – recording sounds from areas of interest within the landscape – has led to pieces like *Wern* and *The Portway*, where I have used the tapping and contact with rock directly in pieces of music. The research has led me to question the sonic properties of rock, taking discoveries into the science of sound and reverberation of rock, resulting in some interesting threads of discovery and composition in my own music, such as the *Toghill's map* tracks, where this research has led to decisions such as the key music is played in. This will be discussed in further detail later.

I looked at the extensive geological research of this region by Peter Toghill to inform these compositions, and have used and edited his maps and diagrams to create graphic scores. I followed both process-based works using scientific discovery to influence the method of composing and more subjective responses to the landscape and stories for other pieces. I have in the past, used drawing to communicate the journey of a piece of music and find the use of graphic imagery to direct musical voice particularly interesting as my research discovered similar musical explorations by various composers on the Graphic score website<sup>7</sup>. The geological maps and diagrams by Toghill and others of the area by The Institute of Geological Sciences, are rich in colour and have been inspirational for music direction for my pieces in response to this landscape.

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<sup>4</sup> British History Online 'Church Stretton', <https://www.british-history.ac.uk/vch/salop/vol10/pp72-120>, last accessed 4<sup>th</sup> May 2022.

<sup>5</sup> Pinucci Sciola, 'Sounding Stones, the Memory of the Universe', Youtube Video Posted by Chasing the Unexpected. Jan 14<sup>th</sup> 2019. <<https://www.youtube.com/watch?v=Ez9vvsFa-KU>>

<sup>6</sup> Lithophones 'Contemporary, Builders, Composers and Musicians' <https://www.lithophones.com/contemporary>, last visited 22<sup>nd</sup> May 2022

<sup>7</sup> Graphic Score Explorations 'Graphic Scores', <<https://www.graphicscores.com/>>, last visited 17<sup>th</sup> November 2021

The human relationship to the landscape goes back to early histories of mankind, when journeying between places on foot meant taking higher routes across the tops of hills for better visibility, safety and a more direct route for shorter journey time. Traversing the top of the Long Mynd is the Portway, a long track which has been used as a route since Neolithic and Bronze Age times.<sup>8</sup> Human activity continued over centuries across the Portway, which was renamed the Kingsway in the 13<sup>th</sup> century. This was to further regulate safe passage across the top which has continued up to the present day, although now the route is used mostly for leisure, and also for sheep grazing. The current use of the Portway has led to a wealth of human stories, which raise interesting areas of research to the human interaction with this landscape. It is a place of interest compositionally as a connection between the land and the human, as the passage of humans over the years have worn themselves into the landscape. I set about taking field recordings of footsteps to create *Portway* and included various musical sounds to reference the different ages of passage to explore possible musical interpretation of this passageway.

From tragedy to the miraculous, the human stories set in this landscape offer an important context to representing this landscape in music. As this landscape has been crossed by humans for several millennia, my research leads me to another facet of exploration, which is story-led, looking at humans who have influenced or been influenced by the landscape, such as the near tragedy of Reverend Edmund D. Carr and his misfortunate night in the snow. I explored this tale to inspire a piece early in my research about the Long Mynd and to the tale of one of the King's own printers, Bonham Norton, who resided in Church Stretton and rebuilt the town following a fire, to later be sent to his death in prison in London after falling out of favour with the King James I. I found that relating to these tales provided immediate responses, allowing the mood in these tales to influence my musical voice. Although his life ended sadly, Bonham Norton also contributed generously to the area. I represented these tensions in my piece *A Ballad for Bonham Norton*. The music of the contemporary artist, Sufjan Stevens and his account of human stories in *Welcome to Michigan* and *Come feel The Illinoise* [sic] and the *BQE* (Brooklyn Queens Expressway) has formed part of the research into how artists interpret the human story into compositions. I discovered ideas of musical voice here and applied them to musical compositions in their own context, by using compositional techniques such as minimal instrumentation with voice in *Song for Mary* to focus the listener on the personal story rather than fuller musical arrangement, which could detract from her story.

Similarly, Ralph Vaughan Williams' 'On Wenlock Edge', a collection of songs set to poems inspired by the Shropshire hills, has led my research to create music that centres around the vocal melody. The

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<sup>8</sup> British History Online 'Church Stretton', <https://www.british-history.ac.uk/vch/salop/vol10/pp72-120>, last accessed 4<sup>th</sup> May 2022.

contemporary folk music of Shara Nova as *My Brightest Diamond* also contributed to the conception of the *Song for Mary*. Her use of musical key in *I Have Never Loved Someone* makes the resulting sound wistful and reflective. I used this idea for my track, but put more of an emphasis on the fragility and temporal nature of life, using a different key. My research into Mary Webb's poetry, further impacted this theme of the human relationship to the landscape. She was famed for loving this environment, and was regularly seen walking out in the Shropshire Hills. She documented much of her connection to the natural environment and topography in her writing and poetry. I have focussed on this passion of hers to create music in a song that explores a reflection of a strong and loving relationship to the landscape.

The Long Mynd and surrounding hills hold a fascination for me as a musical artist in my research to embody the place in music, having found inspiration in its natural habitats and ecology. The sounds in the valleys and on top of the hills provide a sonic portrait that is unique to this region. The Shropshire hills ANOB has been referred to as the 'ark' of Shropshire (mentioned by Peter Carty, the *National Trust's Countryside Parkland and Gardens Manager*, during a discussion we had about this area), as it appears to have become a place of sanctuary for wildlife. This can be seen in bird life in the area, as urban areas have expanded and heath and moorland have become vital for species survival amongst the current challenges of climate change and ever-increasing demands placed on land by humans. This is especially true globally and locally for the Eurasian Curlew.<sup>9</sup> The Curlew is of significance internationally and locally, having been entered onto the endangered red-list in 2015. Its numbers have been declining rapidly since and especially here in the Shropshire hills.<sup>10</sup> Efforts to turn the tide on the fortunes of this once abundant bird in these hills have been at the forefront of recent activity with conservation projects both locally and nationally.

The research in this area has led to an interest in how music can challenge the listener in terms of amplifying a certain cause and the importance of conservation, and being emotionally connected to this. I researched the curlew's calls to inspire a piece of music dedicated to their story in this landscape. I listened to the field recordings and soundscape work of Marcus Fischer and Simon Scott and observed how they incorporated natural sounds into compositions, both of which often used delicate, largely unnoticed sounds alongside ambient minimalist soundscapes. I discovered in my research the approach to the use of curlew birdsong for my piece *Runner, Messenger* which was inspired by music from both composer. Because of this discovery of the Curlew locally however, I

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<sup>9</sup> Leo Smith, *The Birds of Shropshire* (Liverpool: Liverpool University Press 2019), p.209

<sup>10</sup> Wildfoal and Wetlands Trust, 'Curlew', < <https://www.wwt.org.uk/discover-wetlands/wetland-wildlife/curlews/>>, Last visited June 22<sup>nd</sup> 2022

was led to make the music more dramatic and empathetic with the endangered status of this bird. Following contact with the Curlew Sounds website, a version of my *Runner, Messenger* track was included on the RSPB's 2022 album *Simmerdim: Curlew Sounds* to raise funds for Curlew conservation, joining artists such as David Gray, Cosmo Sheldrake and others on the album.<sup>11</sup>

The changes in the natural habitats and subtle nuances from the valleys to the bleaker wide-open spaces on top of the Long Mynd are important to the representation of this landscape in music. I visited these sites to record sounds from the environment. My research allowed me to make musical explorations in these places with new methods, such as, using direct field-recordings, direct in-the-landscape composition, and biodata kits. Biodata kits are a way to directly sample conductivity in the leaves of trees and plant which is then translated into note form via a programmed chip and synthesiser. I commissioned software and audio engineer Glen Pike to make a biodata kit that could be used in my field visits and applied this process to my tracks *CMV* and *Together Alder* as seen in the figure below and discussed in Chapter 3.



Fig 2. Biodata kit with electrodes, zoom HN2 microphone and Korg Synth sampling fern in Cardingmill Valley.

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<sup>11</sup> Curlew Sounds Project 'Simmerdim, Curlew Sounds' < <https://www.curlewsoundsproject.org/album> > , last accessed 22<sup>nd</sup> June 2022.

Sound has been created from plants using conductivity since the 1960's and 1970's. These explorations with plants grew with the publishing of *The Secret Life of Plants and Technological Advances*, although these sounds are only more recently finding their way into music. Biodata kits can now be bought on the high street and have found their way into commercially released music as well as that of bio-acoustic artists.<sup>12</sup> The music of John Metcalf, *Mapping Wales*, and John Luther Adams's *Line Made by Walking*, are particularly interesting in my research as I sought to discover how they interpret the feeling of being in a landscape and walking its contours in musical arrangements. I have also explored Icelandic composers Valgier Sigurdsson and Alex Somers and Jonsi's *Rice Boy Sleeps*, both of which directly combine field recordings of Icelandic glaciers and natural sounds from that environment in their music. I initially thought that the minimalist and ambient palettes of Icelandic music would offer a familiar sonic interpretation of a vast space like the Long Mynd. However, the sounds I discovered and recorded upon the Long Mynd in my field research, enhanced the music with different sonic qualities to that of the Icelandic composers.

As time and space unfold and seem to expand when in these locations, I have researched this expansion of time and space in musical pieces, paying attention to the dynamics of sound; volume, frequency and musical voice as with Marcus Fischer's gradually developing pieces. Regular visits into the landscape to take field recordings and compose in these spaces has led to a more practise-led research directly sourcing from the environment. I brought a combination of field-recordings from different locations to inspire additional composition techniques and provide a varied sonic palette to work with back in the studio.

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<sup>12</sup>Mileece Abson 'A Little About Mileece and the Children of the Wild', <<https://www.mileece.is/bio>>, Last accessed 9th June 2022.

## Chapter 1 – Geology

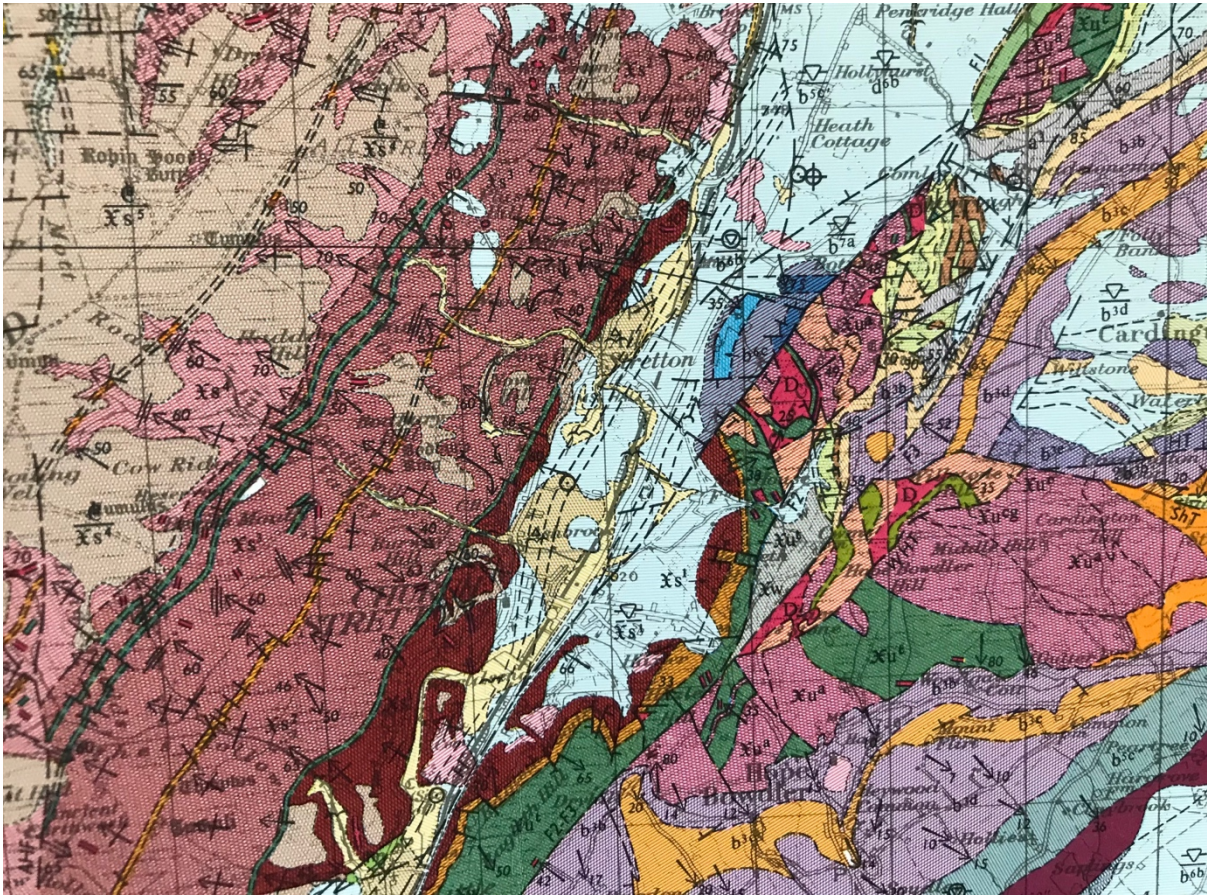


Fig 3. A crop taken from The Institute of Geological Sciences, Church Stretton, Sheet 166 - Drift Edition.

Music inspired by the environment and human musical interaction with natural existing forms, such as rock, wind and water, can be found in recordings of contemporary composers across the world. This is sometimes referred to as Geophony, and involves human participation with the environment to either directly record sound from its source with little or any editing to manipulating the environment to create sound.

The inspirational landscape of the Shropshire hills has informed several significant creative works from A. E. Housman's *A Shropshire Lad*, to the suite of songs by composer Ralph Vaughan Williams, set on the former Silurian reef; *On Wenlock Edge* and the fiction and poetry of celebrated author Mary Webb. The landscape is unlike anywhere in the world here and has led my research to consider the sense of belonging I feel here and how this informs and influence music creation. My research into the topography of the Long Mynd and surrounding hills has led to studies in its geology in greater depth. Research enabled me to discover how unique this area is in respect to its geology. Peter Toghill, a revered geologist who has written extensively about geology and the Shropshire hills,

remarks that “Shropshire exhibits a more varied display of geology than any other area of comparable size in Britain, and possibly the world.”<sup>13</sup>

When researching how geology of different types are commonly illustrated in maps and diagrams such as in fig 2. above, the breadth of colour on these maps and diagrams raise interesting potential for using colour and shape as starting points for graphic scores.

The use of non-traditional means of communicating musical ideas, like graphic scores, is a method I use to create music alongside composing by ear and other improvisational techniques. Toghill’s diagrams of the geological structures in the specific regions also offer interesting research ideas for interpretation as graphic scores, as there are many avenues of research this could lead to. I have investigated some of these diagrams to explore how their lines and colour, which represent different rock types and ridges, can be used as direction and instruction in a musical score, intending to represent the area authentically in music.

I have researched similar graphic score usage in Christina Vantzou’s collaborative project, which features twelve different musical artists who have each produced a different graphic score for musicians to play, performed and recorded by a string ensemble in Belgium.<sup>14</sup> Here, line and colour on the graphic scores are accompanied by instruction from the artists which range from limited rules on how to interpret the scores. In the project, Peter Broderick’s *Wind Patterns for Any Soloist or Ensemble*<sup>15</sup> include instructions to play as follows: “Begin at the centre on concert C and spiral away. Approximate length: three minutes”, whereas Hildur Guðnaóttir’s *From the Other Place Map* includes detailed instructions, where although musicians are instructed to be ‘free’, colours are designated exact notes and musicians can choose to follow dynamics in “form one” or “form two”<sup>16</sup>. This raised consideration to think that my explorations using Toghill’s maps could range from free improvisation, with very limited instruction, to detailed instruction that gave the musicians a structured framework. As with Vantzou’s work, I was interested in using an ensemble with varying musical voice to play geological maps or diagrams as graphic scores. I wanted to represent each rock type with its own musical instrument. I explored extensively how to deconstruct these diagrams putting three of them together from a similar area before removing colour and labels in Adobe Photoshop CS and then reconstructing them with just one colour in per diagram or “map” as referred to in the resulting track titles. I created three copies of the maps for each player so they could use each one according to the different levels of instruction and therefore annotate them as

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<sup>13</sup> Peter Toghill, *Geology of Shropshire* (second edition; Marlborough: Crow Press, 2006), p. 25.

<sup>14</sup> Christine Vantzou, ‘Graphic Scores’, < <https://www.graphicscores.com/> > last accessed 11<sup>th</sup> May 2022.

<sup>15</sup> Christine Vantzou, ‘Graphic Scores’, < <https://www.graphicscores.com/peter-brodericks-score> > last accessed 11<sup>th</sup> May 2022.

<sup>16</sup> Christine Vantzou, ‘Graphic Scores’, < <https://www.graphicscores.com/hildur-score> > last accessed 11<sup>th</sup> May 2022.

you might a traditional score, details of which are documented under the 'Track Commentaries' on p. 31

As research progressed on the feature of geology and how this landscape owed its story to the historical forces that have shaped it, I decided to explore how to use rock from the hills and valleys as a sound source to some of the music. My research looked at how other pioneering musical artists have used rocks within their practice, such as the late Pinuccio Sciola, who sculpted rocks with cut sections so they would hum when touched, as seen in the YouTube video *Sounding Stones, the Memory of the Universe*.<sup>17</sup> Terje Isungset also explored the sonic and musical properties of the natural world and also stone in his *Suites of Nature* album, inspiring the idea that I could take stones from streams and the slopes in and around the Long Mynd and tap and rub them together to create sounds in the landscape using a microphone.<sup>18</sup> Isungset's own music in this collection explores percussive qualities in stone which have a timeless sound, and, as they are slightly abstract, they are open to varying levels of interpretation from the listener. I created a similar backdrop in the track *Wern* but recorded it directly in the landscape, which provided a foundation to build from. In Sigur Ros' *Heima* documentary there is a moment where the band visit a hermit of sorts named Palli, who made a marimba out of rock found nearby, which inspired the idea of tapping into the local resource of rock available.<sup>19</sup> I questioned whether I could use rocks from the landscape, but ethical implications of making the landscape unstable and permissions to do so prevented this. The use of rock crafted to create music has been the practise of German stone and sound artist Hannes Feßmann. Feßmann takes polished stone, which is accurately cut to allow it to vibrate, much like Pinuccio Sciola, and plays them like instruments exploring their resonant frequencies.<sup>20</sup>

In the end, I decided that the situation of the rock in its place felt important to me, and the visits brought about a different process in journeying into the landscapes to sample the rocks and make field recordings of their surrounding environment. Visiting key parts of the landscape that have strong rock and stone features like Yearlet (Fig 4. below) enabled me to continue to pursue a practice-led research focus, taking field recordings of tapping sounds in the landscape. I looked for cairns, scree deposits and rocky outcrops across the Long Mynd and surrounding hills, which

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<sup>17</sup> Pinucci Sciola, 'Sounding Stones, the Memory of the Universe', Youtube Video Posted by Chasing the Unexpected. Jan 14<sup>th</sup> 2019. <<https://www.youtube.com/watch?v=Ez9vvsFa-KU>>

<sup>18</sup> Terje Isungset 'Suites of Nature, vol 1. Essence of Stone', Internet Stream. Spotify. <<https://open.spotify.com/album/4dCsvrUmkm9khhbA0VDgK6V>> 2017.

<sup>19</sup> Sigur Ros, 'Sigur Rós - Surtshellir/Stone Marimba' [Remastered Heima extra], Youtube Video Posted by Sigur Ros. July 31<sup>st</sup> 2021. <<https://www.youtube.com/watch?v=kz2LRS1Ys0w>>

<sup>20</sup> Hannes Feßmann 'A brief history about Stone and Sound - the Feßmann story,' Youtube Video Posted by stoneandsound. March 4<sup>th</sup> 2013. <<https://www.youtube.com/watch?v=-4kGmrun6xQ&t=3s>>



influenced where I focused my music. *Wern* was composed of rock tapping amongst the scree deposits.



Fig 4. Yearlet Cairn

*Portway* is a piece of music inspired by a pre-historic ridgeway of the same name that runs north to south across the top of the Long Mynd. It has been used for thousands of years as a route of passage.<sup>21</sup> Exploring this ancient ridgeway and considering the idea of it as a place which has been traversed since early man up to the present day raised many interesting questions of how this could sound in music. The Portway spanned all areas of interest in my research with it being very much a human story in the landscape, and is also affected by the geology beneath the path and the ecology that lines its path across the Long Mynd. The sound of walking and footsteps became key sonic references to the landscape within *Portway*, inspired by my listening research, which included *Listening to the Deep*,<sup>22</sup> a collection of sonic recordings from the sea. From modern day recreational passage to the necessity of journey, from the Neolithic tool trade to more recent cattle droving means that human interaction with the Portway has been consistent over the years, and this research has inspired me to create music that holds this history in musical voice by repeating the

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<sup>21</sup> Barrie Raynor, *The Long Mynd, It's History and Wildlife* (Church Stretton: Greengates Publications, 2013), p.8

<sup>22</sup> BBC Sounds, Between The Ears 'Listening to the Deep' < <https://www.bbc.co.uk/sounds/play/m000t61t>>, Last accessed February 2022

chosen melody across different sounds at different paces to reference the ages. I particularly note how Luther Adams's minimalist music palette and arrangements directly transported me into a mountainous landscape, giving me a sense of journey across a ridge with his simple rising string melody without even being there. This led me to a similar use of repetition by following a specific idea in the music, to portray the monotony of walking, but my visits led me to want to embellish this with the variety of human history and all the things that have happened here. Likewise, *Plainscapes* by Latvian composer Peteris Vasks describes his homeland across three pieces of music that portray the feeling of travelling through undulating landscapes with a sense of longing. Through his arrangements, this music somehow transports the listener emotionally and seems to travel through high and low places, from reflective sadness to minimalist spaces, where Vasks breaks from the musical themes to a moment of birdsong. I have taken this idea of emotional attachment to a beautiful place and explored how to communicate this in the music, alongside the more practice-led research results in the music.

The interesting dynamic of what the landscape communicates topographically along with how it can feel to be there is something I have visited several times in my music about the Long Mynd. I find that a heightened sense of emotion and inspirational views in the Shropshire ANOB leads my research to explore how to express these themes musically. One method was to directly compose music whilst in the landscape, putting personal emotive responses to how this felt into musical ideas. This is best heard in my track *Long Mynd Snow*, where the feeling of the quiet and the delicate appearance of these places when covered in a blanket of snow was explored in quiet musical ideas of string harmonics that are intentionally delicate. My research also included participating with the landscape by taking musical instruments to locations to explore sounding them in the landscape and the affect upon them. To do so, I planned to move parts of my home studio in the National Trust building at Cardingmill Valley for a week's residency. This research enabled me to gain a deeper focus on creating music in situ, affording regular trips into the landscape and then immediately putting responses into musical ideas. I discovered that this was new territory for this National Trust site, as I partnered with them as composer in Cardingmill Valley for the first time, taking over their former shop space, which had been closed due to Covid 19 restrictions. I witnessed the what appeared to be an abundant life in the valley, as it is a key tourist and educational space, and had a fly-on-the-wall perspective of the place for a week. The result was a fully immersive experience which brought about surprising results in my CMV piece.



Fig 5. Cardingmill Valley Residency studio set-up.

The practise-led research brought my explorations to a second day-long residency on top of the Long Mynd, some 250 feet higher up from the valley where my first residency took place, to set up an outdoor live studio. I was interested in how the act of music creation in a designated habitat could affect the output as natural forces like the wind and sounds act upon the instruments played in the landscape. The music made in this space also provided me with a soundscape that contrasted with the lower valley, musically speaking. Research into Marcus Fischer, with his performance at the Whitney Museum, New York, could be seen as having an impact on the ideas of minimalist music creation on top of the Long Mynd here.<sup>23</sup>

As with Vask's *Plainscapes*, the music of Icelandic composer Kjartan Sveinsson in his opera *Der Klang, Der Offenbarung, Des Gottlichen*, is wrought with human emotion, evoking a mixture of sadness and hope. According to Richard Allen, its title can be translated to 'the explosive sonics of divinity', and it

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<sup>23</sup> Marcus Fischer 'Whitney Museum, Live performance full' <<https://www.youtube.com/watch?v=c1yFzkXZnmw&list=LL&index=40&t=569s>>, last accessed April 2022.

was inspired by Halldor Laxness' novel *World Light*.<sup>24</sup> It inspired me to consider how I use my arrangements to reflect emotion across my three areas of interest: geology, ecology and personal histories in describing this landscape. Sveinsson explores themes of longing and the ephemeral in these pieces of music to which I've found there is a similar sense of emotion that occurs when in an environment like the Long Mynd. It could be argued that music exists in the permanent realm as the enjoyment of scenery is momentary, whereas a feeling can be laid down in music and relived at any time. In this sense, my research led me to create music to preserve the moments and experiences of a place as a point of reference. This is evident in *CMV*, *Portway*, and *Long Mynd Snow*. John Luther Adams's compositions, such as *Winds in High Places* and *Lines Made By Walking* are compositionally effective in evoking the feeling of being in a particular landscape. The tracks are spacious and make use of unusual sonic effects, such as the single high string harmonics in 1. 'Above Sunset Pass', from *The Wind in High Places*, transporting the listener into a landscape with wind whistling around you in a gentle way as described by the high and soft harmonics of the strings in the piece. This research led to approach my music here with these compositional techniques of Adams in my own work with gradual evolving melodies. This is further supported by the fact that there are facets of the Long Mynd and surrounding hills which are vast open spaces, exposed to the wind and could thus be described musically with a similar attention to space and a minimal musical palette as with Adams's. I believe this was achieved for the last part of *CMV* but by using the different process of setting up a studio outside to compose directly in the landscape. This also lends the track a degree of authenticity as there is an element of documentation. Due to the nature of recording sounds at source, the music here represents a true representation of the audible atmosphere at this location and serves as a documentary of a moment in time. Authenticity continues to be integral to the research, with personal histories of those associated with the Long Mynd forming another part of the research and these tracks in the area explore representations in music of my personal relationship with the area.

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<sup>24</sup> Richard Allen 'Kjartan Sveinsson ~ Der Klang der Offenbarung des Göttlichen', *A Closer Listen*, November 2<sup>nd</sup> 2016, <<https://acloserlisten.com/2016/11/02/kjartan-sveinsson-der-klang-der-offenbarung-des-gottlichen/>> last accessed 18<sup>th</sup> May 2022.

## Chapter 2 – Personal Histories

The landscape that surrounds Shropshire has great variety in topography and has seen human activity in the hills from the stone age to the present day. The story of our relationship to the landscape here and the effect of the landscape upon the human forms a significant part of my research. The Long Mynd and surrounding hills were used as a place of refuge and passage and has been a place of danger with the many 'Dead Man's [..]' attributed place names but also it has long been a place of celebration and recreation. Research into the human story has led me to a few surprising discoveries. I focused on creating music for three selected 'true' stories from the seventeenth, nineteenth and twentieth century, one of which is the story of Bonham Norton who was a person of key significance to Church Stretton in the late 1500's. He was one of the King James 1's printers, owning the rights to print the Bible and other related texts. This would have been an extremely prominent and powerful role at the time as publishing was in its early beginnings.<sup>25</sup> Due to his stature, he had access to nearby private land and woodland around the Long Mynd area and could provide wood and so was able to rebuild the key buildings in the town of Church Stretton after the fire of 1593.<sup>26</sup> His story offered my musical exploration so much as it is interesting and tragic that his life ended in prison after falling out of favour with the King over contention for publishing rights with former King's Printing House partners. There is little known or documented about him, other than that of the *Victoria County History of Shropshire, Vol. 10* – an ambitious publication of the recorded history all the counties of England in 1899 dedicated to Queen Victoria. The musical journey I went on drew from the few facts form in this source and so took on a more intuitive interpretation of his life. I felt a piece of music depicting Norton's character was important as his impact on the town, knowledge and involvement in the local landscape must have been significant.

The contemporary folk music of Sufjan Stevens came to mind when researching ways in which to convey the human story relating to a place. Stevens has done this with tales of people in his albums *Greetings from Michigan, The Great Lake State* (Rough Trade, 2003) and *Come On Feel the Illinoise* (Rough Trade, 2005). These albums explore the states of Michigan and Illinois through a social and historical account of stories from across their history. I find that his musical voice in representing stories from different points in history in these states, are full of empathy and beautifully represented, allowing for ease of interpretation and access to the human story. His retelling of stories is musically emotive, and don't try to hide difficult truths. In *Casimir Pulaski Day*, the stripped back guitar chords and hushed vocals provide a sad yet comforting presence as we hear the story of

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<sup>25</sup> British History Online 'Victoria County History, Vol. 10, Shropshire, Church Stretton p. 72-120', < <https://www.british-history.ac.uk/vch/salop/vol10/pp72-120#highlight-first>>, last accessed June 2022.

<sup>26</sup> The Kings Arms 'history', < <https://kingsarmschurchstretton.co.uk/history/>>, last accessed June 2022

a girlfriend who dies of bone cancer on that day. In *A Ballad for Bonham Norton*, I explore themes of loss and doubt as Norton looks back over his life and wrestles with the question of his moral standing.

During explorations of the many tales from this area, I discovered an extraordinary first-hand account of a story of human endeavour. A local Reverend got lost on his way home in the snow and battled to stay alive through the extreme weather and dramatic landscape. This story is full of drama and intrigue as the Reverend survived one of the worst recorded winter storms to hit this region of the U.K. and wrote his own account of how he nearly lost his life, as follows:<sup>27</sup>

My preservation through the night of the 29<sup>th</sup> of January last was doubtless most wonderful, and my experience perhaps without precedent, in this country at least; for, though many people have at different times been lost in the snow, scarcely any one has passed through the ordeal of such a day and night as that undergone by myself, and lived to tell the tale.<sup>28</sup>

This inspired me to consider the more dramatic side to the Long Mynd in musical voice compared to a previous notion that it was 'seemingly a quiet and vast landscape' as in the research heading. The account is so rich in detail that it offers many possibilities for creating a piece of music about his fight for survival that night. I led to how the instrumentation of a piece could recreate such drama and how I could paint the picture of Carr at mercy of the elements, but also from the spiritual side. Ralph Vaughan Williams used choral arrangements in his *Flos Campi suite* often occurring after crescendos, particularly in part six (*pone me ut signaculum super cor tuum*). Williams' use of repeated overlapping melody, first sung quietly (*mp*) by alto and soprano voices, is very moving and provides us with an angelic-like voice over the music, and is similar to what Sveinsson achieves with his choral arrangements in 'Teil IV' from *Der Klang, Der Offenbarung, Des Gottlichen* and also Peteris Vasks in his *Plainscapes* iii. To borrow the translation from Kjartan's aforementioned piece, these 'sonics of the divine' inspired my research to create a similar perspective upon considering the plight of Carr, during his near-death experience with a background choral part. I sought to explore ideas in music which could take a musical snapshot of the whole night following the suggested route of his journey up and down the valleys, using music to describe descent and ascent. I was also inspired by the use of percussion in Arvo Pärt's *Fratres* (string orchestra and percussion version) with the claves and

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<sup>27</sup> Weatherwebdotnet, 'Weather in History 1850-1899AD' <<https://premium.weatherweb.net/weather-in-history-1850-to-1899-ad/#:~:text=Heavy%20snow%20fell%20in%20the,four%20and%20a%20half%20metres.>> Last Accessed May 23<sup>rd</sup> 2022.

<sup>28</sup> E. Donald Carr, p. 5, 'A Night In the Snow.'

bass drum recurring as a percussive motif. The regularity and simplicity of the repeated three notes, which across a common time bar sound like a minim-crotchet-crotchet, provides a sense of suspense as the strings move in his signature tintinnabuli voice.<sup>29</sup> Pärt's creation of this style characterises two main musical voices by arpeggiating the tonic triad in the first and the second stepping diatonically.<sup>30</sup>

The third and final composition about a specific person and their story related to this landscape is the early 20<sup>th</sup> century romance novelist and poet Mary Webb. Webb was also known for her keen desire to walk in and around rural Shropshire, which heavily influenced her writing and provided a rich first-hand account of the wildlife and topography in this region as mentioned by Gladys Mary Coles in her biography of Mary Webb:

“Taking her writing materials, Mary would sometimes go away on her own into the ‘lost and forgotten places’ of the Shropshire hills and meres, staying a week or more in the Long Mynd and Stiperstones area which she knew intimately”<sup>31</sup>

I was interested in the context of the larger picture of Webb's life for this piece of music as I found her biography moving. She suffered from Graves' disease and a thyroid disorder which limited her years and perhaps contributed to her solitary life. Her poetry offers clues of her feelings about the natural environment around Shropshire, and I was interested in using her poetry in a composition.

The emotive and intricate music of folk singer My Brightest Diamond (Shara Worden) and Sufjan Stevens was taken as inspiration to write the vocal melodies and lyrics for my piece *Mary's Song*. As previously mentioned, the music of Worden and Stevens is charged with emotion, allowing a leading vocal melody to tell the personal human story. The song *I Have Never Loved Someone* (2021 Blue Sword) by My Brightest Diamond is one which specifically relates to my piece, as the narrative for admiration directs the lyrics of the piece and it becomes led by emotion. I was keen to explore the voice of Mary Webb in this piece of music and was interested in using the female voice as if Mary was singing herself whilst walking through the landscape. In addition, much closer to this landscape, the folk songs of Ralph Vaughan Williams set in the Shropshire landscape of Wenlock Edge, are poetic tributes to the beauty of the landscape. I have used this attention to voice and emotion in *Mary's Song* but, using words from her own poetry, accompanied by a plaintive piano melody.

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<sup>29</sup> Arvo Part Centre 'Works, Frates', <https://www.arvopart.ee/en/arvo-part/work/412/>, last accessed June 2022.

<sup>30</sup> For more on Pärt's tintinnabuli technique, see Hillier 1996 p. 75-90.

<sup>31</sup> Gladys Mary Coles *Mary Webb* (Glamorgan: Seren Books, 1990), p. 45

### Chapter 3 – Ecology



Fig. 6 The Cardingmill Valley residency studio view onto concourse in the National Trust's former shop.

Composers creating music that explores the relationship between humans and their environment, sometimes referred to as Acoustic ecology or ecoacoustics, has grown in popularity over the past few decades finding its way every sphere of music from soundscape composers like Hildegard Westerkamp to popular rock groups such as Sigur Rós. Studies in sound and radio art the 1960's by composer R. Murray Schafer, led to the creation of the World Soundscape Project which realised pioneering recordings, released as *Five Villages* (ARC 1977) and paved the way for field recording to be used as original compositions and in amongst pieces of music.<sup>32</sup>

I have spent several years visiting the various hills and valleys in this area of the Shropshire Hills AONB and have researched the ecology and difference of wildlife within this area to influence music. The top of the Long Mynd has limited vegetation and wildlife due to shallow and acidic soil caused by the underlying rocks and its altitude and exposure to all weathers.<sup>33</sup> The soundtrack to this plain

<sup>32</sup> Elizabeth Waddington, *Soundscape and Acoustic Ecology, The Music of a Changing World* <<https://earth.fm/details/soundscape-acoustic-ecology/>>, last accessed June 2022.

<sup>33</sup> Barrie Raynor, *The Long Mynd, It's History and Wildlife* (Church Stretton: Greengates Publications, 2013), p. 22



is often filled with a few recognisable sounds, especially in the spring and summer where Skylarks, Meadow Pipits, Bees and the odd bird of prey fill the upper landscape with their sound and almost always the constant presence of wind breezing across the plateau. My research led me to realise that the Long Mynd has a minimalist sonic palette of its own, making me consider other music that has a sense of space in it.

The music of Marcus Fischer adopts a minimalist approach to his musical creation, limiting the amount of sounds, which often repeat and develop steadily over the duration of a piece. He employs a combination of field recording and DIY instruments with analogue effects, Fischer creates soft soundscapes that delicately brood under a scattering of minimalist notes from various instruments, equally soft in their performance with the difference of musical colour coming from their sonic frequencies and careful arrangements rather than the dynamics of performance.

Music from 'Shape, Memory' – his collaboration with English musician Simon Scott – carries similar inspiration. *Thorns* captures ideas of nature in its subtle textures and minimalist evolving soundscapes. The use of a repeating loops in the background helps other quiet layers to rise and fall in the music, which I too have explored in representing this open plain in the last part of my CMV piece. There are a few areas where the habitat changes; pools, springs and mires bring more wildlife and a different resulting sound surrounding these spots. This lends itself to an interest in how to represent this area in music and I decided to therefore make several field visits across the Mynd, including taking some musical instruments with me to compose directly in the landscape. Most of the area is owned by the National Trust and one of the main sites and tourist destinations is Cardingmill Valley, so I was led to move my home studio setup into one of their buildings to allow for a deeper more focussed research into this landscape. The difference between life in the valleys and on top of the plateau is incredible as streams allow trees to thrive in the valleys and bring about different birdlife, fish, and insects to the valleys. Sonically, they are very different and this contrast is something I have explored in music created about this place. This can be heard in CMV where the added field recordings, which include natural birdsong, water and sheep around the trees and slopes to my more populated arrangements, contrasted with the sparse wind and skylark sounds which I accompanied with the delicate brushes of wind upon instruments set up there.

Further research into how artists have directly used ecological elements in their compositions, led me to come across a more recent development in music: translating biodata from plants to sounds via electrical components such as a chip and synthesizer. This method was pioneered in the 1960's

and has had a resurgence in recent years and found its way into the musical world.<sup>34</sup> Sound artist and environmental designer Mileece Abson has been at the forefront of exploring the potential with this field of sound art and I was interested into seeing how these practises she has created could be taken into my own composition. I brought my biodata kit and synthesiser into the landscape to see if I could gather sounds from leaves to influence composition and represent plant life directly in my music from the valleys around the Long Mynd. Consequently, being interested in the notion of authentic representation, I set about gathering sound directly from the landscape via field recordings and biodata samples, alongside composing music in a more subjective way about these spaces in the studio. I discovered the work of Canadian composer, radio artist and sound ecologist, Hildegard Westerkamp, who creates environmental recordings without much processing, addressing concerns about noise and the natural environment in her compositions and installations. Her piece *Seascapes* takes the listener on a journey through a sonic landscape, allowing rich references like waves and the movement of water to bring a mental image for these places.<sup>35</sup> In the light of this research, being in landscape was crucial to how I wrote music. I was able to respond immediately to any revelations from the various locations.

Cardingmill Valley National Trust is a busy place, as one of the main tourist locations in rural Shropshire, which offered interesting dynamics in terms of sound and the resulting decision to include human voice in my musical work *CMV*. In putting my studio into the heart of this valley, I could take samples from what I expected to be a busy and noisy space in the lower valley to something completely different up the slopes and on top of the Long Mynd. Furthermore, as plant life and soundscapes of the different areas formed part of my practise-led research, I was also interested in the impact on wildlife in this place as climate change and increased human activity took its toll on certain species. I was deeply moved by a story of struggle for certain species following my interview with the National Trust's countryside manager Peter Carty about the wildlife of this area. At the time of the interview, Carty noted that only one pair of Curlews was known to be living in the area. In addition, according to Leo Smith, the Eurasian Curlew population in the local hills here in Shropshire, had been decimated due to pressures brought on by climate change and that the bird was now on the Red list as a marked endangered species.<sup>36</sup> I was motivated to create a piece of music in response to this, using the Curlew's incredibly unique set of calls in the music with an accompanying melody to represent something of the tragedy and fragility of this species. This raised

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<sup>34</sup> Mileece Abson, 'A Little About Mileece and the Children of the Wild', <<https://www.mileece.is/bio>>, Last accessed 9th June 2022.

<sup>35</sup> Hildegard Westerkamp 'Sound Installations and Composed Environments; *Seascapes*', <<https://www.hildegardwesterkamp.ca/sound/installations/seascapes/>>, last accessed June 2022

<sup>36</sup> Leo Smith, *The Birds of Shropshire* (Liverpool: Liverpool University Press 2019), p. 210

the question of instrumentation and how much was needed to accompany such a story. My initial thought was that it should remain simple in voice as the Curlew's call itself which is so unique to the bird world, with its complex and varied notes which seem to move between major and minor, that I felt any accompaniment needed to take more of a minimal role in terms of melody and musical voice. I chose to explore how a violin part could emulate the Curlew song in empathetic voice as a recognition of what it faces. This idea was partly inspired by Peteris Vask's violin parts in *Plainscapes*, which carried a beautiful sadness of his rising and falling legato solo melodies in A minor (see audio link in footnote).<sup>37</sup> I was thrilled when seeking permission for the Curlew's song to be included in my piece from the Call of the Curlew website, that an earlier version of the track was used for the RSPB collaborative conservation album 'Simmerdim: Curlew Calls' which was released globally in May 2022.<sup>38</sup>

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<sup>37</sup> Peteris Vasks 'Plainscapes - Plainscape III; VOCES8', < <https://www.youtube.com/watch?v=MIQmL2oUyO8>>, last accessed June 2022.

<sup>38</sup> Call of the Curlew 'Sounds', < <https://www.curlewcall.org/media-library/sounds/>>, last accessed February 2022.

## Mynd – Track list

1. Toghill's Map 1.....	00:46
2. Portway.....	04:35
3. A Night in the Snow.....	07:27
4. Wern.....	01:18
5. Toghill's Map 2.....	06:42
6. Mary's song.....	06:40
7. CMV.....	16:55
8. Long Mynd snow.....	03:16
9. A Ballad for Bonham Norton.....	04:30
10. Runner, Messenger.....	03:38
11. Together Alder.....	01:55
12. Toghill's Map 3.....	04:10

[<Link to the Mynd album MP3 tracks>](#)

## Track Commentaries

### An Introduction to the Toghill's Map pieces (tracks 1, 5 and 12)

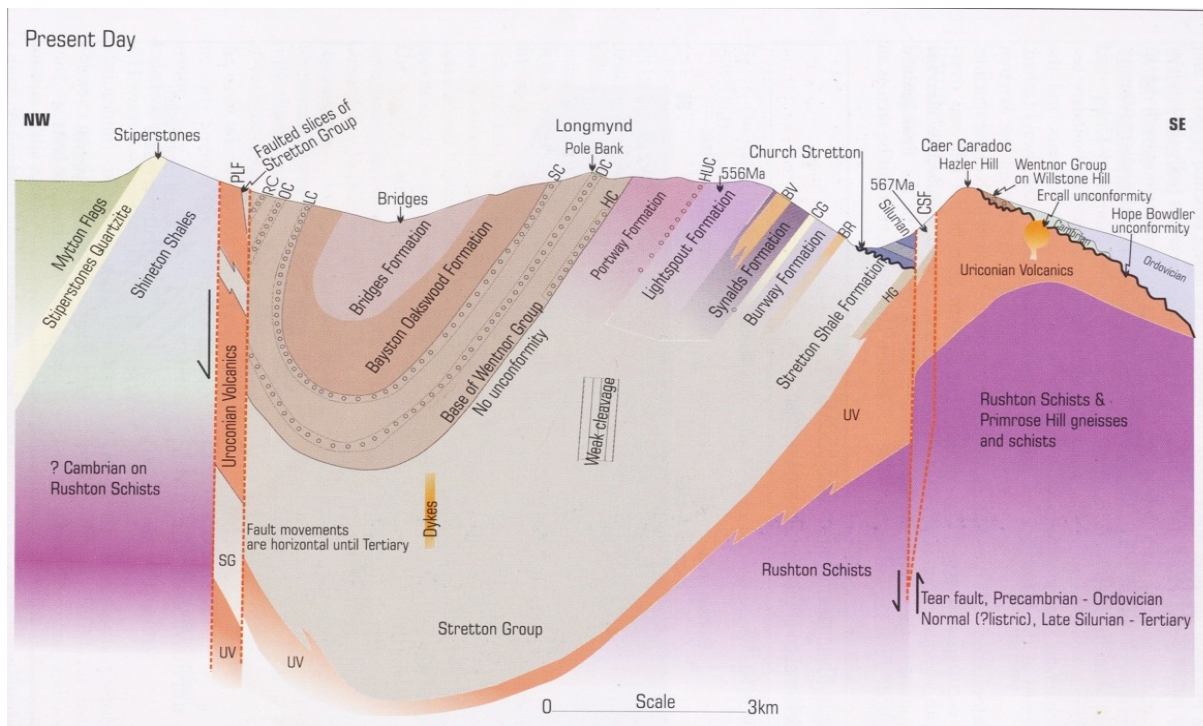


Fig. 17 Long Mynd Syncline. Present-day relationships of Longmyndian and Uriconian. PLF, Pontesford-Linley Fault; RC, Radlith Conglomerate; OC, Oakwood Conglomerate; LC, Lawnhill Conglomerate; SC, Stanbatch Conglomerate; DC, Damford Conglomerate; HC, Haughmond Conglomerate; HUC, Hukster Conglomerate; BV, Batch Volcanics; CG, Cardingmill Grit; BR, Buxton Rock; HG, Helmeth Grit; CSF, Church Stretton Fault.

Fig 7. Geology of Shropshire by Peter Toghill, *Shropshire's Oldest Rocks – the Precambrian Eon*, p.40

I started my research for these pieces reading about the geological studies of the Shropshire hills by Peter Toghill as seen in fig 5 above. From the outset, I have been interested in how maps and diagrams explain the formations of this region and thought they had potential to become graphic scores. I found that the above diagram offered inspiration with its shapes and colour and immediately made me think of glissandos and pitch bends where there are rising curves, I also thought that the different colour shapes could be expressed by dynamics such as 'loud' and 'quiet'. The challenge with using this diagram as inspiration for a graphic score was that it could be limited in length, leading to a shorter piece. I set about finding more diagrams of the same area within the Shropshire hills in Peter's book and found two more that could be explored musically.

I decided to join the three diagrams together and set about adapting them to be more useful as musical scores. This process was long and meant increasing the map sizes, tracing the larger diagrams to become one longer graphic image and then I added one colour to reference one geological period for each map, like with Toghill's diagrams, to get several different graphic scores and therefore different musical possibilities.



Fig 8. The re-designed geological maps with the two adjoined diagrams and Precambrian rock in red.

With the colours now separated onto different diagrams, I could think about instrumentation, i.e., which instruments could play which colours in my redrawn maps. *Music For Heart and Breath* by Richard Reed Parry alongside Christine Vantzou's graphic score compositions gave me ideas for the type of sounds that could be generated by a group of musicians playing these diagrams together at the same time in a more improvised framework. Although I enjoy the complimenting sounds in Parry's improvised pieces in this album, such as *For Heart Breath and Orchestra* the stopping and starting notes, often short staccatos, suits the framework of heartbeats and breathing but my approach was different. For the second recording, I instructed the players that the pulse was around 50Bpm, which led to longer, more drawn-out notes which felt more akin to the geological structures. I also chose the two keys to allow for the occasional clash of notes. Like Parry, I was keen to allow a sense of freedom for the musicians to reflect the organic nature of how these rocks formed and I

thought that the nature of the complex geological rock formations in Shropshire suited a more organic style of composition.

I set about creating an ensemble to perform the scores from local musicians to record various run-throughs of the diagrams in a location near the Long Mynd in the town of Church Stretton. I decided to make various instructions for the recordings, beginning with almost no instruction for the first run through to increasingly key ideas and information for how player might perform the graphic scores. These were as follows:

1. *First recording:*

- *Play in the key you have been given (will either be C# major or F minor) whenever your colour appears.*

2. *Second recording:*

- *Play in the key you have been given (will either be C# major or F minor) whenever your colour appears and continuously in between on any chosen note in that key at PP (this can be harmonics where possible).*
- *The map is now in three sections which are approximately 1 minute each at a pulse of 50BPM, the violin (name) will play the pulse throughout.*
- *Begin on the tonic and end on the tonic, visiting themes around the dominant around the middle colour of your map.*

3. *Third Recording:*

- *Follow the instructions in 2. adding:*
- *Where your colour shape is larger (thicker/denser) play louder and where thinner play quieter. The same can be applied with the timing of the note/s; thicker – longer, thinner – shorter. You may have both in one shape so move from one dynamic to the other.*
- *If your colour shape is a curve or diagonal, move up or down your designated scale in as many notes as you'd like, either glissando or individual notes.*
- *If your colour reaches the ridge line play higher notes in the scale, if lower in the diagram play low notes in your scale*
- *Dots and wavy lines indicate tremolo like playing*
- *Begin and end on either the tonic or dominant, visiting the other in the middle as instructed.*

4. *Fourth recording:*

- *Follow the instructions in 2. and 3. Except:*
- *Play in the other key which you haven't played yet (either C# major or F minor)*

- *Play half the speed (note value) you have been playing at. This should result in the piece being twice as long*
- *Choose one of your colour shapes to play at double speed and repeat that phrase.*

I wanted to bring together a compliment of sounds that expressed the different rock types with a different sound, paying attention to the space the colour occupied. For example, the yellow colour (mostly Quartzite rock on the diagrams), was small and occurred in thin short parts across the diagrams, which I felt needed to be represented by a higher instrument with a short attack and crisp sounds, so I chose a hammered dulcimer. Conversely, the frequent and fuller red shapes (of Precambrian rock - being dense and the earliest rock formations on planet earth) was designated to the significant sound of the double-bass. I wanted to use a wide range of sounds across the seven adapted diagrams so also included alto saxophone, clarinet, cello, electric guitar and violin in the bespoke ensemble. Each instrument, as can be seen on p. 62 in Appendix I, had its own diagram but from the same map/diagram so the ridge line and size was the same for each musician. This meant even in the fuller improvised runs through, there was potential from musicians to reach parts of the map at the same time and overall give the performance a framework that was similar for each player.

The players also had some guidelines even with the full improvised run through, which was the keys C# major and F minor. The reason for designating these keys was for the musicians to play in comes from some surprising revelations I discovered in my research into sonic frequencies. I discovered a fascinating story on a blog written by Julian Shelbourne, which is largely from his research into the sonic frequencies of nature and the universe. In one of the blog entries, he included a post about monks being witnessed to move large rock with sound, playing as an orchestra of sorts toward the rock. Julian calculated the frequencies used by the monks in this historical eye witness account, by Swedish aircraft designer Henry Kjellson back in the 1930's, concluding this to be relating to C# and F:

[...] the resonant wave between the monks and the stone to be moved is our 5.4 Hz magic "still-point" vibration for F which we documented on the home-page; and for the distance between the stone and the reflective cliff the frequency is also a sub-octave of this F. The total wavelength from the monks to the reflective cliff behind is (63 meters plus 250 meters) = 313 meters. At 0 degrees centigrade, the wavelength



is 1.0585 Hz (which if you octave it up (multiply by 2) a bunch of times = 270.97 Hz (our C-sharp is 270 Hz). The relationship between C-sharp and F is a major 3rd. And from F at 5.4 Hz to C# is a major 3rd (x 5) of a major 3rd (A) (x 5) = 135 Hz x 2 = our C#. So, there you have it folks: the secret to moving masonry with sound is to create a resonance around infrasonic vibrations of our F frequency, with a harmonic of an augmented 5th at the same time.<sup>39</sup>

This gave me the keys of C# major and F minor, which I felt lent themselves to the character of the geological structures intertwined as both keys are similar with only one note difference, allowing for sympathetic sonic relationships between the different instruments but with the collision and tension of the discordant G natural in F minor with F# in C# major, representing the coming together, separation, rising, folding and sinking of these enormous structures.

### **Toghill's Map 1 (track 1)**

Map 1 is the introduction to the sixty minutes of music and was taken from one of the shorter improvisations to the graphic score run through. Musicians were instructed to play at the loudest they might during any run through, for about twenty seconds. This was to explore what this might sound like collectively and to monitor the volume levels in the room, the resulting sound felt like the collision of rocks forming. I wanted to reverse this take to emulate the idea of going back in time and rewinding the geological clock to set the stage for the rest of the music as a musical opening. I enjoy how some of the instruments sound natural as if they're not reversed alongside other more processed sounds, like the electric guitar, which does feel like it's being drawn backwards.

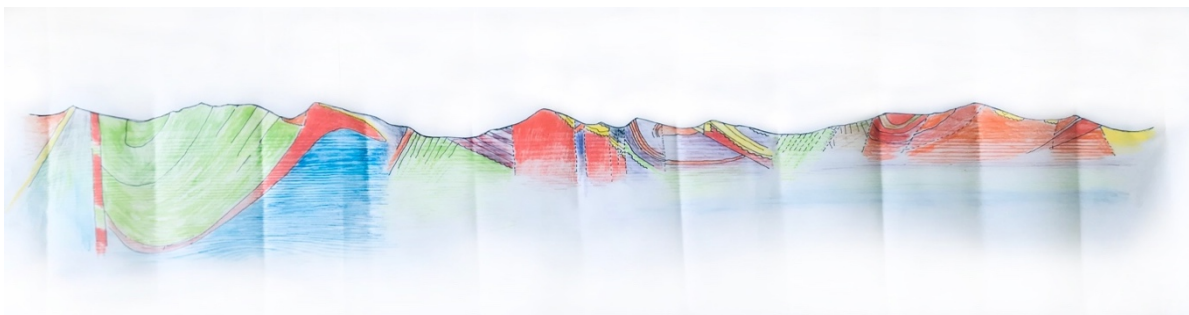


Fig 9. Toghill's Map re-created for the graphic score, full colour.

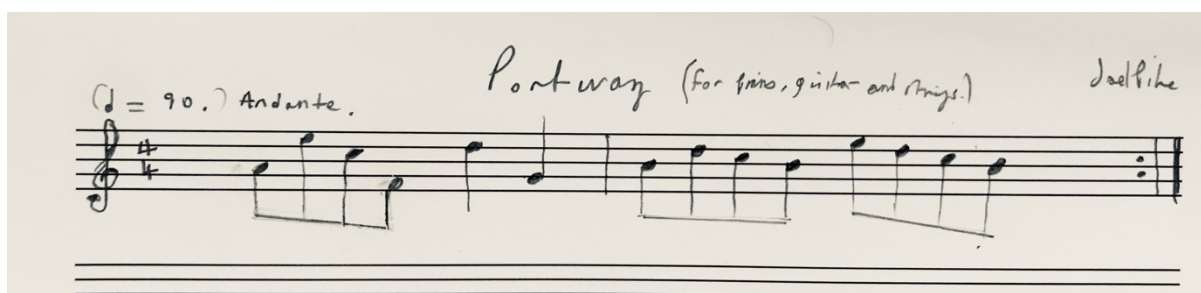
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<sup>39</sup> Julian Sherbourne 'Using sound and wavelength to move rocks' July 7<sup>th</sup> 2019, <<https://harmonicsofnature.com/2019/07/07/using-sound-to-move-rocks/>>, last accessed June 13<sup>th</sup>, 2022.

## Portway (track 2)

The Portway was created from many visits to this passageway which traverses the top of the Long Mynd. I wanted to walk in this landscape several times to get an idea for the views, the rhythm of walking and perhaps an indication to how people felt as they travelled across this landscape over millennia. The plateau offers generous views in every direction and in the present day the path is surfaced, making it easier to travel and increase its longevity. However, it remains exposed to the elements and the weather can quickly change, as on many occasions during my visits.

In the early stages of creating the music for this, I wanted to use the pulse of walking combined with my field recordings of my own footsteps along the Portway. I chose to use research into the cadence of walking in beats per minute to influence the whole pace of the music and settled on 90bpm taken from one of my footsteps recordings to dictate the pulse of the piece. This enabled me to build a musical framework around the pulse as I was inspired by how John Luther Adams had used a simple repeated musical phrase with a regular pulse in 'Up the Mountain' from *Lines Made by Walking*. This also led me to decide to use one melody of fourteen notes to describe the Portway as a repeated melody, much like the way the path across this Long Mynd plateau doesn't change much and feels like it repeats itself as similar features in the landscape reappear. The piano melody created was to represent a 'plodding on' feeling, as the landscape was vast and the journey long for many travellers crossing in history. I wanted to capture ideas in music about the eons of human passage across the Portway and decided to have all instruments play the same fourteen notes, but some instruments at half speed and others at even slower pace as shown in its score here:



I created a violin part which only completes the fourteen notes once across the four minutes and thirty-five seconds, as opposed to the piano, which repeats the same melody thirty-six times. The instruments are in this sense representing the different ages, as shown in the table below, from the whispering synthesizer reflecting modern day recreation (mountain bikers and paragliders), to strings performing at slower pace over a longer period as a musical reference to the early human passage.

Instrument	Character	Period in history on the Portway
Piano	Steady/constant/andante	Walking for all ages.
Viola	Broad, moderate, tentative	Stone Age – 3500 – 2000 BC
Double Bass	Assured, louder, bold	Iron Age – 700 – 43 BC
Cello	Legato, full, enduring	Anglo Saxons & Romans 7 – 410 AD
Violin 1	Rising, reflective, wistful	Medieval 11c – 14c (The Kingsway)
Violin 2	fast, abrupt, intermittent	1600s Riots – 1800 Cattle droving
Violin 3	faster, skittish, conflicting	1800's – 1900's – Commoner's rights & rows over land
Synth sounds	soft, fast, skittish, bubbling, full	Modern day recreation; cycling, walking, sport, education.

### A Night in the Snow (track 3)

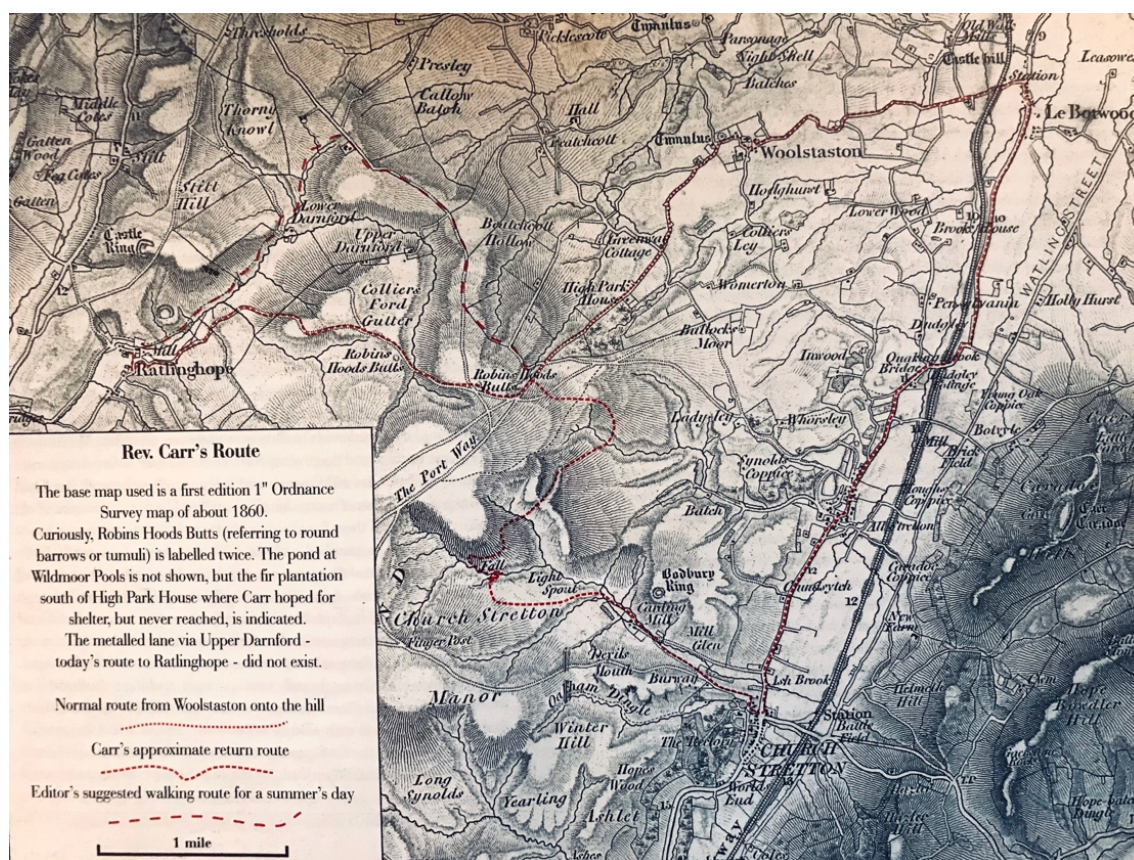


Fig 10. A map suggesting the Rev. Carr's possible route lost in the snow that night.

The first of the three human stories from this landscape follows the remarkable autobiography of the same title by Reverend E. Donald Carr. From the outset, I wanted to capture the drama in this piece and describe his ordeal as directly as possible in the music. I decided to give a role to each sound in the story. The string and piano arrangements follow the reverend's passage from stomping steadily through the increasing snow to his dramatic falling and scaling the valleys in a desperate attempt to get home. To describe this as clearly as possible I chose to use descending and ascending melody up and down the C# minor scale, but at a fast tempo due to the frantic nature of what the

reverend was going through. This contrasts musically to earlier in the story with his more moderate struggles walking through the snow, which are nuanced by more ambient soundscapes with hints of what is to come. For the choral part I wanted to explore a more empathetic sound as if his plight is being seen from above. I was inspired by the interplay between the violin and choir in Vask's *Plainscapes II* and Ralph Vaughn Williams' use of repeating choral phrases in a sort of delay in 'Pone me ut signaculum', the sixth movement of the *Flos Campi* Suite. Both pieces have this sense of a divine and empathetic watchful eye from above, much like Sveinsson's choral and string arrangements in 'Teil IV' from *Der Klang der Offenbarung des Gottlichen*.

I wanted to use this effect but in a subtler way as the other instrumentation was more frantic and descriptive, so I contrasted this with a softer sound through my choral arrangement of longer notes, harmonising and moving between C# minor and the E major keys. The approaching storm is also represented by the scratchy and discordant violin, which grates away constantly in the background as the wind on good days feels persistent on the top of the Long Mynd, but would have been relentless for the reverend. I chose to end the music in a similar way as it had begun, as in his retelling of events, he emerges from his frightful night hearing children's voices in the Cardingmill valley area.

**Wern (track 4)**



Fig 11. Rock tapping and scree slopes at the Wern valley.

Following my research into how other artists (Westerkamp and Isungset) used rock in their music, I wanted to take field recordings from a chosen location of different rock types to form the backdrop of a track. Upon the advice of a National Trust officer, I visited the Wern, which is of ecological interest due to the many scree deposits on its slopes and the fact that it is so infrequently visited. The valley had a sense of timelessness and I wanted to reflect this in a shorter piece which was intentionally an interlude between tracks, much like the way I came across this site. As mentioned in Chapter 1, my inspiration for the use of rocks led me to the music of Norwegian Drummer and Jazz musician Terje Isungset, amongst other musicians. Isungset creates percussive and soundscape music using stone, ice and other natural elements and has an extensive catalogue of music exploring the natural environment. In his *Suites of Nature Vol. 1: Essence of Stone*, Isungset examines the sonic properties of stone by tapping and grinding rocks and stone in the large Emanuel Vigeland Mausoleum in Oslo, a tomb-like cavern originally built by Vigeland to house his art as a gallery, which boasts around a 12 second reverb, making the resulting sound bleed into the next notes.<sup>40</sup> It's

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<sup>40</sup> Trevor Cox, 'Emanuel Vigeland Mausoleum, A beautiful reverb surrounded by vivid and explicit frescos', *Sound Tourism* October 11 2014 < <http://www.sonicwonders.org/emanuel-vigeland-mausoleum-norway/>> Last accessed 20<sup>th</sup> June 2022

interesting to me that Isungset's pieces embody something larger than just the acoustic properties of the chosen rocks, as if the sounds he creates are timeless, and could have been made in any era.

I took a portable USB microphone into the landscape and recorded the tapping and rubbing of different rocks from in and around the Wern valley. I placed them into a track alongside other samples, in reverse. This was to give it similar sonic properties to the likes of Portway, to provide a sense of going back in time, with the thought of early human activity in this landscape. It's also a nod to the original formation of the rocks themselves, folding over time. I applied a delay to the tapped rocks, inspired by Isungset but for my track, the smaller tapping sounds were nuanced by delay, intended to describe the repetition of many stone deposits in the valley. At the beginning, the violin bow pressure is light, emulating the light breeze at the bottom of the valley. This bow pressure is increased considerably further into the piece upon depicting the stronger winds on the surrounding hills.

### **Toghill's Map 2 (track 5)**

This piece is taken from the third run-through, where there is a combination of instructions with freedom still to improvise. I felt this take went on an exciting journey sonically with crescendos and full moments in the music to other more delicate singular sounds which emulated the undulations in the graphic score so well. There are a few moments where the clash of the two keys in F minor and C# major feel like it jars and goes out of tune with some instruments which again is intended in the piece to bring about a sense of uncertainty, much like that of the journey of the rock through some of the ages. I also am drawn to moments where the music is momentarily harmonious which was also an aim with the piece but without being forced.

### **Mary's Song (track 6)**

When I discovered in the biographical writings of Mary Webb, that she was often known to be walking in and around the landscape of the Shropshire hills, I decided to look directly at her poetry and life to inspire music about her and the places she visited.<sup>41</sup> I discovered a wealth of her poetry in which there were generous accounts of the nature she encountered walking in the Shropshire landscape and her love for it. At the same time, I was listening to the music of Shara Worden (including her collaboration in the group Clogs and as My Brightest Diamond) to explore a female voice within a contemporary folk style, following on from my research into Ralph Vaughan Williams' *On Wenlock Edge*, which also

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<sup>41</sup> Gladys Mary Coles *Mary Webb* (Bridgend: Seren Books, 1990), p45

influenced my track *Mary's Song*. It became clear that Mary Webb's poetry was so rich in the collection 'Poems and the Spring of Joy,' that I felt any of the poems could be the lyrics to the song. I also discovered that her life was also interesting in her own battles with health and sorrow, and I wanted to put together a song which held these two aspects of her life together. Listening to *I Have Never Loved Someone* by My Brightest Diamond (2021 Blue Sword), I was inspired to create a more reflective and wistful melody using the key of F# major. Although Worden's song was originally a lullaby written by Shara for her Son in 2011, and sounds wistful in this new version, with the string arrangements and chord progression through the piece, I wanted to do something different with the vocal line being sung as if Mary was walking through the fields and hills singing to herself pointing towards her own love for the natural surroundings. To represent her inner thoughts and tensions, I decided to write my own lyrics to begin the song. The lyrics reflect her wrestling with her longing to be outside and to live forever, but at the same time knowing she had life-limiting health complications. I imagine her walking in the landscape having this inner dialogue:

"What's this?  
I am longing, to belong here.  
What's this?  
I am wandering into bliss.  
What's this?"  
Yet I'm alone here, and I am home here.  
What's this?  
I don't have long here, and I am longing..."

I chose to have this sung in the lower octave to being with as if she was brooding across a meadow touching the flora and singing these initial thoughts to herself. I then used her poem *The Birds Will Sing* for the second part because it carried both themes of love for her natural environment but also her awareness that she wouldn't be alive for a long time:

"The birds will sing when I am gone  
To stranger-folk with stranger-ways.  
Without a break they'll whistle on  
In close and flowery orchard deeps,  
Where once I loved them, nights and days,  
And never reck of one that weeps.

The bud that slept within the bark  
When I was there, will break her bars--  
A small green flame from out the dark--  
And round into a world, and spread  
Beneath the silver dews and stars,  
Nor miss my bent, attentive head." <sup>42</sup>

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<sup>42</sup> Mary Webb *The Collected Works of May Webb, 'Poems and the Spring of Joy'* (Collected edition: London; Jonathan Cape 1928), p. 65

The second part has faster piano, and characterises Mary's time running out and her trying to hold onto these visual memories of her much-loved environment. I chose the voice of musician Faith Brackenbury to represent Mary as the balance between Faith's soft voice and range meant she could sing the lower octave in the desired tone and reach the higher notes and octave above. Faith is also a Shropshire resident who is used to walking in these places so there was a familiarity of the narrative, which gave the song more authenticity and ability to imagine the places and Mary walking as she sung. The violin parts accompanying the piano are intended to empathise with Mary and are employed in the bridges and outro.

### **CMV (track 7)**

For this piece, my research led me to discover and explore in music the different variations in the sonic palette, from the lower region in Cardingmill Valley, to the changes in sound mid-valley, to the minimalist soundscapes of the plateau on top of the Long Mynd.

#### Lower Valley (Cardingmill) explorations

I took up residency in the National Trust's former shop at Cardingmill Valley for a week and brought several instruments from my home studio to cover a wide spectrum of sound; percussive instruments, a mini-synth, electric piano, electric guitar plus effect pedals and a few others, setting up in their former shop as seen above. The studio looked out onto the main concourse which meant anyone visiting the valley could see me, which would have been over three thousand during the week of my residency, with 700 school visitors to the valley that week and an average week seeing 3000-4000 registered on their car parking meters in June.

I visited key sites for primary research and sampling audio by making field recordings and biodata samples. I struggled initially with an idea for the piece and it wasn't until I accidentally left my microphone on and the café door next to my studio set up was left open. The cacophony of noise from visitors to the café in my headphones provided a true sonic portrait of this place. I had some of the early riffs and melodies that I created on the first day, playing in the background in this moment, which seemed to compliment the acoustic environment of humans talking. The sounds coming from the many visitors, including several school visits for educational visits and a lot of other recreational walkers visiting from all over made for an interestingly varied soundscape in this busier part of the valley it also included sounds from the stream and birdsong and sheep in the background. There was a depth to the range of sounds in just one place which wasn't clear until this moment. This was on the



third day of my residency and visits to record sounds from the surrounding area with my USB microphone (fig 12 below) could now be brought into context.



Fig 12. Setting up a Zoom HN2 microphone in Cardingmill Valley, ready to record an ascent up the valley.

I could then go onto make a portrait of a journey through this landscape. That is, the sonic landscape of people and nature combined with the emotional and mental unfolding that happens from arriving in this busy but beautiful centre of the valley. The majority of visitors intent on walking ascend to a much more exposed open landscape with less human noise, which I decided to pursue in my music making for this piece. With a new awareness of the sounds around me, I sketched out a rough graphic score identifying the basic outline and structure of the piece:

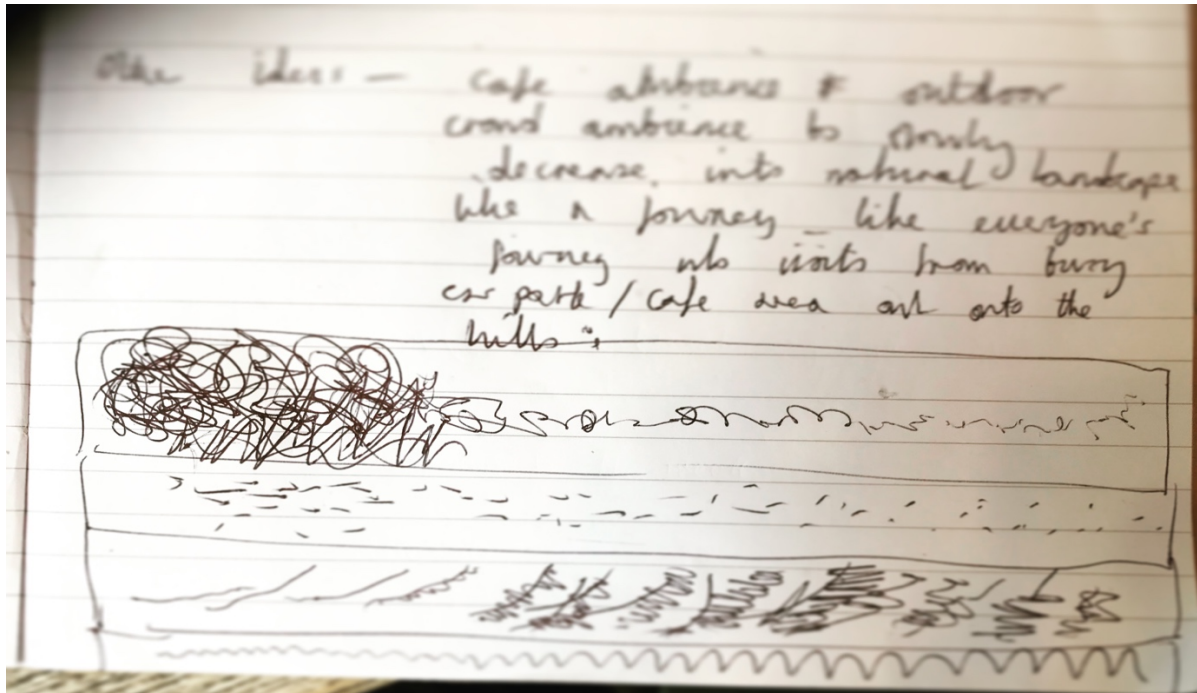


Fig 13. A quick sketch of an idea for how this CMV track could sound

This sketch provided a breakthrough moment as it gave an image of a possible true sonic narrative for the landscape from the bustle of where my studio was set, to the quiet heads of the valleys where they reach the plateau of the Long Mynd. Although scribbled down and simplified in the drawing, these elements can be seen in the marks becoming more minimal at the end (right) of the sketch. An interesting component from the research here was what the in-between landscape offered in field recordings and interpretation in music. I set about exploring the mid-valley in various places and took many field recordings of the various environments. I discovered that the fullness of sound in the lower valley had changed drastically to there being almost no human sound and a more minimal and undisturbed natural palette, often of bubbling streams and birdsong.

#### Mid-valley sound recording and musical responses

During research undertaken into acoustics and the environment shortly before the residency, I became aware of biodata music, that is music created using electrodes to take the changing pulse of conductivity in plant's leaves to notes via a chip and synth. In my studies of the artist Mileece, I found she largely used deliberately set up bio-acoustic studios full of plants with large leaves and electric equipment that could be accessed through mains power, but I wanted to be able to take a more portable biodata kit into the landscape to record trees and plants living in the valley.<sup>43</sup> After experimenting with different techniques and equipment, I discovered that I could achieve this using

<sup>43</sup> Meet The Sonic Artist Making Music With Plants: Sound Builders, YouTube video posted by 'Motherboard' September 2014 <https://www.youtube.com/watch?v=wYU18eiiFt4&t=53s>, last accessed May 2022.

battery-operated equipment. This led me to a buildable biodata kit available from America, which was the custom midi-sprout. I commissioned IT engineer Glen Pike to make this kit for this project, and found a range of Korg mini-synths, which could be used with batteries, so I purchased one for this activity.<sup>44</sup> The synth, mic and biodata kit were battery operated, which allowed me to take it directly into the landscape as can be seen on p. 10 in fig. 2. I was surprised to make some exciting discoveries when recording some of the larger trees slightly above the main concourse using this method. The trees appeared to largely have consistent pulses but all were different from one another with the Silver Birch being the fastest, followed by the Oak and the Hazel being slower in its rhythmic pulse. The resulting sounds recorded from the biodata kit via the synth onto the zoom mic, felt different and exciting to include in the CMV track. I used all the recordings from this area in this piece as the trees themselves were next to each other, growing over the same stream and area in the valley. I felt this was important in trying to represent the area authentically but also allowing the resulting sounds to speak for themselves and reveal a more hidden world of these trees with their varying pulses, and voices. I enjoyed the surprising aspect of this music making.

As I moved up the valley, I began to use more field recordings in my CMV piece, this was due to the sounds of nature being more present. I could take these recordings back to the studio a few moments later and immediately respond in creating melody either on the piano or with (midi) string sounds. Lower in the valley, the streams moved briskly, so I decided to use the violin as its voice alongside the field recordings, racing up and down the notes in A major. I decided on the key of A major following another surprising discovery in my secondary research into ecology that revealed that nature, in this case the roots of plants, responded and indeed communicate at a specific frequency (related to A3), as explained in Peter Wohlleben's book *The Hidden Life of Trees* about Dr Monica Gagliano's research into plants and sound:

Whenever the seedlings' roots were exposed to a crackling at 220 hertz, they orientated their tips in that direction. That means the grasses were registering this frequency.<sup>45</sup>

If you take this frequency and its wavelength (156.82), the corresponding note is A3 on a piano which led me to emulate what was perhaps going on unseen in the life of plants in the valley.<sup>46</sup>

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<sup>44</sup> Electricity for Progress 'Midi Sprout Biodata Sonification Kit' <<https://electricityforprogress.square.site/product/-old-midi-sprout-biodata-sonification-kit/11?cs=true&cst=custom>>, last accessed February 2021

<sup>45</sup> Wohlleben, Peter, Jane Billingham (trans.), *The Hidden Life of Trees: What They Feel, How They Communicate: Discoveries From A Secret World* (British Columbia: Greystone Publishing, 2016), p. 13

<sup>46</sup> Physics of Music 'Notes', <<https://pages.mtu.edu/~suits/notefreqs.html>>, last accessed June 2022.

## Plateau Explorations

I then began to work with a more minimalist compliment of sound as the landscape became sparse. I felt that ascending the valley from the main concourse below to the quieter plateau on top would be a good basis for the narrative or journey of the whole CMV track. It presented me with a further opportunity to take residence but this time on top of the Long Mynd where the environment was totally different. A few months later I took a similar compliment of instruments to the top of the Long Mynd and spend a day listening, recording and responding to the sounds as can be seen in my set up in the below image:



Fig. 14 My studio set up on location for the second residency on top of the Long Mynd.

I wanted the final part of CMV to arrive in this place musically so experimented with different sounds to emulate the constant breeze and smaller natural sounds. After a few hours of experimenting, I decided to use the natural elements to dictate notes and tied a length of beads to the gazebo roof and place instruments underneath like the xylophone and a zither. This created an interesting intermittent sound and much like the biodata, it wasn't completely regulated by me, but was affected by the action of the weather at this location. I also discovered during this residency, that by playing the cymbal with a cello bow, I could represent the sound of the wind up here, which was constant and an important feature of the sonic palette. Other prominent sounds in amongst the minimal compliment of sounds up here included skylarks who are plentiful up on the plain, so I included field recordings of them in this part of the music.

### **Long Mynd Snow (track 8)**

The changing face of the Long Mynd and surrounding hills through the seasons makes for varied acoustic ecology. Winter inspired the theme to this piece, as in the snow these areas become almost silent and visually altered. I had visited sites like the nearby Lawley in the snow and was interested in what this might sound like on the edge of Rectory Wood where it joins the Long Mynd from Church Stretton. I had already made field recordings of this spot during my week residency at Cardingmill and wanted to create a piece of music that reflected its more hushed sounds in the snow. I was inspired by the contemporary Canadian composer Jonas Bonnetta, who created an album of environmental music made from visits and field recordings made on the coast of Fogo Island. Due to its location as an Island of the Newfoundland and Labrador coast, the landscape is bleak and often covered in snow, which is also featured on the album's cover of a frozen harbour and sea.<sup>47</sup> The music is also minimalist such as in *Little Seldom* where long notes on strings are sustained to create the harmony and build steadily to a fuller sound before quietening down again to a field recording from the same named place. In listening to Bonnetta's music, I was inspired by how his allowance for space in these pieces, that is, longer notes in a minimalist framework, invited a sense of winter that was vast and hushed. I decided to take these ideas into my own approach to composing *Long Mynd Snow* but in contrast wanted to represent a smaller and less bleak place but with similarities when covered in snow. I wanted to make it sound pure and joyful in representing a beautiful snow scene, so chose C major to reflect these qualities. I also wanted to give room for the strings to carry a harmonious drone which felt always present, which is why I created a simple repeated piano melody, which only varied slightly. The instrumentation is minimal to reflect the covering of snow and its sense of quiet but also its magical effect on the landscape. The track is deliberately short for this reason as such a scene is rare.

### **A Ballad for Bonham Norton (track 9)**

The contemporary New York based composer Nico Muhly collaborated with the Faroese folk artist Teitur, on an album called *Confessions* (Nonesuch, 2016), which was inspired by early YouTube videos of people confessing everyday things. Muhly explains this on a website entry:

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<sup>47</sup> Killbeatmusic 'Jonas Bonetta', <https://www.killbeatmusic.com/jonasbonnetta>, last accessed June 2022

Usually, the videos are, either inadvertently or intentionally, confessions of some sort: one man loves the smell of his printer in the morning; another woman loves her cat more than her cat loves her.<sup>48</sup>

I was inspired by this album and the way in which Teitur's sung melodies framed these stories so clearly, accompanied by Muhly's modern baroque arrangements performed by Holland Baroque, a Dutch ensemble. The track *Cat Rescue* from the album, is a great example of how the two artists interweave Baroque instrument sounds and contemporary lyrics which tell an unusual and mundane story in song. The result is a surprisingly emotive and sad sound which ends with a lengthy baroque arrangement. One admires how Muhly leaves space between the notes and brings in the different instruments at alternating times. I was interested in how I could create a piece of music based on Bonham Norton's pursuits, considering the song and accompanying instrumentation in the light of this research.

Bonham Norton lived around the early 1600's, so I included a recorder melody as a musical reference to the period of music around Norton's time which was early Baroque. The little information that is available about Norton can be found in the 'Victoria County History of Shropshire (Vol.10)' and few writings about the King's House Printers, but from what I had found, I felt a great sense of sympathy for him and surprise that someone with so much connection to the king, moved to Shropshire, and this area in the Shropshire hills. I decided to explore the tension between the two halves of his life. He had a seemingly generous life, offering to re-build aspects of the town of Church Stretton following a devastating fire of 1593, out of his own nearby woodland on the Long Mynd. He also appeared to have been the high sheriff for Shropshire and part of the church community, which is unsurprising as he had the king's rights to printing the Bible and common book of prayer amongst other publications. I then discovered that his later life was wrought with family feuds over the printing rights, which in the end led to his early death in prison after falling out of favour with the king. I wrote the lyrics to be sung by a male voice as Bonham Norton, from the perspective of him at this point of tension before his imprisonment:

"My name is Bonham Norton,  
I am a good man,  
Am I a good man?"

I decided not to add any more story to the lyrics as in a similar vein to *A Night in the Snow*, I wanted to allow the instrumentation and arrangement to provide the listener with the journey into the character's story. It also brings more depth and meaning to the question of whether Bonham Norton

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<sup>48</sup> Nico Muhly 'Confessions', <https://nicomuhly.com/news/2009/confessions/>, last accessed June 2022.

was a good man or perhaps a man who used his wealth and standing to gain influence. The minimal approach to lyrics and repetition also helped the musical textures like the banjo and piano and the choir to be heard clearly, with which I adopted the same 'heavenly perspective' principle as with the reverend in track 2, singing in empathy for his cause. I also take inspiration from Sufjan Steven's song writing and his approach to minimal instrument arrangements in his track *For The Widows in Paradise, For the Fatherless Ypsilanti* from his *Greetings from Michigan, the Great Lake State* album. I like how the song moves in a linear sense, not moving into other keys or time which is what I've done with mine.

### **Runner, Messenger (track 10)**

In a discussion for this project with Peter Carty, the National Trust's Shropshire countryside parkland and gardens manager, I discovered a lot more detail about the birdlife around this area in the

Fig 15. Above, a video of my sudden Curlew discovery in the Shropshire hills, 10<sup>th</sup> July 2021 (*right click image to play*).

Shropshire Hills. I decided to create this piece of music in response to the dwindling existence of the Curlew in these hills and further researched the bird, its song and local history. Following a tip-off about the only known remaining pair near the Long Mynd, I was amazed to come across them as a



pair flew past the windscreen of my car whilst I was out with my family and I leapt out and captured some of their song on a short video (below).

I revisited the same location a few times to try and capture their calls on a better microphone, to potentially use in the composition. It became clear that capturing a good recording of their calls

locally here was going to be very difficult and could potentially take months , so I decided to search for curlew field recordings online. I came across the website: 'Call of the Curlew', which I found a great resource in researching curlew conservation to get a picture of the wider implications for this Bird and found that it had a library of recordings of curlew calls.<sup>49</sup>

I found the different calls very interesting from a musical perspective, as they were unlike any I'd heard before and I set about playing the piano alongside these calls in my home studio. I wanted to create an intro on the piano which was mournful, to set the scene and mood, allowing room for the curlew's call to be heard. I used chords in A minor that sounded like a lament, further nuanced by the clashing of notes in some of the chords. The introduction then moves into a faster pulse, still lamenting in the A minor key, but quicker to reflect the nature of time running out for the curlew. I wanted to include the different calls from the curlew, including its alarm and flight calls into the music, overlapping them to give a varied and wider soundscape of the curlew. I created two roles for the violin in this piece, one which was legato notes playing a sorrowful melody with the piano to sympathise with the curlew, the other to echo the calls of the curlew as an alarm or message to us. For the second faster part, the violinist was instructed to play short staccato notes in the A minor key following the call of the curlew, which helped to give the track more urgency and provided a human response to the call of curlew, to show recognition and solidarity for the challenges faced. The piece returns full circle at the end with similar piano chords, although this time more drawn-out to provide the listener with a feeling of uncertainty. In addition, the piano doesn't resolve the piece in the A minor key at the end, but is left suspended on a less resolute D minor chord, with the final sound being that of the curlew. A version of the piece was featured on the RSPB's 2022 curlew multi-artist conservation album *Simmerdim: Curlew Sounds*.

### **Together Alder (track 11)**

This was the last piece of music from the entirety of this project that I created. I wanted to continue to explore sounds of trees using the biodata kit, and to harvest sounds from the conductivity in their leaves. I had noticed an interesting line of common alder trees in during my walks around the valleys and hills and had discovered some inspiring facts about these trees in my research. Often the roots of trees in lines like this or in close groups, join and feed each other nutritional information, as is mentioned in Peter Whollenben's book *The Hidden Life of Trees*:

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<sup>49</sup> Call of the Curlew 'Media Library – Sounds', <<https://www.curlewcall.org/media-library/sounds/>> , last accessed January 2022



“[...] most individual trees of the same species growing in the same stand are connected to each other through their root systems.”<sup>50</sup>

Alders also are key to making the soil rich in nutrients, with their rare nitrogen fixing capabilities and as their roots serve to stabilise riverbanks.<sup>51</sup> This discovery led me to explore the line of alders along the lower stream of Inwood valley. I spent time exploring the riverbank for evidence of roots joining and made recording visits to this location to sample the conductivity in their leaves and other surrounding trees. I also wanted to make field recordings of this area as the wildlife is sustained by the trees and insect life. I sampled four different trees and plants in the valley with the biodata kit and was surprised by the diversity of their resulting sound. Notes from the alders were regular, slow and far apart whereas the water mint (pictured below) beneath its branches, was fast and intermittent. I took these audio samples and the field recordings back into the studio and responded to their sounds by building a sonic portrait of the valley with my own musical responses. I felt that they needed to be prominent in the mix and only needed complimenting with a gentle soundscape of long string harmonics in the key of A as per the earlier discoveries of the natural world communicating at this frequency. I also added violin pizzicatos in response to the biodata sounds to echo a portrait of this valley with musical voice, as if to join in its hidden song.

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<sup>50</sup> Wohllenben, Peter, Jane Billingham (trans.), *The Hidden Life of Trees: What They Feel, How They Communicate: Discoveries From A Secret World* (British Columbia: Greystone Publishing, 2016), p. 3

<sup>51</sup> Hemery, Gabriel and Simblet, Sarah, *The New Silva: A Discourse of Forest and Orchard Trees for the Twenty First Century* (London: Bloomsbury, 2014), p. 218



Fig 16. Biodata recording in Inwood: Sounds of the water mint

### **Toghill's Map 3 (track 12)**

To close the sixty minutes of music, I wanted to use the final take from the improvised map ensemble session. The reason I was drawn to this particular run-through and the subsequent placement of the track was due to the extremely interesting dynamics and voice that the musicians achieved for this improvisation. As it was the last run-through, there was a confidence and freedom and the instructions mirrored the first run-through, where there was little instruction and freedom to improvise. The only instruction was to follow the full colour graphic score on the wall in front of us all. The musicians could play in any key and to choose any colour, all the colours, or none at all, but I wanted them to use the diagram and narrative of the surrounding hills as their inspiration. The resulting sound was fuller, containing a greater range of expression, dynamics and intricacies across all the instruments. There was a sense of rhythm and pulse throughout the whole piece and it was also the piece with the most musical communication and exchanging of ideas as the musicians drew inspiration from one another.

This is best demonstrated with the violinist's double-stops at [01:46] which were emulated by the alto-saxophone player and double-bassist, who began to play the same pulse resulting in some interesting ideas in relation to the diagram and topography. I feel that the music here considered the rhythms of the landscape and how geological forms repeat themselves, appearing similar, but with slight variations of texture and shape as with the different sounds created by the instruments.

## Conclusion

I embarked on the journey for this project with a desire to research the Shropshire hills AONB in much greater depth than with my recreational visits and reading had afforded me in past years. My aspirations were initially to include the entire Shropshire ANOB in my research and resulting compositions, which included the Long Mynd, extending to 802 square kilometres cover much of the southern part of the county. It soon became clear that this area of research was too large to focus my research in the desired greater depth and would need a much longer period and larger conclusion to explore for a research project. Consequently, I decided to make the closer and more familiar landscape of the Long Mynd, and its immediate surrounding hills, the area of my research. This enabled me to dedicate more time visiting the area in multiple visits and to research a limited region in greater depth. I believe that this made the project stronger, as I could go deeper into the three areas of research because the area was smaller, more accessible and could afford me a deep dive into its geology, ecology and human stories. I feel that without this change the project would have been shallower and would have not fully explored the line of enquiry to represent the area in music. Due to the nature of the area being close to my own residence, I planned numerous site visits and realised meaningful connections with some of the key stakeholders in this landscape, such as the National Trust and created more opportunities for broader research methodologies, such as working with a bespoke ensemble with graphic scores.

Early on in my research many of my aspirations to visit the landscape and create music on location, were disrupted by the global coronavirus pandemic. This had a significant impact on my research and contributed to the way my research unfolded, which taught me a lot about the methods I normally use to create music and how they could be developed and challenged by this project. By taking human stories associated within this landscape, I was able to gather inspiration directly from literature and could approach composing pieces like Mary Webb and Bonham Norton directly from the written word in books and on the internet, due to Covid 19 restrictions. I discovered I could empathise with the characters in the stories, especially as they lived in this area and felt familiar in this. I believe this has led to unique compositions about people from this region, and shed a light on one for the first time in music (in the case of Bonham Norton). I found that the music I created differed somewhat from the artists that inspired my research (Sufjan Stevens and My Brightest Diamond) in that my first composition, *A Night in the Snow*, interpreted this fascinating story, fusing together new research with my traditional methods of composition, by introducing choral melody to my piano and string arrangements. My original ideas for expanding my musical voice by doing the

MRes, and in wanting to work with choral music, is best illustrated in this piece. The focus evolved and changed over the project, due to both external restrictions nationally and the natural journey of the project as the research progressed. Although I initially felt that I worked best with real musicians, despite not being able to meet with people or record a choir, I could use choral software to explore the voice in the context of my music and feel a degree of progression with my composition in the light of this. I also discovered that there is a difference due to the nature of representing a human story in music, in that, describing a narrative like that of Reverend Donald Carr, Mary Webb or Bonham Norton, led to a deliberate structure which I believe came from studying their stories in literature. This contrasted with the more improvised and explorative pieces in the other two areas of Geology and Ecology. I'm encouraged by the *Mary's Song* piece as I discovered some new territory in my music, creating lyrics from an established literary source and including my own verses which came from the research into Mary's life. I do however, feel that Bonham Norton was a risky selection for the human story because of the lack of account of his life, due to the period in history in which he lived. I wanted to create a piece about him as I was surprised that a figure with close standing to King James 1<sup>st</sup> resided in Church Stretton and felt his story was unusual here, so it had to be told in my music. I felt at this point that I was fortunate to have a strand of research that could be explored from home but I feel that it led to a very different sound than the other area of research came into as lockdown restrictions lifted. In developing these pieces further, I'd like to work with a real choir and ensemble to recreate the music and add additional parts, such as lyrics for *A Night in the Snow*. I feel that although the midi-choir comes close, a live recorded choir could afford a much fuller and well-balanced sound, which I could also make more prominent in the mix. I'd like to also revisit themes in the Bonham Norton piece and include further references to the Baroque period as discovered in Muhly and Teitur's *Confessions* album.

I visited Shrewsbury Museum to explore exhibits about the geology of the region, and didn't realise its global significance in geology. I decided on this visit that the colouration of geological maps could offer something like a graphic score for pieces about this region. My research into how musicians and composers had already engaged with rock and stone to create sound was also valuable to the *Toghill Map* pieces, *Wern* and *Portway*. This was a very rich area for my music and the new discoveries of composers led me to surprising areas of music making which I hadn't previously experienced. I feel that the listening research here had a significant impact on my approach to pieces about Geology and has further opened doors of possible future music creation. This can be heard in the rock tapping in *Wern* as discovered in Terje Isungset's works and in my approach to *Portway* which I took inspiration from the minimalist structures in John Luther Adams' compositions. In my *Toghill's map* pieces, the deconstruction of the diagrams taken from Peter Toghill's geological

studies was a huge task to undertake, which in reflection, took a significant portion of time to create and turn into graphic scores. As a visual person used to software like Photoshop, I knew I could reconstruct these diagrams into a longer image and make it usable for a musician as a graphic score and was inspired by Vantzou's website of graphic score compositions but felt my music was unique to this research and sounded so different from the pieces created on the graphic scores site. I discovered that if I'd kept the first diagram alone as the graphic score, it would've resulted in a very short piece of music, so I joined two more diagrams to this. In creating the larger pieces, I gained more musicians to perform, as different rock appeared in the next two diagrams. It was difficult to get an ensemble together and my initial hopes were to use the University's resources and studios, but again lockdowns rules in different countries meant I had to find another way to put the Toghill's Map pieces together. Shropshire has a limited number of professional musicians and hasn't the most diverse spectrum of different instruments which made it difficult to put an ensemble together and led to a few compromises for sound. I saw these obstacles as strengths rather than limitations and was thrilled with the resulting sound that the bespoke ensemble came up with whilst playing the maps. I feel that this is a particularly strong facet to the research and broadly extended my musical practise as a composer, because of this piece and the resulting sounds. I do however feel that there is room for developing this piece, both from a recording perspective, as limitations to space and personnel meant I recorded the performance with two room microphones, and from a rehearsal perspective. I'd like to explore this as a piece recorded with multiple microphones and longer time in the studio with rehearsing added to the conception of the piece. I feel this would further enhance the discoveries that had already taken place.

Going back to my main research objective of sonically representing the geology here, I believe my music creation works in exploring musical association with geological form and is further strengthened by the other more arranged pieces in *Portway* and *Wern*. I would add that there is room for further music developments to represent this area and I intend to research the creation of musical instruments using the rock directly from sites around the Long Mynd, inspired by my research into lithophones and musical stone sculptures.

The ecological strand to my research gave me scope to use predominantly practise-led research, that is creating music in the landscape and directly from recordings made on location. I feel that my residencies with the National Trust brought much benefit to these studies and extended my practice as a musical artist, with the experience of being an artist-in-residence for the first time in my music career. I don't believe I would have ever come up with something like the *CMV* piece without this residency and was surprised by the journey that this piece of music made. In future forms of this lengthy piece of music, I wonder whether the piece could be three separate tracks as the resulting

sound covers a vast sonic spectrum in the sixteen plus minutes. The biodata area, much like Toghill's Maps, could quite easily have been a longer more focussed area, and indeed form an entire project on its own. It sounds very different in the piece and I felt that this could benefit from further development, perhaps allocating a different sound to each tree specimen. I therefore chose to create a separate shorter piece with *Together Alder*, to revisit this theme and make further reference to biodata recordings from the area in my music. There were several areas of research for the ecological representation that I began, which didn't lead to pieces of music, such as a stem of research into the genetic makeup of some of the plant-life to inform composition.

In conclusion, I have discovered across my research that the landscape offered both quiet and loud sonic palettes and the full complement in between. This has raised further questions of what is needed to authentically represent a landscape in music. For example, could just one of the strands, for example geology paint a picture in sound of a place, or do there need to be additional avenues of research to qualify representative music? This also provokes further questions as to the role of the listener. Can the musical ideas formed from research bring to the listener a mental image of a landscape or indeed this landscape? I feel that I have begun to answer some of these questions with my research and resulting sixty minutes and have opened a much broader spectrum of musical voice in doing so.

My methods of gathering research both primary and secondary, from my residencies to biodata samples and study the human stories, have been valuable to the resulting sound across the twelve pieces which make up the sixty minutes of music. My hope is that upon listening to the music, the listener will be provided with a rich and diverse portrait of the Long Mynd and surround hills, and its past and present history, geology and perhaps most significantly to our time, its ecology. I intended to provide a rich and varied sonic landscape across the tracks from field recording to folk song and biodata to an improvised ensemble performing geological maps. I believe this is a strength of the project and feel I have achieved a deep insight on many levels into the complexities of this area, much like one of Toghill's maps.

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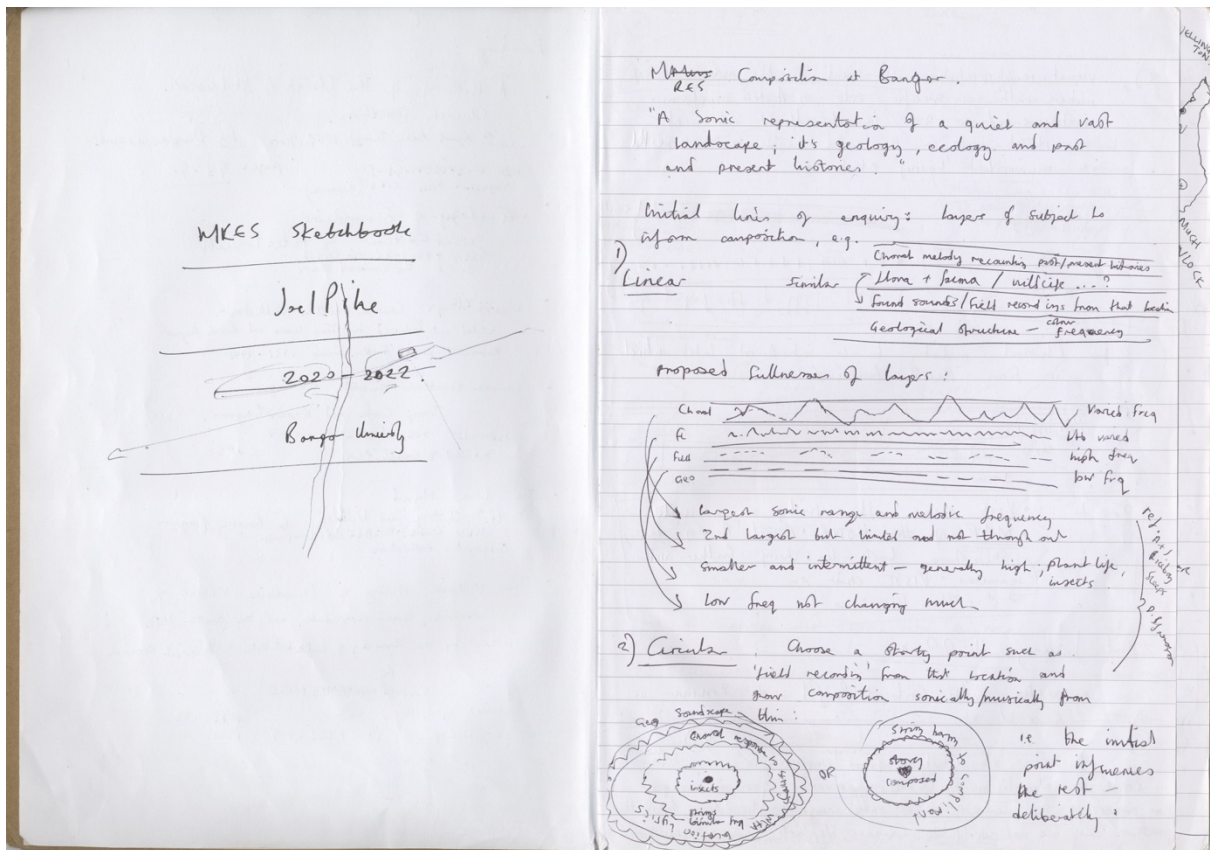
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## Appendix 1

The link to the Mynd album (MP3s) for listening:

[https://drive.google.com/drive/folders/1SZrNKq52KKmGavIG9AH\\_8aAFVTRRgxGX?usp=sharing](https://drive.google.com/drive/folders/1SZrNKq52KKmGavIG9AH_8aAFVTRRgxGX?usp=sharing)

During my MRes I used a sketchbook to make notes and diagrams which served as my main accompanying body of work until this commentary was created. The sketchbook holds valuable insights into my research and practices and contains important diagrams, drawing and notes. This is available to view by clicking on the image here:



A link to a selection of my original Biodata recordings from both Cardingmill Valley and Inwood for the CMV and Together Alder tracks:

[https://drive.google.com/drive/folders/1YN100xsMEgl4HLK5HCiMZ-N\\_qmqINmpj?usp=sharing](https://drive.google.com/drive/folders/1YN100xsMEgl4HLK5HCiMZ-N_qmqINmpj?usp=sharing)

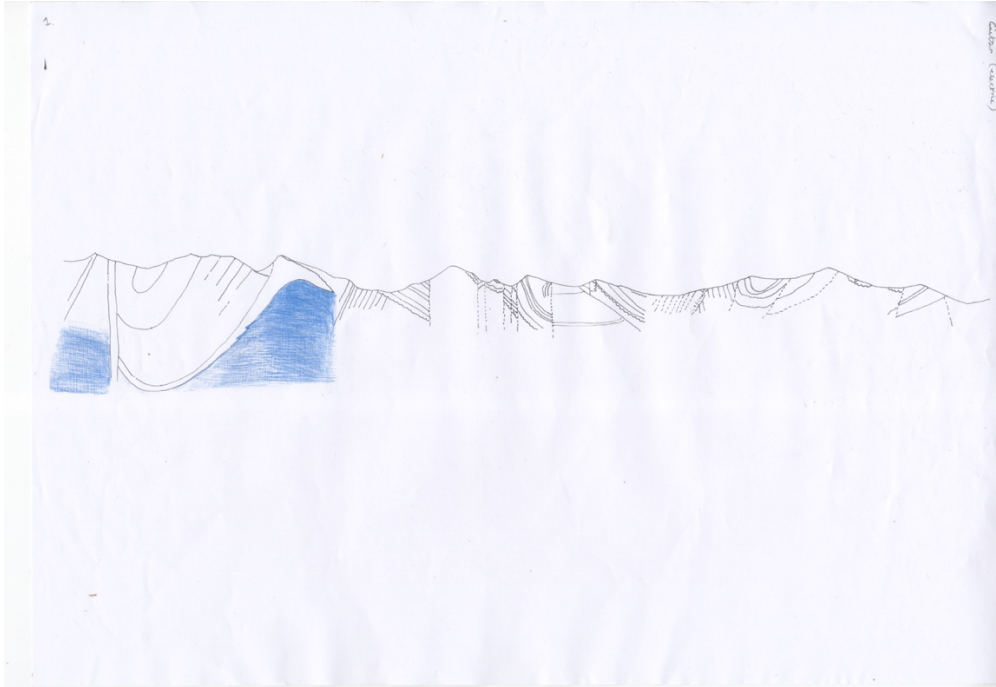
I made hundreds of field recordings with my Zoom HN2 microphone for my research, from Birdsong to streams, wind, talking and other sounds from in and around the hills and valleys in this area.

A link to a selection of field recordings is here:

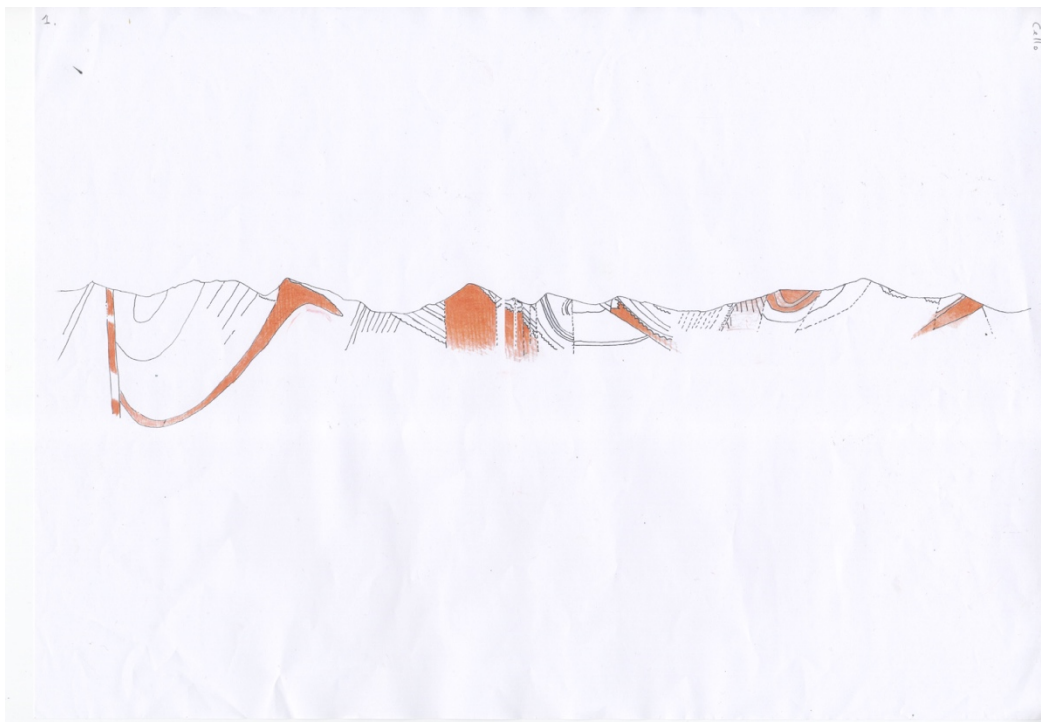
<https://drive.google.com/drive/folders/1ThfUkzKDdyfnTOULsaOB8Sv115hEh98b?usp=sharing>

Below are images of the seven different graphic scores for the Toghill's Map pieces, including the guidance and prompts. A short video of the recording can be found [here](#).

Individual Graphic Scores for **Toghill's Map 1,2 & 3**:



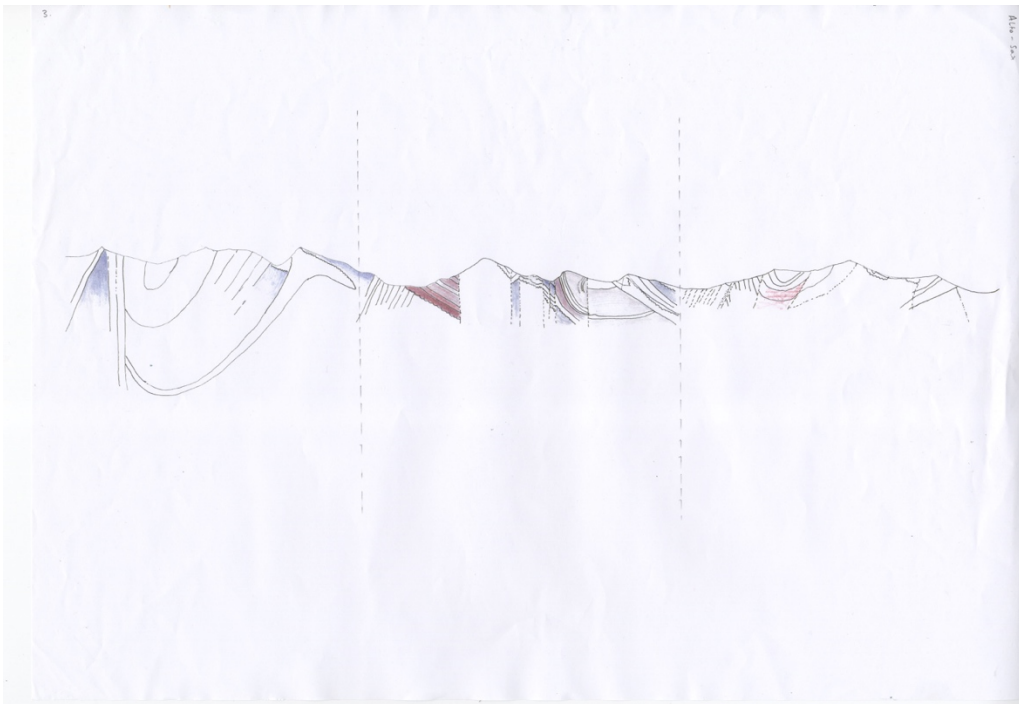
Blue: Guitar (w/effects)



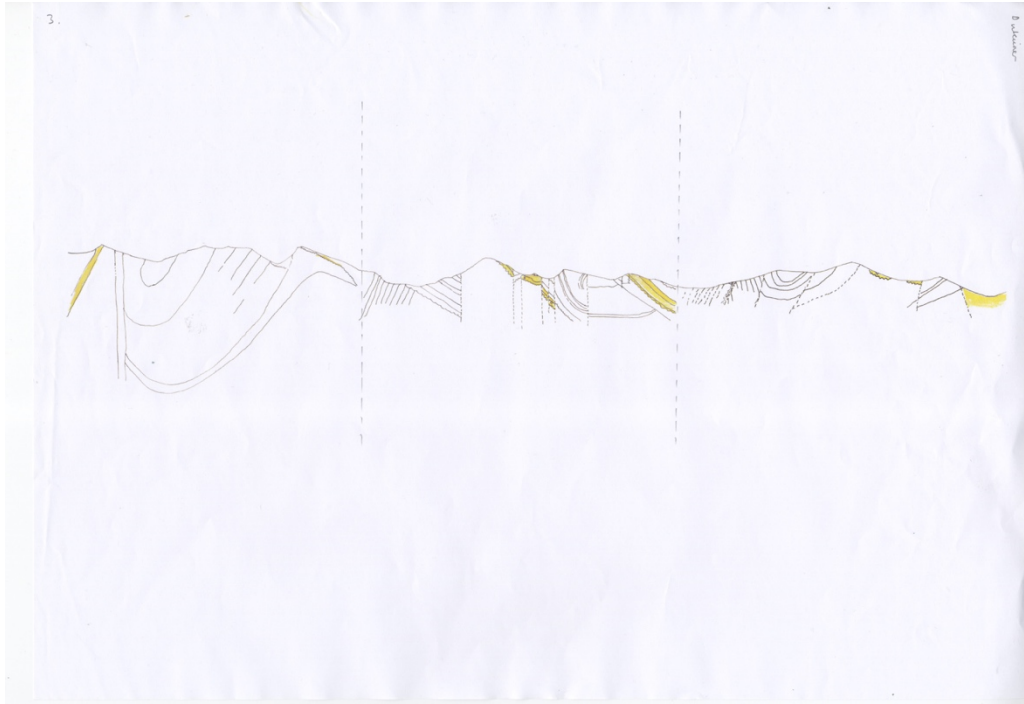
Red: Cello



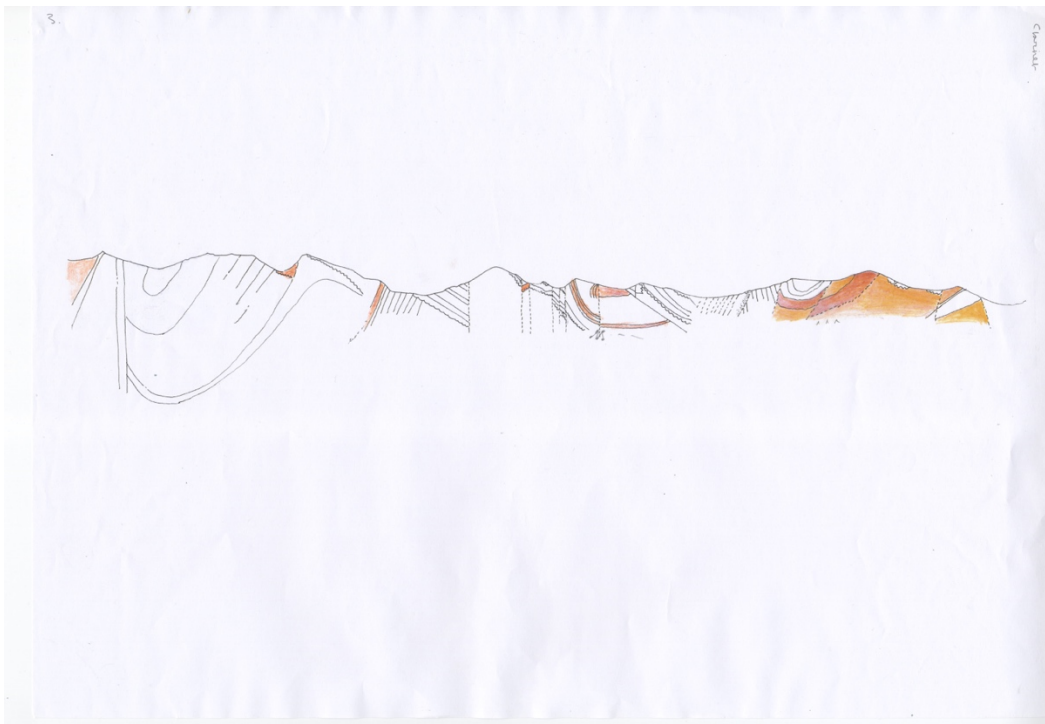
Green: Double Bass



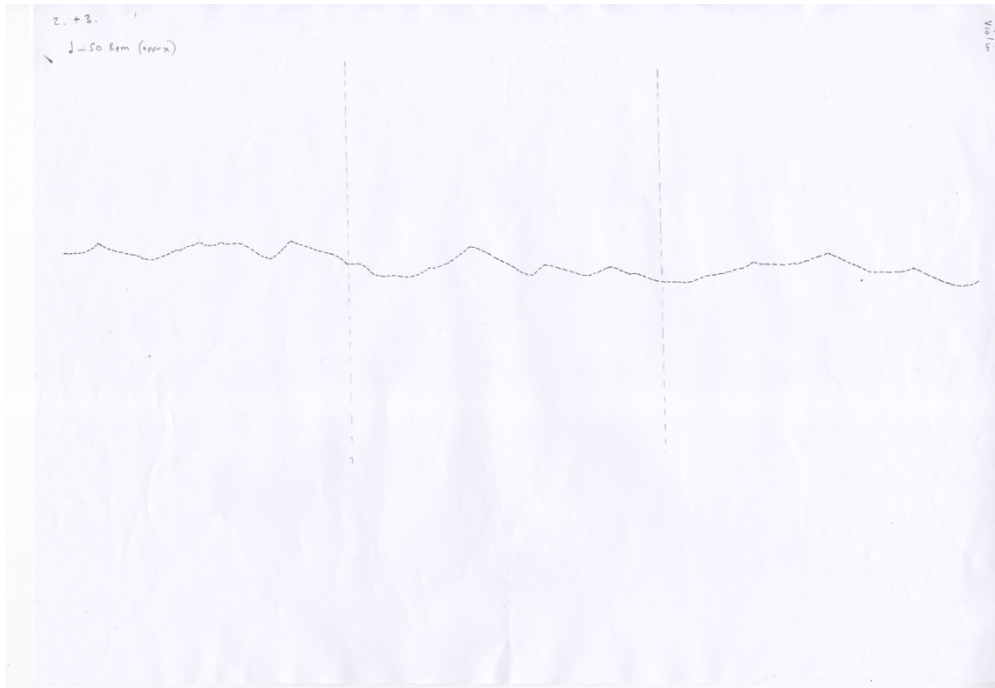
Purples: Alto Saxophone



Yellow: Hammered Dulcimer



Orange: Clarinet



Dotted 'Ridge' Line: Violin

Map ensemble: performance ideas for colour and shape

Shropshire Geology Map Ensemble Improvisation.  
 Instructions for players.  
 <Full Map diagram here>

1. First recording:
  - Play in the key you have been given (will either be Cmajor or Fminor) whenever your colour appears.
2. Second recording:
  - Play in the key you have been given (will either be Cmajor or Fminor) whenever your colour appears and continuously inbetween on any chosen note in that key at PP (this can be harmonics where possible).
  - The map is now in three sections which are approximately 1 minute each at a pulse of 50BPM, the violin (name) will play the pulse throughout.
  - Begin on the tonic and end on the tonic, visiting themes around the dominant around the middle colour of your map.
3. Third Recording:
  - Follow the instructions in 2. adding:
  - Where your colour shape is larger (thicker/denser) play louder and where thinner play quieter. The same can be applied with the timing of the note/s; thicker – longer, thinner – shorter. You may have both in one shape so move from one dynamic to the other.
  - If your colour shape is a curve or diagonal, move up or down your designated scale in as many notes as you'd like, either glissando or individual notes.
  - If your colour reaches the ridge line play higher notes in the scale, if lower in the diagram play low notes in your scale.
  - Dots and wavy lines indicate tremolo like playing.
  - Begin and end on either the tonic or dominant, visiting the other in the middle as instructed.
4. Fourth recording:
  - Follow the instructions in 2. and 3. Except:
  - Play in the other key which you haven't played yet (either Cmajor or Fminor)
  - Play half the speed (note value) you have been playing at. This should result in the piece being double as long
  - Choose one of your colour shapes to play at double speed and repeat that phrase.

The right page contains several hand-drawn diagrams illustrating musical techniques:

- A red curved arrow pointing upwards, labeled "glissando / slide (rising)".
- A blue vertical arrow pointing downwards, labeled "fast ascent/descent".
- A yellow curved arrow pointing downwards, labeled "slow slide/glissando (descent)".
- A purple wavy line, labeled "vibrato / tremolo".
- A green trapezoidal shape with a double-headed arrow above it, labeled "repeat notes to cresc.". Below it is a green trapezoidal shape with a double-headed arrow above it.
- An orange rectangular shape with a double-headed arrow above it, labeled "cresc.". To its right is a diagram of a house-like shape with a double-headed arrow below it, labeled "Chord".
- A purple wavy line with a double-headed arrow to its right, labeled "fast gliss/slide (descent)".

Guidelines for each run through and ideas for how shape could be interpreted.

## Appendix ii

During my MRes, a number of pieces of my released Music were broadcast globally, being featured on BBC Radio 3, WNYC's Newsounds and many more. Some of the pieces were directly related to my Mynd project as were conceived around this time, but didn't become part of the research in the end for one reason or another. A local artist also used my music for a sound walk in collaboration with the National Trust at Cardingmill Valley which thousands of visitors experienced between May and July this year. The first edition of my *Runner Messenger* track was released on a compilation for the conservation of Curlews alongside David Gray, Cosmo Sheldrake and many other prominent artists. The album has since received favourable reviews in many publications including TLS, The Guardian and many more. The music features, including *Runner Messenger* and other non-MRes pieces but featured during my period of study, are all listed in the tables below from the beginning of my research to the hand-in month:

### Music features 2020-2022

Date	Place	Track / Album	Duration
January 8th	BBC 6 – Gideon Coe	A Stillness	04:20
January 14th	Rte Lyric FM – John Kelly (IRL)	The Fullness Of Things	04:29
February 14th	A Closer Listen review -Richard Allen	Alone, not alone album	51:14
February 27th	When The Horn Blows music review – Karla Harris	The Near Isle	06:18
March 14th	Contemplative Classical playlist – Michael Price	A Stillness	04:20
March 15th	KEXP (USA radio) Pacific Notions – Alex Ruder		
March 20th	BBC Radio Shropshire – interview Mark Elliot	Alone not alone album	10:10
March 28th	Piano Day 2020 playlist – Nils Frahm	Respair	04:23

April 26th	Hidden Notes / Deepbed Radio- Alex Hobbis	Alone, not alone	04:36
April 28 <sup>th</sup>	Test Pressing playlist – Matt Sewell	Respair	04:23
May 7th	BBC Radio 3 Night Tracks - Hannah Peel	Beginning (A Good Land, An Excellent Land)	02:51
May 8th	Music Won't Save You, Italian Music Magazine review – Raffaello Russo	Alone, not alone album	51:14
June 7 <sup>th</sup>	WVUD USA radio – Bill Barnett	Siba	04:07
July 22nd	BBC Radio 3 Night Tracks – Hannah Peel	Siba	04:07
July 23rd	WNYC Newsounds – John Schaefer	Broad Places (Notes On Belonging)	11:17
Sept 10th	BBC 6 Music- Lauren Laverne	Mentions Tiny Leaves tweet in aid of #StateOfIndependentsDay	02:36:16 minutes in.
Sept 15th	Chill Music Interview feature	Published Alone, not alone Interview on their website.	n/a
Sept 18th	Curve Ball – Cannock Chase Radio FM	The Fullness Of Things	04:29
Sept 21st	BBC Radio Shropshire – Interview with Mark Elliot	Alone, not alone (radio edit) + interview	11:17
Sept 29th	Soho Radio – Anna Phoebe	Alone, not alone	04:36
October 17th	Kickstarter	Alone, not alone album vinyl campaign featured on their	



		main music page & 113% funded.	
November 3rd	SvergesRadio – Klassisk morgon: Jack Lantz	Respair	04:23
November 4th	Newsounds WNYC – John Schaefer (US election night)	Respair	04:23
November 7th	The Journal Of Lost Time – FB post	The Near Isle (film)	06:19
November 17th	SvergesRadio – Klassisk morgon: Lisa Tilling	Respair	04:23
November 25th	Sounds in the dark – BFF.fm – Eric Pietras, San Francisco.	The near isle	06:18
December 19th	KBGA Radio Missoula MT USA	Alone, not alone	04:36
December 19th	KALX 90.7FM UC Berkeley College Radio CA USA	The Fullness Of Things	04:29
December 31st	BBC Radio 3 Night Tracks	Siba	04:07

2021

January 1 <sup>st</sup> 2021	The Silent Ballet (Online magazine NYC)	Alone, not alone <i>album</i> TOP 100 albums in 2020.	N/A
January 1 <sup>st</sup>	Stationary Travels Year in review: 2020 modern classical albums feature. (20 albums)	Alone not alone <i>album</i>	N/A
January 8 <sup>th</sup>	Radio Kapital Loveset – Josephine Tomaszewska	Alone, not alone	04:36
January 28 <sup>th</sup>	Headphone Commute Best of 2020 albums	Alone, not alone in top 10 Music For Your Stationary Travels.	N/A
February 21st	KEXP (USA radio) Pacific Notions – Alex Ruder	The Sweetness of the Morning	06:28
April 5th	BBC6Music – Chris Hawkins	The Sweetness of the Morning – Radio Edit	04:32
April 25th	Balamii Radio – Sofia Ilyas	The Sweetness of the Morning	06:28
May 30th	KEXP (USA radio) Pacific Notions – Alex Ruder	After This	04:16
June 2nd	Bff.FM Sounds in the Dark – Eric Petras	View From Here + Anima	07:25 04:53
June 8th	Soho Radio Between the Sea and Sky – Anna Phoebe	The Sweetness of the Morning	06:28

June 13th	NSPR Tapeta Lucida	The Sweetness of the Morning	06:28
June 16th	Cheerfully Given Creative Christianity Summit	Interview	60:00
June 20th	KEXP (USA radio) Pacific Notions – Alex Ruder	Rest	02:56
June 21st	BBC6Music - Chris Hawkins	Animae	04:53
June 21st	BBC Radio Shropshire – Michela Wylde	Interview + The Sweetness of the Morning sample.	10:00
July 3rd	BBC6Music - Chris Hawkins	Animae	04:53
July 11th	Tapeta Lucida NSPR	After This	04:24
July 19th	Classical Turquoise	The Sweetness of the Morning	06:28
July 22nd	BBC Radio 3 – Unclassified Elizabeth Alker	Animae	04:53
July 25th	KEXP (USA radio) Pacific Notions – Alex Ruder	View from here	07:25
July 30th	Delta 94.5 CDMX (Mexico)	Animae	04:53
August 10th	Rte Lyric FM Mystery Train with John Kelly	Animae	04:53

September 18th	BBC Introducing Shropshire	Animae	04:53
October 10th	Worldwide FM – Rob Da Bank	Shed Abroad	05:56
October 31st	RtrFM 'The Golden Apples of the Sun' DJ Michael Tuack - Australia	A Stillness  Broad Places (Oscuro Rework)  Found Song (Billion One Rework)  Fullness of Things (Diamond Family Archive Rework)	04:19  03:17  05:10  05:14
November 6th	KZSC Santa Cruz, USA (UCSC 88.1FM)	Alone, not alone	04:36
December 6 <sup>th</sup>	Newsounds WNYC – John Schaefer "Hope" Episode #4425 <i>re-run</i>	Respair	04:23
December 21 <sup>st</sup>	KEXP – Pacific Notions Winter Solstice	Receiver	01:41
December 26 <sup>th</sup>	KEXP – Pacific Notions best tracks of 2021	The Sweetness of the Morning	06:28

January 1 <sup>st</sup>	BBC Radio Shropshire – introducing best of 2021	Animae	04:53
March 29th	Piano Day official Album release + Live performance in Shrewsbury with Alex Kozobolis and Frances Shelley	Where We Find Ourselves	05:10
March 30th	Nura Live Exclusive Performance, Nura Youtube channel	For You, Wherever You Are	05:05
May 12/13th	RSPB Simmerdim Curlew Sounds Album launch with David Gray at Phytology & Album release day.	Runner, Messenger	03:39
June 4th	Folk Radio Lost in Transmission mixtape 86	Runner, Messenger	03:39
June 15th	BBC Radio 3 Night Tracks Hannah Peel	Runner, Messenger	03:39

Finally, I would like to thank the following people who have made this project possible and given their time and expertise to ensure my research was of the best standard:

Faith Brackenbury (Violin and Viola on tracks)

Tom Blackwell – National Trust Education Manager at Cardingmill Valley

Dr Peter Toghill

Peter Carty – Countryside parkland and gardens manager at the National Trust Shropshire

All staff at Cardingmill Valley National Trust.

Shrewsbury Museum

Church Stretton and Bayston Hill Public Libraries.

The Toghill Map Ensemble: Stavros Kokkinos, Paula Tucker, Andy Lowe, Faith Brackenbury, Nick Wiltshire and Alison Dodd

SAPA (Alison Dodd)

Pwyll Ap Sion, Guto Puw and John Cunningham at Bangor University.

Thank you.