Portfolio of Original Compositions

A thesis submitted to The University of Manchester for the degree of

Doctor of Philosophy

in the Faculty of Humanities

2021

Yuhao Wu

School of Arts, Languages and Cultures

Contents

Chapter III

Developments of Aesthetic and Texture

Word count: 16205

List of Examples

List of Tables

List of Figures

List of Charts

List of Compositions

Mountains (2018) for organ, ca. 15′

Performed by Simon Passmore in a recording session at St Ann's Church, Manchester, 17 May 2018.

The recording of the above session is included in the portfolio.

Mirages (2018) for string orchestra and piano, ca. 11′

Performance not possible due to COVID-19 restrictions.

Kashgar (2018 - 2019) for brass band, ca. 11′

Premiered by The University of Manchester Brass Band under conductor Hugh Morris

at The Cosmo Rodewald Concert Hall, Manchester, 6 June 2019.

The recording of the above performance is included in the portfolio.

Deserts (2019) for piano, ca. 15′

Premiered by Richard Whalley at International Anthony Burgess Foundation, Manchester, 3 April 2019.

The recording of the above performance is included in the portfolio.

Eclipse (2019) for wind band, ca. 12′

Performance not possible due to COVID-19 restrictions.

Ocean (2019) for symphony orchestra, ca. 15′

Premiered by The University of Manchester Symphony Orchestra under conductor Dexter Drown

at The Cosmo Rodewald Concert Hall, Manchester, 7 March 2020.

The recording of the above performance is included in the portfolio.

Plateau (2019 - 2020) for solo tenor, choir and eight instruments, ca. 25′

Performance not possible due to COVID-19 restrictions.

The scores and recordings can be accessed online through the link below:

https://drive.google.com/drive/folders/1Ue2KqNjZIlJP_18MupKJlR6Wdt2phkT_?usp=sharing

Abstract

This portfolio consists of compositions using techniques and aesthetics informed by research into aspects of Chinese culture, indigenous and ethnic musics and various landscapes - for example, Chinese painting, Uyghur music and landscapes in northwest China. The outcome is a Portfolio of Original Compositions comprising seven works: *Mountains* (2018) for organ, *Mirages* (2018) for string orchestra and piano, *Kashgar* (2018 - 2019) for brass band, *Deserts* (2019) for piano, *Eclipse* (2019) for wind band, *Ocean* (2019) for symphony orchestra, *Plateau* (2019 - 2020) for solo tenor, choir and eight instruments.

The portfolio is accompanied by a commentary, which consists of an Introduction and Conclusion, and the three main chapters: Interpretation of Compositions of Handscroll Paintings, Experiments in Expression, Developments of Aesthetic and Texture. This commentary explains the details of my research.

Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Copyright

i. The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the "Copyright") and s/he has given the University of Manchester certain rights to use such Copyright, including for administrative purposes.

ii. Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made **only** in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

iii. The ownership of certain Copyright, patents, designs, trademarks and other intellectual property (the "Intellectual Property") and any reproductions of copyright works in the thesis, for example graphs and tables ("Reproductions"), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

iv. Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=24420), in any relevant Thesis restriction declarations deposited in the University Library, the University Library's regulations (see http://www.library.manchester.ac.uk/about/regulations/) and in the University's policy on Presentation of Theses.

Notes on Transliteration of Foreign Languages

In this commentary two transliteration systems are used for presenting the Chinese personal name in English. For Chinese people born in the nineteenth and early twentieth centuries, the Wade–Giles system is used to transliterate their names. For Chinese people from any other era, their names are given in Pinyin, the romanisation system used for Standard Mandarin in mainland China; however, the diacritics are omitted, and the final *ü* is also written as *u*, according to current practice. The name in both systems is presented in the original Chinese order, i.e. family name first and then the given name. In addition, the hyphen is used to separate multiple characters in a name. For example, my name would be written Wu Yu-Hao, and its original Pinyin is Wú Yǔ Háo. Pinyin is also used to transliterate Chinese terms or words other than personal names.

In the commentary, the Latin alphabet as sounded in English is used to transliterate the Uyghur script which would originally use the Arabic alphabet. Please note that in English the alphabets cannot precisely match the sound of the Uyghur alphabets. For example, ئە is transliterated as *e*, but its actual sound is close to *[ɛ]* or *[æ]*.

The traditional Mongolian script is alphabet-based and written from top to bottom, left to right, so it can not be appropriately input into the English text without changing the text format. Accordingly, the Mongolian script in the commentary is presented in its Romanised transliteration only.

Acknowledgement

I want to express my thanks to my supervisor Professor Philip Grange, whose excellent teaching and immense knowledge guided me in exploring and developing my own compositional language.

and

感谢我的父母，吴文祥，牟军容，一直以来对我的支持。

I am grateful for the all times support from my parents Wu Wen-Xiang and Mu Jun-Rong.

Introduction

Background

I started to study composition in 2013 at Berklee College of Music, Boston, Massachusetts in the USA and completed the bachelor's degree in composition there in 2016. The following year, I completed my Master's degree in composition at The University of Manchester in the UK, and began my PhD after that.

Since I was born and grew up in China, China's cultures and musics have been essential inspirations in my own music. However, since I have been mainly studying composition in Western countries using Western classical instruments, integrating elements of China's musics into works written for Western instruments is significant to my development. This situation also suggested that my research could combine musics of different cultures on a theoretical basis rather than directly recontextualise them in music. With regard to this, Olivier Messiaen (1908 - 1992) and Chou Wen-Chung (周文中; 1923 - 2019) were the most influential composers for me.

Messiaen's influence on me concerns the adaptation of Hindu rhythms[1] in developing his musical language. In terms of perspective on music, Chou is more relevant to me. Chou was born and brought up in China and later studied composition in the United States. In some works, Chou explored how Western instruments can imitate the sound of traditional Chinese instruments, such as *Yü Ko*[2] (1965), in which he achieves the sound of the Chinese *qin* (琴). Later works by Chou are more concerned with interpreting the aesthetics and sense of non-Western music through Western classical instruments, as with *Ode to Eternal Pine* (2009). He states:

> "The emphasis is on the fluidity of the concurrent flow of instrumental voices, characteristic of *chong-ak* (a traditional Korean music style), rather than exploitation of novel instrumental colors."[3]

---

[1] Oliver Messiaen. *The Technique of My Musical Language.* Leduc, 1966.

[2] Chou Wen-Chung. *YÜ KO* (score). Edition Peters, 1968.

[3] Chou Wen-Chung. *Ode to Eternal Pine* (score). Edition Peters, 2009.

The approaches of Messiaen and Chou mentioned above informed similar practices in my music. During my undergraduate and Master's degrees, I composed several pieces that integrated heterophonic textures, melodic flavours, and percussion from Chinese folk musics and operas.

Research Proposal

The research proposed for my PhD involved composing music that integrated the aesthetic characteristics from the broader context of China's arts, primarily art forms other than music, such as Chinese painting and classical poetry. The research also involved studying the theoretical precepts of China's traditional and ethnic musics to create new modes and rhythmic patterns, so as to compose new music based on those materials. However, it was intended that the newly composed music should not have characteristics typical of genuine traditional or ethnic music. To establish a broader understanding of China's musics, I planned to study those of ethnic minorities in China, and musics of other peoples who reside outside China, but are culturally influential on ethnic minorities in China. In order to fulfil this aspect of my study, visits to relevant places were conducted. For example, I visited several places in Kashgar Prefecture in northwest China. I also visited Armenia and Turkey. These trips did not involve formal musicological fieldwork, but rather allowed me to experience specific musics performed live in their local environment.

In the proposal, my goal was to compose a work for organ, one for string orchestra, another for brass instruments, a work for woodwind instruments and a choral piece. Finally, I would compose a work for full orchestra. Some of the pieces completed before the orchestral work were written for instruments that correspond to different sections of the full orchestra. This scheme enabled me to study sections of the orchestra individually. In some of the pieces completed during the research, the actual instrumentation is different from the proposed, but the planned instruments are still included. For example, *Eclipse* was composed for wind band rather than an ensemble only consisting of woodwind instruments. In addition to the proposed works, a piece for solo piano was added to the portfo-

lio. This work was composed for a composition opportunity I received (see page 53 below), and it is essential to the compositional development of my research.

Development

My overall research is divided into three periods. The pieces completed in the first period were *Mountains* (2018) and *Mirages* (2018), which are closely related to specific works of Chinese painting and classical poetry in terms of structure and expression.

Mountains was composed for the organ and employed analogies to a particular painting, *A Thousand Li of Rivers and Mountains* (千里江山圖; dated 1113) by Wang Xi-Meng (王希孟; 1096 - 1119), a Blue-Green Landscape painting created in the format of a handscroll. In my piece *Mountains*, the primary aims were to interpret the narrative method and the coherent visual impact in Wang's painting in terms of music. *Mirages* was composed for string orchestra and piano. This particular combination of instruments was designed to enable me to interpret a characteristic of *qin* (琴) music. In terms of content and structure, *Mirages* was inspired by *Mount Skyland Ascended in A Dream - A Song of Farewell* (夢遊天姥吟留別), a poem by Li Bai (李白; 701 - 762).

The developments of *Kashgar* (2018 - 2019) and *Deserts* (2019) represent the second period of the research. These pieces explored further the interpretation of aesthetics of Chinese arts in my music. However, in them, I aimed to adapt the theoretical practices learned from Chinese arts to depict objects that are not directly relevant to particular artworks.

Kashgar for brass band was informed by my visit to Kashgar Prefecture in Xinjiang, China. There are multiple spaces and timeframes created in the piece, and they were integrated in the narrative manner used in Chinese handscroll landscape paintings. The solo piano piece *Deserts* revisits the concerns of *Mirages.* It has a similar structure but a different objective to the latter. *Mirages* focused on depicting images inspired by those in Li Bai's *Mount Skyland Ascended in A Dream. Deserts* aims to convey the moods I perceived in Li's poem, and its music is designed to suggest a first-person perspective.

The pieces composed in the third period of my research are *Eclipse* (2019), *Plateau* (2019) and *Ocean* (2019). While they continued the theoretical developments of the previous pieces, I sought to realise a Gu-Pu aesthetic in these works. Gu-Pu is a transliteration of the Chinese word 古樸, which literally means primitive and simple. In the Chinese context, this word is typically used to describe a style that is clear, non-decorative and driven by a sense of purity, which evokes a classical yet archaic style in earlier historical periods.

In *Eclipse*, composed for the wind band, the objective is the sombre atmosphere of an eclipse, which evokes for me a sense of ancient mystery. Thus, the pursuit of a Gu-Pu aesthetic was originated from creating a suitable musical style for that objective. While composing *Eclipse*, I developed a texture that was informed by the brushwork used in Chinese paintings to meet the specific aesthetic I sought. From this I derived the fundamental musical language, which was developed further in the following pieces: *Plateau* for voices and solo instruments and *Ocean* for full orchestra.

My interpretation of ethnic musics informed three pieces in the portfolio: *Mirages*, in which I adapted the theory of Turkish *makam* to create the fundamental mode and rhythm patterns used for the majority of materials in the piece; *Kashgar*, in which the original melody for one of the strata was created in the style of *meshrep* (مەشــرەپ) from the *Uyghur Twelve Muqam Suites*, while the orchestration was based on transforming the brass band into a traditional *muqam* ensemble. Finally, the folk-like tenor solo in Movement III of *Plateau* was designed to be analogous to the Mongolian *urtiin duu*.

Chapter I

Interpretation of Compositions of Handscroll Paintings

Multiple Views in Handscroll Paintings

The handscroll is a scroll made of silk or paper. The height of a typical handscroll is about the same as a human forearm, and the length, which can reach several metres or longer, depends on the content. Like bamboo slips used as the medium for texts before the invention of paper, handscrolls are also widely used as the medium for writing or calligraphy, and should be rolled up for storing. Due to its extendable length, the handscroll allows for sufficient room to capture multiple views when used for paintings. For example, a panorama is presented when the entire painting *A Thousand Li of Rivers and Mountains* (Figure I-1) by Wang Xi-Meng is unfolded. However, the appropriate way to appreciate a handscroll painting is to view it in portions through gradual unscrolling, resulting in an almost cinematic experience.

The manner of viewing a handscroll is also reminiscent of the chronological unfolding of music. When the unscrolling of a landscape painting gradually reveals the scenery changes, the most impressive and inspiring aspect for me is the high degree of unity and continuity of the content. The methods used to merge multiple views in such paintings motivated me to develop similar structures in music. Through my research, I established two methods of painting and transferred these to my works.

Wang's painting *A Thousand Li of Rivers and Mountains* presents one of the methods. In this painting, the unnatural terrain and distorted ratio make the landscape look unreal and are reminiscent of artificial mountains in a Chinese classical garden. The near-symmetrical composition of the whole painting (see Figure I-2) suggests the scenery might not represent a real landscape, but the rearrangement of partial views observed by Wang from distinct perspectives and different sites. In addition to Wang's skill in integrating these views into a 'natural' panorama, another element that helps the coherence is the limited use of colours in the handscroll as a whole.
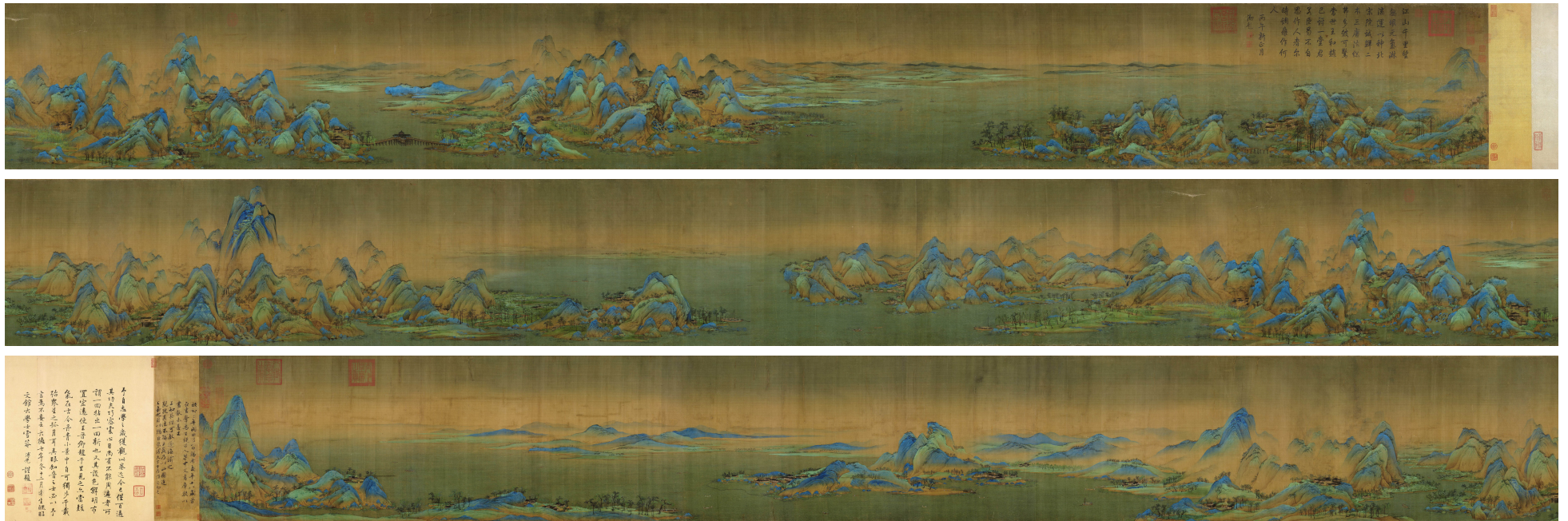
Figure I-1. Wang Xi-Meng (王希孟; 1096 - 1119), *A Thousand Li of Rivers and Mountains* (千里江山圖),
handscroll, ink and colour on silk, dated 1113. 51.5 x 1191.5 cm. Palace Museum, Beijing
(the full handscroll is cropped into three sections here; the viewing direction is from right to left, top to bottom)
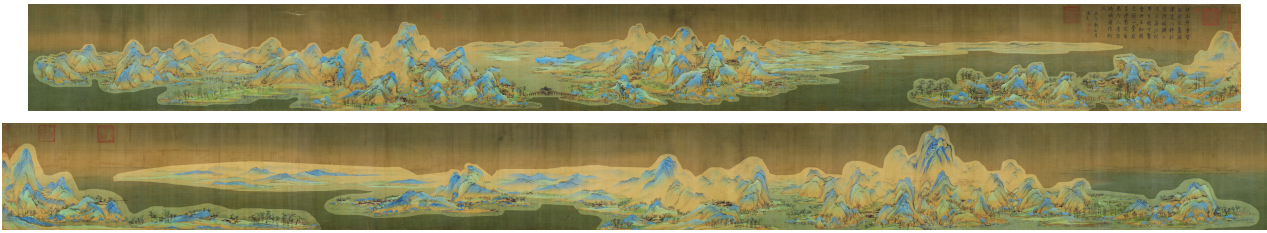
Figure I-2. The composition of *A Thousand Li of Rivers and Mountains*
(the landscapes are highlighted with the bright colour)

Integrating multiple perspectives in landscape handscroll paintings helped me develop an effective way to compose a large-scale piece of music. Usually, in my compositions, sections are not placed in succession. Instead, they are conceived and created as various fragments, as if they are partial views in the handscroll landscape painting. Then, they are rearranged to form the desired panorama. In addition to this structural approach, the consistent colour scheme in paintings like *A Thousand Li of Rivers and Mountains* greatly influenced my musical aesthetic. One of my concerns with the research was to realise this colour scheme in music. I decided this would be best achieved with either a fixed mode or a set of similar, limited harmonies, which are retained throughout a piece. *Mountains* was to be the first example of this.

Another way of integrating the variety of content contained in Chinese landscape paintings is suggested by the monochrome ink work *Twelve Views of Landscape*[4] (山水十二景; Figure I-3) by Xia Gui (夏圭; active early 13th c.). Unlike *A Thousand Li of Rivers and Mountains*, where the partial views were recombined to form continuous mountains, the views in *Twelve Views of Landscape* were separated by large spaces.[5] The meticulously painted content employs the spaces as an essential part of the scenery rather than merely background. As the element shared by every view, the spaces suggest the heavy fog that obscures mountains, woods and lake surfaces. Like *A Thousand Li of Rivers and Mountains*, the views in *Twelve Views of Landscape* appear to suggest that they were observed from different perspectives. As mentioned, the manner of viewing a handscroll is to unroll it gradually, so the different perspectives can be viewed in motion, almost like a camera panning a

---

[4] The surviving handscroll only contains four of the twelve views.

[5] This approach is also commonly practised in narrative paintings and bird-flower paintings, for example, *The Night Revels of Han Xizai* (韓熙載夜宴圖) by Gu Hong-Zhong (顧閎中; ca. 10th c.) and *Fish Swimming amid Falling Flowers* (落花遊魚圖) by Liu Cai (劉寀; active ca. 1080 - 1120).

Figure I-3. Xia Gui (夏圭; active early 13th c.), *Twelve Views of Landscape* (山水十二景),
section of a handscroll, ink on silk. 27.3 x 253.7 cm. Nelson-Atkins Museum of Art, Kansas City
(the full handscroll is cropped into two sections here)

landscape, and the large proportions of space form natural transitions between views. Because of the specific subject matter, the practice of implanting large spaces in music is relatively more discernible in my piece *Kashgar*. Thus, *Kashgar* is a suitable example to explain this aspect of my work. However, exploring the relationship between presence and absence in music is one of the core topics during the whole research.

From the viewer's perspective, the unscrolling of a handscroll painting reveals the content in a chronological manner. However, the perspective of the painting's creator, which is suggested by entirely unfolding the handscroll, informs me of a distinctive concept of time. The multiple views of different spaces in a painting, on the other hand, could mean they also belong to different times. This aspect is not superficially obvious in landscape paintings but is still discernible. For example, in *Twelve Views of Landscape*, the title of the last view (bottom left in Figure I-3) reads *Moor on Misty Band in the Evening* (煙堤晚泊), while the title of other views does not indicate the time. In terms of visual appearance, the views can cooperate with each other chronologically, but not necessarily. By comparison, the integration of different times is manifest and used as standard practice in narrative paintings. For example, in *The Night Revels of Han Xizai* (韓熙載夜宴圖; Figure I-4) by Gu Hong-Zhong (顧閎中; ca. 10th c.), scenes of Han's revelry in different spaces and times meet at the same juncture. Again, the scenes can be perceived as being chronologically narrated from the viewer's subjective viewpoint. However, the time is ambiguous in the

Figure I-4. Attributed to Gu Hong-Zhong (顧閎中; ca. 10th c.), *The Night Revels of Han Xizai* (韓熙載夜宴圖), sections, handscroll, ink and colour on silk, ca. 970. Full size: 28.7 x 333.5 cm. Palace Museum, Beijing

painting and can be interpreted differently. These features suggest that the painters' consideration of time is non-linear. This conclusion is not pure conjecture since this concept of time, from my understanding, in all likelihood stems from a characteristic of my Chinese mother tongue.

In Chinese, as tense is absent, the time, if needed, must be addressed with the use of adverbs or appropriate nouns. In other words, a sentence that describes an action can be completed without involving time. This practice is typical in classical poetry. For example, in the poem *Endless Longing* (长相思) by Li Bai (李白; 701 - 762), one verse reads:

"卷帷望月空長歎。"[6]

The renowned translator Xu Yuan-Chong (许渊冲; 1921 - 2021) translated this verse into English as:

"Rolling up screens to view the moon, in vain I sigh."[7]

Although this translation is elegant and has a precise meaning, it mutates the verse so that it is understandable from the perspective of an English speaker. In the original Chinese text, the present progressive is nonexistent. Therefore, for me as a native Chinese speaker, "卷帷望月空長歎" creates a quasi-impressionistic image, which can be either a scene or a picture. In addition, with the time omitted, this image can be perceived as the poet's action in the present or as current melancholy mingled with memories. Essentially, the whole poem contains several similar verses that lack specific time indications, and they are juxtaposed without suggesting a fixed chronology. As a result, the poem in Chinese is read as a blend of images that could exist in different times and spaces.

The concept of time mentioned above influenced me significantly in composing music. In most of my works, the structure is usually not formed in a linear manner, and the composition of different materials is also not chronological. Aesthetically, I aim to create music that sounds like it hovers independent of past, present and future, analogous to the artistic and poetic approaches that informed it.

---

[6] Peng Ding-Qiu et al.. *Complete Tang Poems.* vol. 5. Zhonghua Book Company, 2017. pp. 1684 - 1685.

[7] Xu Yuan-Chong. *Selected Poems of Li Bai.* Hebei People's Publishing House, 2005. p. 21.

Mountains

Mountains was composed for the pipe organ. Conventionally, the organ is associated with sacred music and can present performances with an atmosphere of transcendent divinity since, in some churches or cathedrals, the performer is hidden from the audience, which can give a sense that the sound is metaphysical. In addition, it can create an all-embracing panoramic and overwhelming sound. These characteristics made the organ an ideal instrument to convey the remoteness and austere beauty of the landscapes of Tian Shan[8] that I sensed during my trips there in 2017. From a distance, the continuous Tian Shan mountains with steppes and deserts in the foreground appear as if a handscroll landscape painting to me. *Mountains* was therefore created like a painting, and I particularly had *A Thousand Li of Rivers and Mountains* (Figure I-1) in mind. However, instead of mapping this painting literally, I aimed to transform some approaches commonly practised in such handscroll paintings to find musical analogies for them.

One of the essential elements of *A Thousand Li of Rivers and Mountains* is the distinctively striking colours. The blue and green, which are visually disparate, were masterfully blended by Wang to create a consistent atmosphere in the painting. Although the colours of Tian Shan in my impression are not Blue-Green as in *A Thousand Li of Rivers and Mountains*, Wang's approach to colours is an aspect I intended to interpret in music.

Regarding visual colours in music, my interpretation was based on chromesthesia, which is not new in music history and was vital to many composers such as Scriabin and Messiaen. Chromesthesia is usually evoked through harmony, that to say, either chords or a group of notes in specific modes. Accordingly, the analogous colours in paintings like *A Thousand Li of Rivers and Mountains* were interpreted as the same harmonic colour created from one mode in *Mountains*; indeed, all materials were derived from the mode.

When I was conceiving the mode for *Mountains*, my supervisor Professor Philip Grange suggested developing one that completes beyond an octave, which can give a sense of transcendence. I thought this approach would be theoretically interesting, while such

---

[8] Tian Shan (天山), literally *Mountains of Firmament*, is a system of mountain ranges located in Central Asia. The mountains I visited are the part of the Tian Shan in northwest China.

mode can create a sound that embodies my impression of the Tian Shan landscapes. Therefore, I established the mode in Example I-1 after many experiments.
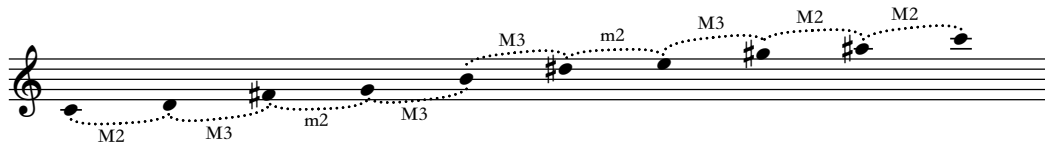
Example I-1. The mode for *Mountains*

In *Mountains*, the materials were initially created as lines. These lines are classified into two categories: Fixed Lines used to form the core structure and panorama of the piece, and Free Lines that suggest different perspectives involved in viewing the mountains.

From a remote perspective, the high mountains appear like folded ground. Moreover, a mountain range seems constituted by a series of similar small mountains. Such vistas were well captured and artistically conveyed by Wang in *A Thousand Li of Rivers and Mountains* (see Figure I-5). The composition of Fixed Lines (Figure I-6) in *Mountains* were devised to achieve a similar result as in Wang's painting. The five Fixed Lines that represent the high mountain are placed in succession; the two Background Fixed Lines are two strata that sound throughout the entire piece to simulate the ground. Since this structure aims to depict the slightly undulating landscape observed from a distance, I rearranged the pitches of the mode in Example I-1 to compress them within an octave (Example I-2) to obtain smaller intervals, and then used this contracted mode to write a gradually ascending line (Example I-3), which is Fixed Line 1. In order to create a consistent atmosphere of the landscape, all Fixed Lines were derived from the line in Example I-3 through transposing and retrograding (see Example I-4). Table I-1 shows the lines' transpositions and positions in the score, and the pitches shown in the table indicate each line's first note's pitch in the original form. Each Background Fixed Line is a five-time durational augmentation

Figure I-5. A section of *A Thousand Li of Rivers and Mountains*
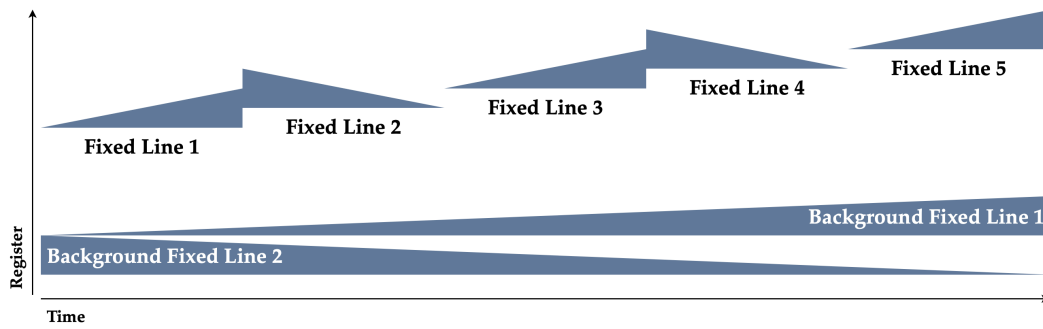
Figure I-6. The composition of Fixed Lines in *Mountains*

Example I-2. The contracted form of the mode for *Mountains*

Example I-3. The Fixed Line 1 in *Mountains*

of the line in Example I-3. Background Fixed Line 2 is the retrograde form of Background Fixed Line 1, and is an octave lower than the latter. The transpositions of Fixed Lines were designed to enable them to form an ascending sequence, simulating the slowly ascending mountain range. In contrast to them, the Background Fixed Lines stay on C to indicate the steady ground. Due to the different octaves and opposite unfolding directions of the Background Fixed Line, they progress in contrary motion. The increasing register brought by this aims to imitate the gradually expanding scope of the landscape. The rests in the Fixed Lines (Example I-3 and I-4) were initially augmented in the sketch for the Background Fixed Lines. However, in the final piece, the rests in Background Fixed Lines were filled with notes. This approach is analogous to the use of the space in *A Thousand Li of Rivers and Mountains*.

Example I-4. The Fixed Lines 2, 3, 4 and 5 in *Mountains*
(the Fixed Lines 2 and 4 are retrograde)

Transpositions of basic lines				
Fixed Line 1 (bars 1 - 18)	**Fixed Line 2 (bars 19 - 36)**	**Fixed Line 3 (bars 37 - 54)**	**Fixed Line 4 (bars 55 - 72)**	**Fixed Line 5 (bars 73 - 90)**
C4	D4	E4	F#4	G4
Background Fixed Line 1 (bars 1 - 90)				
C3				
Background Fixed Line 2 (bars 1 - 90)				
C2				

Table I-1. The transpositions of basic lines in *Mountains*
(the pitches shown in the table are written pitches on the score)

As mentioned in the previous sub-chapter, the unpainted space in Chinese painting can be used in part to suggest the scenery and can constitute a shared element to unifying the views or scenes in the work. This practice can also be found in *A Thousand Li of Rivers and Mountains*. Unlike *Twelve Views of Landscape*, in this work of Blue-Green Landscape, the lake was coloured. Through brushwork, Wang suggests the lake surface is gradually fading away and eventually dissolving with the background (see Figure I-7). Visually, the fog and clouds suggested by the unpainted space seem to grow from the lake. In my piece *Mountains*, the Background Fixed Lines aim to have a comparable function as the

lake in *A Thousand Li of Rivers and Mountains*. Specifically, the spreading space in the painting was re-imaged as the uninterrupted sound of the Background Fixed Lines in *Mountains*. When other sections are silent, the Background Fixed Lines fill those with music. A rest in Background Fixed Lines was filled either by extending the note before that rest or anticipating the following note; on some occasions, both means were used. The note or notes used to fill were determined by the harmony at that moment.
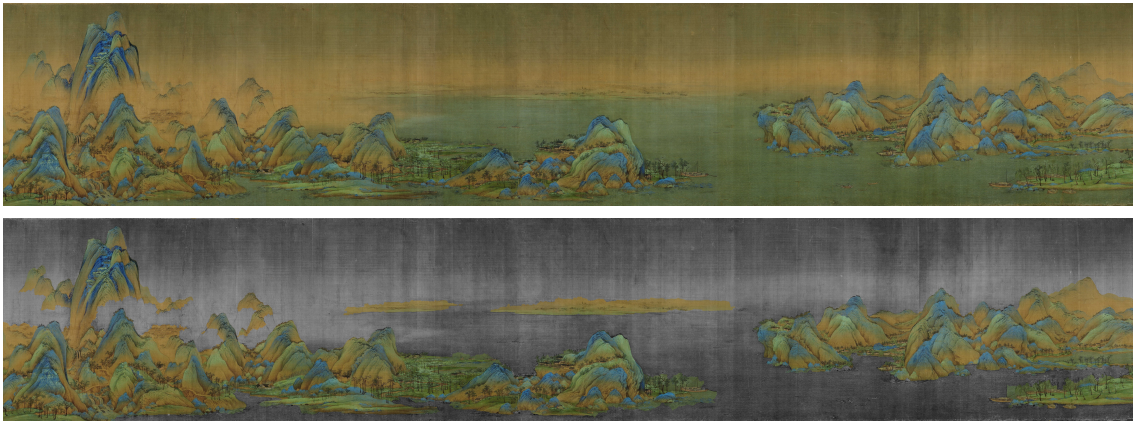
Figure I-7. The deconstruction of a section from *A Thousand Li of Rivers and Mountains*
(the darkened area in the lower picture exemplifies the space spreading)

From the overview, the panorama of *A Thousand Li of Rivers and Mountains* flows naturally, but the division of larger views is still discernible. Figure I-8 gives my analysis of the possible partition of views in a section of the painting, as each view contains mountains with similar characteristics. In my piece *Mountains*, I partitioned the work into three equal sections which I thought of as three Perspectives (see Figure I-9). Perspective I (bars 1 - 30) depicts the remote mountains in fog, and Perspective II (bars 31 - 60) aims to convey the magnificence of the mountains. The serenity of mountains is expressed in Perspective III (bars 61 - 90). The differences in these Perspectives were realised by Free Lines (see Figure I-9 and Example I-5), which were freely composed according to the pre-set characteristics of each Perspective.

Figure I-8. A section from *A Thousand Li of Rivers and Mountains*
(the red vertical lines demarcate the probable views)
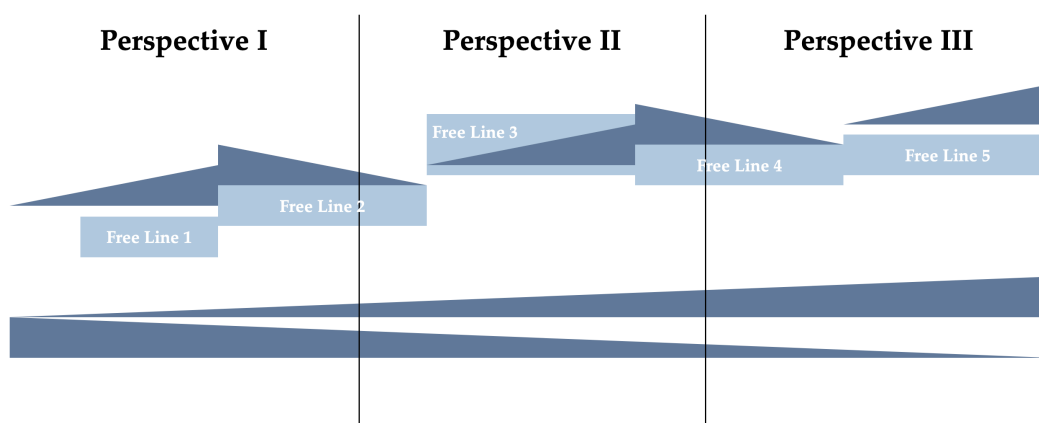
Figure I-9. The full structure of *Mountains*

Example I-5. Bars 18 - 20 of *Mountains*
(material on upper treble clef belongs to Fixed Lines; material on lower treble clef belongs to Free Lines)

Unlike the Fixed Lines, the Free Lines in *Mountains* were written based on the original form of the mode (Example I-1) and stay centred on C throughout the entire piece, echoing the Background Fixed Lines (see Table I-1). Although the Free Lines were improvised, their register was restricted by the Fixed Lines (see Figure I-9). Within the bars that contain Fixed Lines 1 and 5, the notes' pitches in the Free Lines had to be lower than those in the Fixed Lines; within the bars that include Fixed Lines 2 and 4, the Free Lines are just below the Fixed Lines, which means Free Lines can share pitches from the Fixed Lines (see Example I-5). Free Line 3 in the bars that also contain Fixed Line 3 has the most expanded register, which is slightly larger than the register of Fixed Line 3.

The lines in *Mountains* were then enriched with chords. The chords were created by adding extra notes below the lines. In order to maintain the harmonic colour, the chords were initially realised as parallel dyads formed of a perfect fifth. However, this sounded too mechanical and resulted in less controllable chord changes, which, did not meet my

intention of creating a naturally flowing panorama. Thus, I added two more intervals, the perfect fourth and tritone (see Example I-6), to fine-tune the harmony. The process of adding chords depended on the characteristic of different materials. Hence, some materials were maintained as lines, for example, the Fixed Lines in Perspective I and the Background Fixed Lines.

Example I-6. Bars 40 - 42 of *Mountains*

Registration was also used to enhance the characteristics of different materials in *Mountains*. For example, to suggest the power of the ground, the organ pedal is always coupled with the 32′ Contrabass stop, which sounds two octaves lower than the written pitch. Theoretically, my study of organ registration was based on theory books and scores. The books are *Making Music on the Organ*[9] of Peter Hurford and *The Organ Handbook*[10] of Hans Klotz. The studied scores include: *Suite Bretonne*[11] and *Symphonie-Passion*[12] of Marcel Dupré; *La Nativité Du Seigneur*[13] and *L'Ascension*[14] of Olivier Messiaen. In addition, my exploration of the organ in the Whitworth Hall, Manchester, significantly helped me understand the instrument. The stops in *Mountains* were initially selected based on this organ and were later modified based on the organ in St Ann's Church, Manchester. As the specific construction of organs varies from one instrument to another, the chosen stops are the most common ones that can be found.

---

[9] Peter Hurford. *Making Music on the Organ.* Oxford University Press, 1988.

[10] Hans Klotz. *The Organ Handbook.* Concordia, 1969.

[11] Marcel Dupré. *Suite Bretonne: pour Grand Orgue* (score). Leduc, 1924.

[12] Marcel Dupré. *Symphonie-Passion: pour Grand Orgue* (score). Leduc, 1925.

[13] Olivier Messiaen. *La Nativité Du Seigneur: Neuf Méditations pour Orgue* (score). Leduc, 1936;

[14] Olivier Messiaen. *L'Ascension: Quatre Méditations Symphoniques pour Orgue* (score). Leduc, 1934.

In some paintings (not just the Chinese handscroll paintings), the content can convey that the view is just a section from a more extensive landscape. I also aimed to convey this aspect in *Mountains*. Therefore, the work is presented without fade in and fade out. This approach was taken in subsequent pieces when a similar need arose.

Kashgar

The city of Kashgar is situated in the southwestern part of Xinjiang Uyghur Autonomous Region of China, where the majority of the population is Uyghur, an ethnic minority in China. The brass band piece *Kashgar* was conceived during my trips to the countrysides of Kashgar Prefecture in the summer of 2018. In those areas, deserts are common, and people usually inhabit oases. The deserts and hot climate during the summer in Kashgar reminded me of the timbre of brass instruments. Hence, I decided to compose *Kashgar* as a work for brass band.[15] In the UK, the brass band is not uncommon, particularly in the north of England, and there is one in the music department of The University of Manchester. Although I chose the brass band as the ensemble for *Kashgar*, it was not related to the English brass band tradition. To understand better the ensemble's instrumentation, I observed several workshops and rehearsals with The University of Manchester Brass Band. In addition, I also studied *Grimethorpe Aria*[16] by Harrison Birtwistle and *Cloudcatcher Fells*[17] by John McCabe.

In terms of structure, *Kashgar* interleaves three Strata that correspond to discrete images (see Tables I-2 to I-4). Stratum 1 and 3 occur at fixed periods, where Stratum 2 is presented at seven different times (Appearance 1, 2… in Table I-3). These Strata are fragmented (see Figure I-10) and overlapped to form the entirety of *Kashgar* (see Figure I-11).

As mentioned above, the unpainted spaces in Xia Gui's *Twelve Views of Landscape* (Figure I-3) partly function as the shared element that merges different views. In a sparsely populated area like the countrysides of Kashgar Prefecture, silence is the element shared by both settlements and landscapes. Thus, in the initial sketch for the piece, which only contained Strata 1 and 2 (Figure I-12), I used silence as the means to connect these fragmented Strata. However, this neat arrangement is musically dull, and, too much silence tended to undermine the unity of the piece. Accordingly, I created Stratum 3, which was inserted into the silences in the original sketch (see Figure I-13), to concatenate the separated frag-

---

[15] A piece for brass instruments was planned in my proposal. See page 17 above.

[16] Harrison Birtwistle. *Grimethorpe Aria* (score) Universal, 1973.

[17] John McCabe. *Cloudcatcher Fells* (score). Studio Music, 1995.

Stratum 1 - Solo Performer			
bars 121 - 128	bars 200 - 209	bars 262 - 280	bars 294 - 416
Fluegelhorn			

Table I-2. Details of the Stratum 1 in *Kashgar* (the bars show the position of materials of the Stratum in the score)

Stratum 2 - Landscape and Dance						
Appearance 1	**Appearance 2**	**Appearance 3**	**Appearance 4**	**Appearance 5**	**Appearance 6**	**Appearance 7**
bars 17 - 27	bars 43 - 59	bars 66 - 103	bars 125 - 150	bars 182 - 217	bars 246 - 284	bars 322 - 337
	Main instruments in Dance Soprano Cornet, 4 Solo Cornets, Solo Horn, 2 Horns, Euphonium 1, 2 Trombones Frame Drum					
Main instruments in Landscape 2nd Cornet 1, 2nd Cornet 2, 3rd Cornet 1, 3rd Cornet 2, 2 Barsitones, Bass Trombone, Euphonium 2, 2 Eb Basses, 2 Bb Basses Gong						

Table I-3. Details of the Stratum 2 in *Kashgar*

Stratum 3 - Ambience					
Landscape In The Distance					
bars 1 - 11	bars 26 - 44	bars 68 - 73	bars 161 - 184	bars 215 - 233	bars 282 - 326
Solo Horn Euphonium 1 Euphonium 2	Repiano Cornet Tubular Bells	Repiano Cornet	Solo Horn Euphonium 1 Euphonium 2	Repiano Cornet	Repiano Cornet Tubular Bells
		Echoes Of Dance			
		bars 66 - 73	bars 97 - 125	bars 217 - 231	bars 200 - 271
		Soprano Cornet	Tubular Bells Crotales	Soprano Cornet	Tubular Bells Crotales

Table I-4. Details of the Stratum 3 in *Kashgar*
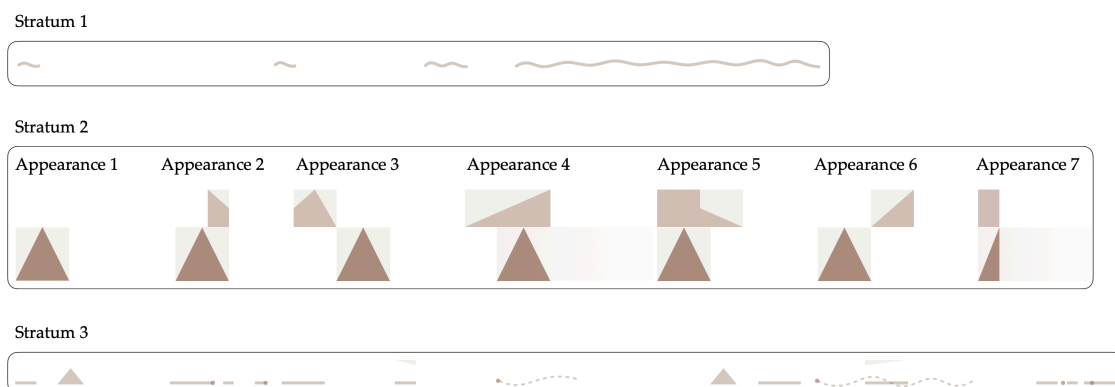
Figure I-10. The visualised shapes of the music of *Kashgar*
(the darker shades within the rectangles indicate the overall dynamic shape of that section)
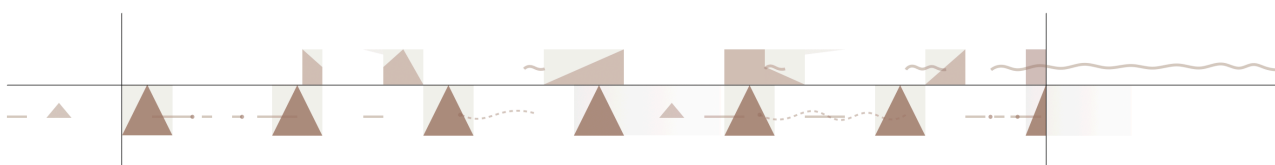
Figure I-11. The full structure of *Kashgar*
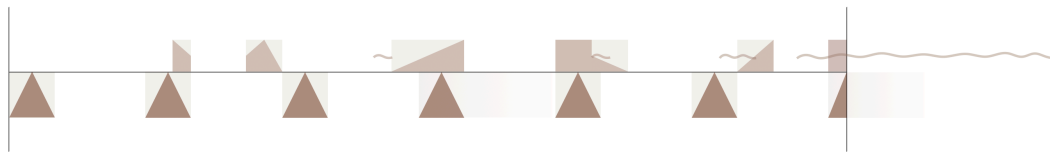
Figure I-12. The integration of Strata 1 and 2 in *Kashgar*
(the rectangles above the x-axis indicate Dances; the rectangles below indicate Landscape;
the curved-lines indicate the appearances of the solo flugelhorn from Stratum 1)
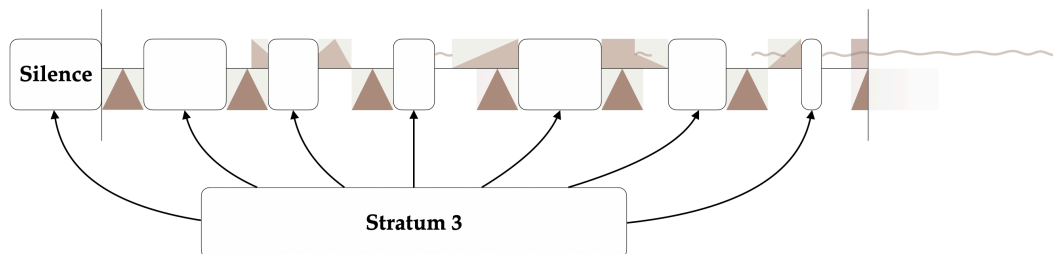
Figure I-13. The placement the Stratum 3 in *Kashgar*
(the rectangles between the shapes indicate the silences in the original sketch)

ments of the other two Strata in *Kashgar*. However, in order to maintain the unity of the piece, the music of Stratum 3 should relate to the other Strata. Also, I aimed to preserve the silences in the piece as much as possible since they are an essential compositional part. The manner I used to realise these goals is related to the compositional practices used in Chinese paintings like *Twelve Views of Landscape*.

Figure I-14 is a section showing two views from *Twelve Views of Landscape*. From the descriptions in the upper part of the painting, (from right to left) the two views are *Geese over Faraway Mountains* (遙山書雁) and *Ferry Returning to the Foggy Village* (煙村歸渡). Although most of these views are covered by heavy fog, suggested by the unpainted space, the views match their descriptions. The realisation of the views indeed depends on the meticulously painted objects. These presented objects in the painting can be classified into two types: 1) partial views of the broader landscape, and 2) details related to the intended scenery. 'Partial views' in the painting are mountain outlines, the obscured shore and the forest. Accompanied by their blurred surroundings, the fog-hovered landscapes are convincing. However, the views could be ambiguous if left out the 'details that related to the intended scenery.' In Figure I-15, I have removed the details. The results are: In the first view, without the perspective provided by the geese, the distance between the mountains and foreground is uncertain; in the second view, the lake view makes little sense with the ferries absent.

Figure I-14. Sections of *Twelve Views of Landscape*

Figure I-15. Sections of *Twelve Views of Landscape* (without details)

In *Kashgar*, Stratum 2 was composed of two materials called Landscape and Dance (see Table I-3, Examples I-7 and I-8). Therefore, I also created two materials, Landscape In The Distance and Echoes Of Dance (see Table I-4), in Stratum 3 to correspond with them. The sustained single note and chord of Landscape In The Distance were extracted from the richer chord of the Landscape in Stratum 2. These materials are played softly to suggest a

Example I-7. An example of the Landscape texture in *Kashgar*, bars 17 - 27 (concert pitch)

Example I-8. An example of the Dance in *Kashgar*, bars 49 -53 (concert pitch)

shimmering landscape in the distance, and they function analogously to the 'partial views of the broader landscape' in paintings. The materials of Echoes Of Dance were derived from the melodies of the Dance in Stratum 2, and they function like the 'details that related to the intended scenery.' The soprano cornet works as the go-between connecting Strata 2 and 3 through anticipation (bars 66 - 73) or extension (bars 217 - 231) of the melodies played by the solo cornets in the Dance. Stratum 3 was created of limited materials, which only aims to render the ambience and recall of Stratum 2. Hence, when the three Strata of *Kashgar* have been merged (see Figure I-11), the narrative, which contains the silences, was preserved to a certain degree.

Since the Strata in *Kashgar* are overlapped, another musical aim was to make the different Strata discernible whilst also ensuring that the whole piece sounded coherent. The manner of attaining the musical consistency in *Kashgar* was similar to the approach taken to the overall colour scheme in *Mountains*, using the one mode as the source for all materials. In *Kashgar*, the mode used is Ushshaq[18] (see Example I-9), which was employed to write parts of the harmony of Landscape in Stratum 2 (see Example I-10). In addition, I created three more versions based on this mode to apply to different materials and engender variety (see Table I-5 to I-7). Ideally, the second degree of Ushshaq should sound slightly sharper. However, for practical reasons, the sharper second degree of Ushshaq and three other versions was transposed down to standard pitch. For example, the second degree of version 2 (Example I-9) in the actual music of *Kashgar* is Ab from the 12-tone equal temperament, whereas this pitch originally should sound a bit sharper than Ab, which has the flat accidental sign with up-arrow head in Example I-9.

Example I-9. The modes used in *Kashgar*
(for the second degree in each mode: the pitch in parentheses is the one actually used in the final music of *Kashgar*, and the pitch on the left is the theoretical one)

Example I-10. The harmony changes of Landscape at every Appearance in *Kashgar*

---

[18] Ushshaq is widely used in musics of Western Asia, Central Asia and ethnic groups in Xinjiang. The equivalent in Uyghur musics is Oshshaq (ئوششاق).

Solo Performer in Stratum 1				
bars 121 - 128	bars 200 - 209	bars 262 - 280	bars 294 - 337	bars 338 - 416
Version 3 (D)	Version 3 (D)	Version 3 (D)	Version 3 (D)	Version 4 (D)

Table I-5. The uses and transpositions of modes in Stratum 1 in *Kashgar* (the letters indicate the root)

Stratum 2	
Landscape	Dance
Ushshaq (D#) to Cluster	Version 2 (G)

Table I-6. The uses and transpositions of modes in Stratum 2 in *Kashgar*

Stratum 3				
Landscape In The Distance	Echoes of Dance			
Extracted from Landscape	bars 66 -73	bars 97 - 125	bars 217 - 231	bars 200 - 271
	Version 4 (G)	Version 3 (E)	Version 2 (G)	Version 3 (E)

Table I-7. The uses and transpositions of modes in Stratum 3 in *Kashgar*

In addition to the uses of modes, another approach I employed to make the Strata in *Kashgar* sound distinct was giving each Stratum a dynamic character retained through-out the piece. Stratum 1 is in the foreground and is always louder than the other Strata, whereas Stratum 3 is always soft and remains in the background. Stratum 2 shifts between the background and foreground through gradual dynamic changes.

The Dance in Stratum 2 of *Kashgar* is the instrumentation of melodies selected from the Meshrep I composed for *Kashgar* (see Example I-11). This Meshrep was created in the style of *meshrep* (مەشرەپ) from the *Uyghur Twelve Muqam Suites*.[19] Typically, the festive *meshrep* is the last large-section in a *muqam* suite and contains three movements. Like other sections in a *muqam* suite, *meshrep* is vocal-centred music accompanied by instruments, so that the music is based on texts written in Uyghur. Since I was not familiar with the Uyghur lan-guage at that time, I analysed two *meshrepler* from the *Nawa Muqam Suite* and *Oshshaq Muqam Suite*[20] in terms of phrasing (see Chart I-1 to I-6) in order to understand the phras-ing and melodic fluctuations influenced by the text. Then I used the structure of the first *meshrep* from the *Nawa Muqam Suite*, the second and third from the *Oshshaq Muqam Suite* to form the structure of the Meshrep in *Kashgar*. The mode used to compose the Meshrep is the version 2 of Ushshaq in Example I-9.

---

[19] *Meshrep* here refers to the musical format rather than the related social gathering. *Muqam* in the text always refers to *Uyghur Twelve Muqam Suites*. The word *muqam* (مۇقام) is used in Uyghur, and it is spelt differently from *maqam* (مقام) in Arabic and *makam* in Turkish.

[20] Twelve Muqam Research Institute of Xinjiang Uygur Autonomous Region, Department of Culture of Xinjiang Uygur Autonomous Region. *Uighur Twelve Muqam - Nawa; Uighur Twelve Muqam - Oshshaq*. Xinjiang People's Publishing House, 1994.

Example I-11. The beginning of the Meshrep composed for *Kashgar*
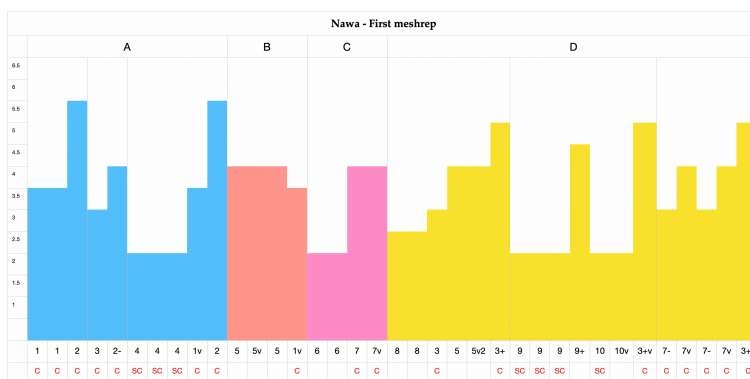
Chart I-1. The structure of the *First Meshrep* in the *Nawa Muqam Suite*
(x-axis is the timeline, and y-axis indicates the length of phrase)
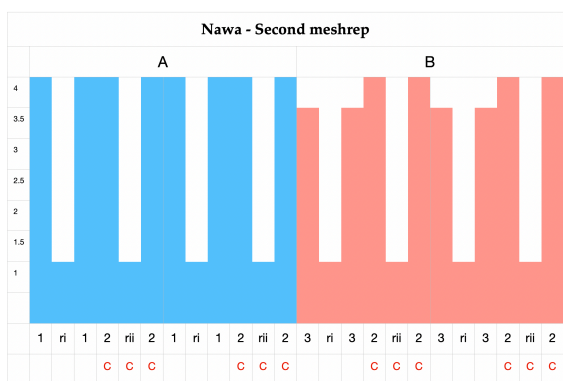
Chart I-2. The structure of the *Second Meshrep*
in the *Nawa Muqam Suite*
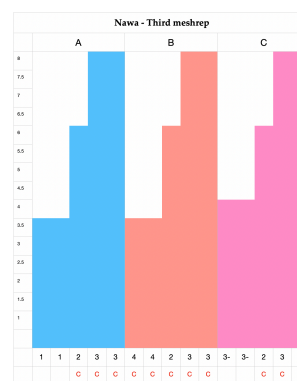
Chart I-3. The structure of the *Third Meshrep*
in the *Nawa Muqam Suite*

The Dance in *Kashgar* was not orchestrated in the typical manner of the brass band. In-stead, I used the brass band instruments to create something analogous to the *muqam* en-semble. As shown in Example I-8, four cornets play the melody, and they use different mutes as if they are singers with different vocal timbres. The trombones double the cornets
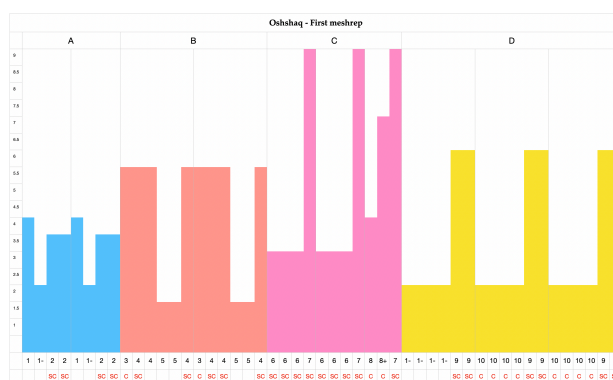
Chart I-4. The structure of the *First Meshrep* in the *Oshshaq Muqam Suite*
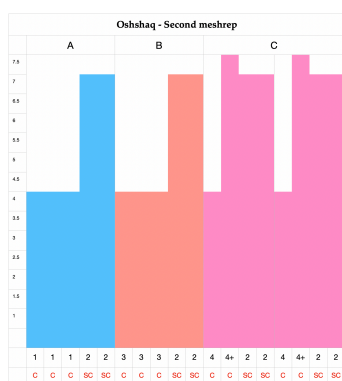
Chart I-5. The structure of the *Second Meshrep*
in the *Oshshaq Muqam Suite*
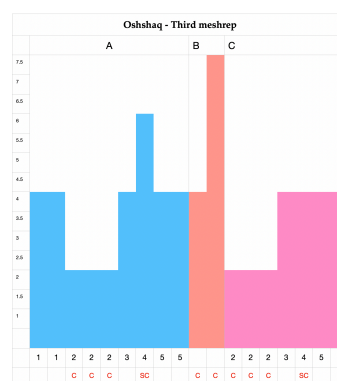
Chart I-6. The structure of the *Third Meshrep*
in the *Oshshaq Muqam Suite*

in a heterophonic texture, and, along with the frame drum, they parallel the accompanying instruments in the *muqam* ensemble. In addition, ornaments such as glissandi and slight pitch bending were added to approximate the flavour of the original music. In Uyghur musics, plucked and bowed string instruments are frequently used, and many of them have sympathetic strings which create greater resonance when the instrument is being played. Since brass instruments easily blend with each other, the idea of resonance created by multiple sympathetic strings was simplified to slowly fluctuating drones supported by three horns and the first euphonium in *Kashgar*.

The manner of orchestration mentioned above gives the sense of a hierarchy of instruments, which is typical in Asian musics. Theoretically, the hierarchy of instruments in *Kashgar* is the result of mutating the brass band into a *muqam* ensemble. However, as I realised that the hierarchy is a distinctive element in composing music, I also applied it in the structure in addition to using it in orchestrating the materials in *Kashgar*. The structural

sections,[21] such as Dance or Landscape, are played by the same instruments most of the time. This approach is a fundamental compositional technique used in the pieces completed after *Kashgar* and was developed further in them. In some pieces, this hierarchy in structure is rigorously employed. For example, in *Eclipse*, multiple groups of instruments were created, and each group only plays the same material throughout the entire piece.[22]

---

[21] Because these sections are interspersed and can happen simultaneously, I call them 'structural section' to distinguish them with the chronologically progress musical section.

[22] See '*Eclipse*' on page 62 below.

Chapter II

Experiments in Expression

Mirages

Mirages is a work for piano and string orchestra, a combination determined by the inspiration of *Mirages*, which relates to the Chinese instrument *qin* (琴).

The *qin* (see Figure II-1) is a fretless seven-string plucked instrument, and its origin is associated with ancient Chinese myths. Today, it is generally known as *gu-qin* (古琴), which means *ancient qin*. The typical range of a *qin* starts from the C2 and ascends four octaves. As a result of its construction, the *qin* can produce a rich resonance. However, the warm and graceful timbre of the *qin* gives it a soft quality, and therefore the *qin* usually appears as a solo instrument, particularly in the past, when electronic amplification did not exist. These natural characteristics made space play a significant role in *qin* music, similar to space in some Chinese paintings. In *qin* music, space can be filled with the sustaining resonance created by plucked strings or exist as silence. Both forms of space can suggest to the *qin* performer or audience a spiritual world beyond the actual notes played. This characteristic of *qin* music inspired my piece *Mirages*.

Figure II-1. The *qin* (front and back) made for the household of the first Prince Lu (1568 - 1614) of Ming Dynasty, dated 1634. 26.6 x 11 x 118.5 cm. The Metropolitan Museum of Art, New York City

In *Mirages*, the piano acts like a solo *qin*. However, I aimed to exaggerate the space in the piece. Thus, the piano plays exceedingly few notes, much fewer than in actual *qin* music. The notes are dispersed over the entire piece creating significant gaps between their appearances. Instead of interpreting those spaces as resonance or silence as in actual *qin* pieces, I filled them with capricious music played by the string orchestra. While the use of strings was determined by the music I originally aimed to create in *Mirages*, the employment of the piano was purely because it can produce a similar resonant sound to the *qin*. Additionally, compared to other plucked instruments used in Western classical music such as harp and guitar, the piano can be loud enough to be heard when a large string orchestra plays loud music.

When I was conceiving *Mirages*, the contrast of simple materials on the piano with their elaborate opposite on strings also reminded me of the *you-xian shi* (遊仙詩), a type of Chinese classical poetry. *Shi* (詩) indicates the form of the poem, and *you-xian* (遊仙) means *travelling the world of immortals*. Typically, *you-xian shi* is written in the first-person and uses exuberant words to depict a wonderland. This dual nature informed *Mirages* such that I regarded the piano as the poet who travels through a fantasised world suggested by string materials. Thus, poems of *you-xian shi* form a significant reference point in the development of *Mirages*. Among them, *Mount Skyland Ascended in A Dream - A Song of Farewell* (夢遊天姥吟留別) by Li Bai (李白; 701 - 762) is the most influential. Below is this poem in Chinese, which is the text that inspired *Mirages*.

“海客談瀛洲。煙濤微茫信難求。越人語天姥。雲霓明滅或可覩。天姥連天向天橫。勢拔五嶽掩赤城。天台四萬八千丈。對此欲倒東南傾。我欲因之夢吳越。一夜飛度鏡湖月。湖月照我影。送我至剡溪。謝公宿處今尚在。淥水蕩漾清猿啼。腳著謝公屐。身登青雲梯。半壁見海日。空中聞天雞。千巖萬轉路不定。迷花倚石忽已暝。熊咆龍吟殷巖泉。慄深林兮驚層巔。雲青青兮欲雨。水澹澹兮生煙。列缺霹靂。丘巒崩摧。洞天石扇。訇然中開。青冥浩蕩不見底。日月照耀金銀臺。霓爲衣兮風爲馬。雲之君兮紛紛而來下。虎鼓瑟兮鸞迴車。仙之人兮列如麻。忽魂悸以魄動。怳驚起而長嗟。惟覺時之枕席。失向來之煙霞。

世間行樂亦如此。古來萬事東流水。別君去時何時還。且放白鹿青崖間。須行

即騎訪名山。安能摧眉折腰事權貴。使我不得開心顏。"[23]

The English version of the poem below, a translation by Xu Yuan-Chong (许渊冲; 1921 - 2021), is presented here in order to explain the structure of *Mirages*.

"Of fairy isles seafarers speak,

'Mid dimming mist and surging waves, so hard to seek;

Of Skyland Southerners are proud,

Perceivable through fleeting or dispersing cloud.

Mount Skyland threatens heaven, massed against the sky,

Surpassing the Five Peaks and dwarfing Mount Red Town.

Mount Heaven's Terrace, five hundred thousand feet high,

Nearby to the southeast, appears crumbled down.

Longing in dreams for Southern Land, one night

I flew o'er Mirror Lake in moonlight.

My shadow's followed by moonbeams

Until I reach Shimmering Streams.

Where Hermitage of Master Xie can still be seen,

And clearly gibbons wail o'er rippling water green.

I put Xie's pegged boot

Each on one foot,

And scale the mountain ladder to blue cloud.

On eastern cliff I see

Sunrise at sea,

And in mid-air I hear sky-cock crow loud.

The footpath meanders 'mid a thousand crag in the vale,

I'm lured by rocks and flowers when the day turns pale.

Bears roar and dragons howl and thunders the cascade,

---

[23] Peng Ding-Qiu et al.. *Complete Tang Poems.* vol. 5. Zhonghua Book Company, 2017. pp. 1779 - 1780.

Deep forests quake and ridges tremble: they're afraid!

From dark, dark cloud comes rain;

On pale, pale waves mists plane.

Oh! lightning flashes

And thunder rumbles,

With stunning crashes

Peak on peak crumbles.

The stone gate of a fairy cavern under

Suddenly breaks asunder.

So blue, so deep, so vast appears an endless sky,

Where sun and moon shine on gold and silver terraces high.

Clad in the rainbow, riding on wind,

The Lords of Clouds descend in a procession long.

Their chariots drawn by phoenix disciplined,

And tigers playing for them a zither song.

Row upon row, like fields of hemp, immortals throng.

Suddenly my heart and soul stirred, I

Awake with a long, long sigh.

I find my head on pillow lie

And fairy visions gone by.

Likewise all human joys will pass away

Just as east-flowing water of olden day.

I'll take my leave of you, not knowing for how long.

I'll tend a white deer among

The grassy slopes of the green hill

So that I may ride it to famous mountains at will.

How can I stoop and bow before the men in power

And so deny myself a happy hour!"[24]

---

[24] Xu Yuan-Chong. *Selected Poems of Li Bai*. Hebei People's Publishing House, 2005. pp. 65 - 67.

Li Bai's *Mount Skyland Ascended in A Dream* suggests a romantic world of fantasy. However, from the last few verses, we realise that Li's wondrous journey in the illusory Mount Skyland is merely the metaphor for a successful career in the civil service, which he might have had but did not achieve. The poem aims to express Li's sense of this loss and his dissatisfaction with bureaucracy. Those visions in the dream are like transient mirages to Li. This thought is the origin of my work's title *Mirages*.

Mount Skyland Ascended in A Dream can be divided into four large-sections, and the section Dream can be further divided into three subsections (see Table II-1). The Introduction and Farewell-words are sections not reflected in my own piece. Although Li Bai's words inspired the images that helped me compose *Mirages*, I did not aim to depict every detail of his poem. Thus, the sections before the Ending section in my piece *Mirages* (see Table II-2) correspond to the images in *Mount Skyland Ascended in A Dream* in an approximate manner, and they were also not composed in the same order as the sections in Li's poem. Nevertheless, the overall structure, which contrasts Mirages and Awakening, was similar to the contrast of Dream and Awakening in Li's poem.

Large sections		Subsections
Introduction	Of fairy isles seafarers speak, …… Nearby to the southeast, appears crumbled down.	
Dream	Longing in dreams for Southern Land, one night …… And clearly gibbons wail o'er rippling water green.	**Teleport to the place and Lake scenes**
	I put Xie's pegged boot …… On pale, pale waves mists plane.	**Trekking and Foreshadowing**
	Oh! lightning flashes …… Row upon row, like fields of hemp, immortals throng.	**Arrival of immortals**
Awakening	Suddenly my heart and soul stirred, I …… Just as east-flowing water of olden day.	
Farewell words	I'll take my leave of you, not knowing for how long. …… And so deny myself a happy hour!	

Table II-1. My analysis of the structure of *Mount Skyland Ascended in A Dream*

Mirages			Awakening
A	**B**	**C**	**Ending**
bars 1 - 107	bars 108 - 138	bars 139 - 226	bars 226 - 229
Emerging of mirages	Tranquil lake	Bold arrival of mirages	

Table II-2. The structure of *Mirages*

In *Mirages*, the piano shifts roles between the *qin* performer and the travelling poet. When acting as the *qin* performer, the piano material affects the mirages rendered by strings. For example, the piano chord cuts off the sudden appearance of loud string material in bar 11, and triggers the emergence of string material in bar 89. When informed by its role as the poet, the piano responds to the 'mirages' in two ways. One is 'wandering' in the 'mirages,' such as the seemingly rubato piano music in section B; another is to follow the movement of 'mirages,' such as the music in bar 142, where the piano doubles the accents of the string materials. In the Ending section, the piano concludes the 'mirages' with a held chord for a strict duration, symbolising a dazed state after the sudden Awakening. The music played by the strings was composed through improvisations according to the set images of each section (see Table II-2). All improvisations in the piece were based on the mode and rhythm patterns I created using theories of the Turkish *makam*.[25] The use of the *makam* was related to my inspiration regarding the milieu of the early Tang, the Tang Dynasty[26] being the time when poet Li Bai lived.

The early Tang was a remarkably prosperous and multi-cultural era in China's history. This background also prompted diversity in music. According to *Jiao-Fang Ji*[27] (教坊記), the musics of ethnic minorities also contributed to the Tang music repertoires. The Turkic-speaking people, such as Tu-Jue (突厥), was one of those minorities. In my imagination, their music from the remote Tang Dynasty may sound exotic while also has characteristics typical to Turkic music. The musics of Turkic-speaking people in present-day China are rather customary to me, and less remind me of the music from more than a thousand years

---

[25] *Makam* in the text always indicates the Turkish *makam*.

[26] Tang (唐), 618 - 907, was a Chinese dynasty.

[27] *Jiao-Fang Ji* written by Cui Lin-Qin (崔令欽; ca. 8th c.) recorded the performing arts during the reign of Emperor Xuan-Zong of Tang (唐玄宗; 685 - 762, reign 713 - 756). Reference: Ren Ban-Tang. *The Notes of Jiao Fang Ji*. Zhonghua Book Company, 2015.

ago. While conceiving *Mirages* in April 2018, I visited Turkey. At that point, Turkish musics, particularly the *makam*, remained fresh to me. The *makam* is formed from diverse musical traditions in addition to its Turkic origins, which exemplifies the engagement of Turkic music and other musics. It was its unfamiliarity that evoked for me a sense that the *makam* I heard seemed like the Turkic music from the distant past, which conjured up in my mind the multi-ethnic musics of the early Tang. These thoughts motivated me to integrate the *makam* elements in *Mirages*.

The modern Turkish *makam* is primarily based on the theoretical system jointly developed by Rauf Yekta (1871 - 1935), Hüseyin Sadettin Arel (1880 - 1955), Suphi Ezgi (1869 - 1962) and Salih Murat Uzdilek (1891 - 1967).[28] In the system, there are five basic intervals: *bakiye, küçük mücennep, büyük mücennep, tanini, artık ikili*. Additionally, a *koma* (Pythagorean comma) is added to measure the intervals (see Table II-3 and Figure II-2). When being notated using Western staff notation, a *tanini* is represented by a whole tone, since the value of a *tanini* is approximately 204 cents and the value of an equal temperament whole tone is 200 cents. The comma measurement is theoretical, and not all commas within a *tanini* are used in practice. The 24 pitches used in *makam* are obtained by employing the circle of fifths in both directions (see Table II-4). A *makam* scale is considered a compound of a tetrachord and a pentachord (see Example II-1). In some *makamlar*, the scale's descending form has different pitches to its ascending form, such as *Zavil makamı* (see Example II-2).

Interval	Koma	Bakiye	Küçük Mücennep	Büyük Mücennep	Tanini	Artık Ikili
Commas	1	4	5	8	9	12

Table II-3. The intervals in modern Turkish music theory
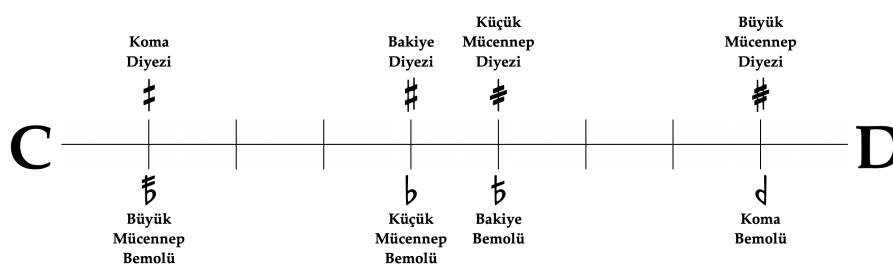
Figure II-2. The division of a *tanini* in modern Turkish music theory
(*diyezi* indicates sharp, *bemolü* indicates flat)

[28] Karl L. Signell. *Makam: Modal Practice in Turkish Art Music.* Usul Editions, 2008; Thomas Mikosch. *Makamlar: The Musical Scales of Turkey.* Lulu Press, 2017.

C	➡	G	D	A	E	B	F♯	C♯	A♭	E♭	B♭	F♯
⬇												
F	➡	B♭	E♭	G♯	C♯	F♯	B♩	E♩	A♩	D♩	G♩	C♩

Table II-4. The 24 pitches used in modern Turkish *makam*
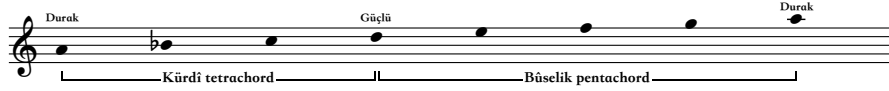
Example II-1. *Kürdî makamı* (*durak* indicates the root, *güçlü* functions as the dominant)
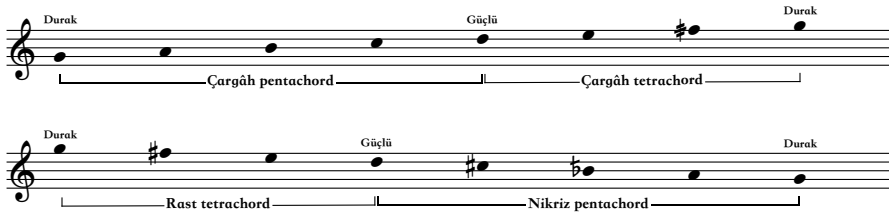
Example II-2. *Zavil makamı*

By following the Turkish *makam* theory precepts, I created a new mode (Example II-3) for *Mirages*. This mode consists of two hexachords framing a heptachord, and its descending form is the inversion of its ascending form. However, this comma based mode is only theoretical as its microtones are impractical for a string orchestra. Therefore, in the actual music of *Mirages*, the original pitches in the mode were transposed to equal temperament pitches (see Example II-4).
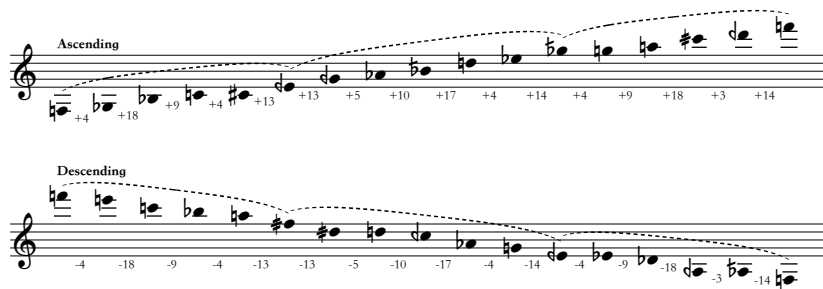
Example II-3. The theoretical mode in *Mirages* (the intervals are in commas)

Example II-4. The actually used mode in *Mirages* (equal temperament pitches)

Usul, a rhythmic cycle used in the Turkish *makam*, is another element of the *makam* I employed in *Mirages*. In the piece, the music between bars 139 to 176 is mostly in 10/8. The beats are grouped as 3+2+2+3, which is *Aksak Semai usulü*. In addition to regular rhythmic patterns, some *usuller* in *makam* are formed using other groupings. For example, the metre of *Düyek usulü* is 8/8, and the beats are grouped as 1+3+2+2. Also, some *usuller* are considerably extended, such as *Havi usulü*, which has the metre 64/4.[29] For *Mirages*, I created two new *usuller* (Examples II-5 and II-6). The materials played in 25/8 were used against the melodies in 10/8 to create a polyrhythmic texture (see Example II-7). Example II-8 shows the use of a pattern in 26/4. Other than as a parallel to the *makam*, the use of such rhythms in *Mirages* is to aid stratification.

Example II-5. The rhythmic pattern 25/8 used in *Mirages*
(high and low represent the register of the percussion)

Example II-6. The rhythmic pattern 26/4 used in *Mirages*

In *Mirages*, one of the aims was to suggest different images that happen simultaneously. Thus, as advised by Professor Grange, stratification is a suitable way to realise that. So I studied Elliott Carter's String Quartet No. 1,[30] in which this technique is used a lot. However, in my opinion, Carter's polyrhythms can result in a dense sound mass, which reduces the clarity of the materials. Hence, between rehearsal letters E to H of *Mirages*, where I intended to create discernible layers, the use of polyrhythms was quite limited. In comparison, between rehearsal letters B and C, where the objective is to create something less distinct, the layers are more complex.

Mirages was completed before *Kashgar*. At that point, I had not yet fully developed a compositional technique to deal with hierarchy (see page 42 above). Therefore, the creation of images in the music was mostly based on an intuitive flow of ideas informed by Li

---

[29] Murat Aydemir. *Turkish Music Makam Guide*. Pan Yayıncılık, 2010.

[30] Elliott Carter. *String Quartet No. 1* (score). Associated Music, 1956.

Example II-7. An example of the use of a rhythmic pattern in 25/8 in *Mirages*, bars 149 - 151

Bai's *Mount Skyland Ascended in A Dream*. Although I intentionally restricted the use of some materials, the final piece retained a degree of complexity. Practically speaking, the work's difficulty will, in all likelihood, diminish the opportunity for it to be performed. As a result, I began to question whether intricate music was necessary to express the ideas in *Mirages*. Ultimately, I realised that the mood of Li's poem is perhaps not successfully conveyed through the music. In *Mount Skyland Ascended in A Dream*, the Dream section makes up a significant proportion of the poem, with a brief Awakening section at the end. However, the perception of music is very different to that of written words. Thus, in *Mirages*, the structure similar to Li's poem does not necessarily work as effectively.

While completing *Kashgar*, I received an opportunity to compose a solo piano piece for Richard Whalley. The piano reminded me of its role in *Mirages*. Therefore, I conceived of re-developing *Mirages* as a solo piano piece, but from the poet's perspective. In other

words, compared to *Mirages*, where the primary focus are the 'mirages,' the solo piano piece was focused on conveying moods. Most importantly, the solo piano piece provided me with an opportunity to re-think the theoretical questions raised by *Mirages*.

Example II-8. An example of the use of a rhythmic pattern in 26/4 in *Mirages*, bars 179 - 184

Deserts

In regard to his piece *Déserts*, Edgard Varèse stated:

> "To me it means not only deserts of sand, sea, mountains and snow, of outer space, of deserted city streets, not only those stripped aspects of nature that suggest bareness and aloofness but also the remote inner space of the mind no telescope can reach, a world of mystery and essential loneliness."[31]

My piece *Deserts* for solo piano was named for similar reasons. However, as mentioned in the previous sub-chapter, *Deserts* was a re-development of *Mirages*, and its inspiration relates to Li Bai's poem *Mount Skyland Ascended in A Dream*. In the poem, Li depicted a phantasmagoric fairyland and used it as a contrast to his sense of desolation caused by the disappointment of reality. Although Li's experience is not familiar to me, the mood expressed in his poem reminded me of the feeling of facing an empty and endless desert. With this in mind, the desert I aimed to create in *Deserts* was not a particular landscape, but the atmosphere and moods evoked by the desert. These two aspects were reflected as the two strata, Layers I and II, in the piece.

In *Deserts*, the two Layers were composed of discrete materials, and they are overlapped throughout the entire piece, in a manner similar to the Strata in *Kashgar*. However, in *Kashgar*, each Stratum is played by an assigned group of instruments, which is not practicable on a solo piano. Since the notes of different registers on the piano have distinct timbres, this was used to distinguish the different sounds of the two Layers in *Deserts*. There are three registers which are partitioned in the piece. Layer I is allocated to the high and low registers, and the Layer II is restricted to the middle register (see Example II-9). For the majority of the time, the materials of these three registers are separated from each other. The exception occurs in the climactic passages, where some notes of the Layer II migrate from their original register and leap over the other registers (see Examples II-10 and II-11). This approach creates a transitory blend of materials.

---

[31] Olivia Mattis, "Varèse's Multimedia Conception of 'Déserts.'" *The Musical Quarterly*, vol. 76, no. 4, 1992, pp. 557–583. *JSTOR*, www.jstor.org/stable/742477. Accessed 7 June 2021.

Example II-9. Bars 12 - 15 of *Deserts*

Example II-10. Bars 78 - 79 of *Deserts* (the notes migrating registers are circled)

Example II-11. Bars 80 - 82 of *Deserts* (the notes migrating registers are circled)

56

As mentioned, an important aim in *Deserts* was to convey the mood of Li Bai's *Mount Skyland Ascended in A Dream*, which had not been fully achieved in *Mirages*. This task was undertaken by Layer II in *Deserts*. In my reflection on *Mirages*, I realised that two points relevant to proportion and correlation in its structure might be the cause of not successfully expressing the mood. Accordingly, to confirm my conjecture, I constructed the Layer II in *Deserts* with the same overall structure as *Mirages*. Specifically, Layer II in *Deserts* starts with the section Mirages (bars 1 - 91) composed of relatively denser music, followed by the section Awakening (bars 92 - 181) composed of much less active materials.[32]

In my analysis, one of the issues in *Mirages* was the unbalanced proportion of Mirages and Awakening. Their durations were determined by the approximate percentage of their relevant verses in Li Bai's *Mount Skyland Ascended in A Dream*. The last few verses that express Li's mood are short in terms of text, but the mood perceived by readers last well beyond the text itself. This point was missed in *Mirages*. The solution to this particular matter in *Deserts* was to lengthen the duration of Awakening.

Regarding how proportion affects the perception of music, Professor Grange once mentioned that in Peter Maxwell Davies's First Fantasia on an 'In Nomine' of John Taverner (1962): "Maxwell Davies was trying to make the piece sound longer than it actually is by placing the climax earlier than expected." In *Deserts*, I assigned Mirages and Awakening equal durations[33] (see Table II-5). On this basis, the materials in Mirages are vibrant and changing, whereas the materials in Awakening are subdued and repetitive (see Tables II-6 and II-7). Through this contrast, I intended to make the Awakening section sounds longer than the Mirages section while it actually has the same duration. In addition, I moved a fragment of the climax at the end of Mirages to the beginning of the piece (see Table II-6). In the context, this is designed to create a cycle of mirages that symbolise the desert's endlessness. The two climaxes are both in the first half of the piece, which, was designed to distort our perception of time in a similar manner to Maxwell Davies's First Fantasia.

---

[32] These sections were named A and B when I was composing *Deserts*. However, because they are parallel to the sections in *Mirages*, I use the names 'Mirages' and 'Awakening' in this chapter in order to provide a comparison in the structure of *Deserts* with *Mirages* and Li Bai's *Mount Skyland Ascended in A Dream.*

[33] In the actual music, Mirages is slightly shorter than Awakening because of the tempo changes in bars 70 to 91, which were added later. Originally, they had strictly equal duration.

	Mirages	Awakening
Mirages	bars 1 - 225 ca. 10m 15s	bars 227 - 229 ca. 20s
Layer II in *Deserts*	bars 1- 91 ca. 7m 15s	bars 92 - 181 ca. 7m 30s

Table II-5. Comparison of the structures of *Mirages* and *Deserts*

Mirages						
	Material 1 **in mode A** **(unfinished)**	**Materials derived from Material 1 (improvisations in mode A)**				
		Material 2	**Material 3**	**Material 4**	**Material 5 (climax)**	
bars 1 - 4	bars 4 - 19	bars 19 - 29	bars 30 - 53	bars 53 - 63	bars 65 - 91	bars 1 - 4

Table II-6. The structure of the section Mirages in *Deserts*

Awakening		
Material 1 **in mode B**	**Material 1** **in mode B** **(incomplete)**	**space**
bars 92 - 115	bars 116 - 133	bars 134 - 181

Table II-7. The structure of the section Awakening in *Deserts*

In *Mirages*, the Awakening section was formed of a plain chord held by the piano, which merely completed a surface imitation of the sudden awakening and was insufficient to express a haunting mood. When composing *Deserts*, I thought that the mirages' afterimages might linger in one's mind after one awakes, which enhances the disappointment. As a result, Mirages and Awakening in the piece share some materials. They all start with similar Material 1 (see Table II-6 and II-7) consisting of a chord progression (see the score). However, Material 1 in Mirages gives rise to other Materials, whereas Material 1 repeats and fades in Awakening. Furthermore, the materials for Mirages and Awakening were created using different modes. From the idea of establishing a correlation between Mirages and Awakening whilst also reflecting their difference, I created two seemly akin modes. These two modes have the same number of notes, but the inverse interval sequences (see Example II-12), as if they are two sides of the same coin. Mode A was used to compose the music of Mirages, and mode B was used to compose the music of Awakening.
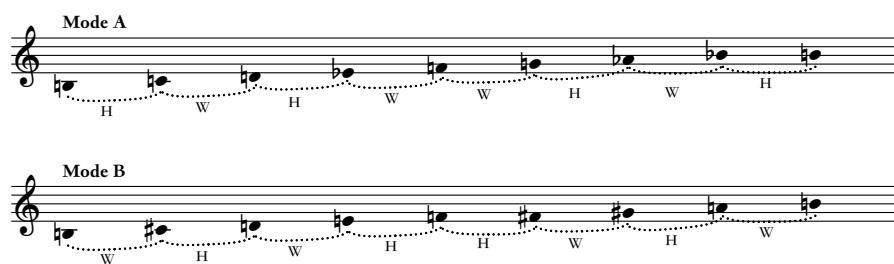
Example II-12. The modes used in *Deserts*

After completed *Mirages*, I realised that the complex materials in the piece might be musically satisfying but are rather excessive in expressing my objective in the piece. Thus, the principle in creating *Deserts* was moderation, which was influenced by a practice in Chinese paintings called *xie-yi* (寫意). In the context of painting, *xie-yi* can be translated as *depict the spirit*. This approach aims to capture an object through seemingly arbitrary brushwork rather than precise details. Xia Gui's *Twelve Views of Landscape* (Figure I-3) discussed in Chapter I is an excellent example of this. Because the object painted in *xie-yi* does not have a strict form, the painter gains the freedom to shape the object based more on their will, making *xie-yi* an excellent tool to embody the creator's mood in the object. However, *xie-yi* does not mean only a few materials are allowed in a painting. For example, in *Dwelling in the Qing-Bian Mountains* (青卞隱居圖; dated 1366) of Wang Meng (王蒙; 1308-1385) or some ink-splash works of Chang Dai-Chien (張大千; 1899 - 1983), the materials are dense and intense whilst looking arbitrary. For me, *xie-yi* suggests the moderate use of materials. No matter the amount, they need to be meaningful and functional. Once the object's character is conveyed, excessive ink should be avoided. For example, in Xia Gui's *Twelve Views of Landscape*, the fog covered lake and sky were not painted at all, but are there nonetheless (see page 36 above).

In *Deserts*, my use of *xie-yi* was twofold; first was the moderate use of materials. Accordingly, materials in *Deserts* were much more limited and avoided ornaments. Another practice of *xie-yi* explored in *Deserts* is its seemingly arbitrary approach. The brushstrokes in *xie-yi* might look arbitrary, but they are based on the object's characteristics and aim to suggest the object rather than present it. That is to say, the brushstrokes themselves are arbitrary, but the object created by them is not. This feeling was what I intended to capture in music; the music created in this manner has an overall defined shape while its materials

sound seemingly arbitrary. In *Deserts*, Layer II was related to *Mirages*, and was concretely composed. Thus, Layer I was where I interpret the arbitrary expression of *xie-yi*.

The image I had for Layer I in *Deserts* was of a hovering mist. To convey this, I wrote a chromatic line containing 81 units of pitches and rests (see Example II-13). This line functions as a pitch ostinato that repeats several times in the piece (see Tables II-8 and II-9), and the value of the note and rest changes overtime to modify the line to the shape of the hovering mist I had in mind. However, the overall shape of Layer I as derived from this line is different in its two registers (see Figure II-3). In the high register, the basic line repeats frequently (see Table II-8), and its duration gradually diminishes. In the low register, the basic line repeats only once (see Table II-9), and its duration gradually augments. The durational changes are based on pre-designed schemes, not improvised. Table II-10 gives an example of the argumentation scheme: the values of units 1 - 7 are considered the original, and each unit of units 8 - 14 is added of a semiquaver to its original value; each unit of units 15 - 21 is added of a dotted quaver to its original value, and so on. With this approach, I wished to create the impression of an organised imprecision in the placement of the notes, which is analogous to the seemingly unpredictable brushwork of *xie-yi*.
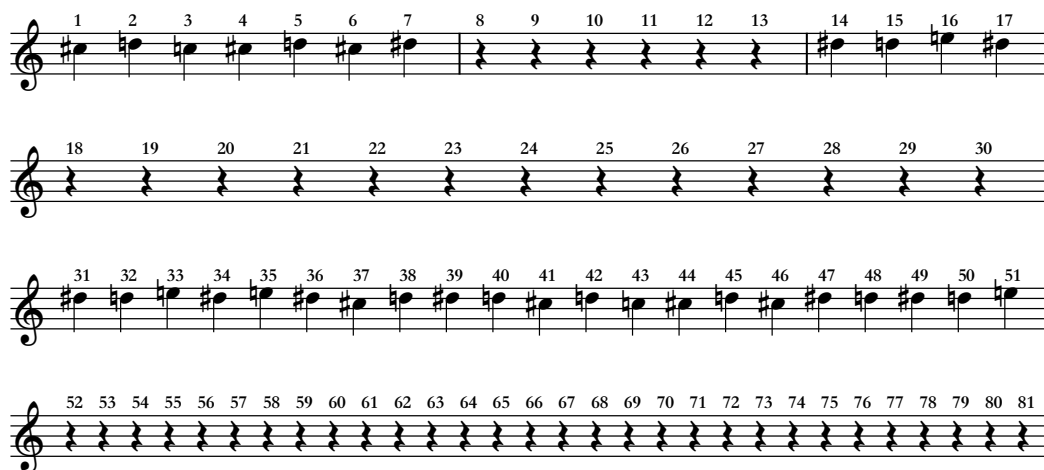
Example II-13. The basic line of the Layer I in *Deserts*

Layer I in high register				
bars 3 - 112	bars 112 - 133	bars 133 - 149	bars 149 - 165	bars 165 - 181
Units 1 - 81	Units 1 - 81	Units 1 - 81	Units 1 - 81	Units 1 - 81

Table II-8. The repetitions of the basic line in the Layer I (high register) in *Deserts*
('Units' in the table correspond to the notes and rests in Example II-11;
the table gives the materials' positions in the score)

Layer I in low register	
bars 1 - 69	bars 69 - 181
Units 1 - 81	Units 1 - 50

Table II-9. The repetitions of the basic line in the Layer I (low register) in *Deserts*
(the table gives the materials' positions in the score)

Layer I in high register
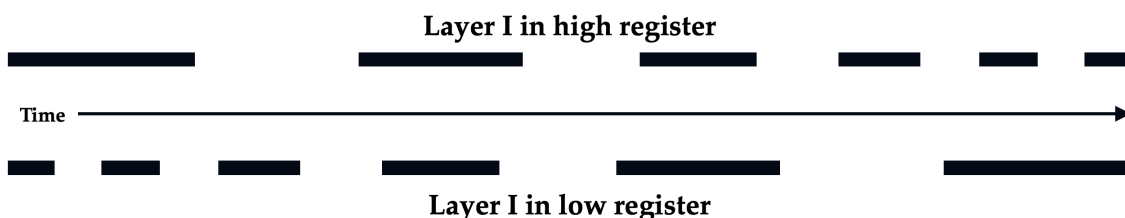
Figure II-3. The concept of the Layer I in *Deserts*
(this does not represent the actual duration of music)

	Layer I in low register (bars 1 - 69)					
	Units 1 - 7	Units 8 - 14	Units 15 - 21	Units 22 - 28	Units 29 - 35	Units 36 - 42
♩(𝄽) x	1	1.25	1.75	2.5	3.5	3.75
	Units 43 - 49	Units 50 - 56	Units 57 - 63	Units 63 - 70	Units 71 - 77	Units 78 - 81
♩(𝄽) x	4.25	5	6	7.25	7.5	8

Table II-10. An example of durational augmentation in the Layer I (low register) in *Deserts*

Xie-yi proved to be a fertile concept, and ideas arising from it were explored further in the following pieces in my portfolio. In composing them, I developed a texture, which was also inspired by Chinese painting, to suggest a certain imprecision of expression.

Chapter III

Developments of Aesthetic and Texture

Eclipse

When Wang Meng (王蒙; 1308-1385) completed the painting *Dwelling in Qing-Bian Mountains* (青卞隱居圖; dated 1366; Figure III-1), the Yuan Dynasty[34] he lived in was in upheaval and verging collapse. It was uncertain whether Wang's milieu influenced his creation of *Dwelling in Qing-Bian Mountains*, but the intensive and expressive brushwork used presents another facet of Chinese ink painting different from its normal mildness. This brushwork motivated me to create analogous music in my piece *Eclipse.* Hence, one of the aims in *Eclipse* was to capture the sharpness and strength I perceived in Wang's brushwork. When I was conceiving *Eclipse*, the proposed work for woodwind instruments and a choral piece (see page 17 above) were not yet composed. I realised that I needed both double-reed instruments and brass instruments to achieve my desired loudness and distorted timbre to create music analogous to the intense brushwork in Wang's painting. Therefore, I decided the wind band would be a better choice for *Eclipse* than the choir and the ensemble that only contains woodwind instruments. As with choosing the brass band for *Kashgar*, choosing the wind band for *Eclipse* was not related to the wind band tradition, but depended on my own creative concerns.

Beyond Wang Meng's brushwork, *Eclipse* was also informed by both the monochrome colour of the ink painting and the turbulent final years of the Yuan Dynasty, and aims to create a sombre ambience, suggesting ravaged lands, as a darkened and silenced world induced by an eclipse.[35] These images mingled into a forlorn tableau in my mind, which evokes a sense of primordial darkness. Consequently, I thought of using materials that sound simple and unpolished to compose *Eclipse*, which aimed to capture the primordial sense. This thought, plus the principle of moderation in composition developed in *Deserts*

---

[34] Great Yuan (大元), 1271 - 1368, was a dynasty in China's history.

[35] This is the origin of the piece's name *Eclipse*.

Figure III-1.
Wang Meng (王蒙; 1308 -1385),
Dwelling in Qing-Bian Mountains (青卞隱居圖),
hanging scroll, ink on paper, dated 1366.
140.6 x 42.2 cm. Shanghai Museum, Shanghai

based on the influence of *xie-yi*, gave rise to a Gu-Pu[36] aesthetic in *Eclipse*. With this aesthetic, the use of materials needs to be limited, and the materials themselves are simple and consistent. As a result, I wanted the music to sound rough edged, which helped convey the austere sense of the ancient time I wanted.

    Eclipse comprises three structural sections,[37] which I label: Image 1, Image 2, Space (see Figure III-2). Each section has its own distinctive material which is always played by the same group of instruments. The materials for Image 1 (see Example III-1) were inspired by the intense brushwork in Wang Meng's painting. They were assigned to the double-reed and brass instruments. Image 2 (see Example III-2) suggests a gentle floating chant-like sound, which is played by a saxophone quartet. In the Space (see Example III-3), I use flutes to generate an airy ambient sound, and clarinets to create a static ambient sound. With regard to arrangement and function, these structural sections in *Eclipse*, which were formed in the manner of hierarchy, are the same as the structural sections of Strata in *Kashgar*, such as Dance and Landscape of Stratum 2. However, compared to *Kashgar*, in which multiple frames of time and space are involved, *Eclipse* only depicts a tableau that
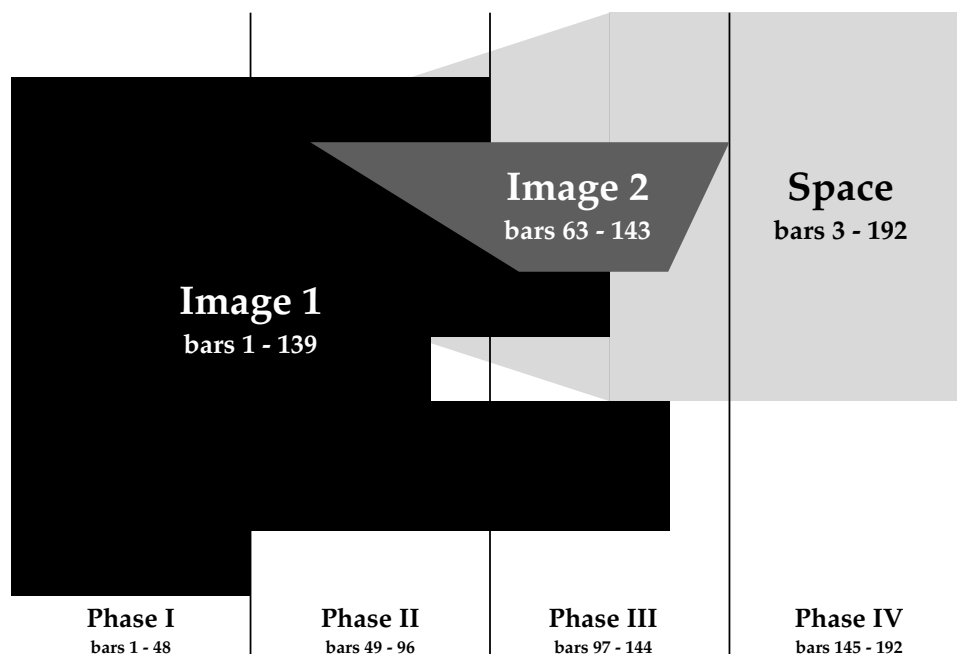
Figure III-2. The overall structure of *Eclipse*

Example III-1. An example of the Image 1 in *Eclipse*, bars 1 - 5 (transposed pitch)

Example III-2. An example of the Image 2 in *Eclipse*, bars 105 - 108 (transposed pitch)

Example III-3. An example of the Space in *Eclipse*, bars 156 - 160 (transposed pitch)

happens in a fixed time and space. This tableau is divided into four Phases of equal duration (see Figure III-2). The Phases do not partition the piece into musical sections, but determine how different structural sections combine (see Table III-1). The idea of Phases was inspired by the folding screen, where each panel can be an independent painting while the overall screen forms an extensive panorama. Since the tableau of *Eclipse* is not still, I used the term Phase instead of Panel. The bass drum plays at the beginning and end of Phases (see Table III-2), functioning as the frame for each Phase.

Phase I bars 1 - 48	Phase II bars 49 - 96	Phase III bars 97 - 144	Phase IV bars 145 - 192
Image 1	Image 1	Image 1	
	Image 2	Image 2	
Space	Space	Space	Space

Table III-1. The content of Phases in *Eclipse*

Bass Drum Strikes				
bar 1	bars 49 - 50	bars 97 - 98	bars 145 - 146	bars 193 - 195

Table III-2. The appearances of bass drum strikes in *Eclipse*

In order to fulfil the moderation principle, the use of materials in *Eclipse* is limited. In the piece, each structural section's texture remains unchanged throughout: Image 1 and Image 2 were both formed of disconnected single notes; the Space was composed of long sustaining notes. Like the texture, the pitches were also restricted. Each instrument in Image 1 only plays the same note in two octaves. The materials of Image 2 were written based on a mode of only four pitches (see Example III-4), with no transpositions used. The pitches in the section Space do change, but they were determined by the notes of Image 1. For example, the G# (concert pitch) played by the first clarinet between bars 14 and 16 echos the G# two octaves lower played by the second bassoon in bar 14. If excluding the pitch bending on the flute, every appearance of section Space is only formed of a single pitch or the same pitch in multiple octaves. In addition, every pitch in each structural section has the same dynamic shape (see Table III-3 and the score). Furthermore, the materials are presented directly without transitions to enhance the unpolished feel of the music.

Example III-4. The mode used for creating Image 2 in *Eclipse*

Bass Drums	Image 1	Image 2	Space
fffff *p* >	*ff* sempre	*p* >	*pppp* sempre

Table III-3. The dynamic shapes assigned for different materials in *Eclipse*
(every appearance of the bass drums also has the same dynamic shape,
but the dynamic shape applied to the whole pattern rather than every single beat)

Another way to suggest a Gu-Pu aesthetic in *Eclipse* was to create a rough sound. For me, roughness is also a characteristic of the seemingly arbitrary expression of *xie-yi*. Thus, in *Eclipse*, the pursuit of roughness to suggest the Gu-Pu aesthetic merged with my idea connected with *xie-yi*.

Image 1 of *Eclipse* was composed of what I called Brushstrokes, which imitate the actual brushstrokes in a painting. Each Brushstroke contains three notes that start together but have different durations. For example, the three notes in bar 6 shown in Example III-5 form a Brushstroke, and the three notes in bar 9 form another one. In my concept, the three notes in a Brushstroke are catalogued as two segments - the longest note is considered the Tail, and two other notes form the Trunk (see Example III-6). The Trunk is analogous to the larger part of a heavy brushstroke in paintings, the part where the brush first touches the paper or silk and then extends with the remaining momentum. This part is forceful and carries more roughness than the Tail. In music, Trunk was interpreted as a dyad formed of the interval of a minor 9th, and was given to the brass instrument, for example, the notes played by two trumpets shown in Example III-5. The minor 9th was chosen because its dissonance matches the rough sound I wanted, while this large interval also covers a wide harmonic area. Together with the slightly distorted sound of brass instruments when play-ing loud, the minor 9th was enough to create the roughness I sought. In Trunk, the higher pitch has a larger note value than the lower one, which indicates the elongating tendency of this part in the real brushstroke. This tendency is continued by the other segment of a Brushstroke, the Tail.

Example III-5. Oboe 1 and trumpets 1&2 in bars 6 - 10 of *Eclipse*

Example III-6. Note values of a Brushstroke in *Eclipse*

In *Eclipse*, Tail doubles the higher pitch of the Trunk in unison and has the largest note value among the three notes in the Brushstroke, which suggests the extending trace of a brushstroke in painting. For me, the sound of the Tail, which corresponds to the extended part of an actual brushstroke, should be concentrated and defined, but less explosive. Accordingly, Tail was given to oboes and bassoons and is not played marcato or tenuto (oboe 1 plays the Tail in Example III-5). In *Eclipse*, Brushstroke note values change over time (see Example III-7) to echo different brushstrokes in paintings. In terms of the pitch, I created four transpositions (Example III-8) for the Brushstrokes, and Brushstrokes in the same transposition belong to one Group. A Group of Brushstrokes is always played by the same three instruments (see Table III-4 and Example III-1). In addition, a Brushstroke can be played in two octaves. However, the note values of that Brushstroke must remain unchanged in this case. When a Brushstroke is played in the higher octave, the Tail note has a slight pitch bend at the end of its value (see Example III-5), analogous to the lifting of the brush in actual paintings.

Example III-7. An example of the note value changes of Brushstrokes in *Eclipse*

Example III-8. The transpositions of Brushstrokes in Image 1 of *Eclipse*

Brushstrokes in Image 1			
Group 1	**Group 2**	**Group 3**	**Group 4**
Oboe 1	Oboe 2	Bassoon 1	Bassoon 2
Trumpet in C 1	Tenor Trombone 1	Horn in F 1	Tuba
Trumpet in C 2	Tenor Trombone 2	Horn in F 2	Bass Trombone

Table III-4. The groups of Brushstrokes in Image 1 of *Eclipse*
(the instruments order in this table is given based on their positions in the structure of the Brushstroke)

Regarding the placement of the Brushstrokes used for Image 1 in *Eclipse*, I employed the unpredictable approach developed in *Deserts*. That to say, in *Eclipse*, Image 1 has an overall shape, which analogous to an ink blot gradually dispersing (Figure III-3), and the Brushstrokes were positioned according to rigorously calculated procedures to create that shape. However, unlike in *Deserts*, where the schemes used for Layer I determined the note values, the Brushstrokes in *Eclipse* already have note value changes. Therefore, during composing *Eclipse*, I regarded the crotchets as coordinations to place materials (for example, the first beat in bar 1 is crotchet 1 and the first beat in bar 3 is crotchet 6), and the calculated procedures used for Image 1 locate Brushstrokes on specific crochet beats. The crotchet numbers shown in Example III-7 are counted in this way, and they indicate each Brushstroke's position in the score.

Figure III-3. The approximate position of all Brushstrokes in *Eclipse*
(each vertical line represents a Brushstroke; their register relationship is also given)

In the section Space in *Eclipse*, the pitch bending on the flute maximumly reaches a semi-tone, aiming to form a minor 2nd interval with the note on the clarinet. The minor 2nd corresponds to the minor 9th of Brushstrokes, which matches the rough sound I sought. Besides, the airy timbre of the flute also enhanced the rough feeling. Speaking of the overall structure, the section Space functions similar to the Background Fixed Lines in *Mountains*. If *Eclipse* is a 'handscroll painting,' then Space acts as the background, which is the handscroll itself and is therefore always presented, and part of the landscape in the 'painting.' Compared to the deep sound created by the 32' organ pipe in *Mountains*, the subdued Space in *Eclipse* is not audible behind the loud materials of Image 1. Therefore, technically Space only filled the gaps between Brushstrokes during Image 1 (bars 1 - 139) instead of sounding all the time.

The object depicted by Image 2 in *Eclipse* is an obscure sound hovering in the air. Although this image is abstract, it was informed by the idea of a delicate and solitary chant. Thus, the roughness recedes in Image 2. However, its materials are derived from Image 1 so as to integrate it into the tableau of *Eclipse*. The mode (Example III-4) used to create Im-

age 2 is transposed from the four upper pitches of the Brushstroke transpositions (Example III-8). The original materials of Image 2 were continuous melodies, but I broke them into disconnected single notes (see Example III-2) to correspond to the texture of Image 1. The single notes of Image 2 are designed to be analogous to the short and thin brush-lines in paintings. Therefore, by distributing them to different saxophones that have slightly different timbres, the aim was to suggest the nuance of certain brushwork.

Eclipse met my plan and expectations, although its atmospheric and spacious presentation of music was quite far from Wang Meng's *Dwelling in Qing-Bian Mountains*, which informed the initial idea for the piece. Following its completion, I looked for opportunities to create music that had very intense textures, more analogous to the brushwork in *Dwelling in Qing-Bian Mountains*. I also wanted to develop the Gu-Pu aesthetic of *Eclipse*. This intention was realised in my orchestral work *Ocean*.

Ocean

The orchestra, with its large number of performers and instruments, made it an ideal en-semble to create music with intense textures and an overwhelming sound, which was what I sought after completing *Eclipse*. In my compositional process, the visual image is essential to structure a piece and determine its overall expression. Thus, to concretise the specific texture and sound, I visualised a seascape of the primaeval earth four billion years ago, when ferocious seawater was the only substance covering the planet. This seascape informed *Ocean*. This piece was not the last completed but last conceived during my PhD research. Hence, I named it *Ocean* to echo the piece *Mountains* which initiated this research. In addition, I also aimed in *Ocean* to re-interpret the compositional approach used for *Mountains*. However, with regard to texture and expression, *Ocean* pursues the Gu-Pu aesthetic that developed later during my research.

Structurally, the primary concern in *Mountains* was integrating multiple perspectives;[38] the same applies to *Ocean*. However, the 'handscroll' *Mountains* depicts a series of land-scapes, and *Ocean* only aims to suggest a fleeting moment of the never-ending primaeval ocean. Thus, instead of rearranging different perspectives panoramically as I did in *Moun-tains*, I stacked them vertically, and formed 9 overlapping layers (see Figure III-4) to create the tableau that is *Ocean*. Each wedge shown in Figure III-4 represents a different perspect-
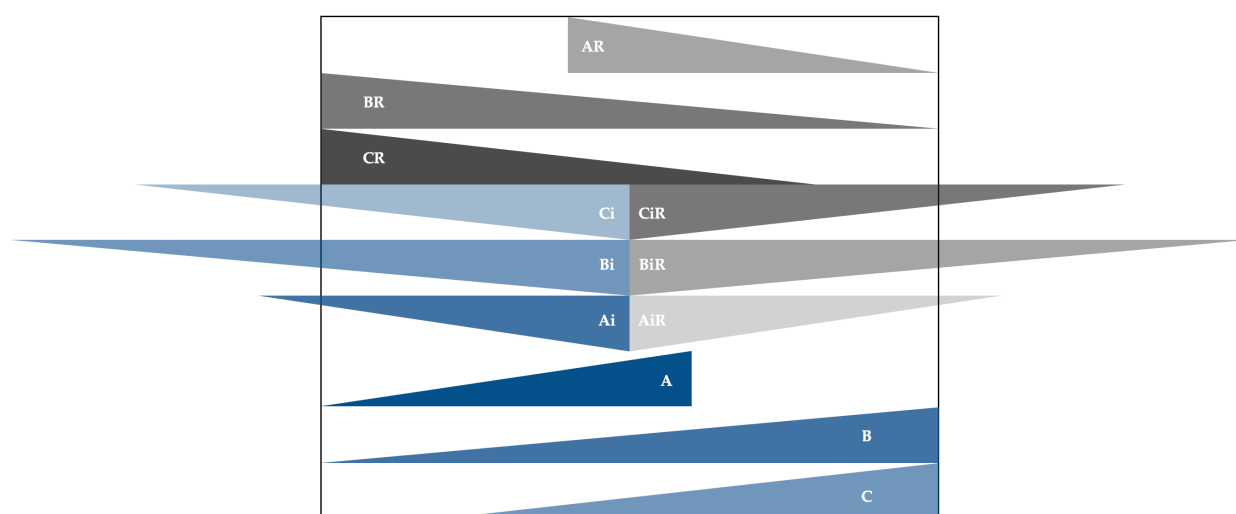
Figure III-4. The structure of *Ocean*
(this structure only gives an approximate spatial relation of the initial lines of the layers;
the completed music of *Ocean* is not stratified but blended)

---

[38] See '*Mountains*' on page 26 above.

ive, and each of the middle three layers is compounded by two perspectives. In addition, the duration of the whole piece was determined by 'perspective' B (or BR), and music that exceeded this duration was simply cropped. I conceived the tableau of *Ocean* containing three Images: Air Distortion, Water Vapour, Sea Waves. Each Image consists of multiple perspectives of that Image in different times and spaces (see Table III-5).

Image	Perspective	Bars
Air Distortion	AR	41 - 100
	BR	1 - 100
	CR	1 - 80
Water Vapour	Ci, CiR	outside - 50, 51 - outside
	Bi, BiR	
	Ai, AiR	
Sea Waves	A	1 - 60
	B	1 - 100
	C	21 - 100

Table III-5. The structural setting of *Ocean*

As in *Mountains*, the layers in *Ocean* were initially created as lines. I first created the line for perspective A. In order to create it, I designed multiple rules concerning note value augmentation and interval changes (see Example III-9), which were based on simulating the gradually expanding ocean waves. The intervals used were restricted to five: minor 2nd, major 2nd, tritone, minor 7th, major 7th, which were also used to form the parallel chords that were added later below the lines (the harmonies were actually determined be-

Example III-9. The line for perspective A in *Ocean* (T represents tritone)

fore creating the lines, and the specific intervals were chosen according to create a suitable sound in the music; see the paragraph below). Then, I devised a non-retrogradable number sequence to determine the duration of rests inserted between each bar of the line in Example III-9. Violin II in Example III-10 exemplifies a use of the completed line for perspective A. As with the landscape analogy in *Mountains* (see page 27 above), in *Ocean*, the line for A generated all the other lines, as if this sole source gives rise to the broader ocean and its derivatives. The line for B is a 5:3 durational augmentation of the line for A, and the line for C is a 4:3 durational augmentation of the line for A. The other lines were inverted[39] and retrograde[40] forms of the lines for A, B and C. These lines were transposed to various octaves (see Table III-6) to form 9 layers.

Example III-10. Violin II, Viola and Violoncello in bars 1 - 11 in *Ocean*

The next step in completing *Ocean* was similar to that used in *Mountains*. This involved adding parallel chords below the initial lines. In *Mountains*, the musical interpretation of a landscape's characteristics was embodied in the mode and the Free Lines so that the parallel chords aimed to expand the sound and smooth the musical flow. By contrast, in *Ocean*, a mode was not used, and all the perspectives have a similar contour. Therefore, the differ-

---

[39] Indicated by letter i in Figure III-4.

[40] Indicated by letter R in Figure III-4.

	Line Range
AR	D6 - E7
BR	D5 - E6
CR	D4 - E5
Ci, CiR	C5 - D6
Bi, BiR	C4 - D5
Ai, AiR	C3 - D4
A	D4 - E5
B	D3 - E4
C	D2 - E3

Table III-6. The ranges of lines in *Ocean*

ences of Images in *Ocean* were realised by other means, and harmony was one of those. When conceiving the piece, I associated each Image with a sound characteristic (see Table III-7). Therefore, in addition to enriching the sound, the parallel chords aim to embody these sound characteristics of the Images.

Image	Air Distortion	Water Vapour	Sea Waves
Sound Characteristic	Dense	Harsh	Broad

Table III-7. The sound characteristics of the Images (see Table III-5) in *Ocean*

In a large orchestra, the actual sound of the harmony can be affected by the orchestration. Therefore, in order to better understand the relationship of harmony and orchestration, I analysed bars 12 to 28 from movement III of Ralph Vaughan Williams's Symphony No. 5,[41] which has a sound suggesting a broad landscape to me, and movement V of Oliver Messiaen's *Et exspecto resurrectionem mortuorum*,[42] which has a sound texture similar to that I sought in *Ocean*. First, I reduced the scores (see Examples III-11 and III-12) in order to study the harmony. In addition, I did a detailed analysis of the orchestration[43] of Messiaen's *Et j'entendis la voix d'une foule immense…* (see Table III-8). These studies inspired the orchestration and harmony in *Ocean*. For example, some chords played by strings were

[41] Ralph Vaughan Williams. *Symphony No. 5 in D major* (score). Oxford University Press, 1946.

[42] Oliver Messiaen. *Et Exspecto Resurrectionem Mortuorum* (score). Leduc, 1966.

[43] The orchestration of the selected section from Williams's Symphony No. 5 is clear by the score reduction because that section only consists of strings.

formed of large intervals, which was partially influenced by the harmony of the analysed section from Vaughan Williams's Symphony No.5. The blend of wind instruments in Messiaen's *Et j'entendis la voix d'une foule immense…* informed the texture writing and orchestration in *Ocean*.

Example III-11. My reduction of bar 12 - 28 from Ralph Vaughan Williams's Symphony No. 5 - *III. Romanza*

Example III-12. An excerpt of my piano reduction of
Oliver Messiaen's *Et exspecto resurrectionem mortuorum - V. Et j'entendis la voix d'une foule immense…*, bar 1 - 12

To further enhance the differences of the perspectives in *Ocean*, I created separate parallel chords (see Table III-9) for the perspectives that formed the Air Distortion and Sea Waves (see Table III-5). Excepting octaves, all parallel chords in the piece were created using the five intervals: minor 2nd, major 2nd, tritone, minor 7th, major 7th. I selected these intervals because they can create a 'rough' sound that corresponds to the Gu-Pu aesthetic I sought, and their harmonic colours match the Images' sound characteristics in *Ocean*.

	enhanced A1							
bar	9	10	11	12	13	14	15	16
meter	2/8	4/8	2/8	6/8	6/8	4/8	2/8	2/8
core line	G	Db	A	C-G#-E	D-G-C	Db	G	Db
woodwinds	flutes, oboes, clarinets emphasise the cadence on top; bass clarinet, 2&3 bassoons emphasise it on the bottom; from a relatively dense harmony to an open one (but with a cluster on the bottom)		fill the core line frame with dense harmonies; stacking intervals among each catalogue are vary; flutes take the upper core line, and have more notes at highest part; bassoons take lower core line; piccolo only doubles the flutes at highest part of the core line; the harmonies of middle section are similar in shape of a dense sound wall				flutes, oboes, clarinets emphasis the cadence on top; bass clarinet, 2&3 bassoons emphasise it on the bottom; from a relatively dense harmony to an open one (but with a cluster at the bottom)	
brasses	trumpets and the trombones form the core line frame; trumpets take the upper core line (an octave lower than the woodwinds), they start with an individual trumpet, then adding the others to create sonority without change the dynamic, and then do the reverse way to fade out; trombones take the bottom core lines, single trombone plays the cadence, the other two play the middle section; horns fill the frame with dense notes, some notes exceed the upper line of the trumpet but not the highest line of the woodwinds; the harmonies of the cadence are in a radiated shape; the harmonies of the middle section are shrinking							
cowbells	(*p*) F# / G# (*p*) G / A (*p*) Ab / Bb							
gongs	4	6	5	3-1-2	3-5-4	6	4	6

Table III-8. An excerpt of my orchestration analysis of
Oliver Messiaen's *Et exspecto resurrectionem mortuorum - V. Et j'entendis la voix d'une foule immense…*

A	B	C	AR	BR	CR	Ai	Bi	Ci	AiR	BiR	CiR
•	•	•	•	•	•				•		
m9	M7	M7	M7	8	8				T		
•	•	•	•	•	•				•		
m9	M9	M7	m2	m2	M2				T		
•	•	•	•	•	•				•		
			M7	8	8				T		
			•	•	•				•		

Table III-9. The parallel harmonies of the layers in *Ocean*
(black dots indicate the note)

Associating separate harmonies with different perspectives in *Ocean* was based on the approach to the hierarchy I had employed in my previous pieces. This also motivated the initial orchestration of *Ocean*: the materials of perspectives A, B, C and AR are all given to the strings, and the materials of perspective BR and CR are all assigned to the brass instruments while the woodwind instruments take the materials of the rest perspectives (see Table III-10). This orchestration was based on matching the Images in the piece and the timbres of different instrumental families to raise the Images' difference. For example, I

chose the strings to play the materials of perspectives A, B and C, which formed the image of Sea Waves, was because the massive sound of a string orchestra suggests in my mind the sound of the clashing waves. However, retaining the same materials for a fixed group of instruments throughout the piece stresses the music's stratified feeling, which partly contradicted my desire to create a tableau with blended images. Therefore, hierarchy in structure was not strictly enforced in *Ocean*. In the completed piece, the materials initially given to strings were mostly reserved for them, while other materials were ultimately distributed to all instruments (see Table III-10).

	Initial Assignment	Actual Assignment
AR	Strings	Violin I
BR	Brasses	Distributed to all instruments
CR		
Ci, CiR	Woodwinds	
Bi, BiR		
Ai, AiR		
A	Strings	Violin II Viola Violoncello
B		Viola Violoncello Contrabassoon
C		Violoncello Contrabass Contrabassoon

Table III-10. The instrument assignments in *Ocean*

Another aspect of creating a tableau of blended images in *Ocean* related to the use of texture. In general, there are two types of texture in the piece. The first one is the lines played by the strings (see Example III-10); the other is the texture formed of separated single notes and short phrases, which is played by the wind instruments (see Example III-13). Both textures were derived from the original lines (see page 73 above and Example III-9). The lines on the strings were preserved, whereas the lines on the wind instruments were broken into fragments to create an unpredictable-sounding, brushwork-like texture, which I had first pursued in *Eclipse*. However, compared to the texture composed of separated single notes in *Eclipse*, short phrases were also employed along with single notes in *Ocean* to shape an uneven texture which aimed to enhance the music's unpolished feeling. In order to increase diversity for the textures, I devised a table (Table III-11) to create

Example III-13. The wind instruments in bars 1 - 3 of *Ocean* (transposed pitch)

different note articulations - the materials' dynamic levels decide their specific note articulations. For example, a note played piano by a brass instrument should also be played tenuto (see Example III-13). This approach exemplifies another use of hierarchy in my composition, which differs from the hierarchy in structure employed in other pieces like *Eclipse*. The notes played fortissimo can choose the articulation from either column that aligned below the fortissimo mark in Table III-11. This was done subjectively, and aimed to create some non-mathematical materials in the music.

Dynamic level	*ffff*	*fff*	*ff*	*f*	*mf*	*mp*	*p*	*pp*
Articulations of Woodwind	Tenuto Downward pitch bending on interval: m2 (1st flute, oboe, clarinet, bassoon only)		Accent			Downward pitch bending on interval: m2 (1st flute, oboe, clarinet, bassoon only)		
Articulations of Brass	Accent Downward pitch bending on interval: m2, M2		Downward pitch bending on interval: m2, M2			Tenuto		
Articulations of String	Diminuendo Tenuto		Diminuendo Tenuto Downward pitch bending on interval: m2, M2, m7, M7			Diminuendo Tenuto Sul tasto Downward pitch bending on interval: m2, M2, m7, M7		

Table III-11. The assignment of note articulations in *Ocean*

While finishing *Ocean*, I realised that the strings and woodwinds were too weak in loud sections compared to the brass instruments. I therefore raised the dynamic levels of the strings and woodwind in those sections. In rehearsals, I learnt that this solution worked for woodwind but not for all string materials. The materials of A, B and C did not meet my expectation by merely increasing the volume. In *Ocean*, these materials cover a wide range, mostly in the middle to low registers, and the Sea Waves music they were designed to create ought to be heavier. In practice, the sound created by them was overshadowed by the sound of wind instruments in the loud sections.

After reflection, I realised one of the reasons for the weaker sound of the strings in *Ocean* was the chord structures. In addition to constructing richer chords, a more balanced blend of strings and other instruments is also important in obtaining a fuller sound. This was addressed in *Plateau*, which is written for solo tenor, choir and eight instruments. I started composing *Plateau* before conceiving *Ocean*. After the premiere of *Ocean*, I recomposed all instrumental materials in *Plateau* based on my experience of hearing *Ocean*.

Plateau

In *Eclipse*, the music is designed to suggest heavy brushstrokes in paintings. In *Ocean*, materials overlap to evoke turbulent images. Both pieces are aggressive and involve loud music. Indeed, the loudness enhances the distortion of the instrumental sound, especially with wind instruments, such that the sound's roughness resonates with the Gu-Pu aesthetic I sought. However, intense expression is not the only way to embody this roughness, nor the sole facet of the Gu-Pu sound I desired. *Plateau* composed for solo tenor, choir and eight instruments was conceived to suggest the Gu-Pu with gentler music.

As mentioned in previous subchapters, what I call a Gu-Pu aesthetic is realised through the use of limited materials and a rough feeling to the music. The limited materials establish the precepts regulating the compositional process, which does not vary from piece to piece.[44] Another aspect of the Gu-Pu aesthetic, a rough feeling to the music, was explored further in *Plateau*. From previous developments, I realised that the roughness I sought in music is essentially a sound involving uneven textures and dissonant harmony. Therefore, loudness is not necessary, but it can amplify these features. When a group of singers perform together, their timbres create slightly uneven textures, and such textures suit the soft roughness I wanted in *Plateau*. This informed my decision to employ a choir in the piece. However, in *Plateau* the voices are primarily employed for their sonic possibilities, and no text is used. In addition, one reason for adding instruments to the ensemble also reflects this concern for a certain quality of sound (see page 88 below).

Although there are five movements in *Plateau*, these were not conceived in the traditional manner of a multiple-movement work. The movements are divided into two categories. The first contains Movements I, II, IV, and V, which are composed using similar structural sections (see Figure III-5, Tables III-12, III-13 and related Examples). This approach aimed to make these four movements like a series of paintings that appear similar but are different in terms of details. These movements embody what I feel is a musical soft roughness (see page 86 below). Movement III alone stands for another category because it has music that contrasts strongly with that of the other four movements (see page 90 be-

---

[44] Since this approach in *Plateau* practised is the same as that in *Eclipse* and *Ocean*, further discussion of it is unnecessary.
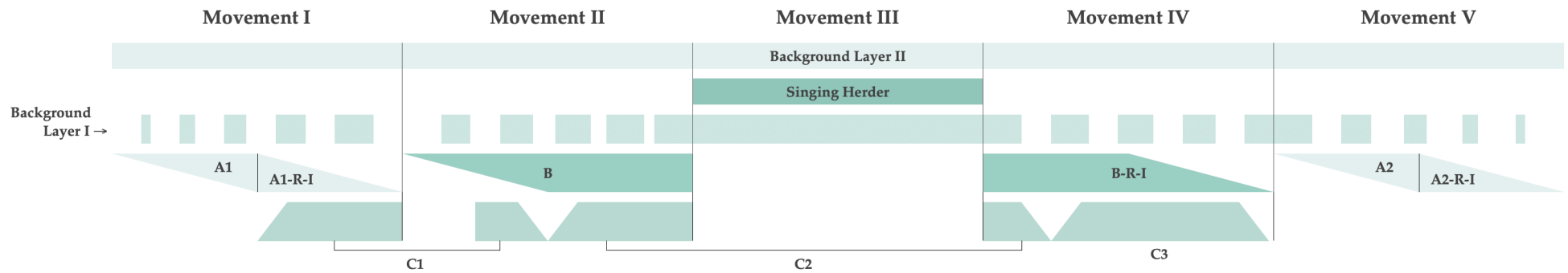
Figure III-5. The structure of *Plateau*
(the shapes gives approximate position of the structural sections in the score, but do not indicate the exact registers;
the letter I stands for inversion, and the letter R stands for retrograde; these transformations apply to the whole section)

Movement I		Movement II		Movement III	Movement IV		Movement V	
A1 (bars 1 - 40)	A1-R-I (bars 41 - 80)	B (bars 1 - 80)			B-R-I (bars 1 - 80)		A2 (bars 1 - 40)	A2-R-I (bars 41 - 80)
	the part of C1 (bars 43 - 80)	the rest of C1 (bars 21 - 38)	the part of C2 (43 - 78)	Singing Herder	the rest of C2 (bars 1 - 18)	C3 (bars 23 - 78)		
Background Layer I (appears in every movement)								
Background Layer II (appears in every movement)								

Table III-12. Details of the structure of *Plateau*

Structural section	Material	Assignment
A1, A1-R-I, A2, A2-R-I (see Example III-14)	soft brushwork-like texture	Woodwinds & String
B, B-R-I (see Example III-15)	soft brushwork-like texture with occasional accents	Woodwinds & String
C1, C2, C3 (see Example III-16)	slightly louder brushwork-like texture	Choir Group I
Background Layer I (see Example III-17)	sustaining chord composed of long notes; as a background drone in Movement III; as an intermittent humming in the other Movements	Choir Group II
Background Layer II (see Example III-18)	fragmented notes; played with bows	Idiophones
Singing Herder (see Example III-19)	melody; heterophonic texture	Solo Tenor & Violoncellos

Table III-13. Details of the structural sections in *Plateau*

Example III-14. An example of section A1 in Movement I of *Plateau*, bars 29 - 34 (transposed pitch)

Example III-15. An example of section B in Movement II of *Plateau*, bars 32 - 37 (transposed pitch)

Example III-16. An example of section C1 in Movement I of *Plateau*, bars 43 - 48

Example III-17. An example of the Background Layer I in Movement I of *Plateau*, bars 8 -13

Example III-18. An example of the Background Layer II in Movement I of *Plateau*, bars 16 - 20

Example III-19. An example of the Singing Herder in Movement III of *Plateau*, bars 22 - 27

low), and it was placed in the middle of the piece to establish a structural symmetry. In terms of the overall structure, I aimed to integrate all the movements into a large concatenation. One way of realising this goal was to disperse the sections. For example, section C1 (see the paragraph below) was split and distributed among Movements I and II (see Figure III-5). In addition, I created two Background Layers that exist in every movement to maintain a consistent ambience. Background Layer I is performed by Choir Group II (the

85

choir is divided into two groups; see Examples III-16, III-17 and the score), and its harmony only consists of a major 7th dyad over two octaves (see Example III-17) which remains unchanged throughout. Background Layer II is played by the idiophones, and its material was derived from the Singing Herder in Movement III (see page 90 below). I augmented the Singing Herder music's duration by a factor of five and then distributed it in various octaves among the bowed idiophones. By this means, the melody of the Singing Herder is actually present throughout the entire piece.

In *Plateau*, one way in which roughness is created in sections C1, C2 and C3, sung by Choir Group I, involves a brushwork-like texture (see Example III-16), which has a certain unevenness. This brushwork-like texture in the voices, as well as the similar texture in the instruments in Movements I, II, IV and V (see Examples III-14 and III-15), were inspired by *xie-yi* as developed in previous pieces like *Eclipse* and *Ocean*. The basic pitches for this texture were derived by adding diatonic pitches to the major 7th (see Example III-20) that used in the Background Layer I, and the placement of notes is determined in a rigorous manner (see Table III-14) to suggest an organised imprecision. Another rough vocal texture was created in sections C1, C2 and C3 with the use of sung breathy sounds. This is notated with cross-head notes (see Example III-16). Sections C1, C2 and C3 all have the same pitch material, and any differences between them are created by the way the breathy sounds are used. Specifically, all notes in C1 are sung with a breathy sound; in C2, the notes gradually transition from breathy sound to normal sound, and C3 is the reverse of C2. In addition, all notes in C1, C2 and C3 are sung with the vowel "a," while all notes in Background Layer I are sung with the consonant "m" which creates a timbre that differs from the sound of Group I. Therefore, the compound of the two timbres can also raise a certain unevenness of the texture.
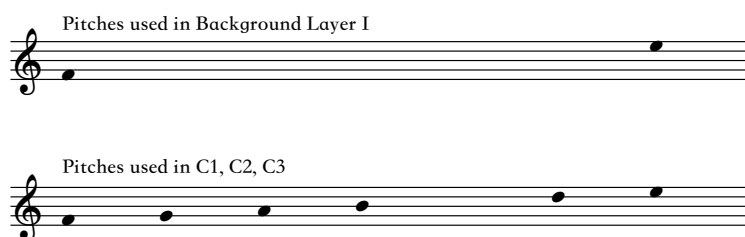
Example III-20. The pitches used in the Background Layer I and sections C1, C2 and C3 in *Plateau*

					[F]	11.625	**5.625**	10.875	**6.375**	10.125	**7.125**	9.375	**7.875**	8.625	**8.625**	3.75	3.75	**8.625**	8.625	**7.875**	9.375	**7.125**	10.125	**6.375**	10.875	**5.625**	11.625							
				[G]	10.5	**4.5**	9.75	**5.25**	9	**6**	8.25	**6.75**	7.5	**7.5**	6.75	**8.25**	**8.25**	6.75	**7.5**	7.5	**6.75**	8.25	**6**	9	**5.25**	9.75	**4.5**	10.5				
			[B]	10.125	**4.125**	9.375	**4.875**	8.625	**5.625**	7.875	**6.375**	7.125	**7.125**	6.375	**7.875**	4.5	**4.5**	**7.875**	6.375	**7.125**	7.125	**6.375**	7.875	**5.625**	8.625	**4.875**	9.375	**4.125**	10.125			
		[D]	9	**3**	8.25	**3.75**	7.5	**4.5**	6.75	**5.25**	6	**6**	5.25	**6.75**	5.25	**7.5**	5.25	5.25	**7.5**	5.25	**6.75**	5.25	**6**	6	**5.25**	6.75	**4.5**	7.5	**3.75**	8.25	**3**	9	
	[A]	8.625	**2.625**	7.875	**3.375**	7.125	**4.125**	6.375	**4.875**	5.625	**5.625**	4.875	**6.375**	4.875	**7.125**	4.875	**5.625**	5.625	**4.875**	7.125	**4.875**	6.375	**4.875**	5.625	5.625	**4.875**	7.125	**4.125**	7.125	**3.375**	7.875	**2.625**	8.625
[E]	7.5	**1.5**	6.75	**2.25**	6	**3**	5.25	**3.75**	4.5	**4.5**	3.75	**5.25**	3.75	**6**	3.75	**6.75**	3.75	**7.5**	3.75	**0.75**	**0.75**	3.75	**7.5**	3.75	**6.75**	3.75	**6**	3.75	**5.25**	3.75	**4.5**	4.5	**3.75**	**5.25**	**3**	6	**2.25**	6.75	**1.5**	7.5

Table III-14. The scheme for section C in *Plateau*
(the note name is in the front of each row; the register is not given because it is not fixed.
the numbers in bold are the note values, and the regular numbers are the rest values; all in crotchet.
this scheme was used for sketching C1, C2 and C3; it might not be recognisable in the score since the materials in the completed version of *Plateau* were adjusted)

Plateau was initially planned as a piece for voices only. Typically, the choir needs a starting pitch to perform a piece. For *Plateau*, an extra note played outside of the music does not suit the presentation I sought. Hence, one reason for using instruments was to aid the choir with pitching. In *Plateau*, the instrumental materials are designed to suggest fluctuating mist-like images. This idea determined the choice of instruments for the piece. Instruments that can produce a delicate, light timbre are preferred, and their number is limited in order to reduce the music's overall heaviness. Accordingly, I selected specific lower-range woodwind instruments and strings, which are alto flute, cor anglais, bass clarinet, contrabassoon, violoncello and contrabass. Brass instruments were not used since their timbre did not suit the music of *Plateau*. Instead, the floating metallic sounds created by bowed crotales and vibraphone were added to the work's timbral palette.

Luciano Berio said of his work *Coro* (1976):

> "The particular distribution of voices and instruments on the stage - where each individual chorus member is seated next to an instrumentalist - is intended to reinforce acoustically and visually the wide range of interactions between voices and instruments."[45]

Inspired by this, I also aimed to achieve a timbral mix between human voices and instruments in *Plateau*. As a result, the ensemble for *Plateau* has a specific seating plan (Figure III-6). Since the instruments in *Plateau* are limited in number, I paired each choral group with two instruments placed in front of them (see page 90 below for the reason of the particular placement of the solo tenor). In addition, the vibraphone and crotales are placed on each side of the choral groups. With this layout, I aimed to create a wall of
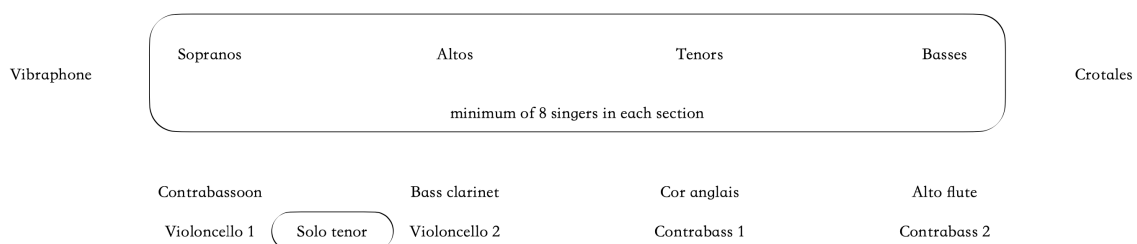

Figure III-6. The ensemble seating plan of *Plateau*

---

[45] Luciano Berio. *Coro (author's note). CENTRO STUDI LUCIANO BERIO,* http://www.lucianoberio.org/coro-authors-note?1011856635=1. Accessed 11 June 2021.

sound encircling the choir, which accumulates additional timbres to that of the voices when the choir's sound traverses the sound wall.

In Movements I, II, IV and V of *Plateau*, the instrumental materials were blended using different instruments so as to avoid weak registers caused by unbalanced orchestration, which was experienced in *Ocean*. Furthermore, to obtain what I thought of as a 'lighter' string sound, the string material is played as harmonics[46] whenever possible. Compositionally, the materials of instrumental sections A1, A1-R-I, A2, A2-R-I, B, B-R-I were also placed in a rigorous manner, similar to the sections C1, C2 and C3 (see page 86 above). The pitch materials in these sections were derived from collections devised for each of them (see Example III-21). From Movement I to V, excluding Movement III, the pitch collections' harmony becomes increasingly consonant as their pitch density and range increase. The


Example III-21. The pitches used in sections A1, A1-R-I, A2, A2-R-I, B and B-R-I in *Plateau*
(the pitches are fixed; on occasion, their octave was adjust for practical reasons)

---

46 Both natural harmonic and artificial harmonic were used.

aim is to maintain a sonic roughness either through dissonant harmony or denser textures. These pitch collections were derived by stacking perfect fifths on either side of the major 7th, which is the interval echoing the dyad of Background Layer I.

The Singing Herder music, which is the focal point of Movement III in *Plateau*, was composed in the style of Mongolian *urtiin duu* (literally *long song*). In general, a *urtiin duu* has phrases comprised of long sustained notes and is performed either by a solo singer or accompanied by the *morin khuur*.[47] If used, the *morin khuur* provides a drone and counterpoint to the singer's melody. In Movement III of *Plateau*, the music of Background Layer I provides the drone. Over the drone, the *long song* is performed by a solo tenor and two violoncellos together, which sit close to each other (see Figure III-6). Since I wanted it to be a plain melody without accompaniment, there is no counterpoint. The violoncellos were therefore not used to imitate the *morin khuur*, but to fulfil other requirements. In addition to doubling the solo tenor with a heterophonic texture, the violoncellos can also reach the high pitches inaccessible to the tenor. The Singing Herder's melody was written using playing techniques and phrasing from traditional *urtiin duu*, such as the rapid wide vibrato and long sustained notes (see Example III-19). However, the mode used (Example III-22) does not relate to the traditional *urtiin duu*. This mode looks like an F Lydian, but its pitches were derived by completing a diatonic scale based on the major 7th dyad used in Background Layer I, similar to obtaining the pitches for sections C1, C2 and C3 (see Example III-20). Therefore, the Singing Herder's melody was not intentionally written based on the character of the Lydian mode and the tonality of F. Rather, it was improvised according to the emotions that inspired *Plateau* (see paragraph below). By writing a *urtiin duu* style melody with a mode that sounds unlike Mongolian folk music, I aimed to suggest a broader cultural context, not limited to the nomads indigenous to the Mongolian Plateau. This was also the reason for not giving the solo tenor a specific text.
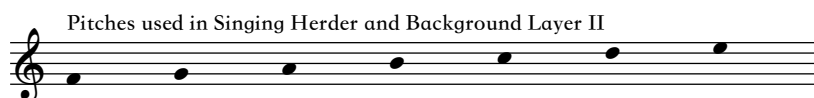
Example III-22. The pitches used in the Singing Herder and Background Layer II in *Plateau*

---

[47] *Morin khuur* is a Mongolian bowed string instrument.

The broader cultural context relates to a visit I made to the highlands in Armenia in April 2019, when conceiving the piece. The atmosphere of the remote highlands reminded me of similar landscapes I had visited in northwest China. The desolation in those expanses made me think of the harshness and loneliness encountered by ancient nomads, such as the Scythians and Huns, who roamed across the vast Great Steppe. These feelings and the bleak scenery merged into abstract images in my mind, which inspired Movements I, II, IV and V of *Plateau*. The Singing Herder in Movement III also aimed to convey these feelings, but from the herder's perspective, and its musical expression is more traditional, in that creating the folk-like Singing Herder melody was my attempt to echo the ancient nomads with a style informed by their musics.

Conclusion

The six works of different instrumentation proposed prior to my PhD (see page 17) were successfully completed, together with an additional work for solo piano.

One of my research questions was to integrate the aesthetic characteristics from art forms such as Chinese painting and Chinese classical poetry into my music. Although *Mountains*, *Mirages* and *Eclipse* are the pieces directly related to specific non-musical sources, the compositional approaches developed in these pieces were employed and further researched in all other pieces completed during my PhD. The manner of creating structure and the brushwork-like texture developed from this research were essential in terms of establishing my own compositional voice.

Another research area, the employment of the theoretical precepts of traditional and ethnic musics in my own music, was realised in pieces of *Mirages*, *Kashgar* and *Plateau*. During my PhD research, I visited Xinjiang in China, and also Armenia and Turkey. Some of the musics I experienced during those trips inspired materials I used in my pieces. The more I travel, the more I learn about the correlation of musics across the hinterland of Asia. These musics largely influence my works, chiefly in respect of mode and melody. My future compositional development will involve continuing trips to Asia and studying regional musics. However, this is restricted for multiple practical reasons, including the current global pandemic. Accordingly, I am primarily studying scores, such as the *Uyghur Twelve Muqam Suites*, supplemented by online video and musical resources. I returned to China in April 2021, and plan to conduct more research through visits to northwest China, as in addition to the diverse regional musics, such as those of Uyghurs, the landscapes and historical background of that area are a major source of inspiration for my work.

In *Ocean*, an issue regarding instrumental balance arose. However, since the piece was the only orchestral work completed and the last one conceived during this research, I did not have the opportunity to experiment with possible solutions in another orchestral piece. In my opinion, a work that has been premiered can be amended, but not fundamentally changed, as this would create a different piece. I therefore did not recompose *Ocean*, but I will learn from the experience if an appropriate opportunity arises in the future.

When reviewing the works I completed during my PhD, I have realised that all except *Deserts*, are for large ensembles or the organ. Although the organ is played by a solo performer, its sound sources are various, and it can achieve a 'symphonic' sound and a range of timbres like a large ensemble. These features of the organ and large ensembles are appropriate when composing large-scale pieces that relate to a broad framework of time and space viewed from multiple perspectives. While developing *Deserts*, I found that realising these musical aims on the piano was restricted. Therefore, one of my future projects will meld exploring how to interpret large-scale subject matter with writing for smaller ensembles or solo instruments.

Bibliography

This list includes all the scores and books that influenced my PhD research besides those cited in the commentary.

Scores

Berio, Luciano. *Coro: per Voci e Strumenti (1976)*. Ricordi, 1976.

Berio, Luciano. *Sinfonia: for Eight Voices and Orchestra (1968)*. Universal, 1972.

Birtwistle, Harrison. *Grimethorpe Aria: for Brass Band (1973)*. Universal, 1973.

Britten, Benjamin. *Four Sea Interludes: from the Opera "Peter Grimes", Op. 33a*. Boosey & Hawkes, 1945.

Carter, Elliott. *String Quartet No. 1 (1951)*. Associated Music, 1956.

Chou, Wen-Chung. *YÜ KO: for Violin, Wind Instruments, Piano, and Percussion (1965)*. Edition Peters, 1968.

Chou, Wen-Chung. *Ode to Eternal Pine: for Flute, Clarinet, Violin, Cello, Percussion and Piano (2009)*. Edition Peters, 2009.

Debussy, Claude. *1er Livre de Préludes*. Original ed., United Music Publishers.

Dupré, Marcel. *Suite Bretonne, Op. 21: pour Grand Orgue*. Leduc, 1924.

Dupré, Marcel. *Symphonie-Passion: pour Grand Orgue, Op. 23*. Leduc, 1925.

Ligeti, György. *Lontano: für Grosses Orchester (1967)*. Schott, 1969.

Ligeti, György. *Lux aeterna: für Sechzehnstimmigen Gemischten Chor A Cappella (1966)*. Edition Peters, 1968.

Ligeti, György. *Melodien: für Orchester (1971)*. Schott, 1973.

McCabe, John. *Cloudcatcher Fells: for Brass Band (1985)*. 2nd ed., Studio Music, 1995.

Messiaen, Olivier. *Chronochromie: pour Grand Orchestre (1960)*. Leduc, 1963.

Messiaen, Olivier. *Éclairs Sur L'au-Delà: pour Grande Orchestre (1991)*. Leduc, 1998.

Messiaen, Olivier. *L'Ascension: Quatre Méditations Symphoniques pour Orgue (1934)*. Leduc, 1934.

Messiaen, Olivier. *La Nativité Du Seigneur: Neuf Méditations pour Orgue (1935)*. Leduc, 1936.

Messiaen, Olivier. *Et Exspecto Resurrectionem Mortuorum: pour Orchestre de Bois, Cuivres, et Percussions Métalliques (1964)*. Leduc, 1966.

Strauss, Richard. *Eine Alpensinfonie: Op. 64*. Leukart, 1915.

Takemitsu, Tōru. *Star-Isle: for Orchestra (1982)*. Schott, 1987.

Vaughan Williams, Ralph. *Symphony No. 5 in D Major*. Oxford University Press, 1946.

Books

Adler, Samuel. *The Study Of Orchestration*. 3rd ed., W. W. Norton, 2002.

Aydemir, Murat. *Turkish Music Makam Guide*. Edited and translated by Erman Dirikcan. Pan Yayıncılık, 2010.

Blatter, Alfred. *Instrumentation and Orchestration*. 2nd ed., Wadsworth/Thomson Learning, 1997.

高文, 丁紀園 [Gao, Wen, and Ding Ji-Yuan]. 白石道人歌曲譯譜新註 *[New Annotation of The Lyric Poems by Baishi Daoren]*. Henan University Press, 2016.

Grousset, René. *The Empire of The Steppes - A History of Central Asia*. Translated by Naomi Walford. Ruthers University Press, 2010.

林謙三 [Hayashi, Kenzo]. 东亚乐器考 *[Musical Instruments of East Asia]*. Chinese ed,. Translated by 钱稻孙 [Qian, Dao-Sun]. Annotated by 曾维德, 张思睿 [Zeng, Wei-De, and Zhang Si-Rui]. Shanghai Bookstore Publishing House, 2013.

Hurford, Peter. *Making Music on the Organ.* Oxford University Press, 1988.

Klotz, Hans. *The Organ Handbook.* Translated by Gerhard Krapf. Concordia, 1969.

Lai, Erci C. *The Music of Chou Wen-chung.* Routledge, 2016.

Messiaen, Oliver. *The Technique of My Musical Language.* Translated by John Satterfield. Leduc, 1966.

Mikosch, Thomas. *Makamlar: The Musical Scales of Turkey*. (Lulu Press, 2017)

彭定求, 沈三曾, 楊中訥, 汪士鋐, 汪繹, 俞梅, 徐樹本, 車鼎晉, 潘從律, 查嗣瑮 [Peng, Ding-Qiu, Shen San-Ceng, Yang Zhong-Ne, Wang Shi-Hong, Wang Yi, Yu Mei, Xu Shu-Ben, Che Ding-Jin, Pan Cong-Lu and Zha Si-li]. 全唐詩 *[Complete Tang Poems]*. Commissioned by Kangxi Emperor, 1705. Zhonghua Book Company, 2017.

任半塘 [Ren, Ban-Tang]. 教坊記箋訂 *[The Notes of Jiao Fang Ji]*. Zhonghua Book Company, 2015.

Signell, Karl L. *Makam: Modal Practice in Turkish Art Music.* Usul Editions, 2008.

新疆維吾爾自治區十二木卡姆研究學會, 新疆維吾爾自治區文化廳 [Twelve Muqam Research Institute of Xinjiang Uygur Autonomous Region, Department of Culture of Xinjiang Uygur Autonomous Region]. ئۇيغۇر ئون ئىككى مۇقامى *[Uighur Twelve Muqam]*. Xinjiang People's Publishing House, 1994.

许渊冲 [Xu, Yuan-Chong]. 李白诗选 *[Selected Poems of Li Bai]*. Hebei People's Publishing House, 2005.

Yang, Xin, Richard M. Barnhart, Nie Chong-Zheng, James Cahill, Lang Shao-Jun and Wu Hung. *Three Thousand Years of Chinese Painting*. Yale University and Foreign Language Press, 1997.

Zhang, Hong-Xing. *Masterpieces of Chinese Painting: 700 - 1900.* V&A Publishing, 2013.

赵晓楠 [Zhao, Xiao-Nan]. 工尺谱常识与视唱 *[Basis and Sight-reading of The Gongche Notation]*. People's Music Publishing House, 2014.

Online resources

Mattis, Olivia. "Varèse's Multimedia Conception of 'Déserts.'" *The Musical Quarterly*, vol. 76, no. 4, 1992, pp. 557–583. *JSTOR*, www.jstor.org/stable/742477. Accessed 7 June 2021.

Berio, Luciano. *Coro (author's note). CENTRO STUDI LUCIANO BERIO,* http://www.lucianoberio.org/coro-authors-note?1011856635=1. Accessed 11 June 2021.