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Travels with Alex

Music for viola obbligato and various ensembles

Richard George Bolley

submitted in part-fulfilment of the requirements for the
Degree of Doctor of Philosophy, 2019.
Goldsmiths, University of London

Declaration

I hereby declare that the work presented in this commentary and the portfolio of compositions which it accompanies is entirely my own. Where I have consulted the work of others, this is always clearly stated.

(RICHARD GEORGE BOLLEY)

Dedication

**Celebrating Alexandra David-Néel (1868-1969)
on the 150th anniversary of her birth,
and remembering another great traveller,
Fiona McLean (1952-2011),
who gave me the Green Tārā shown in the frontispiece**

Acknowledgments

I am indebted, for encouragement and example, to early teachers:

Richard Orton, at the University of York, who saw to the heart of things, and John Lambert, at the Royal College of Music, for his emphasis on ‘craft’, his exhortation to train the inner ear, the creative explorations provided by his improvisation group and his own deft — although, sadly, infrequently performed — compositions.

Jonathan Harvey has long been an exemplar of a composer of the highest musical, intellectual and spiritual integrity, even though I was only able to study with him for a short while. Jane Wells did so for considerably longer, and our friendship and support as musicians endures.

In New Zealand, John Rimmer and John Elmsly took turns as highly adept Composition tutors for my Master of Music Degree at the University of Auckland and my friend and fellow composer Eve de Castro-Robinson has also always been an encouraging exemplification of creative enthusiasm and originality.

Lastly, at Goldsmiths, University of London, thanks are due to Keith Potter for encouraging me to undertake a PhD in the first place, to Francis Silkstone who wholeheartedly engaged with the otherwise lonely early stages of my project whilst an AHRC Postdoctoral Fellow there, and to Roger Redgate, my principal supervisor. Roger skilfully mentored me through what was — for various reasons — a rather extended PhD registration, and was also gracious enough to conduct the two pieces blending the monk musicians with Western chamber ensembles in the ‘Mantras and Mandalas’ event.

Financial support at various stages since completion of my Master’s degree is gratefully acknowledged: from the New Zealand Vice-Chancellors’ Committee (for the award of a Claude McCarthy Fellowship), the University of Auckland (for initial postgraduate research funding) and Goldsmiths, University of London (for assistance with tuition fees via a staff bursary).

I would also like to thank my colleagues in the Department of English & Comparative Literature at Goldsmiths — particularly successive Heads of Department, with whom I worked as Department Business Manager — for their ongoing support and encouragement.

And, of course, to the many friends and family members who have sustained an interest in my travelling with Alex, including those who supported the 'Mantras and Mandalas' event at which several of the *Travels with Alex* were unveiled.

Sadhu!

Richard Bolley
London, March 2019

Abstract

Travels with Alex is a cycle of nine pieces for viola obbligato and various combinations drawn from an ensemble of 24 musicians (including two performers on Tibetan instruments). Ideally these compositions are to be played as a complete cycle, given the use of a large-scale durational interval succession to derive the relative durations of the individual pieces and sections within them. However, performance individually or in smaller combinations is also possible. The initial inspirations were twofold: the gift to the composer of a Tibetan *thangka*, and the travel writings of the French Buddhist, Alexandra David-Néel (1868-1969). Musically speaking, the cycle explores a range of methods, serial and otherwise, for ‘composing out’ from small, modal, mantric motifs. In Buddhist traditions, these and others like them have been used to invoke the presence of a particular bodhisattva (a ‘patron deity’, or mythical being, committed to guiding humanity towards Enlightenment) — in this case, Tārā or Jetsun Dölma, amongst whose attributes devotees prize her protection of travellers. The supporting commentary explains how these micro-elements are used to build a musical structure lasting around an hour. The commentary credits a compositional lineage featuring particular works of Tōru Takemitsu, Karlheinz Stockhausen, Peter Maxwell Davies and Jonathan Harvey. Specific technical indebtedness is also ascribed to other twentieth-century figures such as Igor Stravinsky, Michael Tippett, Elliott Carter, Witold Lutosławski, Luciano Berio and Pierre Boulez. Amongst the original features of the cycle is the juxtaposition of typical Western orchestral instruments with instruments used in Tibetan Buddhist ritual practices (played in the recording by Tibetan monks) and the inclusion of poetry in French inspired by David-Néel’s writings. The latter appears in two of the nine pieces, involving the addition of a countertenor to the instrumental ensemble.

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Preface

The genesis of this project

I am sitting on my meditation stool, eyes open. I should say that I am not in a particularly blissful state, nor am I necessarily meditating very deeply. I am letting go of as many restless thoughts as I can, for a few minutes in a typically busy day, and looking up at what appears as the frontispiece of this commentary: a thangka — a typically Tibetan, Buddhist artwork, painted on fabric and surrounded with an elaborate brocaded border.¹ It shows the Bodhisattva Tārā (given her Sanskrit name, or Jetsun Dölma, as she is known in Tibet) surrounded by nine attendant figures — some benign and some energetic, even wrathful. Each of these figures seems at once to inhabit their own particular niche and yet also to play his or her particular role in the theatre of the whole. They are quite distinct in character yet inter-related, all apparently magnetized by their relationship to the central, pre-eminent figure. She looks out, inevitably I imagine at me, although the gaze is impartial in its compassion. Her arms and hands are immaculately poised in mysterious gestures whilst simultaneously suspending emblematic lotuses; her right foot appears to be on the verge of stepping down to meet us.

It was in a moment such as this that the idea for the cycle of nine pieces which make up *Travels with Alex* occurred: nine pieces of different character, individual yet interdependent in their indebtedness to a central core of ideas that is always present - whether overtly or under the surface - each piece paying homage to the core gestalt in different ways.

A *thangka* is, if you like, a gateway to another realm: it is a vision of figures and experiences of a different order — paralleling our own, perhaps, but on the archetypal level. Likewise, I thought, a cycle of pieces could trace many paths across musical spectra or parameters. As a musician whose compositional life has been rather episodic, with long phases without any creative work at all, I could see the challenge of a doctoral project as a surveying of an enormous field of possibilities. A central vision could be the driving force rather than stylistic homogeneity, and I could in the process thus acquire a whole range of tools for my

¹ The borders of *thangkas* are, in their own way, almost as significant as the central images, as they create with a sequence of traditionally coloured layers a 'vision doorway', indicating that in encountering the image one is literally entering another realm.

compositional kit, develop my craft as a composer, as well as complete a major research project. The pieces could stand on their own or in combination, thus enhancing possibilities for performance.

Just as Tārā sits serenely at the centre of her mandala, the idea of mantra (or symbolic sound) is central to Tibetan Buddhist ritual practice.² So, at the germinal core of this cycle of pieces are two versions of mantras associated with Tārā, one an unmetred pulsation of two pitches, the second an extension of this into a more metred, incantatory chant covering three. From the latter a nine-note series is derived and, from this in turn, a series of *fioriture*, melodic arcs which appear in around two thirds of the potential 48 traditional transformations (12 each of prime, retrograde, inversion, retrograded inversion) throughout the second piece in the cycle — *Forests* — from which the pitch and motivic material of the remaining eight pieces is ultimately derived.³

The inspiration provided by the Tārā *thangka* did not, however, come ‘out of the blue’ (does inspiration ever, in fact, do so?) As a composer I had long been interested in the musics of non-Western cultures, fostered by visits to countries such as India and Japan in the 1980s and the boundary-crossing teaching of Wilfrid Mellers when I was an undergraduate at York University. I can remember delving then into records in the Nonesuch ‘Explorer’ series and coming across recordings made by the Tibetan monks of Gyütö Monastery (one of the two great Tantric colleges of Tibet) and going to hear them live at St John’s, Smith Square, London. It was probably no surprise then that, when my spiritual explorations led me from Anglo-Catholicism via Quakerism, Krishnamurti, Osho and Sufism to Buddhism, the distinctive sound worlds of Tibetan Buddhist ritual began to intrigue me more and more.

After completing my Master of Music Degree in Composition at the University of Auckland with First-Class Honours, I was awarded a Doctoral Scholarship. It was

² Not only Tibetan Buddhist practice, but that of countries where the Mahayana (‘greater vehicle’) of developed Buddhism took root, and (of course) the ritual traditions of India which played their part in fertilizing developing Buddhist practices cf. Guy L. Beck, *Sonic Theology: Hinduism and Sacred Sound* (Columbia, SC: University of South Carolina Press, 1993).

³ I had originally planned for this germinal piece to constitute an ‘overture’. But, in fact, its overall contemplative mood seemed to require a more up-beat prelude and, thus, the next piece to be written (and the first based on the material of *Forests*) is designed to be first when the cycle is performed in its entirety.

for some time unclear whether I would pursue a doctorate in composition, in musicology or in ethnomusicology. I had not studied ethnomusicology at the postgraduate level, but undergraduate studies had made me aware of the work of some of the more anthropologically-inclined experts such as Alan Merriam⁴ and of the ground-breaking *Cantometrics* project of Alan Lomax.⁵ The idea of working in the field definitely appealed.

My deepening study of Buddhism was fostered by my involvement with the Friends of the Western Buddhist Order (as it was then called, now the Triratna Buddhist Community). One of the distinctive aspects of the FWBO was that it fostered awareness of the teachings of all Buddhist traditions (Hinayana, Mahayana and Vajrayana) in ways which could particularly appeal to those educated in the West. It was synthetic and inclusive of the various canonic teachings about meditation, for instance, but also radical in approaches to modern life in terms of livelihood and community.

Never one to bite off less than I can chew, my doctoral choice in New Zealand finally settled on an ethnomusicological orientation and my by-then deepened interest in Tibetan Buddhism led me to choose the initially far-ranging topic of 'The significance and performance practice of mantra in Buddhism of the Vajrayana'. I wanted to explore the role of mantra in the cognate Tibetan traditions, the different ways in which it has been envisaged and performed and why it is so important. Aided by a fellowship awarded by the New Zealand Vice-Chancellors' Committee, I embarked on an initial exploratory visit to India to visit expatriate Tibetan Buddhist monasteries. I made an elementary study of Tibetan, and delved into the Library of Tibetan Works and Archives in Dharamsala, India; then, armed with a letter of introduction and explanation from the government-in-exile there, set off to visit a range of monasteries in the sub-continent to record the sounds of monastic ritual in performance, interview practitioners closely involved in the ritual (such as the *dbu-mzad*, or cantor) and dialogue with Buddhist teachers about the role of Mantra/Tantra. I returned with a series of taped interviews, recordings of rituals in a

⁴ Merriam was prominent amongst those who insisted that study of the sounds of a particular culture be integrated with investigation of the associated concepts and behaviours. See *The Anthropology of Music* (Evanston, IL: Northwestern University Press, 1964), 32ff.

⁵ This involved correlation of statistical analyses of vocal styles with associated anthropological data. See Alan Lomax, ed., *Folk Song Style and Culture* (Washington DC: American Association for the Advancement of Science, 1968).

range of monasteries from several of the principal schools of Tibetan Buddhism (Gelug, Nyingma, Kagyu, Sakya) in Ladakh, Nepal, Sikkim and India itself, with some idea of where I might like to return and conduct more detailed field-work, and many more questions to answer. It was a conflict of perceived commitments in my personal life (the needs of an elderly relative in the UK versus family commitments in New Zealand) which finally crystallised the enormity of the project I had commenced as a doctoral exercise. I had very little spoken Tibetan, a variable meditation practice, and an enthusiastic but unsophisticated approach to ethnomusicological fieldwork. Furthermore, I was venturing into discourse with Tibetan monastics about an area of practice which many of them would only be immersed in during the final years of their often twenty-year-long study towards becoming a *geshe* (or Doctor of Buddhist Studies). So, I filed a report on my travels, a summary of places and institutions visited and their potential for further investigation, an outline of aspects of mantra uncovered and as yet unexplored – and interrupted my studies to return to the UK.

As circumstances arose, I never returned to that doctorate, but it was perhaps no surprise that when the hankering after further compositional exploration returned and I decided this would only be satisfied by a further programme of study which would make me set aside enough time in a busy working life to progress my compositional work, the idea of focussing a doctoral project in composition on the ‘suspended’ ideas and discoveries about mantra returned. And here the writings of Alexandra David-Néel entered my life at about the same time my friend Fiona McLean gifted me the thangka of Tārā which she had purchased on a textile tour of Tibet. And thus, we return to the point at which the image of myself meditating with the same thangka as depicted at the beginning of this Preface takes over. Like Alexandra, I had a yearning to approach the living cultural core of Tibet — the location and preservation of which, since the diaspora, may well now lie just as significantly in hearts and minds beyond the original geographical region. It could be that, in fact, the only way for a non-Tibetan to approach this realm is archetypally, but nevertheless Alexandra’s mythic journey has still been a profound and recurring inspiration.⁶

⁶ There have been, back to the 1920s, conjectures that Alexandra’s journey and final arrival in Lhasa were, in fact, fabulous inventions. Prominent among proponents is Jeanne Denys, *Alexandra David-Néel Au Tibet (Une Supercherie Dévoilée)* (Paris: Pensée Universelle, 1972).

We have repeatedly emphasized that the ritual basis of musical performance is presentation of a sensually-pleasing offering, the indispensable prerequisite of which is musical beauty ... The “mandala of sound” of Tibetan ritual music may well be related to features such as function, ideology, cultural context, and so on, in more precisely-defined and complexly-structured ways than other types of music to corresponding features of their own respective cultures. Yet, there is no reason why we should not conceive of every kind of music as a “mandala of sound”.

Ter[ry] Ellingson⁷

⁷ Terry J. Ellingson, ‘The Mandala of Sound: Concepts and Sound Structures in Tibetan Ritual Music’ (PhD thesis, University of Wisconsin-Madison, 1979), 772–73.

Chapter One

Travelling with Alex

Sources and inspiration

*Travels with Alex*⁸ is the title of a cycle of nine pieces for viola obbligato and instruments drawn from a full ensemble of some 24 musicians.⁹ The cycle takes its inspiration from the travel writings¹⁰ of the intrepid French monastic, Alexandra David-Néel (1868-1969), who over the course of this project I feel I have come to know quite well, hence the affectionate abbreviation in the title. I doubt, though, whether Mme David-Néel would have been much given to affectionate nicknames, remaining as she did an indomitable figure: traveller, researcher, author, enquirer, dedicated Buddhist practitioner, well into a ripe old age. Nevertheless, Alexandra appears in person via a cipher derived from the letters of her name,¹¹ near the opening of *Travels 5* (Example 1.1).

Example 1.1 Pitch cipher for 'Alexandra David-Néel' in bars 6-10 of *Travels 5*

The musical score for Example 1.1 is written for four staves: Viola obbl., Violin, Violoncello, and Violoncello. The key signature is one sharp (F#) and the time signature is 4/4. The Viola obbl. part starts with a rest, followed by a quarter note G4, a half note A4, and a quarter note B4. The Violin part starts with a rest, followed by a quarter note G4, a half note A4, and a quarter note B4. The Violoncello part starts with a rest, followed by a quarter note G2, a half note A2, and a quarter note B2. The Violoncello part starts with a rest, followed by a quarter note G2, a half note A2, and a quarter note B2. The score includes dynamic markings like *ppp* and *con sord.*, and performance instructions like *sul pont.* and a trill.

⁸ Hereinafter the individual pieces will be referred to by abbreviation, so *Travels 5* is the fifth piece in the sequence of performance, but not necessarily in order of actual composition.

⁹ The fullest complement (see Example 3.1, p25) is used only in *Travels 2*.

¹⁰ Particularly, but not exclusively, *My Journey to Lhasa* (New Delhi: Time Books International, 1991).

¹¹ Or is it, rather, an evocation of her mountain hermitage?

This 'leitmotif' unfolds particular letters from her name: **AlExAnDrA DAVID-NEEL** (the N being obtained by rising in diatonic steps from the D in violin 1, bar 3).

The cycle seeks to evoke journeys, outer and inner,¹² rather than present a series of sonic postcards — although I am frequently inspired by the music of Asia and the Pacific and (in particular) the timbres, resonances and pitch gamuts of Tibetan ritual musics. As mentioned in the Preface, in the late 1990s I spent some time researching performance practices in expatriate Tibetan monasteries, and Alexandra herself encountered lamas of various Tibetan traditions.¹³ So it is, perhaps, no surprise to find in my cycle that the *rgya-gling* (a kind of shawm, often played in pairs at the head of processions, such as I witnessed at the Dalai Lama's current home, Namgyel monastery, Dharamsala, in 1997) is evoked by the cor anglais near the opening of what is now the first piece in the sequence, *Flights*.¹⁴

Example 1.2

Emulation of the sound of the rgya-gling (Tibetan shawm) in bars 7-9 of Travels 1



and that a pair of *rgya-gling* provide a ritornello in the last piece in the cycle:

Example 1.3 Travels 9, bars 5-6



¹² Like many epic voyages, repeated physical and psychological demands seem to have characterized Alexandra David-Néel's daring pilgrimage to Lhasa.

¹³ Pre-eminent among these was the so-called 'Gomchen of Lachen', who Alexandra first encountered in Gangtok, Sikkim, in 1912. Govinda writes of meeting the two of them in Chapter 9 of *The Way of the White Clouds* (London: Rider, 1966). For a succinct introduction to the different schools and lineages descending into modern-day Buddhism of the Vajrayana (which characterizes Tibetan practices) see Sangharakshita, *Tibetan Buddhism: An Introduction* (Birmingham: Windhorse, 1996).

¹⁴ A recurrent element in the soundscape of Tibetan monasteries, this is inspirationally evoked in Jonathan Harvey's *Body Mandala* (2006), to which I am indebted for ideas developed in the wind parts of *Travels 9* (e.g. Example 1.3).

Tibetan instruments also appear elsewhere in the cycle: the high-domed cymbals (or *sbug-chal*), which lead ritual ceremonies, are included in *Travels 2* (Example 1.4); the small bell (*dril-bu*) and hand-held drum with rebounding beaters (*damaru*) occur in *Travels 3*; the long-horned trumpets (*dung-chen*) in *Travels 4*; and the medium-sized cymbals (*sil-snyan*) and tambour (*rnga*) in *Travels 7*.

Example 1.4

Travels 2, bars 12-15



Each of the nine pieces has an obbligato (i.e. ‘soloistic’) viola part,¹⁵ however secondary ‘soloists’ feature from time to time. For instance in *Travels 3*, a countertenor sings words attributable to Alexandra, in French,¹⁶ and by duetting with the viola (against a backdrop of three violins) suggests something of the companionship of Alexandra and her adopted Tibetan ‘son’ on their landmark journey from China to Lhasa.¹⁷ The double bass partners the viola in *Travels 4*.¹⁸

Research questions

Moving from the imaginative impetus for the composition of this cycle, and from an idea which I saw could sustain a long-term project, what were the original aspects of research investigation I envisaged following?

As a composer and a Buddhist, I wished to explore the use of very simple melodic formulae such as are enshrined in mantras as aspects of devotional practice (to aid

¹⁵ One can hardly venture on a large-scale instrumental work with viola obbligato without considering Berlioz’s symphony *Harold in Italy* (1834) with its puzzlingly ambiguous ‘solo’ part. For one embarking on a cycle inspired by travel writing, it was also a leading precedent of a composer (Berlioz) being inspired by a writer (Byron). However, until the contemporary resurgence of interest in the viola, the work seemed symbolic of ambivalence towards the instrument. A soloist, or not?

¹⁶ From the introduction to the English edition of *My Journey to Lhasa*. I am sincerely indebted to the poet Terence Dooley for rendering a compilation of excerpts from this English introduction into French poetry for *Travels 3* and *Travels 8*.

¹⁷ Photographs of Alexandra David-Néel and “the Rev A[phur] Yongden, Tibetan lama, and adopted son of the author” appear in *My Journey to Lhasa*, 70-71.

¹⁸ Similar ‘duo’ relationships — not quite equal partnerships — occur in the orchestral canon, for instance the relationship between solo cello and both viola and tenor tuba in Richard Strauss’s *Don Quixote* (1897).

concentration, to visualize an imagined archetypal figure, etc) to generate an heterogeneous yet unified cycle of concert works. At their very simplest these formulae are traditionally as simple as an incantation, broadening out from there into chants which articulate profiles covering two or three pitches. A model of existing practice in Western music seemed to be the fascination of plainchant for Peter Maxwell Davies and his use of this, throughout his compositional career, to fertilize the development of his own idiosyncratic, post-Schoenbergian serialism. I chose as a particular focus of study the chamber work *Ave Maris Stella* (1975), an axial work written in tandem with his Symphony no.1 (1976), and one of the first works in which magic squares were used to permute sets derived from plainchant. As I still saw fertile possibilities in aspects of serial practice, could I develop Davies's approaches in an original way?

As a researcher, and one who has long been inspired by the Vajrayana (or 'diamond thunderbolt' esotericism which characterizes the Buddhism of Tibet) I wished to investigate how musical elements of a tradition which has inspired me — but in which the role of music is seen in a very different light to Western concert music — could be located in a cycle of pieces using a range of 'Western' ensembles.¹⁹ As an outsider, a significant model of how an insider had sought to write for instruments from his own native tradition — but within a Western ensemble context — appeared to be Tōru Takemitsu. Again, I chose an axial work, *November Steps* for *biwa*, *shakuhachi* and orchestra (1967), the first in which Takemitsu used both western and Japanese instruments in the same piece, although, as I shall point out, not quite 'together'. Could I set up an emic/etic dialogue, between Tibetan and western musical practices, from the opposite direction to Takemitsu, but benefitting from his approaches?

To add to, or compound, my investigation of and composition with musical ideas from different times (pre-existent in the form of chant/mantra, meeting new in the form of original composition) and different cultures (non-Western, in this case principally Tibetan, meeting the western concert traditions of the 20th century), I

¹⁹ I know of no precedent for original use in an otherwise Western chamber ensemble (and in the context of the 'Mantras and Mandalas' event, played by Buddhist monastics) of instruments whose roles in Tibetan Buddhist ritual are specific and highly prescribed. "We have never worked with another group in the same way that we worked with you, in that you had the monks playing their instruments in ways other than the traditional manner." (Jane Rasch, Administrator, Tashi Lhunpo Monastery UK Trust, personal communication, 7 February 2019).

wished to investigate the extent to which post-Schoenbergian (modernist) techniques could still play a focal role within a kaleidoscope of stylistic approaches. Yet another axial work, Stockhausen's *Mantra* (1970) for two pianos, ring-modulation and percussion seemed an excellent model for close study and not only because of the title. It is the first work in which Stockhausen used what would later be called 'formula-based' composition, and one where all the surface details hark back centripetally to a core sequence of pitches and gestures whilst still allowing a dazzling centrifugal exploration of the full range of instrumental possibilities. Could my cycle likewise use such a focus and 'tonal' material (by which I mean music which clearly suggests points of cadence, arrival and return, especially but not exclusively in relation to pitch) to bring together musical 'voices' inspired by a wide range of compositional models from the 20th-century Western canon?

Noteworthy is the fact that these three 'axial' works originate from the period 1967 to 1975, when I was completing (first) my A-level studies in Music and (later) my undergraduate degree. Since then my periods of compositional activity have been intermittent, for various reasons. On some level, I have clearly felt the need to go back and review certain developments not fully absorbed from those years. Thus, the idea of generating a wide-ranging cycle of pieces which could somehow embrace these researches had considerable appeal. Could the magpie-like foraging itself become a theme or *raison d'être* (a little bit like Alexandra David-Néel's apparently compulsive, life-long desire to travel)?

The format of this commentary

Before Chapter Four's examination of 'Composition strategy, techniques, influences', Chapters Two and Three contextualize the project and its composer, a European and a Buddhist, classically trained, with a modernist inclination, yet an eclectic approach to ideas and sounds from 'elsewhere'.

The first part of Chapter Two introduces debates in the study of mantric practice in a number of spiritual traditions — principally Hinduism and Buddhism. The second part of the chapter explores the significance of sound (and the use of voices and instruments) in Tibetan Buddhist ritual, which flows very much from concepts of 'mantra' in the broadest sense.

Chapter Three outlines the structure of *Travels with Alex* and the way in which eight of the nine pieces are derived from *Travels 2*, much as Stockhausen's *Mantra* is derived from its opening musical formula. The chapter then introduces a codification of the musical materials used in my cycle and some definition of terms.

Chapter Four gives detailed descriptions of the nine pieces, focusing particularly on timbre, structure and pitch, but also other aspects which come to the fore in particular instances. There are frequent references to three 'axial' works (by Takemitsu, Stockhausen and Maxwell Davies respectively) which have guided my research explorations but also to composers as varied as Tippett, Boulez, Berio, Lutosławski and Harvey.

Chapter Five describes the process of creating the 'Mantras and Mandalas' event, at which three of the *Travels* pieces made their début in the context of a carefully chosen programme of mainly contemporary chamber works complemented by ritual elements performed by the monk musicians. Particular attention is paid to challenges surmounted and the joint enterprise of integrating transcultural elements.

Chapter Two

Mantric sound

Debates about mantra

From India, the land of Buddhism's first great expansion, the adjoining areas which followed versions of the Vajrayana (or 'thunderbolt') tradition — that is Tibet, Bhutan, Nepal, Ladakh, Sikkim principally — likely acquired something of the same tendency to almost deify certain kinds of utterance. In Vedic Hinduism *vac* [utterance] can stand not only for the word of God, but godhead manifesting itself from 'the void'. And certain sounds are held to evoke eternal truths, even to embody Brahma in vibration. Similarly, in both Hinduism and in Vajrayana Buddhism 'mantra' can command the same veneration — indeed, the *bīja* or seed syllable which lies at the core of many mantras is considered the very essence of the deity invoked. Of course, in Hinduism the number of deities is countless, and in Buddhism 'deities' occupy a very different place: as embodiments of Enlightenment rather than supreme beings in the sense that a god is seen in monotheistic religions. But they clearly occupy a distinctive role in both traditions, as both highly venerated and also of potential daily access to devotees of all kinds.

So, for a modern Buddhist, such as myself, mantras can still occupy a very important role in life and spiritual practice. But what are they and why might they be especially important to a Buddhist musician? As Alper writes in the introduction to his important collection of essays devoted to mantras in Hinduism: "On the popular level, words such as *mantra* long ago acquired a broad, if imprecise meaning."²⁰ The latest guru of workplace psychology's one-sentence motto is often described as a mantra. It is not surprising therefore that Alper also casts wide the net of consensus among contributors to his volume by indicating, on the page before, that they all "assume that a mantra is whatever anyone in a position to know calls a mantra".²¹ Some specialist knowledge of the literatures about or featuring mantras is therefore enjoined, as of the "large family of Indic terms — e.g. *brahman*, *stobha*,

²⁰ Harvey P. Alper, ed., *Mantra* (Albany, NY: State University of New York Press, 1989), 5.

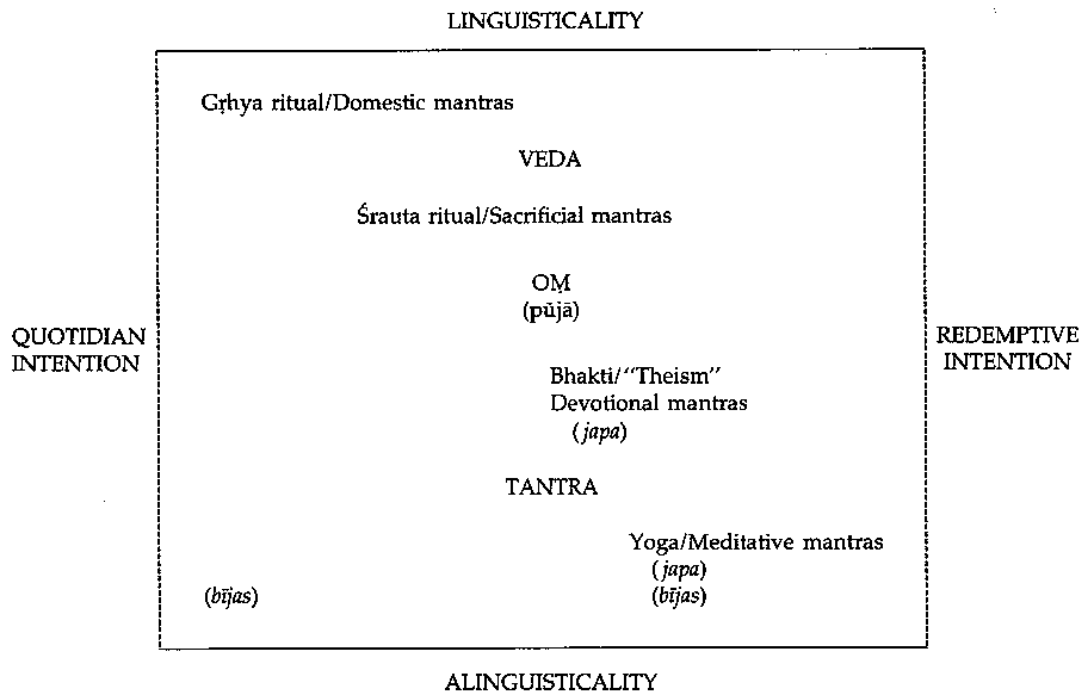
²¹ *Ibid*, 4.

bīja, *kavaca*, *dhārani*, *yāmala* — employed in various traditions and periods to name especially potent ‘words’ and ‘sounds’.”²²

This range of terms would be as much the case in Tibetan discourse on the subject, complicated perhaps by the transfer of Sanskrit texts there and the Tibetanizing of some of these. So, it is important to indicate where a modern Buddhist inspired by the Vajrayana might place his experience of mantras in the vast mandala of possibilities. A helpful grid is provided by Alper (my Example 2.1), as a means for comparing mantras, and this would seem to serve equally well in general terms to situate anything described as a mantra in any religious tradition.

Example 2.1

*Alper’s grid comparing mantras*²³



In terms of the Vajrayana, and using the Tārā mantra as an example, I would place this towards the lower right quadrant of this diagram. Note that this indicates the intention of mantric practice as more ‘redemptive’ than ‘quotidian’ and that the word ‘Tantra’ clearly dominates this quadrant. Broadly speaking any spiritual practice handed down from teacher to student (or guru to disciple) can be described as

²² Ibid.

²³ Alper, op cit, 7.

Tantric, contrary to the contemporary tendency to emphasize potentially misunderstood sexual practices. Furthermore, the significance of a mantra in this process, and in the process of initiation particularly, is demonstrated by the fact that the two terms 'Tantra' and 'Mantra' are sometimes used interchangeably in discourse with Tibetan monastics about their manifestation in the Vajrayana.

Laying aside for now the wide-ranging discussions of whether mantras are an intentional language involving 'speech acts' or objects of ritual significance, whether they are 'magical' (with the possible implication of lying outside condoned religious practice) or meaningless, perhaps the most helpful definition still is one provided by Bharati: "A *mantra* is a quasi-morpheme or a series of quasi-morphemes, or a series of mixed genuine and quasi-morphemes arranged in conventional patterns, based on codified esoteric traditions, and passed on from one preceptor to one disciple in the course of a prescribed initiation."²⁴

This definition is helpful because it emphasizes the transmission of the mantra rather than the precise way in which it might be used (although Alexandra David-Néel may well have visualized Tārā in her meditation practice — as I have surmised in the quotation which heads *Travels* 5 — she might also have chanted her mantra under her breath when dealing with the many difficult encounters on her journey to Lhasa).

Important in relation to both meditative practice and the role of mantras in *Travels* are the following features of what one might call 'mantra performance practice':

- Although mantras can be intoned over one or more pitches by an individual or a group, they can also be chanted on one pitch (indeed they often are in an initiation), spoken under the breath or visualized as a whole in Tibetan characters or in the essence of the seed syllable when in a meditative state
- They are often reiterated, which (if this is done out loud) might make them seem more like music than speech²⁵

²⁴ Agehananda Bharati, *The Tantric Tradition* (Bombay: B. I. Publications, 1965), 111. Quoted by Alper, op cit, 4, because of its concision rather than its inclusiveness. Furthermore, Bharati does precede his definition by a consideration of a wide range of previous attempts. Amongst subsequent commentators, Wayman (see Bibliography) covers the subject from the informed perspective of a Professor of Sanskrit experienced in Buddhist Studies. A more recent and wide-ranging religious studies perspective, whilst still emphasizing Hinduism, is given in Robert A. Yelle, *Explaining Mantras: Ritual, Rhetoric and the Dream of a Natural Language in Hindu Tantra* (New York: Routledge, 2003).

²⁵ A case made by Staal: "If there are anywhere structures similar to these ritual features, it is in the realm of music". Frits Staal, 'Vedic Mantras', in *Mantra*, ed. Alper, 95.

- Although their sonic form may be considered the most potent — given the emphasis on voice/sound mentioned above — their inscribed or even the visualized form is also considered efficacious, hence the prevalence of prayer wheels and prayer flags in Tibet and the incorporation of seed syllables into the imagery of thangkas and mandalas
- The fact that they are hidden (visualized or spoken to oneself — or even, in my case with *Travels*, used to underpin a cycle of musical works) emphasizes their esoteric aspect
- That although an important component of Buddhist spiritual practice — to invoke here the real etymology of it as an ‘instrument’ (*-tra*) of reflection (*man-*) — it cannot be (to use the popular etymology) a ‘thought’ (*manana*) that truly ‘saves’ (*tra*) without effort to progress along what is described as ‘The Threefold Path’ by development of Morality, Meditation and Wisdom²⁶
- That the concept of a ‘seed-syllable’ as a particular vibrational force at the core of a mantra may be useful in encountering chant in Tibetan monasteries and the distinct instrumental sounds and techniques which furnish it and have inspired me — these sounds will be explored further in the next section

Sound in Tibetan Buddhist Ritual

Anyone hearing in the flesh the initial vocalizations of the *dbu-mzad* (cantor) leading the monks of Gyütö is bound to be struck by the sheer vibratory power of this singing. For one thing, the vocal range is deep and wide, for another multiple tones are produced. The chanting literally vibrates, in the singer himself and in the listener — simultaneously transporting one to a different world whilst also disguising the specific words intoned — for these are ‘tantric’ texts and are as much disguised as revelatory.

Similarly, the instrumental sounds used to enhance and support Tibetan ritual chant turn our normal expectations ‘on their head’. What we might normally think of as melody instruments e.g. shawms (*rgya-gling*) and long-horned trumpets (*dung-chen*) actually occupy a secondary role to the percussion, particularly the cymbals. These are played by the *dbu-mzad*, who directs the performance with them, and the rhythmic structure of the cymbal part is based on a logarithmic rather than a geometric approach, where ‘beats’ (often based on accelerating pulsations) are not

²⁶ Sangharakshita, *What Is the Dharma? The Essential Teachings of the Buddha* (Birmingham: Windhorse, 1998). See in particular 92-98, but also 163-209.

of identical length and can be supplemented by interruption, fragmentation, expansion (via ‘falls’) and attached cadential afterbeats (*dzag*). Time is quite literally stretched and extended, as if to suggest how the enlightened mind of a Buddha might see the play of worldly phenomena from a completely altered perspective to our own, and offer a simulacrum of this in the form of sound.

Thus, these sounds act (as visually with a *thangka*) as a gateway to another world, or as a mandala, a symbolic depiction of an ideal world. The term ‘mandala’ to describe the sound world of Tibetan ritual music was coined by Ter Ellingson in his 1978 thesis, which is still perhaps the most comprehensive, informed and searching study of the subject. He describes a mandala as “a focus and center of access to expanding circles of patterns of experience and reality,” a description which has been particularly meaningful to me in designing and completing a wide-ranging cycle of instrumental pieces. Complementing my previous section concerning the spiritual significance of both word and sound in Indian and thence Buddhist traditions, he quotes the present Dalai Lama: “As a mandala of sound, music is an extension of mantra, which aims at a ‘transformation of attitude’ in which ‘whatever appears to the senses is viewed as the sport of a deity.’”²⁷ Not labouring here the use of the word deity in the context of a religion often described as a-theistic, one does need to state that visualization and invocation of deities is a significant part of Tibetan Buddhist ritual practice. In fact, the role of music is to act as a beautiful and meaningful offering to such figures, to invite them to be present and seek to emulate them via devotional practice.

Ellingson elucidates — and here the diagrams on pp769-70 of his thesis (my Examples 2.2 and 2.3, pp18-19) are particularly helpful — the key role of chant and the monastic ‘orchestra’ because they support the three ‘doors’ of body, speech and

²⁷ Ellingson, op. cit, 764-66. The indented quote is from HH the Dalai Lama XIV's introduction to a 1977 edition of *Essence of Tantra* by the founder of the Gelug order of Tibetan Buddhism, Tsong Khapa (c1357-1419).

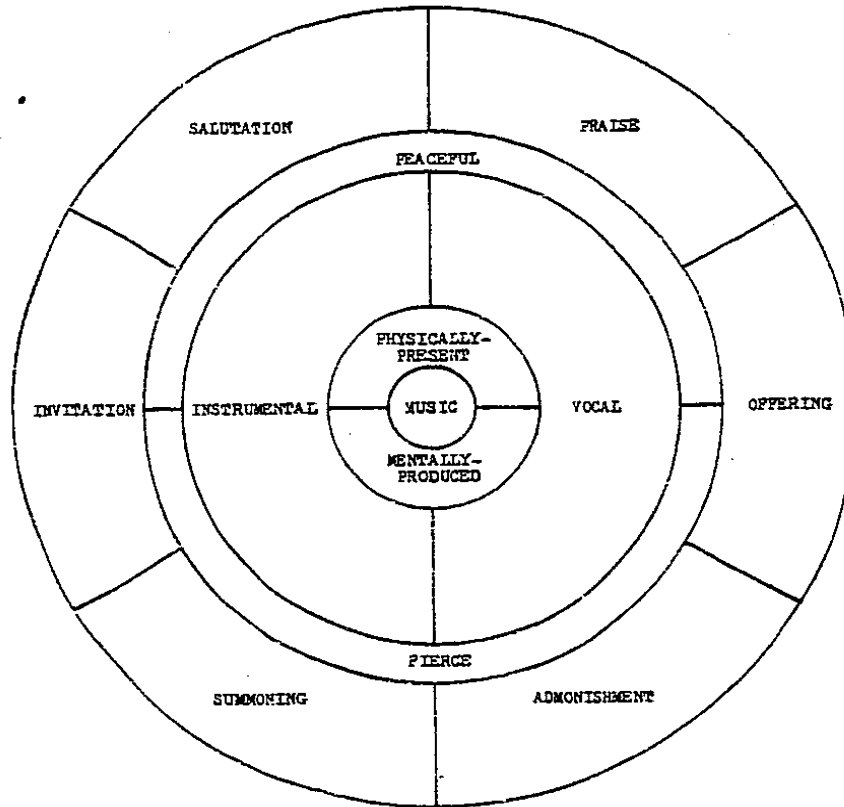
Note that Ellingson is dismissive of the earlier work of Kaufmann, circumspect about the extent of informed observation involved in Vantor's study, and critical of Canzio — who has, nevertheless, gone on to write more extensively than others on music in Bön practice, Bön being the indigenous religion of Tibet before the arrival of Buddhism in the 7th century AD. As reiterated later, Helffer is pre-eminent in organological observation of Tibetan ritual practice. Later writers of note include Egyed (supervised by Ellingson in the writing of a dissertation comparing musical practices in monasteries of the four major orders of Tibetan Buddhism) and Cupchik (who has explored the use of sound in Chöd practice). For full details, see Bibliography.

mind in entering mindfully into meditative practice, involving the performer's body (either in the immersive vocal techniques described above, or by playing, or executing mudras), in the combination of beautiful and meaningful sounds produced, and in the mental visualisations which accompany them.

Attempting to introduce this atmosphere into my cycle, and evoking Alexandra's fascination with and knowledge of Tibetan traditions, is not straightforward. Matters of diverse and unpredictable instrumental temperaments are involved, the vibrational power of instruments used to complement extended vocal techniques, and the primary use of instruments for other purposes than accompaniment in the Western sense: all combine to suggest that maybe one can only provide gateways or windows (like small *thangkas*) onto this very different soundscape whilst seeking still to capture something of its ritual intensity.

Example 2.2

Ellingson's mandala of 'conceptual components' in Tibetan Buddhist ritual music. The elucidation given below is also his.



The central focus (music) defines and includes the entire circle. The first level surrounding the center shows phenomenal levels (physical/mental); the second, sources of articulation (instrumental/vocal); the third, types of aural beauty (peaceful/fierce); and the fourth, six of many possible types of meaning-and-function.

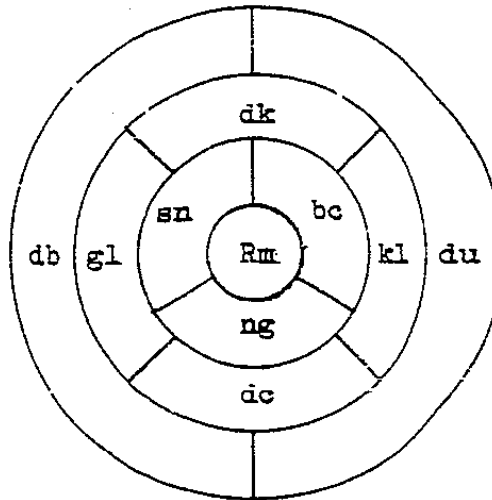
Example 2.3

Instrumental configurations according to musical role and ritual/symbolic significance (Ellingson)

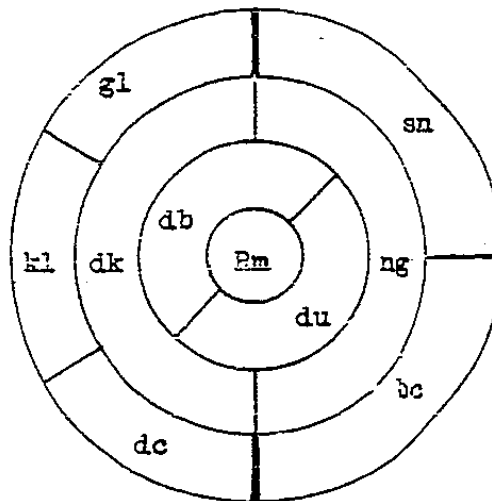
Figure 36

The instrumental ensemble as a mandala

A. Arranged according to musical roles



B. Arranged according to ritual and symbolic importance



Rm=Rol mo; sn=sil snyan, bc=sbub 'chal, ng=rnga, du=da ma ru, db=dril bu, dk=dung dkar, dc=dung chen, kl=rkang gling, gl=rgya gling. Rol mo = "instrumental music".

Example 2.4

The musical instruments of Tibetan Buddhist ritual, listed in order of musical significance as indicated by Ellingson in his Fig.36A (and with his abbreviations – as in my Example 2.3), with the pieces in the Travels with Alex cycle in which they appear. I use throughout the slightly different orthography favoured by Helffer²⁸

bc	<i>sbug-chal</i>	high-domed cymbals with bosses of diameter about half the total width	<i>Travels 1 and 2</i>
sn	<i>snil-snyan</i>	low-domed cymbals with smaller, central bosses	<i>Travels 7</i>
ng	<i>nga</i>	drum (often on a vertical stand)	<i>Travels 7</i>
dc	<i>dung-chen</i>	long-horned trumpets	<i>Travels 4</i>
dk	<i>dung-dkar</i>	conch-shell horns	<i>Travels 3</i>
gl	<i>rgya-gling</i>	shawms	<i>Travels 9</i>
kl	<i>rkang-gling</i>	trumpets (bone or metal)	---
db	<i>dril-bu</i>	bell with vajra handle	<i>Travels 3</i>
du	<i>damaru</i>	hand-held drum with attached rebounding beaters	<i>Travels 3</i>

²⁸ Helffer (see fn41, p25), foremost among organologists of Tibetan music, follows the Wylie orthography which sought to transcribe Tibetan as written, not pronounced, for the sake of researchers, and is thus, with its distinctive consonant combinations, invariably confusing for Europeans new to the language. To avoid digression into the various debates and variations still proliferating from Wylie's work, the original historical context is simply summarized by Mervyn C. Goldstein in his introduction to *Tibetan Phrasebook* (Hawthorn, Vic: Lonely Planet, 1996), 8: "Written Tibetan uses a script that was adapted from Sanskrit [in the 7th century AD] by scholars who had been sent to India to study Sanskrit. Spellings have not been significantly revised since then which means that, due to changes in spoken Tibetan over the last 12 centuries, written and spoken Tibetan are very different."

Chapter Three

Macrocosm and microcosm

Not only do the pitch and motivic patterns articulated in *Travels 2* fertilize elements of all the other pieces, but all manner of details are traceable to these primordial elements. This is a ‘formula-based’ cycle, to use the term coined by Stockhausen for his work *Mantra* and its immediate successors. As will be seen by references to Stockhausen’s work throughout this commentary, my cycle and his have more in common than mantric inspiration: from the basic approach to generating a composition down to individual details.

Three types of composition

What of compositional approaches Stockhausen and I may share?

In the last of his published series of lectures on Stockhausen,²⁹ Toop differentiates three approaches to what he calls ‘the time-form relationship’, the way a contemporary composer might map out a particular composition.³⁰

The first, and perhaps the most traditional, is the ‘organic’, whereby musical space is “gradually and partly instinctively invaded”.³¹ My example here would be Britten’s *Variations on a Theme of Frank Bridge*.³² Britten chooses a theme, an appealing orchestration, a character for each variation, and then develops each variation and the sequence of these to a length which seems appropriate to the musical arguments. Perhaps at the start the composer did not know how far the ‘invasion’ would go.

The second approach is what Toop calls ‘architectural’: The composer “[stakes] out a temporal territory in advance and then [seeks] ways to occupy it”.³³ This is Stockhausen’s approach in *Mantra* and mine in *Travels with Alex*. A structural and temporal plan is devised together with quite a lot of the material from which the

²⁹ *Six Lectures from the Stockhausen Courses Kürten 2002* (Kürten: Stockhausen-Verlag, 2005).

³⁰ Op cit, ‘Form Schemes’, 166ff.

³¹ Ibid, 166.

³² For string orchestra, op10 (1937).

³³ Op cit, 166.

surface detail will be derived and the process of composition ‘executes’ this to a greater or lesser degree: as Toop shows, however, although the initial plan may be formulaic and intensively worked, the compositional follow-through is far from mechanical. His lecture on *Mantra* in the same volume shows not only how closely Stockhausen has worked from the formula towards certain sections of the piece (e.g. the first main section) but also how (particularly later in the work) he departs from it when the musical context so demands. The composer’s instinct and experience can always over-rule the dictates of the pre-composed formula. This is also relevant to Davies, for whom pre-compositional workings were also thorough and significant. That both Stockhausen and Davies depart more confidently from their pre-compositional schemes than do I in *Travels with Alex* may say more about my inexperience and lack of skill than any wilful disregard of a work’s scheme on their part. It is also noteworthy that their avoidance of “mechanistic reproduction”³⁴ tends to become more evident in the later sections of works. One wonders if, for instance, in planning *Mantra*, Stockhausen foresaw the condensation of all the mantra expansions into the climactic cadenza *inserted* into the structure (bars 692-851, some 150 bars ‘outside the structure’). One wonders if Davies foresaw that after the first four sections of *Ave Maris Stella* — in which a single instrumental line determined by a particular path through the magic square strictly governs the section’s duration — sections V to IX would allow a freer interplay between parts and a recombination of earlier material.

Toop also refers to a third approach: “a structural process that is, to some degree, ‘outside time’ ... this is exactly what is going to happen, but we have to work out just how long it should take as we go along (by ‘go along’, I mean here the process of composition, not performance).”³⁵ He indicates that most of Stockhausen’s works follow the second or third approaches, and that these are not mutually exclusive.

One could say that, when in *Travels with Alex* 3 and 7, I allowed the music to stretch beyond adherence to the large-scale durational interval succession, I was shifting from the second approach — of following the pre-ordained musical architecture — to the third, shifting from the ‘architectural’ to the ‘organic’ approach or, even, going ‘outside time’ in the sense of going outside the durational structure, although the overall planned length of the cycle is preserved.

³⁴ Toop, op cit, ‘Mantra’, 91.

³⁵ Toop, op cit, ‘Form schemes’, 166.

The relationship of *Travels 2* to the other pieces

Structure and surface are united by a primary set ('Alex set-A')³⁶ and melodic *fioriture* derived therefrom, a durational interval succession extrapolated both at the level of the whole cycle and individual pieces/sections and two related matrices of pitches/ durational values. In a sense my preference for a unification of surface with deep structure can be seen as 'classical', although the musical surface is often colourful, expressionistic, kaleidoscopic. I am also mindful of Western musical tradition,³⁷ in particular the orchestral canon, but also pre-Classical music with which I became very familiar as Assistant Editor of the journal *Early Music* (1977-80). Interestingly, perhaps, a number of the composers I admire have allied an expressive musical language with precise and refined musical structures, sometimes (in cases as historically distant as Berg and Davies, for instance) involving intricate pre-compositional workings and meta-narratives. For me, tightly constrained pre-compositional workings are a reassuring kind of straitjacket out of which I seek to squeeze a musical escape, and a meta-narrative, without becoming a literal programme, might lend continuity to a project which could only progress via frequent, short bursts of activity over a long period of time.

Thus *Travels 2: Forests* (the first piece I wrote) became a map traversing the kind of pitch, durational and rhythmic routes I went on to explore in all the other pieces — often with the out-working of these underlying ideas in the ensuing pieces proceeding in the same sequence as originally found in *Forests*. So, for instance, in *Flights* (which opens the full cycle) the motifs are drawn sequentially from those occurring in bars 1-12 of *Forests*. *Forests* is, therefore, in every sense, the germ of the whole work as its melodic and rhythmic gestures are mimicked or elaborated at each appropriate point in the full cycle. But I now place *Forests* second in order of

³⁶ A summary of the abbreviations used for key elements in the cycle is given below (pp26ff).

³⁷ As I think is Davies. Whittall has observed Davies's awareness of musical tradition, not only the of the medieval and renaissance periods which so clearly inspired him from the start: "The most lasting and fruitful evidence of a European dimension in [Davies's] early evolution as a serial composer probably stemmed from his study with Goffredo Petrassi in Rome (1957-8) and from his awareness of the intensely lyrical post-tonal manner which Luigi Nono had derived from Dallapiccola — who, in turn, had derived it from Berg (who had derived it from Mahler)." See Arnold Whittall, *Serialism* (Cambridge: Cambridge University Press, 2008), 223-24. A recapitulatory appreciation of the formative Roman period is exhibited by the text and entire conception of Davies's Symphony no. 10: *Alla ricerca di Borromini* (2013).

performance in the complete cycle, having decided that the work better commenced with a fast, dynamic piece like *Flights*.

Forests uses a 'tenor', in the medieval sense of the word, and the length and shape of this piece is determined by the playing out of an 'Alex tenor' running through the 'Alex square' of pitch and durational values derived from the basic 9-pitch set: A, F#, B, D, Bb, Ab, C, E, C# ('Alex set-A'). The initial nine durational values — 1, 6, 2, 7, 3, 8, 4, 9, 5 — can be found beginning a slow procession through 'Alex square', crossing from instrument to instrument throughout the score from bar 4 (these particular values are articulated in turn by viola, double bass, cor anglais, cello).

From 'Alex set-A' a large-scale durational interval succession is derived, inspired by Wuorinen,³⁸ and arising from his immersion in the ideas of Babbitt.³⁹ If one treats the sequence of intervals in semitones and as increasing in tessitura, one obtains the following durational sequence: 9, 5, 3, 8, 10, 4, 4, 9, 8 - which in terms of minutes would result in a total duration of 60. However, I reduced this by 3/20 (15%) to provide for a cycle length of 51 minutes, which gave the notional duration of movements shown in Example 3.1 (NB the original proportions of 60 are shown in brackets).⁴⁰

³⁸ Charles Wuorinen, *Simple Composition* (New York: Longman, 1979), 150f.

³⁹ Milton Babbitt, 'Twelve-Tone Rhythmic Structure and the Electronic Medium', *Perspectives of New Music* 1, no. 1 (Fall) (1962): 49–79. Babbitt states (page 63): "Since duration is a measure of distance between time points, as interval is a measure of distance between pitch points, we begin by interpreting interval as duration. Then, pitch number is interpretable as the point of initiation of a temporal event, that is, as a time-point number."

⁴⁰ I emphasize the word 'notional' here, for durations indicated by Sibelius (the score-generation software used) are inevitably devoid of the fluidity of tempo characterizing any live performance. There have also been a number of adjustments made for compositional expediency (see Example 3.1). They involve 'robbing' 3' 48" from what would have been the length of *Travels* 9 to justify the 'windows' in *Travels* 3 and to broaden the duration of *Travels* 7, and very minor rounding up or down of some sectional durations in *Travels* 1 to render practicable the metrical changes/modulations. These adjustments are detailed in the relevant sections of Chapter Four.

Example 3.1

Travels with Alex,

the sequence of nine pieces, their notional and actual durations, and instrumentation

No. in cycle	Notional duration	Actual duration (if varies)	Title	Instrumentation
<i>Travels</i> 1	7' 39" (original ratio 9/60)		<i>Flights</i>	viola, flute, alto flute, cor anglais, 3 percussion, celesta, harp, violin, cello
<i>Travels</i> 2	4' 15" (original ratio 5/60)		<i>Forests</i>	viola and full instrumental ensemble
<i>Travels</i> 3	2' 33" (original ratio 3/60)	4' 04" = 2' 33" + 1' 02" (robbed from <i>Travels</i> 9) + Tibetan intro & coda, 'outside' structure	<i>Intimations</i>	countertenor, viola, 3 violins, 2 <i>dung-dkar</i> , <i>damaru</i> , <i>sil-snyan</i> ⁴¹
<i>Travels</i> 4	6' 48" (original ratio 8/60)		<i>Scherzi</i>	viola, wind, brass, double bass, percussion, harpsichord, 2 <i>dung-chen</i>
<i>Travels</i> 5	8' 30" (original ratio 10/60)		<i>Invocations</i>	string quartet
<i>Travels</i> 6	3' 24" (original ratio 4/60)		<i>Nocturnes</i>	viola, harp, percussion,
<i>Travels</i> 7	3' 24" (original ratio 4/60)	6' 10" (3' 24" + 2' 46" robbed from <i>Travels</i> 9)	<i>Processions</i>	viola, 2 violins, <i>sil-snyan</i> , <i>rnga</i> , prepared piano, marimba
<i>Travels</i> 8	7' 39" (original ratio 9/60)		<i>Odysseys</i>	countertenor, viola, remaining ensemble complementing that used in <i>Travels</i> 4
<i>Travels</i> 9	6' 48" (original ratio 8/60)	3' 00" (3' 48" removed and shared with <i>Travels</i> 3 and 7)	<i>Citadels</i>	viola, trumpet in D, vibraphone, piano, timpani, 2 <i>rgya-gling</i> (or 2 oboes)

⁴¹ As mentioned earlier, the orthography for Tibetan instruments I follow here is that used by Helffer, whose *Mchod-rol: Les instruments de la musique tibétaine* (Paris: CNRS, 1994) still provides the most comprehensive Western survey of Tibetan organology.

Coding, devices and terminology

As the material of each *Travels with Alex* piece is derived in one way or another from *Travels 2*, a range of terms inevitably recurs in describing the processes and techniques involved. Therefore, a preliminary outline of these is given at this point to provide orientation for the analyses of Chapter Four.

Primary hierarchy

Focal pitch

Strictly, focal pitch-class: a pitch centre. In the case of the cycle as a whole, this is A — from which the five following items are all derived (see Example 3.2, p28). The term is also used to refer to a focal or originating pitch-class in each piece, and even in individual sections.

Prime interval

The primordial intervallic gesture of the cycle = A falling to F# (falling minor third) [in integer notation, 9-6]. This expands into the sequence A, F#, A [9-7-9] as ‘Green Tārā’ and to the sequence A, F#, A, B, A as ‘White Tārā’. This interval is also traversed by the first two pitch classes in ‘Alex set-A’ and ‘Alex square’.

‘Green Tārā’

Tārā mantra.

‘White Tārā’

White Tārā or ‘long-life’ mantra, a mantric derivation from Green Tārā, manifesting similar intervals but following a more extensive, metric patterning.

‘Alex set’

The primordial set⁴² of nine pitch-classes underlying the whole cycle (A, F#, B, D, Bb, Ab, C, E, C#) — the first two pitches reiterate the Prime Interval. Design of the remainder of the set was triggered by study of ‘first-only sieving’ as discerned in Davies’s music by Roberts⁴³ (see explanation following). The initial form is described as ‘Alex set-A’. Its transpositions,

⁴² I prefer the term ‘set’ in this commentary to avoid confusion with the word ‘row’, as this is used to describe a horizontal sequence of pitches and durations in a square or matrix.

⁴³ David Roberts, ‘Techniques of Composition in the Music of Peter Maxwell Davies’ (PhD thesis, University of Birmingham, 1985), 75ff.

moving semitonally upward, are abbreviated as 'Alex set-Bb' to 'Alex set-Ab'.

'Alex square'

See Example 3.9a, p39. This is woven from 'Alex set-A' by using identical initial durations (and similar rotations/transpositions) to those apparently⁴⁴ used to create the matrix underlying Davies's *Ave Maris Stella*, which articulates various journeys through a Magic Square of the Moon in pitch/durational terms. This also generates the 'Moon matrix' (Example 3.9b, p40).

Example 3.2 (p28) illustrates all the above relationships graphically.

'First-only sieving'

A characteristic Davies technique is to derive a serialized offspring of a chant by what Roberts terms 'first-only sieving', whereby the first appearance of a particular pitch in a chant is taken or given a serial near-equivalent until the desired set-length is achieved — often less than twelve pitches and respecting the overall melodic profile of the chant. The generation of the set used in *Ave Maris Stella* from the plainchant of the same name doesn't follow this technique in the most direct way, but is (as characteristic of Davies) mediated by the use of an offspring the same chant in his Symphony no. 1.⁴⁵ My own process is somewhat more simple in that, wanting to generate a nine-pitch-class set from a mantra invoking the Bodhisattva Tārā to underlie my cycle, I sieved the first three pitches from one of the underlying mantras, and then created two additional trichords to balance or complement the first with an interplay of major and minor thirds (Example 3.3, p29).

⁴⁴ I say 'apparently' because the process was referred to as if straightforward in the programme note for the première by Davies himself, but was demonstrated as somewhat more complex by Roberts ('Techniques', 341-47). The process was also summarized by Roberts in '[Review of *Ave Maris Stella* and Other Then Recently-Published Scores by Peter Maxwell Davies]', *Contact* 19 (Summer 1978): 26-29. Examples 3.4 (p32) show numbers associated with the Magic Square of the Moon and reductions of these to single-digits for the matrix of *Ave Maris Stella* as demonstrated by Roberts. Example 3.5 (p33) shows my own process of derivation of a 'Moon matrix' from 'White Tāra' compared to the Davies process as described by Roberts.

⁴⁵ The relationship between the two works is covered by Patrick Phillips, 'Pathways in the Music of Sir Peter Maxwell Davies: From Precursor Works to the First Two Symphonies' (PhD dissertation, University of Hull, 2011), 181. The symphony uses the same magic square, but only in movements 1, 3, and 4 — as Davies had composed the second movement already and only began to use magic squares in the remaining movements and with the contemporaneous *Ave Maris Stella*. This renders the Symphony particularly interesting for study as both 'axial' and a close relation of the latter.

Example 3.2 *Primary hierarchy of pitch relationships, Travels with Alex (see pp26-27)*

Focal pitch

Prime interval

Green Tārā

White Tārā

Alex set-A

Ro1T

Ro2T

Ro3T

Ro4T

Ro5T

Ro6T

Ro7T

Ro8T

Ro9T

rotate: last pitch becomes first

transpose each row successively by next ordered pitch interval of Alex set-A

transpose by -3 to create Ro1T

transpose by +5 to create Ro2T

transpose by +3 to create Ro3T

transpose by -4 to create Ro4T

transpose by -2 to create Ro5T

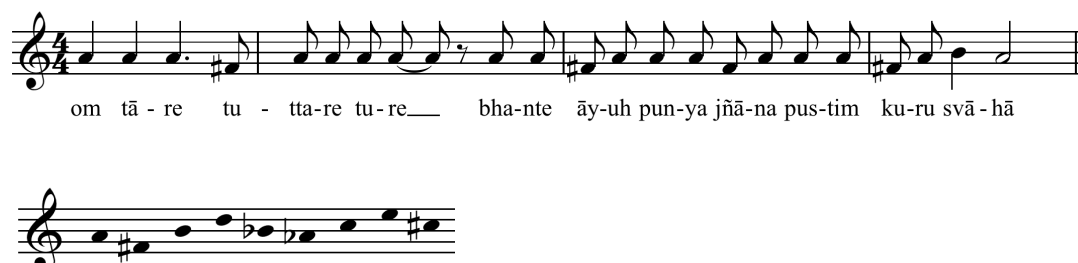
transpose by +4 to create Ro6T

transpose by +4 to create Ro7T

transpose by -3 to create Ro8T

Example 3.3

'Alex set-A' derivation by 'first-only sieving' from 'White Tārā'



Magic squares

One development arising from Davies's exploitation of 'sets of sets' and transposition squares⁴⁶ derived from sieved chants was his increasing interest, from 1975, in what are (for some) the *arcana* of magic squares.

A *magic square* is a square matrix drawn as a checkerboard filled with numbers or letters in particular arrangements. Mathematicians are most interested in *arithmetic* squares consisting of N^2 boxes, called *cells*, filled with integers that are all different. Such an array of numbers is called a magic square if the sums of the numbers in the horizontal rows, vertical columns, and main diagonals are all equal.⁴⁷

To some, incorporation of such devices in musical composition might seem fatuous, but Davies was not alone in exploring the inspiration of numbers.⁴⁸ They may however be significant for the composer yet imperceptible to the listener, as one of Maxwell Davies's biographers has pointed out:

⁴⁶ These terms both relate to proliferation of set hierarchies from primes. In *Travels with Alex* I have not used anything as complex, but allowed 'Alex set' and its transpositions/derivatives to be 'composed out' in the individual pieces and their sections, and to terrace proliferations of the various set forms (prime, retrograde, inversion and retrograded inversion) at levels indicated by those composed-out pitch-classes.

⁴⁷ Clifford A. Pickover, *The Zen of Magic Squares, Circles, and Stars* (Princeton: Princeton University Press, 2002), 1.

⁴⁸ On the fascination of 'magic numbers' for Birtwistle, for instance, see David Beard, "The Life of My Music": What the Sketches Tell Us', in *Harrison Birtwistle Studies*, ed. David Beard, Kenneth Gloag, and Nicholas Jones (Cambridge: Cambridge University Press, 2015), 120–74.

The magic square may perhaps be said to stand in relation to the finished piece of music as builder's scaffolding stands to a finished building: the building could not have been created without it, but by the time the outside spectator — or listener — comes along to appreciate the result, the scaffolding has served its purpose....⁴⁹

Phillips⁵⁰ observes how the potential wizardry with pitches and durations inspired in Davies anew (as with the idea of *Übergreifende Form*)⁵¹ a conviction — which I also promulgate — that the individual musical event is connected to something much larger (the entire musical work, or even something universal):

A magic square in a musical composition is not a block of numbers — it is a generating principle, to be learned and known intimately, perceived inwardly as a multi-dimensional projection into that vast (chaotic!) area of the internal ear — the space/time crucible — where music is conceived....⁵²

Connected to something more 'cosmic' these squares have been. Particular squares have been attributed astrologically: the 3x3 to Saturn, 4x4 (Jupiter), 5x5 (Mars), 6x6 (Sun), 7x7 (Venus), 8x8 (Mercury) and 9x9 (Moon).⁵³

Invocation of the Moon is relevant here because 'she' has symbolized the Virgin Mary in Christian traditions (significant for Davies?) and the Bodhisattva Tārā — *Jetsun Dölma*, in Tibetan — significant for Buddhists. Sanskrit *tārā* actually translates as 'star', so is a direct equivalent of *stella*. The title, 'Star of the Sea' [*maris stella*] is one of the oldest appellations of Mary, and the eponymous hymn⁵⁴ is

⁴⁹ Mike Seabrook, *The Life and Music of Peter Maxwell Davies* (London: Victor Gollancz, 1994), 151.

⁵⁰ Phillips, op cit, 184.

⁵¹ Reference is to the writings of the controversial Hans Sedlmayr on the hierarchies of Gothic architecture in *Die Entstehung Der Kathedrale* (Zürich: Atlantis-Verlag, 1950). Nicholas Jones summarizes the concept of 'all-embracing form' as "structure that is intimately related at all levels, from the smallest element to the largest ... by the development of the structure's basic geometrical units, producing a whole, coherent construction in its own right." 'Analytical Perspectives on the Third Symphony of Peter Maxwell Davies' (PhD thesis, University of Cardiff, 1999), 121–22.

⁵² Peter Maxwell Davies, "Four Composition Questions Answered," [Http://www.Maxopus.Com/Essays/Question.Htm](http://www.Maxopus.Com/Essays/Question.Htm), November 28, 2002.

⁵³ "Other centuries and other cultures inclining to a Pythagorean view of number as the ultimate explanation of phenomena have accorded magic squares a more elevated status. Chinese Taoists of a thousand years ago regarded the 3-by-3 square ... as expressing a fundamental law of cosmic order. Moslems of the same period saw them as representing various spiritual truths. Through the Renaissance, alchemists used them for magical purposes, and they were employed by astrologers in the casting of horoscopes." Roberts, 'Techniques', 337ff. Is it surprising, given what has been said above about *Übergreifende Form*, and Davies's intricate pre-compositional workings, that he should become fascinated with them?

⁵⁴ Its origins go back to the 12th century, the earliest attributions being to Bernard of Clairvaux (1090-1153).

a prayer for safe-conduct of travellers (another reason to connect my work to this, as Buddhists consider Tārā the patron of travellers).⁵⁵

Roberts⁵⁶ gives a painstaking description of how the set derived by ‘first-only sieving’ (see p27) from the *Ave Maris Stella* plainchant was, in a four-stage process, filtered with the numbers associated with the Magic Square of the Moon to produce a matrix of pitches and durations (see Examples 3.4).⁵⁷ As a Davies tribute, I have used the identical durational square with my own nine-pitch-class set similarly introduced into it. The partial alignment of the two processes is shown in Example 3.5 (p33).

Roberts explains the multifarious pitch/durational paths charted through the ‘maze’ of the Magic Square of the Moon in *Ave Maris Stella*: horizontal, diagonal, spiral, *boustrophedon*⁵⁸ and ‘hopping’.⁵⁹ Chapter Four explains how I have used similar pathways at various points in my cycle, like Davies using different rates of durational unwinding or allowing one line to hold a ‘tenor’ (what Roberts calls a ‘controlling line’), off which the others sprout or on which they comment.

In sections I to IV of *Ave Maris Stella* the magic-square attributes are applied strictly, less so as the work proceeds. Davies exemplified for me an ideal balance of an (at least initially) tightly prescribed framework and emerging musical narrative. As I myself have found, applying strict procedures to certain parameters can release expressive freedom through others: colour, dynamics, texture etc, and even the bursting free from pre-compositional workings when the music so requires.⁶⁰

⁵⁵ Tārā’s role for Tibetan Buddhists is effectively as significant as that of the Virgin Mary for Roman Catholics. A classic text on Tārā in Tibetan Buddhist practice is Stephan Beyer, *The Cult of Tārā: Magic and Ritual in Tibet* (Berkeley: University of California Press, c1973).

⁵⁶ ‘Techniques’, 342-46.

⁵⁷ The moon matrix pervades not only Davies’s *Ave Maris Stella* (1975) but also other contemporaneous works apart from the Symphony no. 1, e.g. *The Martyrdom of St Magnus* (1976).

⁵⁸ See p91.

⁵⁹ Roberts, ‘Techniques’, 341-58. It is notable that John Rodney Lister uses the word ‘maze’ in the title of his thesis: ‘Steps through the Maze: “Image, Reflection, Shadow” and Aspects of Magic Squares in the Works of Sir Peter Maxwell Davies’ (PhD thesis, Brandeis University, 2001).

⁶⁰ Beard, ‘What the Sketches Tell Us’, 125, refers to “the interaction of subjectivity and technique” — for example by moving freely through a fixed table of pitches, allowing latitude for the imagination.” He is actually invoking the spirit of Boulez with respect to Birtwistle, quoting Edward Campbell, *Boulez, Music and Philosophy* (Cambridge, UK: Cambridge University Press, 2010), 78. Beard’s chapter reveals fascinating perspectives on the dialogue between pre-composition and composing in Birtwistle.

Example 3.4a*Magic Square of the Moon [Roberts, Tempo 19, Ex 2(a)]*

37	78	29	70	21	62	13	54	5
6	38	79	30	71	22	63	14	46
47	7	39	80	31	72	23	55	15
16	48	8	40	81	32	64	24	56
57	17	49	9	41	73	33	65	25
26	58	18	50	1	42	74	34	66
67	27	59	10	51	2	43	75	35
36	68	19	60	11	52	3	44	76
77	28	69	20	61	12	53	4	45

Example 3.4b*Davies' reduction of Magic Square of the Moon [Roberts, Tempo 19, Ex 2(b)]*

1	6	2	7	3	8	4	9	5
6	2	7	3	8	4	9	5	1
2	7	3	8	4	9	5	1	6
7	3	8	4	9	5	1	6	2
3	8	4	9	5	2	6	2	7
8	4	9	5	1	6	2	7	3
4	9	5	1	6	2	7	3	8
9	5	1	6	2	7	3	8	4
5	1	6	2	7	3	8	4	9

Example 3.5

Manipulations of pre-existing material: Ave Maris Stella (chez Roberts) and Travels with Alex

	Manipulations of original plainchant to create matrix underlying Peter Maxwell Davies's <i>Ave Maris Stella</i>	Manipulations of 'White Tārā' to create matrices underlying <i>Travels with Alex</i>
1	Take Magic Square of the Moon (symbolizing the Virgin Mary) and successively reduce each number by 9 until each reaches a figure of 9 or less	Take Magic Square of the Moon (symbolizing the bodhisattva Tārā) and successively reduce each number by 9 until it reaches a figure of 9 or less
2	Take initial plainchant	Take chant-like version of the mantra
3	Apply process of 'reduction' using sieving and successive transposition of phrases, removing repeated pitches	Apply process of sieving, removing repeated pitches
4	Expand to a set of nine different pitches	Expand to a set of nine different pitches
5		Apply the reduced durational values of the first row of the Magic Square of the Moon to this set
6	Create a matrix of 9x9 pitches by using each successive pitch of original row to create a series of transpositions of the same	Create a matrix of 9x9 pitches by using each successive pitch of original row to create a series of transpositions of the same
7	Label columns 1 to 9 and re-order as 1,6,2,7,3,8,4,9,5	
8	Rotate each row of this new matrix back by one position	Obtain matrix by rotating in each successive row one further pitch backward and one further duration forward
9	Rotate again vertically so that column 9 becomes column 1, column 8 becomes column 2, etc	
10	Superimpose durational values from 'reduced' Magic Square of the Moon onto this new matrix of pitches	Create new matrix by moving pitches and durations to occupy position indicated by original (full) Magic Square of the Moon i.e. event 37 in 'Alex square' becomes event 1 in 'Moon matrix'

Example 3.6 Fioriture – NB retrogrades here attributed to primes/inversions commencing with identical pitch-class

[In this example, accidentals last for the bar unless corrected]

The musical score consists of 12 staves, each representing a different pitch class or inversion. The staves are labeled as follows:

- Staff 1:** Fioritura A, A (Key signature: A)
- Staff 2:** B-flat, B-flat (Key signature: B-flat)
- Staff 3:** B, B (Key signature: B)
- Staff 4:** C, C (Key signature: C)
- Staff 5:** C-sharp, C-sharp (Key signature: C-sharp)
- Staff 6:** D, D (Key signature: D)
- Staff 7:** D-flat, D-flat (Key signature: D-flat)
- Staff 8:** E-flat, E-flat (Key signature: E-flat)
- Staff 9:** E, E (Key signature: E)
- Staff 10:** F, F (Key signature: F)
- Staff 11:** F-sharp, F-sharp (Key signature: F-sharp)
- Staff 12:** G, G (Key signature: G)

The music is written in a single system, with each staff representing a different pitch class or inversion. The key signatures are indicated by a box at the start of each staff. The music consists of a series of eighth notes, often grouped in threes, with various accidentals (sharps, flats, naturals) indicating pitch changes. The staves are labeled with a letter (A-L) and a key signature (e.g., A, B-flat, B, C, C-sharp, D, D-flat, E-flat, E, F, F-sharp, G, A-flat). The music is written in a single system, with each staff representing a different pitch class or inversion.

Secondary generative material

‘Alex tenor’

A tenor in the (medieval) sense of a line on which the others are based or on which they depend, often not in the bass.⁶¹ In the case of *Travels 2*, an underlay which articulates events 1 to 81 in ‘Alex square’, paying tribute to Alexandra David-Néel’s tenacity.

Durational interval succession

Inspired by Wuorinen and his development of the ideas of Babbitt (see above, p24) a set of durations is derived from ‘Alex set-A’: 9-5-3-8-10-4-4-9-8, and from this the proportions of pieces/sections in the cycle are developed.

Fioritura (lt., plural = -e)

A hierarchy of melodic flowerings from ‘Alex set-A’, whose contours are spun into melodic/rhythmic sequences in prime, inversion, retrograde and retrograded inversion. For instance: the prime version beginning on pitch-class A [integer 9]⁶² is abbreviated as *fioritura/A*; the inversion beginning on Bb/ integer 10] as *fioritura/l-Bb*; the retrograde beginning on B/integer 11 as *fioritura/B,r*; and the retrograded inversion beginning on C/integer 0] as *fioritura/l-C,r*. For complete hierarchy see Example 3.6 (p34).

‘Infinity’

A section of an ‘infinity pitch series’, spawned from ‘Green Tārā’, along the lines of the proliferations developed by Per Nørgård.⁶³ (Example 3.7, p37).

‘Moon matrix’

A matrix in which the pitch/duration values of ‘Alex square’ are transposed to the positions indicated by the Magic Square of the Moon i.e. event 37 in ‘Alex square’ (pitch A/duration 3) becomes event 1 in ‘Moon matrix’ (Example 3.9b, p40). A matrix is not necessarily a ‘magic square’, as the sums of the numbers in the horizontal rows, vertical columns, and main diagonals are not necessarily equal.

⁶¹ Davies and Harvey promote different ways in which “the bass moves into the middle”, the former via ‘tenors’, the latter via ‘axial harmonies’. I have tended to favour the former, but create textures somewhat akin to the disembodied ones favoured by the latter. The quote is from Jonathan Harvey, ‘Reflection after Composition’, *Tempo* 140 (1982): 2–4.

⁶² Reference here is to the integer notation of Allen Forte, *The Structure of Atonal Music* (New Haven, CT: Yale University Press, 1973).

⁶³ See Erling Kullberg, ‘Beyond Infinity: On the Infinity Series - the DNA of Hierarchical Music’, in *The Music of Per Nørgård*, ed. Andreas Beyer, trans. James Manley (Aldershot: Scholar Press, 1996), 71–93.

Motifs

For instance, motif 1/1 (the first motif derived for *Travels 1*). Nine other motifs are taken from each of the nine sections of *Travels 2*, which with the recurring motif (in all movements) of a pulsation with varying articulation — inspired by the distinctive rebounds deployed by Tibetan cymbal players — makes $9 \times 9 = 81 + 1 = 82$ motifs in all. 81 is also the number of pitches/durations in both 'Alex square' and 'Moon matrix'. 82 is that found by adding the lowest and highest numbers in 'Alex square', and also all numbers in the squares which are in associative relationship (the placement of the pitches/durations are equidistant from the matrix's centre). Nine is also important in the cycle overall: nine pitches in 'Alex set-A', nine movements in the cycle, nine sections in each piece and considerable play of 'nines' in the surface eventuation of the music. The motifs underlying *Travels 1* are illustrated in Example 3.8 (p38).

Example 3.7 'Infinity' series as used in Travels 4 (see p35)

The musical score consists of four systems, each with a treble and bass staff. The notation includes various notes, accidentals (sharps, flats, naturals), and dynamic markings. The first system shows a sequence of notes with a sharp sign. The second system includes a flat sign and a dynamic marking of 8^{sub} . The third system features a flat sign and a dynamic marking of 8^{sub} . The fourth system includes a flat sign and a dynamic marking of 8^{sub} . The score is written in a standard musical notation style with a key signature of one flat.

Example 3.8

Motifs derived from *Travels 2* for *Travels 1*

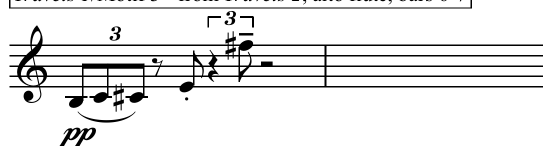
Travels 1/Motif 1 - from *Travels 2*, viola, bars 4-5



Travels 1/Motif 2 - from *Travels 2*, violin 1, bars 2-3



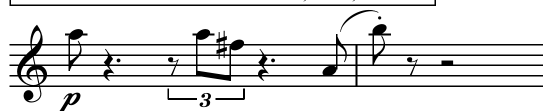
Travels 1/Motif 3 - from *Travels 2*, alto flute, bars 6-7



Travels 1/Motif 4 - from *Travels 2*, double bass, bars 7-8



Travels 1/Motif 5 - from *Travels 2*, flute, bars 8-9



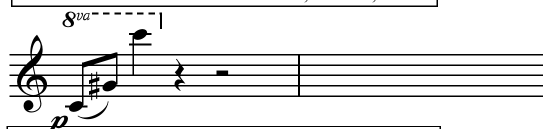
Travels 1/Motif 6 - from *Travels 2*, harp and celesta, bars 8-9



Travels 1/Motif 7 - from *Travels 2*, flute, bar 11



Travels 1/Motif 8 - from *Travels 2*, celesta, bar 11



Travels 1/Motif 9 - from *Travels 2*, piccolo, bar 12



Travels 1/Tremolo motif - from *Travels 2*, alto flute, bars 1-2



Example 3.9a

'Alex square' (accidentals apply to pitch they precede only)

The musical score for 'Alex square' consists of 81 notes arranged in 9 staves. Each note is a half note with a specific fingering number (1-9) written below it. Accidentals (sharps and flats) are placed above the notes and apply only to the pitch they precede. The notes are as follows:

Staff	Note	Fingering	Accidental
1	1	①	
1	2	⑥	♯
1	3	②	
1	4	⑦	
1	5	③	♭
1	6	⑧	♭
1	7	④	
1	8	⑨	
1	9	⑤	♯
2	10	⑥	♭
2	11	②	♯
2	12	⑦	♭
2	13	③	♭
2	14	⑧	
2	15	④	
2	16	⑨	
2	17	⑤	
2	18	①	♯
3	19	②	♯
3	20	⑦	♭
3	21	③	
3	22	⑧	♭
3	23	④	♯
3	24	⑨	
3	25	⑤	
3	26	①	♭
3	27	⑥	
4	28	⑦	
4	29	③	
4	30	⑧	♯
4	31	④	
4	32	⑨	
4	33	⑤	
4	34	①	
4	35	⑥	♭
4	36	②	♯
5	37	③	
5	38	⑧	♯
5	39	④	
5	40	⑨	
5	41	⑤	♭
5	42	①	
5	43	⑥	
5	44	②	♭
5	45	⑦	
6	46	⑧	
6	47	④	
6	48	⑨	
6	49	⑤	♭
6	50	①	
6	51	⑥	♭
6	52	②	
6	53	⑦	♭
6	54	③	♯
7	55	④	
7	56	⑨	♯
7	57	⑤	
7	58	①	♭
7	59	⑥	
7	60	②	
7	61	⑦	
7	62	③	
7	63	⑧	
8	64	⑨	♯
8	65	⑤	
8	66	①	
8	67	⑥	♭
8	68	②	
8	69	⑦	
8	70	③	♭
8	71	⑧	
8	72	④	♯
9	73	⑤	♭
9	74	①	♭
9	75	⑥	♯
9	76	②	
9	77	⑦	
9	78	③	
9	79	⑧	♭
9	80	④	
9	81	⑨	♯

Example 3.9b

'Moon matrix' (accidentals apply to pitch they precede only)

The musical score consists of nine staves, each containing nine notes. The notes are represented by pitch numbers (1-9) and fingerings (circled numbers). The accidentals (sharps and flats) are placed before the notes and apply only to the pitch they precede.

Staff	1	2	3	4	5	6	7	8	9
1	37 (3)	78 (3)	29 (3)	70 (3)	21 (3)	62 (3)	13 (3)	54 (3)	5 (3)
2	6 (8)	38 (8)	79 (8)	30 (8)	71 (8)	22 (8)	63 (8)	14 (8)	46 (8)
3	47 (4)	7 (4)	39 (4)	80 (4)	31 (4)	72 (4)	23 (4)	55 (4)	15 (4)
4	16 (9)	48 (9)	8 (9)	40 (9)	81 (9)	32 (9)	64 (9)	24 (9)	56 (9)
5	57 (5)	17 (5)	49 (5)	9 (5)	41 (5)	73 (5)	33 (5)	65 (5)	25 (5)
6	26 (1)	58 (1)	18 (1)	50 (1)	1 (1)	42 (1)	74 (1)	34 (1)	66 (1)
7	67 (6)	27 (6)	59 (6)	10 (6)	51 (6)	2 (6)	43 (6)	75 (6)	35 (6)
8	36 (2)	68 (2)	19 (2)	60 (2)	11 (2)	52 (2)	3 (2)	44 (2)	76 (2)
9	77 (7)	28 (7)	69 (7)	20 (7)	61 (7)	12 (7)	53 (7)	4 (7)	45 (7)

Chapter Four

Composition strategy, techniques, influences

The eighty-five bars of *Travels 2* (the first piece written) are divided so that the principal motifs engender sequentially the other pieces in the cycle, hence bars 1-12 of *Travels 2* are at the core of *Travels 1*, similarly bars 76-85 for *Travels 9*.⁶⁴

Appearing as they do each time under different illumination, depicting each time different traits, and expressing different moods, the same given motives and themes correspond each time to different images, actions, and pictures.⁶⁵

Although unified by the idea of travel and inspired particularly by memories and reflections on Alexandra's writings, the individual pieces are not intended to parallel particular events in her narratives, but to evoke clusters of impressions and images retained after reading. Hence the plurals of the individual titles, indicating that no one forest/night/citadel is necessarily evoked but rather recurring images of, for instance, travelling in haste, or under cover of darkness, of suddenly changing itineraries as well as moments of illumination, exultation, arrival. Thus, the titles/mottos heading each piece (reproduced with each analysis) are suggestive, not specific. As Rimsky-Korsakov wrote:

I meant these hints to direct but slightly the hearer's fancy on the path which my own fancy had travelled, and to leave more minute and particular conceptions to the will and mood of each.⁶⁶

Paraphrasing further the memoirs of one of the fathers of modern orchestration, I intended that the listener should perceive a "narrative of some numerous and varied wonders" and not merely a sequence of pieces composed on the basis of themes common to all the movements: it is a cycle both musically and imaginatively unified.

⁶⁴ Initially, I was undecided about the role of bars 13-21 of *Travels 2*. An early plan indicates my consideration of these as 'extra' motifs in addition to those from bars 76-85 for the concluding movement (*Travels 9*). Their ultimate niche only became clear later when, beginning *Travels 8* — which employs a development of Lutosławski's 'chain' technique — I realized I needed two separate groups of motifs to generate material for the two instrumental groups whose interplay forms the piece's substance.

⁶⁵ Nikolay Rimsky-Korsakov, *My Musical Life*, trans. Judah A. Joffe, 5th revised Russian edition (London: Eulenburg, 1974), 293. Nikolay Andreyevich describes here the conception of *Scheherazade* (1888).

⁶⁶ *Ibid*, 294.

In Rimsky-Korsakov's footsteps, I wanted to continue to explore my life-long fascination for the orchestra⁶⁷ whilst also pioneering the conjunction of Tibetan instruments with those typical of Western ensembles. With some element of practicality⁶⁸ I decided that the core ensemble would be a large chamber ensemble rather than a full orchestra and that the constituent movements — apart from the focal *Travels* 2 for fullest ensemble — would explore different configurations within this. The varied ensembles would reflect the character of each piece and provide variety for both the listener and for me as composer (in broadening my technical acquaintance with a range of instruments and their combination). There would be a number of medium-sized groupings drawn from this and several smaller ones, using different alignments of wind, brass, strings and percussion as well as a wide range of Tibetan ritual instruments and countertenor voice. Thus movements 1, 4 and 8 were cast for medium-sized ensembles, and movements 3, 5, 6 and 7 for smaller groupings. An early plan to cast the last piece (no.9) for full ensemble again was set aside in favour of a small, idiosyncratic grouping capable of considerable dynamic range.

Travels 1: Flights

Alexandra's journals are replete with extraordinary encounters, travels to places then rarely visited, and sudden departures or changes of plan

Although the motto refers to Alexandra's travels in general, a defining feature of her determination to penetrate across the Tibetan border and reach Lhasa was its transgression of many perceived interests: Tibetan, British, Russian. She was seen alternately as a spy, a poseur and a madwoman, and travelled disguised as an elderly Tibetan devotee with blackened face and hair — this ruse being reinforced by the presence of her companion, her adopted Tibetan son, the monk Yongden. Hence an alert, mercurial movement seemed appropriate as an overture. Here the obbligato viola is refracted through prismatic instrumentation, by turns mellow and bright: a wind trio balancing the tessiturae of the strings (flute, alto flute and cor

⁶⁷ From the age of ten I was fortunate to experience live a range of 20th-century works as diverse as Sibelius's Symphony no.5 (1915-19), Falla's *El Amor Brujo* (1915), and Bartók's Concerto for Orchestra (1943).

⁶⁸ This practicality, however, deserted me in imagining that a cycle of an hour's duration, involving 22 orchestral musicians and a group of Tibetan performers, could frequently, if ever, achieve performance in its entirety.

anglais with one violin, viola and cello), three percussion players (foregrounding Tibetan *sbug-chal* cymbals, marimba and timpani), celesta and harp.

The piece uses eleven players - about half the full number involved in *Travels 2*. Apart from the presence of the *sbug-chal*, the sound of the *rgya-gling* is evoked by the cor anglais from bars 7-13 and again — other material superimposed — in the coda (bars 377-83). Section durations are based on those for the first events in each successive line of 'Moon matrix' (Example 3.9b, p40), hence 3-8-4-9-5-1-6-2-7 expressed as proportions of 7' 39", which is the duration indicated for this piece by the overall interval succession for the cycle (see p35).

The piece is a sonata rondo of form ABACABA plus introduction and coda. The choice of this form partly reflects a respect for musical tradition,⁶⁹ but also *My Journey to Lhasa*'s giddy accounts of Alexandra and Yongden travelling around in circles to escape detection. The piece deploys motifs from bars 1-12 of *Travels 2*, the focal generating piece of the whole cycle (these particular motifs are shown in Example 3.8, p38). Similar selections are performed for each of the remaining pieces in the cycle, and this typifies the motif selection, so similar examples will not be provided for each piece. The additional motif of a tremolando/repeated iteration recurs in each movement in some form or another.

As with Stockhausen's *Mantra*, motivic potential is used as stimulus for the overall musical invention. Stockhausen's own characteristically annotated diagram⁷⁰ shows how the four limbs of his initial mantra encapsulation cover thirteen generic gestural types which are used systematically to generate the whole piece.

In extrapolating from the 'core' music of *Travels 2* to the remainder of the cycle, I was keen to explore more specifically the melodic and contrapuntal potential of cellular ideas — and, after all, mantras were the source of inspiration for the cycle overall and are themselves melodically cellular. So, the motifs taken from *Travels 2* are melodically and contrapuntally germinal, and they are literally abstracted from their initial instrumental context: a motif on the bassoon in *Travels 2* is likely utilized by other instruments in the derived piece, and with different tessitura, attack, dynamics, metre. The very opening of the cycle may be taken as an example of

⁶⁹ It was a discursive form favoured by Beethoven's finales, for instance the fleet-of-foot example in the Symphony no.8 in F major, op93 (1812).

⁷⁰ Reproduced in Toop, op cit, 'Mantra', 76.

this. The viola flourish (Example 4.1) is derived from motifs 1/3 and 1/5; these in turn are derived from the first twelve bars of *Travels 2* (which ‘seed’ the motifs used in *Travels 1*) where they are presented in a much more contemplative context by alto flute and flute respectively (see bars 1-9, Example 4.2). In Stockhausen’s case, he takes a single gesture and hugely expands it: for instance, with the repeated note configuration which becomes the backdrop to Section 1 of *Mantra*. In my case, I work from a specific instrumental incarnation of an idea to an abstraction of that and a re-embodiment with different musical character and instrumentation. But in both cases, motivic potential is used as a stimulus for inventiveness.

Example 4.1

Travels 1, bars 2-6

Example 4.2

Travels 2, bars 1-9 (silent instruments excluded)

The focal pitch-class of *Travels 1* is A.

Each section of the piece is governed by the first pitch in the successive rows of 'Moon matrix', hence A, Ab, G, F, B, Bb, Eb, C#, C.

The focal pitch-classes do act, to some extent, as tonal centres — magnetic points to and from which the counterpoint is drawn. For instance, the piece begins on the pitch configuration A/B (cello B to A glissando, flutes B, timpani A, marimba octave tremolos on A/B) and ends with most instruments emphasizing B but the viola and one or two others, A. The process is akin to the investigation of new 'tonics' and 'dominants' "not necessarily rooted to a bass line"⁷¹ as Davies's symphonic output burgeoned, though whether this is via focused atonality or extended tonality⁷² or a mixture of both — in both Davies's case and my own — is open to debate. I do think, however, that both Davies and I were influenced early on in our journeys by the *tenor* and *finalis* as points of arrival/departure in plainchant.

The pitch elements of all nine rows of 'Moon matrix' are used in their prime versions. They are, however, manipulated in a number of ways. For instance, the repetition of pitches in row 3 suggested the idea of using this row more like a mode. It has only five constituent pitches. If the row is transposed through each of these — following a similar practice to that observed in Davies's transposition of his row above (line 6 of Example 3.5, p33) — and R, I and RI versions of these are created (Example 4.3, p47), these can be used to create antiphonal interplay of dyads between instrumental sub-groups in the ensemble (the 44 bars between [B] and [C] cover the following sequence of row 3 versions, often using cognate pitches as determining factors in the sequence P1-R5-I2-IR4/R3-P2-IR5-I1/I3-IR1-P3-R4/IR2-I4-R2-P4. The excerpt from the score, figure B, bars 81-97 (Example 4.4, p48) shows how the sequence of rows is expressed musically.

Example 4.5 (p49) shows how the ritornelli (the recurring A sections) relate to the other sections - motivically, pitch-wise and via instrumentation. Considerable use is made in this piece, as in others in the cycle, of the technique of expressive

⁷¹ Jones, op cit, 10.

⁷² Jones, op cit, 22ff, considers the successive coining of these terms by Whittall (1983, 1987), and also the latter's culminating critique of 1994 — see Bibliography for references.

doubling, observed at work in Davies's music by Phillips.⁷³ Phillips discerns several basic approaches to doubling either the identical pitch or one of its octave displacements, whether this is sustained in parallel, commences after the initial attack and either sustains it or pulses against it, or takes over once the initial attack has ended. These are, naturally, variegated in practice, as can be seen in section VIII of *Ave Maris Stella* (Example 4.6, p50) where marimba shadows flute with similar though not always identical sustained pitches and viola and cello ('quasi chitarra') present a pizzicato counterpoint in octaves. Davies is not above using unisons/octave doublings to emphasize points of arrival: this is something that was to become more common although often much more veiled — as the issue of 'tonics' and 'dominants' came to the fore in his symphonies — than in Example 4.7 (p51), which shows a very clear cadence at the end of section IV.

⁷³ Op cit, 45-49. Phillips relates this, quoting Anthony Cross ("Form and Expression in Boulez's *Don*," *The Music Review* 36 (1975), 215-30) to a tradition of colouration derived via Boulez from Debussy and Webern; I would see here one way in which Davies (and I) ally ourselves with the 'expressive' canon of Berg/Mahler rather than the more austere dodecaphony of Schoenberg (and his 'second principle of the twelve-tone method': a concern for avoiding "false expectations of tonality").

Example 4.3 'Moon matrix', row 3, treated as a mode

The musical notation is presented in five staves, each with a treble clef and a key signature of one sharp (F#). The staves are labeled P1, P2, P3, P4, and P5 on the left. Above each staff are labels for intervals: R1, I1, IR1 on P1; R2, I2, IR2 on P2; R3, I3, IR3 on P3; R4, I4, IR4 on P4; and R5, I5, IR5 on P5. The notes are arranged in a sequence across the staves, with some notes marked with accidentals (sharps and flats).

Example 4.4 Travels 1, bars 81-97, orchestrated row sequence P1-R5-I2-IR4/R3-P2-IR5-I1/I3-IR1-P3-R4/IR2-I4-R2-P4 (cf Example 4.3)

The musical score for Example 4.4, bars 81-97, is an orchestrated row sequence. It features the following instruments and parts:

- Flute:** Plays a melodic line with triplets and sixteenth notes, marked *f*.
- Alto Flute:** Plays a similar melodic line to the Flute, marked *f*.
- Cor Anglais:** Plays a melodic line with triplets and sixteenth notes, marked *f*.
- Timpani:** Provides a rhythmic accompaniment with a series of eighth notes, marked *f*.
- Bass Drum:** Provides a rhythmic accompaniment with a series of eighth notes, marked *f*.
- Marimba:** Plays a melodic line with triplets and sixteenth notes, marked *sf*.
- Celesta:** Plays a melodic line with triplets and sixteenth notes, marked *sf*.
- Harp:** Provides a rhythmic accompaniment with a series of eighth notes, marked *sfz*.
- Viola obli.:** Plays a melodic line with triplets and sixteenth notes, marked *sfz*.
- Violin:** Plays a melodic line with triplets and sixteenth notes, marked *sfz*.
- Violoncello:** Plays a melodic line with triplets and sixteenth notes, marked *sfz*.

The score includes various dynamic markings such as *sf* (sforzando), *f* (forte), *p* (piano), *mf* (mezzo-forte), and *sfz* (sforzando). It also features complex rhythmic patterns, including triplets and sixteenth notes, and various articulations such as *arco* (arco) and *pizz* (pizzicato).

Example 4.5

Travels 4: Relationship between the focal pitches of each section, instrumental groups and the ritornelli within the sonata rondo form – boxed capitals in italics relate to the latter, whereas those simply Romanized are rehearsal letters

Violoncello (and strings)

A Ritornello..... **B** **C** Ritornello.... **D** **E** Ritornello.... **F** **G** Ritornello.... **H**

Wind and percussion

INTRO

sect. A1 of Sonata Rondo **B1** **A2** **C** **A3** **B2** **A4** **CODA**

Focal pitches (= 'Moon matrix', column 1)

row 1: pitch 1 row 2: pitch 1

MM3:1 MM4:1 MM5:1 MM6:1 MM7:1 MM8:1 MM9:1

Motifs 10 (marimba) and 4 (cello)

Motif 1 (viola)

Motif 3 (vln, hp, timp)

Motif 2 and 5

Pitches of MM5 form tenor with durations of 75665566 minims ea. MM5 pitches rotated in groups (often 5s)

Motif 7 (harp)

Motifs 3, 5, 6 (marimba), 7 and 9

Procession through nine metric modulations with the nine pitches of MM9

much play of dyads derived from 'Moon matrix', row 2 in accompanimental instrumental trios

Rgva-gling evocation on cor anglais (pitches suggested by Helffer)

interjections sim. to sect. A1 but as standalone transposed by -3 (cf A flat to F) or transposed by +1 pitch A in viola later (= pitch of ritornello)

Distinct material accomp. articulates MM6

Similar sequence of motifs to B1 but sieved through Motif 8 and transposed to E flat

Overlapping triads from MM8 in accomp.

last pitch of MM9 is B cor anglais flourish returns over coda at bar 377

Viola and other strings similar motivic activity to B1 but extended by mirroring etc

Example 4.6

Peter Maxwell Davies Ave Maris Stella (1975), section VIII opening
(Boosey & Hawkes Ltd)

R1 tempo del' inizio ♩ = c.56

Fl. *f* *ff* *f*

Mar. *f* *ff* *f* *trem. sempre*

Vla. *sfz* *f* *ff* *vib.(quasi chitarra) pizz.*

Vlc. *sfz* *f* *ff* *vib.(quasi chitarra) pizz.*

S1

Fl. *f*

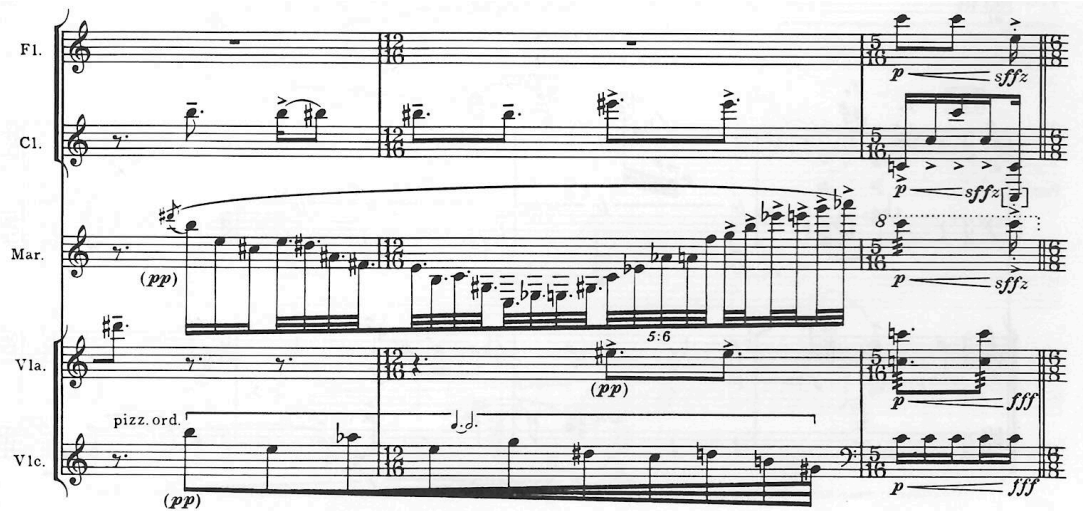
Mar. *f* *ff*

Vla. *f* *ff*

Vlc. *f* *ff*

Example 4.7

Peter Maxwell Davies, *Ave Maris Stella*, section IV close (Boosey & Hawkes Ltd)



Roberts gives two examples of disguised doubling (another Davies fingerprint) in *Ave Maris Stella*: where two presentations of a set or part-set commence together but are presented at different pace (section I, bars 21-25 in alto flute and cello), or several instruments present varied sequences of pitches derived from the same set (section IV, bars 1-5 in clarinet and cello).

I have developed variations of these techniques: in *Travels 1*, for instance, there are often transfers between instruments of identical pitch-class (bars 176-80) or octave doublings (bars 239-48, compare Example 4.7 above).

In *Travels 1* I also juxtapose varying approaches to metre in a basically fast-moving overture, evoking the sense of illicit travellers always on the watch for discovery of their true identities, ready to sleep out in the wilds and move on at a moment's notice (thus the title).

Example 4.8

Elliott Carter, *String Quartet no. 1* (1951), First Movement, bars 162-68
(Associated Music Publishers)

I therefore alternate stable metre (e.g. Section A, bars 42-59 and Section G, bars 321-31), metre which constantly shifts (section C, bars 135-42), consistent metre with subdivisions of the bar into varying numbers of tuplets (sometimes different tuplets in different parts at the same time) (all of section B, bars 81—124, with mirroring in section F, bars 259-305 particularly), and finally metric/tempo modulation (section H onwards). Elliott Carter, in commenting on his development of metric modulation emphasized its capacity to enable “proceeding smoothly or abruptly”.⁷⁴ Whereas some of the alternations described above enable some quite

⁷⁴ From Carter’s 1985 postscript in Bálint András Varga, *Three Questions for Sixty-Five Composers* (Rochester, NY: University of Rochester Press, 2011), 44. Here Carter refers those inquisitive of “stratification, polyrhythm, metric modulation in my own music” to ‘Music and the Time Screen’ in *The Writings of Elliott Carter: An American Composer Looks at Modern Music*, ed Else Stone and Kurt Stone (Bloomington: Indiana University Press, 1977). This describes metric modulation as “a mode of proceeding smoothly or abruptly from one speed to another and as a formal device to isolate one section from another. Generally, these work together...”

abrupt transitions, the sequence of metred modulations developed for the later part of the movement emphasize the other quality.

When working on this section, I created a table summarizing chronological durations for multiples of bars in 4/8, 5/8, 6/8 and 9/8 and noted comparable values, for transitions:

Example 4.9

Travels 1, comparative table of durations for various metronomic rates, those highlighted with identical colour being treated as equivalent in practice

		crotchet=60	crotchet=72	crotchet=96	crotchet=108	crotchet=120
		duration/secs	duration/secs	duration/secs	duration/secs	duration/secs
8 bars	4/8	16.00	13.36	10.00	8.88	8.00
	5/8	20.00	16.70	12.50	11.10	10.00
	6/8	24.00	20.04	15.00	13.32	12.00
	9/8	36.00	30.06	22.50	19.98	18.00
9 bars	4/8	18.00	15.03	11.25	9.99	9.00
	5/8	22.50	18.79	14.06	12.49	11.25
	6/8	27.00	22.55	16.88	14.99	13.50
	9/8	40.50	33.82	25.31	22.48	20.25

In this respect I see Carter's String Quartet no. 1 (1951), characterized, as Schiff ⁷⁵ has it, by "cinematic continuity" as a primary model (as in Example 4.8, p52).

Travels 2: Forests

Alexandra and Yongden's long journey across difficult and inhospitable terrain from China to Tibet is still shrouded in magic and mystery today

The largest complement of (Western) players is used in this movement, the first to be written and the one from which all the others are motivically derived. One of the residual images from reading Alexandra's journals was of journeying through dark woods at night with two goals: an immediate one for the next morning, and a wildly ambitious one of reaching Lhasa. Could this be a reassuring paradigm of the act of

⁷⁵ David Schiff, *The Music of Elliott Carter*, new edition (London: Faber, 1998), 57.

composition, especially for one like myself who began this cycle here, working on the project for only a few hours at a time in the midst of an otherwise busy working life?

This piece is an aria for viola, and although accompanied by the full instrumental ensemble, the wind, brass and percussion are used vestigially to point up alternately the viola cantilena and the occasionally erupting figuration. One unusual feature is the presence of Tibetan *sbug-chal* (deep-domed cymbals) whose characteristic *diminuendo* rebounds (reiterations impelled by the weight of the cymbals themselves) colour the orchestration with a thrice-occurring refrain, matched by jittery figuration in the upper strings. A wide range of similar iterations (trills, tremolos, etc) recurs in each piece as explained above (see 'Motifs' p36, and Example 3.8, p38).

Ushered in by the first violin, the viola initiates a slow procession through 'Moon matrix', balanced by the *fioriture* rotating from instrument to instrument. On the use of 'nuclear' pitches to articulate structure, a feature which characterizes this piece and the other eight derived from it — together with their sub-sections — the following comment from Smaldone, on Takemitsu, invites comparison:

In both the Japanese traditional music and in these compositions by Takemitsu (1) musical space is articulated through a process of nuclear tones and (2) large-scale pitch organization is defined by the path between these nuclear tones.⁷⁶

The focal pitch-class is F#. Some two thirds of the possible permutations of the *fioriture* (P, R, I and RI) are used. As indicated above, these are used to generate a proportion of the material in all the other pieces. As the *fioriture*, being strictly generated, could have a homogenizing effect on the individual soundscape, characteristics have been exaggerated to suit the character/instrumentation of each piece.⁷⁷

There is a constant pulse of crotchet = 100, and an unchanging 5/4 metre whose steady processional tread owes something to the examples of Boulez (*Rituel*, 1975)

⁷⁶ Edward Smaldone, 'Japanese and Western Confluences in Large-Scale Pitch Organization of Tōru Takemitsu's November Steps and Autumn', *Perspectives of New Music* 27, no. 2 (Summer 1989): 218.

⁷⁷ Echoing the Rimsky-Korsakov quotations on p41.

and Birtwistle (*The Triumph of Time*, 1972; *Silbury Air*, 1977).⁷⁸ The viola writing may invoke the Feldman of *Rothko Chapel* (1971) — but this is the viola in **my** life.⁷⁹

Maconie's observations on prefiguring and reprising in *Mantra*⁸⁰ unexpectedly crystallized my approach here. Not only does Stockhausen iterate the thirteen characteristics of his mantra as subsidiary in all sections and principal in one, he gathers together all the expansions and transformations into four layers in the climactic two-piano cadenza, gradually condensing all the motifs into vertical harmonies. The whole piece is as it were *reprised* in this cadenza. In my cycle, the inverse is the case, the entire cycle is (motivically, at least) *prefigured* in *Travels 2*.

Travels 3: Intimations

Even as a child, Alexandra would stand at the garden gate and imagine worlds beyond: adventure, escape, solitude

From quite early on I felt it wanted to introduce the human voice at key points in the cycle, to celebrate the extraordinary imagination which vivifies Alexandra's writings by — in some sense — allowing her to speak for herself. The choice of a countertenor was immediate, complementing as this voice can viola timbres, and evoking as it does a tradition of heroic arias appropriate for one who surrendered an early career as a diva in favour of that of daring adventurer. The text (as with *Travels 8*, p94) is a translation into French of a paraphrased section of the English introduction to David-Néel's *My Journey to Lhasa*.⁸¹ I wished to emphasize the poetic Alexandra evidenced in her description of sights or experiences at inspired moments, and to do this in French (her native language). But I was unable to find a version of this text in French, so was led to presume it only appeared in the English edition.⁸² The French texts I set have, thus, been specially written (see fn16, p8).

⁷⁸ See comments on *Travels 8* (pp94ff), which also reveals some indebtedness to these models.

⁷⁹ *The Viola in My Life* is a series of four pieces for viola and various instruments which Morton Feldman began in 1970.

⁸⁰ Robin Maconie, *Other Planets: The Music of Karlheinz Stockhausen* (Latham, MD: Scarecrow, 2005), 332.

⁸¹ Op cit, xvii-xxvi.

⁸² I also presumed, of course, that the words were Alexandra's own or a translation of them. For me, they resonate with other writings of hers I have read in both the original French and in translation, so trust this 'poetic licence' can be exonerated.

The text evokes Alexandra's memory of standing at the garden gate of her childhood home,⁸³ struck by a sense of the wonders and challenges awaiting in the world beyond. Hence the beckoning provided by the Tibetan ritual instruments in the 'windows' between the ecstatic flights of the violin trio — the latter possibly indebted to my fondness for the stratospheric string writing of Tippett e.g. the opening of his Symphony no.2 (1957).

Intimations

I craved to go beyond the garden gate,
to follow the road that passed it by
and to set out for the unknown ...

J'aurais donné mon âme pour dépasser
la porte du jardin, et, au delà,
suivre la route qui mène au loin,
partir pour l'inconnu,

... a solitary spot where I could sit alone
with no-one near

une solitude loin des gens
ou je vivrais en paix.

I dreamed of wild hills,
immense deserted steppes
and impassable landscapes of glaciers.

Je rêvais de colline sauvage,
de steppe immense et désertée,
d'infranchissables glaciers.

*Rendering into poetry by Richard Bolley
from the prose Introduction to the English
edition of Alexandra David-Néel, My Journey to
Lhasa (1927)*

*Translation into French by
Terence Dooley (used by permission)*

The obligato viola complements the countertenor, and provides both 'tenor' (functionally) and bass (tessitura-wise). This literally heightens the pitch of the piece, appropriate perhaps for an evocation of a childhood vision and one hinting at distant landscapes and lofty modes of experience. The accompanimental antiphony of three violins is complemented by two players of Tibetan instruments (each playing *dung-dkar*, alternating these with either *dril-bu* or *damaru*).⁸⁴ Not only is it unusual to find these Western and Tibetan instruments combined in an ensemble, but these particular Tibetan instruments would not normally be played together. The *dung-dkar* (conch shells) are often used to summon monks to the *lhakhang* for

⁸³ Born in Paris in 1868 and christened Louis Eugénie Alexandrine Marie David, her family returned to Brussels (where her parents had met) in 1874 — it is not clear whether the garden evoked is French or Belgian.

⁸⁴ A listener following the recording with the score will notice there is one missed *dung-dkar* entry — the responsibility of the composer who, as assistant conductor, had turned over two pages of the score by mistake! There have also been minor orchestration adjustments to the score since.

the various rituals of the day, whereas both *dril-bu*⁸⁵ and *damaru*⁸⁶ would normally be played at moments of heightened interaction with archetypal figures.

In approaching the use of the Tibetan instruments in a Western chamber ensemble, I learnt much from Takemitsu's music, particularly his *November Steps* (1967), my first encounter with which was particularly telling. Intrigued even then with anything testing the 'frontiers of music',⁸⁷ I seized on the double-LP set and avidly sat down to listen to it, expecting, I think, to immerse myself in a rhapsodic merging of ethnic and contemporary sounds. I was dumbfounded, and disappointed (at least, initially). Here were very cool, mostly sparse instrumental textures, superseded by multi-divided string chords, harmonics or glissandi and brief interjections from an ensemble of wind instruments and diamantine percussion. These 'western' elements, distinctive in their sound palette certainly but not hugely surprising for a composer widely considered then as avant-garde, were literally juxtaposed with seemingly isolated solos for the *biwa* and *shakuhachi*, whose sounds seemed to hang in space or arrive as if from another planet. Not at all what I was expecting in terms of a bridge between East and West. As Burt writes: "For the most part ... in *November Steps* the worlds of 'East' and 'West' resolutely proclaim their separateness."⁸⁸ In fact, Takemitsu did exactly the opposite of what I was naively expecting: "Takemitsu avoids the temptation of opting for the most obvious and superficial form of East-West hybridization, the appropriation of Japanese scales and melodies."⁸⁹

Likewise, I resolved to use Tibetan ritual instruments, normally reserved for particular purposes, either directly overlaying Western instruments (as with the wind in *Travels 4* and *9*) or — as here — by creating 'windows' in the texture. These

⁸⁵ As is often the case with Tibetan ritual organology, the bell is of both symbolic and sonic significance. It appears in iconography and monastic ritual held in the left hand of the deity/practitioner to symbolize wisdom, often counterbalanced by the vajra (sceptre), held in the right to symbolize compassion or 'skilful means' — see Helffer, op cit, 193ff.

⁸⁶ A small drum shaped like an hour-glass. It has two small beads attached to a string that winds around the middle of the instrument. Held in the right hand and rotated quickly from side to side, it creates a light but penetrating pattering.

⁸⁷ I choose this term as a tribute to Wilfrid Mellers, who dazzled undergraduates at York University with his somewhat imperialistically entitled 'Frontiers of Music' course, which covered everything from D. H. Lawrence's *Mornings in Mexico* (1927) to modern Jazz — via Bessie Smith, Bartók and Sorabji.

⁸⁸ Peter Burt, *The Music of Tōru Takemitsu* (Cambridge: Cambridge University Press, 2001), 116.

⁸⁹ Shinju Saitō and Maki Takemitsu, eds., *Takemitsu Tōru No Sekai [The World of Tōru Takemitsu]* (Tōkyō: Shūei Sha, 1997), 235.

occur at specific intervals throughout the piece: either accompanied by sparse violin fragments, harmonics or *tremolandi sul ponticello* or — at the beginning, middle and end (which ‘windows’ literally stand outside the durational structure of the piece) — unaccompanied.

The ‘window’ occurrences are like suspended ‘moments’ as a result — and here the influence of Takemitsu is again apparent. Not only would Takemitsu have been aware of the contemporaneous ‘moment-form’ works of Stockhausen, but he also articulates his own distinctive approach to the orchestra: “I approach the orchestra in a way which, I think, is perhaps a little different from the way Occidentals see this thing called an orchestra. I am always analogizing it as a garden, not just in *A Flock Descends into the Pentagonal Garden*, but in the case of any piece.”⁹⁰

The notional length of the piece provided by the durational interval succession was 2’33”. Initially a regular 5/4 metre was chosen, at crotchet = 96, seemingly more flowing than the almost equivalent marking of *Travels 2* because of the fleeting, overlapping semiquavers in the violins. Each section was expected to be of equal length (five bars) with a two-bar introduction and four-bar coda, and would overall broadly balance the eight lines of poetry. However, the resulting combination of expressive French poetry, intricate violin passage-work and the reverberant Tibetan instruments felt too cramped. So, In order to enable the music to ‘breathe’ more, and provide for brief ‘windows’ (introduction, interludes and coda) for the Tibetan instruments, the interludes being accompanied by violins, this was extended to 4’04” by robbing 1’31” from the notional length of *Travels 9*, leading to the structure outlined in Example 4.10. The calculations for adjusting durations across the whole cycle are shown in Example 4.11 which follows (p60).

⁹⁰ See ‘Roger Reynolds and Tōru Takemitsu: A Conversation.’, *The Musical Quarterly* 80, no. 1 (1996): 61–76. Takemitsu expands: “What I do is to translate an extremely specific plan of a garden into music. The point is that there are many different ‘times’ in a garden ... the movement of vegetation, the ‘time’ of vegetation growing, the fast changes of elements like grass ... there are rocks and sand ... I’m invested in this sort of traversing of multiple ‘times’, and as much as possible I want to understand the orchestra in this way.”

Example 4.10

Travels 3, adjustments to section lengths effected by 'window' bars

Section	Initial length in bars	Final bar length	Focal pitches (based on 'Alex set-B')
Introduction	2 [1 of 5/4 + 1 crotchet]	<u>external window 2</u> + 2 = 4	B
[A]->	5	5, no window	B
[B]->	5	5 + window 2 = 7	G#
[C]->	5	5 + window 3 = 8	C#
[D]->	5	5 (incl. overlaid window 2) = 5	E
[E]->	5	5, no window	C
[F]->	5	5 + window 3 = 8	Bb
[G]->	5	5, no window	D
[H]->	5	4 + window 2.5 + <u>external window 2.5</u> = 9	F#
[I]->	5	5, no window	Eb
Coda [J]->	4 [2 of 5/4 + 2 of 3/4]	4 [2 of 5/4 + 2.66 of 3/4] (incl. window equivalent 2 of 5/4) + <u>external window equivalent 3.6 of 5/4</u>	B/C#

Example 4.11 Adjustment of durations for Travels 3, 7 and 9, including the allowance for 'windows' in Travels 3 (four decimal points included only to show precision of the calculation)

Movement	Notional length in plan	Actual length	Too long by
Travels 9	6' 48"	3' 00"	
Travels 7	3' 24"	6' 10"	2' 46"
Underlength when above two added together:			
Travels 3	2' 33"	4' 04"	1' 31"
Overlength after including Travels 3 lengthened:			
1 bar of 5/4 at crotchet = 84 equals duration of 3.5714"			0' 29"
Make 'external' window in centre:			
2.5 bars of 5/4 equating to 8.9286"			0' 08.9286"
Tibetan opening 'external' window in final version, 2 bars 5/4			0' 07.1428"
Tibetan closing 'external' window in final version, 3.6 bars 5/4			0' 12.8570"
'External' windows in Travels 3 justifying overlength overall			
			0' 28.9284"

As indicated above, with this piece I began to think much more about points of contact between Tibetan and Western instruments which would focus on timbre and texture as much as pitch, encouraged by Takemitsu.⁹¹

However, careful pitch selection continues. The focal pitch-class is B and the primary set is therefore 'Alex set-B'. Although the coda tends to suggest a return to B (sustained on the 2nd violin), the initial motif on the viola (motif 3/3) returns on Db, tending to emphasize this (actually C#) at the close, which prefigures the focal pitch-class of *Travels* 9, the last piece in the cycle. The *dung-dkar* will, of course, spice any tonality with their own pitches⁹² and upward fluctuations on crescendi, according to their size and shape. Motif 9 here has the same intervallic contour as 'White Tārā' and occurs frequently in the piece, often (as in the opening viola solo) leading into a sequence of upward-yearning major thirds, counterbalancing the minor 3rd prevalent in the frequently recurring motif 3/3. I am aware that this, and the 'flying' gesture returning in different configurations for the three violins, developed rather more organically than is otherwise the case in the cycle, perhaps because of the expressive needs of the poetry. Another rather organic element in the writing of this piece was the way that the quintuplets which characterize motif 3/1 and appear in both viola and voice near the beginning take on an independent life in the violins, later stretching over first one then two octaves to heighten the expression. The recurring 'pulsation' found in every movement becomes here a series of restless pizzicati and tremolandi blending with the string harmonics which accompany the Tibetan 'windows'. Motifs 3/1, 3/3, 3/8 and 3/9 are prevalent in the vocal part and, to some extent, the strings, and the violins interweave tiny processions through some of the *fioriture* with their flights and pulsations - those on

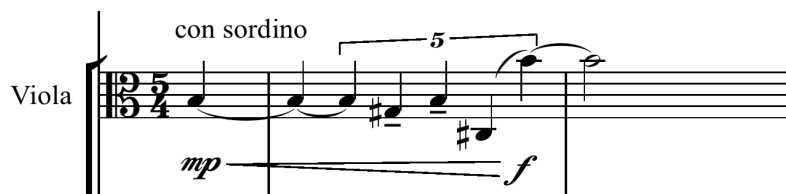
⁹¹ This is not to imply this parameter is unimportant to Takemitsu. Burt makes a case for common tones between Japanese and Western instruments featuring at the cusps of sections in *November Steps* (op cit, 117) and Wilson even speaks of a 'thematic' use of the pitch F from the work's beginning. See Dana Richard Wilson, 'The Role of Texture in Selected Works of Tōru Takemitsu' (PhD dissertation, Eastman School of Music, 1982), 184. My investigation located this pitch on violins and harps at the very beginning, as opening pitch of the *biwa* and closing pitch of the *shakuhachi* in their first duet and return of this pitch in the concluding gesture of the right-hand group of violins (3 bars after figure 65). Smaldone (op cit, 221) presents a reduction of the opening, showing the importance of F and the trichord 0-1-3 and seeing in Takemitsu's practice subtle references to the deployment of primary and secondary pitches in traditional Japanese modes.

⁹² Approximated in the score. The aptitude of the particular performers will also affect the tone quality and the pitch fluctuations.

B [bars 10-12], part of Bb,r [bar 13], part of C,r [bars 16-17], I-E [bars 26-30] and I-Bb,r [bars 36-39] — always mindful of the focal pitch-class of the particular section.

The opening viola gesture (Example 4.12) typifies the idea of expanding the mantra from its original cell, here by octave transpositions.

Example 4.12
Travels 3, bars 3-5



This can be compared with bars from *Travels 4* (Example 4.13) where the intervals are variously extended.

Example 4.13
Travels 4, bars 34-37, motif 4/2 with intervals of mantra stretched in viola, accompanied by motifs 4/6 and 4/3 in double bass

Through techniques like this and the composing out of the pitches of 'Alex set' in various transpositions throughout the cycle, the whole work can be seen as an expression of the mantra.

This bears comparison, I think, with Stockhausen both in conception and effect, as he expands his eight-bar mantric formula not only gesturally, but pitch-wise, from the containment of just over an octave (e.g. the major 9th compass of the initial

presentation of the mantra, Piano I, right hand, bars 3-9) to three octaves plus a minor 6th (e.g. in Section 3, bars 91ff), and time-wise, from 3.5" (e.g. in Piano I, bars 19-20) to one of the two occurrences of 212" (underlying the first main section overall, bars 12-61). There is also the sense in which, like a prayer-wheel, Stockhausen's music is rotating his mantra over and over again although at different speeds, with rates of modal and rhythmic expansion/contraction and diverse characteristics/techniques, and maybe thus encouraging a higher state of awareness as would the repetition of a traditional mantra.

My approach is similar, in that I am also invoking my mantras all the way through my cycle — and not just in *Travels 5*, particularly named — whether they are close to the musical surface or not. And the eruption to the musical surface of a mantric detail (as in Example 4.12) is intended to remind the listener of this.

Travels 4: Scherzi

In just a few words, Alexandra describes travelling to many different countries in Asia and staying in rare and beautiful places

Travels 4 is a *jeu d'esprit* inspired by an extraordinary passage where, lamenting the need to depart from the 'Land of Snows',⁹³ Alexandra makes fleeting reference to stays in three quite distinct countries in less than a hundred words.⁹⁴ One longs to know more. (It is rather like someone showing you photos of a round-the-world trip on their mobile at a coffee break.) I had the idea of nesting glimpses of other musical cultures that particularly intrigue me (apart from Tibet) within a recurring *allegro* motion, their diversity leading to the plural of the title, *Scherzi* — the whole intending to give a sense of the enormous range of contexts Alexandra allegedly covered both physically and culturally.

⁹³ An euphemism for Tibet used by Alexandra and contemporary writers, and a translation of one of the poetic names for the country used by Tibetans (*Gangs yul*).

⁹⁴ *Magic and Mystery in Tibet* (London: Souvenir Press, 2007), 73. In Alexandra's case the countries were respectively Burma (as it was then), Japan and Korea.

In *Travels 4* the interludes are based successively on: a range of films of Indian musicians interpreting the renowned *Rāg Bihag*,⁹⁵ a notation of a Javanese gamelan piece, *Ketawang Puspawarna*,⁹⁶ and a sound recording of Japanese chanting⁹⁷ — each of these filtered through the pitch gamuts underlying my piece. Like *Travels 1*, this is a rondo — though not a ‘sonata rondo’, as the interludes are distinct and not related to each other either thematically or colouristically — and it also uses a reduction of the full ensemble (but 17 players here: the full wind and brass complement, piano doubling harpsichord, harp and a double bass partnering the viola). The instrumentation extends to two Tibetan *dung-chen* (long-horned trumpets), adding their jubilant unpredictability at climactic moments.⁹⁸

To emphasize the alternation of recurring rondo and diverse episodes, the ensemble is split into (overlapping) concertinos. The rondo sections feature interplay between a woodwind ‘choir’, the brass trio plus *dung-chen* and the viola in tandem with the double bass. A tenor created from pathways through ‘Alex square’ and ‘Moon matrix’ is rung out by crotales and vibraphone at intervals throughout the piece. The interludes which make fleeting reference to other cultures, reinforced by changes of metre, are coloured (in the case of India) by the viola accompanied by double bass harmonics and trills, with harp and harpsichord creating a rippling backdrop recalling a tambura; with piccolo and vibraphone accompanied by alto flute, clarinet, horn, trombone and tam-tams (Java); and accumulating woodwind with marimba, harp and piano interjections (Japan).

This, the fourth piece in the cycle, is structured on the durations of ‘Alex square’, column 4, expressed as a ratio of time-points, viz 7:3:8:4:9:5:1:6:2. I had in mind a fast-moving piece (dotted crotchet = 144), basically in 9/8 metre (nine being a rather important number in the cycle overall: nine pitches in ‘Alex set’, nine pieces in the

⁹⁵ Including the vocalists Rashid Khan, Asif Ali Khan and Meeta Pandit, and sarangi players Ram Narayan and Sultan Khan — see Bibliography.

⁹⁶ Given in modified staff notation in Neil Sorrell, ‘Java’, in *The Other Classical Musics: Fifteen Great Traditions*, ed. Michael Church (Woodbridge, Suffolk: Boydell Press, 2015), 66.

⁹⁷ The chanting of the Buddhist monks at Tōdaiji temple, Nara, during the annual *Omizutori* ceremony (‘The Traditional Music of Japan’, Victor VDR-5067, CD recording, 1986).

⁹⁸ I realized right from the start that the instrumentation of my cycle was likely to make performance less feasible. After all, experienced *dung-chen* players (for example) aren’t available in England at the drop of a hat! Therefore, this piece could certainly be played with just one of these, but the nature of the breathing involved renders pairs of wind instruments *de rigueur* in Tibetan ritual music. There is also, again, the recurring idea of balanced effort, of left and right hand — Wisdom and Compassion.

cycle, etc). In order to make the section lengths match as closely as possible the durations indicated by this durational interval succession, and also to give some enlivening disruption to the ostinato, I worked out a sequence of interventions from other metres for each section. Thus, the fourth section - from [C] to [D] - was of notional length 29.11", equating to 261 quavers, which I chose to express as one bar of 7/8, plus one bar of 12/8, plus 27 of 9/8 — actually 262 quavers (an adjustment of +1 quaver). Similar adjustments were made in each section (up to a maximum of 8 quavers) to achieve the overall desired lengths for both sections and overall piece, and also the right balance of continuity/disruption in the toccata-like flow.

All the motifs derived from bars 31-39 of *Travels 2* are used. To match the durational structure, the pitches of 'Alex square', column 4 feature in each section. As this features several repeated pitches however, focal triads are deployed for enrichment. These are derived from 'Alex square', column 4, row 4 and row 5 respectively (the latter is, incidentally, identical in pitch classes to the fifth Stravinskian rotation of 'Alex set-A'/'Alex square', row 1 — see Examples 4.14 and 4.15).⁹⁹

Example 4.14

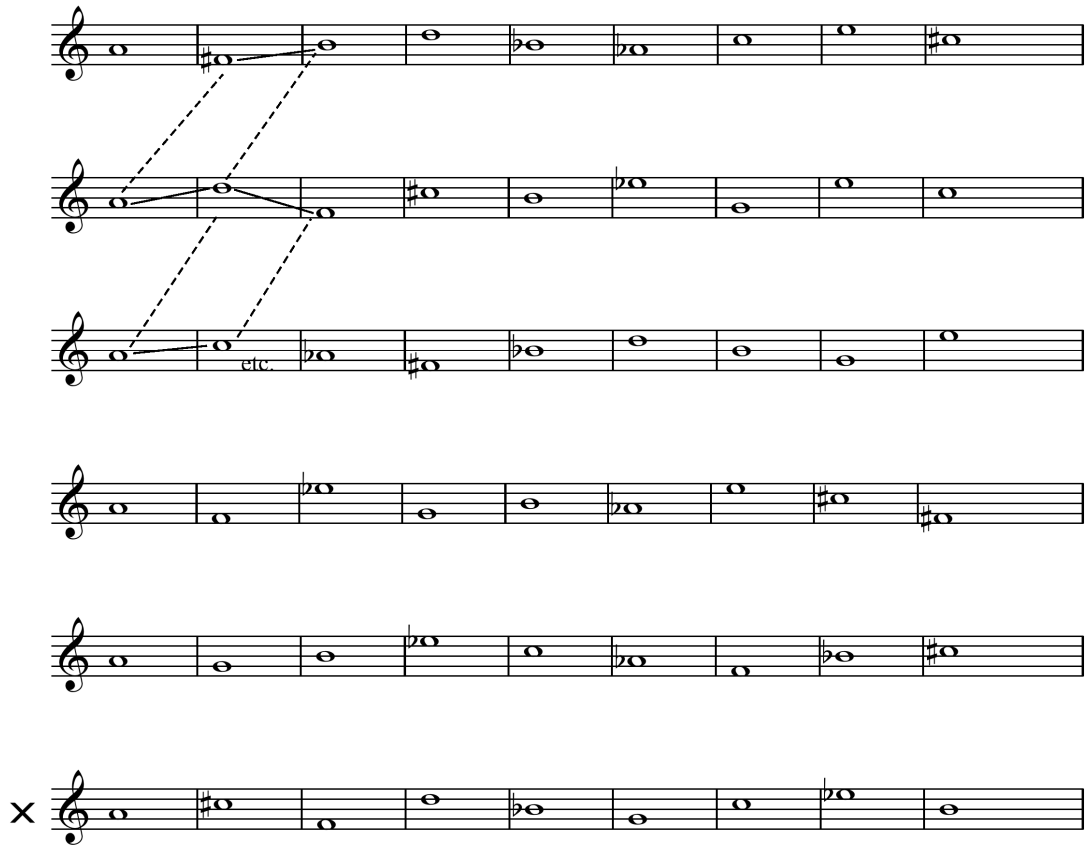
Travels 4: table showing how three routes through 'Alex square' provide focal pitches (and triads, if read vertically) for sections demarcated by the [boxed] rehearsal letters

	A	B	C	D	E	F	G	H
'Alex square', row 5 = row 1, rotation 5								
'Alex square', row 4								
'Alex square', column 4								

⁹⁹ In his late music, Stravinsky relies on rotational arrays from a basic set, whereby each succeeding rotation begins on the same pitch — in rotating 'Alex set-A' this would be A — but commences with the subsequent interval of the original set. A detailed explanation of Stravinsky's serial usage in the Postlude of his *Requiem Canticles* (1966), for instance, is given in Joseph Nathan Straus, *Stravinsky's Late Music* (Cambridge, UK: Cambridge University Press, 2001), 243–48. A concise summary is also given by Straus in *Introduction to Post-Tonal Theory*, 3rd ed (Upper Saddle River, NJ: Prentice Hall, 2005), 231–34.

Example 4.15

Stravinskian rotation of 'Alex set-A', showing row 6 (5th rotation, marked x) as identical to 'Alex square' row 5 in Ex 4.14



All *fioritura* patterns from *Travels 2* not otherwise allocated are used to elaborate a 'continuo' of harp and harpsichord (e.g. the first five motifs in bars 28-31, 62-6, 79-82, and beginning again, with the addition of the marimba to the continuo, and running right through them from 245 to the end).

The tenor rung out by crotales and vibraphone is a tribute to a similar, recurrent usage of tuned percussion in the Davies symphonies e.g. in the transition section of the first movement of the Symphony no.1 (between figures [16] and [21], written at the very time Davies was beginning to develop magic-square material out of the *Ave Maris Stella* plainchant).¹⁰⁰ In my case, the pitches and associated durations of 'Alex square' are given to the vibraphone, commencing at the D at the top of column

¹⁰⁰ A very detailed consideration of the symphony is given in Phillips, op cit, 178-327.

4 (cf Example 4.14, third stave, which articulates this column pitch-wise), proceeding down this column, then up the next, and continuing at the bottom of column 1 after reaching the top of column 9. The crotales work through 'Moon matrix' in reverse from the end of row 9 to the beginning of row 1, beginning each row at the end. However, in order to destabilize the progression slightly — and thus make it more interesting¹⁰¹ — the sequence is split into four episodes, one between [B] and [C], the second between [C] and [D], the third between [E] and [F] and the fourth in the coda, after [H]. Furthermore, both players begin in the middle of their cycles (i.e. the A which begins 'Alex square' row 5 in the vibraphone and the D which is the fifth pitch of 'Moon matrix' row 3 for the crotales). In addition, they play in canon — initially at a separation of two bars. In the first episode this delay is disrupted by the incursion of other material (from tubular bells, played by the crotales player) and additional rests in the vibraphone part. In the second and third episodes the interval is reduced to 12 quavers and 6 quavers respectively. In the fourth episode, the two parts respect the combined matrices, although the vibraphone enters two bars earlier.

I was also exploring at the time so-called 'infinity series' favoured by Per Nørgård, and experimented with creating one from the intervals of 'Green Tārā'. This led to a series of intervals expanding hugely in range but not in variety of pitches, so these were used these to create chorale-like interjections for the brass which — reinforced by the limited pitch gamuts of the *dung-chen* — create 'pedal points' in the otherwise mobile texture.¹⁰²

The recurring ostinato sections — foregrounding the woodwind choir — are based on permutations of motif 4/2. The motivic interplay from the beginning to figure [B]

¹⁰¹ There is also, possibly, an element of disguise here — perhaps not inappropriate for one intrigued by both the arcana of Maxwell Davies and the 'non-sense' syllables interjected into Tibetan ritual chant. A concise introduction to the former is given in Richard McGregor, 'The Maxwell Davies Sketch Material in the British Library', *Tempo* 196 (April 1996): 9–19. This is supplemented by the same author's 'The Maxwell Davies Sketch Material in the British Library [Appendix]', *Tempo* 197 (July 1996): 20–22. On the subject of the varieties of *tshig-lhad* syllables — rhythmic and melodic interjections into the chant structure — see Alice Egyed, 'Theory and Practice of Music in a Tibetan Buddhist Monastic Tradition' (PhD thesis, University of Washington, 2000), 116–25.

¹⁰² Burt (op cit, 117) describes use of both pedal points and common tones to enable interplay between Western and Japanese instruments in *November Steps*, and I note that the two lowest pitches of the *dung-chen* as indicated by Helffer, op cit, 58, are G sharps. Pedal points linking brass and *dung-chen* are used to interrupt the woodwind ostinato here (see bars 18-29 and 50-61), noting of course that both the inherent pitches of a particular instrument (or pair) and the fluctuations produced by individual players will vary.

is characteristic of the devices used in this piece. There is a recurring sequence of: (1) an opening 'flurry' (based on the pulsation/tremolando motif), (2) an accumulating series of woodwind entries with each instrument presenting its individual derivation from motif 4/2, (3) a 'chorus' of the instruments in quasi-unison, and (4) a closing 'flurry'. There follows a varied repeat with minor adjustments (bars 40-72), but the individual motifs in the woodwind are retrograded and transposed +3 by pitch interval (up a minor third); from bars 73-97 the motifs return to their prime forms but the entries between the instruments are compacted/overlapped and transposed +5 (perfect fourth) from the first occurrence. The pitch terracing of these three occurrences thus outlines the key intervals outlined by 'White Tārā'. The woodwind episodes are juxtaposed with three fanfares from the brass instruments (initially tracing the narrow confines of the 'infinity' series) and interjections from viola and double bass (based on motifs 4/2, 4/6A, 4/6B) which alternate capricious motivic fragments with sustained chords.

Two additional techniques favoured by Davies are explored in *Travels 4*. One is what Phillips¹⁰³ describes as *quodlibet polyphony* in which there may be a governing line (more like a medieval 'tenor' and often not in the bass) but around this the other lines maintain their own distinct character/pace/colouration, almost as if they have been independently composed — certainly separately crafted. This is a characteristic device of Davies's, and not only in the music from the 1970s, but also of the medieval/renaissance musical models he admired. I like the way this enhances a prismatic, diamantine character — especially if emphasized by timbral distinction. Examples in *Travels 4* are the distinct lines of viola, double bass, harp and harpsichord in the 'Indian' interlude (bar 107ff, see below), the interplay between viola and crotales/vibraphone in bars 223-38 and in the overlaying of different musics from the concertinos described above in the ostinato sections.

The other is eruption into the musical fabric at key points of primordial material. Here 'White Tārā' resounds across the full ensemble just after letter [F] with a distinctly C-minor tinge, before being taken up by the viola from letter [G] onwards, with octave doublings, against the rising 'Japanese' tide of the woodwind.

¹⁰³ Op cit, 22ff.

We experience similar outbreaks (although, of course, carefully prepared) in the first and last movements of Davies's *Hymn to St Magnus* (1972), in *Worldes Blis* (1969),¹⁰⁴ and, notably, at the dramatic climax of the opera *Taverner* (1956-72), when the 'In Nomine' melody bursts to the surface. In *Ave Maris Stella* we experience gentler epiphany in the alto flute's 'neumes' in bars 18-23 of Section IX (Example 4.16) — this version likely derived from the First Symphony where the alto flute articulates the sieved plainchant at the beginning of the second movement.

Such outbreaks are anchoring, especially when allied to a 'tonal centre', as is often the case with Davies. There is some sense here of a "return to the hierarchization of tonality" that Harvey has also observed in Stockhausen's *Mantra*, another work which seeks, as in *Travels*, to "reduce conflict between tonal structure on one level and serial structure on another."¹⁰⁵ Harvey cites the sequence of ring-modulator frequencies mirroring each other, enabling two tonics to operate in each section, over an overall background tonic for the work of A (incidentally the same as for *Travels with Alex*).

The three interludes have characteristic features:

India (bars 107ff) This section is modelled on a *rāg* of my own, using the pitches F, F#/Gb, Ab, B and D. The first three pitches are the focal pitch-classes for section [B] indicated in Example 4.13 (p62). There is a melismatic solo line for the viola, accompanied by double-bass trills/harmonics, lapping tambura-like harp (quavers 9:8) and harpsichord (quavers 6:4).

¹⁰⁴ "Although supposedly based on the medieval monody, 'Worldes Blis', this is only 'discovered' towards the end rung out on the bells. In fact, a case can be made for the work not being 'based on it' at all, viz. Jo Wilhelm Siebert, 'Worldes Blis: A Title and Its Implications' (Canterbury Christ Church University: 'New Perspectives on the Music of Sir Peter Maxwell Davies' conference presentation, 2018).

¹⁰⁵ Jonathan Harvey, *The Music of Stockhausen: An Introduction* (London: Faber, 1975), 127.

Example 4.16

Peter Maxwell Davies, Ave Maris Stella (Boosey & Hawkes Ltd): alto flute plainchant simulacrum in 'neumes' in section IX

The musical score is divided into two systems. The first system consists of six staves: A.Fl. (Alto Flute), Cl. (Clarinet), Mar. (Maracas), Pno. (Piano), Vla. (Viola), and Vlc. (Violoncello). The A.Fl. staff begins with a box labeled 'C2' and contains the notation *pp* and *p (pochiss. sf ogni nota)*. The Mar. staff includes the notation *5:6* and *5*. The Pno. staff features a trill marked *tr*. The Vla. staff has the notation *p*. The Vlc. staff has the notation *p*. The second system continues with the same six staves. The A.Fl. staff has a *p* dynamic. The Cl. staff has a *p* dynamic. The Mar. staff includes the notation *5:6*, *mp*, and *p*. The Pno. staff includes the notation *piu luminoso*, *tr*, and *8*. The Vla. staff has the notation *mp* and *p*. The Vlc. staff has the notation *mp* and *p*. The score is written in 8/8 time and includes various musical notations such as notes, rests, and dynamic markings.

Indonesia (bars 164ff) ‘Alex square’ row 4 is transformed into two *sléndro*-like¹⁰⁶ sets of five pitches each sharing the focal B pitch of section [D]. This interlude is split into three episodes: the first and third use the first hexachord, the second uses the other — creating a sense of alternation, or *chiaroscuro*.

Japan (from rehearsal letter [G]) The woodwind mimic the sound of individual voices gradually adding their weight and ornamentation to the voice of a cantor (as in the recording which inspired this material, see fn97, p64). A note in the score at rehearsal letter [G] encourages the players to ornament more freely as the section moves towards a climax. Against this the ‘continuo’ instruments commence what will now be a complete run through their cycle of motifs (the marimba now added) and the viola sounds ‘White Tārā’ with interjection and support from the double bass, recalling this duo’s material in the opening sections. This leads into a clamorous conclusion, recalling earlier material — both the recurrent ostinato patterns and the brass ‘chorale’ supported by the sounds of the *dung-chen*.¹⁰⁷

¹⁰⁶ *Sléndro* is one of the two traditional Javanese tuning systems. See Sorrell, ‘Java’, 59. However, I should emphasize that, despite my rhythmic and timbral mimicry, the pitches and temperament of my ‘interlude’ bear no relation to any Javanese exemplar. Sorrell summarizes: “The two unique tuning systems of Java (*laras sléndro* and *laras pelog*) are consensual rather than standardized, thus no two gamelans are tuned identically. ... *Laras sléndro* is a pentatonic tuning in which the intervals are more or less equidistant (between a whole tone and minor third), thus distancing it quite radically from the pentatonic scales produced on the black notes of the Western keyboard.”

¹⁰⁷ I know of no other piece which blends these boisterous instruments with a Western ensemble and, obviously, there are potential problems in so doing, given the uncertain pitch gamuts, dependent both on the construction of the particular pair of instruments involved — like certain other Tibetan ritual instruments, they are designed to be played in matching pairs — and the capabilities of the performers. Guidance here has been provided by the writings of Helffer (particularly *Mchod-Rol*, as cited, 35-59) and her own recordings — one included as an appendix to the aforementioned, another being *Sounds of Tibet: Monastery of Shechen* (Taktic Music, 1997), as well as my own experience of hearing the instruments played in different expatriate monastic contexts in 1997-98 and in rehearsals for the ‘Mantras and Mandalas’ event at Goldsmiths, University of London, 5 June 2018.

Travels 5: Invocations

Alexandra could well have invoked the assistance of the Bodhisattva Tārā many times on her pioneering journey from China to Lhasa

Of all the pieces in the cycle, this (the longest) approaches most closely perhaps the idea of mantra as a recurring, living presence in the life of a devotee. As the preface to the score indicates:

It is quite common in [traditions of Buddhism] for embodiments of enlightenment in particular archetypal forms to be celebrated, emulated and even invoked ... by those wishing protection for a new enterprise, a successful harvest, a long life, the death of a loved one or a difficult journey.

One means of invocation is the use of a mantra, either visualized (in the form of a *bīja* or seed syllable) or in sonic form — chanted, intoned under the breath or simply called to mind. The piece parallels the various modes of intonation by displaying the mantra at all levels of the musical activity: soloistic recitatives based on the *fioriture*, interactive counterpoint derived from the motifs, and underlying progression through pitch centres of the designated ‘Alex set’. And I chose the traditionally concentrated medium of the string quartet as a suitable vehicle to evoke the imagined omnipresence of mantra/tantra¹⁰⁸ for Alexandra.

Two very different composers cast benign shadows over this, the cycle’s centrepiece. They are Tippett and Boulez but neither, although both were distinctive in their approach to instrumentation, is particularly evoked by the sonorities here, which are more indebted to the quartet canon of Schoenberg, Berg,¹⁰⁹ Lutosławski — even Britten, as one violinist sight-reading the score commented.¹¹⁰ Distinctive, in any event, are the melismatic solos which recur (nearly always *con sordino*, as if to veil the otherwise expressive melodic lines) with quiet interpolations of multiple harmonics. Throughout there are assertive

¹⁰⁸ The entwining of the two terms was mentioned on p14.

¹⁰⁹ The way in which five tempi are juxtaposed i.e. the fastest with the slowest, the next fastest with the next slowest is not unlike Berg’s structural configuration of movement tempi in the *Lyric Suite* (1926) and the Violin Concerto (1935).

¹¹⁰ I am not sure whether he was thinking of the opening ‘duets’ or the recitatives featured in the last movement of Britten’s String Quartet no.3 (op94, 1975). Whatever brought Britten to mind, I had not yet heard Britten’s last quartet when I composed *Invocations*.

exchanges of pizzicati or fugato flurries, emphasizing the mosaic structure and breaking up the polyphonic flow.

It is the structure that reveals the influence of Tippett. The piece interweaves four groups of ideas: a viola solo at opening and close; a ritornello for the whole quartet, unwinding a fresh harmonization of 'White Tāra' on each occurrence (bars 12-15, 20-23, 44-47, etc),¹¹¹ the group of melodic fragments derived from the motifs of *Travels 2* (bars 40-48) attributed to this piece, which either expand, contract or occupy the same durational space as they recur — e.g. motif 5/5 as it occurs in bars 55-56, bars 61-62 and bar 75, and the 'leitmotif' assigned to Alexandra herself (see p4) as it occurs in bars 6-11, 63-66, 71-72 and 107-108 ; and a sequence of melismatic solos — later duets — which treat the *fioriture* modally (e.g. viola from 16, viola and violin 1 from 141).

The comparative works of Tippett are those emerging from his second opera, *King Priam*, where ritual restraint combines with an emphasis on ideas resonating via juxtaposition rather than by extended linear development, which can be traced back to the Stravinsky of the *Symphonies of Wind Instruments* (1920).¹¹² Tippett's Piano Sonata no.2 (1962) impressed me with its statuesque isolation of percussive and lyrical ideas, independent in tempi, presented fragmentarily, intercutting and jostling with each other until they subside into isolated vestiges: a percussive chord, a single pitch dismembered in the air (Examples 4.17).

¹¹¹ These occurrences also mark out the pitches of 'Alex set-A,' which likewise govern each section of the piece: A; F#; B; D; Bb [central pitch of the set and notional focal pitch-class of the piece]; Ab; C; [E:] C# — although there are actually only eight mantric repetitions, the one which would occur on E being left out to make way for the climactic viola/violin 1 duo. The sections of the piece also reflect the overall proportions of the cycle based on the durational interval succession: 9-5-3-8-10-4-4-9-8.

¹¹² With its layering and mosaic structure, this work also profoundly influenced Birtwistle. See Beard, 'The Life of My Music...', 147.

Example 4.17a

Opening of Tippett, Piano Sonata no. 2 (1962, Schott & Co. Ltd): sequence of three contrasting ideas, each with its own tempo

Tempo I ♩. Lento (♩ = c.100)

ff risonando

Ped. gva...

Tempo 2 ♩ 2 Allegro (♩ = c.112)

marc. pesante

gva₁

sf

ten.

Ped. gva...

Tempo 3 ♩ Molto più mosso (♩ = c.200)

con forza ed energia [cominciare meno f ad lib. e crescendo]

gva...

The musical score is divided into three sections, each with its own tempo and dynamic markings. The first section, 'Tempo I ♩. Lento', features a slow, resonant melody with a forte (ff) dynamic and a pedal point. The second section, 'Tempo 2 ♩ 2 Allegro', is a more rhythmic, marcato (marc. pesante) passage with a forte (sf) dynamic and a pedal point. The third section, 'Tempo 3 ♩ Molto più mosso', is a fast, energetic passage with a forte (f) dynamic and a pedal point. The score is written for piano and includes various musical notations such as notes, rests, and dynamic markings.

*Tippett, Piano Sonata no. 2, final bars (Schott & Co. Ltd),
dissolution of primary motifs*

MARCH 1962
S & Co. 6455

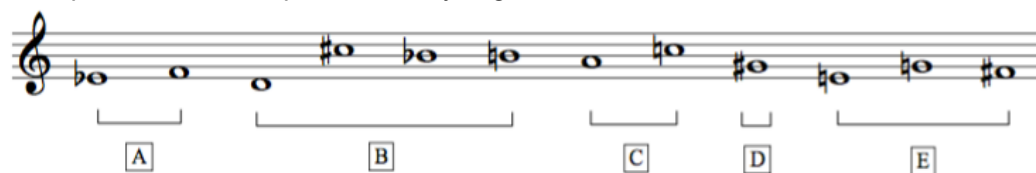
Similarly *Travels 5* projects a mosaic of ideas differentiated by instrumentation, technique, metre and pace, unfurling from the motifs derived from *Travels 2* and various workings of both ‘White Tārā’ and the *fioritura*. There is little extended development, rather expansion and contraction of the individual ideas as they succeed each other in a whole range of juxtapositions.¹¹³ The focal pitch-class is Bb, and motifs from bars 40–48 of *Travels 2* are deployed.

A distinctive feature of the piece pitch-wise is the way ‘White Tārā’ is ‘multiplied’, using the technique pioneered by Boulez in *Le Marteau sans maître* (1955) which splits a set into pitch segments whose resulting dyads/triads/etc are, in turn, mutually multiplied to create enrichments which are exploited harmonically and contrapuntally. Revelatory on *Le Marteau* is Koblyakov’s exploration¹¹⁴ of its pitch labyrinths, derived by dividing the original twelve-note set into five segments, and “transposing the notes of one segment to the pitch levels defined by another segment.”¹¹⁵ Along similar lines, though without the elaborate additional transpositions, *Travels 5* uses multiplications of *fioritura*/A transposed to centre on the sectional focal pitch-class, to provide the harmonic backdrop for iterations of ‘White Tārā’. Note that, to create variety in the resulting multiplicands, *fioritura*/A is divided into segments of varied size as shown in Example 4.18 (overleaf),

¹¹³ There are parallels here too with the ‘group’ process Sherlaw Johnson discerns in Messiaen, for example in ‘Le Chocard des Alpes’ from *Catalogue d’oiseaux* (1956–58). See Robert Sherlaw Johnson, *Messiaen*, ed. Caroline Rae, Revised (London: Omnibus, 2008), 137–39.

¹¹⁴ Lev Koblyakov, *Pierre Boulez: A World of Harmony* (Chur, Switzerland: Harwood, 1990).

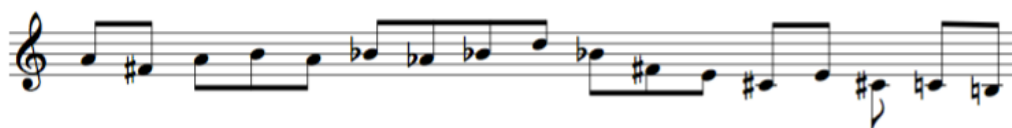
¹¹⁵ This neat definition of chord multiplication is that of Straus, *op cit*, 237. To give an example from Boulez’s prime set, duly segmented:



If, as elucidated by Straus, we multiply segment [A] by segment [B] — that is, combine the transpositions of Eb→F onto all of Bb, B, C# and D — we obtain (Bb, C), (B, C#), (C#, Eb), (D, E) and call this ‘multiplicand’ [BA]. Removing the repetitions, this gives us the chord combination: (Bb, B, C, C#, D, Eb, E). If each of the segments is in turn multiplied by [B] and, to introduce variety, the resulting multiplicands are in turn transposed by the interval between the last pitch of the first segment and the first pitch of each other segment, [BA] to [BE] are thus revealed as the pitches of the opening alto flute solo of ‘L’Artisanat furieux’ (the third movement of *Le Marteau*).

Example 4.18

Travels 5: *beaming of fioritura/A to demonstrate groupings used to derive multiplications in the manner of Boulez's Le Marteau sans maître (1955)*



from which the derivation of the top line of Example 4.19 (p79) will probably be clear. Each line of Example 4.19 shows multiplications of one of the segments by the others.

These occurrences also reinforce the pitches of 'Alex set-A', which likewise govern each section of the piece (delineated by the figures in the score): A [reached in bar 6 from the opening which hovers between C and D]; F#; B; D; Bb [central pitch of the set and notional focal pitch-class of the piece, for its longest section also]; Ab; C; E; C#. ¹¹⁶ However, there are actually only eight mantric iterations, ¹¹⁷ the one which would occur on E being waived to make way for the climactic viola/violin duo. Furthermore, unlike the seven other iterations, the one on C — which would have used the multiplication indicated in the table — cedes to enunciation of the mantra in octaves on C from all the instruments.

The incantatory solos, the first of which is given to the viola (bar 16) treat the melodic outline of Example 4.18 as a focus for melismas winding out from the *fioritura* source like a mode or *rāg* — cf the 'Indian' section of *Travels 4*. In each case these hover around the focal pitch-class of the section. This piece uses no Tibetan instruments, being specifically designed for the 'classical' medium of the string quartet, however the 'mantric' element is embedded not only by the recurrences of 'White Tārā' but also the solos exclusively based on *fioritura* transpositions. The sections of this centrepiece reflect the overall proportions of the cycle based on the durational interval succession: 9-5-3-8-10-4-4-9-8.

The piece interweaves fragments in five different tempi, with pulses of 60, 72, 96, 108 and 120 respectively. The fragments are characterized by one or other of these, and proceed not only in sequence (e.g. bars 124-130) but also by interruption

¹¹⁶ The secondary significance of C, which hovers over the viola opening, is reiterated by the obligato falling to the low viola C at the close.

¹¹⁷ These begin in the following bars: 12, 20 (figure [A]), 44, 57, 87, 103 (figure [E]), 115 and 151 — thus, only in two cases do these coincide with the beginnings of sections.

(e.g. bars 120-125) or antiphony (e.g. bars 25-34), Tippett again being the model here. However, if Tippett inspired the interweaving of ideas, and Boulez the harmonic derivations, the sought-for balance of careful pre-compositional working of some parameters with freer expressive surface (colour, dynamics) would definitely be found *chez* Davies:

Although Davies often serialises pitch, and sometimes durations as well, this is as far as he has gone in the direction of total serialism (except in the early *Prolation*). He has not, as far as I am aware, serialised dynamics, which are, instead, reserved for expressive purposes. Even melodies most rigorously serially derived, as far as pitch and duration are concerned, are required to be played with written-out expression: indeed, dynamic markings on almost every note, often including crescendo and decrescendo, are typical of his music.¹¹⁸

In my case this expressivity comes to the fore in the cadenza-like solos prominent in the interweaving described above, and especially when the solos overlap into duos as the music intensifies towards the end. The apex of the entire cycle is probably the point at which the obbligato viola overtakes the first violin to lay claim to its leading role overall (bar 144).

¹¹⁸ Phillips, op cit, 45-46. Roberts ('Techniques', 79ff) shows how *Prolation* (1958) is a *ne plus ultra* of strictness in Davies's oeuvre, using as it does a five-element pitch-class set and a five-element proportional set, the interplay between which produces a system in which comparatively few compositional decisions are left for outworking. Although this degree of overshadowing of the latter by the former is unusual in his oeuvre — and shows some indebtedness to the Nono of works such as *Il canto sospeso* (1956), perhaps — the interplay between these two areas of compositional craft is always operative in Davies's compositions, and throughout my composition of *Travels with Alex*.

Example 4.19 Complete chart of chord multiplications, *Travels 5*

	I	II	III	IV	V	VI	VII
multiplication 1 on A							
multiplication 2 on F sharp							
multiplication 3 on B							
multiplication 4 on D							
multiplication 5 on B flat							
multiplication 6 on A flat							
multiplication 7 on C							
multiplication 8 on C sharp							

Travels 6: Nocturnes

In order to escape detection, much of the journey of Alexandra and Yongden from the border to Lhasa takes place of necessity under cover of darkness

This, the first of a pair of successive night pieces, evokes the relative tranquillity that the travellers might occasionally experience late at night whilst travelling on foot or sleeping out under the stars. There are two principal timbral influences on the instrumentation of viola, harp and two percussion players (no Tibetan instruments again here, but the outworking of mantric elements continues). One would be Berio, particularly his *Circles* for soprano, harp and two percussion players (1960), with my 'viola as Alex' paralleling the role created by Cathy Berberian. My score likewise graphically situates the two percussionists 'around' soloist and harp, which could in fact be a desirable staging — although the percussionists share two instrumental ranges, tom-toms and temple blocks, so would need to place these at the convergence of their individual arrays. As with Berio, timbre is explored as a parameter in its own right, with a quasi-serial¹¹⁹ deployment of instrumental ranges (see my preparatory allocation of timbres to each percussion player in Example 4.21, pp82-84) in order to explore diversity as well as similarities and overlaps between instruments. In that respect the scoring recalls Boulez's *Le Marteau sans maître*,¹²⁰ which contains a distinctive instrument from each group (bowed and plucked strings, wind, pitched and non-pitched percussion) and thus provides opportunities for both homogeneity of colour (e.g. voice with viola or alto flute) and textural variety (percussive versus mellow, for instance).

The piece is structured on durational interval succession inverted. The sequence 3-10-19-23-25-33-41-44-(48) when reduced modulo-12 (by treating the sequence as an advancing progression) gave the following proportional durations for the nine sections of the piece: 3, 7, 9, 4, 2, 8, 8, 3, 4. Hence, as the overall duration for the piece was determined to be 3' 24", the first section (from the opening to figure [A]), for example, would thus be 12.75". This was achieved by composing three bars in 6/4 metre at crotchet = 84. The focal pitch-class is Ab. Motifs from bars 49-57 of

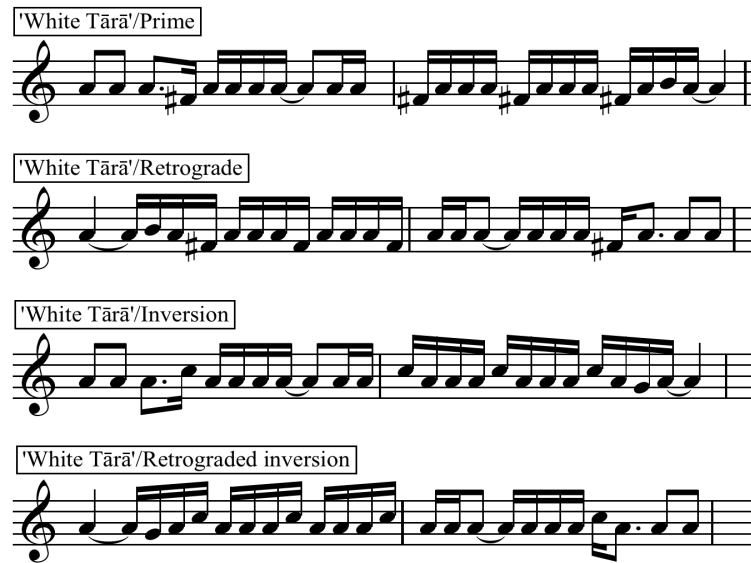
¹¹⁹ Here, as elsewhere, I use the term 'serial' in the same sense as Toop, 'Mantra', 76f.

¹²⁰ See Jonathan Goldman, *The Musical Language of Pierre Boulez: Writings and Compositions* (Cambridge, UK: Cambridge University Press, 2014), 9–10. It is noteworthy, in relation to further influence on my *Travels*, that Goldman here states that Boulez's "exotic instrumentation [was] consciously chosen to evoke the traditional musics of Japan, Bali and Central Africa".

Travels 2 are utilized. One unusual feature is the way the four versions of ‘White Tārā’ (prime, retrograde, inversion and retrograded inversion) are transformed into refrains for percussion by matching the rise and fall of the original incantation (Example 4.20).

Example 4.20

Travels 6: percussion refrains derived from ‘White Tārā’



Similar terracing was applied to the motifs derived from *Travels 2*. In Example 4.21 (pp82-84), the preparatory table of timbral hierarchies for the percussion, note that the sounds numbered 11 and 12 in both hierarchies were turned into ‘wild cards’, i.e. they could appear wherever an additional sound seemed required by the emerging texture/activity (and thus free up the potential rigidity of the pattern making). Furthermore, some changes to the instrumentation were made after these tabulations. Of particular significance was the idea of using boobams (which are bongos, their tubes originally constructed from bamboo).¹²¹ This crystallised after an exploratory visit to the ‘Aladdin’s cave’ of Bell Percussion in West London, where

¹²¹ Wood, plastic, metal, and cardboard have also been used for the pipe-shells and the membranes, although originally goat or calfskin, are often now plastic. Development of these instruments seems to go back to the pioneering explorations in percussion construction and non-tempered scales of the American Harry Partch and his instrument-maker colleagues David Buck Wheat and Bill Loughborough. It was their mutual friend Jak Simpson who in 1954 founded the "BooBam Bamboo Drum Company" to merchandise them, the word "boobam" having the derivation "bamboo written sideways" according to him.

Example 4.21 (continuing on pp83-84) Travels 6, preparatory table of percussion timbres

Repertoire of sounds: Percussion 1:

Marmba
Temple Blocks
Tamtoms

Motifs from *Travels 2* as melodies

Motif 6/3
Motif 6/7
Motif 6/2
Motif 6/4

Repertoire of sounds: Percussion 2:

Wind chimes
Almglocken
Temple Blocks
Tom-toms

The musical score is organized into two main sections: 'Repertoire of sounds: Percussion 1' and 'Repertoire of sounds: Percussion 2'. Each section contains four staves representing different percussion instruments. Percussion 1 includes Marmba, Temple Blocks, and Tamtoms. Percussion 2 includes Wind chimes, Almglocken, Temple Blocks, and Tom-toms. Above the Percussion 1 section, four motifs are presented: Motif 6/3, Motif 6/7, Motif 6/2, and Motif 6/4. These motifs are written as melodic lines on a grand staff (treble and bass clef). The motifs are then integrated into the percussion parts, where they are played on specific instruments. For example, Motif 6/3 is played on the Marmba, while Motif 6/4 is played on the Tamtoms. The score uses various musical notations, including notes, rests, and dynamic markings, to represent the sounds of the percussion instruments.

Mar. *tr*

T. Bl.

Tom-t. *mf*

Motif 6/4 *cont'd*

Motif 6/8

Motif 6/5

Motif 6/9

W.ch. *tr*

Alm. *tr*

T. Bl.

Tom-t.

83

Detailed description: This page of a musical score contains two systems of music. The first system features three staves: Maracas (Mar.), Tenor Saxophone (T. Bl.), and Tom-tom (Tom-t.). The Maracas part has a melodic line with a trill and a triplet. The T. Bl. part has a triplet. The Tom-t. part has a triplet. The second system features three staves: Wood Chimes (W.ch.), Alto Saxophone (Alm.), and Tenor Saxophone (T. Bl.). The W.ch. part has a trill. The Alm. part has a trill. The T. Bl. part has a triplet. The Tom-t. part has a triplet. Various motifs are labeled: Motif 6/4 cont'd, Motif 6/8, Motif 6/5, and Motif 6/9. The page number 83 is at the bottom.

Tom-t.

I discovered that the mellow sounds of these membranophones were just those which might, like those of the harp, mediate between the otherwise pitched and unpitched parameters in this 'nocturnal' context.

The closing bars (see Example 4.22, p87) are characteristic of the way in which 'White Tāra' and the designated motifs are deployed here. The opening is recalled with motifs 6/3 and 6/8 shared between crotales and viola (at the opening these had been given to crotales and harp). The low C# on viola — repeated — emphasizes the focal pitch-class of this section as does the longest duration in the crotales (a semibreve). The harp answers the viola with a working of 6/3 beginning and ending on Db (= C#), also to emphasize focal pitch-class. Boobams and tom-toms dialogue with 'White Tārā' in retrograde. The viola presents a remoulded retrograde of motif 6/6 across the transition into [H]. Boobams and tom-toms in alternation then present the retrograded inversion of 'White Tārā', intercepted by the final gesture of harp, glockenspiel and cowbells (joined by a single boobam) with a chord telescoping both dominant and tonic of E major (E being focal pitch-class of this section and Ab[=G#] the focal pitch-class of the whole piece) and the 'dying fall' of viola retrograding the opening intervallic span of motif 6/1, before the music subsides with the last pitches of 'White Tārā' in retrograded inversion on the boobams. The approaches to and from sectional focal pitch-class here, as both points of arrival and departure, owe something to the migration through pitch centres in Berio's *Sequenza VI* for solo viola (1967), described by David Osmond-Smith.¹²²

The alternations between proportional and regular notation which characterize this piece may be a further nod to Berio, and are intended to lend an ebbing and flowing accompaniment to the viola's recitative — the viola's part being deliberately metred throughout. Another feature — the silence in which the instrumental sounds sometimes hang (e.g. crotales in bar 3, cowbells in bar 22, etc) — recalls both

¹²² *Berio* (Oxford: Oxford University Press, 1991), 42–48. See also Amanda Bayley, 'The Nature of Expressivity in Berio's *Sequenza VI* for Viola', in *Berio's Sequenzas*, ed. Janet K. Halfyard (Aldershot, Hants: Ashgate, 2007), 233–54.

Berio's setting of the words of e e cummings¹²³ and the importance of silence in the chamber works of Takemitsu. Koozin sees this as a significant feature of the latter's instrumental writing and allies it to the Japanese concept of *ma*: 'an expressive force which fills the void between objects separate in time and space'.¹²⁴ (This idea also comes in to play in the closing sections of *Travels* 8, from [J] onwards.) Harp chords played *forte* punctuate the texture, again recalling Berio — and reminding us that Alexandra recounts many nocturnal exploits in *My Journey to Lhasa*, so the relative tranquillity of this piece is still ruffled by qualms and uncertainties, an aspect taken further in the succeeding piece.

¹²³ Particularly, perhaps, the opening of *Circles* which sets cummings' 'Stinging' for voice and harp alone.

¹²⁴ Timothy Koozin, 'Tōru Takemitsu and the Unity of Opposites', *College Music Symposium* 30, no. 1 (Spring 1990): 34–44. Quoted by Burt, op cit, 237, who also quotes Miyamoto re this 'silence' being "in no wise something void, but rather ... filled with the numberless tones or noises of space" (*Klang Im Osten, Klang Im Westen: Der Komponist Tōru Takemitsu Und Die Rezeption Europäischer Musik Im Japan* (Saarbrücken: Pfau, 1996), 150. Here we can begin to see why the music of John Cage touched Takemitsu so deeply. Koozin concludes, op cit, 44: "If the edge where two different worlds meet can be said to be infused with the quality of *ma*, then Takemitsu's music is indeed rich in this quality." See also Timothy Koozin, 'The Solo Piano Works of Toru Takemitsu: A Linear/Set-Theoretic Analysis' (PhD dissertation, University of Cincinnati, 1988), 34–74.

Example 4.22 Travels 6: interplay of motifs and versions of ‘White Tārā’, bars 46-53 (narrated on p85)

The musical score is organized into three systems, each representing a different section of the composition. The first system (bars 46-53) features five staves: Crod (Crotchet), Cln (Clarin), Booms (Booms), T. Bl (Trombone), and Tom-t (Tom-tom). The second system (bars 54-61) features three staves: Hp (Harp), Vla (Viola), and a continuation of the first system's instruments. The third system (bars 62-69) features six staves: Glock (Glockenspiel), W.Ch (Wood Chime), Alm (Alm), T. Bl (Trombone), Tom-t (Tom-tom), and Gong (Gong). The score includes various musical notations such as notes, rests, dynamics (p, mp, mf, f, pp), and articulation marks (accents, staccato, pizzicato). The score is written in a key signature of one sharp (F#) and a time signature of 4/4.

Travels 7: Processions

Alexandra and Yongden travel through the woods at night, to escape detection, but are always on the alert for caravans of equally mysterious travellers

Travelling incognito and at night, Alexandra and Yongden nevertheless would run unexpectedly into others likewise wishing to escape notice. The sounds of the night in this second nocturne are therefore intended to be more ambiguous even sinister, the Tibetan percussion and prepared piano being eerily juxtaposed with the two violins which cradle the viola cantilena. This piece balances *Travels 3* in the use of violins to accompany the viola, and forms a 'nocturnal' pair with *Travels 6*. Like *Travels 3* it deploys two Tibetan-instrument players: with a pair of low-domed hand-held cymbals (*sil-snyan*)¹²⁵ and suspended tambour played with a curved beater (*rnga*). Again, there is systematic exploration of the range of sounds instruments can generate individually or in combination (cf Berio) and of families of similar or contrasting sounds (cf Boulez). The mellowness of marimba tremolandi blends with the arioso viola line and contrasts with isolated piano attacks (prepared in three different 'regions': metallic, stopped and bell-like), string pizzicati and percussion.

The idea of using prepared piano in antiphony with Tibetan cymbals arose from exploring the concept of *sawari* which various commentators have described in the work of Takemitsu — for instance in the use of the *biwa* in *November Steps*, where the noise element of a particular attack is as important as the pitch:

To the Japanese, the individual pitches of a musical sound are less important than the quality of the sound along a timbral spectrum between the extremes of a pure sine tone and white noise.¹²⁶

The violins are definitely accompanimental — being asked to play “like shadows to the viola, always returning to piano, with few digressions,” emphasizing an instrumental hierarchy with the viola as primary, marimba and prepared piano in the middle ground and violins and Tibetan percussion as a continuo. Of all the pieces

¹²⁵ Egedy (op cit, 139) indicates that these are often used in rituals associated with 'peaceful' deities — because of the higher pitch produced by the smaller dome and the higher overtones produced by the thinner edge - as opposed to the 'wrathful' associations of the high-domed *sbug-chal*. Helffer (op cit, 177), referencing also Canzio and Ellingson, notes the stylised vertical mode of playing these instruments and the symbolism of an opening lotus adhering to this in the Tibetan literature.

¹²⁶ Smaldone, op cit, 218.

in the cycle, this went through the most structural change from conception to realization (including in preparation for the recorded performance and after).¹²⁷

As the focal pitch-class indicated from the original plan was C, a grid of ‘Alex square’ transposed so that Ab is event 1 and C is event 81 was chosen. This would lead to a sectional structure for the piece founded on the proportional durations 9:8:7:6:5:4:3:2:1 if the sequence of focal pitch-classes and durations which appear on the diagonal of this grid reading from bottom right to top left was followed. This reading also produces the same pitches — but not the durations, of course — as reading row 1 of the same chart retrograde (see Example 4.23)

For a piece expected to be 3’ 24” long (see Example 3.1, p25), this would have given sections with durations respectively of 40.5, 36, 31.5, 27, 22.5, 18, 13.5, 9, 4.5 + 1.5 caesura, in crotchets (mm = 60). This also led to the idea of gradually intensifying the rhythmic activity, particularly via the percussion, with each section — then sections would have become both shorter and more condensed rhythmically as the piece progressed.

However, the reverberative nature of the percussion involved (which I had underestimated) necessitated a profound rethink, as the overall effect was too dense and turbulent when combined with the contrapuntal interplay of two interlocking pathways through the magic square (labelled ‘V’ and ‘A’ in Example 4.23) interwoven with the motifs dedicated to this piece from *Travels 2*.

Two significant decisions were thus made about the piece’s length and character: one during the initial composition phase, the other during rehearsals for the recording. First, in order to dilute the density of musical activity, the supposedly intensifying percussion refrains were transferred to ‘windows’ interpolated into the ongoing processional motion, where they were accompanied by vestigial string patterns (sustained harmonics, melodic fragments). This led to the duration of the piece expanding from 3’ 24” to 6’ 09” — structurally justified in terms of the cycle of nine pieces by ‘borrowing’ this time from the otherwise expected length of *Travels 9* (as yet unwritten). Second, their reverberative character was restrained in favour of quiet tremolandi and isolated drum patterns, thus transforming the piece from a

¹²⁷ Appendix 1 (pp129ff) describes the process of creating the ‘Mantras and Mandalas’ performance.

Example 4.23

Transposed 'Alex square', Travels 7. Boxed 'V' numbers indicate the order of viola events and 'A' numbers those weaving through the accompaniment, durations in quavers given underneath

The musical score consists of 9 rows, each with a treble clef and a key signature of one sharp (F#). The notes are placed on the lines of the staff, and the durations are written below them. Above each row, there are boxed labels for viola events (V) and accompaniment events (A) with their respective durations in quavers.

Row	Viola Events (V)	Accompaniment Events (A)
row 1	V81/A81 (1), V64/A80 (6), V63/A76 (2), V46/A75 (7), V45/A67 (3), V28/A66 (8), V27/A54 (4), V10/A53 (9), V9/A37 (5)	
row 2	V80/A79 (6), V65/A77 (2), V62/A74 (7), V47/A68 (3), V44/A65 (8), V29/A55 (4), V26/A52 (9), V11/A38 (5), V8/A36 (1)	
row 3	V79/A78 (2), V66/A73 (7), V61/A69 (3), V48/A64 (8), V43/A56 (4), V30/A51 (9), V25/A39 (5), V12/A35 (1), V7/A22 (6)	
row 4	V78/A72 (7), V67/A70 (3), V60/A63 (8), V49/A57 (4), V42/A50 (9), V31/A40 (5), V24/A34 (1), V13/A23 (6), V6/A21 (2)	
row 5	V77/A71 (3), V68/A62 (8), V59/A58 (4), V50/A49 (9), V41/A41 (5), V32/A33 (1), V23/A24 (6), V14/A20 (2), V5/A11 (7)	
row 6	V76/A61 (8), V69/A59 (4), V58/A48 (9), V51/A42 (5), V40/A32 (1), V33/A25 (6), V22/A19 (2), V15/A12 (7), V4/A10 (3)	
row 7	V75/A60 (4), V70/A47 (9), V57/A43 (5), V52/A31 (1), V39/A26 (6), V34/A18 (2), V21/A13 (7), V16/A9 (3), V3/A4 (8)	
row 8	V74/A46 (9), V71/A44 (5), V56/A30 (1), V53/A27 (6), V38/A17 (2), V35/A14 (7), V20/A8 (3), V17/A5 (8), V2/A3 (4)	
row 9	V73/A45 (5), V72/A29 (1), V55/A28 (6), V54/A16 (2), V37/A15 (7), V36/A7 (3), V19/A6 (8), V18/A2 (4), V1/A1 (9)	

menacing to a more mysterious nocturne. So, the cycle now has two nocturnal movements in succession — maybe the Mahler of the Seventh Symphony (1906) was looking over my shoulder? The earlier idea of compacting activity as the music progressed was, however, retained to some extent with the length of sections adjusted to the following number of bars (each involving a change of focal pitch-class and introducing one of the percussion ‘windows’): 16-15-14-12-11-9-8-4-3. The rehearsal-letter progression matches these changes.

The focal pitch-class is C and the transposition of ‘Alex square’ to Ab enables the two cycles used to begin with its last pitch: C. The pathway for the viola is what is called a ‘boustrophedon’:¹²⁸ up row 9 from the bottom, then down column 8 from the top and similarly until column 1 is processed from bottom to top. For the prepared piano, the pathway begins similarly at event 81 (‘A1’) and then proceeds diagonally via events 80 (‘A2’), 72 (‘A3’), 63, 71, 79, continuing likewise to the top left-hand corner (‘A81’).

The simplification of the percussion parts enabled them to be more easily played by Tibetan instrumentalists unused to playing in a Western ensemble. In this sense, the 2018 performance of three *Travels with Alex* was original, in that the monks of Tashi Lhunpo had performed with other Western musicians but this had involved underlay of their chant with folk or Western concert instruments — e.g. with Michael Ormiston and Candida Valentino, or Sulis (Celia Harper, director) — not a blending of their ritual instruments and a Western chamber ensemble in new material. Simplification also enabled a more subtle interplay of instrumental sounds to be foregrounded e.g. prepared piano and drum, string harmonics and cymbal *tremolandi*, *sul ponticelli* and *pizzicati* with percussion.

I was interested in composing a slow-moving piece with little change of mood and eventuation, where the interest is created by varied overlapping of a narrower range of motifs and colours. Processional models I have long admired are Boulez’s *Rituel*, with its regularity of pace underpinning a fluctuating antiphony of wind instruments and gongs, and the ceremonial orchestral cavalcade of Birtwistle’s *The Triumph of Time*. Another influential work was his *Silbury Air*. Unusually for Birtwistle, that score makes explicit a formulaic interaction of time signatures and

¹²⁸ Cf Phillips, op cit, 188, where he references flute and clarinet in section V of Davies’s *Ave Maris Stella* alternately progressing through the magic square, row by horizontal row in this fashion.

metronomic rates in a 'pulse labyrinth', enabling time to appear contoured at varying rates. Yet the composer seems unconcerned about over-riding the dictates of this at certain points (comparable to my durational adjustments in *Travels*) and furthermore allowing the 'air' when it arrives on the flute to float free of this underlay and dominate the work. The structure is not the music, but a generative support.

Example 4.24 shows, via bars 25 to 31 as typical, how pathways through 'Alex square' are orchestrated, 'V' being the pathway principally for the viola, and 'A' the accompaniment. There is, however, some interweaving enlivening the texture. Note that the Tibetan percussion (which enters immediately after) is not shown in this example.

Motif 7/2 on E flat, focal pitch of section ***

93

Travels 8: Odysseys

Alexandra writes vividly of how the flora, fauna and (above all) landscape change as she ascends higher and higher into the mountains

Here the countertenor articulates, in words derived from Alexandra's, an ascent from somewhat lush lowlands with colourful flora and variegated fauna (insect activity and birdsong) to isolated yet breath-taking mountain heights. In the process a busy antiphony between two sub-ensembles gradually gives way to sparser textures and, finally, a homogenous calm.

Odysseys

The path ... starts from a low point
amid tropical vegetation, wild orchids,
and the living fireworks of fireflies.
Gradually, as one climbs, the scenery changes,
Nature becomes severe.
The singing of the birds
and the noisy buzzing of the bees subside.

The huge trees, in their turn,
are unable to struggle
in the rarefied air of the summits.
With each mile the forest becomes more stunted
till the shrubs are reduced
to the size of dwarves creeping on the ground,
while still higher up
they cannot even continue to exist.

The traveller is left amidst rocks
richly embroidered with brightly coloured lichens,
and waterfalls,
half frozen lakes and giant glaciers.

Then ... one suddenly discovers
the immensity of the tableland
with its distant horizons of peaks
bathed in strange mauve and orange hues,
and carrying queerly shaped caps of snow
upon their mighty heads.

What an unforgettable vision!
I was at last in the calm solitudes
of which I had dreamed
since infancy.

*Rendering into poetry by Richard Bolley
from the prose Introduction to the English edition
of Alexandra David-Néel, My Journey to Lhasa
(1927)*

Le chemin quitte la vallée
parmi la jungle, les orchidées,
les lucioles comme étincelles.
mais, en montant, tout change d'aspect:
la nature s'assombrit,
les chants d'oiseaux,
les chants d'abeilles se taisent.

Les arbres énormes se rendent
à mesure que se raréfient les airs,
que la cime se profile.
A chaque mille la forêt se rabougrit
les arbustes ressemblent à des nains
qui rampent tout près du sol.
Bientôt il n'y a plus rien.

Le chemin est entouré
de rochers richement brodés
de maint lichen coloré,
cascades, lacs et glaciers.

Alors découvre-t-on soudain
d'immenses plateaux,
leurs horizons de cimes baignés
étrangement d'orange et mauve,
portant de bizarres casquettes
de neige aux fronts puissants.

Quelle vision inoubliable!
Me voilà retrouvé enfin
dans la calme solitude
dont je rêvais depuis l'enfance.

*Translation into French by
Terence Dooley (used by permission)*

Odysseys pays homage to the music of Lutosławski, four distinctive features of whose music have contributed to it. The fact that these features derive from different phases in his musical *oeuvre* is notable, suggesting that — in writing my cycle — I have occasionally played ‘catch-up’ on the techniques later developed by particular composers admired during my earlier formative studies (the late 1960s and early 1970s).

The piece balances the reduced orchestrations of *Travels 1* and *Travels 4* by using a similar-sized ensemble but featuring several instruments previously absent e.g. oboe, horn (absent from *1* and *4*); flute, violin, cello (absent from *4*). It also complements *Travels 3* by re-introducing the countertenor: before, the words conveyed Alexandra’s childhood presentiment of a destiny to travel widely and freely; here, the words articulate the awe and wonder of advancing high into the Himalayas. Again, two percussionists are required, balancing the bell-like sounds of crotales and glockenspiel with the drier timbres of tambourine and suspended cymbal (both played with the opposite end of the beaters). The two percussionists also share the marking out of the focal pitch-class structure with colotomic attacks on tubular bells.¹²⁹

The players are allocated to two different groups, each with its own focal pitch-class and section sequences (and respective proportional durations) — see Example 4.25 (p97). The allocations are as follows, following the sub-ensemble descriptions used by Lutosławski for *Chain 3* for orchestra (1986):

Melos

countertenor, viola, percussion 1

Continuum

flute, oboe, horn, violin, cello, percussion 2

The interplay of strictly notated, metred sections and those in which individual instrumental lines are unfettered in *Jeux vénitiens* (1961) is a primary inspiration behind the alternations of *Travels 8*’s metred sections (traditionally conducted) and sections in which the continuum’s individual *fioriture* float more freely within set

¹²⁹ “A colotomic structure is any system that marks off music into temporal units by the entrance of specific instruments in a specific order at specific times.” William P. Malm, *Music Cultures of the Pacific, the Near East and Asia* (Englewood Cliffs, NJ: Prentice Hall, 1967), 26–30.

boundaries. As with Takemitsu encounters with the music of Cage surely contributed, as they have for me, to a liberating aleatoric element entering Lutosławski's music.¹³⁰

Lutosławski's concept of 'chains' has fed into the structure and ensemble interplay of *Travels 8* — particularly as expressed in his *Chain 3* where the 'melos' and 'continuum' sections overlap, the music of one continuing whilst the other changes. Nikolska reproduces fascinating autograph sketches which show how Lutosławski "meticulously elaborated chain procedure on the level of pitch organization,"¹³¹ by using set complementation across overlapping links. Complementation is also used to create links between the 'melos' and 'continuum' chains in *Travels 8* (see Example 4.26, p98).

In *Travels 8* each group has a distinct sequence of pitch centres, section durations and motifs: the 'continuum' takes the motifs of *Travels 2* allocated to *Travels 8* itself (from the eighth subdivision of the piece, measures 67-75), and the 'melos' takes the motifs of *Travels 2* otherwise un-allocated (because they derive from the second subdivision of that piece, measures 13-21, and have not thus already been used to underlie another piece in the cycle).

Example 4.25 shows how the sets and the proportional durations of each of the sections in their respective chains are ascribed to each ensemble. Note: the proportions need to be measured against the overall length of the piece, 7' 39", which itself was worked out in relation to the proportion attributable to *Travels 8* in relation to the overall cycle duration of 51'. Motifs from bars 13-21 and 67-75 of *Travels 2* are used, respectively allocated to each of the two groups of musicians, paralleling the allocation of focal pitch-classes. The focal pitch-class ascribed by the original scheme was E, and this together with the associated set is allocated to the 'continuum' group; the focal pitch-class of F# (focal pitch-class of *Travels 2*) with its associated set is allocated to the 'melos' group.

¹³⁰ Lutosławski even gifted to Cage his original and final autograph scores. See Adrian Thomas, 'Jeux Vénitiens: Working Methods at the Start of Lutosławski's Mature Period', in *Lutosławski Studies*, ed. Zbigniew Skowron (Oxford: Oxford University Press, 2001), 211–43.

¹³¹ Irina Nikolska, 'On the Types of Chain Connections in the Late Music of Lutosławski: Some Remarks on *Chain 1* for Chamber Ensemble and *Chain 3* for Orchestra', *ibid.*, 305-23.

Example 4.25

Travels 8: Pitch sets and proportional section durations

'Alex set-F sharp': F sharp = focal pitch of *Travels 2* | 'Alex set-E': E = focal pitch of *Travels 8*

The musical notation consists of a single staff with a treble clef. Above the staff, a sequence of numbers represents proportional section durations: 5, 3, 8, 10, 4, 4, 9, 8, 9, 9, 5, 3, 8, 3, 8, 10, 4, 4. Arrows point from the first and last numbers (5 and 4) to the start and end of the staff, respectively. The staff contains a series of notes corresponding to these durations. Below the staff, two boxes provide context: the first box, connected by a vertical line to the 2nd pitch, states "'melos' group set for *Travels 8* begins on 2nd pitch"; the second box, connected by a vertical line to the 8th pitch, states "'continuum' group set for *Travels 8* begins on 8th pitch".

'melos' group set for *Travels 8* begins on 2nd pitch

'continuum' group set for *Travels 8* begins on 8th pitch

The countertenor floats somewhat free from these allocations, motivically if not in terms of focal pitch-classes, as the vocal line makes use of *all* the motifs, starting with those attributed to the 'continuum' and proceeding to those of the 'melos'. Some motifs are used more than once, but all are used at least once. Despite the influence of the sectional focal pitch-classes, some motifs are used at the original pitch from *Travels 2* depending on the harmonic context.

The overlapping of harmonic centres which results from the interplay of two pitch cycles is balanced to some extent by featuring the pitches complementary to each successive cycle (i.e those which do not form part of the relevant 9-pitch set) as pivots or links between 'continuum' and 'melos', particularly those which are focal pitch-class of the parallel section for the other group (Example 4.26).

Example 4.26

Sets underlying 'melos' and 'continuum' to figure [F], showing how 'complementary pitches' have pivotal function if significant in the alternate group's set. (Square brackets indicate continuing functionality whilst the set for the other group changes.)

The musical score consists of three staves. The top staff is labeled 'CONTINUUM PITCHES' and contains a sequence of notes with accidentals. The middle staff is labeled 'COMPLEMENTARY PITCHES' and contains a sequence of notes with accidentals. The bottom staff is labeled 'MELOS PITCHES' and contains a sequence of notes with accidentals. The score is divided into five sections labeled A, B, C, D, and E. Section A is the first measure of the top staff. Section B is the second measure of the top staff. Section C is the first measure of the bottom staff. Section D is the second measure of the bottom staff. Section E is the third measure of the bottom staff. Arrows indicate connections between sections: from A to C, from B to D, and from E to the end of the bottom staff.

Two other techniques are used distinctively in *Travels* 8 to derive pitch material from the relevant motifs. A motif's intervallic content (often, but not exclusively, in a contracted form)¹³² generates components of phrases for the countertenor (Examples 4.27 and 4.28).

¹³² I was influenced to some extent here by earlier study of the set theory of Allen Forte and the idea of a set's 'normal form' as described in John Rahn, *Basic Atonal Theory* (New York and London: Schirmer/Collier Macmillan, 1980), 38. Rahn there gives this basic definition: "The 'normal form' of a set is that ordering of its members which is increasing within an octave and most packed to the left".

Example 4.27

Motifs 2/8 and 2/1 in their original settings (Travels 2, bars 14-16 and 7-10 respectively) and as reworked (Travels 8, bar 33)

Violin

Violin

Violin

Double bass

Counter-tenor

leur ho - ri-zons de cimes bai-gnés ét-ran - ge-ment

Motif 2/8 Motif 2/1

Detailed description: This musical score for Example 4.27 features three staves. The top three staves are for Violins, and the bottom staff is for Double bass. The Counter-tenor part is shown below the Double bass staff. The Violin parts are in 5/4 time and feature dynamic markings (f, fp, mp, sfz, sffz) and articulations (arco sul pont., gliss., pizz.). The Double bass part is in 5/4 time and features dynamic markings (pp, fp) and articulations (gliss., pizz., arco). The Counter-tenor part is in 5/4 time and features a mezzo-forte (mf) dynamic. The lyrics are 'leur ho - ri-zons de cimes bai-gnés ét-ran - ge-ment'. The first two measures of the Counter-tenor part are labeled 'Motif 2/8' and 'Motif 2/1' respectively.

Example 4.28

Motif 8/4 in its original setting (Travels 2, bars 71-72) and as reworked (Travels 8, bar 29)

Oboe

Counter-tenor

de maint li - chens co - lo-ri-é ca - sca - de la - cs et gla-ci - ers

Motif 8/4

Detailed description: This musical score for Example 4.28 features two staves. The top staff is for Oboe, and the bottom staff is for Counter-tenor. The Oboe part is in 5/4 time and features a mezzo-forte (mf) dynamic. The Counter-tenor part is in 5/4 time and features a mezzo-forte (mf) dynamic. The lyrics are 'de maint li - chens co - lo-ri-é ca - sca - de la - cs et gla-ci - ers'. The first measure of the Counter-tenor part is labeled 'Motif 8/4'.

Second, in terms of the actual melodic profile of the original motifs (important in the derivation of material in other pieces in the cycle although many features are often altered e.g. metre, instrumentation, expression) these are further disguised by being nested inside each other or by expansion or contraction of melodic contour (as described by Straus).¹³³ The idea of 'nesting' was also suggested by Davies, who often derives ornamentation from a different set than the one articulating the primary melody. The clarinet line in section II of *Ave Maris Stella* is an example of this, following a zigzag path from the top left to the bottom right of the Magic Square, but interpolating ornamentation from other rows or columns.¹³⁴

Toop also observes sophisticated nesting at work in *Mantra*, where the structured expansion/contraction of modes and durations leads to some very short time-frames and overlapping of activity. But there is often the sense here, which I also experience, of the composer finding the strait-jacket of pre-ordained structure an impetus to invention.¹³⁵

The continuum music in section [E] sub-divides this ensemble of six players into two groups traversing the following sequences of motifs:

flute, oboe and horn
 motif 8/1, with 8/6A nested ->
 8/3, 8/7 nested ->
 8/2, 8/6B nested

violin, cello and vibraphone
 motif 8/2, with 8/6B nested->
 8/4, 8/8 nested ->
 8/5, 8/9 nested

Example 4.29 shows the last measure of this section before figure [F]. The music for the same ensemble at section [H] (Example 4.30, p102) reveals similar motifs in circulation, with the intervals further contracted and the individual voices becoming more fluent and continuous.

¹³³ Joseph Nathan Straus, *Introduction to Post-Tonal Theory*, 3rd ed. (Upper Saddle River, NJ: Prentice Hall, 2005), 99–102.

¹³⁴ Roberts, 'Techniques', 348–49.

¹³⁵ Toop, op cit, 'Mantra', 87, quotes bars 19–20 of *Mantra*, where a rest in the repeated-note-formula which governs the section enables nesting of the shortest (3.5") iteration of the mantra in Piano I.

Example 4.29
Travels 8, example of motivic circulation, bar 24 (only 'continuum' parts shown)

The musical score illustrates the 'continuum' parts for six instruments across bar 24. The instruments are arranged vertically: Vibraphone (Vib.), Flute (Fl.), Oboe (Ob.), Horn (Hn.), Violin I (Vln. I), and Violoncello (Vcl.).

Annotations and Motifs:

- Vibraphone:** Motif 8/5 to vibraphone (mf), Motif 8/9 end (mf), Motif 8/2 end (f), Motif 8/6B continued (pp), Motif 8/6B opening (mf), Motif 8/2 opening (mf), Motif 8/5 end (mp), Motif 8/9 continued (p), Motif 8/5 opening, with compacted durations (p), Motif 8/5 continued (p), Motif 8/9 opening (p), Motif 8/5 (mp), Motif 8/9 (f).
- Flute:** Motif 8/3, with truncation (p), Motif 8/2 end (f), Motif 8/6B continued (pp), Motif 8/6B opening (mf), Motif 8/2 opening (mf), Motif 8/5 end (mp), Motif 8/9 continued (p), Motif 8/5 opening, with compacted durations (p), Motif 8/5 continued (p), Motif 8/9 opening (p), Motif 8/5 (mp), Motif 8/9 (f).
- Oboe:** Motif 8/3, with truncation (p), Motif 8/2 end (f), Motif 8/6B continued (pp), Motif 8/6B opening (mf), Motif 8/2 opening (mf), Motif 8/5 end (mp), Motif 8/9 continued (p), Motif 8/5 opening, with compacted durations (p), Motif 8/5 continued (p), Motif 8/9 opening (p), Motif 8/5 (mp), Motif 8/9 (f).
- Horn:** Motif 8/3, with truncation (p), Motif 8/2 end (f), Motif 8/6B continued (pp), Motif 8/6B opening (mf), Motif 8/2 opening (mf), Motif 8/5 end (mp), Motif 8/9 continued (p), Motif 8/5 opening, with compacted durations (p), Motif 8/5 continued (p), Motif 8/9 opening (p), Motif 8/5 (mp), Motif 8/9 (f).
- Violin I:** Motif 8/3, with truncation (p), Motif 8/2 end (f), Motif 8/6B continued (pp), Motif 8/6B opening (mf), Motif 8/2 opening (mf), Motif 8/5 end (mp), Motif 8/9 continued (p), Motif 8/5 opening, with compacted durations (p), Motif 8/5 continued (p), Motif 8/9 opening (p), Motif 8/5 (mp), Motif 8/9 (f).
- Violoncello:** Motif 8/3, with truncation (p), Motif 8/2 end (f), Motif 8/6B continued (pp), Motif 8/6B opening (mf), Motif 8/2 opening (mf), Motif 8/5 end (mp), Motif 8/9 continued (p), Motif 8/5 opening, with compacted durations (p), Motif 8/5 continued (p), Motif 8/9 opening (p), Motif 8/5 (mp), Motif 8/9 (f).

Dynamics and Articulation: The score includes various dynamic markings (mf, pp, f, mp, p, ff) and articulation marks (accents, slurs, and breath marks for the woodwinds).

Example 4.30 Travels 8, *motivic contraction in the ‘continuum’ parts (bar 27)*

Vln. pp $\leftarrow \rightarrow$ basically pianissimo but varying the dynamic with irregular waves of crescendo/diminuendi

Fl. pp murmurando

Ob. p murmurando

Hrn. pp murmurando

Vln. 1 pp $\leftarrow \rightarrow$ basically pianissimo but varying the dynamic with irregular waves of crescendo/diminuendi

Vcl. pp $\leftarrow \rightarrow$ basically pianissimo but varying the dynamic with irregular waves of crescendo/diminuendi

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For the 'melos' group, viola and percussion 1 accompanying the countertenor, these two parts also progress through a matrix of all the transpositions of 'Alex set-F#' beginning on the second pitch, Eb (Example 4.31, p104). The crotale flurries, often presenting one or other of these transpositions, are another tribute to Davies, who often used tuned percussion as markers in his symphonies. An example of how a range of these pitch elements work together is given in Example 4.33 (p106) which shows derivations for the second page of the score.

The conception of interlocking chains of material from two component instrumental groups, with complementary pitches providing pivots, gives a strong sense of 'mirroring' as the groups move towards/away from points of coincidence (e.g. at figures [F] and [I], where the mutual durational interval successions meet). There is also mirroring within the wind-instrument music of the 'continuum' group itself, which makes much play of Lutosławski-like mobile figurations reflecting the various forms of the series, so that the group is prismatically reflecting back material from its component lines.

The multifarious mirroring effects which Stockhausen uses to spawn a vast array of material from his initial idea in *Mantra* were also inspiring me here. The 13-pitch set of *Mantra*'s Piano II is quite literally the inversion of Piano I's, each migrating away from and back to A, with a parallel but not simultaneous procession of the sine tones against which each piano is ring-modulated.¹³⁶ But the pianos also exchange the 'limbs' of the mantra, so that it contains its own mirroring within itself. And then there are the multiple mirror-images: not just "of the two piano parts, but in the relationship of each piano with its electronic transformation, and between the two transformations as well".¹³⁷

¹³⁶ See Harvey on this process, see above p69.

¹³⁷ Maconie, op cit, 332, gives an excellent example of the richness that can ensue, for instance in bar 110: "where a slow descent in the Piano II part is followed by a slow rise by Piano I, each accompanied by its electronic mirror-image".

Example 4.31

Travels 8, set matrix, viola/percussion (transposition coding as per Roberts, op cit)

P->	<-R	TRANSPOSITION	I->	<-IR
Viola 2->		0		<-Viola 7
	<-Perc.3	1		<-Perc.10
Viola 8->		2		Viola 1->
	<-Perc.1	3		Viola 3->
	<-Perc.5	4		Perc.6->
	<-Viola 10	5		Viola 11->
Viola 6->		6		<-Perc.2
Perc.9->		7		<-Perc.4
	<-Perc.11	8		<-Viola 9
	<-Viola 4	9		Viola 5->
	<-Perc.7	T		Perc.8->
	<-Viola 12	E		Viola 13->

The alternation between *arioso* and recitative in Lutosławski's *Les Espaces du Sommeil* (1975) was probably the most significant influence on the vocal style and text-setting in *Travels 8* — particularly those sections where the countertenor line is exposed or accompanied sparsely by the viola (see Examples 4.32).

Example 4.32a

Lutosławski's *Les Espaces du Sommeil* (1975, fig.20)(Chester Music)

"The last breaths of the twilight and the earliest tremors of dawn..."

b.solo
 Les derniers souffles du crépuscu... le et les premiers frissons de l'aube.

Example 4.32b

Travels 8, typical voice/viola texture, bars 21-22

Counter-tenor
 Les ar-bres é-nor-mes se ren-dent à me-su-re que se ra ré-fient les airs... que la ci-me sa pro-file
 Viola
 mf arco 3-3-3 p sul ponticello ord.***

Example 4.33 Travels 8, example of pitch derivations, bars 5-8

Counter-tenor

Melhorar Transposition 0 Prime, 1st pitch

Motif 2/1 arco

Motif 2/6 arco

Motif 8/1 *mp*

Le éle min... quit-te la va lile

Viola

Motif 2/1 arco

Motif 2/6 arco

Melos, T0 P 4,5 pizz

Melos, T0 P 6,7 - then 8,9 pizz

Motif 2/1 arco

Motif 2/6 arco

Motif 8/1 *mp*

Tambourine

Glockenspiel

Perc. 1

Crotales

let ring-
f

Tubular Bells

Tubular Bells

Vibraphone

Perc. 2

Complementary pitches for Continuum group

Flute

Motif 8/3 continued but varied

Motif 8/1 with two components exchanged in order and varied

Oboe

Motif 8/3 beginning

Motif 8/3 continued but varied

Horn in F

con sord.

Doubling vibraphone

Violin 1

Motif 8/2 end

Doubling vibraphone

Cello

Doubling vibraphone

Interspersed glock figurations using 'Alex set F' beginning on 4th pitch [actually Continuum set] alternating each pitch with E, occurring at intervals throughout piece

G sharp as focal pitch of section from [A] for Melos group

A significant point of elevated calm is reached in the final section of this piece, in which the countertenor expresses Alexandra's elation on reaching the mountain heights. The text also refers back to *Travels 3* (the other piece featuring the singer):

Me voilà retrouvé enfin dans la calme solitude dont je revais depuis l'enfance.
[I was at last in the calm solitudes of which I had dreamed since infancy.]

Here I hope there is a glimpse of a quality I would like to emulate further and have often found where Harvey seeks not just to evoke but to instill in the listener a calm awareness akin to the meditative state of *dhyana* or the sense of mantric sound (*vac*)¹³⁸ issuing from and, indeed, dissolving back into the void (Example 4.34).¹³⁹

¹³⁸ See the discussion of mantra in relation to primordial utterance (*vac*) in Chapter Two, pp12ff.

¹³⁹ *Bhakti* (1982) is of particular relevance to this project as it embraces many of the qualities found in my key exemplars: the timbral sophistication of Takemitsu, a highly schematic pitch framework akin to Davies's, enhanced by combinatorial techniques and axial harmonies and – not surprisingly, for a significant commentator on Stockhausen – an imaginative interweaving of formulaic techniques articulated via live instruments and taped transformations. The work is a lodestar for me, and I would have written at greater length about it, only this has already been comprehensively accomplished by John Palmer's *Jonathan Harvey's Bhakti for Chamber Ensemble and Electronics* (Lewiston, NY: Edwin Mellen Press, 2001).

Example 4.34

Harvey, Bhakti, section I, close (1982, Faber Music) with Hindu Rig Veda quotation:
"There was neither non-existence nor existence then; there was neither the realm of space nor the sky which is beyond...."

The musical score is divided into three systems, each with multiple staves for different instruments and voices.

System 1 (Measures 36-37):

- Tpt. (Trumpet):** Measure 36 starts with a *mf* dynamic. Measure 37 has a *short* instruction and a *raise bell and move in a semicircle* instruction. The system ends with a *finish together* instruction.
- Glock. (Glockenspiel):** Measure 36 has a *mf* dynamic. Measure 37 has a *15 va 7* instruction and a *mf* dynamic.
- Pfte. (Percussion):** Measure 36 has a *mf* dynamic. Measure 37 has a *mf* dynamic and a *L.H./R.H.* instruction.
- Tape:** Measure 37 has a *mf* dynamic and a *15 va 7* instruction.

System 2 (Measures 37-38):

- Tpt. (Trumpet):** Measure 37 has a *con sord.* instruction. Measure 38 has a *mf* dynamic.
- Pfte. (Percussion):** Measure 37 has a *mf* dynamic. Measure 38 has a *mf* dynamic.
- Tape:** Measure 37 has a *mf* dynamic. Measure 38 has a *mf* dynamic.

System 3 (Measures 37-38):

- Tpt. (Trumpet):** Measure 37 has a *mf* dynamic. Measure 38 has a *mf* dynamic.
- Pfte. (Percussion):** Measure 37 has a *mf* dynamic. Measure 38 has a *mf* dynamic.
- Tape:** Measure 37 has a *mf* dynamic. Measure 38 has a *mf* dynamic.

The score includes various musical notations, dynamics, and performance instructions, such as *mf*, *ff*, *con sord.*, *15 va 7*, *L.H./R.H.*, *accel.*, *senza ped. una corda*, and *pp*.

(There was neither non-existence nor existence then; there was neither the realm of space nor the sky which is beyond. What stirred? Where? In whose protection? Was there water, bottomlessly deep?
 ... That one breathed, windless, by its own impulse ...
 ... Desire came upon that one in the beginning; that was the first seed of mind.) 10.129

Travels 9: Citadels

Alexandra and Yongden, after many travails, finally approach the Potala – the goal of their journey

The Potala, long an iconic signifier of Lhasa to the world, became symbolic for me in approaching completion of this cycle, just as glimpsing it for the first time must have been hugely emotional for Alexandra and Yongden. There is a famous photo — possibly confected¹⁴⁰ — of the two travellers sitting with a young Tibetan girl on rough ground, the magnificent citadel dominating the background. I imagine that, although the travellers would have needed to maintain their disguises throughout their stay in Lhasa as for the remainder of their journey, there would have been jubilation in their hearts. Therefore, the sound of the *rgya-gling* (used in pairs at the head of monastic processions) was immediately present when I began thinking about a conclusion to the cycle, celebrating the travellers' arrival at their goal.

Neither the instruments themselves nor their playing techniques (requiring circular breathing) are routine, hence the inclusion in the score of *ossia* for a pair of oboes. These use similar figuration but modelled more closely on the tonal progressions of the other instruments, whereas (because of the unpredictability and narrow range of the pitch gamuts of pairs of *rgya-gling*) the parts for the Tibetan instruments are simply indicative of likely figurations, although the points at which they play are mandatory. As previously mentioned, I am indebted to Harvey's *Body Mandala*, not only for its wonderful evocation of a Tibetan ritual procession but for the elaborate overlapping figurations in the woodwind parts which have inspired my own here.

To the *rgya-gling*/oboes are added instruments more typically celebratory in a Western sense: trumpet and timpani — the former (to give a bright, penetrating sound to match the 'oboes') being a high D trumpet and the latter chromatic to provide a wider range of inflexions. To these are added piano (for attack) and vibraphone for brightness and resonance.

¹⁴⁰ The Fosters, op cit, 138-39, reproduce this photo, reporting that Alexandra sent it to her husband at Christmas 1924 as proof of her arrival. The small number of photographs from Alexandra's journey together with her unreliability about dates and maps fuelled many suspicions e.g. of Jeanne Denys, op cit, which seeks to discredit many of Alexandra's claims.

Motifs from bars 76-85 of *Travels 2* are utilized, together with the recurring tremolando/trill. With one exception the motifs appear in numerical sequence:

Motif 9/1	viola	bar 25->
9/2	timpani	13->
9/3	vibraphone	37->
9/4	trumpet	50->
9/5	viola	61->
9/6	piano	73->
9/7	vibraphone	88->
9/8	trumpet	97->
9/9	piano	88->
Tremolando	timpani	97->

Early sketches reveal my intention to use motifs from bars 13-21 of *Travels 2* here (those deriving from the second section which would not otherwise be explored). However, two developments supplanted this: (i) the decision to 'borrow' around half of the notional duration of *Travels 9* to justify lengthening *Travels 7* without altering the overall length of the cycle, and (ii) the need to have two groups of motifs at work in *Travels 8* because of the two ensembles with diverse material.

'Alex set-C#' is used to derive focal pitch-classes for each section. To contribute an element of regularity befitting a passacaglia, the focal pitch-classes are not allocated proportionally but one to each twelve-bar set. The total of 108 bars is significant for mantra repetitions incidentally, being the number of beads strung on the traditional mala (loket) which aids devotional practice. To these are added eight bars 'exeunt' for the *rgya-gling*/oboes, giving 'the last word to Tibet'.

The passacaglia theme not only migrates through the pitch centres of 'Alex set-C#' and the relative tessiturae of trumpet, piano and timpani but also gradually transforms in pitch profile so that by the end it has a clear leaning towards F-major tonality. That being said, the music of each of the instruments as they individually cease reiterates Db (C#) as a kind of interrupted cadence, harking back to the movement's focal pitch-class.

Again, Boulezian aggregates (see pp76-77) are derived by dividing 'Alex set-A' into three triads and multiplying each by each — see Example 4.35 (AA is the multiplication of A by A; AB, of A by B, etc). Appropriately transposed, these dominate in the trumpet (e.g. AA, bar 11; CA, bar 14, etc).

Example 4.35

Travels 9, triadic division of 'Alex set-A' to enable mutual pitch multiplication

In addition, three series of chorales derived from Stravinsky-like rotations¹⁴¹ of 'Alex set-C#' (Example 4.36) appear double-stopped on the viola, transposed to the sectional focal pitch-class:

chorale:	pitch:	bars:
2	C#	7->
3	Bb	1->
1	Eb	33->
2	F#	39->
3	D	55->
1	C	69->
2	E	81->
3	Ab	85->
1	F	97->

On the last occurrence (bar 97) the piano, combining Chorales 2 and 3, joins the viola so that 'Alex set-C#' and five rotations (1,2,4,6,7) are presented simultaneously. (In Example 4.36, the rotations are shown before transposition from C# to the sectional focal pitch-class, and before certain pitch exchanges favouring voice leading and double-stopping).

¹⁴¹ See fn99, p65.

Example 4.36

Travels 9, initial Stravinskian rotations of 'Alex set-C#'

In this example, accidentals relate only to the pitch they immediately precede

The image displays a series of nine musical staves, each representing a different rotation of the 'Alex set-C#'. The staves are labeled on the left as follows:

- 'Alex set-C sharp'
- Rotation 1
- Rotation 2
- Rotation 3
- Rotation 4
- Rotation 5
- Rotation 6
- Rotation 7
- Rotation 8

Each staff contains a sequence of notes with accidentals (sharps and flats) indicating the pitch of each note. The notes are written on a five-line staff with a treble clef. The accidentals are placed directly before the notes they apply to, showing the specific pitch for each rotation.

It was customary for Tibetan pilgrims on reaching the top of a sacred mountain or the culmination of their journey to shout in gratitude and affirmation: “Lha gyalo!” [The gods win!] Alexandra and Yongden would doubtless have done likewise at several points in their long journey — and surely on seeing the Potala. Therefore, this acclamation is appended to *Travels* 9’s final bars to mark my own exultation on completion of this compositional journey.

Lha gyalo!



*Alexandra David-Néel, aged 87 at Samten Dzong (her 'Meditation Fortress'),
Digne, France*

Chapter Five

Preparing ‘Mantras and Mandalas’

Creating any performance imposes a challenge: that of seeking to turn vision into reality. There are always uncertainties and the unexpected can confront one at any turn. But these qualities are probably magnified with a transcultural enterprise, especially where the people involved have not worked together before.

In the case of ‘Mantras and Mandalas’, finding in the United Kingdom musicians with enough knowledge and skill in Tibetan ritual performance was by no means straightforward. The required instruments are generally only played well by monks, and no monastic Tibetan institutions in the UK boast large enough resident communities of indigenous Himalayans.¹⁴² Quite a lot of asking around and emailing official organisations was involved. After a while several trails led to the same person. “You should speak to Jane,” several informants told me.

This I did. ‘Jane’ turned out to be Jane Rasch, administrator of the Tashi Lhunpo Monastery UK Trust. The original Tibetan monastery of Tashi Lhunpo is the historical seat of the second most important figure in the Tibetan religio-political hierarchy, the Panchen Lama. Tradition has it that the Panchen and Dalai Lamas are like the left and right hand of Buddhism in Tibet, wisdom and compassion incarnate, and politically they were of great historical importance. For one thing, each was endowed with the power to recognize the reincarnation of the other after his decease. Since the diaspora of 1959¹⁴³ the Tashi Lhunpo monastic community has regenerated itself in southern India, and regular international tours of its monks

¹⁴² Here, as elsewhere, my use of the word ‘Tibetan’ is a practical simplification, to avoid repetitive explanations and basically to distinguish the Vajrayana Buddhist practices associated with Tibet (and neighbouring regions) from the Mahayana of China, Japan or Korea (say) and the Hinayana of South-East Asia. However, I should emphasize that the monks participating in ‘Mantras and Mandalas’, although representative of an expatriate Tibetan monastery, were not necessarily native Tibetans, and esoteric or ritualized Buddhist practices are not the sole preserve of Tibetans anyway.

¹⁴³ About which particularly moving testimony is given in His Holiness the Dalai Lama’s *Freedom in Exile: The Autobiography of the Dalai Lama of Tibet* (London: Hodder & Stoughton/John Curtis, 1990).

are one way in which Tibetan culture and awareness of it are kept alive, its community is energized by international interactions and its finances sustained.

Jane and I met early in the summer of 2017 at one of the group's performances. By this time Jane was a woman of very close acquaintance with the Tashi Lhunpo community (they affectionally call her 'Ani-la')¹⁴⁴ and she visits regularly to organise travel, steer the community's way through Indian bureaucracy in terms of visas etc and work out international programmes covering a dozen or more venues and a wide range of interactions (creation of sand mandalas, '*cham*' dances, ritual performances, workshops).

The 2017 tour involved only two or three monks, and one of these was Ven. Lhakpa (a Sikkimese, in fact) who spoke good English and had some experience of Western musical idioms and technology.¹⁴⁵ He proved to be an important focus of communication in preparing 'Mantras and Mandalas'.

Jane and Lhakpa seemed enthusiastic about the possibility of co-ordinating with me over an event in 2018, and Jane and I met for dinner in March 2018 to move the plan forward.

Then the real challenges began. What venue might be suitable for a performance likely to involve a range of ensembles and significant ceremonial elements? My home-university presented itself as a likely contender, but several local churches were also considered.¹⁴⁶ What selection of the *Travels* pieces would give a representative idea of the cycle as a whole without involving too many performers too sparsely? What combination of music would present the Tibetans in all their finery (quite literally) and in a favourable and sympathetic context?

Even the *alma mater* of Goldsmiths, University of London, presented several obstacles because, of the half dozen or so possible spaces, only one was available to tally with the musicians' schedules. But its modest size restricted the number of audience members and thus (because of the overall cost of staging the concert)

¹⁴⁴ An appellation often given respectfully to a nun (comparable to our 'Sister').

¹⁴⁵ In initial rehearsals we contemplated using a stopwatch or a click track to indicate where the monks should play, for instance.

¹⁴⁶ An earlier approach to the Horniman Museum, home to a very significant collection of musical instruments, had proved incompatible with their programming for the period concerned.

precluded the Music Department's customary practice of allowing students free access. It also posed the challenge of moving in a piano which could be prepared.¹⁴⁷ I was veering towards including *Travels 7* because of its original combination of prepared piano and Tibetan percussion but the terms of the lease of the resident piano precluded preparation.

It was clear that at least three of the *Travels* pieces would be required to give a flavour of the cycle as a whole. I had already decided on the string quartet (*Travels 5*), as I had heard it workshopped and knew it was practicable. This meant the other pieces should really involve the Tibetans. Which would work best with the minimum of other musicians? *Travels 7* uses two violins with the obbligato viola, so *Travels 3* (using the same combination but with different Tibetan percussion and an additional violin) presented itself as the logical complement.

The Ligeti Quartet were familiar to me as keen exponents of contemporary repertoire, and their cellist, Val Welbanks, had been a fellow student at Goldsmiths. Rosie Bergonzi, also a Goldsmiths alumna, was recommended by several contacts as an excellent solo percussionist — a friend was enthusiastic about working with her earlier in the year. Kate Ryder was known to me as a pianist who ventured into unusual corners of the contemporary piano repertoire and had a portable kit of piano preparations: Kate spent a morning introducing me to preparation possibilities and warning me about potential pitfalls and mishaps. The required third violin was located straightforwardly as Radhika de Saram was the sister of the present first violinist and had previously played in the Quartet herself. The last performer to be secured was the countertenor, Ben Williamson. I only needed to contact two singers before I received an enthusiastic response from Ben. We met and looked through the score of *Travels 3* and, with his experience of singing scores as demanding as those of John Adams, he saw it posed few problems and additionally sat well with his voice.

The programme was then expanded around maximising the musical use of the monks as well as these performers, and providing solo opportunities for several of

¹⁴⁷ There was also the last-minute additional challenge of a visit from the piano tuner, who innocently removed all the preparations before the first ensemble rehearsal!

the latter from their existing repertoires which would still blend with the rather contemplative overall atmosphere I was seeking to create.

Jane and I made a provisional selection of which pieces from their touring repertoire of chants and dances the monks would include and agreed that I should visit them where they would be staying with Jane in Salisbury not long after their arrival in the UK.

I spent a long afternoon with the Tibetans at Jane's farmhouse in Wiltshire, getting to know them and deciding with Lhakpa-la which monk would play which instrument and running through the kinds of sounds I had in mind. None of the monks could read Western notation. So, I realized that some of my initial ideas would need to be simplified, and that as well as the overall ensemble conductor for the two pieces of mine to involve them, I would probably need to sub-conduct their playing.

As well as rehearsals on the day of the concert itself, I had secured the venue for the day before and I worked out a rehearsal schedule to provide sufficient time for all the performers to rehearse (including their solo items).

I also spent considerable time pondering what I had learnt in Salisbury. By the time of that visit the use of a pair of *dung-dkar* in *Travels 3* was resolved, but I was not yet clear how to integrate the *damaru* and *dril-bu* I wanted Kachen Lobzang Jekmath and Tsogtsogpa Lobzang Thokmed to play alternately. I arrived at a retrograde variation of characteristic Tibetan cymbal 'falls', which could easily be mimed to the monks (a double acciaccatura leading into a decelerating and declining tremolo — see example below) and directed in performance with an agreed gesture on a recurring pattern of beats within the 5/4 metre¹⁴⁸ to create a complement to the voice and underlie string harmonics. Once the two monks were clear about the sequence in which they would alternate *dung-dkar* and *damaru* or *dril-bu* respectively, and we were agreed on my 'conducting' gesture,¹⁴⁹ we were all

¹⁴⁸ On crotchet beats 1 and 4 in bar 1 and beat 2 in bar 2 of the recurring two-bar patterns. Each shake was agreed to last a minim, so that the performers knew to attempt the same duration each time.

¹⁴⁹ The agreed conducting gesture (arising from a suggestion of Jane Rasch's) was an outward motion of my left arm in tandem with an opening of the palm in the performers' direction. In retrospect I realize this became a kind of *mudra*, traditional examples of which can be seen in the monks' performance of *Kunrik* at the beginning of the second half of the concert.

set. The mimed shakes in fact became a recurrent joke between Thokmed and me, as every time we met in the corridor between rehearsals we would greet each other by miming them with some flourish!

Example 5.1

Travels 3, bars 26-28, 'shakes' devised for the Tibetan percussion



Travels 7 proved more complex because, at the time of meeting the monks in Wiltshire, I had not yet finished the piece and, in fact, had got rather stuck with it. As mentioned earlier in the Commentary (pp88ff), I had initially envisaged a cycle of recurring but increasingly more concentrated and brief *sil-snyan* percussion episodes but, in rehearsal, found that the reverberations of the cymbals (used in evocation of peaceful deities), even though they are less reverberant than the *sbug-chal* used in evocation of wrathful deities, very quickly dominated the subdued textures of the other instruments. In fact by miming and verbal communication with Lhakpa during rehearsal (he had elected to play the *rnga* in this piece with Kachen Namgail who was an experienced practitioner of the *sil-snyan* cymbals) we had managed to create a sequence of similar but slightly varied interpolations from the Tibetan instruments which complemented the Western instruments without dominating them, and sought to evoke the sense of passing nocturnal processions. I was then able to sit back and let the two Tibetan players perform under the direction of the ensemble conductor alone and happily accept the slight variations in the recurring patterns they intuitively introduced.

I then transcribed the percussion parts from the recorded performance into the score.

So *Travels 7* moved from an initial expectation of percussion activity along the lines of Example 5.2:

Example 5.2

Sample of early sketch for Tibetan percussion in Travels 7

Musical score for Example 5.2, showing early sketch for Tibetan percussion in Travels 7. The score is in 4/4 time and consists of two staves: Sil-snyan (top) and Rnga (bottom). The Sil-snyan staff features a melody with a crescendo from *mp* to *ppp*. The Rnga staff features a rhythmic pattern with a crescendo from *mp* to *ppp*.

to gestures typified by the following:

Example 5.3

Travels 7, bars 18-20, Tibetan percussion parts as finalized

Musical score for Example 5.3, showing finalized Tibetan percussion parts in Travels 7, bars 18-20. The score is in 4/4 time and consists of two staves: Sil-snyan (top) and Rnga (bottom). The Sil-snyan staff features a melody with a crescendo from *pp* to *ppp*. The Rnga staff features a rhythmic pattern with a crescendo from *pp* to *ppp*.

I think that, overall, the recorded performances demonstrate the sympathetic way in which the musicians from very different backgrounds were able to work together and how the sequence of pieces complemented each other and demonstrated individual skills. Quite a few of the audience members complemented us on the distinctive atmosphere we created and how the Western and Tibetan items worked well together. Even the applause after each item (which I at one point had been keen to discourage in order to reinforce a more devotional atmosphere, but was voted down by the Western performers!) does not seem to quell the mounting excitement as the event moves towards its joyful conclusion, bursting outdoors with the procession and the masked 'cham dances on the College forecourt.

In terms of working with the Tibetans per se, or rather in a more general sense working with a group of musicians from another culture who do not read Western music notation and may not be readily attuned to its cultural mores, I learnt to listen to what they could readily do with their instruments and extract elements of this

which would be compatible with the specific piece under development, and that to do this creates a performance space that is rewarding for both sides of the equation. In short, all sides of a transcultural enterprise bring something to the encounter and all sides can learn from and be enriched by what ensues.

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Appendix

Programme & Poster for 'Mantras and Mandalas'

Mantras and Mandalas

A meeting of Tibetan ritual music with contemporary chamber music

Monks of the Tashi Lhunpo Monastery

Ben Williamson, countertenor

Kate Ryder, pianos

Rosie Bergonzi, marimba

Ligeti Quartet

(Mandhira de Saram, Patrick Dawkins, Richard Jones, Val Welbanks

– with Radhika de Saram, violin)

*Conductor: Roger Redgate

Programme

**Intimations*..... Richard Bolley (b1951)

Countertenor, viola, three violins, Tibetan dung-dkar, dril-bu and damaru
(conches, bell and hour-glass drum with beaters)

“Even as a child, Alexandra would stand at the garden gate and imagine worlds
beyond: adventure, escape, solitude...”

*C'est un jardin secret, ma soeur, ma fiancée, une source scellée, une fontaine
close*.....Tristan Murail (b1947)

A miniature viola piece, written as a wedding present for two of the French
composer's friends and encapsulating many characteristics of this composer's
'spectralist' style.

Figment V..... Elliott Carter (1908-2012)

This short marimba solo was written in 2009 for the 17th birthday of the grandson of
the elder statesman of 20th-century American music.

Three movements from 'Papillons'..... Kaija Saariaho (b1952)

Studies of fragile and ephemeral movement, from a cycle of seven cello pieces
commissioned from this Finnish composer by the Rudolf Steiner Foundation.

Invocations..... Richard Bolley
String quartet

“Alexandra could well have invoked the assistance of the bodhisattva Tara – a
traditional patron of travellers – many times in the course of her travels and her
periods of retreat...”

Kunrik (Tibetan chant)

SHORT INTERVAL

**Processions*..... Richard Bolley
Viola, two violins, prepared piano, marimba, Tibetan sil-snyen and nga
(small cymbals and drums)

“Alexandra and Yongden travel through the woods at night, to escape detection, but are always on the alert for caravans of equally mysterious travellers...”

Five Haiku..... Michael Searby

From a cycle of eleven composed in the Cage centenary year, each based on a famous Japanese haiku and using tiny shards from a range of Cage’s piano works.

Seven Haiku..... John Cage (1912-1992)

These tiny piano pieces were begun in the very month of 1951 in which Cage first heard D. T. Suzuki lecture on Zen Buddhism shortly after his arrival in the US.

The Wonderful Widow of Eighteen Springs..... John Cage

An evocative setting of words from James Joyce’s *Finnegans Wake* for voice and atypical piano sounds.

“Les oiseillons de mon pais” Gace Brulé (late 12th century)

A celebration for solo voice of the birds of the composer’s native Champagne, from a collection of Trouvère songs edited by Christopher Page.

“From Far, from Eve and Morning”Ralph Vaughan Williams (1872-1958)

This setting of the poetry of A. E. Housman is from Vaughan Williams’ cycle *On Wenlock Edge*, originally for tenor, string quartet and piano.

Two movements from the *Sardinian Song Book*..... Christian Mason (b1984)

Recently premièred by the Ligeti Quartet, this cycle is a companion to the composer’s earlier success, the *Tuvan Songbook* (2016)

Conclusion:

Tashi (Tibetan dedication)

Procession with rgya-gling (oboes) and Shanak (Black-Hat Dance)

About Tashi Lhunpo and the Tibetan Buddhist aspects of the programme

Tashi Lhunpo Monastery was founded in Shigatse, Central Tibet in the 15th Century by the first Dalai Lama. The head of the monastery is HH the Panchen Lama, the second most important spiritual leader of Tibet after His Holiness the Dalai Lama. Now re-established in exile in South India, the monastery is becoming one of the most important centres of Buddhist learning, best known for its artistic tradition of masked dance and sacred music. The monks' present four-month tour of the UK and Europe is organised by the Tashi Lhunpo Monastery UK Trust (Patron: His Holiness the Dalai Lama).

In Kunrik (All Knowing) the monks visualise inviting 37 different deities before them, making offerings in exchange for sharing their knowledge. Each deity and the offerings made is represented by a series of intricate hand gestures or *mudras*. The prayer is offered every month by the Tantric College in the monastery.

Tashi (Dedication): This prayer dedicates the motivation of an event to the benefit of the whole environment and the health and wellbeing of all sentient beings. Rice is offered as a gesture of gratitude to the Buddhas for safekeeping any merit which might have been earned.

Shanak (The Black Hat Dance): This dance is performed on the eve of every Tibetan New Year to represent the victory of virtue over evil. The monks, disguised as demons, hold a sacred diamond dagger in one hand, and a human skull cup in the other as a reminder of impermanence.

The three pieces by **Richard Bolley** are from his cycle of nine for viola and various performers, *Travels with Alex* – inspired by the travel writings of the intrepid French Buddhist monastic, Alexandra David-Néel (1868-1969), allegedly the first Western woman to reach Lhasa in Tibet, accompanied by her adopted Tibetan son, the monk Yongden. These pieces will form part of Richard's submission for his PhD in Music at Goldsmiths, University of London, and hence the documentation of this evening's event in both sound and film. The contribution to the latter of Dan Ross (sound) and Surya Williams (vision) is hugely appreciated. Richard is also indebted to Terence Dooley for the words of *Intimations*, a poetic paraphrase into French of ideas conveyed by Alexandra David-Néel in the introduction to an early English edition of *Voyage d'une Parisienne à Lhasa* ['My Journey to Lhasa']. Richard would also like to thank all the staff of the Department of Music who have helped to make this event possible, and particularly Roger Redgate for conducting two of the ensemble pieces. He also gratefully acknowledges the financial support of the Department, the College's Graduate School and the Early Career Researchers' Group.

For **further details of the performers**, please see the following websites, amongst others:

www.tashi-lhunpo.org.uk/

<http://www.benjaminwilliamson.com/>

<http://www.kateryder.co.uk/>

<https://encoremusicians.com/RosieBergonzi/>

<https://ligetiquartet.com/> <http://harrisonfrankfoundation.com/artist-radhika-de-saram/>

http://www.rogerredgate.com/Roger_Redgate/

A few words of particular thanks to the participants from Tashi Lhunpo

For this, their 'Thank-You Year' Tour of 2018, the monks from Tashi Lhunpo Monastery who have travelled from India to participate are:

**Kachen Namgail
Kachen Jampa
Kachen Lobzang Jekmath
Tsogtsogpa Lobzang Thokmed
Ven Lhakpa
Ven Sonam Dhundup
Kachen Tenzin Dasal
Tsogtsogpa Nawang Lobzang**

My warmest gratitude is expressed to them for making time in a very busy schedule to work patiently in this unfamiliar context, where contemporary Western chamber-music styles meet elements of their traditional Buddhist ritual practice.

Particular thanks and rejoicings are owed to their co-ordinator, and the Administrator of the Tashi Lhunpo Monastery UK Trust, **Jane Rasch** — without whose commitment, unfailing enthusiasm and practicality the realization of this project would simply not have been possible.

Richard Bolley, London, June 2018

The poster was designed by Cathy Hoste,
with photographs provided by the Tashi Lhunpo Monastery UK Trust



Mantras and Mandalas

A meeting of Tibetan ritual music with contemporary chamber music



Goldsmiths, University of London

Tuesday 5 June 2018 at 18:00
Richard Hoggart Building 167
Lewisham Way, London SE14 6NW

Tickets: £16 via Eventbrite,
Mantras and Mandalas

Performers include:
Monks of the Tashi Lhunpo Monastery
Ligeti Quartet
Ben Williamson, countertenor
Kate Ryder, pianos
Rosie Bergonzi, percussion

Goldsmiths
UNIVERSITY OF LONDON