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Portfolio of compositions and technical commentary

Pinto Moreira, Daniel Filipe

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Daniel Moreira

Portfolio of compositions and technical commentary

**Thesis presented in fulfilment of the requirements for the degree of the
Ph.D. in Music**

King's College London, 2017

Abstract

The eight compositions in this portfolio deal with the interactions between layers of contrasting musical materials. Each piece presents, in fact, a variety of musical materials, each one of them characterized by a specific musical profile (defined in melodic, harmonic, rhythmic and timbral terms), which suggests a given psychological or character type. Rather than juxtaposing the contrasting material, as in a Stravinskyan block form, my main concern — very much influenced by Elliott Carter — has been to superimpose them in polyphonic, multi-layered textures (or 'blocks'), which typically change quickly as each piece proceeds.

The harmonic language of the compositions in this portfolio display elements of atonality as well as remnants of traditional ways of thinking about tonality. They explore a broad range of harmonies, some of them more consonant or more diatonic, other ones more dissonant or more chromatic, a strategy that actually helps defining the variety of contrasting musical characters used in each composition. In addition, most pieces employ a restricted amount of large (6 to 9-note) pitch-class collections.

Several compositions involve voices, including the two most ambitious in scope: *Cai uma Rosa...*, a small opera for four singers and orchestra; and *Do Desconcerto do Mundo*, a cantata (in five movements) for two amateur choirs and large (professional) ensemble. All such vocal pieces set Portuguese texts from widely divergent sources, including renaissance as well as contemporary, art as well as popular poetry. In general, they seek to explore the rhythmic and phonetic character of the Portuguese language as well as reflect different aspects of their poem's semantic content.

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King's College London, 10 June 2013

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III. Nocturno

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Quarteto Contratempus, studio recording

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TECHNICAL COMMENTARY

1 — INTRODUCTION

1.1 The main strands of this thesis

Counterpoint and polyphony have always been major compositional concerns for me. Over the years, I have developed a strong penchant for writing dense polyphonic textures. Paradoxically these became so dense that counterpoint often became obscured. For some time, I was genuinely interested in the resulting mass effect. More recently, however, I became increasingly interested in making each line (or layer) more distinctively perceivable. To make my polyphonic (or multi-layered) textures clearer, more transparent — though still quite dense — has thus become one of the central goals of this doctorate.

By clearly characterizing each line (or layer) in a texture I found that it was possible to achieve greater textural transparency. The more each line or layer has its own, recognizable profile or character, the greater the likelihood that it will be heard distinctively within a complex, dense texture. Exploring the nature of musical ‘character’ is therefore another aspect of this thesis. In general, I have strived to create distinctive and recognizable types and to include a variety of contrasting characters in each piece as well as to explore different ways of superimposing them in multi-layered textures.

All compositions in this portfolio deal in some way with layering of contrasting musical materials. For instance in the fourth movement of my song cycle *Cinco Poemas da Água* (2013), I explore six types of material or strata. As Fig. 1 shows, each one of them has a specific profile and is highly characterized in terms of timbre, dynamics, rhythm and harmony (mode) and in some sense can be seen as conveying a psychological type (an issue discussed in more detail in Section 2). For instance stratum D, as shown in Fig. 2a sounds joyful and carefree due to its simple rhythms and strictly diatonic harmony emphasizing a highly consonant interval, the perfect fifth, whereas stratum C sounds much darker and even macabre due to its energetic rhythms in the piano’s lowest register within a much more chromatic and dissonant 7-note mode, [A,Bb,C#,D,D#,F#,G], emphasizing tritones, minor seconds and major sevenths (Fig. 2b). In general, as I will explore more thoroughly in Section 3, harmony plays a very important role in characterizing my musical materials. In this case

three different types of modes are used: a 9-note, almost chromatic collection (mode 1); the more dissonant 7-note mode (mode 2); and the diatonic scale (mode 3).

Strata	Psychological profile	Timbre (instrument, register)	Dynamics	Rhythmic material	Mode	Ex. (bars)
A	Delicate, but nervous	Clarinet (middle register)	<i>ppp</i> (almost throughout)	Very active: mostly trills and sextuplets	[B,C,Db,Eb,E, F,F#,G,Ab] + transpositions [Mode 1]	1-19
B	Melancholic, lyrical	Violoncello, arco (low and middle register)	Varies from <i>p</i> to <i>mf</i>	Moderate speed in general, with floating character (highly variable durations)	[A,Bb,C#,D, D#,F#,G] + transpositions [Mode 2]	5-19
C	Dark, macabre	Piano (very low register)	<i>mf</i>	Moderate speed in general, very rhythmic	The same as C [Mode 2]	18-31
D	Joyful, carefree	Violoncello, harmonics	<i>mf</i> (crescendo to <i>f</i> at the end)	Simple rhythms (mostly quavers)	[D,E,F#,G,A, B,C#] [Mode 3]	26-31
E	Exultant, but in a quiet way	Clarinet (middle-high register)	<i>mp</i> (crescendo to <i>f</i> at the end)	Mostly semiquavers and longer notes at the end of phrases	[D,E,F#,G,A, B,C#] + transpositions [Mode 3]	32-38
F	Changes from dark to joyful	Soprano	First diminuendo (<i>mp-p-pp</i>), then crescendo (<i>mf-f</i>)	Moderate speed in general, with floating character (durations are highly variable)	Changes from Mode 1 to Mode 3	13-32

Fig. 1 — Strata in ‘Rumor’ (Cinco Poemas da Água)



(a) Stratum D (violin cello: bars 26-30)



(b) Stratum C (piano: bars 20-23)

Fig. 2 — Strata in ‘Rumor’ (Cinco Poemas da Água)

Typically, as each piece progresses different vertical combinations of the characteristic materials are explored, resulting in differentiated ‘textural blocks’. For instance, in the song discussed above only stratum A is heard at the very beginning; in bar 5, as B enters the texture, two different strata are superimposed (A and B); from bar 32 to 38, B and E are combined; and from bar 48 to 52, no less than 4 strata are superimposed, namely C, D, E, and F (Fig. 3).

Strata/ Blocks	Mode	Block 1 (b. 1-5)	Block 2 (b. 5-12)	Block 3 (b. 13-18)	Block 4 (b. 18-26)	Block 5 (b. 26-31)	Block 6 (b. 32-38)	Block 7 (b. 39-45)	Block 8 (b. 45-47)	Block 9 (b. 48-52)	Block 10 (b. 52-55)
A	1	_____	_____	_____	- _			_____	_____		
B	2		_____	_____	-		_____	_____	_____		
C	2				_____	_____			_____	_____	
D	3					_____				_____	_____
E	3						_____			_____	_____
F	1 at first; 3 at the end			_____	_____	_____		_____	- -	_____	_____
				(Quando o outono...)	(já não...)	(melancolia ...)		(é que o secreto...)		(inunda os lábios...)	(os lábios de oiro...)
Articulation that begins the block	—	A begins	B begins	F begins	C begins	D begins	E begins	new vocal phrase	C returns	D and E return	C stops
Density (number of strata)	—	1	2	3	3	3	2	3	3	4	3
Strata in mode 1	—	1	1	2	1	1	0	2	1	0	0
Strata in mode 2	—	0	1	1	2	1	1	1	2	1	0
Strata in mode 3	—	0	0	0	0	1	1	0	0	3	3

Fig. 3 — Textural blocks in ‘Rumor’ (*Cinco Poemas da Água*)

As shown in Fig. 3, no two blocks are entirely alike for the vertical combination of strata changes constantly. As this happens, the relations among succeeding blocks (in terms of strata content, density, etc) become crucial in defining the musical form. In this piece, indeed — as in virtually all compositions of this portfolio — form is generated by the interaction between the contrasting materials, that is, by the combinatorial possibilities of layering.

In this case, it is possible to note a gradual shift in harmonic content from more dissonant (and chromatic) modes towards the (more consonant) diatonic. As can be seen in Fig. 3, modes 1 and 2 predominate at first, but mode 3 (the diatonic scale) manages — after two tentative appearances in blocks 5 and 6 — to dominate the whole texture at the very end (blocks 9 and 10). This trajectory —

from dissonance to consonance, or, metaphorically, from darkness to light — mirrors that of the poem, which starts by portraying Autumn as a time of melancholy but concludes with a more luminous, hopeful image of water flooding the lips with gold (Fig. 4). The majority of compositions in this portfolio (5 out of 8) being vocal ones, in such cases the text always has a significant influence on the character of the musical strata and on the way they are combined into successive textural blocks, as many examples in this commentary will show. All such vocal pieces set Portuguese texts, and therefore a whole section of this commentary will be devoted to the issue of text setting in the Portuguese language (Section 4).

<p><i>Rumor</i> <i>Quando o outono</i> <i>Já não pode senão melancolia</i> <i>É que o secreto rumor da água</i> <i>Inunda os lábios de ouro.</i></p>	<p>Murmur When Autumn Gives nothing but melancholy That's when the secret murmur of the water Floods the lips with gold.</p>
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Fig. 4 — ‘*Rumor*’ (*Cinco Poemas da Água*): Eugénio de Andrade’s poem

All the above mentioned concerns are inextricably linked: 1) to explore transparent (but dense) multi-layered textures; 2) to explore contrasting musical characters (partly defined harmonically, and very often dependent on a text); and 3) to conceive interesting formal structures out of the interaction of contrasting materials. The eight compositions in this portfolio share these concerns, but explore them in different ways, as the following brief description of each of them reveals.

The *Sextet*, for winds, piano and vibraphone (2012-13) involves a variety of highly contrasting types of music, each one of them generally associated with a fixed instrument (or combination of instruments). The texture is, therefore, quite stratified, thus emphasising the heterogeneous nature of the ensemble. Throughout the piece the different characters are seen through various lenses, as they come to the foreground or recede to the background, and also as they appear in different textural contexts.

Poema para a Padeira, for choir, woodwind quartet, piano and percussion (2013) setting a poem by Fiamma de Brandão features a basic opposition between violent/dramatic and peaceful/lyrical

music. The former is usually associated with the male voices, together with the low piano, suspended cymbals, and active, dissonant music in the woodwinds, whereas the latter is conveyed by the female voices, together with the high piano, vibraphone, crotales, and delicate, consonant music in the woodwinds. This corresponds to the poem, in which images of war and peace are juxtaposed and sometimes strikingly superimposed.

Cinco Poemas da Água, for soprano, clarinet, piano and violoncello (2013) sets five short poems by Eugénio de Andrade into five small, contrasting songs, varying in terms of tempo, mood, and texture. Some common aspects, however, unify the cycle: the use of a restricted set of modes to structure the harmony; and a shared emphasis in multi-layered textures in which the different voices behave quite independently from each other, each one of them illustrating different aspects of the text.

As Três Faces da Serra (In Memoriam Miguel Torga), for solo euphonium/trombone and brass quintet (2014) involves a soloist playing two instruments in alternation — the euphonium and the trombone — against a brass quintet that also includes an euphonium and a trombone. In spite of the homogeneity of the instrumentation, a variety of musical characters is presented, the use of various types of mutes helping in their differentiation. The piece divides into three contrasting movements: in the first movement (slow), the soloist appropriates material taken from various strands of the quintet; in the second movement (fast), the soloist enters in dialogue with different groups of instruments; and in the third movement (slow), the soloist interacts with a mostly homophonic quintet.

Singra o Navio, for soprano and orchestra (2014) presents, unlike other compositions in this portfolio, a clear narrative arch: at first, the music is slow and mysterious; then, it becomes agile and delicate; from this, it gradually changes to acquire a ominous, threatening character, as the climax is approached; the ending is calm and distant, suggesting a distorted, unreal image. This corresponds closely to Camilo Pessanha's poem, which is about a journey at sea, in which the poet gradually realizes that what he sees at the bottom of the sea are not delicate shells and pebbles but rather wreckage from ships long ago sunk.

Cai uma Rosa... is an opera for 4 singers and orchestra (2014-15), which is divided into six relatively self-contained scenes played without any interruption. Vocal textures range from (recitativo- or aria-like) monologues to full-fledged quartets (duos and trios being also included), but

most scenes are not of one type exclusively: two scenes, for instance, evolve gradually from monologue to quartet. In the libretto (adapted from a short story by Eugénio de Castro), Beatriz dreams about Sancho, a stranger her parents gave shelter to after they found him severely injured due to a horseback riding accident. Each of the four characters has its own (unique) personality traits, which the music seeks to reflect, but their psychology is also complex: the mother, for instance, is split into two different, opposing personalities. The music reflects that psychological complexity, as well as the general dreamlike, surreal atmosphere.

Miniature Variations, for symphony orchestra (2015) is a very short 3-minute composition, which presents, however, a great variety of musical ideas. Each of those ideas is usually short and is constantly varied over the course of the piece, a process that often modifies the original idea quite considerably. Most of the music can be characterized as fast, with a lot of rhythmic vitality, but the overall texture is never too dense and the dynamics usually remain soft.

Do Desconcerto do Mundo, for large instrumental ensemble, semi-professional choir and amateur community choir and ensemble (2016), is a Cantata-like composition based on a varied collection of Portuguese texts addressing the social injustice and inequality. It is divided into five movements, each one of which presents a different solution for the problem of coordinating the heterogeneous mix of vocal and instrumental forces.

1.2 Two relevant influences: Stravinsky and Carter

The textural and formal concerns outlined above are closely related to certain aspects of the music of Stravinsky and Carter, namely the use of block forms, by the former, and of polyphonic textures involving contrasting musical materials, by the latter.

According to Straus (1997), ‘Stravinsky’s music is often articulated into discrete, insulated blocks that are sharply juxtaposed in time without transition’ (p. 1). Also Cone (1962) recognized the sectional character of Stravinsky’s music and proposed a general theory to account for that, in terms of which ‘the various sections of [...] [a] piece constitute discrete “layers of sound” and [...] the interruptions caused by the alternation of these discrete, immediately discontinuous segments create a

“stratification” of the music’ (Hasty, 1986, pp. 62-63)¹. And Cross (2006) showed that such block forms have been one of the most important parts of Stravinsky’s legacy, with clear repercussions in the music of composers as different as Messiaen, Stockhausen and Birtwistle.

The pieces in this portfolio have, admittedly, some traits in common with the Stravinskian approach, as formal articulation is created as materials enter or vanish from the music (see Fig. 3 above), which is comparable to the discontinuous articulations in block forms. Yet my approach is at the same time more polyphonic and less discontinuous. It is more polyphonic because my emphasis lies not so much in juxtaposing different materials, as in layering; and it is more continuous because, first, I explore various kinds of transition between strata, and, second, I often combine continuity in some layers of the texture with discontinuity in other layers (see Section 2.2).

From Carter’s music I have taken the idea of superimposing different types of music and associating each one of them with a given psychological profile. In his Second String Quartet (1959), for instance, ‘each instrument is imbued with its own “world view” and manner of playing — its own character’ (Gass, 1961, p. 12). The character of each instrument is defined by a restricted set of intervals, rhythmic types, and stylistic associations (for instance, Carter associates a laconic and rigid psychology as conveyed by the Violin II with its regular, even rhythms).

My approach, however, differs from Carter’s in many aspects². First, I do not employ such a strict correspondence between characters and intervals as Carter does (actually, the harmonic definition of my strata tends to rely on modes, motives and pitch-class sets rather than single intervals, an issue explored in detail in Section 3). Second, Carter’s characters are essentially behavioural patterns that characterize given instruments (each one of them allowing for a multitude of manifestations, repetition of material being quite rare), whereas my strata are more recognizable musical entities (reappearing quite often over the course of a piece, either repeated or developed). Moreover, musical characters in Carter are often defined in relatively abstract or purely musical terms (such as ‘bravura style’ or ‘expressive’), whereas my characters are almost always conceived so as to bear more extra-musical associations often in connection with a text (see Sections 2 and 4).

¹ Many other authors have addressed issues of stratification, discontinuity and block form in Stravinsky, including Somfai (1972), Kramer (1978, 1981), van den Toorn (1983), Taruskin (1996) and Cross (2005).

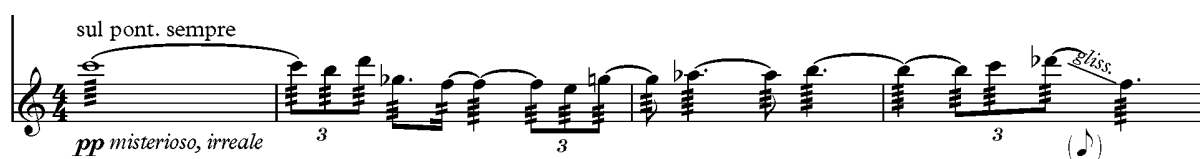
² See Schiff (1983) for a detailed account of Carter’s music.

2 — LAYERING AND FORM

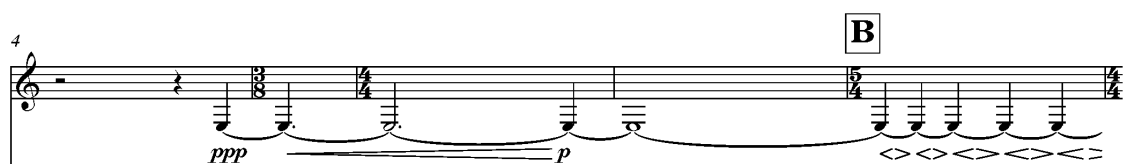
2.1 Strata and layering

All the compositions in this portfolio present a variety of contrasting materials (or ‘strata’) but explore this feature in different ways. In the earlier pieces such as *Sextet* (2012-13) and *Cinco Poemas da Água* (2013), for instance, each instrument tends to play different types of music, whereas in later pieces such as *As Três Faces da Serra* (2014) and *Miniature Variations* (2015) there is a much greater degree of cooperation and sharing of material across different instruments or orchestral strands.

The third song in the cycle *Cinco Poemas da Água* — ‘Nocturno’ — is typical of the former approach, as each instrument has different types of material. The violoncello plays long melodic phrases in a very high register, always *sul ponticello* and *tremolando* (see Fig. 5a) creating a mysterious sound world. Contrastingly the clarinet has very long notes in the low register, with crescendo-diminuendo patterns that often delineate pulsing either crotchet or dotted crotchet rhythms (Fig. 5b). The soprano slow, cantabile phrases, using mostly conjunct motion and always legato (Fig. 5c) and marked ‘*introspeetivo*’ combined with the soft dynamics suggest a sense of inwardness. As for the piano, it presents two different strata (though never simultaneously): resonant chords in the middle-high register combined with very high bird-like figurations (Fig. 5d); and a two-voice counterpoint in an extremely high register, conveying a sense of delicate yet sonorous flow (Fig. 5e).



(a) Violoncello material (bars 1-4)



(b) Clarinet material (bars 4-8)

p introspettivo *pochissimo* *p* *p*

Noi - te, noi - te ve - lha

(c) Soprano material (bars 1-4)

mp *p* *mp* *p*

mp

sua

(d) First piano material (bars 12-14)

p legato ma ben sonoro *p legato ma ben sonoro*

sua

leg.

(e) Second piano material (bars 19-21)

Fig. 5 — ‘Nocturno’ (*Cinco Poemas da Água*): examples of the five different types of material

Yet on a more abstract level there are similarities among these materials as they are all basically slow music types; soft dynamics prevails throughout; and all strata share the medium or high register exclusively. These similarities do, indeed, contribute to the integration of the layers. There is also a sense of harmonic integration as most strata use just two different hexachords, their transpositions, and closely related pitch-class sets (for more on harmonic structure in ‘Nocturno’ see Section 3.1). However different, they belong to the same world — a world that we might describe as contemplative and mysterious, introspective and unreal. This expressive content seeks to reflect the poem itself (see Fig. 6): its nocturnal setting; the strange, unreal events that take place in it, such as the moon pretending to be blind or stars falling on the river (hence the use of ‘distorted’ sounds like the extremely high *sul ponticello* melodies in the violoncello); the cold, shivering atmosphere (hence the extremely high lines in the cello and piano); the out-of-doors setting (hence the ‘birds’ in the

piano writing). In sum, the soprano sings the poem whereas the instruments reflect different aspects of it (hence the variety of their materials). This is actually a common strategy in the compositions in this portfolio that set a text, as other examples in this commentary will show.

<p>Nocturno <i>Noite,</i> <i>noite velha nos caminhos.</i> <i>A lua no alto</i> <i>fingindo-se cega.</i> <i>Estrelas. Algumas</i> <i>caíram ao rio. As rãs</i> <i>e as águas</i> <i>estremeçam de frio.</i></p>	<p>Nocturnal Night, old night in the pathways. The moon in the high pretending to be blind. Stars. Some of them have fallen on the river. Frogs and the waters shiver because of the cold.</p>
--	---

Fig. 6 — ‘Nocturno’ (*Cinco Poemas da Água*): Eugénio de Andrade’s poem

Although in the purely instrumental pieces the different types of music are not intended to bear such specific associations they might still individually convey a psychological or character type. In *Sextet* (2012-13) for instance, I used 9 different types of material. Each of them is characterized by a specific profile (in terms of timbre, rhythm, linear behaviour, articulation and harmony), which suggests a given psychological character (see Fig. 7). Thus stratum C sounds obsessive by virtue of its rhythmically regular, strictly repetitive character, and harsh due to the *marcato* articulation and prevalence of minor ninths (see Fig. 8c). Stratum A’s fluid and gentle effect is created by the legato articulation, soft dynamics and the use of pedal (see Fig. 8a). While stratum B sounds noble due to its relatively slow and mostly conjunct motion, which, together with the choice of the trumpet (an instrument that bears associations with nobility) suggests a sort of dignified atmosphere (see Fig. 8b).

Stratum	Psychological character	Timbre	Rhythm	Linear style	Articulation	Harmony	Example (bars)
A	Fluid and gentle	Piano or vibraphone (with pedal)	Repetitive durational patterns	Arpeggio-like	Legato	Main pitch-class set: [0,1,4,6]	1-8 (vibraphone)
B	Expressive and noble	Trumpet	Slow moving lines	Mainly conjunct	Legato	Main mode: [Ab,D,Eb,F,G]	1-41
C	Harsh and obsessive	Piano (also vibraphone)	Slow and regular	———— (chordal)	Marcato, sonoro	Main pitch-class set: [0,1,3,4]; minor ninths prevalent	4-5 (piano)

D	Contained, subtly expressive	Clarinet, horn and trumpet (flatter-zunge)	Slow moving lines	Chorale texture	Legato	Main pitch-class sets: [0,1,3] and [0,1,4]	9-13
E	Serious and sinister	Horn and trombone	Repetitive durational patterns	Always conjunct	Legato with some tenuti	Main pitch-class set: [0,1,3,4,6,7,9,10] [octatonic]	53-63
F	Lyrical and dreamy	Vibraphone or piano	Accelerandi and ritenuti	Arpeggio-like	Legatissimo	Main pitch-class set: [0,2,6,8]	30-40 (vibraphone)
G	Violent and wild	Piano	Very fast and regular	Downward arpeggio-like	Marcatissimo	Prevalence of semitones; emphasis in Eb	41-43
H	Vigorous but expressive	Clarinet	Short cells	Disjunct, moving towards goal pitches in the high register	Marcato and legato	Main harmonies: [Ab,D,Eb,F,G] and pitch-class set [0,2,6,8]	61-68
I	Light but menacing	Piano	Fast figurations	Arpeggio-like (irregular)	Staccato	Main pitch-class set: [0,1,6]	133-137

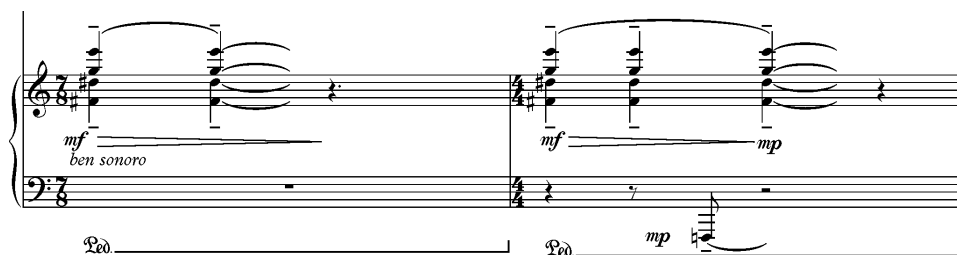
Fig. 7 — Strata in *Sextet*



(a) Stratum A in the vibraphone (bars 1-3)



(b) Stratum B in the trumpet (bars 1-4)



(c) Stratum C in the piano (bars 4-5)

Fig. 8 — Examples of strata A, B and C in *Sextet*

Although in this piece some strata are subject to a certain degree of development, even when that happens their character does not change radically. The defining characteristics of each stratum tend to remain quite stable and therefore the piece can be understood as a sort of ‘character-scape’, a study of contrasting, relatively stable characters rather than a goal-directed plot.

Yet the overall character of the piece is neither uniform nor static. For instance, a major formal articulation occurs at bar 41 as character G — the violent, wild piano — first appears (Fig. 9). Because it is the first musical element played fortissimo and marcato, and also the first one with really fast figurations, it disrupts the gentle atmosphere that had dominated the music so far. Indeed, the first 40 bars (the piece’s first section) were dominated by relatively ‘soft’ characters, especially the noble, expressive trumpet (character B), the fluid and gentle piano/vibraphone (character A) and the subtly expressive, mysterious flatterzunge chorale in the clarinet, horn and trumpet (character D), all of which have soft dynamics and legato articulation. Even the harsh, obsessive piano (character C), while clearly standing out as the least ‘gentle’ of the first section’s prominent characters, is still contained in its expression and rarely goes beyond mezzo-forte. Just like in ‘Nocturno’, there is a sense of integration here as all strata seem — in spite of their differences — to belong to a common family (here of predominantly soft characters).

The image shows a musical score for a sextet, starting at measure 39. The instruments are Clarinet (Cl.), Horn (Hn.), Trumpet (C Tpt.), Trombone (Tbn.), Vibraphone (Vib.), and Piano (Pno.). The piano part is marked 'fff marcato' and features fast, rhythmic patterns. The other instruments play sustained notes with dynamics ranging from 'f' to 'pp'. The score includes various musical notations such as slurs, accents, and dynamic markings.

Fig. 9 — First appearance of stratum G in *Sextet*

As the *fff* piano initiates a section at bar 41, other new and more energetic elements appear as well, such as the vigorous clarinet (from bar 61) and most notably a loud counterpoint between the muted horn and trombone (Fig. 10). Both of them seem to respond to the energy implied by the piano gesture, especially the latter, which is a direct echo of the piano material, sharing many traits with it such as two-voice writing, dissonant intervals, fast downward motion and marcato articulation (this is one of the very rare instances in this piece in which a stratum is transferred across instruments). However, a significant part of the texture remains soft while this happens. For instance stratum E (the serious and sinister horn/trombone duo) just proceeds with its slow pace and soft dynamics, unconcerned with the piano's outbursts (see bars 53-63 — Fig. 11 — and 70-79). Actually, stratum E already appeared in the first section, in essence with the same character (see bars 20-27). That is, its character does not change because of the disrupting presence of the violent piano. Also the latter does not develop much across its three appearances in the second section (bars 41-43, 58-60, 72-74): it stays the same in terms of contour, dynamics, articulation and intervallic structure, and even the tendency to emphasize the pitch-class Eb is conserved. In this section, different characters are kept almost apart from each other.

The image shows a musical score for three instruments: Horn (Hn.), Clarinet (C Tpt.), and Trombone (Tbn.). The score is divided into two measures, 68 and 69. In measure 68, the Horn and Trombone parts are marked *f deciso e martiale* and feature a fast, descending, two-voice counterpoint with marcato articulation. The Clarinet part is silent. In measure 69, the Horn and Trombone parts are marked *fp* and feature a slow, sustained, two-voice counterpoint. The Clarinet part remains silent.

Fig. 10 — Horn/trombone counterpoint in *Sextet* (bars 68-69)

Fig. 11 — Contrasting strata in bars 57-59 (*Sextet*)

To sum up, in this piece form results from the alternations of different layers of material. While layering of ‘gentle’ characters predominates in section 1 (bars 1-40); radically contrasting types make section 2 (bars 41-92); then section 3 (bars 93-108) presents one single, mostly static stratum (a variant of the fluid, gentle material in the piano and vibraphone), whereas section 4 (bars 109-140) returns to all strata used in the piece, presenting them — in different combinations — in four increasingly shorter and denser sub-sections (bars 109-123, 124-131, 132-136 and 137-140).

Despite the variety of materials the piece is neither meant to sound as a collage of heterogeneous materials, as some of the more radical experiments in layering by Charles Ives, often described as ‘disconnected collections of unrelated materials’ united only by ‘their common expressive or programmatic context’ (Cross, 2006, 93), nor even like the third movement of Berio’s *Sinfonia*, in which ‘found fragments are layered on top of the scherzo from Mahler’s Second Symphony’ (Cross, 2006, 109). First, not all strata in *Sextet* are different to the same degree and they can even be grouped in families (such as the ‘soft’ characters prevalent in the first section or the more energetic ones characteristic of the second). Second, there is an overall logic organizing the combination of strata across the whole piece. Third — and most importantly — even though each stratum has a different harmonic content (see Fig. 7), they interact in subtle ways: for instance, as can

be seen in Fig. 12 the vibraphone and the trumpet start in quite independent harmonic fields, but in bar 3 the vibraphone moves to a new chord whose Ab4 resonates with the trumpet line; in bar 4, as a new chord is introduced by the piano, the vibraphone changes its harmony to mimic it, while still keeping its fluid and gentle character; at the same time, two of the notes in the trumpet (Eb5 and G5) intersect with the piano chord. In this sense, my approach to layering is modelled more on Stravinsky rather than Ives, especially in the former's Introduction to *The Rite of Spring*, in which different superimposed motives, however sharply defined, share rhythmic and harmonic characteristic, creating a variety of connections among them (Cross, 2006, 96-102).

The image displays a musical score for the beginning of a piece titled 'Sextet'. It features four staves: Trumpet in C, Vibraphone, C. Tpt. (C Trumpet), and Pno. (Piano). Above the Trumpet staff, there is a 'Trumpet mode' diagram showing a sequence of notes: Bb, B, C, D, E, F, G, A, B. The score includes various musical notations such as dynamics (mp, p, mf, pp, ben sonoro), articulation (mp espressivo, p dolce, p sempre dolce), and performance instructions. There are also annotations 'A' and 'B' in boxes. Several blue shaded regions are drawn across the staves, indicating harmonic fields or chords. Arrows point from these shaded regions to specific notes or chords on other staves, illustrating the harmonic relationships and interactions between the instruments.

Fig. 12: Harmonic fields at the beginning of *Sextet*

Strata are not so fixed in later pieces of this portfolio, as they become much more flexible and subject to a real sense of transformation or development. For instance in *Miniature Variations* (2015) some strata work more or less as 'themes', that is, identifiable melodies that can be subject to a degree of motivic elaboration without losing their identity and as this developmental process moves forward, their character changes. For instance the viola line at the very beginning (Fig. 13) sounds at once expressive, energetic and mysterious. It is expressive because of the continuous, unbroken line and the mainly conjunct intervals it uses (and the character indication 'cantabile' reinforces this);

rhythmic and energetic due to the fast tempo (crotchet = 120) and occasional marcatos — but energetic in a subdued way, as the dynamics are soft; and mysterious due not only to such soft dynamics, but also to the use of *sul ponticello* and full bows contributing to a sort of distorted sound.

Fig. 13 — *Miniature Variations*: viola line (bars 1-10)

When this stratum reappears in the trumpet from bar 8 (Fig. 14) its character changes slightly. It is now livelier as the result of the duration of some notes being shortened. The intervallic inversion at the very beginning (the descending major thirds — B-G, A#-F# — become ascending — F-A, Gb-Bb) also contributes to the more energetic character, as does the more active tritone-configuration at the very end, [B-F-B], which replaces the former semitonal auxiliary motion, [B-C-B].

Fig. 14 — *Miniature Variations*: trumpet line (bars 8-16)

Obviously that energy is still contained in terms of dynamics: the trumpet never goes beyond mezzo-forte. This is actually something that characterizes the first major section of the piece (bars 1-25): there is a lot of rhythmic activity, fast music prevails, but the texture as a whole is not very dense and the dynamics remain soft. Instead of combining fast music with high density and loud dynamics, as would be more usual, the texture, however busy and energetic, is also light and transparent.

When the viola/trumpet stratum reappears it is already in the context of a quite different section (bars 27-45), one that sounds much more lyrical due to the slower rhythms and legato articulation. As shown in Fig. 15, the viola ‘theme’ — now treated as a *Klangfarbenmelodie* (see Voice 1 in the diagram) and combined with two extra upper lines (Voice 2 and 3) — appears now much augmented in durational terms: the duration of some notes is doubled, other ones tripled. Its slower rhythm combined with the virtual absence of *marcati* (the line is now more legato) and the even more restrained dynamics (generally pianissimo) are responsible for a softer, gentler character. Whereas in the *Sextet* (2012-13) strata tended to remain more or less stable and hence a new stratum had to enter the texture in order to create a major formal articulation, in *Miniature Variations* (2015) a contrasting section can be initiated using the same material as before, as each stratum is now liable to undergo a much greater degree of transformation.

The musical score is divided into three systems, each with three staves labeled Voice 1, Voice 2, and Voice 3.
 System 1 (bars 23-30) is marked with a box 'C'. Voice 3 has a melodic line with notes marked 'VLN II (a) sempre sul tasto' and 'VLN II (a)'. Voice 2 has notes marked 'VLN II (b) sempre sul tasto' and 'VLN II (b) + FL 2 + CL in Eb'. Voice 1 has notes marked 'VLA', 'VLA + Bass CL', 'Bass CL', 'VLA + HN 2', and 'HN 2'.
 System 2 (bars 31-37) starts with a double bar line. Voice 3 has notes marked 'OB 1' and 'FL 1'. Voice 2 has notes marked 'TPT 2' and 'FL 2'. Voice 1 has notes marked 'HN 2 + VLA', 'VLA', 'VLA + HN 4', 'HN 4', and 'VLA + Bass CL'.
 System 3 (bars 38-45) is marked with a box 'D'. Voice 3 has notes marked 'VLN I (a) + CEL + PICC' and 'VLN I (a)'. Voice 2 has notes marked 'VLN I (b) + CEL'. Voice 1 has notes marked 'VLA + Bass Cl + HN 2', 'HN 2', and 'HN 2 + VLA'.
 The score uses various time signatures (2/4, 3/4, 4/4) and includes dynamic markings like *sempre sul tasto* and *marcati*.

Fig. 15 — *Miniature Variations*:

elaboration of the initial viola melody (bar 23-45: reduction)

The connection between music and the emotions has long been a subject of reflection and plays a crucially important role in music of the tonal era. For instance Charles Rosen in his book *Music and Sentiment* (2010) shows that in the late baroque each piece tends to present a single affect (this is what he calls the ‘unity of sentiment’), whereas in the classical style ‘contradictory sentiments’ are played against each other creating a dramatic tension which is ultimately resolved. In my own music, I recognize the important link between music and the emotions by taking my material’s character into account as a major structural determinant. I seek to do that, however, in ways different from the tonal tradition. First, unlike baroque composers, I am not interested in presenting a single (however rich and subtle) affect in each piece, but rather a variety of different (even contradictory) types — either more static ones as in *Sextet* (2012-13) or more dynamic as in *Miniature Variations* (2015). Second, unlike classical composers, I do not necessarily seek to resolve the tension between those contradictory sentiments: I am happy to leave it unresolved thus emphasizing the multiplicity of feeling. Such a multiplicity is further reinforced by the fact that the different psychological types are quite often presented simultaneously — an approach, as I explained in Section 1, that owes much to the music of Elliott Carter.

2.2 Blocks and their succession

In 2013 I was commissioned by the European Concert Hall Organisation to write a choral piece reflecting on the subject of peace and conflict for the first centenary of the outbreak of World War I. After much research I chose to set a poem written in 1967 by the Portuguese poet Fiamma de Brandão (1938-2007): ‘*Poema para a padeira que estava a fazer pão enquanto se travava a Batalha de Aljubarrota*’ (‘Poem for the baker who was making bread while the Battle of Aljubarrota was being fought’). Although alluding through its title to a specific event in the Portuguese history — the Battle of Aljubarrota — the poem itself does not specify any time or place and can thus be understood as a more general, universal reflexion on the subject of peace and conflict across all places and ages. In essence, it opposes two coexisting worlds: the baker’s house, in which there is peace, love and rest and the fields outside, where death and destruction prevail.

In trying to translate this opposition into music I defined two basic families of material: ‘peaceful’ music, embracing character types such as ‘gentle’, ‘innocent’ or ‘quiet’; and ‘war-like’ music, comprising types such as ‘violent’, ‘agitated’, ‘harsh’ or ‘dramatic’. As I composed the piece, a variety of strata came to integrate each family, as listed in Fig. 16. As can be seen, ‘peaceful’ music is usually associated with the female voices and ‘war-like’ music with the male ones. This too has a representational function, since the ‘baker’ in the poem is a woman and, in fact, the world of peace and love that prevails inside the house is essentially feminine, as opposed to the fields outside, a male-dominated space. Vocal strata are generally on the foreground whereas instrumental strata (with the exception of B5, the piano’s war-like material) usually perform a more background role.

Stratum	Timbre	Description	Example
A1	Sopranos	Slow-moving, quiet line, featuring minor thirds and semitones mostly	
A2	Sopranos and altos	Gentle two-part counterpoint, always syllabic and homorhythmic	
A3	Altos, tenors or sopranos	Tenuto line with repeated text featuring a low repeated note and then an ascending minor third and perfect fifth	
A4	Altos or sopranos	Floating, expressive melismatic line, combining octatonic and diatonic elements	
A5	Piano (+ Vib. / Croc.)	Expressive but resolute line in the piano’s middle register, softly coloured by the vibraphone and crotales	

A6	Piano (+ Vib. / Crot.)	Very high, isolated notes or chords in the piano, sometimes coloured by the vibraphone or crotales	
A7	Oboes and bassoons	Gentle, delicate legato writing in the woodwind quartet, featuring consonant (mostly diatonic) harmonies	
B1	Tenors	Harsh, violent two-part counterpoint, always syllabic and homorhythmic (compare to A2)	
B2	Basses	Marcato line with repeated text featuring a low repeated note (Bb) and two other main notes above (F#, G)	
B3	Tenors (+ Bas. occasionally)	Fast, repeated text, featuring pitch-class set (0,1,3) and quite dramatic in character	
B4	Tenors and basses (also Altos)	Two or three spoken or whispered voices, usually conveying a dark, sombre character	
B5	Piano (+ S. C.)	War-like material in the piano (extremely low, fortissimo and marcato gestures; fast running figures; violent repeated notes, etc), supported by tumultuous crescendos in the suspended cymbals	
B6	Piano (+ S. C.)	Low, dissonant, sinister chords in the piano, coloured by the cymbals	
B7	Oboes and bassoons	Harsh, violent crescendos, featuring dissonant sonorities and usually finishing with a trill	

Fig. 16 — Strata in *Poema para a padeira*

Fig. 17 shows how these materials are handled throughout the piece. Eight textural blocks are successively presented, each one of them involving a particular combination of strata. These blocks differ not only in their specific strata content but also in terms of overall density (number of strata) and degree of homogeneity. In fact, blocks 2 or 3 are quite homogeneous, as the former involves only ‘peaceful’ and the latter almost only ‘war-like’ strata, whereas block 5, superimposing 3 ‘peaceful’ with 4 ‘war-like’ strata, is much more heterogeneous. This is directly related to the text, more specifically to the particular stanza of the poem set in each block: for instance, block 2 sets the first stanza, which alludes exclusively to the peaceful house of the baker (Fig. 18a), whereas block 3 sets the second stanza, exclusively concerned with the violent fields outside (Fig. 18b); block 5 sets the fifth and sixth stanza, both of which superimpose the inside with the outside, peace with war (see the fifth stanza in Fig. 18c).

Stanzas	fragments	1	2	3-4	5-6	7-8	9	10
Strata/Blocks	Block 1 (b. 1-9)	Block 2 (b. 10-23)	Block 3 (b. 24-32)	Block 4 (b. 33-48)	Block 5 (b. 49-60)	Block 6 (b. 61-66)	Block 7 (b. 67-75)	Block 8 (b. 76-88)
A1		=====	=====		=====	=====		
A2	=====	=====			=====			
A3		(alt.)		(ten.)			(sop.)	
A4				(alt.)				(sop.)
A5	— —							
A6		=====					=====	=====
A7		=====		(C. A. solo)	=====		=====	=====
B1			(ten.)				(alt.)	
B2			=====		=====		=====	
B3					=====		=====	
B4	=====					=====		
B5	=====		=====		=====			
B6						=====		
B7			=====		=====			
Density	4	5	5	3	7	3	6	3
Peace/War strata	2/2	5/0	1/4	3/0	3/4	1/2	3/3	3/0

Fig. 17 — Textural blocks in *Poema para a padeira*

<p><i>Está sobre a mesa e repousa o pão como uma arma de amor em repouso</i></p>	<p>It lies on the table and it rests The bread As if it were a weapon of love Resting</p>
(a) First stanza	
<p><i>As armas guardam no campo todo o campo Já os mortos não aguardam e repousam</i></p>	<p>The weapons guard in the field The whole field Yet the dead do not wait And they rest</p>
(b) Second stanza	
<p><i>Sobre a mesa põe as mãos pôs o pão Fora de casa o rumor sem repouso</i></p>	<p>She lays her hands on the table She's laid the bread Outside the house the murmur Restlessly</p>
(c) Fifth stanza	

Fig. 18 — Some stanzas from Fiama de Brandão's poem

As Fig. 17 shows, the strata content of successive blocks tends to differ substantially. Only once (from block 7 to 8) is there more than one common stratum linking two successive blocks. This might suggest that the blocks are separated by sharp discontinuities, as it typically happens in many pieces of Stravinsky, Messiaen or Birtwistle.³ That is not the case, however, as successive blocks are usually connected either by voice-leading or some sort of transition. As an example of that, Fig. 19 shows the transition from block 2 to block 3 (perhaps the two most contrasting blocks in the whole piece, the former dominated by 'peaceful' strata, the latter by 'war-like' materials). Although the new block only starts fully in bar 24, there was already a fade-in of its characteristic materials in the three previous bars. For instance the male voices enter already in bar 21, at first rather discreetly — on account of the soft dynamics and the fact that two of the voices just pick notes heard more distinctively in the altos (A3 and Eb4) — but then they crescendo until they start singing in full force in bar 24. The crescendo in the voices is mirrored by other crescendos in the suspended cymbals and woodwinds, not only reinforcing the upbeat effect leading to bar 24 but also anticipating the important role crescendo gestures will take in the next block (for instance the woodwind crescendo from bar 25 to 27 or the nervous crescendos in the cymbals in bar 26). In addition — and more obviously — the

³ For instance in the *Symphonies of Wind Instruments* (1920), *Chronochromie* (1960) or *Carmen Arcadiae Mechanicae Perpetuum* (1978).

piano anticipates some of its violent ‘war-like’ material in bars 22-23. Together with this fade-in effect there is also a fade-out of elements characteristic of block 2, as the sopranos diminuendo from mezzo-forte to piano. (They actually keep singing during block 3, but now relegated to a more background role, sounding like a pale echo of the previous block.) Thus a transition is created between the two blocks, mitigating their contrast.

The musical score for Poema para a Padeira, showing the transition from block 2 to block 3. The score includes parts for Oboe (Ob.), Bassoon (Bsn.), Soprano (S.), Alto (A.), Tenor (T.), Bass (B.), Cymbal (Cymb.), Vibraphone (Vib.), and Piano (Pno.).

The piano part features dynamic markings such as *mp*, *mf*, *ff*, *pp*, *poco f*, *impetuoso, con violenza*, and *loco*. The vocal parts include lyrics in Portuguese: "em re - pou - so", "co-mo u - ma ar - ma", "As ar - mas", "Já os mor - tos não".

Fig. 19 — Transition from block 2 to block 3 in *Poema para a Padeira*

More generally, the compositions in this portfolio use various devices in order to create connections across widely divergent materials and build a sense of continuous flow. In the already discussed first section of *Sextet* (2012-13), for instance, the trumpet plays continuously, cutting across the more discontinuous articulations in the other layers of the texture, which keep changing (Fig. 20) — without the trumpet part (stratum B, as defined in Fig. 7), the music would be much more discontinuous. In ‘*Nocturno*’ (2013) (also analysed above), each stratum presents a different phrase structure (see Fig. 21, in which each dash represents a phrase). With very rare exceptions, when one stratum enters the others neither enter or leave it. This makes the texture as a whole quite continuous and fluid in spite of the variety of the materials.

Strata	b. 1-8	b. 9-13	b. 14-29	b. 30-40
A (vibraphone)				
A (piano)				
B (trumpet)				
C (piano)				
C (vibraphone)				
D (cl, hn, tnb)				
E (hn, tbn)				
F (vibraphone)				

Fig. 20 — Strata in *Sextet* (see Fig. 7)

Strata	
A (cello)	
B (clarinet)	
C (soprano)	
D (piano)	
E (piano)	

Fig. 21 — Phrase structure in ‘*Nocturno*’ (Cinco Poemas da Água) (see Fig. 5)

‘*Montanha Agreste*’ — the second movement of *As Três Faces da Serra* (2014) — is one of the rare instances of a more discontinuous approach to block succession. Fig. 22 identifies the strata used in this movement (written for solo trombone and brass quintet) and shows the successive blocks they are combined into. In most cases there are no common strata linking successive blocks. This already happened to some extent in *Poema para a padeira* (2013), but in that piece the contrasts were mitigated by fade-in/fade-out effects. There are no such effects in ‘*Montanha Agreste*’. Even though the blocks are not separated by silences, their articulation is now much brisker and the effect of contrast is much enhanced. Even in this case, however, strategies aiming at continuity still dominate the composition as a whole, as both the first and the third (and final) movement are much more continuous. Discontinuity therefore tends to appear as an element of diversity in contexts otherwise dominated by continuity.

Strata/Blocks	Block 1 (1-7)	Block 2 (8-26)	Block 3 (27-32)	Block 4 (33-45)	Block 5 (46-55)	Block 6 (56-85)
A: Majestic, dissonant tutti chords or semiquaver figurations around them	(Tutti)		(Tpt. 1 + Euph.)		(Tutti)	(Tutti, now ppp)
B: Glissandos of harmonics in the trombones		(Solo tromb.)		(Solo tromb.+ tromb. in the ensemble)		(Solo tromb., now p)
C: Sustained dyads activated by short figurations		(2 pairs: Tpt 1 + Euph; Tpt 2 + Hn)		(Tp1 + Euph.)		
D: nervous, agitated texture in the second trumpet and horn						

Fig. 22 — Strata and blocks in ‘*Montanha Agreste*’ (*As Três Faces da Serra*)

SECTION 3. HARMONY

3.1 Consonance and dissonance

In *Sextet* (2012-13) — the first piece in this portfolio — the harmonic vocabulary is relatively dissonant and atonal. Due to its constant emphasis on minor ninths, major sevenths and tritones (see Fig. 8c, 9, 10 and 11), it bears close stylistic associations with the music of the Second Viennese School and with post-war serialism. There is also an overriding tendency to avoid diatonic formations, with one single exception: the expressive and noble trumpet music (stratum B), which often articulates a 5-note subset of the 3-flat diatonic collection: [Ab,D,Eb,F,G] (see Fig. 8b). As can be seen in Fig. 7, virtually all the pitch-class sets characteristic of the remaining strata are non-diatonic. These include [0,1,4,6], [0,1,3,4] and [0,2,6,8], tetrachords that cannot be found in any diatonic collection.

After composing *Sextet*, I made a conscious effort to explore more consonant harmonies and even to incorporate some diatonic (though not strictly tonal) elements in my music. I became especially interested in exploring a broad range of harmonies, some of them more consonant, other ones more dissonant. In this effort, I was inspired by the music of spectral composers (namely Grisey and Murail), in which a vast array of harmonies is employed — from the simplest and closest to the harmonic series to the most complex and inharmonic (Baillet, 2000; Murail, 2004). Another important point of reference was Bartók's use of two opposing harmonic worlds, one chromatic, the other one diatonic, as described by Lendvai (1971).

In essence, after *Sextet* (2012-13) my approach involves the shifting between consonant diatonicism and dissonant chromaticism, in a specific sense related to pitch-class set theory: that of conceiving pitch-class sets which are subsets of the diatonic collection as being inherently more consonant than sets which are not. For instance, pitch-class set [0,2,5] is in this sense more consonant than [0,1,4], since the former is a subset of the diatonic collection, whereas the latter is not. I further differentiate, among the diatonic subsets, those that are subsets of the pentatonic collection from those that are not, and treat the former as more consonant than the latter (note that pentatonic subsets do not include any tritones or semitones, the intervals usually perceived as the most dissonant). Thus, I

conceive pitch-class set [0,2,5,7] as more consonant than [0,1,3,7], since the former is a pentatonic subset (with no tritones nor semitones) whereas the latter is just a diatonic (but not pentatonic) subset.

Using a broad range of harmonies has helped me define the variety of contrasting musical characters used in each composition. Thus in *Poema para a padeira* (2013) the opposition between ‘peaceful’ and ‘war-like’ music (explained in Section 2.2) finds a harmonic correlate: the former is associated with more consonant harmonies that gravitate towards diatonicism; the latter with more dissonant, chromatic sonorities. Nowhere is this more evident than when one compares blocks 2 and 3 (bars 10-23 and 24-32, respectively). This is shown in Fig. 23, which identifies the notes used in each voice of the chorus and their hierarchical structure, as defined by relative salience. For instance in block 2 (see Fig. 24) the first soprano emphasizes E and G, D# working as an appoggiatura to E; the second soprano emphasizes B and D, other pitches working either as passing or neighbour tones; the first alto, though more chromatic, is clearly centered in A, F working as a sort of secondary pole; and the second alto just repeats a three-note motive, [A-C-G], which emphasizes A and G. Taken together, these structural tones add up to a very consonant, pentatonic pitch-class set, [A,B,D,E,G], which helps defining the ‘peaceful’ music with which this block is concerned (see Fig. 17 and 18a). This structural sonority is also reflected — and clarified — in the woodwind harmonies accompanying the choir, for instance the initial [D-A-E-B] chord and the [D-A-G-B] chord in bar 15, both of which are subsets of that pentatonic collection.

Block 2 (10-23) **Block 3 (24-32)**

Sopranos 1
Sopranos 2
Altos 1
Altos 2

Transition (22-23) Sopranos
Tenors 1
Tenors 2
Basses

Pentatonic chord: [A, B, D, E, G] Chromatic chord: [Bb, F#, A, C, Eb] + [D, E]

- ♪ structural notes
- ♪ secondary poles
- auxiliary notes

Fig. 23 — Harmonic structure in the transition from block 2 to block 3 in *Poema para a padeira*

B **Lirico** ♩ = 48

10

Ob.
C.A.

Bsn.

S.

A.

em re - - - pou - - -

Está so-bre a me-sa e re pou - sa o pão co mo u-ma ar - ma

Está so-bre a me-sa e re pou - sa o pão co mo u-ma ar - ma

co-mo u-ma ar ma de a - mor co-mo u-ma ar - ma de a - mor

Fig. 24 — *Poema para a padeira*: block 2 (bars 10-17: chorus and woodwinds)

The harmony in block 3 is much more chromatic and dissonant, reflecting the ‘war-like’ music it seeks to convey (see Fig. 17 and 18b). As shown in Fig. 23, the structural pitch-levels in the male voices now add up to [Bb,C,Eb,F#,A]. This chord comprises a minor-third interval cycle, [F#,A,C,Eb], to which another pitch class, Bb, is added in the bass, producing a very harsh, assumedly non-diatonic sonority whose dissonance is further intensified by the structural D and E in the sopranos, two pitch-classes clashing chromatically with Eb, one of the most prominent notes in the tenors (see Fig. 25). Interestingly, Eb started appearing with increasing prominence in the second altos from bar 18 already.

Fig. 25 — *Poema para a padeira*: block 3 (bars 23-28: chorus)

In *Cinco Poemas da Água* (2013) different types of harmony help defining each song’s character. Thus more diatonic harmonies prevail in the first song — ‘*Cantas. E fica a vida suspensa*’ — which sets a delicate love poem (Fig. 26), whereas more dissonant, octatonic-oriented harmonies dominate the third song — ‘*Nocturno*’ — whose poem, as already analysed in Section 2.1, conveys a more mysterious, unreal atmosphere (Fig. 7).

Cantas. E fica a vida suspensa
Cantas. E fica a vida suspensa.
É como se um rio cantasse:
em redor é tudo teu;
mas quando cessa o teu canto
o silêncio é todo meu.

You sing. And life suspends itself.
 You sing. And life suspends itself.
 It is as if a river sang:
 all around everything is yours;
 but when your song ceases
 the silence is all mine.

Fig. 26 — ‘*Cantas. E fica a vida suspensa*’ (*Cinco Poemas da Água*): Eugénio de Andrade’s poem

Fig. 27 shows one example from the first song in which different types of diatonic sets (mostly hexachords) are employed. Fig. 28 shows a contrasting example from ‘*Nocturno*’, in which the extremely high bird-like figuration (in the right hand of the piano) displays an altogether different type of hexachord, [Eb,Fb,Gb,A,Bb,B], which is clearly non-diatonic and much more dissonant due especially to the chromatic trichord it includes, [A,Bb,B]. Transpositions of this hexachord, the primary form of which is [0,1,3,6,7,8], are used throughout the movement. The piano chord in Fig. 28, for instance, is a tetrachordal subset of [Bb,Cb,Db,E,F,Gb], emphasizing this set’s most dissonant intervals: major seventh ([B-Bb]), minor ninth ([E-F]) and tritone ([B-F] and [E-Bb]). The hexachord appears linearly in the violoncello, too, as can be seen in Fig. 29, in which two tritone-related transpositions of [0,1,3,6,7,8] are used: [B,C,D,F#,G] and [F,Gb,Ab,B,D,Db]. An additional pitch-class is employed too, E, which, while not belonging to any of the two hexachords, freely appears associated with both of them (behaving, therefore, as a sort of pedal-tone).

[Bb,C,D,E,F,G] [F#,G,A,B,C,D] [G,A,B,C#,D,E,F#]

Cl. *ppp* *mp* *pp* *ppp*
 S. *mp* *mf*
 Pno. *poco f* *p* *mp* *mf*
 Vc. *mf* *pp* *pp* *mf*

[C,D,E,F,G,A]

24
 È co - mo se um ri - o can - tas -

Fig. 27 — Diatonic sets in ‘Cantas. E fica a vida suspensa’ (Cinco Poemas da Água)

12 **B**
 Cl. *ppp* *p*
 S.
 Pno. *mp* *p*

8^{va}

Fig. 28 — ‘Nocturno’ (Cinco Poemas da Água): Hexachord [0,1,3,6,7,8] in the piano

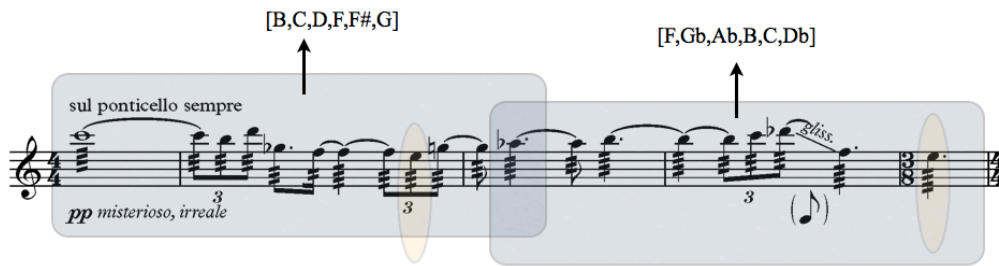


Fig. 29 — ‘Nocturno’ (Cinco Poemas da Água): Hexachord [0,1,3,6,7,8] in the violoncello

In later pieces of this portfolio, I tend to use larger sets for my linear writing. The very fact that I felt the need, in the previous example, to add one more note to the [0,1,3,6,7,8] hexachords, means, I think, that I was already craving for more freedom and flexibility. Encouraged by a remark of George Benjamin in one of his composition seminars — that melodic writing works better with 6 to 9-note modes — I started focusing in pitch-class sets (or modes) with more than 6 elements. This became a very important aspect of my harmonic approach, to which I fully devote the next subsection.

3.2 Use of modes and collections consisting of 6 to 9 notes

Fig. 30 lists a number of modes used in this portfolio (the compositions are organized chronologically). Typically, each mode appears at many transpositional levels in a given piece, but there is usually a more prominent transposition in each one of them, which is clearly identified in the table. I also give some standard elements from pitch-class set theory — such as primary form, Forte-code and interval-vector — as well as some additional measures — DIAT, WT and OCT — which indicate the degree of ‘diatonicism’, ‘whole-toneness’ or ‘octatonicism’ of each mode. Thus ‘DIAT’ indicates the number of pitch-classes (or ‘cardinality’) of the largest diatonic subset in a given mode, as compared to that mode’s cardinality; ‘WT’ the cardinality of the largest whole-tone subset; and ‘OCT’ that of the largest octatonic subset. For instance, a complete diatonic scale is included as a subset of the 9-note mode [0,1,2,3,4,5,6,8,10] used in the third movement of *Do Desconcerto do Mundo* (2016), as can be seen by noting that the D-minor scale is a subset of the prominent transposition [D,E,F,F#,G,G#,A,Bb,C]. Hence the ‘DIAT’ measure is 7(9), which could be read as something like ‘7 out of the 9 notes are diatonic’. In the case of [0,1,2,4,5,6,7,8,9], used in the fourth

song of *Cinco Poemas da Água* (2013), only ‘6 out of the 9 notes are diatonic’, as can be seen by noting that the largest diatonic subset that can be extracted from [B,C,C#,D#,E,F,F#,G,G#] is [B,C#,D#,E,F#,G#]. Thus [0,1,2,3,4,5,6,8,10] is, in this sense, more diatonic than [0,1,2,4,5,6,7,8,9].

Composition	PC-Set: Forte-Code	PC-Set: Primary form	Prominent transposition	Interval-Vector	DIAT	WT	OCT
Cinco Poemas da Água I: Cantas. E fica a vida suspensa.	6-33A)	[0,2,3,5,7,9]	[D,E,F,G,A,B]	[143241]	6(6)	4(6)	5(6)
	6-33B)	[0,2,4,6,7,9]	[Bb,C,D,E,F,G]	[143241]	6(6)	4(6)	5(6)
	6-34A)	[0,1,3,5,7,9]	[C#,D,E,F#,G#,A#]	[142422]	5(6)	5(6)	5(6)
	6-34B)	[0,2,4,6,8,9]	[Eb,F,G,A,B,C]	[142422]	5(6)	5(6)	5(6)
Cinco Poemas da Água III: Nocturno	6-18B)	[0,1,3,6,7,8]	[B,C,D,F,F#,G]	[322242]	5(6)	3(6)	5(6)
	6-30A)	[0,1,3,6,7,9]	[E,F,G,A#,B,C#]	[224223]	4(6)	4(6)	6(6)
Cinco Poemas da Água II: Foz do Douro	8-27A)	[0,1,2,4,5,7,8,10]	[Eb,F#,G,A,Bb,C,D,E]	[456553]	6(8)	5(8)	7(8)
Cinco Poemas da Água IV: Rumor	9-4B)	[0,1,2,4,5,6,7,8,9]	[B,C,C#,D#,E,F,F#,G,Ab]	[766773]	6(9)	5(9)	6(9)
	7-22)	[0,1,2,5,6,8,9]	[A,Bb,C#,D,D#,F#,G]	[424542]	5(7)	4(7)	6(7)
	7-35)	[0,1,3,5,6,8,10]	[D,E,F#,G,A,B,C#]	[254361]	7(7)	4(7)	5(7)
Singra o Navio	8-27A)	[0,1,2,4,5,7,8,10]	[Eb,E,F#,G,A,Bb,C,D]	[456553]	6(8)	5(8)	7(8)
	8-29B)	[0,2,3,4,6,7,8,9]	[C,Db,Eb,E,F#,A,B]	[555553]	5(8)	5(8)	6(8)
Cai uma rosa...	8-18B)	[0,1,3,4,6,7,8,9]	[A,B,C,D,D#,E,F,G#]	[546553]	6(8)	4(8)	7(8)
	8-6)	[0,1,2,3,5,6,7,8]	[D,Eb,F,F#,G,G#,C,C#]	[654463]	6(8)	4(8)	6(8)
	8-27A)	[0,1,2,4,5,7,8,10]	[Eb,F,Gb,Ab,A,B,C#,D]	[456553]	6(8)	5(8)	7(8)
	7-7A)	[0,1,2,3,6,7,8]	[Eb,E,F,A,A#,B,C]	[532353]	5(7)	4(7)	5(7)
	9-10)	[0,1,2,3,4,6,7,9,10]	[Eb,E,F,F#,G#,A,B,C,D]	[668664]	6(9)	5(9)	8(9)
	7-35)	[0,1,3,5,6,8,10]	[C,D,E,F,G,A,B]	[254361]	7(7)	4(7)	5(7)
Miniature Variations	8-19A)	[0,1,2,4,5,6,8,9]	[C,C#,D,E,F,Gb,G#,A]	[545752]	6(8)	5(8)	6(8)
	5-6B)	[0,1,4,5,6]	[F,F#,A#,B,C]	[311221]	4(5)	3(5)	4(5)
Do Desconcerto do Mundo I: Mote	8-18B)	[0,1,3,4,6,7,8,9]	[F#,G#,A,B,C,C#,D,F]	[546553]	6(7)	4(8)	7(8)
Do Desconcerto do Mundo III: O pobre e o rico	9-6)	[0,1,2,3,4,5,6,8,10]	[D,E,F,F#,G,G#,A,Bb,C]	[686763]	7(9)	6(9)	6(9)

Fig. 30 — Most important modes employed in a number of this portfolio’s compositions

A brief glance at Fig. 30 reveals a preference for 8-note modes, even though 7- and 9-note modes are featured in many compositions as well. It also shows that although my use of modes quite obviously evokes Messiaen’s, there is a clear tendency to avoid his modes of limited transposition as well as other familiar collections (like the diatonic, whole-tone, octatonic, acoustic and hexatonic) usually labelled as referential (Straus, 1990, pp. 130-173). Instead of these collections, I usually prefer those that are somehow close to them but not quite the same. This is the case of the above referred set [D,E,F,F#,G,G#,A,Bb,C], which can be understood as a D-minor scale plus two extra pitch-classes, F# and G#; and of [Eb,E,F#,G#,A,Bb,C,D], an almost-octatonic mode used in *Singra o Navio* (2014):

all its notes but one (G#) belong to a single octatonic scale. There is also a very evident wish to explore different modes in each piece, and, in fact, most mode-types appear in a unique composition.

Modes are not equally important in all pieces. In *Sextet* (2012-13) and *Poema para a padeira* (2013) their importance is quite marginal, as only a few strata are conceived modally; in *Singra o Navio* (2014) and *Miniature Variations* (2015) most strata behave modally, but there are also important elements with a freer, more chromatic structure (such as the recurrent cor anglais solo in the latter piece); in *As Três Faces da Serra* (2014), modes are quite central at first but they gradually disappear from the musical surface as the piece proceeds; and in *Cinco Poemas da Água* (2013), *Cai uma Rosa...* (2014-15) and *Do Desconcerto do Mundo* (2016) almost every note is derived from the above identified modes.

Fig. 31 shows one fully modal example from *Miniature Variations* (2015): the initial two-voice counterpoint between the violas and second violins. This is actually an instance of polymodality, since each voice moves within a different mode: a 8-note mode for the violins and a 5-note mode for the violas. Not only is their cardinality distinct, but, also, the viola includes 3 pitch-classes absent from the violin: G, A# and B. In spite of such differences, both modes are almost octatonic — their ‘OCT’ measure is 7(8) and 4(5), respectively — and, in fact, both emphasize a very octatonic pitch-class set, [0,1,4], as can be seen in Fig. 31. This sort of very tight and consistent cellular construction within a given mode, emphasizing a particular, smaller pitch-class set — typically a trichord — is very common in this portfolio.

Top voice (Violins II): [C,C#,D,E,F,F#,G#,A]
 Low voice (Violas): [F#,G,A#,B,C]

Fig. 31: *Miniature Variations*: modal and cellular structure of the initial counterpoint (bars 1-11)

Not all notes are of the same importance in this example, as Fig. 32 shows. The top voice is centred in F, to which both the initial gesture [D-C#-F] and the phrase as a whole ultimately move. There are also important secondary poles in C# (polarised in bars 5-6) and A (the highest note in the melody). Regarding the bottom voice, B is clearly the most stable note, not only because it starts and finishes the phrase, but also on account of it being frequently decorated by both the upper and the lower semitone.

Fig. 32 — *Miniature Variations (1-11)*: hierarchical structure of the two modes

Fig. 33 shows a completely different example, taken from ‘*Foz do Douro*’, the second song in *Cinco Poemas da Água* (2013). First, there is no hint of polymodality, as all strata use the same mode.

Second, the harmonic rhythm is now much faster, as a number of different transpositions of the same mode are employed in quick succession. And, third, there is no apparent pitch-class hierarchy. The feeling is one of ‘fluctuating modality’, to borrow from Paul Griffith’s (2010, pp. 367-369) expression characterizing Ligeti’s late style.

The image displays two systems of musical notation for the piece 'Foz do Douro' (Cinco Poemas da Água). The first system covers bars 1-14 and includes staves for Clarinet in Bb, Soprano, Piano, and Violoncello. The second system covers bars 15-19 and includes staves for Clarinet, Soprano, Piano, and Violoncello. Above the staves, transposition labels are provided for various sections: T0: [Eb, F#, G, A, Bb, C, D, E], T9: [C, Eb, E, F#, G, A, B, C#], T6: [A, C, Db, Eb, E, F#, G#, A#], T3: [F#, A, Bb, C, Db, Eb, F, G], and T1: [E, G, Ab, Bb, B, C#, Eb, F]. Dynamic markings such as *ff*, *pp*, *f*, *mf*, *p*, *f > mp*, and *loco* are used throughout. A tempo marking of $\text{♩} = 132$ is present at the beginning of each system. Section markers 'A' and 'B' are placed above the staves.

Fig. 33 — ‘Foz do Douro’ (Cinco Poemas da Água): harmonic structure (bars 1-14)

3.3 Harmonic structure in ‘*Cai uma rosa...*’ (2014-15)

In 2014 I was commissioned by the Movimento Patrimonial pela Música Portuguesa to write a short opera for a specific performance, in which a longer opera by a 20th century Portuguese composer — Ruy Coelho’s *O Cavaleiro das Mãos Irresistíveis* — was also being presented. My piece was expected to relate in some way to Coelho’s, not only musically but also dramatically.

In Coelho’s opera, set in medieval times, a maiden (Beatriz) finds herself split between becoming a nun (a project she has long nurtured) or devoting her love to Sancho, a stranger her parents (Guterre and Mór) have just given shelter to after they found him severely injured due to a horseback riding accident. The plot is based on a tale by the Portuguese writer Eugénio de Castro, of which Coelho uses only a small part, leaving out many interesting passages.

Working with a librettist — Edward Luiz Ayres d’Abreu — we decided to base most of our short opera precisely on those left-out passages from Castro’s tale, especially ones that would emphasize the psychological turmoil in Beatriz. We also decided to conceive all the action as a dream of her, in which her most secret fantasies and fears would be given free rein; and to place the new piece in the performance as a sort of insert in Coelho’s opera, interrupting the latter at more or less half its duration.

Abreu’s libretto is divided into six relatively self-contained scenes, and apart from monologues it also includes duos, trios and quartets — something I have specifically asked from him, since following the model of Mozart’s operas and Stravinsky’s *The Rake’s Progress* I was interested in having a great variety of vocal textures. Below is a brief summary of the music and libretto.

Scene I — The dream emerges

Having a large proportion of purely instrumental music this scene works as a sort of overture to the whole opera. It is divided into three main sections. In the first one (bars 1-28) the music is slow and mysterious, as only Beatriz appears, muttering isolated, senseless sounds while she dreams. In the second section (29-59) the music becomes increasingly sharp and agitated as Beatriz yells in terror at the sight of Sancho falling from his horse. In the third section (60-75) as Beatriz calms down and

relishes the thought of a ‘mystical journey’ and ‘praying kisses’ the music assumes a more cantabile, seductive character.

Scene II — The dream is inhabited by Dom Guterre and Dona Mór as they learn about the curse of the irresistible hands

Guterre and Mór (Beatriz’s parents) enter onstage. Guterre has just received a letter warning him that Sancho has diabolical powers: should any woman see his hands (which for now are still bandaged because of his wound), she would instantly become insanely in love with him and be ultimately doomed. Guterre does not find the threat credible and he just laughs about the whole thing: his music is therefore joyful, relaxed and comic. Mór, however, is terrified, at least at the beginning — since afterwards she starts daydreaming, voluptuously, about kissing Sancho: correspondingly she has two different types of music, the first one more nervous and anguished, the second one closer to Beatriz’s seductive, cantabile music at the end of the first scene. Everything is conceived as a projection of Beatriz’s dream, who then singing an Ave Maria joins her parents in a climactic trio (bars 196-231).

Scene III — The dream is inhabited by Dom Sancho; the intruder’s passion is described

At last Sancho appears, furiously complaining about God being his rival (bars 273-305): the music is full of violence and Mephistophelean traits (for instance the insanely fast, serpentine arabesques in the flute). In the second half of the scene (306-344) the four singers gradually join together (seemingly ceasing to incarnate any specific character) in a gentle, oneiric quartet describing Sancho’s passion for Beatriz (while occasional remnants of the flute arabesques together with low sounds in the harp and timpani still add a touch of malice).

Scene IV — When a rose illuminates Beatriz’s dream

Now the music goes back to elements heard in the first scene, as the dramatic focus is again on Beatriz. Noticing a rose fall near her and sensing Sancho might have sent it, her feelings become increasingly volatile, from overflowing happiness to sheer dread. On hearing it, Mór becomes at first horrified, but then increasingly jealous of her daughter. The two women end up singing a frantic duo

(bars 434-450) in which they express their masochistic desires towards Sancho (the loud, dissonant, huge chords in the orchestra almost depicting the lashes of a whip).

Scene V — Almost a love duet...

This scene is divided into two parts. In the first one (bars 455-465) Sancho, having moved closer to Beatriz's bedside, talks to her seductively and as he does this Beatriz calms down, as if enchanted. The second part (bars 466-483) is a brief aria by Beatriz, lyrical and dreamy in character, in which she finds herself 'floating above mild clouds'. She is accompanied by soft string harmonies, a delicate counter-chant in the trumpets and veiled echoes of the devil-like flute arabesques.

Scene VI — When two hands (Dom Sancho's?, Dona Mór's?) haunt Beatriz's dream

Now the music goes back to the frantic atmosphere found at the end of scene IV, leading up to a huge climax (in bar 511) as Sancho — having already removed his bandage — moves his hands ever closer to Beatriz — who then prays desperately for her salvation. After that, however, Sancho moves closer to Mór to whom he delivers the bandage, actually starting to seduce her. From bar 537 all singers gradually join together in a second quartet, much more malicious and ambiguous than the first one (in scene III), reflecting, now, on the power of Sancho's hands.

In writing the music I set myself a number of challenges. One of them was to write music in a contemporary idiom while still creating musical connections with Ruy Coelho's opera, which is an almost entirely tonal composition. I did this, for instance, by deriving my prominent modes from specific passages in Coelho's work. I also borrowed small motives from the latter and used them in similar dramatic — however musically different — contexts.

Another challenge was to define the four dramatic characters (and their different facets) musically, which I did by using different types of music in line with the approach outlined in Section 2 of this commentary. At the same time, I also attempted to suggest that despite such a diversity everything happens inside one character's head: hence some characters, however contrasting, share important musical traits (for instance they may use the same mode).

A third major challenge had to do with large-scale issues. Here I felt I should combine a sense of circularity (as many dramatic sequences in the libretto are more or less literally repeated in different scenes) with one of narrative direction (as the prospect of Sancho removing his bandage gradually heightens the dramatic tension). Hence when dramatic sequences repeat the music too is (partially) repeated. A more subtle means of projecting such a circularity is by employing a reduced repertoire of modes and motives which circulate extensively across different scenes. All this is combined with a sense of the music moving forward towards three major climactic moments: the entrance of Sancho at the beginning of scene III (from bar 282); Beatriz and Mór frantic dance at the end of scene IV (bars 434-450); and Sancho's hands moving ever closer to Beatriz at the beginning of scene VI (bars 497-511).

To illustrate these strategies, I will now discuss one scene in more detail, placing a special emphasis on harmonic issues.

Harmonic structure in Scene II

The second scene of *Cai uma Rosa...* (2014-15) is a partial repetition of a scene from Ruy Coelho's opera: that in which Guterre receives a letter warning him that Sancho's hands are cursed (a scene heard in the performance just before my opera starts). Fig. 34 shows how Coelho's scene begins. From this music I derived two elements for my own equivalent scene. First, I incorporated the first musical motive (highlighted in Fig. 34) in my musical texture, at first with the very same notes — as can be seen in the first clarinet in Fig. 35 — and then transposed (see bars 98-99, 126-129 and 151-153). Second, I used the entire pitch-class collection of Coelho's introduction — the octachord [B,C,C#,D#,E,F,F#,A#], a member of pitch-class set 8-6 — as the basic mode for my own scene, freely transposing it as the music proceeds.

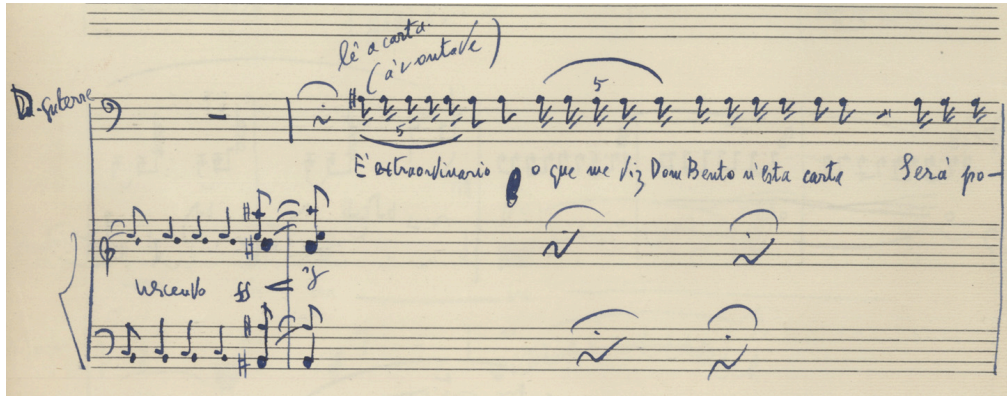


Fig. 34 — Ruy Coelho's *O Cavaleiro das Mãos Irresistíveis*: beginning of the third scene

76 Allegro $\text{♩} = 108$ 6

Cl. *ppp* *f* *fp* *f*

Bas. *f* *f* *fp* *f*

Hn. *ppp* *ppp*

Tpt. *ppp* *ppp*

D. G. *effusively* *p* *f* *f*
Pa - tra-nhas! E

Vln. I *div. sul tasto* *pos. norm.* *sul tasto*
ppp *mf* *ppp*

Vln. II *div. pizz.* *f* *ppp pizz.*

Vla. *div. sul tasto* *ppp* *mf ppp* *(sul tasto)* *ppp*

Vc. *ppp* *pizz.* *f*

Fig. 35 — *Cai uma Rosa...*: use of a motive quoted from Coelho's opera (bars 76-84)

I used this very same mode to represent both Guterre's joyful, relaxed and comic character (as he does not find the letter at all credible) and Mór's pious personality (anxious and terrified on hearing about Sancho's supposed diabolical powers). In Guterre's first intervention (bars 90-132), for instance, the original pitch-class collection from Coelho is transposed a major second above, that is, to [C#,D,Eb,F,F#,G,G#,C]; and in Mór's first intervention (bars 135-148), it appears in the original transpositional level.

This common harmonic underpinning is used, however, in radically different ways. For instance a bright major third [D-F#] is particularly prominent in Guterre's line (Fig. 36), whereas in Mór's music a tenser, more anguished major seventh [C-B] predominates, together with statements of the non-diatonic [0,1,4] pitch-class set (Fig. 37). Also, in Guterre's line there is a clear sense of stability in terms of centricity as the emphasis lies always in pitch-class D, whereas in Mór's — apart from a certain emphasis in C by virtue of its being the lowest note — there is no clear sense of centricity, making the music more tense and less predictable. The fast, simple rhythms and regular dynamics of Guterre, as opposed to Mór's irregular rhythms and volatile dynamics, further help differentiating the two characters. (See also a motivic analysis of the two lines in Fig. 36 and 37, identifying X, Y, etc, as the main motives, and X1, X2, etc, as their successive variants.)

In the climactic trio (bars 196-231) — where Guterre and Mór repeat fragments from earlier on in the scene and Beatriz prays a Ave Maria — the overall pitch-class collection employed in the voices is [A#,B,C#,D,Eb,E,G#,A], a transposition of the original collection from Coelho's opera one major second below (Fig. 38). The interesting thing here, however, is how the mode is partitioned among the three characters. Thus Beatriz, singing in a calm, religious style — evocative of plainchant — uses a purely diatonic subset of that collection, [D,E,G#,A,B,C#]. This leaves out two pitch classes, Eb and Bb, which are prominent in Guterre's part, which also employs a Db: his overall harmony is therefore a very relaxed pentatonic subset [Bb,Db,Eb]. Like Beatriz, Mór uses a hexachord too, but a much more chromatic and dissonant one: [G#,A,Bb,Db,D,Eb]; her prominent intervals — notably tritones: [A-Eb] and [G#-D] — and prominent motives — [Db-Bb-A], a member of pitch-class set [0,1,4] — are also more dissonant. Thus in this passage each character affirms his or her individuality and is

almost kept apart from each other while at the same time there is still a sense of unity as all the music is contained within this scene's basic mode.

90 *f* [7] X1 Y1 fragment of X1
Dis-se - me e-le que Dom San-cho des-cen-de de um vo - lu ptuo - so con-de, um al-to prin-ci-pe

99 *rit.* Z1 (sort of low echo of Y1) *A tempo subito* X2 link Y2
cu-jas mãos di-a - bó-li-cas pos-su-í-am o fu-nes-to e má-gi-co po-der de-en-doi-de-cer d'a - mor

106 Z2 Y3 (Y now in a lower register)
as mu-lher's to-das... e que a in-flu-ên-cia das su-as mãos con - ti - nu - a em to-dos os va

115 Z3 (Z now in a higher register) X3
rões seus des cen-den tes! A-con - se-lhá-me a que o ex-pul-se sem de - mo-ra e or - de - ne ao

122 Y4 *mp rit.*
cu - - - ran - dei - ro que não lhe de - sen - tra-pe as mãos p'ri -

126 *A tempo subito* Z4 *f* X4
go - sas. Que dis-pa - ra - te! Í - a mos lá a - go-ra ex-pul-sá - lo!

Fig. 36 — *Cai uma Rosa...*: Guterre's first intervention, with major thirds highlighted (bars 90-132)

135 [8] X1 Y1 X2
f-p *ff* *f* *f* *f* *mf* *ff*
Pa - tra-nhas? Mas quem lhe dis - se tal coi - sa

142 Y2 link X3
f *sub. p* *ff* *f* *f-p*
é um va - rão ho - - - nes-to sé-rio e sá - bio, in-ca-paz de men-tir.

Fig. 37 — *Cai uma Rosa...*: Mór's first intervention, with [0,1,4] pitch-class sets highlighted (bars 135-148)

194 *p* 12 *f* *mf* *f* *f* *f*

A - - - ve Ma - ri - a, chei - a de Gra-ça, fres - ca e vo - lu - ptuo - sa *ff* [de novo horrorizada] Gu - -

Que di - zeis? o Se - nhor é con - vos - co, - ter - re Que im - pru - dên - cia Dar poi Que di - zeis? Pa - - tra - nhas!

205 *mp* *f* *ff* *p* *ff* *mp*

Ben - - di - ta - sois Vós en - tre as mu - lhe - res, sa - da um 'stra-nho Pa - tra - nhas? E ve-de se não vos faz rir!...

215 *mp* *f* *mp* *f*

Fig. 38 — *Cai uma Rosa...*: second scene's climactic vocal trio (194-229)

Together with these three voices one also hears an independent texture in the brass and timpani (Fig. 39) which is an echo of music first heard in the initial scene (bars 36-39), when Beatriz yells in terror at the sight of Sancho falling from his horse. This music then reappears from bar 171 to 173 — just a few seconds before the climactic trio — when Guterre, too, recalls the accident (which according to him only shows just how harmless Sancho is). At its first appearance in the initial scene (Fig. 40), this stratum uses two different transpositions of pitch-class set 8-18, which is a sort of harmonic minor scale plus an augmented fourth. For instance, the first transposition can be seen as a sort of expanded E harmonic minor: [E,F#,G,A,A#,B,C,D#], and the second one, [C#,D#,E,F#,G,G#,A,C], as an expanded C# harmonic minor (with no implication, however, that E and C# are in any way centric). This mode-type is actually basic to the whole first scene. Now, when

this music comes back in the second scene its pitch-class content is not adapted to the new harmonic environment — dominated now by pitch-class set 8-6. Rather, it stays the same as it was before: thus the stratum moves within an expanded A harmonic minor in bars 171 to 173, and then, in the climactic trio (bars 196-201), an expanded G# harmonic minor: [G#,A#,B,C#,D,D#,E,G]. This is an example of how modes and textures travel freely across different scenes whenever that is justified by the text, a strategy that emphasizes a sense of circularity. Note also that the specific transpositional level chosen has 7 notes in common with the pitch-class collection heard at the same time in the voices — [A#,B,C#,D,Eb,E,G#,A] — creating as much integration between the two harmonic layers as it is possible while still keeping them different.

12

The image shows a musical score for the climactic trio (bars 196-201) from the opera *Cai uma Rosa...*. The score is in 3/4 time and features the following parts:

- Horn (Hn.):** Four staves, each with the instruction "con sordino: straight mute". The dynamics range from *p* (piano) to *ppp* (pianississimo).
- Trumpet (Tpt.):** Two staves, also with "con sordino: straight mute" and dynamics from *p* to *ppp*.
- Timpani (Timp.):** A single staff with a rhythmic pattern of eighth notes, alternating between *mf* (mezzo-forte) and *p* (piano).
- Harpsichord (Hp.):** Two staves, mostly silent with a dynamic marking of *f* (forte) at the beginning.
- Baritone (B.):** A single staff with lyrics: "ve Ma - ri - a,
- Deputy Master (D. M.):** A single staff, mostly silent.
- Soprano (S.):** A single staff, mostly silent.
- Deputy Governor (D. G.):** A single staff with lyrics: "Que di - zeis? —". The dynamic marking is *ff incredulous*.

Fig. 39 — *Cai uma Rosa...*: brass and percussion texture at the climactic trio (196-201)

The image displays a musical score for the first appearance of the brass stratum in bars 36-39 of the piece *Cai uma Rosa...*. The score includes parts for Horns (Hn.), Trumpets (Tpt.), and Timpani (Timp.).

Two specific chord annotations are provided with arrows pointing to the corresponding notes in the brass parts:

- [E,F#,G,A,A#,B,C,D#]**: This chord is indicated by an arrow pointing to the notes in the first two measures of the brass section.
- [C#,D#,E,F#,G,G#,A,C]**: This chord is indicated by an arrow pointing to the notes in the last two measures of the brass section.

The score features various dynamic markings: *pp* (pianissimo), *ff* (fortissimo), *p* (piano), and *f* (forte). The timpani part shows a dynamic progression from *pp* to *ff*, then *p*, *f*, and finally *f-p*.

Fig. 40 — *Cai uma Rosa...*: first appearance of the brass stratum (bars 36-39)

4 — TEXT SETTING IN THE PORTUGUESE LANGUAGE

4.1 Context

Only in the early 18th century did opera arrive to Portugal — more than one hundred years after its first appearance in Italy. From then on, young Portuguese composers typically travelled to Italy to learn the metier and when they got back the new works they composed were almost always sung in Italian (Cruz, 2008). There were only a few isolated attempts to have operas sung in Portuguese, a situation that would only start to change in the very late 19th century, with operas such as Alfredo Keil's (1850-1907) *Serrana* (1895). It was not until the 20th century that a national opera began to emerge in the works of composers such as Ruy Coelho (1889-1986) (who wrote more than 20 operas or opera-like compositions in Portuguese from 1913 to 1966).

A comparable degree of lateness characterizes the development of the Portuguese art song or Lied (Câmara, 1999). As in the case of opera, it was only in the late 19th century that the Portuguese Lied started to develop, largely thanks to the pioneer efforts of Vianna da Mota (1868-1948), a composer who was living abroad, in Germany.

In more recent decades there seems to be a growing interest from Portuguese composers in writing vocal music in their native language. Almost all new operas by Portuguese composers are sung in Portuguese (63 out of 71 written from 1970, according to the website www.mic.pt — the most complete repository of Portuguese music). But despite that even today many singers find Portuguese a difficult language to sing and the fact remains that it is still possible for a singer to complete his studies in Portugal without performing a single piece in Portuguese (Valente, 2014).

One of my goals is to further contribute for the development of the Portuguese-sung repertoire, in a variety of genres: I thus present a small opera (*Cai uma Rosa...* (2014-15)); an orchestral Lied (*Singra o Navio* (2014)); a cantata (*Do Desconcerto do Mundo* (2016)); a cycle of songs for soprano and three instruments (*Cinco Poemas da Água* (2013)); and a freestanding choral piece (*Poema para a padeira* (2013)). The texts, too, are quite varied, their sources including renaissance as well as contemporary, art as well as folk poetry. In Sections 2 and 3 of this dissertation I already discussed how I approached the semantic content of several of these texts — how the meaning and affect of each text influenced my choice of musical materials. Now in section 4.2 I will

discuss how I have approached the rhythmic and prosodic character of the Portuguese language. Then in section 4.3 I will discuss aspects of text setting in a complete piece: *Do Desconcerto do Mundo* (2016).

4.2 Text's prosody and musical rhythm

Listening to certain contemporary Portuguese operas one cannot escape the impression that the aesthetical *processus* of opera has been inverted: instead of arising naturally out of the word, the music seems to have been conceived beforehand, subsequently forcing the word to adapt itself to it. From such circumstances there must result a genuine violation of the elementary principles of prosody.⁴

Fernando Lopes-Graça, *A língua portuguesa e a música* (1947)

To conceive the music with the text already in mind is for me a most important precept. I think I became especially sensitive to such an idea through my continued activity as a chorister since 2004, for in the best choral music I always found a deep connection between the rhythm of the music and that of the words which made it almost unconceivable to imagine the former independently of the latter. In the case of the Portuguese language, Fernando Lopes-Graça's (1906-1994) most sensitive approach to prosody in his choral compositions became a particularly relevant model for me.

Like most European languages Portuguese is a 'stress language', that is, it uses 'stress to organize prosodic units in speech, as opposed to languages [mostly found in Africa and Asia] that use tones or intonations (or pitch pattern) to distinguish words and sentences' (Correia, 2009, p. 8). Unlike French — in which there is no real sense of word stress but rather of phrase-final accent (Correia, 2009, p. 9) — Portuguese is (like English) a language in which there is a very marked difference between stressed and unstressed syllables. In Portuguese, 'the stressed vowel exhibits higher values for duration and intensity than the unstressed vowel(s) of the word' (Correia, 2009, p.

⁴ In Portuguese in the original (my translation): 'Ao escutarmos certas óperas portuguesas contemporâneas, não podemos furtar-nos à impressão de que nelas o *processus* estético da ópera sofreu uma inversão: a música, em vez de nascer naturalmente da palavra, parece, pelo contrário, ter sido concebida previamente, sendo em seguida a palavra forçada a adaptar-se-lhe, circunstância de que não pode deixar de resultar uma verdadeira violação dos princípios elementares da prosódia'.

23). There is also a tendency for stressed vowels to be more open than unstressed ones. For instance a written /o/ is pronounced as /ɔ/ or /o/ when it appears as a stressed vowel, but it sounds like /u/ (a more closed sound) when it appears as an unstressed vowel⁵.


In my own compositions stressed syllables are emphasized in different ways. Metrical emphasis is one of the simplest devices: stressed vowels appear in metrically stronger positions than unstressed vowels. Fig. 41 shows one example from the (already analysed) second scene of *Cai uma Rosa...* (2014-15). In the diagram, I have underlined the stressed syllables of non-monosyllabic words: for instance the word ‘disse’ (‘he said’) has two syllables, ‘dis’ and ‘se’, of which the first one is stressed; and ‘descende’ (‘is descended from’) has three syllables, ‘des’, ‘cen’ and ‘de’, of which the middle one, ‘cen’, is stressed. The diagram shows how the musical rhythm is directly derived from the rhythm of the stressed vowels, as such vowels are always given metrically strong (on-beat rather than off-beat) positions in the music.

Text: Dis - se m'e-le que Dom San-cho des-cen-de

IPA transcription: d̥i si me li ki dõ s̃e fu diʃ s̃e di

Syllables: ● ● ● ● ● ● ● ● ● ● ● ●

Stressed syllables: ● ● ● ●

Musical rhythm: 


Score: 

Fig. 41 — *Cai uma Rosa...*: derivation of the musical rhythm out of the rhythm of the words (bars 90-92)

In this intervention by Guterre (one of the main characters in the opera: see Section 3.3) several lines of the text have (nearly) the same prosodic structure. Fig. 42 and 43 show that in such cases I have kept (more or less) the same musical rhythm (and also a similar melodic contour), thereby creating musical motives out of the prosodic ones.

⁵ It should be noted that these remarks apply to European Portuguese and not necessarily to Brazilian or African Portuguese.

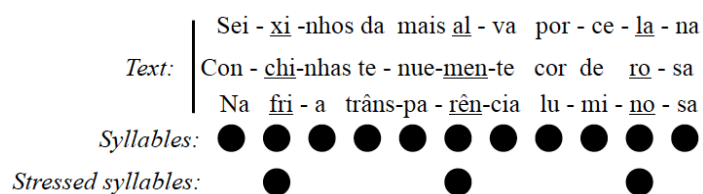


Fig. 44 — *Singra o Navio*: prosodic structure of the poem (2nd stanza: 3 first lines)

Fig. 45 — *Singra o Navio*: musical setting (bars 63-67, 68-72, 73-78)

In the previous example there is still a relatively clear metrical context, as defined by the (ever changing) time signatures — and in fact all stressed syllables are emphasized metrically (they always appear on-beat and sometimes even on the downbeat). In other cases, however, the metrical context can be much more vague. The first section of *Singra o Navio* (bars 23-54) is a particularly extreme example of that, as the rhythms are so fluid that one cannot even perceive a steady pulse (and much less a hierarchy of strong *vs* weak beats): therefore the bar lines in the score are there for practical convenience only. In Fig. 46 I reduce the rhythm of the vocal line to its pure durational structure (irrespective of any bar line), each of the staves representing a line of the poem's first stanza. Without a metrical grid, the stressed syllables (underlined in the diagram) are rendered prominent by virtue of being approached by leap, a strategy already noted in the previous example, which also

implies that such syllables are typically set as some of the highest (or lowest) notes in each phrase. There is, of course, one seeming exception to this principle: the word ‘impecável’, at the beginning of the third line, for it is the syllable ‘pe’ — and not the stressed one, ‘cá’ — which is emphasized by a leap; note, however, the crescendo from ‘pe’ to ‘cá’, effectively emphasizing the stressed syllable (whose vowel is, moreover, a much more open sound than the unstressed one : /a/ compared to /i/).

Fig. 46 — *Singra o Navio*: vocal line in the first section (bars 24-54)

In this passage orchestration plays an important role, too, in clarifying the text’s prosody. As Fig. 47 shows the stressed syllables are consistently coloured in the woodwinds (and percussion), at times even creating secondary lines, such as [Bb-C-D-E] in the first line. Such colouring is done according to a simple rule, which relates the sound of the stressed vowel to a particular instrumentation: if the stressed vowel is the /i/ sound, the colouring is given to the piccolo (most of the times together with the vibraphone); if it is the /a/ sound, to the oboes; and the /u/ sound is attributed to the clarinets.

The image displays four systems of musical notation for the piece 'Singra o Navio'. Each system consists of an upper staff for woodwinds and a lower staff for the vocal line. The instruments are: Vibraphone/Piccolo, 2 Oboes, 3 Clarinets, and 2nd oboe. The lyrics are: Sin - gra o na - vi - o sob a á - gua cla - ra. Vê - se o fun - do do mar de a - rei - a fi - na. Im - pe - cá - vel fi - gu - ra pe - re - gri - na. A dis - tân - cia sem fim que nos se - pa - ra.

Fig. 47 — *Singra o Navio*: instrumental colouring of the vocal line (bars 24-54)

Another technique employed in this section is to write instrumental lines as if the instruments were singing a text. For instance I composed the first phrase of the cellos and tuba (bars 24-31) as if they were singing a line from the sonnet's second stanza. This can be seen in Fig. 48, which shows that the phrase being divided into three segments because of the pauses stressed 'syllables' are systematically set as the highest notes in each of those segments. One can also note that the first two stressed 'syllables' are approached by relatively large leaps — at it happened in the vocal lines previously analysed. Examples of this procedure — a sort of vocal writing for instruments — abound in *Singra o navio*. It should be noted, however, that the process is not necessarily meant to be heard,

nor even by the instrumentalists: I see it more as a means of stimulating my melodic imagination and of creating subtle, hidden connections between the vocal and the instrumental writing.

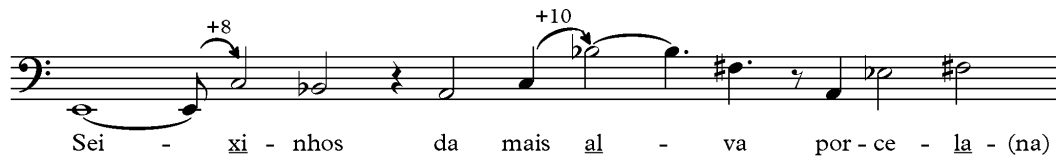


Fig. 48: *Singra o navio*: first melodic phrase of the violoncellos and tuba (bars 24-31)

In some pieces the text's prosody is used even more abstractly. For instance in *Poema para a padeira* (2013) I derived a metrical grid from the text. First, I analysed the whole poem and found out that — excluding lines with just three or four syllables — all lines conformed to three basic prosodic patterns (with two variants each), as defined by the rhythm of the stressed syllables (Fig. 49). Then I converted the number of syllables into quavers and used different orderings of the six resulting musical patterns (for instance a1-b1-c1-a2-b2-c2) as a sort of underlying metre, which to some extent regulated (or at least constrained) my rhythmical writing. As can be seen in Fig. 50, when the underlying metre is on-beat there is usually a new note in the music, the relationship being particularly clear in bars 33 and 34. However this procedure is not rigid, as not all on-beat moments receive new notes (see bar 36, for instance) and as the rhythm in between on-beat moments is totally free. As in the previously discussed technique (that of composing instrumental lines as if they had a text), also in this case the important thing is not that the underlying metre is perceived as such, but rather the fact that it triggers my musical imagination. At the same time, it creates a tension against the notated metre which — I believe — helps the music become more fluid.

	Example	Pattern of stressed syllables	Numerical pattern	In quavers
a1	(As) <u>ar</u> -mas <u>guar</u> -dam no <u>cam</u> -po	●●●●●●●● ●●●●●●●●	2-3-2	♪. ♩. ♩
a2	<u>Ou</u> -tra <u>paz</u> não de- <u>fen</u> -de e-la	●●●●●●●●●● ●●●●●●●●●●	2-3-2-2	♪. ♩. ♩ ♩
b1	<u>Fo</u> -ra de <u>ca</u> -sa_o ru- <u>mor</u>	●●●●●●●● ●●●●●●●●	3-3-1	♪. ♩. ♩
b2	<u>Con</u> -tra_a ba- <u>ta</u> -lha das <u>ar</u> -mas	●●●●●●●●●● ●●●●●●●●●●	3-3-2	♪. ♩. ♩
c1	<u>Já</u> os <u>mor</u> -tos não a- <u>guar</u> -dam	●●●●●●●●●● ●●●●●●●●●●	2-4-2	♪ ♩ ♩
c2	<u>So</u> -bre_a <u>me</u> -sa pôe as <u>mãos</u>	●●●●●●●● ●●●●●●●●	2-4-1	♪ ♩ ♩

Fig. 49 — *Poema para a padeira*: metrical patterns derived from the text's prosody

D

♩ = 72

← ♩³ = ♩ →

Ob.
C.A.

Bsn.

Underlying Metre

b2 (332) c1 (242) a1 (232) b1 (331)

Ob.
C.A.

Bsn.

Underlying Metre

c1 (242) a2 (2322)

Ob.
C.A.

Bsn.

Underlying Metre

b2 (332) c2 (241)

Fig. 50 — *Poema para a padeira*: a passage composed with an underlying metre derived from the poem (bars 33-42)

In a few cases the vocal line assumes a more instrumental character and the text's prosody is not as determinant as in the previously discussed examples. This usually happens when the vocal line is more melismatic, as it is the case of 'Foz do Douro', the second song of the cycle *Cinco Poemas da Água* (2013). In this case, I have even fully revised the text setting more than 2 years after having composed the piece, without changing a single note or rhythm. Fig. 51 shows the two versions in the passage from bar 13 to 25, the first version appearing above, the new version below (the text is: 'É outra vez abril' — 'it is April again'). Although I prefer the most recent version, both of them are actually possible, evidencing — I think — that in this case the music is more independent of the text. This does not mean, incidentally, that I just composed the line beforehand and 'subsequently forced the text to adapt itself to it': I definitely had the text in mind while writing the music, but the melismatic character I wanted to explore in this piece allowed the line to evolve more freely. In more general terms, I am not really interested in the music being rigidly determined by the text's prosody but rather in achieving a sensitive balance between the demands of the musical and poetical rhythms.

B

13 *f con gioia*
 É ou - tra vez ou - tra
 É ou - tra vez ou -

18
 - vez ou - tra vez a - bril É
 - tra vez a - bril É

22
 - bril ou - tra vez a - bril
 - ou - tra vez a - bril

Fig. 51 — 'Foz do Douro' (*Cinco Poemas da Água*, II):

two different, equally possible ways of setting the text

4.3 Vocal textures and text setting in *Do Desconcerto do Mundo* (2016)

In 2015 I was commissioned by Casa da Música to write a 15- to 20-minute piece for a most unusual combination of vocal and instrumental forces joining three groups based in Porto: 1) Remix Ensemble, a large professional ensemble of 17 instrumentalists specialized in new music; 2) Coral de Letras da Universidade do Porto, a very proficient amateur choir (about a third of whose members can read music), which is used to singing some 20th century music (for instance Britten's *Requiem* and Penderecki's *Dies Irae*); and 3) Som da Rua, a community choir made up of mostly homeless or poor people of which no one can read music and which apart from singing also plays simple percussion instruments.

In planning my composition, I conceived the three ensembles as a sort of microcosm of society at large — with its privileged, middle-class and disadvantaged groups — and this in turn led me to choose for this piece a variety of texts (from different sources) reflecting on the common theme of social injustice and inequality, related to what the great Portuguese poet Luís de Camões (1524-1580) famously called 'the disharmony of the world' ('*o desconcerto do mundo*') in the following poem:

Ao desconcerto do mundo
Os bons vi sempre passar
No mundo graves tormentos;
E para mais me espantar,
Os maus vi sempre nadar
Em mar de contentamentos.
Cuidando alcançar assim
O bem tão mal ordenado,
Fui mau, mas fui castigado.
Assim que, só para mim,
Anda o mundo concertado.

On the disharmony of the world
I watched the world tasking
Good men with aversity,
And, on my further asking,
Evil I saw basking
In an ocean of prosperity.
When I tried to question
Why goodness was disdained,
I was called bad, and arraigned.
It seems I'm the only one
For whom matters are so ordained.

Fig. 52 — Luís Vaz de Camões: 'On the disharmony of the world' ('*Ao desconcerto do mundo*')

(Translated by Landeg White in 'The Collected Lyric Poems of Camões')

This poem is actually set in the fourth movement of my composition and, of course, the general title of my piece (*Do Desconcerto do Mundo*) derives from it. I also set another poem by Camões in the fifth (and final) movement, 'Exile' ('*Cá nesta Babilónia*'), which is similarly concerned with evil and corruption spreading in this world (see the full text in the score).

Both these texts by Camões are sung exclusively by the more proficient (or more erudite) choir (Choir I), whereas the less skilled (popular) community choir (Choir II) sings (or speaks) mostly Portuguese folk poems. The latter are similarly concerned with matters of intolerance, inequality and social injustice but they are stylistically simpler and more specific (less general) in scope. Thus the poems sung by Choir II in the third movement regard the contrast between rich and poor people and the intolerance and spite shown by the former with regard to the latter (see one example in Fig. 53) whereas the poems spoken by Choir II in the fifth movement are more tragic in tone and regard the consequences of war, seen as the culmination of such disharmony in the world.

<i>O pobre pediu ao rico um bocadinho de pão o rico lhe respondeu vai trabalhar mandrião.</i>	The poor man asked the rich men For a little bit of bread The rich men replied: Do yourself some work, you sluggard!
---	---

Fig. 53 — A folk poem sung by Choir II in the third movement

There is also — in the first movement — a text shared by the two choirs. This one comes from yet another source: it is a poem by the Portuguese poet Garcia de Resende (1482-1536), more folk-like in style compared to Camões but exploring the same themes and serving as a sort of introduction (or motto) for the composition as a whole (see the full poem in the score).

The piece as a whole can therefore be thought as a sort of Cantata: a set of mostly independent vocal movements, with no real overall narrative sense connecting them but exploring a common theme through a variety of (either more general or more specific) perspectives.

The piece is divided into five movements, which can rather asymmetrically be grouped into 4+1. The first four movements are all very short (around 2- or 3-minute each), and each one of them has a very specific, consistent character; as opposed to that, the fifth movement is much longer (around 7 minutes) and it is much more varied in character, with much more discontinuous internal articulations. More specifically:

- The first movement has an introductory character and it leads to a first small climax (in bars 62-65);
- The second movement is a short instrumental interlude, slow and mysterious in tone, which is suddenly interrupted by:

- The third movement, a rather energetic, Mephistophelian scherzo partly inspired by some of the more devil-like parts in Berlioz’s *La Damnation de Faust* (such as the extremely fast piccolo parts in ‘*Minuet des Follets*’ and the folk-like and military music at the beginning of the piece). At the end of the third movement a huge climax is reached as the choir seems to protest against social inequality; then:
- The fourth movement — a quite contrapuntal 4-voice chorale — works as a sort of lament after a first catastrophe, its character being therefore more contemplative compared to the extremely active third movement;
- The fifth movement is a gigantic crescendo in three waves leading to increasingly intense and above all increasingly chaotic climaxes seeking to represent Camões’s idea of a ‘dark chaos of confusion’. The last of such climaxes (from bar 157 to 166) sounds almost as a cry of despair as well as a representation of mayhem.

A

ENSEMBLE

Flute + Piano
Trumpet/Horn (practice mutes)
+ Vln I / Vln II
Violoncello

CHOIR I

S.
A.
T.
B.

CHOIR II

O po-bre pe - diu ao ri - co um bo - ca - di - nho de pão
O po-bre pe - diu ao ri - co um bo - ca - di - nho de pão

Bass drum

The image shows a musical score for the vocal parts of 'O pobre e o rico' from 'Do Desconcerto do Mundo'. It includes an ensemble section and two choir parts. The ensemble section features Flute/Oboe + Piano, Strings + Hn./Tpt., and Vlc/Vla. The vocal parts are for CHOIR I (Soprano, Alto, Tenor, Bass) and CHOIR II. The lyrics are: 'eu: Vai tra-ba-lhar man-dri - ão!' and 'O ri-co lhe res - pon - deu: Vai tra - ba - lhar man - dri - ão.' The score includes dynamic markings such as *mf*, *pp*, and *ff marcato (giocoso e minacciante)*. The tempo is marked *ff marcato (giocoso e minacciante)*. The score is divided into measures with time signatures of 8/8, 2/4, 6/8, and 3/4.

Fig. 54 — *Do Desconcerto do Mundo*: 'O pobre e o rico' (bars 9-19: vocal score)

Texturally, each movement presents a different solution for the problem of coordinating three ensembles displaying so divergent degrees of musical skill. For instance in the third movement ('*O pobre e o rico*') the community choir (Choir II) sings two simple melodies in unison, both of them entirely diatonic, the first one in D-minor, the second one in B-minor (see Choir II in Fig. 54 and 55). (Both melodies are actually pre-existing Portuguese folk tunes, originally set, however, to other texts.) These tunes are actually this movement's main thematic material, which is then subtly counterpointed (and at times distorted) by more complex and dissonant 4-voice material in the more proficient choir (see Choir I in Fig. 54 and 55). Harmonically, Choir I moves within a 9-note mode (already analysed in Section 3.2) that joins the 7 notes of the minor scale in the second

choir with two other notes a major third and an augmented fourth away from the ‘tonic’ (for instance in Fig. 54 the total pitch-class collection of Choir I is [D,E,F,F#,G,G#,A,Bb,C], that is, the D-minor scale plus F# and G#). The instrumental ensemble adds either a discreet accompaniment or more virtuosic materials, such as the flute/piano part in Fig. 54. This virtuosic character is then dramatically intensified and expanded to the whole ensemble in (mostly) instrumental interludes (see Fig. 56).

F
Poco meno mosso $\text{♩} = 100$

Violin I
 Viola
 Doublebass/Violoncello

ENSEMBLE

CHOIR I
 S.
 A.
 T.
 B.

CHOIR II
mf dolente
 Mi-nha mãe, mi-nha mãe - zi - nha, Pa ra quem tra - ba lho eu? ... Tra - ba lho, ma to o meu cor - po, Não te - nho na - da de meu!
mf dolente
 Mi-nha mãe, mi-nha mãe - zi - nha, Pa ra quem tra - ba lho eu? ... Tra - ba lho, ma to o meu cor - po, Não te - nho na - da de meu!
 5 traditional Portuguese triangles

Fig. 55 — *Do Desconcerto do Mundo: ‘O pobre e o rico’* (bars 60-69: vocal score)

The image shows an orchestral reduction of the piece 'O pobre e o rico' from *Do Desconcerto do Mundo*, covering bars 17 to 23. The score is presented in two systems. The first system (bars 17-20) includes parts for Flute/Oboe + Piano, Flute/Clarinet + Piano, Strings + Hn/Tpt, Contrabassoon, Doublebass and Harp, and Tom-toms. The second system (bars 21-23) includes parts for Flute, oboe, clarinet and piano, Oboe/Clarinet + Piano, and Violoncello. The music is written in 3/4 time and features complex rhythmic patterns, including triplets and quintuplets. Dynamics are marked with *f* and *fff*, and articulations include slurs and accents.

Fig. 56 — *Do Desconcerto do Mundo*: ‘O pobre e o rico’ (bars 17-23: orchestral reduction)

In the fifth movement (‘*Cá neste escuro caos de confusão...*’) the community choir (Choir II) is given entirely different types of musical material, the most prominent of which is first heard in the section from bar 35 to 61. At this point each chorister just repeats a small text, freely and independently of the other choristers, following only some general indications regarding tempo, register and dynamics (see Fig. 57). They start (first only women, then also men) at a moderate tempo, in a very low register and low dynamic level (pianissimo), and gradually they move to an increasingly higher register, faster tempo and more intense dynamic level. As each chorister does that in his or her own way (no precise rhythms or pitches being specified) a sort of Ligetian-like micropolyphonic effect is produced out of this partially aleatoric strategy, as what one hears is a global mass of sound moving gradually from moderate to fast speed, low to high register and pianissimo to fortissimo. A complex global effect is therefore created out of the simplest individual

means, keeping the task of every community choir member at quite an accessible level. Supporting the choir in this textural journey the harmonium and the strings present cluster-like sonorities slowly ascending in the registral space, which not only blend well with the voices but also encourage the community choir members to follow the same registral path.

Performing note:
 Repeat the fragment in a free rhythm at a moderate tempo (the indicated rhythm serves only as a loose guideline); start in a very low register and at each repetition move slightly upwards so that at the men's entrance in bar 44 the medium register has been reached; women's voices should enter gradually, individually, over the course of about 8 bars.

Fig. 57 — *Do Desconcerto do Mundo*: ‘Cá neste escuro caos de confusão...’ (bars 35-40)

As regards Choir I in the fifth movement, it is itself divided into different groups according to different musical skills. Specifically, as the community choir is just about to finish the above described micropolyphonic texture (reaching a full climax in bar 62), 8 soloists from Choir I enter in pianissimo presenting a different sort of micropolyphonic texture, also partially aleatoric (as the rhythms, too, are free) but demanding much more musical proficiency as the pitches are precisely defined and as they move from an initial unison in A towards a rather dissonant, cluster-like chord: [G,A,Bb,C,Db] (Fig. 58).

Performing note:
 Repeat the fragment in a free (but fast) tempo, independently of the conductor and the other singers; follow the given rhythm with a lot of freedom and flexibility; after the initial A, common to all singers, change pitch at the moment precisely indicated in the score, no matter what part of the text one finds oneself singing.

Tempo primo subito ♩ = 104

60

pp

S. Cá nes-te la-bi-rin - to-ás por-tas da co-bi - ça e da vi - le - za cá nes-te-es-cu-

pp

A. Cá nes-te la-bi-rin - to-ás por-tas da co-bi - ça e da vi - le - za cá nes-te-es-cu - ro caos de con fu-são

pp

CHOIR I

Cá nes-te la-bi-rin - to-ás por-tas da co-bi - ça e da vi - le - za cá nes-te-es-cu - ro caos de con fu-são

pp

T. Cá nes-te la-bi-rin-to-ás por-tas da co-bi - ça e da vi - le - za cá nes-te-es-cu - ro caos de con fu-são

pp

B. Cá nes-te la-bi-rin - to-ás por-tas da co-bi - ça e da vi - le - za cá nes-te-es-cu-ro caos de con fu-são

pp

B. Cá nes-te la-bi-rin - to-ás por-tas da co-bi - ça e da vi - le - za cá nes-te-es-cu-ro caos de con fu-são

fff

CHOIR II

fff

63

S. ro caos de con - fu - são

ro caos de con - fu - são

A.

CHOIR I

T.

B.

Fig. 58 — *Do Desconcerto do Mundo: 'Cá neste escuro caos de confusão...'*

(bars 60-66: choral parts only)

Then, from bar 93 to 155, there is a new section in which half of Choir I (about 20 singers) participates in a contrapuntal, fugue-like texture in two to four voices which is dominated by precisely notated, chromatic, contorted lines that are not very easy to learn, and therefore only the most skilled half of the choir sings it (Fig. 59). The other half of the choir has more simple stuff, including short Sprechgesang-like phrases (see also Fig. 59) and only at the very end (in the climactic passage from bar 139 to 155) do they join the more chromatic style: the latter, however, is now sung in unison (not polyphonically) which makes it less demanding (Fig. 60). In this section, Choir II only intervenes as the climax is approached, with a very simple spoken rhythm in crotchets (Fig. 60).

The musical score for 'Do Desconcerto do Mundo' (Fig. 59) shows the beginning of a fugue-like section (bars 93-99). The score is written for a large ensemble, including a Tuba (Tba.), Snare drum (Perc. 2), and a Choir I consisting of Soprano (S.), Alto (A.), Tenor (T.), and Bass (B.) voices. There are also parts for Women's voices (W.) and Men's voices (M.), Harp (Harm.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello (Vc.). The lyrics are in Portuguese: 'nes - ta Ba - bi - - - ló - - - nia Cá on - de o pu - ro A - mor. não...' and 'nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria, a quan - to mal o mun - do cri - a; Cá nes - ta'. The score features complex, chromatic, and contorted lines for the choir, with dynamic markings such as *ppp*, *p*, *mf*, and *mp*. The tempo is marked *ppp* and the mood is *mp*. The score is in 3/4 time and includes a key signature of one flat.

Fig. 59 — *Do Desconcerto do Mundo*: ‘Cá neste escuro caos de confusão...’

(beginning of the fugue-like section: bars 93-99)

140 (la metà) **H** *ff*
 S. Cá nes - te es - cu - ro caos de con - fu - são nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria a quan - to mal o mun - do cri - a;
 A. (la metà) *ff*
 são Cá nes - te es - cu - ro caos nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria a quan - to mal o mun - do cri - a;
 T. (la metà) *ff*
 caos de con - fu - são Cá nes - te es - cu - ro nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria a quan - to mal o mun - do cri - a;
 B. (la metà) *ff*
 cu - ro caos de con - fu - são Cá nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria a quan - to mal o mun - do cri - a;
 W. (le altre soprani e alti) *ff*
 Cá nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria a quan - to mal o mun - do cri - a;
 M. (gli altri tenori e bassi) *ff*
 Cá nes - ta Ba - bi - ló nia, don - de ma - na Ma - té - ria a quan - to mal o mun - do cri - a;
 W.
 M.

146 *fff*
 S. Cá, on - de o mal se a - fi - na o bem se da - na, e po - de mais
 A. *fff*
 Cá, on - de o mal se a - fi - na o bem se da - na, e po - de mais
 T. *fff*
 Cá, on - de o mal se a - fi - na o bem se da - na, e po - de mais
 B. *fff*
 Cá, on - de o mal se a - fi - na o bem se da - na, e po - de mais
 W. *ppp*
 Eu ou - vi mil ve - zes ou - vi lá nos cam - pos ru - far os tam -
 M. *ppp*
 Eu ou - vi mil ve - zes ou - vi lá nos cam - pos ru - far os tam -

Fig. 60 — *Do Desconcerto do Mundo*: ‘Cá neste escuro caos de confusão...’

(bars 140-151: choral parts only)

As these examples reveal, the particular context of this commission has encouraged me to adopt a great variety of text setting strategies and corresponding vocal (and instrumental) textures, while it has also provided me particularly apt opportunities for layering contrasting musical materials.

5 — EPILOGUE

The last piece of my portfolio, *Do Desconcerto do Mundo* (2016), can be seen as the culmination of my efforts — running through my whole doctorate — in layering contrasting musical materials, as such a compositional method proved particularly effective (and almost mandatory) in dealing with the heterogeneity of the vocal and instrumental forces involved. Actually, I would not have been able to compose for such an extremely disparate set of musical groups before developing the techniques of layering and block form shown in this portfolio, both in terms of the clear characterization of each of the contrasting strata and of the creation of subtle links among them allowing for their integration (two aspects discussed in detail throughout this commentary).

In the compositional strategies I have developed my music reveals the influence not only of Stravinsky and Carter (as I mentioned at the Introduction) but also of a number of contemporary English composers. These include Harrison Birtwistle (for the sense of strong timbral and rhythmic contrast among layers, as well as some details of the vocal writing oscillating between delicate lyricism and more violent expressionism); George Benjamin (for the fluidity in connecting the contrasting musical blocks and some harmonic strategies involving near-diatonicism and the use of modes); and even Oliver Knussen (for some affinities in terms of melodic style and the idea of setting a text to purely instrumental lines, as in this composer's *Songs Without Voices*). In more general terms, together with ideas of layering and block form there is in this portfolio a melodic emphasis and a focus in the overall clarity and transparency of the musical texture that shows the assimilation of common (and distinctive) traits of a lot of recent English music. This was a result of my own compositional interests, as early on I defined exploring transparent (but dense) multi-layered textures made out of contrasting musical characters as one of the basic goals of this doctorate (see Section 1). In a sense, I already wanted to make my music more 'British' and studying in London allowed me to realize just that.

In my compositional trajectory this represents a new direction, for in the compositions I wrote before my doctorate there was a much stronger French influence, especially from spectral music (Grisey and Murail) and some music by Boulez (most notably *Dérive I* and *Sur Incises*). While this influence did not disappear completely (some spectral-like chords, based on the harmonic series, do

come back in pieces like *Singra o Navio* (2014) and *Miniature Variations* (2015)), it has somehow receded to the background.

Many compositions in this portfolio also reveal a more assumed Portuguese facet. This is a result, first of all, of having such a considerable part of my portfolio made out of vocal pieces setting texts in the Portuguese language. More to the point, the quite unique (and original) poetic world and imagery of authors such as Luís Vaz de Camões, Camilo Pessanha or Eugénio de Andrade has led me to devise musical equivalents that connect to this particular side of the Portuguese culture. In more strictly musical terms, there is also a strong influence from Fernando Lopes-Graça's (1906-1994) approach to vocal writing (an issue discussed in Section 4), as it can be seen most clearly in the two choral compositions (*Poema para a padeira* (2013) and *Do Desconcerto do Mundo* (2016)) and in the opera (*Cai uma Rosa...* (2014-15)). While Lopes-Graça himself, following Bartók's example, aimed at creating a new national musical language based on folksong elements, the compositions in this portfolio do not really have such a 'nationalistic' focus. Their stance is internationalist (as evinced by the many foreign influences) but just as in our globalized world an element of national (or regional) identity can (and perhaps should) enrich the dialogue and the interactions at the international level, in the same way I also bring to my music elements of my specific cultural background.

The wide variety of poetic texts has also encouraged me to open up my expressive range, not only in the vocal but also in the instrumental pieces. Many emotional characters new to me emerged as a consequence, for instance a sense of energetic lightness (as in the fifth song of *Cinco Poemas da Água* (2013) and in *Miniature Variations* (2015)) or one of gentle innocence (for instance in the calmer parts of *Poema para a padeira* (2013) and *Cai uma Rosa...* (2014-15)). Some of such new characters have emerged in the later pieces of the portfolio and they will probably be the focus of my future compositions: a more assumed rhythmic character (detectable in *Cai uma Rosa...* (2014-15), *Miniature Variations* (2015) and *Do Desconcerto do Mundo* (2016)); a sense of musical humour (appearing in a sarcastic, caricature-like fashion in the third movement of *Do Desconcerto do Mundo* (2016)); and a more popular, assumedly diatonic character incorporating direct references to folk music (in *Do Desconcerto do Mundo* (2016)). This seems to indicate that the compositional approach

I have pursued in this portfolio is flexible enough to sustain many future variations, extensions and developments.

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