PORTFOLIO OF COMPOSITIONS AND TECHNICAL COMMENTARY

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PORTFOLIO OF COMPOSITIONS
AND TECHNICAL COMMENTARY

Thesis submitted for the degree of Doctor of Philosophy

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Abstract

The eight compositions in this portfolio explore matters of form and sound-constructions as well as their points of intersection, gradually shifting from the ‘teleological forms’ of the earlier works to ‘fragmented’ ones consisting of a succession of ‘musical aphorisms’, and from ‘melodic contours’ to ‘single articulations’. I aim to find those elements that are essential and what Lachenmann refers to as ‘magical’ for a musical piece, by striving progressively to strip out all decorative elements or layers.

Largely teleological in its conception, *Relieves* (for ensemble) is driven by the directionality of its pitch configurations and the rhythms of particular phrases while the harmonic content of each section is distinct.

*Diáfano* (for bass clarinet) exhibits a concern with matters related to ‘tradition’ and ‘identity’ motivated by the use of borrowed materials: an Argentine *zamba*.

In *Contornos. Transparencias. Gradaciones* (for flute, violin, viola and piano) clearly defined points of departure and arrival are combined with static harmonies and long pedal notes framing shorter events, whose function is to enrich its various layers by virtue of their timbral qualities.

Preoccupations with ‘context’ and ‘depth’ were central to the composition of *Deshielo / Laissez vibrer* (for ensemble). In these pieces an enhanced sense of depth (in both a spatial and an emotional sense) arises from the juxtaposition of music with contrasting degrees of distinctiveness.

The main concern in *w / brennt* (for ensemble) was to juxtapose sections without any development or transitional process in between. *w / brennt* is a sequel to *Deshielo / Laissez vibrer* inasmuch as the former, though fragmented into different sections, similarly moves from vitality to repose.

*Silber / Strom* (for two violins, viola and cello) explores high degrees of differentiation within the short utterances of the four string instruments. The piece is organised in terms of the polarity between simultaneity and non-simultaneity.

The idea of composing with ‘musical aphorisms’ that bear ambivalent relationship with each other in the sense that they while coexisting in the same piece are not related in a causal fashion appears for the first time in *su – atS* (a trio for bass clarinet, percussion and cello). While in *su - atS ‘punctuation* plays a part, *In tueri I* (for alto flute) deliberately avoids it. Depending on the perceptual focus, the latter may be experienced as either a contemplative or a dramatic piece, the fragility of its sound-world constantly endangering the unfolding of the music.
Acknowledgements

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Portfolio of compositions

1. **Relieves** (for oboe, clarinet, bassoon, horn and piano)
   Lontano Ensemble; cond. by Odaline de la Martínez; King’s College London; 31 May 2010.

2. **Diáfano** (for solo bass clarinet)
   Víctor de la Rosa Lorente; home recording; 23 November 2011.

3. **Contornos. Transparencias. Gradaciones** (for flute, piano, violin and viola)
   Sonja Horlacher, flute; Kirill Zwegintsov, piano; Johannes Haase, violin; Marco Fusi, viola;
   Donaueschinger Musiktage (off-programme), Trossingen; 13 November 2011.

4. **Deshielo / Laissez vibrer** (for ensemble)
   Lontano Ensemble; cond. by Odaline de la Martínez; King’s College London; 20 March 2012.

5. **Silber / Strom** (for two violins, viola and cello)
   Arditti Quartet. Milton Court - Barbican. 23 April 2014.

6. **su – atS** (for bass clarinet, percussion and cello)
   cond. by Jeffrey Means; Symon Kaca, bass clarinet; Laszlo Hudacsek, percussion; Sietse-Jan
   Weijenberg, cello;
   Etchings Festival, Auvillar; 12 July 2013.

7. **w / brennt** (for ensemble)
   Ensemble SurPlus; cond. by Erich Wagner;
   Summer Academy for Young Composers (Akademie Schloss Solitude), Stuttgart; 16 August 2013.

8. **In tueri I** (for solo alto flute)
   Ilze Ikše; home recording; 8 October, 2013.
Conventions and abbreviations

The lowest note of the piano is called ‘A0’ and the middle C is designated ‘C4’; the transition in octave takes place on the note C.

cond. by, conducted by
harm., harmonic(s)
pizz., pizzicato
clb, col legno battuto
spicc., spiccato
gliss., glissando
ST, sul tasto
AST, alto sul tasto
Fl., flute
Pno., piano
Vn., violin
Vla., viola
Vc., cello
1. Introduction

The first part of this portfolio of compositions consists of three pieces that follow teleological trajectories, while the second features five works that make use of successions of aphoristic-like constructs (henceforth referred to as ‘aphorisms’). In the earlier three pieces the governing relationship is articulated by tension and rest through the use of a traditional hierarchical structuring of harmony, melody and rhythm: the combination of these parameters cause different degrees of tension which is released at specific moments of the piece. The second part (the last five pieces) consists in a critical response to such use of teleologic forms and, as an alternative, searches for musical expression through fragmentation and discontinuity.

1.1 From teleological forms to aphorisms

Noticing that when listening to a piece of music my perception would not primarily engage with traditional arches of tension, but would favour and assign value to other aspects of music like micro-variations in sounds, and to timbre over other musical parameters, led me to question the necessity of teleological forms as a privileged mode of continuity. In turn, this encouraged me to challenge the need to pursue continuity and fluidity through development and variation of the material, devices which I believe are directly linked to arches of tension as well as teleological forms. Thus I opted to avoid teleological forms in order to favour relatively less well explored alternatives for structuring music.

I believe that fragmentation, discontinuity and interruption can be expressive, and that by shifting away from a ‘panoramic mode of apprehension’ to a more focused awareness of the ‘constant present’, activity, pause, timbre, differentiation and similarity can gain new fertile dimensions. Moreover, qualities such as ‘fragility’ of sound or ‘unevenness’ were understood as musical parameters with the same hierarchical status as pitch or rhythm.

I do not view aphoristic forms as in any way superior to the teleological ones; the former simply provided the most suitable vehicle to gear my compositional and aesthetic concerns. It adds my subjectivity to a way of composing that is evident in works such as Beethoven Op.119 (1820/22) and Schumann’s cycles (such as Carnaval , Op. 9 (1834/35) and Davidsbündlertänze, Op. 6 (1837)) and is present also in the music of the Second Viennese School, for instance in Webern’s Five Movements for String Quartet, Op. 5 (1909), in Berg’s Four Pieces for Clarinet and Piano, Op. 5 (1913), and Schönberg’s Herzgewächse, Op. 20 (1928). More recently a concern with aphoristic-like constructions can be observed in G. Kurtág’s Quartetto per archi (1964), E. Nunes’ Degrés (1965), Op. 1, J. Cage’s Freeman Etudes (1981), H. Lachenmann’s Pression (1969/70), M. Feldman’s Why patterns? (1978), M. Spahlinger’s Adieu m’amour - Hommage à Guillaume Dufay (1982/83) B. Ferneyhough’s no time (at all) (2004) and in R. Saunders’ Stasis (2011).
1.2 Magic, broken magic and the polarisation of material

For Lachenmann, the term ‘beauty’ should not be reified. Beauty in art is certainly concerned to some extent with magic. *Through the creative will of mastered magic: that is art.*

U. Mosch (2009) commented that the concept of ‘magic’ appears recurrently in Lachenmann’s texts and its meaning has been refined through the years. In 2006, Lachenmann defined magic as that which collectively captivates us and in this respect that which unites us, which elevates our individuality; also what is recognised as what ceases critical thinking.

For him, mastering magic implies breaking the magical spell, in order to allow space for critical thinking. A significant amount of music, Lachenmann claims, makes use of unbroken magic at every opportunity. Music has turned to a mere ‘magical service’ and is ‘at the flick of the switch, cheaply available magic’, so that it pleases the collective demands… Instead of being thought-provoking, music serves in many ways as a ‘sedative’.

Throughout this portfolio, I have aimed to echo this ambivalent relationship with magic and broken magic (or, in other words, the relationship between that which elevates our individuality and what fosters our critical thinking) by virtue of polarising, in the context of one piece, different materials, characters and compositional techniques. These polarisations include, among others, an intuitive/speculative approach towards composition, teleological/aphoristic forming of sections, fragility/stability of the sounds employed and stasis/dynamism in relationship with the musical pacing. These polarities gradually acquired functions as either generators or breakers of magic: it was a process of discovery rather than an *a priori* point of departure.

At the beginning, opposites were used to restrict the musical material: by delimiting boundaries, I was able to explore what those limits contained. Later, I also realised that one of these endpoints could bear ‘magic’, while the other extreme breaks it. For instance, in *Deshielo / Laissez vibrer,* I assigned ‘magical qualities’ to the end...

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4. ‘Die Unterhaltungsindustrie, und nicht nur sie, bedient ungebrochener Magie bei jeder Gelegenheit. Musik ist hier häufig zur bloßen “magischen Dienstleistung”, ist “per Knopfdruck billig verfügbare Magie” geworden, um kollektive Bedürfnisse zu befriedigen… Anstatt eine Provokation des Denkens zu sein, dienst Musik vielfach nur als “Sedativum”.’ What appears between “” belongs to Lachenmann in Mosch, U. op.cit., p.82. The translations is mine.
of the piece, which consists of a series of aphorisms. At the same time, the main polarity in this piece is the one contained in the axis teleological/aphoristic. The beginning, which was thought as teleological, rejects magic so that it may happen more emphatically at the end of the piece. Hence, each extreme of the polarity defined when magic was meant to occur, in addition to delineating the overall framework.

The polarities that appear throughout the final pieces of this portfolio absorb and re-signify the magic and its corresponding break. Thus, magic adopts different names and facets, which are always presented as part of a binary opposition. Its function however remains constant: to seek a revelation and to react critically.

Including the notion of magic when structuring the music in terms of polarities was a further source to find and organise material that I could assign value to. As such, and in addition to finding meaningful ways to form the music, each piece performs its own journey and states its own problems and, by aspiring to address these problems, it causes new ones, as ‘hearing is defenceless without thinking’\textsuperscript{5}, ‘hearing is also defenceless without feeling’\textsuperscript{6} and ‘thinking, though – says Ernst Bloch – means transcending’\textsuperscript{7}.


\textsuperscript{6} ‘Hören ist wehrlos auch ohne Fühlen.’ op. cit., p.54. The translation is mine.

\textsuperscript{7} ‘Denken aber – sagt Ernst Bloch – heißt Überschreiten.’ op. cit., p.62. The translation is mine.
2. Relieves
(for oboe, clarinet, bassoon, horn and piano - 2010)

The main premise behind Relieves is to articulate a process in which changes primarily occur in different musical layers at different times, and to a large extent are concerned with gradual transformation of sound. Transitions from one state to another are a central preoccupation of the piece in terms both of ‘what changes or remains similar’ and ‘at what point’. This work aims at addressing the particular acoustic characteristics of the instruments in the ensemble, particularly in terms of differences in their resonant qualities. Whereas in the course of sound production wind instruments are capable of a variety of dynamic modifications (and consequently of the timbre), for the piano the peak of intensity always takes place at the beginning of the attack. These contrasting characteristics motivated my concern with processes involving gradual transformations of sounds.

2.1 Resonance

The beginning of the piece displays what could be referred to as a ‘resonant’ quality. According to C. Roads (1996)

an excitation is an action that causes vibration… [while] resonance is the response of a body of that instrument to the excitation vibration.8

At the opening of Relieves such quality is brought to the fore by the use of a solo piano in a limited register (central and high; F3-D♭6) with extensive use of the sustain-pedal and repeated notes. In contrast, the ending of the piece is comparatively dry, or less resonant, by virtue of the series of short pp/ppp tutti attacks. Mediating between these two poles an extended process takes place, in which the ‘resonant quality’ is manipulated, restated and eventually stripped away.

The manipulation of resonance that takes place between bar 17 and 127 could be described as a ‘composed resonance’, in which the wind instruments largely extend some of the piano sounds. The fact that the piano, when played in the conventional manner (as it is the case in this piece), is incapable of producing sustained sounds with constant dynamic level led me to metaphorically conceive the resonance in relationship to the ‘originating’ sound, as analogous to the visual phenomenon of shadow and object. To compose the resonance permits to focus attention on the shadow of the object, rather than the object itself. In other words, it is, the residual feature of the sound that is being placed on the foreground.

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The aforementioned compositionally extended prolonged resonance allowed for a gradual transformation of the material into a melodic line according to the following process:

\[
\begin{align*}
\text{Piano} & \quad \text{Winds} \\
\text{resonance} & \rightarrow \text{single note without vibrato} & \rightarrow \text{single note with vibrato} & \rightarrow \text{bisbigliando} & \rightarrow \text{trill} & \rightarrow \text{tremolo} & \rightarrow \text{melody}
\end{align*}
\]

Of course, this is a schematic abstraction, which pertains to my pre-compositional process. In the music this apparent causal relationship is hidden, broken and eventually corrupted.

The piano material of bars 1-17 is restated and presented as a variant at bars 60-69 and 112-127. This reminiscence of the beginning of the work serves to unify the whole, by incorporating the piano and its natural resonances into the ‘composed out’ resonances of the winds.

The short, simultaneous attacks at the end (bb.128-137) correspond to the final stage of this process. The opposition to the resonant beginning is evident both in the score and at the perceptual level, and is enhanced by two further features: the lack of any melodic contour and the unpredictability of the attacks: whereas the solo piano melodies of the beginning display distinct directionality – supported by rhythm, dynamics and register – the ending consists of a series of thirteen single articulations of the same chord. What stands out in this series of articulations is the arbitrariness of their quantity, of the time that separates each articulation, and of their duration. The end of Relieves relinquishes any sense of orientation: these thirteen articulations are stationary. The lack of both a sense of direction and a point of arrival implies that they could have been more or less in number, more or less distanced from each other, or its duration could have been longer or shorter. With the stationary ending of this work, I began to consider the need of fluidity in music. From this point on, non-directionality will gradually acquire relevance throughout the remaining pieces in this portfolio.

2.2 Chord – Harmonic content

In Relieves a single chord (Fig. 2.1) serves as the main source of harmonic content for the entire piece. This further reflects the determining premise of this piece that in order to facilitate and bring attention to a gradual process of change at one level, other elements should remain largely fixed or minimally altered. Harmony, through the use of this single chord, provides the main source of stability. Nevertheless, and due to its extended size (17 pitch levels), it was possible for discreet subsets of that chord to articulate each different section of the piece distinctly, thus resulting in certain degree of variation within the overall uniformity.
This chord was generated by Open Music, by means of a patch I developed that converts the values thrown by the electroacoustic technique of FM-synthesis into pitches. This technique, which was first used by spectral composers such as T. Murail in Gondwana, offers an alternative to harmonic spectra: whereas in the latter the closer intervals are found only at the higher end of the chord, FM-synthesis chords can provide several intervallic alternatives according to values provided. The main advantage of working with such a patch in Open Music is the array of possibilities it throws once the patch is fully working.

Fig. 2.1– Harmonic content of Relieves.

My approach was to freely interpret the pitch content of this chord in terms of both tempered and non-tempered sounds. At some stages of the piece, and in assigning pitch material to the piano, some of these non-tempered sounds were ‘adjusted’ to a nearby equal tempered note. My intention in adapting the FM-synthesis technique to a purely instrumental context, was not to create FM-like sound complexes. Instead I wished to simply generate relatively fixed material to provide a rigid order that at some point in the course of the piece is to be ultimately betrayed, as can be observed in bar 43-45.

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3. Diáfano
(for solo bass clarinet – 2010)

Diáfano was composed for Spanish clarinetist Víctor de la Rosa Lorente and it explores not only the challenge of writing for a highly virtuosistic performer, but also the incorporation of borrowed material, an Argentine traditional folk tune. The issue of to what degree is the music conditioned both by the emotional meaning of that particular folk tune and by composing for a predetermined instrumentalist remained constant throughout the piece. Although largely pitch-based, the majority of the extended techniques that appear throughout Diáfano follow a tradition began by Lachenmann’s seminal work for clarinet Dal Niente (Intérieur III) (1970). This can be observed in the passages in which slap-tongues, kiss sounds, air sounds, multiphonic sounds and subtones are articulated with traditional melodic contours.

3.1 Composing for a pre-determined performer

This project involved not merely the creation of a piece for the bass clarinet, but also extensive collaborative work with an instrumentalist, and as such implies a series of concessions at the compositional level, as I was conditioned at an early stage to the subjectivity of the performer. In turn, those concessions derived in certain restrictions.

Lachenmann, in several of his pieces, (such as Intérieur I (1965/66), Pression (1969/70) and Dal niente (1970)) explicitly indicates that a particular work was written for a specific player. Distinguishing a piece for an instrument from a piece for an instrumentalist implies the composer’s awareness of the technical challenges that a work would afford to an individual. This awareness leads to considerations of the effort some passages of the work or the piece as a whole will require and as such functions as a compositional parameter. In Diáfano the notion of effort works as a musical parameter based upon the polarity effortless/effortful.

A further insight that resulted from working closely with a performer is the consideration of the bass clarinet in two opposing ways: as an extension of the performer’s voice and as an obstacle for him to express himself. As the former, the instrument allows a degree of lyricism (Fig. 3.1); as the latter it functions as a ‘gag’ that obstructs musical fluency – the mouthpiece in particular. This can be observed in Fig. 3.2 in the interruptions in a single bar by means of air inhalations, key-clicks, air exhalations, kiss-effects and singing inside the tube, all of which cause the melodic line to fragment.
The approach to the bass clarinet as an extension of the performer’s voice caused me to think of different ways in which the human voice can speak. Hence, murmuring, shouting, whispering, singing, crying, alongside ‘normal’ speaking, are to be found in various passages throughout the piece. Conversely, at other moments the instrument is an obstacle in the performer’s mouth that seems to make him unable to speak. When the instrument is considered as a physical impediment to speech, it can provoke two kinds of reaction: he can either fight against the obstacle or refuse to do so, both of which reactions are present at different stages of the work (Fig. 3.2 exemplifies the former, and the breath sounds in particular at the end the latter). This opposition between the clarinet as either extension or obstacle enriches the matrix effortless/effortful and was key to the compositional process in particular with regard to the relationship between tension and rest, both within the musical material itself, and in terms of the relationship between the performer and his instrument.

Finally, close work with the performer was required to understand his personal approach both to the bass clarinet and to its repertoire. This allowed my musical ideas to derive from the performer himself, rather than from abstract concepts. Such an approach opened a new perspective to me, as I learnt about the instrument from the performer’s angle, and together with him was able to test, compare and juxtapose sonorities that I wanted to explore. The most relevant were:

- gradualness in the establishment and disappearance of a multiphonic sound;
- resonance response of the instrument whilst singing inside the tube;
- breath control: inhalation/exhalation; and
- timbral contrast when playing in different registers with different dynamics consecutively.
3.2 Incorporating foreign material

‘Reference to borrowed material’ and ‘tradition’ were also topical aspects of this project. As Mahnkopf (2012)\textsuperscript{11} argues, unless one subscribes to Postmodern aesthetic stances, the inclusion of foreign material into one’s work is problematic, as quotation is one of Postmodernism’s most distinguished features. In Diáfano, the borrowed material is the zamba\textsuperscript{12} Balderrama, composed by Daniel ‘Cuchi’ Leguizamón setting words by Manuel José Castilla. The way in which this folk tune is included in the piece is strictly through its melodic content, in particular the beginning of its verses as well as the beginning of its chorus. Fig. 3.3 below shows the beginning of the vocal part that I have transcribed from a version of Argentine singer Mercedes Sosa (2011). If compared visually and aurally with bars 27-28 from Diáfano displayed in Fig. 3.4, the source of the zamba (framed) should be clear.

Fig. 3.3 – Balderrama, the beginning of the vocal part; the transcription is mine.

![Fig. 3.3](image1)

Fig. 3.4 – Diáfano, b.27-28.

![Fig. 3.4](image2)

A more hidden incorporation of the folk tune into the bass clarinet piece can be seen if Fig. 3.5 and Fig. 3.6 and Fig. 3.7 are compared: all loud dynamics (framed) configure a similar melodic contour to the beginning of the chorus.

Fig. 3.5 – Balderrama, the beginning of the chorus; the transcription is mine.

![Fig. 3.5](image3)


\textsuperscript{12} A zamba is a slow traditional dance from Argentina in 3/4 influenced by various rhythms from Latin America, Africa and Europe.
This material was not just the ‘accident’ by which the musical ideas of the piece were triggered; its use sparked fundamental questions in relationship to my own identity as a composer: what, if anything, belongs to me? What are the consequences of borrowing material derived from popular culture? Am I being a tourist in my own culture?

Through the incorporation of Balderrama into my music, I strived to establish at the compositional level an intimate connection between this zamba and myself. This relationship is not exclusively or strictly musical, but about its impact on me, and how I deal with a tradition to which I choose to belong, and which at the same time is distant (both geographically and historically) from other traditions whose auditory results sound closer to the style of my music.

In turn, I believe that this piece acquires autonomy at the esthesic\(^{13}\) level from the zamba itself: Diáfano exceeds its reference, as the latter is not the legitimiser of the former. No intellectual ‘winking’ at an imaginary audience takes place; on the contrary, the source of reference is neither mentioned nor implied, not in text (title, programme notes, score) nor in music (direct references are deliberately hidden). There is no intention for the borrowed material to be understood, nor recognised.

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\(^{13}\)Poietic and esthesic are borrowed from Nattiez when he understands the former as ‘describing the link among the composer’s intention, his creative procedures, his mental schemas, and the result of this collection of strategies; that is, the components that go into the work’s material embodiment’ and esthesic as ‘the description of perceptive behaviours within a given population of listeners; that is, how this or that aspect of sonorous reality is captured by their perceptive strategies.’ Nattiez, J. J. (1987) Music and Discourse: Toward a Semiology of Music. Translated by C. Abbate (1990). Princeton: Princeton University Press, p.92.
(for flute, piano, violin and viola – 2010)

Contornos. Transparencias. Gradaciones. resembles Relieves inasmuch as it explores a similar way to end a piece through a series of tutti articulations, also predominantly in the piano-domain. At the same time it anticipates some concerns related to the concept of ‘development’ that will be considered in later works in this portfolio. Moreover Contornos... initiates a process of gradual distancing from a mostly pitch-based compositional approach, allowing other sound-categories such as timbre and density to acquire a similar importance.

4.1 Sound-constructions

In Contornos... I began to develop the concept of sound-construction that is related to Pierre Schaeffer’s notion of sound object (*objet sonore*). A sound-construction is a composed unity of sound that can be formed by single articulations: a Gestalt of sound. It differs from the Schaefferian term as the focus is being placed mostly on the poietic aspect, how the sound-construction might be perceived is not being taken into consideration. In addition, the notion of sound-construction is applied to instrumental music, which means that an *acousmatic* experience (crucial to the definition of the sound object) does not take place; no veil separates performer from a potential audience.

\[\text{Fig. 4.1 – Sound-construction (b.4).}\]

14 ‘The sonorous object is never revealed clearly except in the acousmatic experience... [I]f someone plays us a tape which records a sound whose origin we are unable to identify, what are we hearing? Precisely what we are calling a sonorous object, independent of any causal reference, which is designated by the terms sonorous body, sonorous source or instrument. [The sound object is] contained entirely in our perceptive consciousness’, Schaeffer, P. (2008) ‘Acousmatics’. Trans. Anon. In: Cox, C. and Warner, D. (eds.). *Audio culture: readings in modern music*. London: Continuum, p.79.
In the excerpt shown in Fig. 4.1, the sound-construction is formed by a series of single articulations of the instruments. It can be described in various ways: in terms of its tonal trajectory, its inner speed or its tactile (textural) qualities. The individual material contained within the sound-construction can serve as a source for other sound-constructions or the sound-construction itself can be varied or developed.

Thinking in terms of such categorisation has allowed me both to renounce the privileged position that pitch has historically had over other musical parameters and to structure the sounds according to my subjective sensitivity. The incorporation of sound-constructions into the palette of musical possibilities does not a priori preclude the use of melodies. In fact, melodic contours appear in the piece, as can be seen on the flute in Fig. 4.2: sound-constructions have been included as part of the music in order to expand the expressive possibilities of the instruments. Tonal and non-tonal material coexist here and such coexistence takes place both simultaneously (as part of different musical layers) and juxtapositionally (for example, a tonal section follows a non-tonal one).

Fig. 4.2 – Melodic contour (bb.52-53).

4.2 Stationary music

In acoustic theory, ‘stationary waves’ appear ‘when in an elastic medium two waves travel with the same frequency and same amplitude but in opposite directions.’\textsuperscript{15} They are named stationary waves ‘because the perturbations that constitute them remain stationary, differing thus from those types of waves which are progressive.’\textsuperscript{16} Something similar can be observed when travelling by motorboat on a densely travelled river, where the waves created by the

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\textsuperscript{16} ‘porque las perturbaciones que las constituyen permanecen inmóviles, difiriendo en esto con los demás tipos de onda que son progresivas’. Op. cit., p.32. The translation is mine.
vessels bounce both against other waves and against the walled shores. This image of waves travelling nowhere and being cancelled by other waves served as an arbitrary motivating device for the composition of some sections of Contornos. The question I confronted was how to translate such an image into sound. I decided upon the establishment of a continuum:

- with a determined harmony;
- where each voice of the ensemble would reside in a limited register;
- with rhythmic regularity that would eventually be disrupted.

For instance Fig. 4.3 shows how such a continuum is composed: a fixed chord (with inner timbral micro-variations such as the *bisbigliandi* in the flute and bowing in different string parts), with a regularity of chronologic density and a disruptive element which takes place in the third beat of bar 76 (a simultaneous attack by the four instruments).

An important aspect of this type of continuum is its duration. In his article *Klangtypen der Neuen Musik*17 (Sound-types in New Music), Lachenmann (1966/93) discusses the ‘self-time’ (*Eigenzeit*) of the five sound-types which are:

1. sound-cadence (*Kadenzklang*): where sound develops its characteristics from a building up and a fading out;
2. sound-timbre (*Farbklang*): a stationary sound whose main feature is given by its spectral quality;
3. sound-fluctuation (*Fluktuationsklang*): a sound-timbre with a periodically repeated inner movement;
4. sound-texture (*Texturklang*): where the sounds conform a complex net in which the individual acoustic properties are not discernible, forming thus a mass-like sound; and

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5. sound-structure (Strukturklang): where sound and form are merged into one thing and its individual components are not identical to the whole.

He claims that in the fifth sound-type (the sound-structure) its self-time ‘is identical with its effective duration. It cannot be arbitrarily extended like a timbre or a texture’. Conversely, in the other four sound-types, ‘their self-time is independent from the time in which they actually take place’: their duration is arbitrary and corresponds to the context in which the music unfolds. This is the case for the continuum described above. Its duration functions as a contrast to those sections that are not formed by a continuum; which in turn have a clear directionality: their rhythmic and melodic elements, through dynamics and register, create and resolve tension. The duration of the continuum, in its stationary condition that does not create nor resolve tension, is arbitrary.

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5. Deshielo / Laissez vibrer
(for ensemble – 2011/2012)

Deshielo / Laissez vibrer marks a turning point in this portfolio inasmuch as it explores an alternative to teleological forms. Here ‘teleological forms’ are understood as overarching scaffoldings that serve to articulate the music and its inner relationship between tension and rest; all sections of a piece are in constant interdependence for the sake of a goal-directed design that shapes the music. In this sense this piece functions as a nexus between teleological and what I labelled as ‘aphoristic’ forms. Both ways of structuring music are present at different places within the piece: the first part is teleological, the second one comprises a transition and the third part is formed by a series of aphorisms.

Further to the opposition between teleological and aphoristic forms, I have included other oppositions which can be observed in the use of tonal material and sound material20, the phonemes employed at the beginning and words whispered at the end by the instrumentalists, resonant sonorities and dry sonorities, and dynamism/vitality and stasis/quietness. As a result, polarising elements govern the articulation of material within subsections and by working within such systems of axes, the expressive resources of each polarisation were clearly delimited.

5.1 Depth and context

Two concepts acquired a specific relevance and are key to understanding the work from the poietic dimension: ‘depth’ and ‘context’. Depth operates as a common thread throughout this piece, understood not only as the distance between the interspaces that separate the various layers, but also as emotional depth (or profundity), providing a space for introspection. Whereas the former is the result of the combination of elements and parameters, the latter is the reason for all the material to function: time appears to be suspended and the sounds surround the listener, thus placing him or her at the centre of the musical experience. The intention of working with both types of depth was strictly functional: depth as distance is subordinated to depth as emotion. An instance of depth as emotion can be most prominently observed in bars 155-158. Here a variety of sounds whose source cannot be clearly identified, due to both the techniques being used and the quiet dynamics that blend the musical sounds with the room’s own noise, determine a space that demands a focused attention from the listener.

A central concern in Deshielo / Laissez vibrer is this concept of depth as emotion. By beginning the piece with strongly characterised features (namely a high level of activity, in which hierarchies are identifiable, with

20 For a definition of musical aphorism see the next part of this section.

21 Tonal material refers to those sounds that have a recognisable pitch. On the contrary, sound material are those sounds in which there is no clear identifiable central pitch.
defined punctuations within the subsections, and gearing the music towards the resolution of tension), the scene is set for subsequent strong contrast of character to bring to the fore features of the new material. For instance, if this change includes a new section that unfolds in a significantly quieter, more static and more introspective fashion, the stasis, quietness and introspectiveness become emphasised by virtue of the context in which they appear: the former vitality accentuates these new qualities. In other words, depth as emotion acquires a determined profundity not only because of its intrinsic qualities but also because of the context provided by depth as distance.

5.2 Form – teleological and aphoristic constructions

As explained above, the overall structure of the piece consists of three sections, which reflect a polarity expressed between the teleological and the aphoristic, with a transition that mediates between the two poles. In a metaphorical sense, the organisation of this piece can be described as an ‘original’ (first part, bb.1-88) placed in front of a (broken) ‘mirror’ (second part, bb.89-112) whose distorted ‘reflection’ (third part, bb.113-171) becomes essential to understanding what that original stands for: the objective of such reflection is to strip decorative features out of the original content.

The first part appears as teleological due to the overall behaviour of its material: for although fragmented in subsections, the inner energy comprised within each of these subsections contributes to create and subsequently release tension towards their respective ends. Moreover, the ultimate goal of this part is to reach the A5 of the clarinet in b.89 that will start the transition. This all results in highly energetic music in which layers are in constant interplay and motion: those elements that were placed at one point in the foreground will be located afterwards at the middle-ground or background level. This dynamic relationship between layers is what constitutes what I refer to as ‘depth as distance’: a constellation of interactions in which nearness or remoteness are determined by timbre, pitch, rhythm and directionality. Most of the elements that constitute these interactions within the layers can be identified in the first three bars of the piece (Fig. 5.1), which form a closed sound-construction:

- tonal material, played by the marimba, whose register is fixed;
- a simultaneous attack that defines a chord, played by the strings and the alto flute;
- short percussive sounds of indeterminate pitch that create a texture that is not related to any other layer, played by the double bass and the cello; and
- isorhythmic articulation of the bass clarinet (non-tonic).

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22 The reason why this fifth layer has not been included as fifth bullet point is because the other four points are constrained to a closed sound-construction.
Moreover, there is a fifth layer which appears immediately after this, in the fourth bar: the sustained note (later on, a sustained sound), which usually functions as resonance. It appears for the first time in the clarinet as resonance of the sharp attack of the second flute.

Fig. 5.1. – First threefold bars. The two notes from the marimba in the third bar can be disregarded.
The transitional section of *Deshielo / Laissez vibrer* (bb.89-112) bridges the teleological and the aphoristic sections and is defined by a polarisation between the clarinet and the rest of the ensemble: the clarinet’s A5, which was the point of arrival of the previous section, now serves as the recitation tone, a tonal plateau that will delimit this instrument’s layer. In turn, the rest of the ensemble continues unfolding textures similar to those in the first part, only in a significantly more austere fashion, so that the clarinet line always stays in the foreground. In particular, the other four wind instruments are less active in order to avoid any timbral interference, thus assuming mostly roles of resonance and bass. Eventually, the final five bars of this transition break away from any activity in the whole ensemble, with the exception of the clarinet that performs a rallentando leading to the third part.

Similar to the sound-construction described when discussing *Contornos. Transparencias. Gradaciones*, here the ‘musical aphorism’ is a unit of time that intends to deploy an independent idea and, although it includes the sound-construction as a constituent element, it is not conceived as a long unit of time. The concept of musical aphorism is related to Stockhausen’s idea of moment-forming according to Kramer’s definition (1978)

> Moments are defined as self-contained entities, capable of standing on their own yet in some sense belonging to the context of the composition.\(^{23}\)

In this sense, aphorisms are self-contained and their features belong to a restricted sound-palette. However, they differ from Stockhausen’s concept, where he affirms that a moment takes place ‘[w]hen certain characteristics remain constant for a while’\(^{24}\), assuming thus that the coherence of a moment is given by the elements (chords, melody, rhythm or timbres) contained within them, instead of by the intention of the composer. In the context of *Deshielo / Laissez vibrer*, the aphorism is defined by the arbitrariness of the composer who aspires to circumscribe a number of sounds to a determined situation; there is no de facto necessity for the material to remain constant within that situation.

The third part of *Deshielo / Laissez vibrer* (bb.113-171) articulates ten differently constructed aphorisms that can be described in terms of their constituent elements. They have been arranged in a manner that can be interpreted as teleological, since there is a gradual process of stripping out from the music any recognisable pitch and articulating an overall diminuendo. Yet their most salient features lie in their inner construction: they function autonomously regardless of their causal deployment. What I have aspired to create was a series of compositions within a composition, balancing singularity with contextual position.

As the music is gradually being stripped out of tonal and decorative layers, which in turn coincides with the music taking more time to unfold, a new type of space emerges which is not the result of parametric interactions, but


a construction in itself: sound is now treated as the delimitation of a space, where the subjectivity of an imaginary audience is placed at the centre of the experience. In this space the sounds’ function is to provide an environment for reflection – a place for introspection, and the silences that separate most of the aphorisms were thought to allow those sounds to resonate for that imaginary audience; it is in this sense that the space is designated as ‘emotional’.

Unlike the previous sections, the music of this part is not grounded on the directionality of its elements, but in the composition of aphorisms that appear as if they were suspended, neither intending to create nor release any tension. Two aspects determine this quality:

1. Working with timbre as the intersection of parameters; as Lachenmann (1966/93) states: ‘timbre as sum and result of different pitches and intensities within artificial or natural partials’25. One could add to this that the order in which these partials appear and disappear imposes an inner pacing within the sound. Hence rhythm can be regarded (together with pitch and intensity) as a third element of this intersection.

2. Due to the nature of both the instruments (how they project the sound) and the timbres that I want to obtain, some sounds determine both the pacing of the music and partly the duration of the aphorisms. For example, this can be observed particularly with those instruments that have a long decay time, such as the tam-tam, the Tibetan bowls, the cymbal placed on top of the timpano, as well as balzando actions on the strings and scraping lengthwise on the lowest string of the harp.

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In Deshielo / Laissez vibrer I only just began to use the formal notion of the aphorism, but crucially this meant beginning to search for ways of constructing music that avoided teleological categories. The concepts of context and depth were key as they allowed a re-signification of elements in relationship to the former and a conceptualisation of an underlying thread in terms of the latter. In future projects within this portfolio, aphorisms will be employed both to establish a further autonomy at the macro-level, as well as to focus increasingly on the micro-variations of sounds.

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6. **Silber / Strom**  
(for two violins, viola and cello – 2013)

My interest in simultaneous attacks in music stems from the fact that, independently of the level of effort or instrumental skill played by performers, full synchronisation is an unattainable aim: both perceptual and computer-driven analyses reveal that there are always slight deviations when a group of instrumentalists have to articulate a sound at the same time. A tendency towards accuracy, rather than perfect precision, is a factor that I believe provides a great degree of liveliness to music. Over the past decades, several composers have dealt either explicitly or by implication with this issue of simultaneous attacks; this can be observed in works like *Rituel in memoriam Bruno Maderna* (P. Boulez – 1974), *Lied* and *Lumen* (F. Donatoni – 1972 and 1975 respectively) *Routine Investigations* (to name only one from M. Feldman – 1976), M. Spahlinger’s *farben der frühe* (for seven pianos, in particular the fourth movement – 1997-2005) and various movements of B. Ferneyhough’s *Exordium* (2008), as well as an important section²⁶ of H. Lachenmann’s second string quartet *Reigen seliger Geister* (1989). To a large extent, *Silber / Strom* constitutes my attempt to write music that is concerned with ‘simultaneity’ in contrast to music in which differed-time attacks prevail: in this work I have explored the expressive potential of ‘short synchronised articulations’.

6.1 Construction: aphorisms and articulations

Sections exhibiting a profusion of ‘simultaneous attacks’ or ‘articulations’ take place at different points of the piece: they appear between bars 40-45, 57-65, and 78-88.²⁷ Moreover, in *Silber / Strom* I continued to explore aphoristic forms, the entire piece containing 24 such aphorisms organised according to their type of material, which consists variously of:

- sound-constructions;
- tonal elements;
- spoken voice – with no intervention of the string instruments; and
- tingshas or finger cymbals - also with no intervention of the string instruments.

Accordingly, five different types of events are deployed at different places in the piece: on the one hand these four contrasting types of aphorisms (see Chart 6.1 for details) and on the other the simultaneous attacks by the four instrumentalists (see Chart 6.2 and Chart 6.3).

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²⁶ The section comprised between bb. 296-355.

²⁷ Although this third section does not consist in simultaneous attacks by the four instruments in itself, it is deeply connected to synchronised attacks, as it will be explained in the following paragraphs.
Chart 6.1 – Type of aphorism and location.

<table>
<thead>
<tr>
<th></th>
<th>Sound-construction</th>
<th>Tonal</th>
<th>Spoken voice</th>
<th>Tingshas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>bb.1-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>bb.5-6</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>bb.7-11</td>
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<tr>
<td>4</td>
<td>bb.12-19</td>
<td></td>
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<tr>
<td>5</td>
<td>bb.21-22</td>
<td></td>
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<tr>
<td>6</td>
<td>bb.23-29</td>
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<tr>
<td>7</td>
<td>bb.29-35</td>
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<tr>
<td>8</td>
<td>bb.36-39</td>
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<tr>
<td>9</td>
<td>bb.46-48</td>
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<tr>
<td>10</td>
<td>bb.49-51</td>
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<td>11</td>
<td>bb.54-56</td>
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<td>bb.67-68</td>
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<td>bb.69-73</td>
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<td>bb.74-77</td>
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<td>bb.90-99</td>
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<tr>
<td>16</td>
<td>bb.100-102</td>
<td></td>
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<tr>
<td>17</td>
<td>bb.104-106</td>
<td></td>
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<tr>
<td>18</td>
<td>bb.108-111</td>
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<tr>
<td>19</td>
<td>bb.112-120</td>
<td></td>
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<tr>
<td>20</td>
<td>bb.121-126</td>
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<tr>
<td>21</td>
<td>bb.127-134</td>
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<tr>
<td>22</td>
<td>bb.135-151</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>23</td>
<td>bb.153-155</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>bb.157-159</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Chart 6.2 – Material contained in the single attacks I-VII.

<table>
<thead>
<tr>
<th></th>
<th>I b.40</th>
<th>II b.41</th>
<th>III b.42</th>
<th>IV b.43</th>
<th>V b.44-45</th>
<th>VI b.51</th>
<th>VII b.52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vn.1</td>
<td>pitch - mezzo legno</td>
<td>pitch - arco jeté</td>
<td>harm.</td>
<td>pizz. - behind the bridge</td>
<td>muted string - balzando</td>
<td>pitch - clb</td>
<td>as high as possible</td>
</tr>
<tr>
<td>Vn.2</td>
<td>muted string - jeté</td>
<td>pitch - AST</td>
<td>muted string - balzando</td>
<td>pitch - spicc.</td>
<td>muted string - lengthwise</td>
<td>harm.</td>
<td>over-pressure - lengthwise</td>
</tr>
<tr>
<td>Vla.</td>
<td>pitch - clb</td>
<td>pitch - clb jeté</td>
<td>pitch - ST</td>
<td>muted string - pizz.</td>
<td>'normal' pitch</td>
<td>muted string - over-pressure</td>
<td>harm.</td>
</tr>
<tr>
<td>Vc.</td>
<td>harm. - spicc.</td>
<td>pitch - AST</td>
<td>muted string - pizz.</td>
<td>fingernails</td>
<td>pizz. - behind the bridge</td>
<td>harm. - tremolo</td>
<td>muted string - lengthwise</td>
</tr>
</tbody>
</table>
The order in which aphorisms and articulations appear is not causal nor does it respond to a determined plan: their position within the piece has been decided mostly intuitively, with the intention of creating a formal fragmentation. Such arbitrary arrangement of the material has helped me to hinder any teleological construction, allowing me thus to think of the piece as in a ‘constant present’. In this way, I aspired to eliminate any connections between the various pasts and present of the piece, as well as to avoid predictability. A further feature that has helped me to emphasise both the relevance of the ‘constant present’ and the singularity of each aphorism is a general avoidance of repetition at any level and in any time-unit. In addition, and in order to avoid narrative from the poietic perspective, the material of each aphorism is not developed.

The aphorisms formed by sound-constructions contain elements that are tonal (e.g. arco sul ponticello), non-tonal (e.g. a string bowed lengthwise muted by the left hand in such a way that no identifiable pitch can be produced) or a mixture of both (e.g. a pizzicato played behind the bridge, close to the tailpiece). None of these three types of material occupy a de facto hierarchical position in relation to the others, their relevance being merely dependent on the context in which they appear. Thus sounds with no clear fundamental pitch neither are considered as mere ‘effects’, nor contribute to a particular ‘atmosphere’. On the contrary, they are as essential for the architecture of the sound-constructions (and by extension to the entire aphorism) as those sounds in which a clear pitch is recognisable. This coexistence of tonal, non-tonal and their mixture can be observed in Fig. 6.1, showing the content of the third aphorism.

In contrast to the above-described aphorisms formed by sound-constructions, in the tonal aphorisms tempered and non-tempered pitches occupy a hierarchical position in connection to other parameters. Moreover, they function as a contrast to the sound-constructions not only in terms of material, but also in that some repetition and variation is present, though not with teleological purposes. Correspondences of such type can be observed within aphorism 13 as well as between numbers 17 and 18, where both the pitch content and its register are very similar.
The use of spoken voice by the instrumentalists is a recurrent feature throughout this portfolio: it was employed in *Diáfano* and in *Deshielo / Laissez vibrer* and it will be seen towards the end of *w / brennt*. In the case of *Silber / Strom*, I decided to make use of the spoken voice as well as tingshas not only because of their sounding qualities, but also because I wanted to establish my own relationship with the string quartet and its historical implications. Depending on their context, both the whispering voices and the tingshas can create either dependent or independent layers in the music. The former can be observed, for instance, in aphorisms 19, 20 and 21, where an interaction between the tingshas and the four string instruments takes place; on the contrary, in number 9 the phonemes whispered by the individual performers do not require any additional musical layers, as what they are already generating with their voices (the formation of an imaginary word) is already self-contained.

The ‘simultaneous attacks’ that take place (discontinuously) on the four instruments between bars 40 and 88 vary in duration: the shortest one ~0.104” and the longest one ~0.729”. Due to their brevity, they were not conceived as aphorisms but as single articulations whose expressivity resides mostly on their timbral versatility. The ephemeral identity of each of these single events thus depends purely on their complex spectral qualities. Charts 6.2 and 6.3 show how each of these events is unique in terms of its sound-quality; and though the palette of timbres is restricted, not a single articulation of the four instruments is repeated. Each one was constructed following the polarity tonal/lesser-tonal. For example, articulations such as II and XIII are fully tonal (the four sounds are four
recognisable pitches) and X is less-tonal (only the pitches played by Vn.1 can be clearly recognised). I differentiate lesser-tonal from non-tonal because clear pitches appear in all of the thirteen articulations in a favoured register which is around the D5 - F♯5 (this register is present in all but the articulation XII).

As stated earlier in this section, perfect simultaneity is an aspiration rather than an aural reality, particularly when the action is framed by a time-domain of ~1/10 and ~3/4 of a second. In these single articulations I intended to play with the polarity stability/instability possible in simultaneity. This can be observed with respect to which part of the beat the attacks take place on: nine out of thirteen take place on a (rational or irrational) subdivision of the quaver I-VIII and XIII; the other four happen on a downbeat IX-XII, which suggests that the former articulations will have a lesser chance of being played simultaneously whereas the latter will have a greater chance.

In bars 78-88, I took the last five events that appear as framed on Chart 6.3 and presented their material inverted and retrograded (see Chart 6.4). Instead of presenting this material as synchronised, as with the previous 13 articulations, I decided to ‘compose’ the irregularity in the attacks previously mentioned. This is why most of the single articulations of the individual instruments occur non simultaneously instead of at the same time. It is as if a lens was placed over the five last short attacks of Chart 6.3, thus affecting the synchronisation and the duration of each event as well as the content of each articulation: new elements and features emerge that were previously hidden.

As mentioned above, writing [for] a string quartet implies – consciously or unintentionally – an assimilation of an aesthetically and historically loaded apparatus: style, genre, sound and aesthetics seem to merge into one complex entity if one takes into consideration the string quartets written by composers ranging from late Beethoven to Muri III b by Billone. In an interview with Paul Archbold, Ferneyhough (2012) stated that he distinguishes ‘very carefully

<table>
<thead>
<tr>
<th></th>
<th>XIII' b.78</th>
<th>XII' b.80</th>
<th>XI' b.82</th>
<th>X' bb.84-86</th>
<th>IX' bb.86-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vn.1</td>
<td>pitch - balzando muted string - pizz.</td>
<td>pizz. behind the bridge</td>
<td>jeté on muted string</td>
<td>'normal’ pitch [harmonic]</td>
<td></td>
</tr>
<tr>
<td>Vn.2</td>
<td>pitch - spicc. lengthwise (on 3 strings)</td>
<td>'normal’ pitch</td>
<td>pizz. behind the bridge</td>
<td>clb on muted string [lengthwise - balzando]</td>
<td></td>
</tr>
<tr>
<td>Vla.</td>
<td>pitch - jeté</td>
<td>'normal’ pitch</td>
<td>pizz. on muted string</td>
<td>clb on muted string</td>
<td>lengthwise</td>
</tr>
<tr>
<td>Vc.</td>
<td>‘normal’ pitch [tremolo] balzando - as high as possible</td>
<td>as high as possible - harm. gliss</td>
<td>'normal’ pitch [tremolo]</td>
<td>bowing behind the bridge</td>
<td></td>
</tr>
</tbody>
</table>

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24
between string quartets and other pieces for two violins, viola and cello; because I think one needs to - historically speaking’. If one adds the institutional weight of festivals and of string quartets as ensembles, the situation becomes more problematic: one can legitimately wonder whether the composer chooses to write for such a body or whether, on the contrary, it is an institutional imposition.

At the time I was working on *Silber / Strom* I had not found any satisfactory answer to the above. As a result, I decided to elude the issue by choosing to include both the set of tingshas and the voice as complementary fabrics of the musical architecture. I believe that by taking the string quartet as a group of four people who engage with different types of sounds, the burden of dealing with such a historically loaded body was reduced.

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29 Yet curiously enough, the scores of both pieces are labeled as string quartets.

30 For instance, in the 2010 edition of the Donaueschinger Musiktage the string quartet was at the centre of the festival: three major string quartets premiered a series of pieces by diverse composers such as B. Ferneyhough, J. Dillon and P. Manoury, among many others. More information on the programme of the festival can be found on www.swr.de.
7. *su – atS*  
(for bass clarinet, percussion and cello – 2013)

All instrumental sounds share the feature that, regardless of their source, their inner timbral qualities are naturally uneven: their spectral content is in constant transformation from the moment the sounds begin until they become extinct. Fig. 7.1 exemplifies a spectral analysis performed on AudioSculpt software of a low alto flute note: the lowest (fragmented) line is the fundamental sound, whereas the upper electrocardiogram-like figures are the higher partials tracked by the software (the x-axis represents time and the y-axis frequency). I include this example to show the statistical behaviour of the sound components, regardless of how continuously our ear perceives them. In this project, I explore the expressive potential of such unevenness, especially if placed under scrutiny. Moreover, I questioned the possible connections between unevenness and what could be referred to as ‘fragility’ and its implications in the realm of dynamics.

![Fig. 7.1 – Spectrogram of an alto flute’s low B flat.](image)

7.1 Dynamics and unevenness

Working with aphorisms and thinking of music as if in the ‘constant present’, without intending to further develop the musical ideas, places the focus on the production of a sound *per se* and its unfolding through time. This, in addition to the uneven nature of sounds mentioned above, led me to consider how degrees of ‘fragility’ could become a parameter upon which music could be composed.

Initially, I set to define what features facilitated or invoked ‘fragility’ for me and concluded that:

1. ‘fragility’ is more evident in softer sounds;
2. it usually involves ‘broken’ sounds, e.g. those with a granular quality;
3. and/or a latent risk of that sound not resulting as indicated in the score.

In addition to this, fragility would also be a result of the relationship that the performer would establish with his/her instrument(s): some un-ergonomic positions entail a psychological friction that has a direct impact on the sound. This type of relationship tends to lead to ‘broken’ sonorities which could even imperil the possibility of obtaining the desired sound at all. Regular contact with the instrumentalists allowed me to thoroughly explore different technical possibilities and evaluate how ergonomic (or not) the sound-production was. At the same time, and by means of a combination of both descriptive and prescriptive notation I was able to include a further element that added another layer of friction, this time between the performers and the score (which can be observed mainly in the cello part). Examples of ‘fragile’ sounds can be observed in Fig. 7.2, Fig. 7.3 and Fig.7.4.

Both ‘fragility’ and a high degree of unevenness are deeply connected to the intensity (amplitude) with which a sound is produced: the softer the sound, the more fragile it becomes and the easier it is to ‘break’ it. This perceptual characteristic led me to oppose long soft sounds with short loud ones. As such, longer sounds (sounds that are more than a single brief articulation) use a dynamic range between \textit{pppp} and \textit{mf}. In turn, the louder sounds are short articulations (e.g. slap-tongues, \textit{pizzicati} and strokes on a muted Tibetan singing bowl) and range from \textit{mp} to \textit{ff} (of which there is only one instance, at bar 80). Yet short and soft attacks are also present and play an ambiguous role between merging with, and detaching from, the texture. Of course, this explanation is schematic and intends only to provide a rough framework that explains the broader features of my compositional ideas; e.g. there are both \textit{crescendi} in long sounds that exceed the \textit{mf} indication and ‘f’ (between quotation marks), which denotes playing as loudly as possible in the given context.

The opposition of ‘long/soft’ versus ‘short/loud’, which I describe as a polarisation between ‘texture’ and ‘punctuation’, allowed me to play with the positioning of the punctuation element(s) to contrast with the texture. For example, in the first two bars which form the first aphorism\textsuperscript{31}, the punctuation element (the higher Tibetan bowl being placed on top of the lower one) cuts the texture formed by the bowls, cello, air sound of the bass clarinet and silence. Thus this corresponds to a conventional employment of punctuation (i.e. at the end of a statement), but in

\textsuperscript{31} A formal explanation of \textit{su– atS} will be detailed in the next section of this section.
other cases, as it is in the aphorism IX which comprises bars 83-91 (Fig. 7.5), all punctual elements from the bass drum and the cello intend to create a different fabric that contrasts with the texture generated by the glasses and the superball on the bass drum patch.

Fig. 7.5 – Texture v punctuation, bb.83-86.

7.2 Shape and material

su – atS does not propose a harmonic language – there are neither chords nor clear melodies at any point of the piece; rather there is a prevalence of sounds with indeterminate pitch, and the pitches that were included result mostly from an interplay with the fundamental sounds of the Tibetan bowls or the low Thai gong (both of which are approximations to tempered pitches). Moreover, the sound-palette I aspired to employ throughout the piece offered so many possible composites that the music ran the risk of becoming a sort of catalogue of complex timbres. These two factors (the lack of harmonic/melodic substance and the countless combinations of timbres this instrumentation suggests) propelled me to find alternatives to limit the material. Hence qualities such as ‘unevenness’ and ‘fragility’, as well as the dynamics they imply, were given strong structural relevance in the creation of sound-constructions and aphorisms.

su – atS consists in a series of fifteen singular aphorisms located in the piece as follows:

I bb.1-2; II bb.4-24; III bb.26-31; IV bb.33-61; V bb.63-67; VI bb.69-71;
VII bb.73-76; VIII bb.78-81; IX bb.83-91; X bb.92-99; XI bb.101-112;
XII bb.113-137; XIII bb.138-145; XIV bb.147; XV bb.148-154.

As in previous pieces such as Deshielo / Laissez vibrer and Silber / Strom, though the material deployed throughout the piece belongs to a restricted sound-palette, there is no repetition within each aphorism, in the sense that each one maximises ‘unevenness’ and ‘fragility’ in its own context. Yet whereas in Deshielo / Laissez vibrer the
succession of aphorisms tended towards a gradual dissolution of the music, in su – atS I aspired to avoid causal relationships between the aphorisms by composing and subsequently placing them in a fully intuitive fashion and without an overarching system that would scaffold the piece.

Most of the aphorisms are separated from each other by pauses: they occur in ten out of the fourteen spaces. These pauses serve as unmeasured formal breaks that contribute to frame the events and hopefully discourage the imaginary auditor from establishing correspondences between the aphorisms. As indicated in the reference instructions page in the score, the pauses are left to the performers’ (ultimately to the conductor’s) discretion but they should last at least three and not exceed eight seconds, which I consider a suitable timeframe given the proportions of the piece. Silence, or the lack of any deliberate activity from the performers, was the simplest solution that would support each aphorism’s isolation. However, there are four instances where no silence is deployed, namely between aphorisms IX-X, XI-XII, XII-XIII and XIV-XV. This is justified for the following reasons:

1. A deliberate avoidance of rigidity within the system: as mentioned with regards to Relieves, I value approaches towards composition that are not fully reliable and which are susceptible to ‘corruption’ at some point, so that I am free to act within a series of self-imposed constraints.
2. In the case of aphorisms IX-X and XIV-XV, I considered there was already sufficient silence separating the ideas and thus decided to favour continuity instead of fragmenting the music further.
3. In the case of the junctures between aphorisms XI-XII and XII-XIII, where there is a tempo change, I chose to contrast the music in terms of speed rather than dividing the music by means of pause.

***

In su – atS the exploration of the opposition of restriction of material to non-predictability, informed my conception of musical ‘fragility’, contributing to an overarching sense of coherence. The experience of writing this piece has opened new sets of questions for future projects with regard to balancing systematic and non-systematic approaches towards composition and makes me consider, in case I continue to employ aphorisms as a formal structuring device, how different sections are to be separated.

By replacing a focus on harmony and melody by less inspected parameters such as ‘fragility’ and ‘unevenness’ within the frame of the ‘constant present’, I have discovered a new temporal sphere in which minor variations in timbre acquire a new expressive dimension, all of which will be explored to a greater extent in the alto flute piece In tueri I.
8. *w / brennt*  
(for ensemble – 2013)

In the ensemble piece *w / brennt*, I expand an idea originally presented in *Deshielo / Laissez vibrer*, where I gradually moved from teleological to aphoristic sections. In *w / brennt* I include a third type of section designated as textural. Here I refer as tonal to those parts that in another context might have functioned teleologically. This is due to the fact they lose their directionality in the context of this piece. The main difference with *Deshielo / Laissez vibrer* is that instead of gradually shifting from one type of section to another, the three types of sections (aphoristic, tonal and textural) appear slightly more disordered, which allows for greater contrast. I also continue to work on a series of polarities that helped me to organise the musical material. As a result, axes such as vitality/contemplation, tonal/non-tonal and hierarchical/horizontal, among others, encompass a frame of reference that provides a balanced degree of freedom and restriction. However, there is one polarity that governs *w / brennt* and that is expressed by the opposition speculative/intuitive. This directly links to Lachenmann’s concept of ‘magic’, as explained in the introduction: I identify magical elements in intuitively composed sections, and the ‘break of the magic’ in the speculative ones.

8.1 Polarity 1: speculative/intuitive

*w / brennt* starts by exploring the duality intuitive/speculative in the sense that some sections of music were conceived by spontaneously reacting towards the material while others were calculated with the assistance of Open Music software. Although both extremes appear often in their purest forms, many of the sections were composed combining both approaches, favouring a more intuitive approach in some sections and strict calculations in others. The aim with both the intuitive and speculative approaches is to provide musical discontinuity and fragmentation that would condense emotional intensity into extremely brief and ephemeral instants, so that the moment they are recognised as such they immediately vanish. Such discontinuity occurs both within each section, as part of the relations established between the elements, and between the sections. *w / brennt* alternates 23 single textural, aphoristic and tonal sections, as well as combinations of these three (see Charts 8.1, 8.2 and 8.3); while the textural and aphoristic sections were composed intuitively, the tonal ones were created using Open Music.

As can be observed in the three charts below, each section has its own sonorous identity, which is not repeated more than three times consecutively. This contributes to a fragmented organisation of the music, as each section manifests its own individuality, which though related to the whole, is not dependent upon the other sections.
The relationship between these sections and the polarity intuitive/speculative is shown in the following diagram:

![Diagram showing sections and polarity intuitive/speculative]

Chart 8.1 – Sections and their identity.

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<tbody>
<tr>
<td>Texture</td>
<td>bb.1-11</td>
<td>bb.13-17</td>
<td>bb.19-31</td>
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<td>bb.32-35</td>
<td>bb.37-40</td>
<td>bb.42-43</td>
<td>bb.53-62</td>
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<td>Tonal/texture</td>
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<td>bb.45-51</td>
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Chart 8.2 – Sections and their identity (cont.).

<table>
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<th>12</th>
<th>13</th>
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</thead>
<tbody>
<tr>
<td>Texture</td>
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<td></td>
<td>bb.66-69</td>
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<td>bb.61-65</td>
<td>bb.80-86</td>
<td>bb.102-106</td>
<td>bb.107</td>
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<tr>
<td>Tonal/texture</td>
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<td>bb.92-101</td>
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<tr>
<td>Aphorism/tonal</td>
<td></td>
<td></td>
<td>bb.70-79</td>
<td>bb.87-92</td>
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Chart 8.3 – Sections and their identity (cont.).

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<thead>
<tr>
<th></th>
<th>17</th>
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<tbody>
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<td>Texture</td>
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<td></td>
<td>bb.150-184</td>
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<tr>
<td>Aphorism</td>
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<td></td>
<td></td>
<td>bb.109-113</td>
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<tr>
<td>Tonal</td>
<td>bb.114-120</td>
<td>bb.121-124</td>
<td>bb.133-141</td>
<td>bb.142-149</td>
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<td>Tonal/texture</td>
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<tr>
<td>Aphorism/tonal</td>
<td></td>
<td></td>
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<td>bb.125-132</td>
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The concept of textural identity of the material was borrowed from Lachenmann’s fourth ‘sound-type’ (Klangtyp), the sound-texture (Texturklang), where individual single articulations contribute to providing a concrete identity to the sounding whole, which is in turn characterised by its fully arbitrary duration. ‘In this sound-type’, Lachenmann (1966/1993) explains, ‘the self-time has spread in an indeterminate way. The characteristic of
the sound-texture is that its individual features… can constantly be modified… without repeating’\textsuperscript{32}, while keeping at the same time its identity. In the case of the textures presented as sections of this piece, the metaphorical and sounding reference I had in mind was that of ‘wood creaking’. This aural restriction led me to use short attacks in all of the instruments alongside different wooden sonorities, covering every beat in different subdivisions in order to create a homogeneous yet unpredictable fabric. Eventually some longer sounds start to emerge, creating a second layer that disrupts the texture. This can be observed, for instance, in section 1, in the bass flute (bb.3, 9 and 14), the lion’s roar (bb.7 and 24) and the lowest tom-tom being rubbed with a superball (bb.9-11 and 27-28).

The aphorisms occupy most sections (9 out of 23) and they were conceived similarly to other pieces in this portfolio; yet it is important to point out that, in contrast to the textural sections, their 'self-time' (the time they take to be experienced as such) coincides with their temporal duration. In terms of the material, the aphorisms in \textit{w / brennt} take elements from the textural (non-tonal sounds) and from the tonal sections (pitches). In addition to this, two features remain constant throughout all nine of them:

1. Their construction follows a determined sonorous reference, namely wooden, metallic or air, as evidenced by the predominance of the instrument types and their mode of performance. Section 4 consists of a wooden sonority governed by the fully muted marimba in its lowest register; in contrast, section 6 presents a metallic sonority due to both the lowest and highest sounds, which are the Thai gong\textsuperscript{33} and the crotale respectively.

2. Their organisation along the axis dryness/resonance, which helped me not only to compose resonant (6, 12 and 17) and dry (4) sections, but also to explore the space between these extremes. As a result, some aphorisms begin dry and end resonant (5 and 8) whereas others take the opposite journey (9, 15 and 16). The amount of resonance and whether it is a product of the instrument’s nature (such as the crotale’s own decay) or a ‘composed’ resonance (bowing as high as possible on a string instrument) were also taken into account when constructing the aphorism. Another consideration was the speed at which they change from dry to resonant (or vice versa).

An instance of ‘magic’ being broken takes place in the music comprised between sections 5-7. Here, some of the material that was presented in the previous textural sections is used to form aphorisms. Gradual tonal elements start to appear on the fore, each playing a crescendo (e.g. the cencerro in bar 38 and the oboe and crotale in bar 43). Bar 45 constitutes an intense moment (mostly governed by non-tonal material) after which the piano plays a B5 in \textit{mf} with the sustain pedal pressed down. This sound provides a magical moment emphasised by both


\textsuperscript{33} Which has significantly more body than the 4\textsuperscript{th} string of the double bass being played lengthwise.
its brightness and its dynamic shape that contrasts with the previous tonal material: after the attack, instead of a crescendo, the piano’s sound extinguishes. Instead of letting that B5 ring alone, I immediately include a cencerro as well as additional single piano articulations (b.48), which are responsible for breaking the magic created by the B5.

Tonal sections were composed almost entirely by programming a patch that performs a series of stochastic decisions upon some fixed pitches and durations in Open Music. The timbral explorations from the aphoristic sections were shifted to a second layer allowing thus pitch, register, rhythm and dynamics to move to the fore.34

Two combinations appear from merging tonal, textural, and aphoristic sections:

1. Aphoristic and tonal (7, 11, 13 and 20);
2. Tonal and textural (section 14 and 23).

In the first type of combination, aphoristic and tonal materials appear as superimposed layers, as if each layer had been composed on tracing paper. This allowed the emergence of disruptive sounds, as can be observed in section 13 (bb.87-92), where the resonances of the piano (activated by the dyads on the left hand) were placed at the background, thus permitting non tonal material to occupy a central role.

It is important to differentiate between aphorisms that employ pitches, and sections in which the tonal material is either juxtaposed to or superimposed on textures or aphorisms. In the former, I conceived the pitches to be integrated intuitively into the rest of the sounds: they interact with the other less tonal sounds and result in complex sound-constructions with one determined identity. Conversely, in those sections that are a result of combinations, the tonal material (which is mostly calculated with Open Music) forms an independent fabric.

In the second type of combination, sections 14 and 23 differ in the way they deal with the material: section 14 juxtaposes both materials and section 23 merges textural and tonal elements. In section 14 what appears to be a punctuation sound on the violin on bar 97 (arco balzando on muted 3rd and 4th strings) that marks the end of the tonal part is also the beginning of a two-bar long texture that refers to the start of the piece: short sounds articulating in different subdivisions of every beat until a stronger punctuation element (the low Thai gong) cuts through the texture. The ambiguous role of the violin is responsible for the indivisibility of both parts in spite of their dissimilar qualities. Whereas the tonal subsection was mostly calculated, the textural one was composed intuitively.

The ending of w / brennt (section 23) forms the largest part of the piece and, instead of juxtaposing the two sources of material as in section 14, textural and tonal elements (contained mostly in the bass flute, but also in the oboe, bass clarinet, cencerros and the crotale) are merged into one fabric. This section has two parts that present on the one hand the tonal material and on the other the phonemes, an element that appears for the first time in the piece. These phonemes substitute the previous tonal elements and form, alongside all instruments but the violin and the

34 An explanation of how these sections were programmed and composed will be detailed in the next part of this section.
viola, an imaginary language. In turn, the violin and the viola generate the texture from which that imaginary language emerges. The sounds from the violin and viola are directly related to the beginning of the piece where the ‘creaking wood’ was the aural reference: the short articulations in the entire ensemble are now being replaced by a continuous action behind the bridge that results in an extremely unstable sound that substitute the single articulations of the beginning.

### 8.2 Polarity 2: software/hardware

All the tonal sections were composed with the assistance of a patch developed in Open Music that is represented in Fig. 8.1. The row of five ‘voices’ are sub-programmes that perform exactly the same calculations, varying only in the values that delimit some random functions applied to pitches and durations. In other words, all of the five ‘voices’ share the same pool of pitches and rhythmical values, differentiating from each other in terms of the probabilities for each individual pitch or rhythm to occur.

Fig. 8.1 – View from the five independent

The boxes in Fig. 8.1 delimit the following:

1. The pool of durations in milliseconds. Its musical equivalent has been transcribed in Fig. 8.2, where each of the ten bars corresponds to each of the ten subgroups comprised between brackets in the pool of durations.\(^{35}\) As an example, the content of the first subgroup equals two

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\(^{35}\) The equivalent of a crotchet is 1000 milliseconds; rests are symbolised as negative values.
articulations (a crotchet tied to a demisemiquaver [1125] and a demisemiquaver [125]), followed by two rests (one of a semiquaver [-250] and another of a quaver [-500]).

2. The probabilities of these durations occurring, where the larger the value, the greater the chance for the correspondent rhythm to take place. For example, in ‘voice 1’ the rhythmical value that has the greatest chance of occurring is the one located at position 8 of the pool of durations, which coincides with a value of 8.

3. The total duration of the section (in milliseconds).

4. Additional values required for the programme, for example: short/long; divisor; transposer, etc.

Fig. 8.2 – Pool of durations: musical representation (the metronomic indication should be disregarded).

Fig. 8.3 shows the core of the patch, which is the programme contained in each of the five ‘voices’. Here, the values displayed in the number boxes of Fig. 8.1 are assigned to their respective objects. m-rhythm, the object that calculates the rhythms, operates by selecting a duration randomly from the pool of durations and annexing it to the result until the full section’s duration is reached. These random selections are made following the principles of a Markov process that postulates that some events are likelier to occur than others. ‘How likely’ is defined by the probability table: the higher the number, the greater the chances for a rhythm to occur. Once the rhythms are calculated, their numerical values are sent to a note-counter that discriminates between articulations and silences, discarding the latter. The articulations are in turn assigned to pitches which are chosen, following a controlled random process, from a series of chords which were generated through FM synthesis technique (also performed by Open Music – see Fig. 8.4, 8.5 and 8.6). To exemplify this, a close inspection of section 18 will reveal that the pitches were taken from Chord 1. This connection can be seen only at the beginning of the section, because afterwards the pitches of the chords undergo different transpositions which add a greater degree of instability to the music.

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37 As explained when discussing Relieves.
After going through this process, if I considered any result to be suitable musical material for my compositional aims, I re-composed, modified or adapted any part which was not convincing enough, and finally scored the section. Fig. 8.7 displays the result of the calculations that were subsequently adapted in section 20. The closeness between the rhythmic material contained in these three bars and the rhythmic source showed in Fig. 8.2 is evident. To this final result I have added changes (not calculated by Open Music), such as rhythmic adjustments, change of octaves and the incorporation of new material. This stresses the importance of both flexibility and the ability to corrupt material at any stage.
Fig. 8.7 – Raw material that forms a part of section 20 (the metronomic indication should be disregarded).
9. In tueri I
(for alto flute – 2013)

In tueri I is the first work of a collection of solo pieces and is part of an on-going project: part of the In tueri cycle includes (or will include) pieces for two Tibetan singing bowls, solo violin and solo piano. Similarly to Diáfano, In tueri I benefited from working closely with a performer, in this case the Latvian flutist Ilze Ikše. As such, the piece’s concerns are also related to the musical connection the performer established with her instrument, as well as to the polarity effortless/effortful, which was explained when discussing Diáfano.

9.1 Austerity and expression

When working on In tueri I, my main concern was to strip out any ornamental or decorative elements in order to retain just the ‘essential’, so that I could intensively explore the expressive potential that individual sounds could have when performed in specific registers and in a particular fashion. In this context, the following elements were considered ornamental:

- any melodic contour capable of evoking a determined pathos;
- harmonic contexts that suggests a system;
- extended techniques normally used as punctuation, like tongue rams, key clicks and pizzicati;
- other techniques that stand out due to both a) their use lately as part of a collection of effects that has become idiomatic for solo flutes and b) the quality of their sonority; e.g. jet whistles, whisper tones, complex multiphonics and multiphonic trills; and
- spoken voice and singing while playing.

In turn, the ‘essential’ core consists of ‘simple’ sounds formed by a closed set of single notes and dyads with a resemblance to sine waves: pure and periodic sounds with spectral qualities that do not change over time.

I deliberately avoided any decorative layers on top of the essential sounds, for the following two reasons. Firstly, those layers would become cosmetic, and hence redundant since they would be intrinsically dependent on the essential elements. Secondly, the layers could become ‘suffocated’ by my own compositional ambitions, for I believe that a great amount of composers’ mannerisms tend to appear in the decorative strata. Thus I problematised the degree of closeness I should adopt in relation to the material and aimed at detachment, as if I would be almost absent from the compositional process. In other words, I aspired to limit myself as much as possible while composing In tueri I, in order for the performer to deepen the relationship with the ‘un-moulded material’ even further. Yet the simplicity of the material does not imply that In tueri I is a simple piece in terms of its performance:
the renunciation of any evident virtuosity is only fictitious, for this piece ends up being a demanding one, a feature that I believe ultimately contributes to its expressive nature.

The difficulty in In tueri I does not reside in the chronometric density of the material nor in any acrobatic action of the performer. It rests in the friction that un-ergonomic positions create in connection with some desired sounds (as in Fig. 9.1, where the given fingering hinders the production of the upper partials); in the fragility in balancing all dyads (for example Fig. 9.2, in which the E4 as fundamental is almost too high to produce such dyad); in measuring the time each section needs and in balancing the dynamics not only within the sections but also throughout the piece. All these elements that endanger a coherent realisation of the music are at the same time the very source of expression of the piece.

This latent instability that governs In tueri I allows the emergence of micro-variations in the sounds which are not indicated in the score, and consist of those ‘accidents’ that are product mostly of the position of the mouth and lips as well as involuntary pressure of the diaphragm. These uncontrolled appearances complement a set of slightly more controlled micro-variations included in the score. These are formed mostly of different fingerings/harmonics to obtain a similar pitch (as in Fig. 9.3 and Fig. 9.4), *bisbigliandi*, microtonal *glissandi* and different ways of covering the embouchure. While listening to the piece, these two types of micro variations become particularly meaningful because of the context in which they are inserted: a general stasis in both pitch- and in rhythmic-domains.

9.2 Stasis and dynamic perceptions

Issues related to an imaginary listener’s predisposition towards a musical piece were at the centre of the compositional process. Of particular importance was the degree of attention one should pay to the sounds that are being played: how much attention does the material itself demand? For instance, in Deshielo / Laissez Vibrer, I believe that the level of attention demanded increases towards the end, when the aphorisms start to appear: quieter sound-constructions gradually start to emerge within the shorter sections, mostly separated by pauses. In *w / brennt,*
on the other hand, each section requires a different set of predispositions from the listener’s perspective: at certain points the material demands a closely focused attitude while at others a more panoramic view.

Superficially In tueri I is arguably ‘static’ and ‘contemplative’: the material does not develop, rhythms do not propel the music towards any resolution of any tension and the fragility of the sounds employed in combination with an overall quiet dynamics (which in turn are brought to relief by long silences) seem to provide the perspective of a distant observer rather than an active participant. Yet I believe that there is also a hint of an alternative on how to regard/hear this piece, which is brought about by those micro-variations described above: these somehow define the ‘thickness of the lens’ through which this piece could be perceived. As stated by Lachenmann: ‘in the compositional work it is not primarily about new sounds but a new way of hearing.’

The polarity that governs the music – both at macro and microscopic levels – is thought to occur primarily at the esthetic sphere rather than at the poietic one, which is connected to my aspiration of withdrawing myself from the compositional process. And since the control of the instant when the perceptual shift happens depends entirely on the listener, I aimed to compose music that was as ‘flat’ as possible, so that the listener could allow the shift to take place at any point. This explains why I allowed repetition of music, something I had avoided in the other pieces. On the one hand, this contributes to flatness as it neutralises tension; and on the other hand it allows the performer to produce new and different types of micro-variations and accidents. There is a further aspect that justifies repetition, namely the need to ‘break the magic’: in the context of the piece, by repeating some material, its uniqueness is washed away.

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38 I differentiate the tension created by the intersection of parameters (rhythm, pitch, timbre, dynamics, density and directionality) from tension that results from the friction that takes place between performer and musical material. Whereas the former implies in traditional contexts a relationship with rest and is usually adjusted to teleological forms; the latter, in the context of this piece, does not: the conflict between performer and material is a result, not a goal.


Fig. 9.3, Fig. 9.4 and Fig. 9.5 show where the controlled micro-variations take place in almost identical sounds: in pitch, duration, dynamics and embouchure (in Fig. 9.5 the embouchure is traditional). In all cases, these parameters provide a high degree of instability to the result, which may contribute to generating unexpected accidents.

9.3 Arbitrariness and context

By allowing a dual perspective on the piece (both at macro and microscopic levels) in which the listener could decide when to switch from one type of perception to the other, I had to think of a formal approach that could sustain both perspectives simultaneously. In other words, I had to consider the meaning of form from the esthetic point of view given that two interdependent fabrics coexist with identical material at different temporal levels. Bourriaud’s (2002) definition of form as ‘a coherent structure (independent entity of inner dependencies) which shows the typical features of a world’ balances flexibility to include both perspectives and accuracy to address its actual meaning. Form, he adds, brings ‘heterogeneous units together on a coherent level, in order to create a relationship to the world’. Bourriaud’s theoretical framework (thought to be applied to visual arts) fitted with my aspiration to create musical discontinuity: by avoiding processes that would connect dissimilar units, it is (in the poietic sphere) the concept of coherence that will relate these units to the whole, whereas in the esthetic range the performer should be added as a further unifier of the whole.

What does coherence mean in the context of a piece of music that pursues fragmentation, nonlinearity and non-teleological structures? In traditional contexts, coherence addresses a multiplicity of categories at different layers: ‘the composer remained coherent to the governing principles of the piece’, ‘the material was coherently arranged in terms of the relationships established between the elements’, ‘the piece is coherent to the corpus of works to which it belongs’, etc. Ultimately, there appears to be a degree of truth when affirming that something is coherent (in this case that thing being a piece of music).

In In tueri I, as well as in the previous four pieces of this portfolio, I have understood coherence to be an awareness of the level of arbitrariness with which composers reckon when it comes to creating worlds. Regardless of any system, the multiplicity of options that are at hand is so vast that the only way to assimilate such variety is by emphasising the arbitrariness of the moment in which decisions are being made: a slightly different context when composing would have resulted in a completely different piece. This explains why I have chosen to include in some scores the geographical location in which the piece was written: in addition to the year, it provides a small clue of the context of work that determined the features of the piece.

42 op.cit. p. 111.
It has always surprised me how at one extreme there are endless possibilities of sound combinations and at the other extreme (in the esthetic sphere) there is only one possible result, which is decided by either the composer or the performer. As such, it is hard for me to rely on systems that claim to counterbalance these two extremes, which explains why in *In tueri I*, I have opted to shift towards a completely non-systematic compositional approach, concentrating on the conditions of the moment in which I was working: a system as a result of non-systems. The name ‘In tueri’ comes from the Latin root to the voice ‘intuition’ which means ‘to look at’. This coincides with my intention of focusing on the perception of the piece – on that one and only sound-result that was favoured from a pool of infinite possibilities at an arbitrary moment.

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42 Taken from *Merriam-Webster Online*, (n.d.) Available at: [http://www.merriam-webster.com](http://www.merriam-webster.com) [Accessed 28 December 2013].
10. Conclusion

Throughout this commentary I have attempted to outline how and why I have departed from continuous forms and moved towards discontinuous ways of structuring music, a detachment that has allowed me to discover, explore and incorporate new musical parameters. The later five pieces, while responding to the problems and issues identified in the earlier three, share a search for expression through fragmentation. Yet there is a further way, a non chronological one, in which the compositions are interconnected, which is by means of the sound sources.

In Diáfano and In tueri I, working closely with the performers permitted me to explore the relationship between person and instrument: each piece setting different types of difficulties and challenges to the performer. Whereas the bass clarinet piece is acrobatic in terms of its melodic and registral contrasts, rhythmic motion and dynamic directionality, the alto flute piece requires the performer to hold and sustain long sounds with as little variation as possible.

The two large-ensemble pieces are complementary in that one deepens the searches proposed by the other: w / brennt expands the framework of Deshielo / Laissez vibrer. Whereas in the latter the connection between the sections is achieved through a process, in w / brennt it is not, for a third type of section is included (the textural) and the teleological sections (now tonal) lose their distinct directionality, resulting in three types of sections that are juxtaposed.

The other four ensemble and chamber pieces progressively lead to a parametric equalisation: pitch and rhythm give room, among others, to texture, timbre, dynamics, ‘fragility’ and ‘unevenness’. In Relieves, the central element is the main chord, which governs almost the entire piece; rhythm, in turn, accelerates or slows down the energy in the music. All other parameters are subordinated to these two.

Through the incorporation of sound-constructions in Contornos. Transparencias. Gradaciones., timbre comes gradually to the fore as a parameter that assists in creating and organising the sounds. The musical directionality intended in Relieves is a less relevant factor in Contornos. Transparencias. Gradaciones., as its reliance on ‘stationary waves’ implies musical stasis at points of the piece; although still present, the necessity of releasing tension begins to be questioned, at least in those static pockets.

In Silber / Strom the neutralisation of pitch and rhythmic hierarchies reaches a point in which the sections formed by sound-constructions outnumber the tonal ones. In addition to this, and concomitant with the fact that pitch is not as central as in Relieves, a largely intuitive approach governs its pitch organisation.

Finally, in su – aS I deliberately avoid the use of chords and melody in order to pursue, from a different angle, ‘fragility’ and ‘unevenness’, two concepts that expand the palette of parameters. Thus, the search for expression is adjusted to my needs.
Approaching what Lachenmann refers to as ‘magic’ allowed me to enter that grey area that bridges the intuitive with the speculative, the spontaneous with the reflective. So far I have come to the conclusion that it is not about choosing one side or the other, but about marrying the two ends. The corresponding ‘break of the magic’ became as necessary as ‘magic’ itself, as it forced me to abandon any comfortable positions and reflect critically about the material and its deployment throughout a piece. ‘Magic’ is a loose term and the identification of ‘magical’ moments in a piece can also be vague, yet it is often clear for me when a ‘magical’ moment occurs and when it eventually breaks. However I have not intended to impose on the listener the burden of recognising moments conceived as ‘magical’: the duality has served merely for poietic purposes. Yet if identified at the esthetic level it would reinforce the listener's connection with the piece.

This portfolio of compositions arouse from my critical reflections on the constructive possibilities of musical pieces through the polarisation expressed in the opposition between teleological and aphoristic forms. I believe its most significant contribution relies in the integration of these two ways of musical unfolding, which resulted in the coexistence of two distinct types of musical logic within one single piece. Having departed from teleological forms and shifted towards aphoristic ones eventually resulted in a number of works where both ways of structuring music are present in the same piece. This can be observed particularly in the two large ensemble pieces Deshielo / Laissez vibrer and w / brennt. On the one hand, such coexistence provides new tools for deploying compositional schemes that could result in new expressive resources. On the other hand, this fluctuation between the microscopic and panoramic views emphasises the perceptual alternatives an imaginary audience could rely upon.

To articulate music in these terms has helped me to re-consider the relationship between tension and rest and by doing so it proved to me that discontinuity and interruption are vast and meaningful resources. By exploring slight deviations of apparently unchanging fabrics I have observed that expressivity is attainable by ‘adjusting the lens’ to a sort of ‘constant present’. Thus fragmentation has allowed me to acquire a certain degree of awareness of the arbitrariness related to decisions that affect the music.
Bibliography


Available at www.claussteffenmahnkopf.de. [Accessed 20 November 2013].


Scores and Recordings


relieves

(2010)

for ensemble

matías hancke de la fuente
relieves

Instrumentation

Oboe
Clarinet in B♭
Bassoon
Horn
Piano

Performance notes

Accidentals apply throughout the bar
Wind instruments should play without vibrato unless otherwise indicated
♩ ♪ Quarter tone flat/sharp respectively
bisb. bisbigiando - find alternative fingerings to the given note. Slight microtonal variations are expected to occur
M Multiphonic sound
■ air sound
— 'exponential' crescendo
— crescendo dal niente
— diminuendo al niente

The score is in C

Duration: ca. 8' 30"
relieves

matias hancke de la fuente
(2010)
Diáfanano

for bass clarinet in b flat

matías hancke de la fuente - 2010
Performance notes

the performer should play without vibrato unless otherwise is indicated
accidentals apply throughout the bar only

---
: dal niente/ al niente

The upper line above the central staff serves to indicate Inhaled non-pitched sound (also indicated as I),
whereas the lower one for exhaled non-pitched sound (also indicated as E)

■ : air sound
▽ : kiss sound
✦ : sing inside of the instrument [also accompanied by the letter 'v']

v+rf : voice + random fingering, which should colour the note sung by the performer
R, F, T : voice - consonants

▼ : combine air and pitched sound

\( \) : 'exponential' crescendo

M/ F : multiphonic/ fundamental sounds respectively
sha! : glissando of harmonics while keeping the fingering of the fundamental sound. When the highest
partial is reached, loose the embochure and pronounce sha! The result should be a very violent,
undetermined and high sound.
ió : pronounce this phoneme short and accentuated with a slightly loose embochure

\*\* : any multiphonic sound (choose the most comfortable and effective one)

Approximate duration: 8'00"
X 4/4

F (kiss) sound + key click ca 5' gradually into the multiphonic

\[\text{mp} \rightarrow \text{mf} \rightarrow \text{ff} \rightarrow \text{f} \rightarrow \text{pp}\]

3/4

\[\text{mf} \rightarrow \text{fp} \rightarrow \text{mf} \rightarrow \text{f} \rightarrow \text{mf} \rightarrow \text{p} \rightarrow \text{mf}\]

5/4

\[\text{mf} \rightarrow \text{sfp} \rightarrow \text{sfp} \rightarrow \text{p} \rightarrow \text{mf}\]
contornos. transparencias. gradaciones

for four performers

matías hancke de la fuente

(2010)
Performance notes

In general

the instruments should be played without vibrato

> dal niente/ al niente

“exponential” crescendo

gradual modification of the sound

accidentals apply throughout the bar only

Flute

■ “coloured” air sound

\[ \text{inhale - exhale respectively} \]

k, t, p consonants to be pronounced at the beginning of the sound

\[ \text{combine pitch and air sound} \]

\[ \text{bisbigliando: alternative fingering of the same note - microtonal deviations are expected to occur and should be favoured} \]

\[ \text{jet-whistle} \]

\[ \text{whisper tones} \]

Strings

clb col legno battuto

SP1 SP2 normal sul pont. and molto sul pont. (fundamental tone should not be perceived) respectively

AST ST alto sul tastò - sul tastò

□ muted string(s) - should not create a tonic sound - only “white noise”

\[ \text{extra pressure on the string - the sound should be a scratch} \]

× play behind the bridge

♭ Bartòk pizz.

Piano

\[ \text{press key without producing any sound} \]

+ mute the indicated string with a finger inside of the instrument

Harmonics trill:

\[ \text{with a rubber in one hand mute the indicated strings. The other hand should play normally as indicated. Move the rubber alongside the string to create harmonics - especially between the end of the string next to the performer and the first octave, but for best results, the pianist should explore the most effective area to work.} \]

rubber - ca. 4 cm long.

piece of cardboard - ca. 20” long.

\[ \text{strike the strings with a hand approximately in the given register} \]

Instrumentation

Flute

Violin

Viola

Piano

Duration: ca. 8 min.
Deshielo / Laissez vibrer

for ensemble

matías hancke de la fuente

2011/ 2012
Deshielo / Laissez vibrer

Instrumentation

Alto Flute
Flute in C
Clarinet in B flat
Bass Clarinet in B flat

Horn

Percussion
1 performer: 1 pair of tingshas, 2 Tibetan Bowls (high– low), 1 Tam-tam, 1 Waldteufel, 3 Temple Blocks, 1 Snare Drum, 3 Tom Toms, 1 Bass Drum, Marimba, Vibraphone, 1 Timpano with a cymbal placed on its head.

Harp

String Quintet

Duration: ca. 8 mins
Performance notes

General remarks:

Perform without vibrato
Trills comprise the upward semitone unless otherwise stated
Accidentals apply throughout the bar
The score is in C
Black arrows imply gradual movement

Woodwinds:

吸入/exhaled respectively
"TI" "FR" "K" "Ha!", etc - consonants and phonemes to be pronounced inside of the instrument (either inhaled or exhaled as indicated). Unless otherwise indicated, always pronounce with some extra air at the end. The "Ha!"s should be inhaled. There are three registers (high, medium and low) that should be adapted according to the conditions of the performer.
  ○ bishiglando. Alternative fingering(s) for the given pitch. Microtonal deviations are expected to occur.

✗ key sound. When several of these noteheads appear simultaneously, it means that all keys should be played

smorzato (smorz.) - lip vibrato. All rhythmic notation is only an approximation.
pizz - pizzicato: short percussive sounds. The performer should decide whether he prefers to perform it with the lips or with the tongue
"sobbing" - imitate the type of respiration when someone is crying.
 ◆ combine air and pitch 50 - 50
  ■ more air than pitch 80 - 20
  + slap tongue
  M stands for any multiphonic sound above the fundamental pitch

Horn

吸入/exhaled respectively
"F" "FT" "SHP", etc- pronounce these consonants and phonemes slightly detaching the embochure from the mouthpiece.
  ○ hand pop - to be produced at the mouthpiece
"sobbing" - imitate the type of respiration when someone is crying.

Percussion

Place a Crash cymbal on the timpano's head. The bell should face downwards. Every tremolo in the timpano will be executed on the cymbal, hard mallets and soft mallets respectively

soft Bass drum stick

Double bass bow

Drumsticks

a brush and a superball are also requested.
Harp

Keys:
**B** - act on the body of the instrument
**P** - use pencil either to bounce it against a string or to perform a "pencil tremolo", which consists in placing the pencil between the given strings and move it as fast as possible.

The action on the lowest C is to scrape lengthwise to that string either with a plastic card or with fingernails.

The cluster means to strike with the full palm as loud as indicated. The register should always be similar: mid-low.

Strings

**strum** strum with the forefinger's nail as close as possible to the bridge according to the orientation of the arrow.

- Left hand should mute the strings without generating any harmonics
- **X** behind the bridge - There are three sub-positions behind the bridge: TP (tailpiece), MID (centre) and BR (bridge)
- **■** muted string, it shouldn't generate any harmonic
- **AST** - alto sul tasto, as close as possible to the fingers
- **ST** - normal sul tasto
- **SP1** - normal sul pont
- **SP2** - molto sul pont
- **SP3** - on the bridge

- **○** circular bowing - alternate fast between ST and SP
- **∧** lengthwise to the string
- **ml** - mezzo legno, **clb** - col legno battuto, **clt** - col legno tratto

Mute all strings in no particular node but in the given register (which is indicated by the thicker line inside of the rectangle - the register are high, medium and low). Perform the gesture balzando, with extra pressure and as fast as possible.

Example,

- Vn 1: bar 66
- Vn2: bar 64
- Vla: bar 11
- Vc: bar 65

- **◮** extra pressure
- **▲** as high as possible
- **△** as high as possible, pressing the string as if it was a harmonic
- **□** fingernail

White arrows indicate how to place the bow in relationship with the string

- **slightly oblique**
- **“normal”**

For the double bass, the keys B and T mean body of the instrument and tasto respectively

The arabic numbers indicate on which string it should be performed
Tam-tam
superball - enhance the central pitch

Perc.

Pizz.

Vln. 1

Vln. 2

Vla.

Vc.

Cb.
place the tingshas on the cymbal
<tempered in A>
su – atS

for three instrumentalists

full score

matías hancke de la fuente

(2013)
Instrumentation

Bass Clarinet in B flat [+ a pair of drinking glasses]
Percussion
Violoncello

Duration:

ca 9'00"

Performance notes

Accidentals apply throughout the bar

\[ \begin{align*}
\uparrow & \text{ Quarter tone sharp / flat} \\
\downarrow & \text{ Three quarter tone sharp / flat}
\end{align*} \]

It should be performed without vibrato unless otherwise is indicated

\[ f \] Exponential crescendo

The score is notated in C

The duration of the pauses is being left to the performers but they should last more than 3" and less than 8"

Bass Clarinet in B flat

Noteheads

■ air sound - unless that it is a sound that changes from pitch to air [or vice-versa] it is notated in the upper staff as no particular fingering is needed.

◆ mix 50/50 between air sound and pitch

× key - sound

⊙ sing inside of the instrument - this sound is always accompanied by 'random fingering' which should be performed simultaneously

▲ [accompanied by a 'T'] - place the teeth on the reed whilst playing the given (approximate) pitch

Techniques

\[ \begin{align*}
\downarrow \uparrow & \text{ inhale / exhale respectively} \\
+ & \text{ slap tongue - if the cross is above a square [■], the result should be a non-tonic sound whereas if is above a 'normal' notehead [●], a clear pitch should be recognizable alongside the percussive sound} \\
⊙ & \text{ bisbigliando [bībī] - alternative fingering to generate a colour trill}
\end{align*} \]

multiphonic sound - explore the partials using the indicated fundamental and following the given contour

Glasses

rub both glasses circularly, creating a continuous [high] sound

clink both glasses
Percussion:

**Instruments**

Crotale - following pitches:

[Diagram showing crotale pitches]

2 Tibetan singing bowls
[pitches are approximated]

1 Thai Gong

Waldteufel

1 low Roto-tom with a China-cymbal that should be placed on his head on the membrane of the roto-tom

1 Bass Drum

**Mallets - beaters**

s.m. - soft mallet

h.m. - hard mallet

bow - indicated with its own symbol

superball - verbal indication

hand

soft timpani mallet - verbal indication

brush - verbal indication

bass drum mallet - verbal indication

gong mallet - verbal indication

**Noteheads and articulation**

× no resonance after the attack

+ mute

**Tibetan bowls:**

place the smaller bowl on top of the larger one [the larger should be facing upside-down] and whilst it rotates on its own axis, it should be moved circularly around the surface of the lower bowl

clink the bowls according to the graphic

place one bowl next to the other
Violoncello:

AST - alto sul tasto, on the fingerboard [if possible close to the fingers]
ST - sul tasto, at the tip of the fingerboard
ORD - ordinario - 'normal' way.
SP1 - poco sul ponticello
SP2 - molto sul ponticello - very close to the bridge
SP3 - on the bridge

clb / clt - col legno battuto / col legno tratto respectively

Noteheads - articulation

- muted string - no harmonic should be produced
- play behind the bridge
- mix between the note and some non-tonic sound (it also appears with a 'normal' notehead [ ] and means the same). The articulation takes place in only one string.
- as high as possible in the given string

Clefs

activity will take place between the bridge and the nut
activity will take place on the fingerboard only
activity will take place between the fingerboard and the bridge - if the action concerns the bow (from ST to SP3 for example) [BOW] will appear on top of the clef but if what will happen is a harmonic gliss [LH] will say on top.
activity will take place on the tailpiece
activity will take place behind the bridge

indicates the region that should be bowed

body of the instrument

In the first three clefs a thick black line may be included. If that is the case, it indicates the approximate region where the left hand should mute the string/s. Example:

Bow's directions

there are three directions where the bow can be oriented:

1) perpendicular [normal bowing]  2) alongside the string [upwards and downwards]  3) diagonal
Violoncello [cont]:

Pizzicati behind the bridge take place in the following positions:

1) close to the bridge -> BR
2) in the middle between the bridge and the tailpiece -> MID
3) close to the tailpiece -> TP

Other symbols regarding pizicati:

- fingernail [or plectrum]
- Bartók pizz
- strum with the back of the fingernails (similarly to the flamenco guitar technique)

The amount of pressure on the bow is indicated with a number close to the symbols of upbow and downbow [\(|\)\]. These numbers correspond to a scale between 1 - 5, where 1 is extremely light and 5 very hard (3 is normal pressure)

\[\text{take the bow with both hands.}\]
\[\text{back to normal bowing}\]

\(\text{s\ u\ -\ a\ t\ S\ was\ composed\ for\ Etchings\ Festival\ 2013\ and\ it\ was\ premiered\ by\ Szymon\ Kaca,\ Laszlo\ Hudacsek\ and\ Sietse-Jan\ Weijenberg.}\]
\(\text{Jeffrey\ Means\ conducted\ it.}\)
su-atS

Bass Clarinet in B flat

Percussion

Violoncello

Tibetan Bowls

each \( \frac{1}{4} \text{ of a full circle} \) on the larger bowl

\[ \text{granular'} \]
hold the bowl with the palm and move that hand circularly [create beatings (vibrato) between the partials]

[p - nf] [nf] [sf - [poco]]
allow the appearance of the highest partials

as exploring microtimbral variations
Silber / Strom

matías hancke de la fuente

(2013)
Instruments:

violin 1, violin 2 (+ set of tingshas), viola, violoncello

Notes:

Accidentals apply throughout the bar
Performers shouldn't play with any vibrato unless otherwise is indicated
Dynamic limits: **pppp** (absolute limit of perception) and **ff** (full sound - avoid any shrillness)

AST: alto sul tastO - close to the fingers of the left hand
ST: sul tastO close to the fingerboard
ORD: ordinario
SP1: close to the bridge
SP2: very close to the bridge - almost touching it
SP3: directly on the bridge

clb / clt: col legno battuto / col legno tratto

The **Clefs** indicate that the action will take place:

- between the bridge and the nut
- on the fingerboard
- if on the lowest system it means voice - spoken word
Clefs:

Left hand:
the thicker line indicates the approximate area where the left hand should mute the string(s). Any additional action by the left hand in the upper system will be clarified with the abbreviation LH.

The arrow indicates the orientation towards which the bow, hand or fingers (right hand) should be moved. There are three orientations: 1) perpendicular to the strings (normal bowing), 2) alongside the strings (longitudinal bowing) and 3) oblique, in diagonal to the strings.

1)  

2)  

3)  

Noteheads:
\[ \times \] behind the bridge
\[ \uparrow \] muted string (no harmonic should be produced)
\[ \uparrow \] play as high as possible on the given string

Noteheads for the spoken parts:
blank: normal - *exhaling*
\[ \uparrow \] *inhaling*

Bow's pressure:
The numbers to the right of the upbow or downbow symbols (✓ / ✓) indicate the amount of pressure with which it should be bowed. They belong to a scale from 1 to 5 (they appear bold), where 1 means as light as possible and 5 extreme pressure; 3 represents 'normal' pressure.
**Bow's division:**
The fraction which appear in italics (see diagram below) indicates the part of the bow to be used.

```
\( \frac{4}{4} \frac{3}{4} \frac{1}{2} \frac{1}{4} \)
```

**Behind the bridge:**
The letters BR - MID and TP suggest where the action takes place;
- BR: close to the bridge
- MID: between the bridge and the tailpiece
- TP: close to the tailpiece

**Other indications:**
- \( \triangleleft \) play with the fingernail or plectrum
- rasgueado - strum with the back of the fingernails (similarly to the flamenco guitar technique)
- (rasg)
- ♫ Bartók pizzicato

When it is not indicating the orientation of the bow / hand / fingers, etc, suggests a gradual transformation of the sound.

**AST \( \frac{1}{2} \) SP2** very fast alternation (as fast as possible, actually) between AST and SP2; almost like circular bowing

**Tingshas - Violin 2:**
- \( \triangleleft \) rub on both edges in one single action
- \( \bullet \) clash both tingshas together

- \( \bigcirc \) rub - but in this case, much closer
w / brennt

for ensemble

(2013)

matías hancke de la fuente

full score
instrumentation

flute (bass flute and alto flute)
oboé
bass clarinet in b flat

percussion

piano

violin
viola
violoncello
double bass

duration

c. 10 min

w / brennt was written for the 2013 International Summer Academy for Young Composers, Akademie Schloss Solitude and it is dedicated to the members of ensemble SurPlus.
Notes and references:

General remarks

the score is notated in C

accidentals apply throughout the bar

it should be performed without vibrato unless otherwise stated

\[ \text{clef used for specific techniques but when appears in the pitch system it indicates 'voice'} \]

dynamics between quotation marks indicate the intention rather than the result

\[ \text{arrows mean go gradually from one state to another} \]

\[ f \] exponential crescendo

\[ \text{quarter tone flat / sharp respectively} \]

Woodwinds

- air sound (80% air - 20% pitch)

- mix between pitch and air sound (50% pitch - 50% air)

+ slap tongue (oboe and bass clarinet)

\[ \text{tongue - ram (flute)} \]

\[ \text{inhale - exhale respectively} \]

\[ \text{bisbigliando - alternative fingering to produce a colour trill} \]

\( \text{(slight pitch deviations are expected to occur)} \)

\( \text{x key - click} \)

\[ \text{explore the partials using the given fundamental (Bass Clarinet only)} \]

\[ \text{slap tongue + multiphonic (Bass Clarinet only)} \]

Percussion

Instruments

Marimba [5 octaves]

Crotales

Cencerros

3 Wood- Blocks

3 Tom- toms

Lion’s roar

3 Suspended cymbals

Thai gongs

\[ \text{standard set of hard and soft mallets} \]

\[ \text{[verbal indication - no symbol]} \]

\[ \text{R. St. 'Ribbed sticks' [Reibstock] (2)} \]

\[ \text{superball} \]

\[ \text{bass drum mallet [verbal indication]} \]

\[ \text{timpano mallet [verbal indication]} \]

\[ \text{drum stick} \]

\[ \text{place two mallets between the bar and a } r t i c u l a t e \text{ upwards and downwards} \]

\[ \text{damp / mute - 'dead stroke' on the marimba} \]

\[ \text{l.v. laissez vibrer - let ring} \]

\[ \text{brush [verbal indication]} \]

\[ \text{double bass bow} \]
Piano

\begin{itemize}
  \item chromatic cluster in the highest register of the piano - muted inside
  \item press keys without producing any sound
    \begin{itemize}
      \item hammer - it should be a tubular bell hammer and it should be played on the piano’s metal frame
    \end{itemize}
\end{itemize}

Strings

\begin{itemize}
  \item AST - alto sult tast, on the fingerboard [if possible close to the fingers]
  \item ST - sult tast, at the tip of the fingerboard
  \item ORD - ordinario - ’normal’ way.
  \item SP1 - poco sul ponticello
  \item SP2 - molto sul ponticello - very close to the bridge
  \item SP3 - on the bridge
  \item clb / clt - col legno battuto / col legno tratto respectively
\end{itemize}

Clefs

\begin{itemize}
  \item between the bridge and the nut [the black line suggests approximately where the string should be muted]
  \item on the fingerboard [the black line suggests approximately where the string should be muted]
  \item on the instrument’s body
  \item B
  \item TP
\end{itemize}

Direction of the bow and hand / fingers

\begin{itemize}
  \item alongside the strings - parallel to them
  \item perpendicular to the strings
  \item oblique to the strings
\end{itemize}

Articulations

Pizzicati:

\begin{itemize}
  \item behind the bridge, there are three places where to pluck the string
    \begin{itemize}
      \item BR - close to the bridge
      \item MID - in the centre between the bridge and the tailpiece
      \item TP - close to the tailpiece
    \end{itemize}
  \item \(\wedge\) fingernail [evid. plectrum]
  \item \(\circ\) Bartók pizzicato
  \item rasgueado - strum with the back of the fingernails (similarly to the flamenco guitar technique) [rasg]
\end{itemize}
Strings | cont. |

**Noteheads**

- as high as possible on the given string
- muted - without producing any harmonics
- behind the bridge / on the Body's clef to knock on the wood

**Other techniques**

- stroke all strings with the palm of the hand and move the latter according to how it is indicated in the graphic
- exaggerate pressure

![Diagram of bowing technique]

bar 168 - end - violin and viola; the instruments have to be placed on each performer’s lap.

Each musician should take the bow with both hands and rub the hair of it against the strings, in a smooth motion starting from the first, then second, third and finally fourth string and then go back.

The hair never detaches from the strings and the wood of the bow can also touch the hair. The result is a granular texture that although it is continuous it presents cracks and disruptions (all of them are expected to happen) from time to time.

Due to the risk of damaging the bow, the performer can choose to change the bow before this section takes place.

**Voice**

- inhaled sound
- no notehead normal speaking
w / brennt

matías hancke de la fuente
london - 2013
B. Fl.

mf

ff

f

Obs.

mf

ff

ff

ff

B. Cl.

ff

p

f

Perc.

ff

f

[soft]

mf

ff

fff

Pro.

f

-mf

ff

fff

fff

Vn.

mf

f

SP2

ca. 4

Vla.

mf

f

SP1

Vc.

fff

pp

pizz

ca. 4

Ch.

f

fff
Lion's Roar

[Hammer]

Place the violin on the lap

slowly - 'granular'

PPP

f

PPP

PPP

PPP

PPP

nnn

PPP

PPP

PPP

PPP

PPP

PPP

PPP

PPP

PPP
In tueri l

for alto flute

matías hancke de la fuente
(2013)
Intueri leagh

to Ilze Ikse

matías hancke de la fuente
toulouse / london 2013