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On the Peripheral: Sonic Ecologies at the Borderlines of the Possible –

An Environmental-Systemic Approach to Music Composition

A dissertation presented

by

Manuela Meier

to

The Department of Music

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

in the subject of

Music Composition

Harvard University

Cambridge, Massachusetts

May 2019

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Dissertation Advisors: Professors Chaya Czernowin and Hans Tutschku Manuela Meier

On the Peripheral: Sonic Ecologies at the Borderlines of the Possible – An Environmental-Systemic Approach to Music Composition

Abstract

Both my compositional practice and my theoretical research are based on my fascination with timbre and sound color, its aural perception and interlinkage with temporal structures. With this as the starting point, I work with and explore in both practical, theoretical and philosophical terms the effects of fluctuations, interferences, resonances, and small- and large-scale temporal manifestations resulting or being connected with these emerging phenomena.

In this dissertation, I discuss the potential that I see in engaging with sonic worlds that take the fleeting and ephemeral artifacts that underly much of music's nature and sound production as the entry point for the navigation of complex systems of dependencies and interconnections, and, ultimately, the shifting of a listener's perception and perspective. Supporting my argument with my compositional body of work in the following chapters, I further suggest that an environmental-systemic approach in music composition and to its aural perception not only enables a different reading and understanding of the music, but that it at the same time also means the confrontation with the Other, and a field of potential contact with the Beyond, in a space that I term the borderline areas of the Possible.

While Part 1 will lay the theoretical groundwork for such an environmental approach to music composition, Part 2 will also provide the reader and listener with the compositional evidence of

the acoustic manifestations of the theoretical and conceptual framework presented in this dissertation.

ACKNOWLEDGEMENTS

As is the theme of this dissertation, this work has manifested and developed in a network of thoughts, ideas and actions, and has had the mental and temporal space and therefore chance to grow and refine itself over the course of many years of research and composition of musical scores, and leaps to new and unexpected levels through unforeseeable inspirational moments. My sincere and deep thank you goes out to the following, who have been a source of the most generous support and inspiration over the past years of my research and experimentation, and who have put more trust in my work and undertakings that I could have ever hoped for. Without them, this immense research project would not be where it is today, and where it might lead next.

I would like to thank my PhD supervisors Prof. Chaya Czernowin and Prof. Hans Tutschku, as well as Prof. Christopher Hasty and Prof. Kay Kaufman Shelemay for their generous support and trust in my work. For true inspiration, Richard Beaudoin and Federico Cortese. Yang, Bin and Yu, Xiaoshi from the Harvard University Department of East Asian Languages. My colleagues over the years, with special mention of composers Kai Johannes Polzhofer, Trevor Bača and Justin Hoke, as well as Stephanie Probst, Huang, Rujing and Marco Romani Mistretta. Qiu, Lingwei from the Harvard University Loeb Music Library. All the musicians I have worked with and who allowed me to learn from them, with special thanks going out to Christopher Otto, Ari Streisfeld, John Pickford Richards and Kevin McFarland of the JACK Quartet, William Lang and Jennifer Baker, Richard Haynes, Matt Barbier and Weston Olencki, Alexander Bauer and the NAMES Ensemble, Ensemble Yarn/Wire**,** as well as the new JACK Quartet and Mivos Quartet, who premiered the works presented in this dissertation. For the very generous support over many

years, the Harvard Graduate School of Arts and Sciences, the Fairbank Center for Chinese Studies at Harvard University, Oscar Straus Schafer for the Oscar S. Schafer Fellowship, the benefactors of the John Knowles Paine Traveling Fellowship, the Adelbert W. Sprague Prize, Ferdinand Gordon and Elizabeth Hunter Morrill Graduate Fellowship, as well as the SKE Fonds Austria, and the many institutions supporting my work leading up to my PhD degree. Michael Norris, Jack Body, Stroma New Music Ensemble, Te Koki – The New Zealand School of Music of Victoria University Wellington, Queen's University Belfast and its Sonic Arts and Research Center (SARC), including Profs. Piers Hellawell, Simon Mawhinney, Franziska Schroeder and Pedro Rebelo, as well as the Universität für Musik und Darstellende Kunst Graz, and Georg Friedrich Haas, Beat Furrer, and all of its communities. My composition and music theory teachers throughout the decades of my musical education and my colleagues, all of which helped me to progress. My accordion teachers, who, through playing, taught me to listen closely, Prof. Georg Schulz, as well as Profs. Janne Rättyä, James Crabb and Geir Draugsvoll. My very first music teachers Franz Hötzl und Johann Murg, who helped build the foundations for walking this pathway. Ben Warner and Joe Best. Yang, J. M. and family. Kenny and Jaime, Jeff, Tye and Roger. Zheng, Wan Chun. Paul McGowan and family. Joanna and Marcus Patton and family. Edgar and Joe. Georg Holzmann, Peter Plessas, Anna Saranti. To Florian Hollerweger, for walking and exploring the most remote parts of the world together with me, like no one else, and always encouraging me to more. Last but not least, to my parents, for all the decades of continued support in this huge life project, and to my sister Cornelia for her listening and open heart and mind over the years, without which this would be impossible. To F. and the little one, continuously opening new dimensions of understanding of what is possible.

This work is also dedicated to the many past, present and future listeners of all kinds: musical perceivers and thinkers, philosophers, scientists, researchers of all fields, that are engaging with the Beyond, and that which is potentially possible. Together it is, and will always be, possible to perceive more, and go further than what any single of us will have ever been able to imagine.

PREFACE

An in-depth research project – such as a dissertation and its preceding years of preparation and experimentation – never originates independently and separate from the world and thinking that surrounds it. The work leading to this dissertation and the compositional portfolio contained within was similarly influenced by and aims to bring together manifold sources from the musical sphere past and present, and a significant amount of extra-musical contributions and inspiration from Western and Eastern philosophies and the natural sciences, including the fields of biology and geology, neuroscience and physics, as well as the auditory display of scientific data – sources that have all helped the research and its output to reach a whole new level. In that sense, the oeuvre, on large and small levels, not only represents the idea of an environmental-systemic approach to music composition, but also an understanding of the complex world around us, and the potential for our ever-growing ability to perceive it, to live in and together with it, and to create in it.

While Chapter 1 is meant to serve as an introduction to the foundations of the practical and theoretical compositional thinking surrounding this dissertation and its complex network of interconnections between the aforementioned fields of study, a more complete and in-depth documentation of the compositional philosophy and sources that feed into the creation of the compositional body of work at hand (see Part 2, Chapters 2 to 5) is beyond the scope of this dissertation. It will remain necessary to further continue the research and add to its documentation in various output formats to best fit the research foci contained. In that sense, the dissertation signifies not the summary of a completed research project never to be revisited again,

but, on the contrary, the actual manifestation of an opening, a metaphorical door leading to a much vaster space of relationships and revelations – the connections of which will need careful and slow untying in order to bring to light the beauty of simple expressions of yet highly intricate network of relationships, and the life forces that create potential and enable its thriving. Thus, returning to musical realms, this dissertation first and foremost focuses on the aural perception of a highly fragile sound world, the listening theory on which this practical and theoretic approach is grounded on, issues of counterpoint and harmony (i.e. the establishment and maintenance of relationships of variable kinds and degrees) and performance practical issues in connection with the navigation of highly complex dependencies. It furthermore gives an introductory insight into the potential inherent in borderline areas of perception in general and auditory perception in particular, and the exploration of seeming limits of environs, and the Possible.

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PART 1

CHAPTER 1 – NAVIGATING BORDERLINE ECOLOGIES

1.1. Introduction

1.1.1. Foundational Research

The theory and study of perception, as well as general and instrument-specific acoustics and psycho-acoustics form the basis for the research and the music compositional implementation and output presented in this dissertation. For cases in which a piece of music is written for a specific performer or occasion, considerations on the individual strengths and "specialties" of each performer also find its way into the preparations, so as to render apparent ever more details of the setup and potentialities of the compositional framework. While numerous interconnections can be found within the overall body of work – in terms of the musical material chosen and the specific techniques and compositional solutions developed over time and across pieces – each new piece goes beyond the already existing works, re-considers the experienced and learned from preceding pieces, and expresses and expands the to-date existing strategies to form a updated system of interconnections within the new compositional structures created.

Detailed notes, as well as research diaries and protocols documenting the various steps undertaken and sources integrated into the preparatory stage continuously accompany the creation of a new piece of music from its initial idea, through the pre-compositional and compositional phases, and up to its premiere version, subsequently featuring right into the rehearsal work and performance, and the musical works and research to follow. This model has

proven to be particularly helpful for tracing and keeping track of certain peripheral elements[1] that would otherwise potentially remain hidden or undiscovered, but instead have become some of the main cornerstones of the environmental-systemic compositional approach taken in this research project, that encompasses several research foci within.

1.1.2. Pattern Research and its Implementation in Musical Scores

Setting out with an initial aim to integrate biological and geological phenomena into the soundscape of music composition, and to study the properties of biological and geological patterns in order to apply them to larger and smaller-scale formal and contrapuntal developments in the context of small ensemble settings or solo works of music,[2] the initial research scope soon

1 For a clarification and more detailed description of the term *peripheral*, see Chapter 1.2. of this dissertation.

2 This research interest goes back to the author's interdisciplinary work on the audification of earthquake data, conducted at the Institute of Electronic Music and Acoustics (IEM) of the University of Music and Dramatic Arts Graz, Austria, and which was subsequently presented at the International Computer Music Conference, the Linux Audio Conference and the International Conference on Auditory Display. Furthermore, the research and performance activity undertaken at the Sonic Arts Research Center (SARC) of Queen's University Belfast and its School of Music proved indispensable for the further development of the skills and knowledge in this field.
The study of these patterns, and the fragile relationships and limitations of the sounds and other compositional elements within the structures, constitutes one of the main foundations of the compositional research, together with the aspect of environmental-systemic thinking in music composition and performance. Compositional pre-studies for the works contained in this dissertation include the pieces *epar* (2013, for flute, clarinet, piano, violin, violoncello), *genus:cyathea* (2014, for oboe, bass clarinet, contrabass clarinet, trumpet, trombone and percussion), *emergent properties #1* (2015, for flute, oboe, bass clarinet, baritone saxophone, percussion, violin, viola, violoncello and double bass), and a preliminary version of the piece *elicitation of peripheries* (2015, for two violas).

expanded to include the development of strategies for the evaluation of extensive data sets, (human) pattern recognition, and the advancing of methods and tools for the interpretation and close study of behavior within patterns – subsequently leading to the theoretical and practical foundations of the environmental-systemic approach to music composition as proposed in this dissertation.

While the theoretical output surrounding initial pattern research and its practical implementation proved to be successful in its musical application on a local level of compositional context, the overall integration into larger formal structures demanded a closer consideration of the issue of contextuality of the developed material. For this reason, the research stage to follow increasingly incorporated materials from the natural sciences, the neurosciences, physics, as well as sources of Western and Eastern philosophies and arts, with Process Philosophy[3] and canons of Chinese philosophy being of particular significance for the further development of my philosophical and compositional thinking. Together with the study and analysis of musical works that show particular effects in the perceptual realm (with particular mention of Renaissance and Baroque music), all these aforementioned sources of knowledge heavily influenced the process of refinement of compositional technique, and the development of the theory of listening and perception presented in this dissertation.

3 I owe much of my interest in process philosophical studies to Prof. Christopher Hasty of the Music Department at Harvard University, and his exceptional enthusiasm for the subject matter.

1.1.3. Process, Memory and Evolutionary Traits in Compositional Structures

As mentioned briefly in the previous paragraphs, the dealing with large quantities of (scientific) data and the extensive working with patterns and pattern recognition necessitated not only the addressing of questions of context, but also formal cohesion. Immensely fruitful research in the fields of process and memory, and the workings of the human brain and mind together with philosophical studies in these areas yielded compositional solutions in each of the individual pieces that significantly influenced and subsequently altered the nature of the approach to and understanding of the passage of time, and led to the experimentation with an evolutionary model for formal and structural development.

One of the main compositional tasks at this research stage was the establishment of a formal structure that allowed for the experiencing of the flow of time, and the creating of relationships and interconnections within such a structure that could then be characterized by flexibility within (and towards outside influences) but that would still be able to maintain coherence despite its continuous adaptation. The study of the processes and workings of the human brain, mind and memory also led to the creation of what in the context of this research project I am referring to as *multi-relational structures*. These compositional structures go beyond the common categorization of form, rhythm, counterpoint or harmony, and constitute a constant consideration of a dynamically developing and adapting system of relationships and interactions[4]

4 While such approach taken might resemble topics in artificial intelligence, the mode of creation of the compositions presented in this dissertation does not involve computation or algorithms, but rather relies on experimentation and observations, as well as the close study of the principles of the workings of the human brain, mind and perception.

– thus becoming structures that are networks of relationships that have the potential to dynamically evolve and learn, and therefore over time may express an increased complexity in its interactions.

Over the course of several compositions, this processual and multi-relational model of contrapuntal behavior within the material gained in complexity through the careful refinement of the relations within. Always building from the previously learned, each of these resulting multi-relational structures constitutes a constant consideration and re-consideration of the past and its potential, influencing the present and potential future, as set up by the compositional framework. For philosopher Eugene Gendlin,

> *[t]he present living process* reshapes its past by reshaping itself, *reshaping what it was. In every living process each next bit reshapes the previous. We could say that the past reshapes itself as a present living. Or, we could say that present living* generates *a "past"* by *reshaping itself.*[5]

The bass clarinet solo piece *iterate no trace*,[6] is featured in this dissertation as one of the earliest examples of works, which in their conception and writing process directly address research questions of process, memory, and the brain and mind in connection with auditory perception.

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5 Gendlin, Eugene T., "The Time of the Explicating Process", in: *Body Memory, Metaphor and Movement*, eds. Koch, Sabine C., Fuchs, Thomas, Summer, Michela and Müller, Cornelia, John Benjamins Publishing Company, Amsterdam, 2012, p.74.

(Author's remark: Emphasized parts of the text appear as italics in Gendlin's text.)

6 The piece *iterate no trace* for bass clarinet solo was written in 2015 for the clarinetist Richard Haynes.

With an initial preliminary working title of *(try to re-)iterate that which leaves no trace,* this solo piece seeks to challenge the compositional and perceptive systems' capabilities in regards to the processing of an increased amount and complexity of sonic information received simultaneously. The performer's and audience member's abilities are tested not only in their perception of subtle sonic and relational details in a context of a large quantity of sonic data, but also in their ability to "create sense" – in the sense of the creation of meaning and connection – between the multiple sonic anchor points provided to enable multi-relational readings of the fluctuating and living sound world presented to them.

With this compositional approach, the close listening to and the aural tracing of the relationships on the horizontal level also fosters the development of greater sensibilities on the vertical axis of a piece. In figure 1, showing an excerpt from *iterate no trace*, the detailed re-shaping of fragile overtone structures occurs while the performer also carefully adjusts the decoupled aspect of air pressure. Simultaneously, the clarinetist minutely manipulates the changing ratio of air sound and pitch – its potentially infinitely small increments of adjustment[7] represented only by a comparably rough resolution is given in the score's notation. The resulting effect is not only a much extended molding of the resulting spectra, but also distinctly discernible gradation in the shaping of its harmonic and inharmonic aspects of sound production. In addition to the very

7 It is assumed, in the context of the compositions presented in this dissertation, and *iterate no trace* in particular, that the scale of "air sound vs pitch ratio" takes place on a continuum between those two (theoretically assumed) poles.

specific degrees of air versus pitch ratio, what I call *vocalizations*[8] – lend a specific shape to both the initial attack of a sound and to the sound color of its sustain. Textural alterations – such as the alteration of the shape of the air flow through specific key movements or the inclusion of playing techniques such a range of flutter tongue techniques – create intricate anchor or contact points for smaller-scale interconnections and relationships within the compositional structure.

Equally fragile, and instably glowing and lighting up over time, fundamentals (first partials) and their microtonal alterations and deflections run through *iterate no trace* like a partially invisible spine that is rendered apparent only during certain passages of the piece (figure 2).

8 The refinement of this specifically developed set of *vocalizations* has been applied across the body of work and instrumentations since the bass clarinet solo piece *iterate no trace i*n 2015. Since then, vocalizations have become a main cornerstone for the implementation of the environmental-systemic approach presented in this dissertation.

For woodwind and brass instruments, vocalizations are formed with the embochure and actually pronounced, whereas for for string and percussion instruments, the vocalizations are not pronounced per se, but instead serve as sonic guidelines (esp. during rehearsal) for the finding sounds on instruments that most closely resemble these vocalizations, and therefore adding more detail to other existing instructions on how to produce a respective sound.

Further examples of cornerstones for the implementation of the environmental-systemic approach are the development of what I term the *reference pitch* system to aid aural navigation within a piece of music (first applied in the 2012-13 ensemble piece *epar* for flute, clarinet, piano, violin and violoncello, and continuously further developed and refined since then), the further development of a detailed multiphonic notation (since the piece *if only it were not bound to* for string quartet, applicable to various instrument groups) and the introduction of *spectral focus* as playing technique and listening approach (from the piece *otherwise II* onwards), as well as the development of a system of notation surrounding playing techniques for various instruments, such as *dimensional touch* for piano (as in the piece *otherwise* for two pianists and two percussionists) and a system of notation surrounding the concept of *relative time* and *absolute time* (from *if only it were not bound to* onwards).

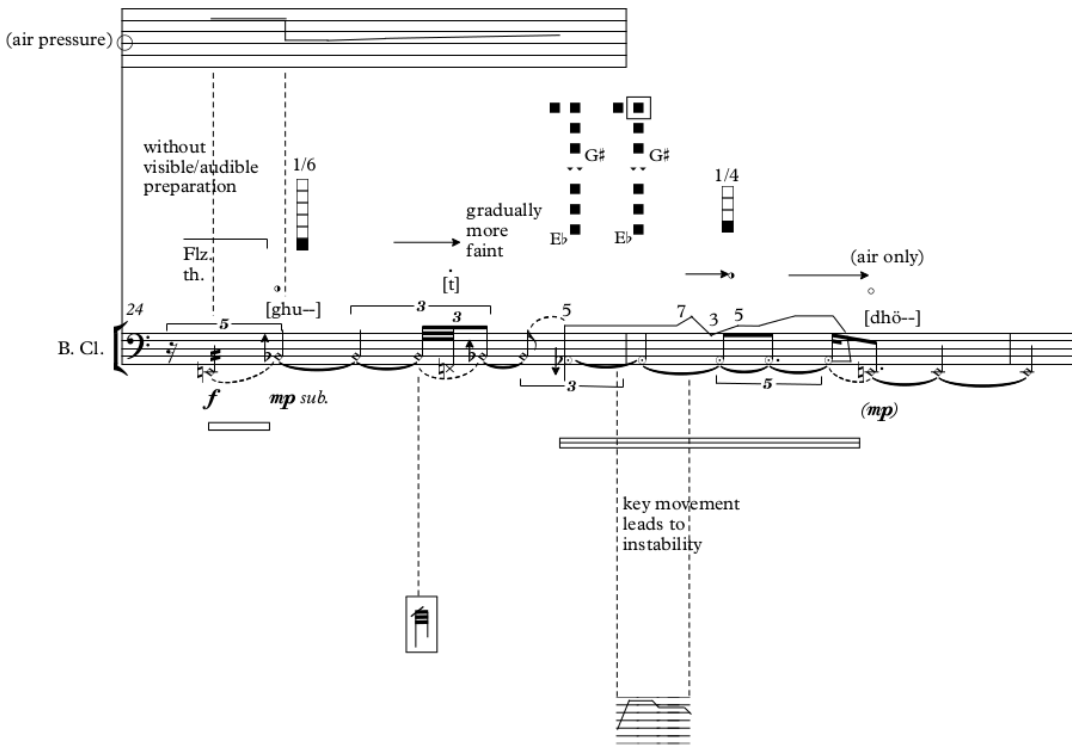


Figure 1: Manuela Meier, *iterate no trace* (2015) for bass clarinet, mm.24-26. © Manuela Meier

iterate no trace is a direct and significant predecessor for the implementation of the processual approach to both composing and listening, and thus also a predecessor for what I call an environmental-systemic approach to music composition. The step taken further in such approach is the increased working with and the development of compositional skills and knowledge towards an increased auditory sensibility for multi-relational interconnections within a sonic

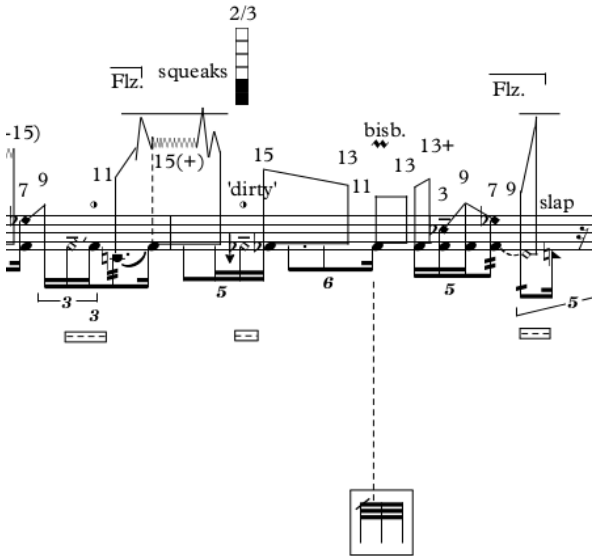


Figure 2: Manuela Meier, *iterate no trace* (2015) for bass clarinet, mm.66-67. © Manuela Meier

structure. Since a multi-relational structure in its nature is conceived of as being non-fixed and non-static, the complex and rich sound world intertwined with such structure allows for the picking up of ever more details over multiple listenings, and therefore opens up to a constant re-contextualization of the musical content every time that one listens to or performs the piece. (The environmental-systemic approach to music composition and issues of navigation of complex sonic environments in both composition and its perception are discussed in more detail in Chapters 1.2.1. and 1.2.2., respectively, of this dissertation.)

The content of *what* and the extent to which it can be remembered, or is favored by the memory of the listener is only one of the many research questions addressed by the bass clarinet piece *iterate no trace* and the pieces to follow, such as the string quartet *if only it were not bound to*, written in 2016. These pieces all engage deeply with questions of compositional coherence in the

context of evolutionary models of compositional structures that do not contain any literal repeats, but that yet give a clear aural impression of an inherent logic or force that holds it all together.

The key to such compositional coherence that still allows a compositional structure to maintain and thrive in its dynamicness lies in its particular relationship of a compositional material to its manifold past iterations, that, while ever-changing and taking place on many dimensions in the piece, still finds itself in constant connection therewith. This potential of a compositional structure, or musical idea resembles – in the way that it may interact and and be in constant re-negotiations with its surroundings as well as evolve over time – the potential and behavior of a cell, as in the natural sciences. In keeping with this metaphor, the relationship between the past and its present possible manifestations can be understood as a genetic one:

> *... the conditions of the past are inherited by some newly emerging event, which transforms them into elements of a definite pattern.*[9] (Porter)

The use of and working with compositional patterns within an ongoing process serves the creation of a sense of connection between the elements through an inherent action potential. Within an environmental-systemic conceptual framework, a musical structure at any extent may therefore display a certain dynamic behavior (as opposed to shape) within a given compositional framework that allows for the processual growth of musical material in a certain way, but may also restrict or hinder action in another – therefore giving a piece a recognizably individual shape and way of expression.

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9 Porter, Dale H., The Emergence of the Past – A Theory of Historical Explanation, University of Chicago Press, Chicago, 1981, p.160.

In order for a piece to communicate a process and a flow throughout its sonic world, the compositional structure provides a certain type of contrapuntal logic (both on the small and large scales) that allows the listener to "re-recognize" a certain type of inner logic, from which a pattern is formed (figure 3). In order to create a dynamic and evolving sonic structural system, the pattern recognition process has to be set up compositionally such that it encompasses even fairly distant variations and deviations of a behavioral pattern. Further complexity needs to be tackled during the compositional process, since due to its processual conception the listener will at no point during the piece have ever before encountered a specific deviation of a sonic pattern, nor will he or she be able to re-visit and listen to an "original version" ever after. The constitution and complexity of the behavior of a compositional structure, and the maximum degree of deviation allowance for pattern recognition needs to be carefully considered for each individual piece and situation.

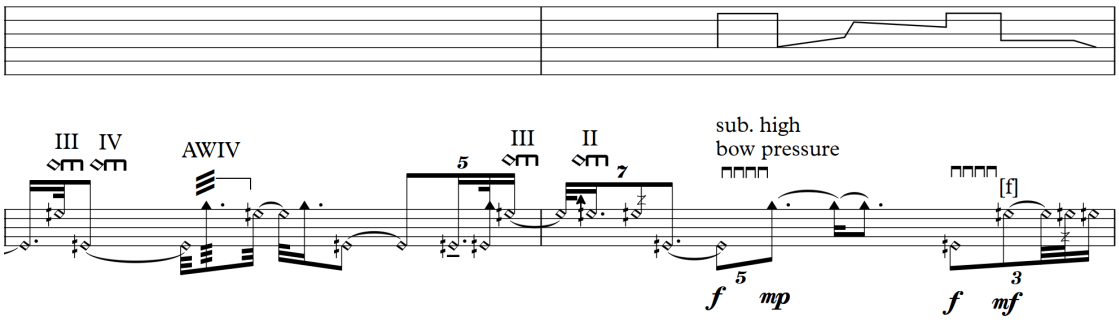


Figure 3: Meier, Manuela, *if only it were not bound to* (2016)

for string quartet, mm.44-45. © Wolke Verlag

As outlined above, one of the main elements useful in the establishment a multi-relational and multi-dimensional pattern (re-)recognition (Germ.: *Wiedererkennung*) process is the building, maintaining, developing and observing of relationships both within the detail of the musical material, but also of the musical material in interaction with its sonic environment, beyond clear-cut categories such as rhythm, or pitch relationships. Chapter 1.2.1. gives a theoretical outline of the environmental-systemic compositional approach taken in this dissertation, and discusses further detailed practical examples from the scores.

A significant contribution in the work on and towards the further development of a processual and evolutionary approach in working with compositional material is the detailed analysis of its respective documentation. In the context of the work surrounding this dissertation, the analytical method of "backwards tracing" proved to be particularly fruitful for the further development of the compositional technique and the overall compositional thinking. This form of analysis, or assessment of the generated material, supports the detection of initial artifactual traces, deviations and small-scale variants that may point towards tendencies of future potential, and may be applied both before the actual composing process or after certain periods of time during the process of composing. At all times featured in the documentation process, it also signifies a potential starting point for further compositions.

A seemingly opposing approach, but no less successfully applied, is the conscious temporary refrainment from tracing the material development, and the deliberate attempt to "remember (by heart)" complex multi-dimensional contrapuntal features over a certain amount of time. Thus, perceptual abilities in working with pattern recognition and contrapuntal detail are continuously tested. The method applied in the compositions presented in this dissertation,

however, attempts a close association with its predecessing compositional material (as opposed to a free association). Furthermore, and in line with the compositional approach presented, a "cut and paste" way of composing is not applied, since this method would preclude the complex multi-relational counterpoint.

1.2. On the Potential of the Peripheral

In my article *On the Potential of the Peripheral,*[10] an interpretation of the term *peripheral* in the context of the composition *if only it were not bound to* (2016) is presented. Within the framework of a sonic world that takes the fleeting and ephemeral artifacts that underly much of music's nature and sound production as the entry point for the navigation of complex systems of dependencies and interconnections, and, ultimately, the shifting of a listener's perception and perspective, the peripheral signifies "the inconspicuous in the outskirts of one's attention, the fragile and irregular, the fleeting",[11] which may be accessed or approached by "paying attention to the most subtle of changes in a sonic trajectory or to notice the smallest of artifacts within a sound."[12] Since both the compositional practice as well as the theoretical research are based on the examination of the properties of timbre and sound color, its aural perception and interlinkage with temporal structures, a significant part of the research explores the effects of fluctuations,

10 Meier, Manuela, "On the Potential of the Peripheral", in: *Perspectives for Contemporary Music of the 21st Century*, Wolke Verlag, Germany, 2016, pp.95-101.

11 Meier, p.96.

12 Ibid.

beatings, resonances, and the small- and large-scale temporal manifestations that are connected with these phenomena.

As the peripheral in this context is associated with "lightness, floating, [and] the absence of clear-cut boundaries,"[13] the

> *attributes ascribe[d] to the peripheral [are] characteristics of a place or an area of blurred boundaries that finds itself outside (or almost outside) the influence of a solely dominating center to which everything tends to yield. Thus, the peripheral fosters de-centrality, creating what resembles more a field of action and potential rather than an irrevocably delineated object that offers limited space for interpretive engagement with the latter.*[14]

Besides exhibiting these ephemeral qualities, the peripheral is also that which is always there, but that is all too easily overlooked, due to inattentiveness or insensibility towards its fragile and inconspicuous nature. Accompanying research in the performance practice of the compositions contained in this dissertation has – through experimentation as well as evaluation of recordings of the sonic test results – shown a clear and scientifically traceable connection between each individual listener and their inherent abilities, as well as the individual's personal effort and willingness to engage with the listening theory and practice surrounding the proposed environmental-systemic approach, in contributing to a noticeable expansion of their individual ability to perceive.

13 Meier, p.96.

14 Ibid.

The ephemeral nature of the peripheral, is described by Bergson in *Matter and Memory* as flashes of the conscious, or rather as images gathered by an independent memory, from within the stream of becoming:[15]

> *Everything, then, must happen as if an independent memory gathered images as they successively occur along the course of time; and as if our body, together with its surroundings, was never more than one among these images, the last is that which we obtain at any moment by making an instantaneous section in the general stream of becoming. In this section our body occupies the center. The things which surround it act upon it, and it reacts upon them. Its reactions are more or less complex, more or less varied, according to the number and nature of the apparatus which experience has set up within it.*[16]

Adaptation within and to a system, in which oneself or a musical material, is embedded, is therefore a strategy to re-position an organism within its living structure that constantly re-negotiates itself with itself and its surroundings. However, it also signifies the acknowledgment that an organism also IS the environment. Through such environmental awareness in the listening practice, and through the engagement with and observation of the aforementioned field of action, or potential, it is possible for both performers as well as audience members to actively engage with fragile and fluctuating ephemeral worlds of sound.

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15 Bergson, Bergson, Henri, Matter and Memory, transl. Paul, Nancy M. and Palmer, W. Scott, Zone Books, New York, 1991, p.77.

16 Ibid.

If, after having gazed at any object, we turn our eyes abruptly away, we obtain an "afterimage" of it: must we not suppose that this image existed already while we were looking? [17] (Bergson)

1.2.1. Sonic Ecologies and Aural Perception: An Environmental-Systemic Approach to Music Composition

Taking an environmental-systemic approach to music composition and performance practice means the study of relations and relationships, within and of potential. The manifold interconnections found within a piece of music share a significant amount of traits with biological systems and environments:

An ecosystem is not only the environment for an organism,
it at some point also IS the organism.
Each organism that finds and arrives in a place, that lives in a system,
adapts and adjusts to it – and also adjusts and changes it [the environment/ecosystem].[18]
(Meier)

17 Bergson, p.120.

18 Meier, Manuela, manuscript, November 2015.

The aforementioned navigation of complex systems of dependencies and interconnections, and the framework set up compositionally around it, necessitates the learning of how to perceive, read and interpret multiple dimensions, or sonic perspectives. For the performer, on a performance practical level, this means the navigation, and thus engagement, with both a sonic and notational environment of increased or high complexity. In doing so, the performer also represents a complex system: "[E]ach sensory system first analyzes and deconstructs, then reconstructs the raw, incoming information according to its own built-in connections and rules" (Kandel).[19] After an initial stage of adapting to the conditions of the environment, the performer – in both solo and ensemble situations – is soon able to incorporate and express – to live in – the system of interconnections.

The trombone duo piece *what you see, is it*[20] is a particularly clear example of how the theory put forth in this dissertation can be implemented in practical terms. Again, the principles gained from the study of relationships within an environmental-systemic setting apply to all levels of music composition and performance practice. The multi-dimensional relationships in the compositional structure, the interconnections that extend much beyond the boundaries of regular contrapuntal, harmonic and formal categories, are paired with an establishment of a sound world that requires the utmost focus and a sustained level of intense listening by the two performers. In

19 Kandel, Eric R., *In Search of Memory: The Emergence of a New Science of Mind,* W. W. Norton & Company, New York, 2006, p.302.

20 The piece *what you see is it* (2016) was written for and premiered by the trombone duo Matthew Barbier and Weston Olencki in 2016 at Harvard University's John Knowles Paine Concert Hall. The Austrian premiere of this piece was performed by the same players at the 2018 Bludenzer Tage für zeitgemäße Musik. The New York premiere of the piece took place in 2018, during the Moving Sounds Festival 2018 Festival, performed by the trombone duo William Lang and Jennifer Baker.

this piece, it is essential that one's own part is understood to be equally significant as is the other one's part, and consequently, that the ear follows and observes each other's part as much as one's own. The result of this exceptionally difficult to maintain focus of both performers and the awareness of and for each other is a shared experience of closeness with the other, and a spontaneous being and living the other as one[21] through an unpremeditated and unpredictable alteration of each other's field of action, or potential. In *The Physical Principles of The Quantum Theory,* Heisenberg describes a similar principle, in which "two electrons which pass through δv simultaneously modifies the field, and hence the path of the other electron."[22] As a direct consequence of this intimate exchange of the performers, a higher sonic resolution of an otherwise inaccessible fragile sound world is immediately given as its audible result. The shaping and movement of overtones within harmonic spectra – rendered malleable through the difference in the listening – or the conscious employment of breathing patterns into the formal-contrapuntal motion and development, as well as the influence of what in the context of this dissertation I term *supra-structures of contrapuntal relational interaction* are some of the examples of the clearly discernible aural results that are rendered apparent through the compositional and performance

21 My gratitude and thanks go to trombonists William Lang and Jennifer Baker, who premiered the NY state premiere of *what you see, is it* during the 2018 Moving Sounds Festival, and who were exceptionally generous in sharing their personal experience with learning, engaging with, listening, rehearsing and performing this piece.

22 Heisenberg, Werner, *The Physical Principles of the Quantum Theory,* transl. Eckart, Carl and Hoyt, F. C., Dover Publications, New York, 1949, p.53.

practical techniques developed and applied in the pieces presented,[23] with particular reference to the trombone duo piece *what you see, is it,* and the string quartet *if only it were not bound to.*

In *if only it were not bound to* for string quartet,[24] the working and maintaining of the system – or the organism of the piece – is heavily dependent on each performer's ability to listen to and navigate the highly fragile world found inside the string instrument multiphonics. Each of the players has to be in utmost control of their ability to actively shape each multiphonic, and its interconnections with and within the environment that surrounds it, such as the other performers' multiphonics (figure 4).

The sonic results and the playing techniques developed for *if only it were not bound to* and *what you see, is it* heavily influenced the research into the sonic properties research subsequently adapted for the extended techniques and bowing research on tamtams, cymbals and woodblocks. A part of the research output is deployed in the harmonic realms of the compositions *otherwise* for two pianists and two percussionists,[25] which seeks to merge and work with the spectra of the

23 In addition to the pieces presented and re-printed in this dissertation, several other pieces that are not contained in this dissertation served as as studies for the techniques presented, amongst those the ensemble pieces *epar* (2013) and *genus:cyathea* (2014), the ensemble piece *one more could be beyond* (2016) and the piece *receptive field* (2016) for five percussionists (for bowed tamtam and bowed woodblocks), which served as initial testing grounds, especially for acoustic and playing-technical experiments.

24 The string quartet piece *if only it were not bound to* (2016) was specifically written specifically for the members of the JACK Quartet – Christopher Otto, Ari Streisfeld, John Pickford Richards and Kevin McFarland – and premiered in 2016 at Harvard University's John Knowles Paine Concert Hall.

25 The piece *otherwise* was written in 2017 for two pianists and two percussionists, and was premiered in the same year by Ensemble Yarn/Wire.

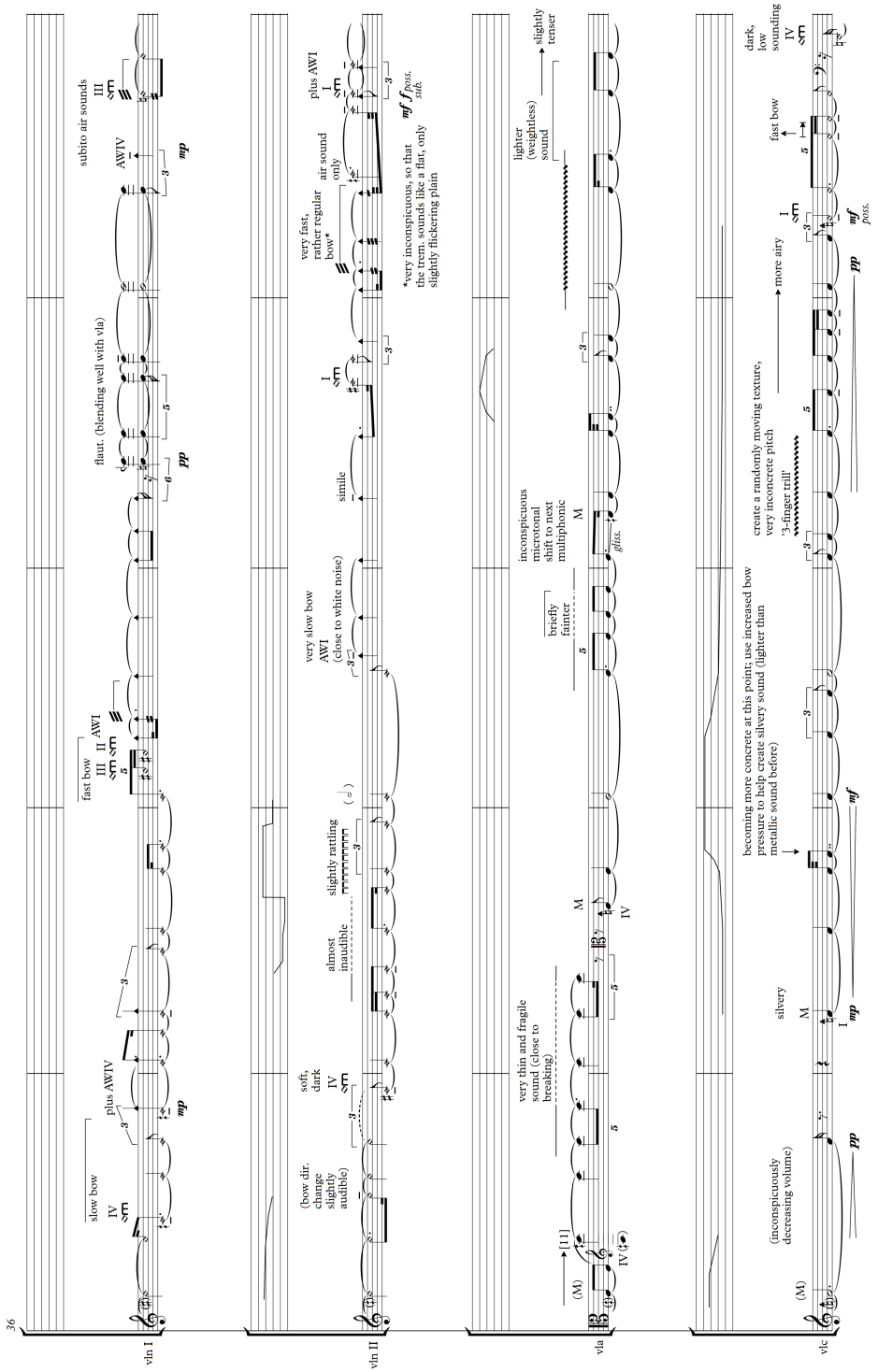


Figure 4: Meier, Manuela, *if only it were not bound to* (2016)

for string quartet, mm.36-40. © Wolke Verlag

two pianos with bowed tamtams and cymbals, and *otherwise II* for ensemble,[26] with a focus on coalescing the spectra of bowed percussion instruments with the string instruments' spectra.

1.2.2. Navigation of Complex Dependencies

The irritation following the exposure to the sheer amount of information that both a performer and other listener, such as a concert audience member, are confronted with when first dealing with a musical structure that functions on a framework that emphasizes multi-dimensional relationships and dependencies, leads to a phase of re-orientation. The latter again soon turns into a phase of discovery, in which the internal power and strengths in the interconnections of the sound world and its structure are gradually but continuously rendered apparent. In order to do so, the research in the phase of re-orientation therefore includes research on mental processes in the context of overcoming learned conventions in general, and in a performer's understanding of how to approach and navigate a multi-relational score and sound world in particular. A significant part of the research was dedicated to investigate potential notational features that may encourage and support performers in further developing an expanded and hightened sense for multi-relational features within compositional structures, as well as to provide them with strategies (through compositional features) for extending their very own aural sensibilities – towards their own part, and equally towards the other's.

26 *otherwise II* (2018) for ensemble (bass flute, bass clarinet, percussion, violin and viola) was commissioned by and premiered at the Austrian Aspekte Festival 2018 by NAMES Ensemble.

Most contrapuntal thinking and writing in Western classical music theory conventionally places the greatest emphasis on relationships in the pitch realm, with the main focus being on the location of specific (pitch) events and their intervallic relationships with each other. A secondary level of attention is oftentimes directed towards the temporal placement of the individual pitches. In such approach, a pitch necessarily is reduced to what in the context of this dissertation I call its *one-dimensional* abstraction of a "pure-sounding" pitch, deprived of its actual physical and acoustic properties. The approach taken in the compositions presented in this dissertation, however, aims at thinking and experiencing counterpoint less as an object (e.g. a pitch, or (sonic) event), but as a relationship of multiple and changing dimensions. The difference between a one-dimensional object versus a multi-dimensional relationship may also be compared roughly with the difference between a clear-cut object with a perfectly smooth surface giving fewer opportunities for points of connection, compared to a relational structure that is naturally non-static, continuously changing, adapting and evolving, and which is comprised of a multitude of sonic aspects that allow for the building of internal connections. Thus, the realm of pitch regains multiple dimensions when understood not as a reduced smooth point, but as a manifestation of frequencies and their respective harmonic spectra, that vary in shape, degree of potential malleability and expression (just to name a few aspects) depending on instrument specificity. Multidimensionality is also gained, for example, when considering the artifacts surrounding the sound generation of the respective pitch, such as air sounds, or sonic characteristics such as continuity, density or transparency. Experimentation across various instruments groups in general, and string and brass instruments in particular, have been markedly conducive to this approach in the course of the research, particularly in the exploring of both harmonic and inharmonic aspects of *Klangkomplexe* (Germ., sound complexes). The compositional

implementation of the idea to open up the understanding of a single pitch from an abstract point to a continuous (and theoretically infinite) spectrum of sonic properties that range not only from white noise to a sine tone, but also include and are tied together with its various (and reproducible, in performance) artifacts surrounding an instrument-specific sound production, such as varying degrees of harmonicity and inharmonicity within complex sounds and spectra, ratios of air sound or internal artifact patterns created by changes in air or bow pressure or rate of continuity, saturation and density, constitute only a few of the aspects that can serve as a starting point for such multi-dimensional relationship.

To return to the metaphor of the peripheral, those aspects and "sonorities that show a strong focus on timbre, air-related sounds, [...] relatively unstable multiphonics and various combinations thereof [... creates] a whole new array, or an area of possible interpretations of individual sonorities, or *Klangkomplexe,* and their relationship with other sonorities."[27] Furthermore,

> *the interference of these simultaneously occurring aural phenomena creates an impression analogous to streaks, forming flickering textures, beatings between individual pitches or other patterns arising from the highlighting of different degrees of closeness*[28] *of the sounds to each other. [...] The metaphor of the peripheral also finds expression in the*

27 Meier, p.97.

28 Microtonality, for example, would only be considered to be one of the possible manifestations of such described closeness, in that particular case located in the pitch/frequency realm.

great amount of timbral deflections and distortions of existing sonorities so that the latter rarely reappear in its initial manifestation.[29] (Meier)

The article *On the Potential of the Peripheral* makes available a more detailed description of the interplay of fragile elements and provides further concrete examples of the implementation of the metaphor of the peripheral as given in the string quartet *if only it were not bound to.*[30]

1.2.3. On the Potential inherent in Borderline Areas

The establishment of strong contrapuntal relations not only contributes to a strengthening of the concrete structure of a piece of music, including formal cohesion, but also – and in a less concrete way – is a means of providing support for the potential nullification of preconceived mental and bodily frameworks of the performers, through which they might be able to musically and perceptually meet and become each other in a space that is created both within and around them – in a space in which any distinction between an "inside" and "outside" has has been abrogated,[31]

29 Meier, p.97.

30 Meier, pp.95-101.

31 While – on the playing-technical and instrument-specific level – such refined relationships are generally slightly easier to build between instruments of the same instrument family or sonically related ones, experimentation in the course of this dissertation research has shown that it can also be achieved across instrument groups. In the piece *otherwise* for two pianists and two percussionists, one of the main aspects to establish an interconnection between the instruments is the piece's focus on the merging of the spectra of piano and bowed tamtams and cymbals, thereby working with properties that are associated with varying degrees of metallicness as one of the main features of the sonic impression of the resulting harmonicity.

and in which a thinking of polarities or dichotomies does not exist any more. There, they *are* one and the other. Through the music, and through the musicians' focus, the immediate and natural understanding of the idea that the piece represents can be conveyed and communicated to the audience in a direct and unobstructed way. In that sense, "the peripheral carries the potential to shift viewpoints [...] as the focus and attention shifts and changes when experiencing a piece of music, taking shape through the attentiveness and momentary constitution of each listener"[32]:

> *Once the senses are allowed to become attuned to listening to more peripheral aural phenomena at great detail, the attentive reading of the observed opens up refreshed perspectives onto ever changing complex contexts. [...] The potential of the peripheral – also beyond music and the arts – begins to dawn dimly when the uniqueness and defining little quirk of the hitherto unnoticed unexpectedly develops meaning: when it suddenly truly engages and touches us. Uncharted places facilitate the reconsideration and one's own repositioning through the new conditions offered there. Initial irritation can transform into space for profound change for perception.*[33] (Meier)

What is identified initially as irritation is oftentimes nothing more than a reaction to a deeper-lying process of re-orientation. It can also be understood – to refer to a concept from the neurosciences – as a re-wiring, in which that which was learned in the past has to be re-connected with that which presents itself to each of us at that any given moment of a present. The degree thereof is dependent on the individual ability to perceive, an individual's personally

32 Meier, p.97.

33 Meier. p.96.

developed strategies for and own pace of dealing dealing with the challenges posed. Auditory perception, to mention a more specific case of application, is no exception in that the more open and non-rigid the understanding and acceptance of the circumstances and the environmental conditions will be, the shorter the described period of irritation will last, and the sooner and easier it will be possible to adjust or even re-set and fully perceive further information presented to to the individual. It is important to note that the notion of re-setting in this case does not connote erasure, but rather signifies the allowance for real-time adaptation to situations that follow evolutionary models of development. In the compositions presented in this dissertation, varying rates of such adaptation are equally considered and experimented with in musical contexts that require faster adaptation rates of its perceivers, as well as instances in which it has been proven to be more beneficial if a slower rate of adaption is assumed.

1.2.3.1. The Possible: On Transcendence, the Other and the Beyond

> *The strangely pulsating and floating sound world, within which sonic and temporal aspects of the piece are of constant and reciprocal influence to each other, marks the entrance of a place that follows a different – if not partially unknown, to the perceiver – set of rules; a place that provides for other conditions than the ones initially expected.*[34]
> (Meier)

Not only at the perceptual, but also at the compositional, performative and generally receptive levels, and in overcoming the irritation of encountering uncharted places – beyond expectations –

34 Meier, p.100.

does the "peripheral become a simultaneous exploring of both internal and external resonance."[35] In that way, spaces for profound change for and of perception become the encounter with the potential – that which is the Possible – the moment, or rather, the relational field of contact, with the Beyond. The moving into the space or state (in a non-stationary, non-static sense) of that that which is beyond, is of transcendental nature for Levinas:

> *If transcendence has meaning, it can only signify the fact that the* event of being*, the* esse*, the* essence*, passes over to what is other than being. But what is* Being's other*? [...] Transcendence is passing over to being's* other*, otherwise than being. Not* to be otherwise*, but* otherwise than being*. And not to not-be; passing over is not here e quivalent to dying. [...] To be or not to be is not the question where transcendence is concerned. The statement of being's other, of the otherwise than being, claims to state a difference over and beyond that which separates being from nothingness – the very difference of the beyond, the difference of transcendence.*[36]

The Beyond becomes the space where it is possible to meet the Other, where potentiality becomes the Possible. Through artifacts and traces left, the peripheral hints at this inherent potential, through the ethereal and ephemeral nature of music and its resonance while perceiving and experiencing it.

35 Ibid.

36 Levinas, Emmanuel, *Otherwise than being, or, Beyond essence,* transl. Lingis, Alphonso, Duquesne University Press, 2016, p.3.

Consciousness flickers; and even at its brightest, there is a small focal region of clear illumination and a large penumbral region of experience which tells of intense experience in dim apprehension.[37] (Whitehead)

37 Whitehead, Alfred North, *Process and Reality,* eds. Griffin, David Ray and Sherburne, Donald W., The Free Press, New York, 1987, p.267.

PART 2

2. CHAPTER 2 – EXPLORATION, MEMORY & PROCESS

2.1. ITERATE NO TRACE (2015) – for bass clarinet

Written for and dedicated to clarinetist Richard Haynes.

World premiere by Richard Haynes on October 24, 2015 at John Knowles Paine Concert Hall, Harvard University Music Department.

MANUELA MEIER

iterate no trace

for bass clarinet

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"ITERATE NO TRACE" (2015)

FOR BASS CLARINET

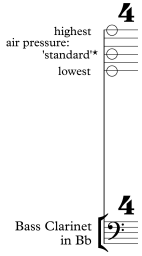
Duration: approx. 6 min 30 sec

The transposed score sounds a major second lower than written.

Notation of microtones:

𝄲 quarter tone sharp ♯ three quarter tone sharp 𝄳 quarter tone flat ♭ three quarter tone flat

Systems (staff lines):



air pressure:
*standard ('normal') air pressure applied according to technique used. Air pressure is only given for instances in which the air pressure is decoupled from the respective playing technique.

The time signature and barlines are only given for the purpose of orientation for the player. (no metric differentiation of individual beats within a measure)

Most other performance instructions are provided in this staff line, with the exception to rhythmic features (additional staff lines below this one) that are decoupled from the respective playing technique given (e.g. additional key movements, trill speed)

Fingerings:



small black squares = closed key
small white squares (if applicable, not in this example given) = open key

large white squares surrounding either small black or small white keys = "trill key", this given finger is performing the trill action.
When more than one "trill key" is to be played, these fingers should function independently from each other (randomly also played at the same time), but never played in an alternating way.

Air vs pitch ratio:



Various air vs pitch ratios are given throughout the piece. The notehead used at these respective moments supplies the performer with additional information on whether a sound is conceived of conceptually as either an air-based or pitch-based sound, that finds itself "distorted" by the respective "other" quality. (For example: A pitch ratio of 1/4 above a notehead signifying an air sound (see below) = an air sound that is being distorted by some (given) amount of pitch.)
The particular ratio only applies to the respective technique or moment that it is given with.

half air/half pitch (used for very fast moments only, for reasons of clarity of notation)

Noteheads:

◇ air sound only (the given fingering only minimally "colors" the air sound in the sense that the air sounds's frequency bandwidth is slightly shifting)

♡ teeth closed, with [s--] 'vocalization' (see explanation below), just behind reed, so that reed remains untouched by teeth, lips closed, exhale, extremely high-pitched and minimally audible whistling sound that accompanies the noisy sound that this technique produces.

slap slap tongue; the playing technique returns to ordinario after slaps, unless given otherwise

accompanied by a trem. symbol, produce a (more) buzzing sound

× key clicks (use given fingering, with all fingers moving once and at the same time), rather well audible, but not overly emphasized

▼ as low as possible

Noteheads/Harmonics:



overblowing; notation shows fingering (=fundamental, lower pitch given), and strongest partial (number given, e.g. 5 = fifth partial);
in the given example: overblow to third partial



overblow; follow the shape in overblowing (from third partial up to fifth partial);
From m.30 onwards: The specific partial is given to denote the close area around it - it is not intended that the partial only sounds by itself, rather, that a thick cloud of other frequencies accompany the given partial (area/reason).

'Vocalization':

Form the oral cavity as given with the respective vocalization - the vocalization is NOT pronounced or spoken itself. Always with closed lips/embochure, unless stated explicitly.

Other techniques:

Flz. flutter tongue, use tongue for production
Flz.th. flutter tongue, produce with uvula
Flz.'dirty' flutter tongue, produce with uvula rather than tongue, with significant amount of air/other artifacts created by the embochure, so that the 'concreteness' of the pitch is lessened

bisb. bisbigliando, use fingering given
trill or bisbigliando, use trill key three times, then hold given pitches without further trill/bisb. if applicable
trill or bisbigliando, use trill key two times, then hold given pitches without further trill/bisb. if applicable

Additional finger action:



key movement as indicated in the score, length of beam = importance/emphasis within the key movement



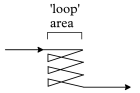
trill speed:
top line = as fast as possible
middle line = very fast
bottom line = fast

Dynamics:

very even, stable, 'flat' dynamics (of given dynamic level), start and stop are like cuts (on/off)

Conceptual features:

'loop'/'loop area' In this piece, the label 'loop' is a (simplifying) placeholder for a much more complex process that a specific material is undergoing while (non-identically) 'recurring', or being 're-visited' (see depiction). Play as if it were a 'true' loop -- despite the distinctive differences and fluctuation of characteristics between the individual 'recurrences' (or segments) within the area of the 'loop'.



'granularity'/'grains'

'grains ' = artifacts within the given sound, similar to dust or the 'graininess' in analog films. While the envelope of the (base) sound remains fairly stable/static, it should be well saturated by the artifacts/'grains' that are distributed in a quasi-random way (there should not be any regularity, as e.g. would occur if the same sound envelope were subjected to a Flz.).
Density: at least 7-9 'grain' events per beat.
For other "shades" of granularity, see the respective indications in the score.

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written for and dedicated to Richard Haynes

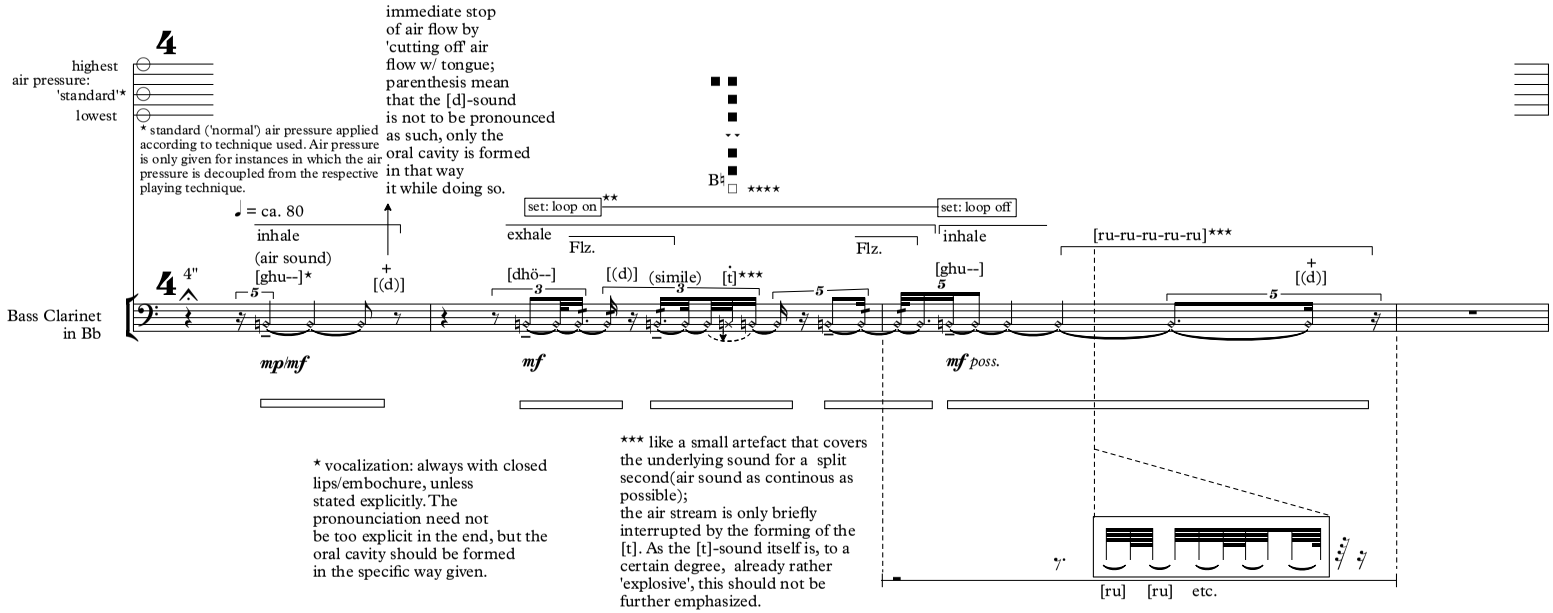
version for premiere, Oct. 2015

(transposed score)

iterate no trace

for bass clarinet

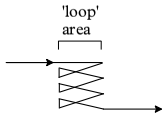
Manuela Meier, 2015



* vocalization: always with closed lips/embochure, unless stated explicitly. The pronounciation need not be too explicit in the end, but the oral cavity should be formed in the specific way given.

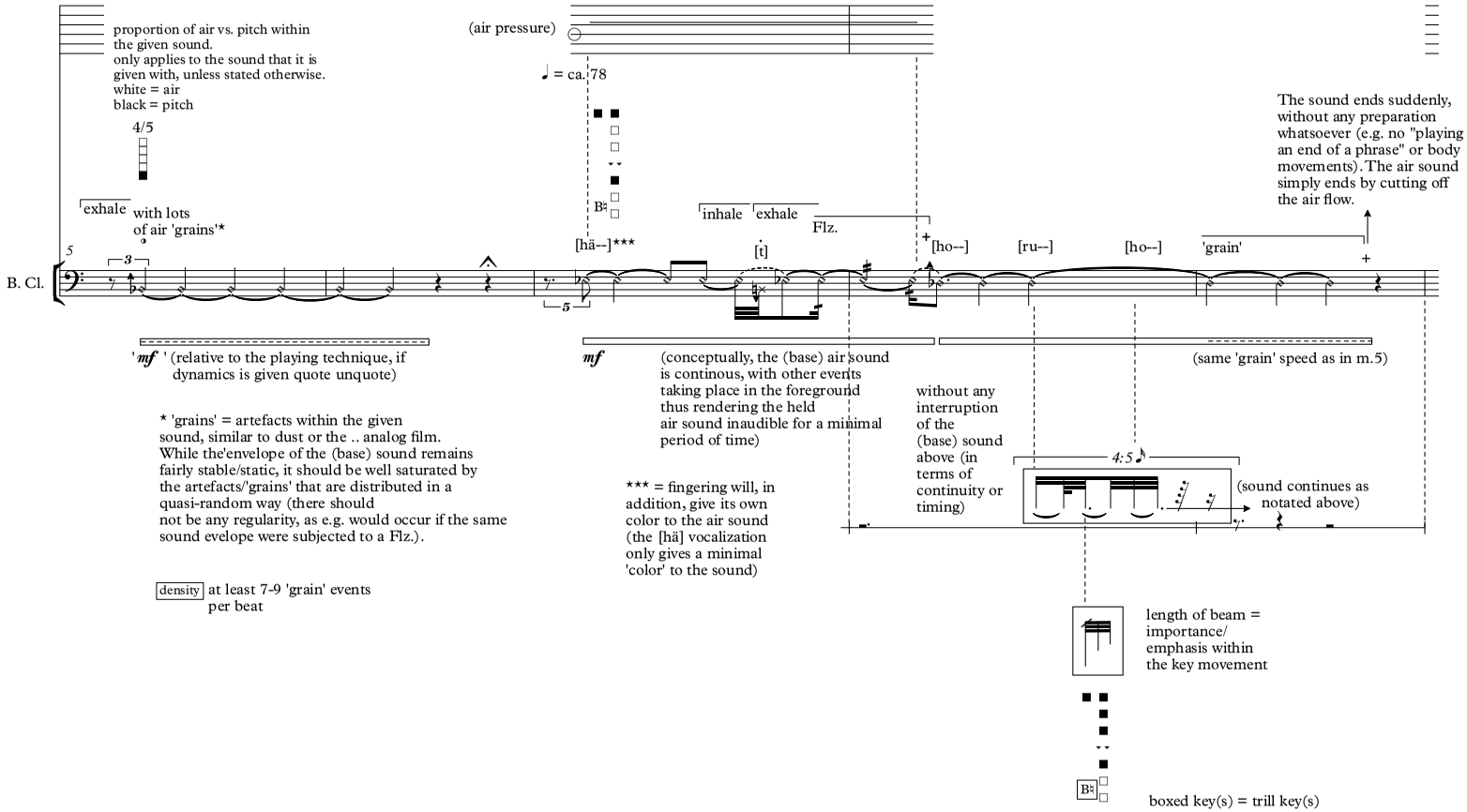
*** like a small artefact that covers the underlying sound for a split second(air sound as continous as possible);
the air stream is only briefly interrupted by the forming of the [t]. As the [t]-sound itself is, to a certain degree, already rather 'explosive', this should not be further emphasized.

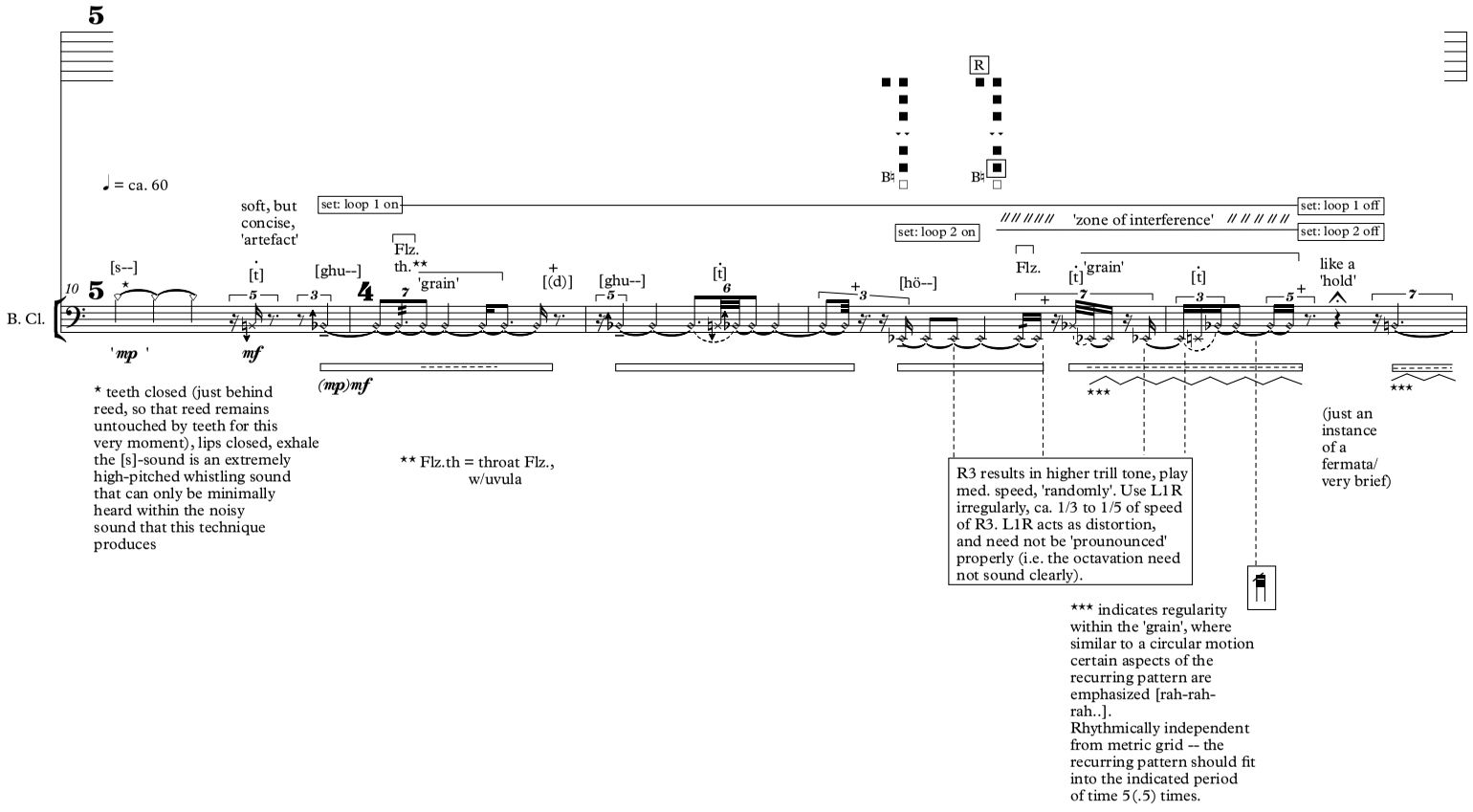
** In this piece, the label 'loop' is a (simplifying) placeholder for a much more complex process that a specific material is undergoing while (non-identically) 'recurring', or being 're-visited' (see depiction).
Play as if it were a 'true' loop -- despite the distinctive differences and fluctuation of characteristics between the individual 'recurrences' (or segments) within the area of the 'loop'.

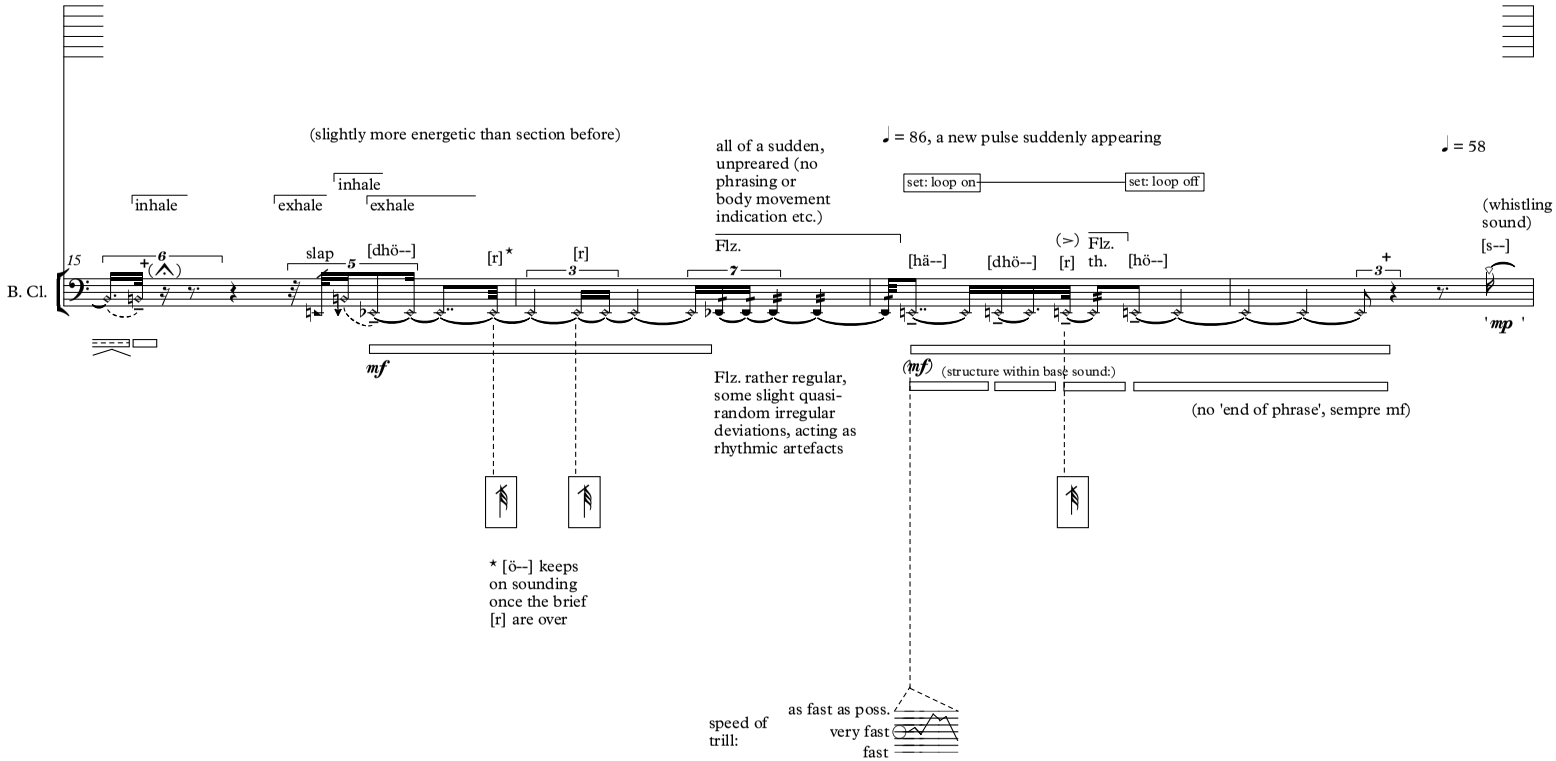


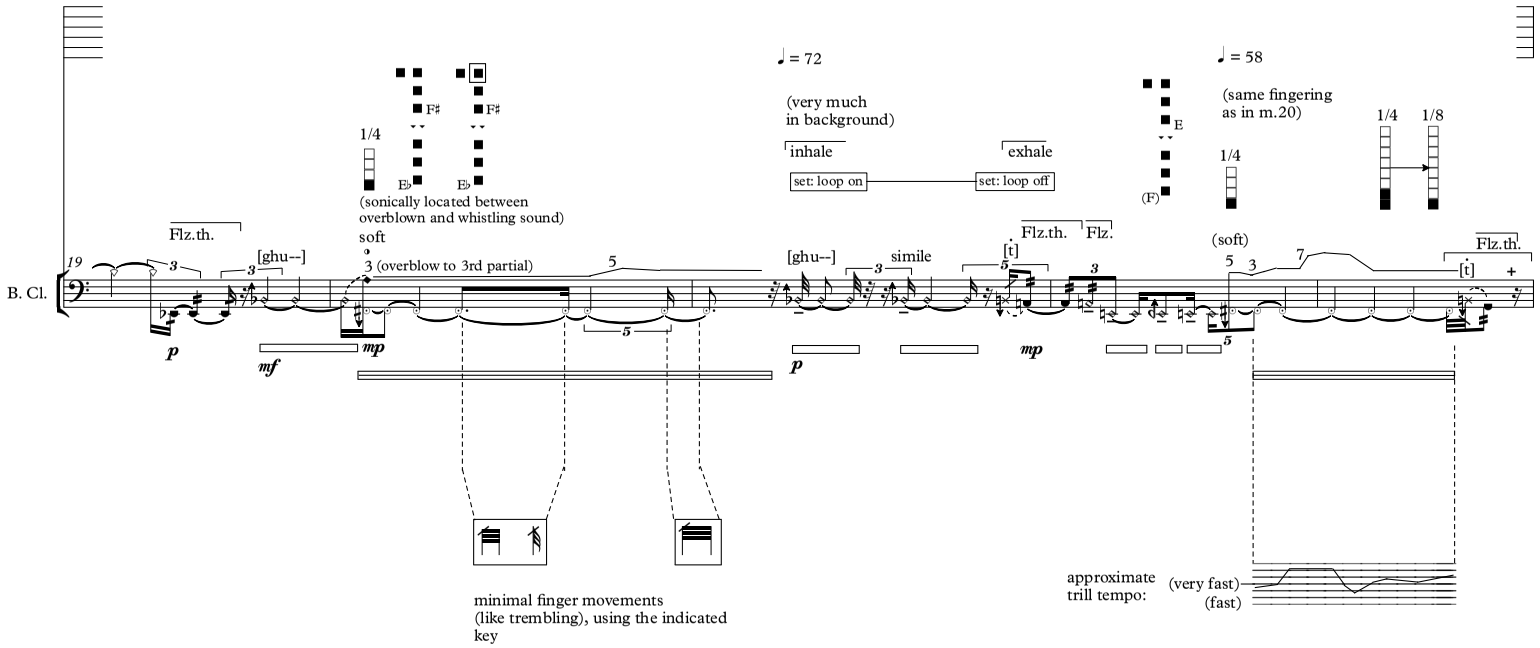
*** while continuously inhaling, form with tongue (lips closed, teeth always in same position, [r] = rolled r)

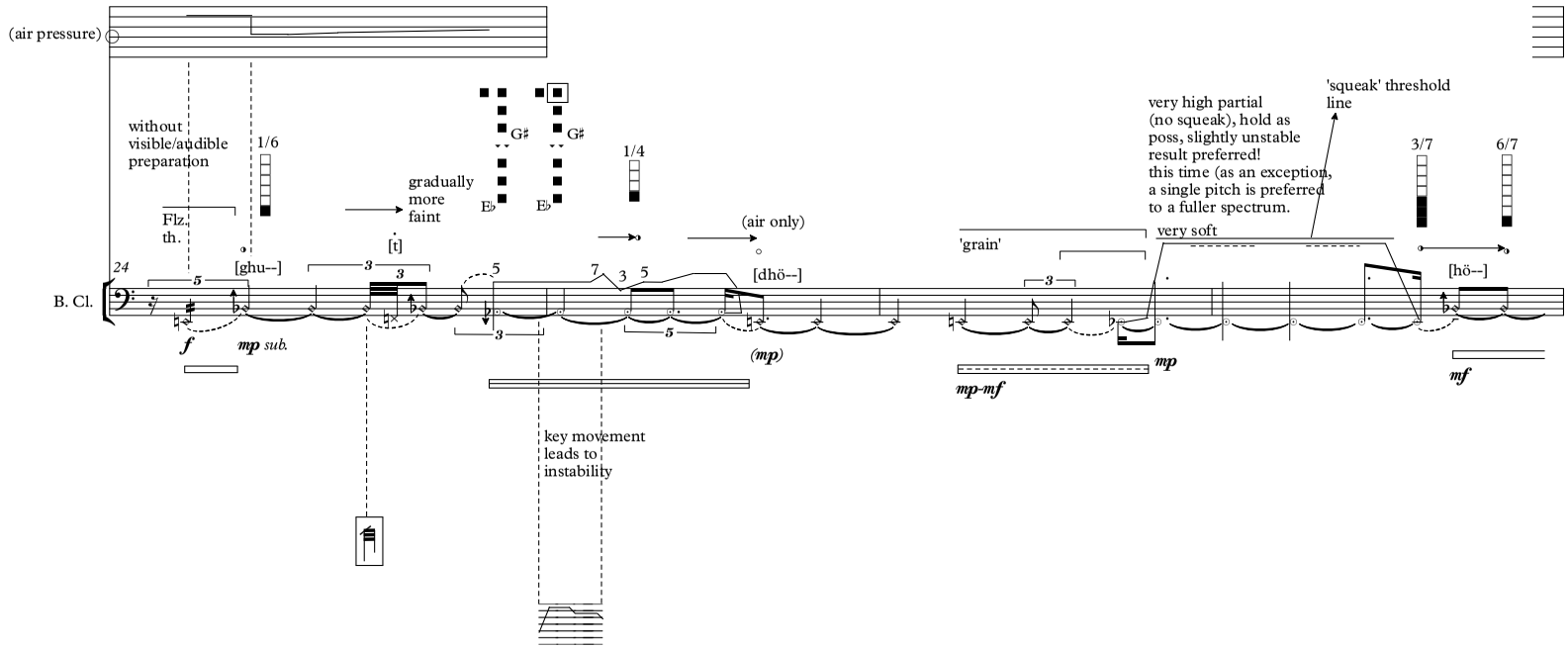
**** microtonal deviations from the notated pitch are preferred, particularly if the fingering is not a standard fingering.

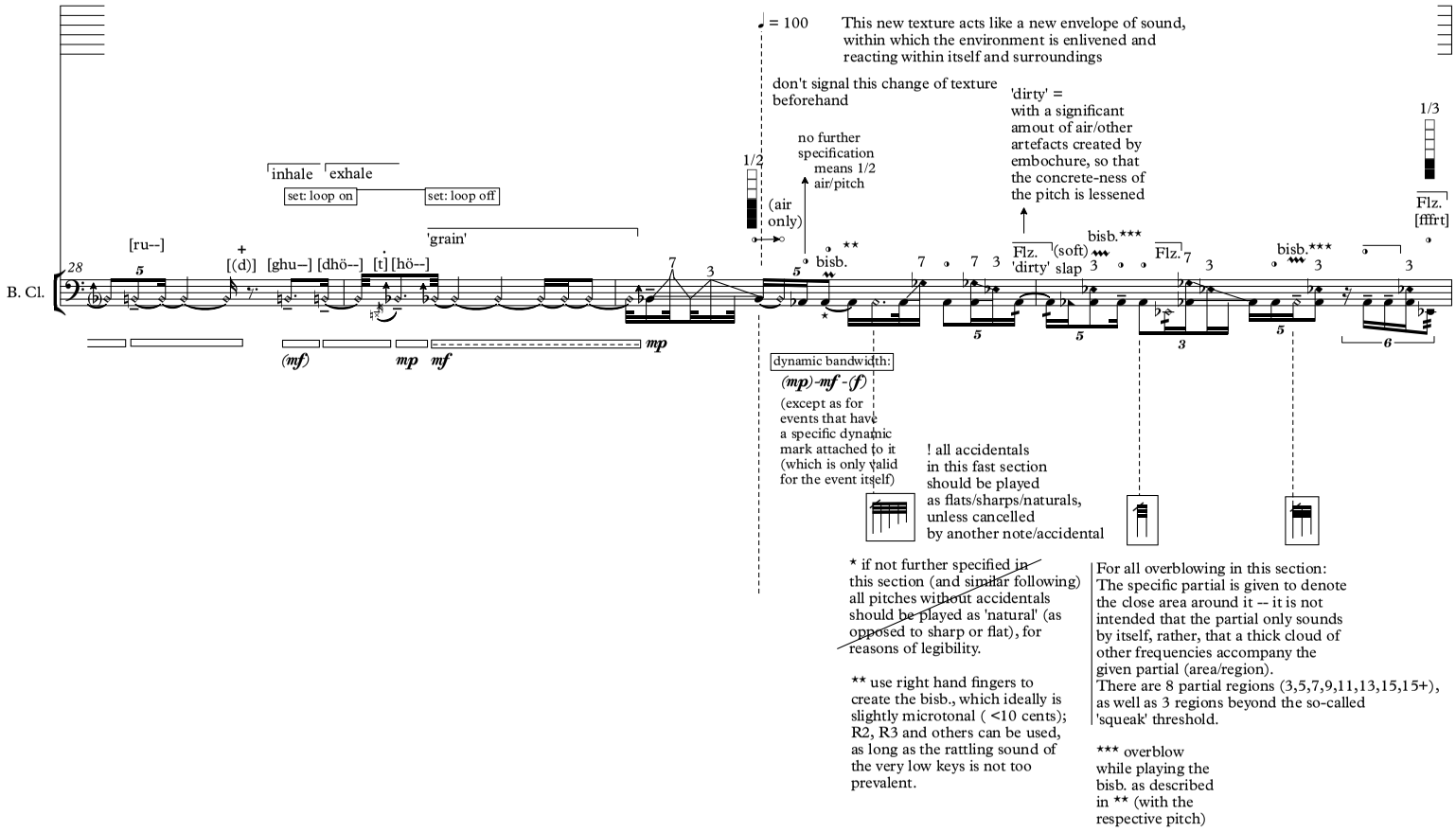

proportion of air vs. pitch within the given sound.
only applies to the sound that it is given with, unless stated otherwise.
white = air
black = pitch
4/5
(air pressure)
♩ = ca. 78
The sound ends suddenly, without any preparation whatsoever (e.g. no "playing an end of a phrase" or body movements). The air sound simply ends by cutting off the air flow.
exhale
with lots of air 'grains'*
B♮
inhale
exhale
Flz.
[hä--]***
[t]
[ho--]
[ru--]
[ho--]
'grain'
B. Cl.
'mf' (relative to the playing technique, if dynamics is given quote unquote)
mf
(conceptually, the (base) air sound is continous, with other events taking place in the foreground thus rendering the held air sound inaudible for a minimal period of time)
(same 'grain' speed as in m.5)
* 'grains' = artefacts within the given sound, similar to dust or the .. analog film. While the'envelope of the (base) sound remains fairly stable/static, it should be well saturated by the artefacts/'grains' that are distributed in a quasi-random way (there should not be any regularity, as e.g. would occur if the same sound evelope were subjected to a Flz.).
*** = fingering will, in addition, give its own color to the air sound (the [hä] vocalization only gives a minimal 'color' to the sound)
without any interruption of the (base) sound above (in terms of continuity or timing)
4:5
(sound continues as notated above)
density at least 7-9 'grain' events per beat
length of beam = importance/ emphasis within the key movement
B♮
boxed key(s) = trill key(s)

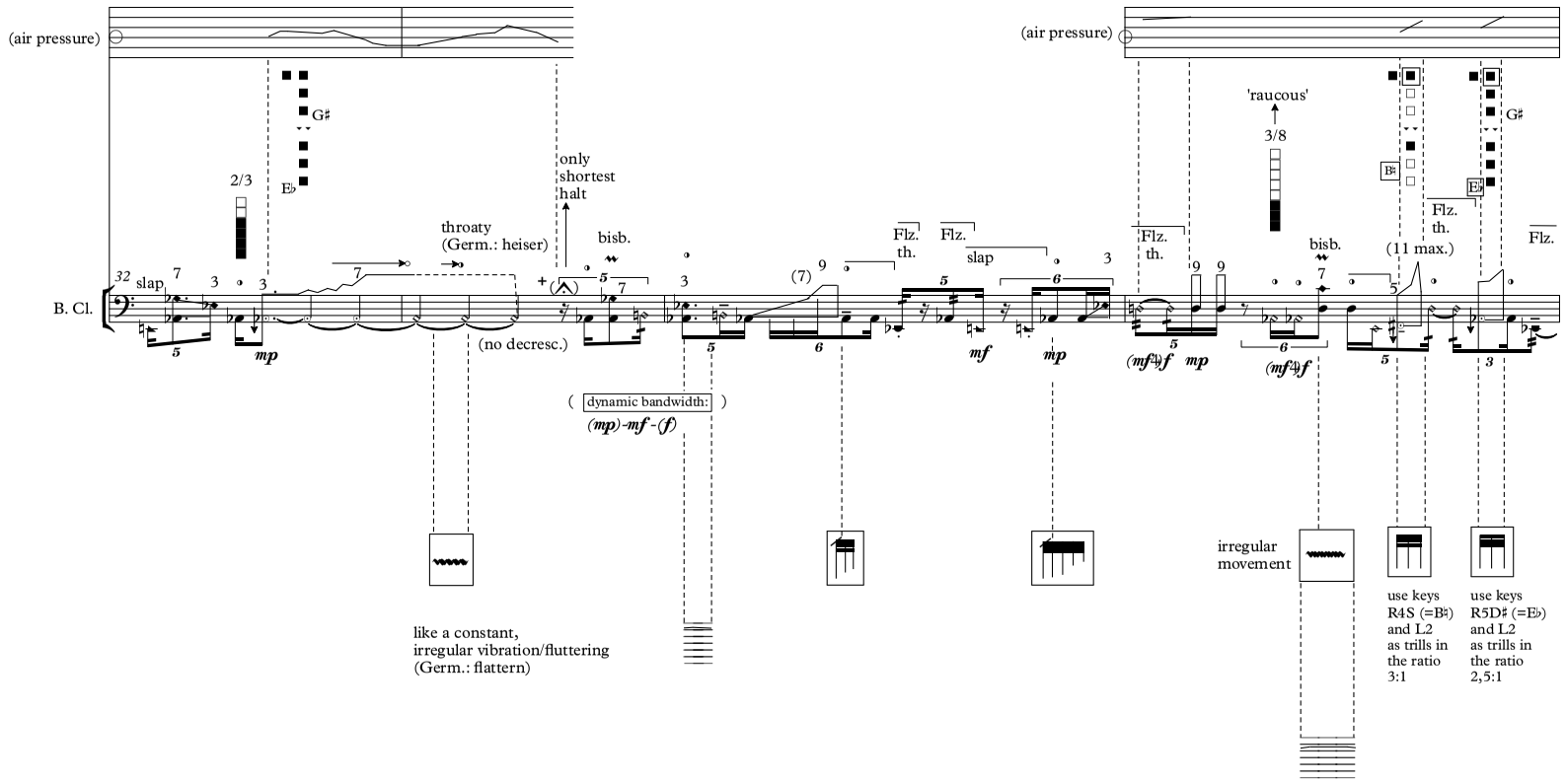

5
♩ = ca. 60
soft, but concise, 'artefact'
set: loop 1 on
set: loop 1 off
set: loop 2 on
set: loop 2 off
'zone of interference'
Flz. th.**
'grain'
Flz.
like a 'hold'
B. Cl.
[s--]
[t]
[ghu--]
[(d)]
[hö--]
'mp'
mf
(mp)mf
R
B♭
* teeth closed (just behind reed, so that reed remains untouched by teeth for this very moment), lips closed, exhale the [s]-sound is an extremely high-pitched whistling sound that can only be minimally heard within the noisy sound that this technique produces
** Flz.th = throat Flz., w/uvula
R3 results in higher trill tone, play med. speed, 'randomly'. Use L1R irregularly, ca. 1/3 to 1/5 of speed of R3. L1R acts as distortion, and need not be 'prounounced' properly (i.e. the octavation need not sound clearly).
*** indicates regularity within the 'grain', where similar to a circular motion certain aspects of the recurring pattern are emphasized [rah-rah-rah..]. Rhythmically independent from metric grid -- the recurring pattern should fit into the indicated period of time 5(.5) times.
(just an instance of a fermata/ very brief)

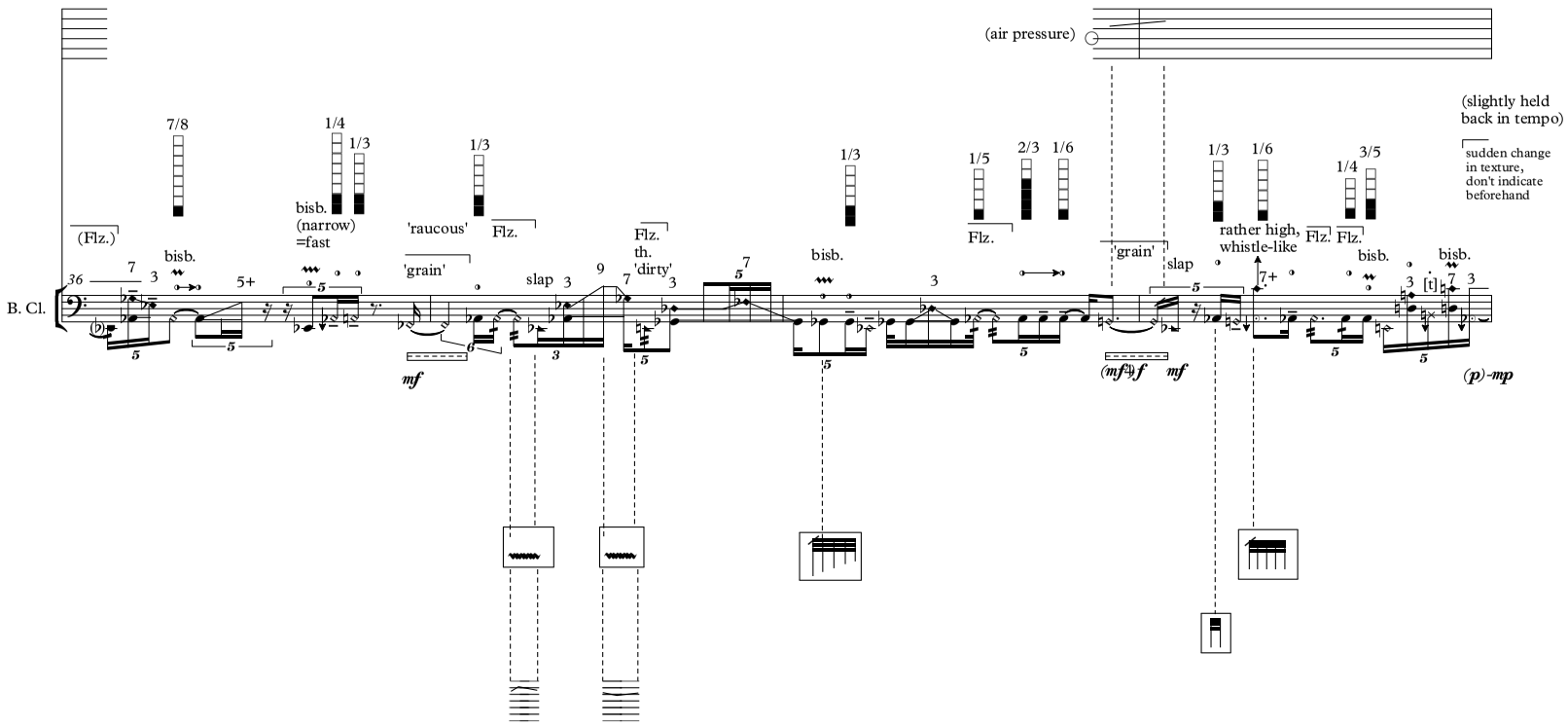

(slightly more energetic than section before)
all of a sudden, unpreared (no phrasing or body movement indication etc.)
♩ = 86, a new pulse suddenly appearing
♩ = 58
set: loop on
set: loop off
inhale
exhale
inhale
exhale
(whistling sound)
[s--]
15
B. Cl.
slap
[dhö--]
[r] *
[r]
[hä--]
[dhö--]
(>)
Flz. th.
[r]
[hö--]
Flz.
mf
(mf)
(structure within basic sound:)
(no 'end of phrase', sempre mf)
mp
Flz. rather regular, some slight quasi-random irregular deviations, acting as rhythmic artefacts
* [ö--] keeps on sounding once the brief [r] are over
speed of trill:
as fast as poss.
very fast
fast

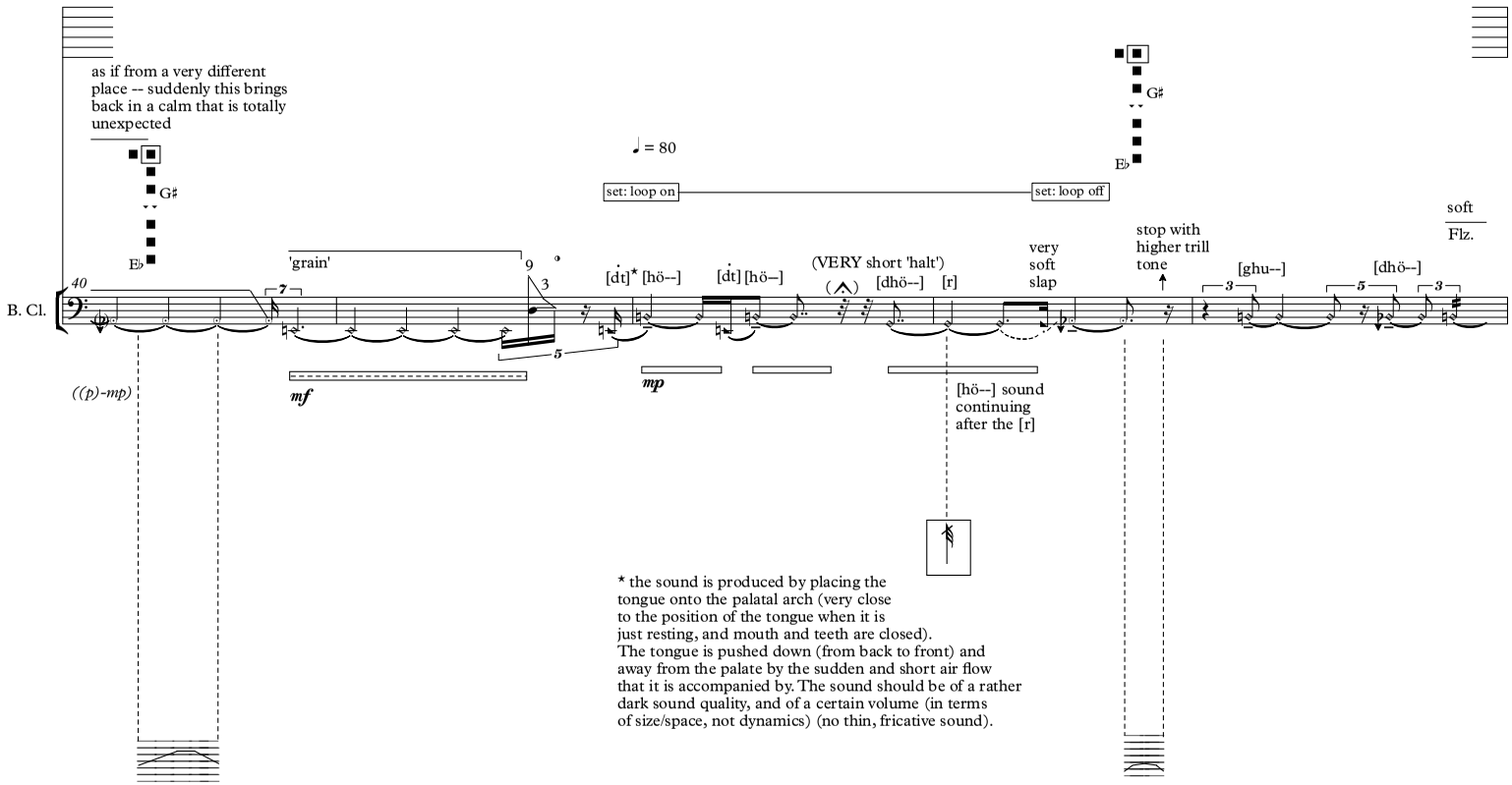

B. Cl.
19
Flz.th.
[ghu--]
soft
3 (overblow to 3rd partial)
(sonically located between overblown and whistling sound)
1/4
F♯
E♭
p
mf
mp
♩ = 72
(very much in background)
inhale
exhale
set: loop on
set: loop off
[ghu--]
simile
Flz.th.
Flz.
[t]
mp
p
♩ = 58
(same fingering as in m.20)
E
(F)
1/4
1/4
1/8
(soft)
Flz.th.
[t]
minimal finger movements (like trembling), using the indicated key
approximate trill tempo:
(very fast)
(fast)

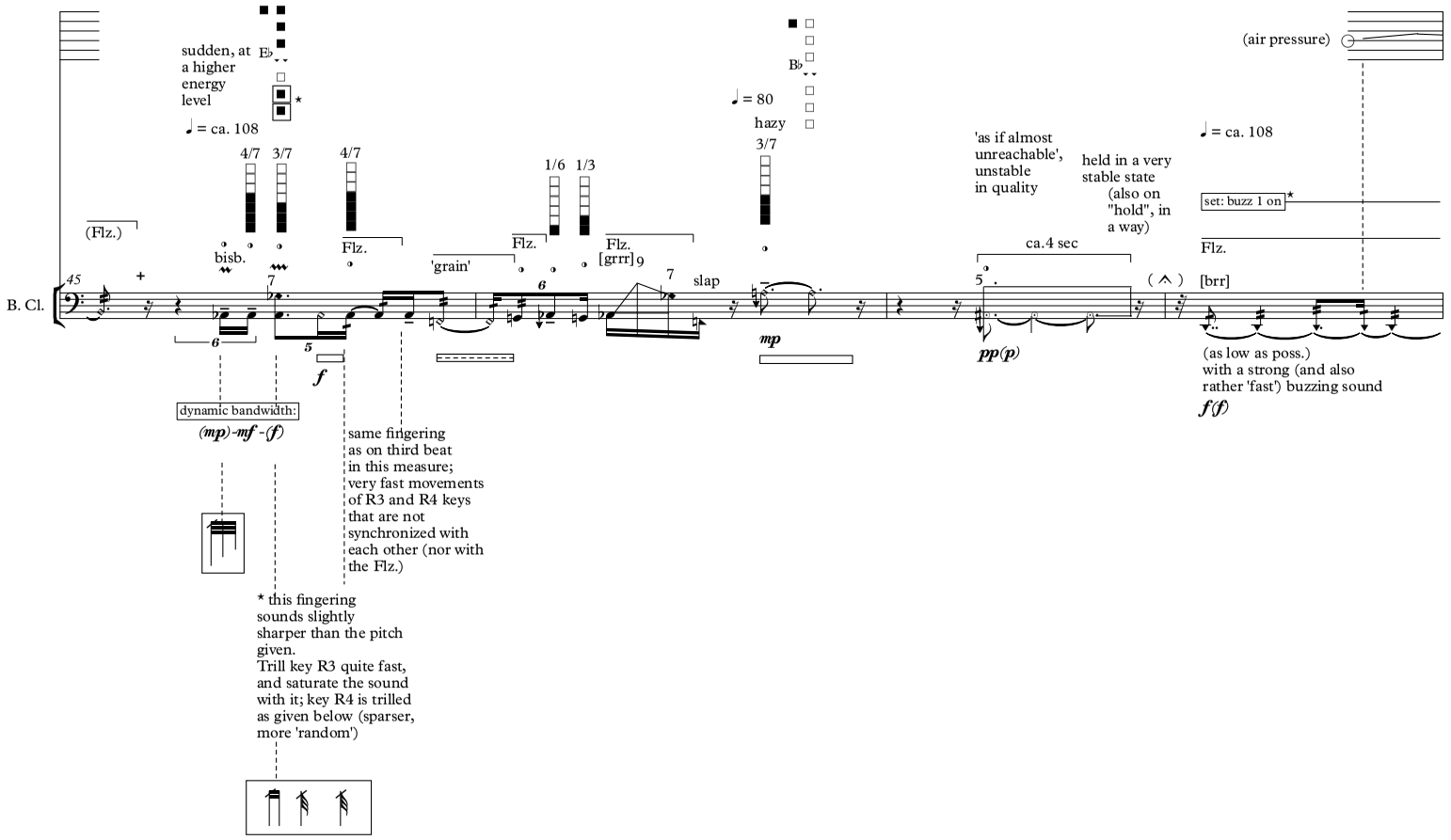

(air pressure)
without visible/audible preparation
1/6
Flz. th.
gradually more faint
[t]
G♯
G♯
E♭
E♭
1/4
(air only)
very high partial (no squeak), hold as poss, slightly unstable result preferred! this time (as an exception, a single pitch is preferred to a fuller spectrum.
'squeak' threshold line
3/7
6/7
very soft
'grain'
24
B. Cl.
[ghu--]
[dhö--]
[hö--]
f
mp sub.
(mp)
mp
mp-mf
mf
key movement leads to instability

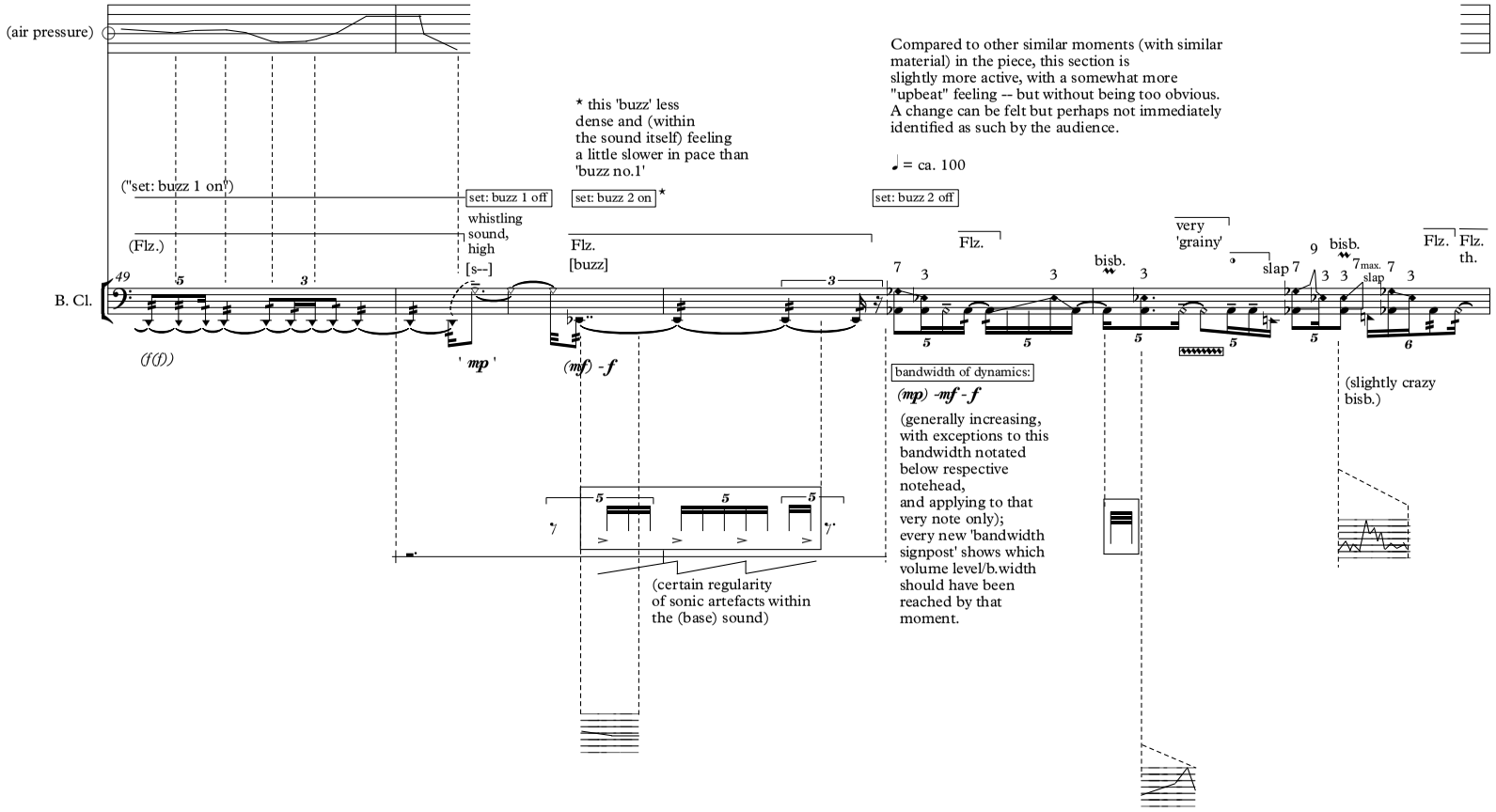

= 100
This new texture acts like a new envelope of sound, within which the environment is enlivened and reacting within itself and surroundings
don't signal this change of texture beforehand
no further specification means 1/2 air/pitch
1/2
(air only)
'dirty' = with a significant amout of air/other artefacts created by embochure, so that the concrete-ness of the pitch is lessened
1/3
Flz. [fffrt]
inhale
exhale
set: loop on
set: loop off
'grain'
[ru--]
[(d)]
[ghu--]
[dhö--]
[t]
[hö--]
B. Cl.
28
bisb.
Flz.
(soft)
'dirty' slap
bisb.***
Flz.
bisb.***
(mf)
mp
mf
mp
dynamic bandwidth:
(mp)-mf-(f)
(except as for events that have a specific dynamic mark attached to it (which is only valid for the event itself)
! all accidentals in this fast section should be played as flats/sharps/naturals, unless cancelled by another note/accidental
* if not further specified in this section (and similar following) all pitches without accidentals should be played as 'natural' (as opposed to sharp or flat), for reasons of legibility.
** use right hand fingers to create the bisb., which ideally is slightly microtonal (<10 cents); R2, R3 and others can be used, as long as the rattling sound of the very low keys is not too prevalent.
For all overblowing in this section:
The specific partial is given to denote the close area around it -- it is not intended that the partial only sounds by itself, rather, that a thick cloud of other frequencies accompany the given partial (area/region).
There are 8 partial regions (3,5,7,9,11,13,15,15+), as well as 3 regions beyond the so-called 'squeak' threshold.
*** overblow while playing the bisb. as described in ** (with the respective pitch)

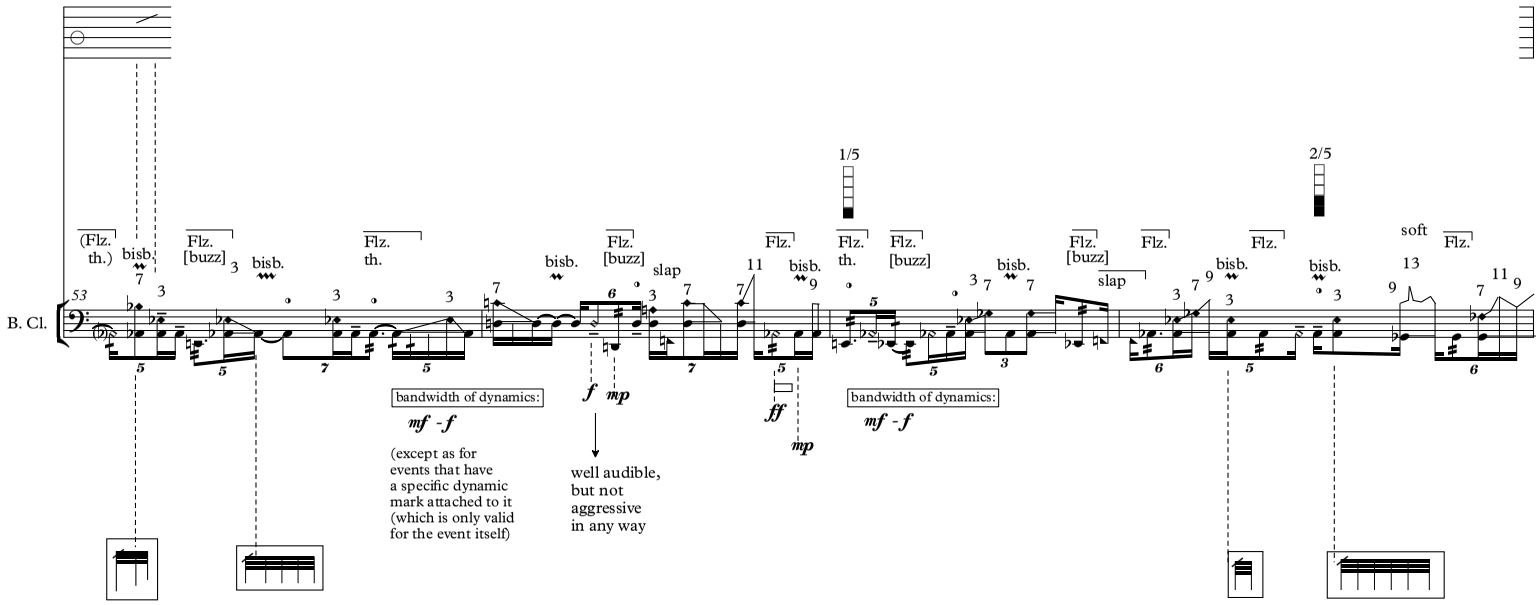

(air pressure)
G♯
E♭
2/3
only
shortest
halt
throaty
(Germ.: heiser)
bisb.
Flz.
th.
Flz.
slap
(air pressure)
'raucous'
3/8
B♯
E♭
G♯
Flz.
th.
(11 max.)
Flz.
B. Cl.
32
slap
mp
(no decresc.)
(7)
mf
mp
(mf♭)f
mp
(mf♭)f
bisb.
(dynamic bandwidth:)
(mp)-mf-(f)
irregular
movement
like a constant,
irregular vibration/fluttering
(Germ.: flattern)
use keys
R4S (=B♯)
and L2
as trills in
the ratio
3:1
use keys
R5D♯ (=E♭)
and L2
as trills in
the ratio
2,5:1

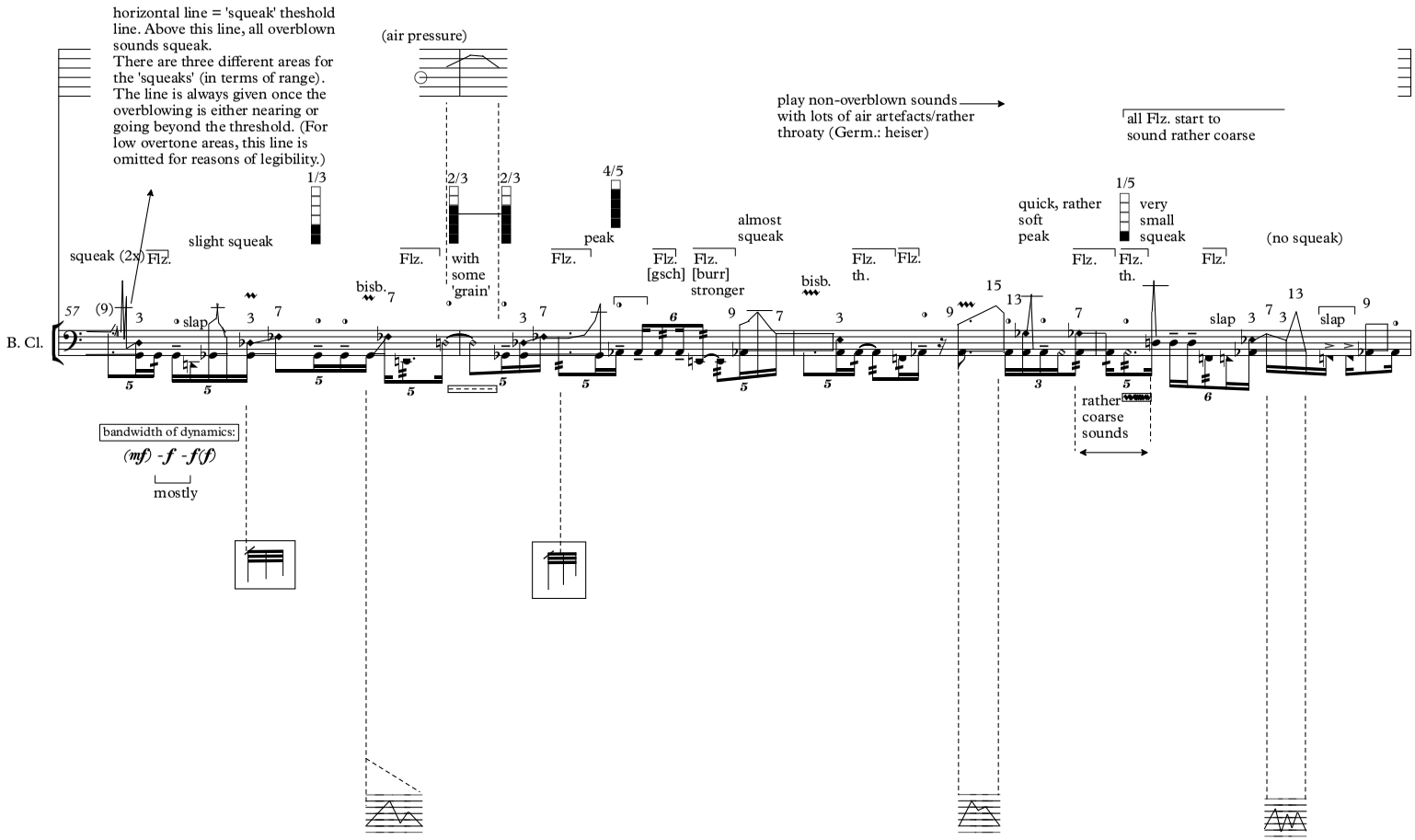

B. Cl.
36
(Flz.)
bisb.
bisb. (narrow) =fast
'raucous'
Flz.
'grain'
slap
Flz. th. 'dirty'
bisb.
Flz.
(air pressure)
'grain'
slap
rather high, whistle-like
Flz.
Flz.
bisb.
bisb.
(slightly held back in tempo)
sudden change in texture, don't indicate beforehand
mf
(mf)f
mf
(p)-mp

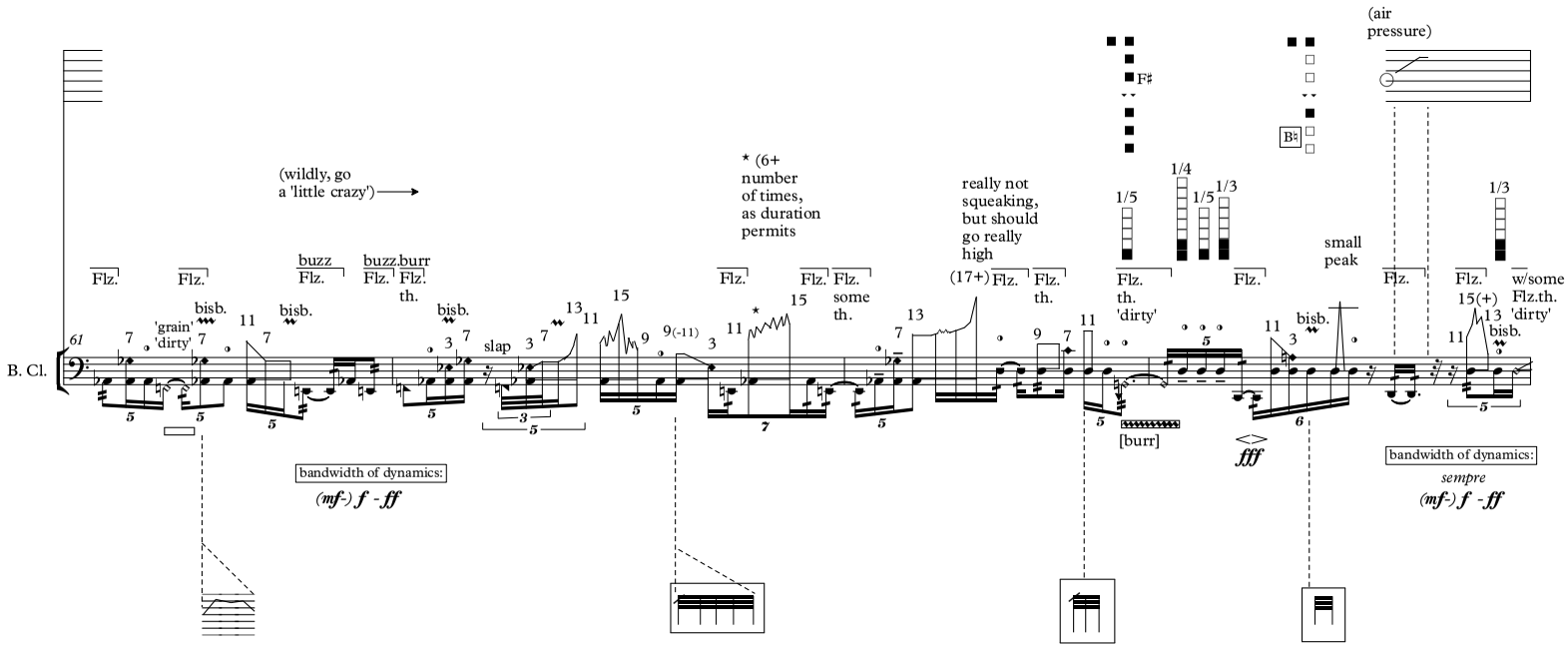

as if from a very different place -- suddenly this brings back in a calm that is totally unexpected
G♯
E♭
♩ = 80
set: loop on
set: loop off
G♯
E♭
soft
Flz.
B. Cl.
40
'grain'
9
3
5
[dt]* [hö--]
[dt] [hö--]
(VERY short 'halt')
[dhö--]
[r]
very soft slap
stop with higher trill tone
[ghu--]
[dhö--]
((p)-mp)
mf
mp
[hö--] sound continuing after the [r]
* the sound is produced by placing the tongue onto the palatal arch (very close to the position of the tongue when it is just resting, and mouth and teeth are closed). The tongue is pushed down (from back to front) and away from the palate by the sudden and short air flow that it is accompanied by. The sound should be of a rather dark sound quality, and of a certain volume (in terms of size/space, not dynamics) (no thin, fricative sound).

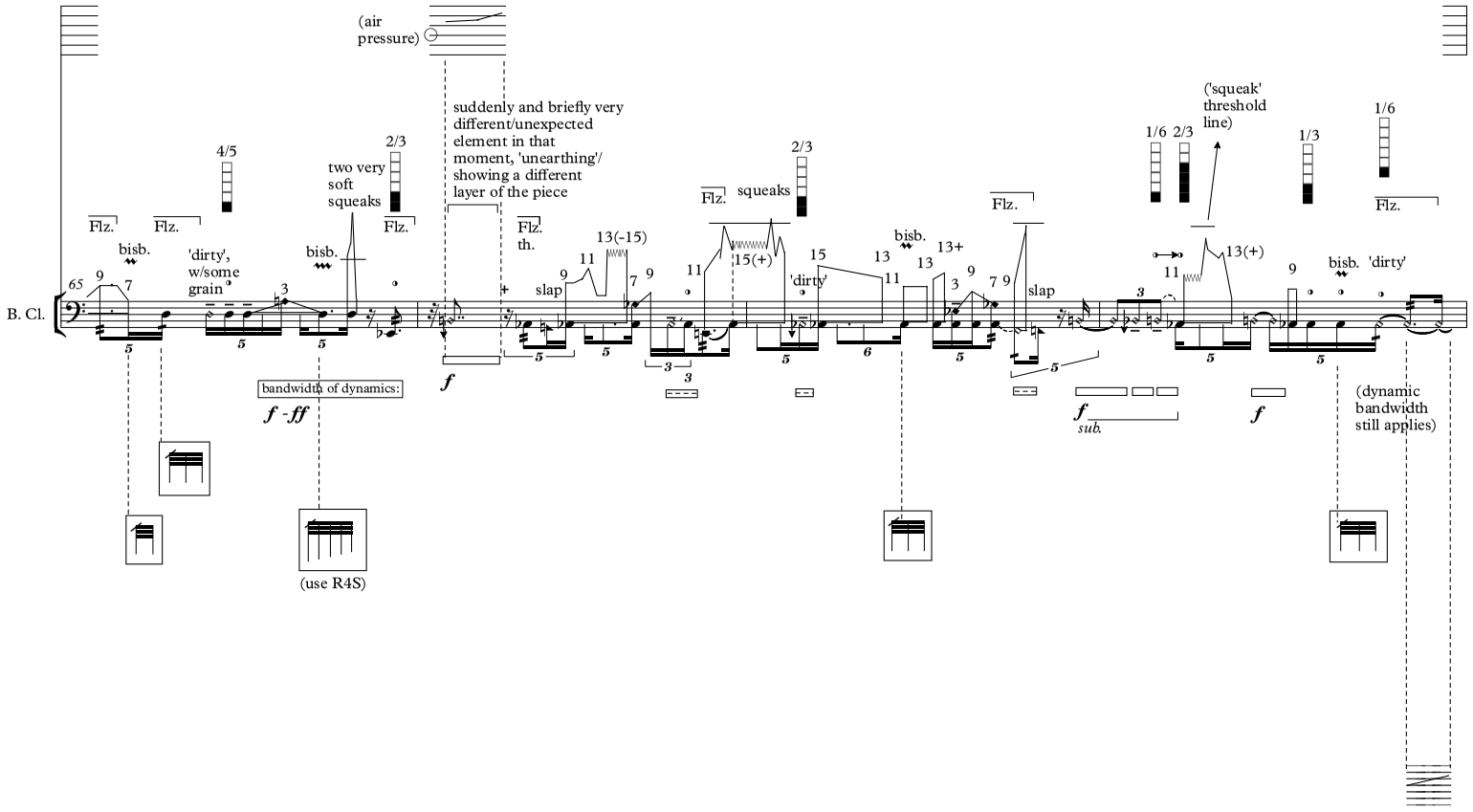

sudden, at a higher energy level
E♭
♩ = ca. 108
4/7
3/7
4/7
1/6
1/3
B♭
♩ = 80
hazy
3/7
'as if almost unreachable', unstable in quality
held in a very stable state (also on "hold", in a way)
♩ = ca. 108
(air pressure)
set: buzz 1 on
(Flz.)
bisb.
Flz.
'grain'
Flz.
Flz.
[grrr]
ca.4 sec
Flz.
45
B. Cl.
slap
[brr]
mp
pp(p)
f
dynamic bandwidth:
(mp)-mf-(f)
same fingering as on third beat in this measure; very fast movements of R3 and R4 keys that are not synchronized with each other (nor with the Flz.)
* this fingering sounds slightly sharper than the pitch given.
Trill key R3 quite fast, and saturate the sound with it; key R4 is trilled as given below (sparser, more 'random')
(as low as poss.)
with a strong (and also rather 'fast') buzzing sound
f(f)

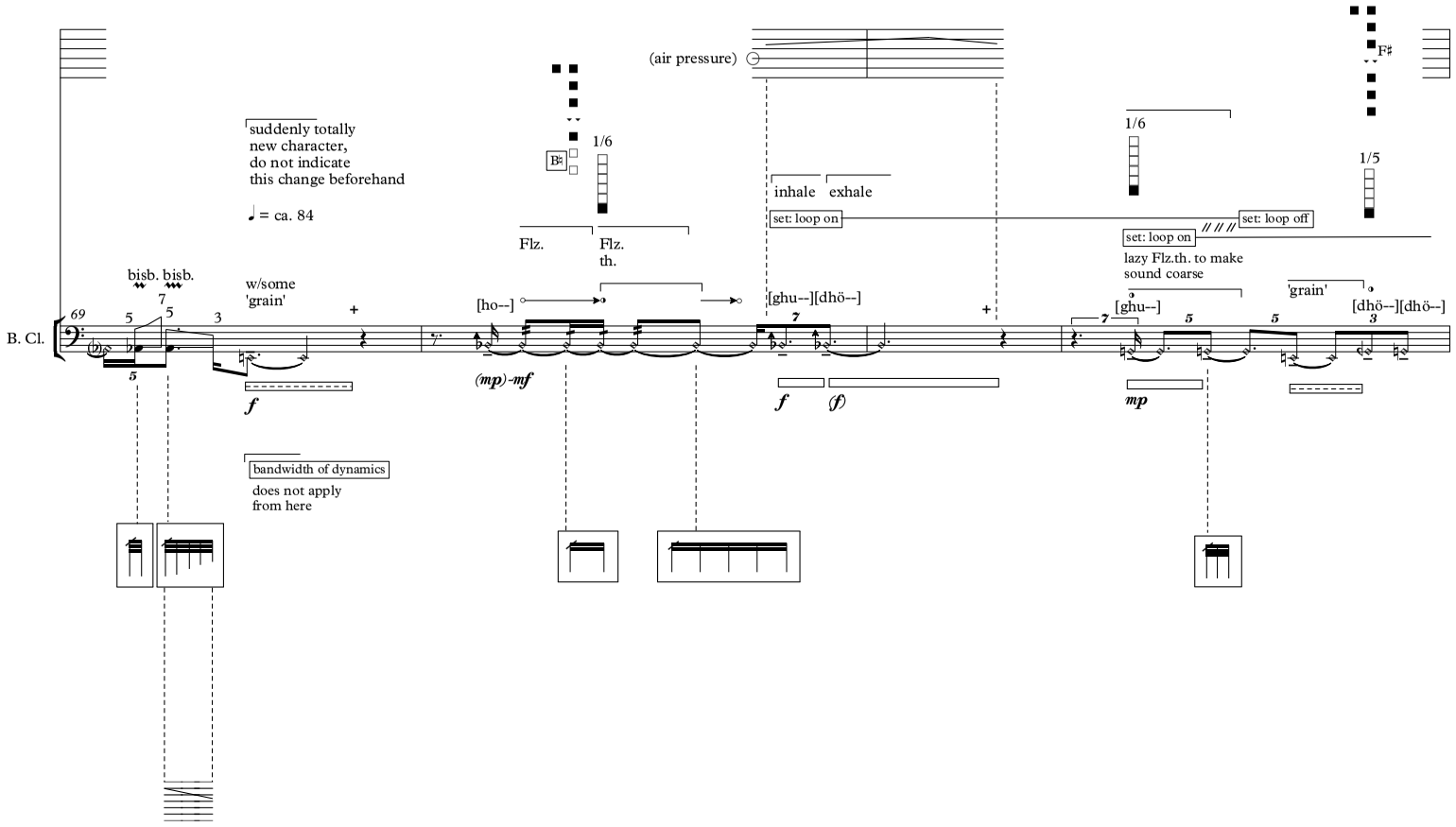

(air pressure)
("set: buzz 1 on")
set: buzz 1 off
whistling sound, high [s--]
set: buzz 2 on *
set: buzz 2 off
(Flz.)
Flz. [buzz]
Flz.
very 'grainy'
bisb.
slap
Flz.
Flz. th.
B. Cl.
49
(fff)
' mp '
(mf) - f
* this 'buzz' less dense and (within the sound itself) feeling a little slower in pace than 'buzz no.1'
Compared to other similar moments (with similar material) in the piece, this section is slightly more active, with a somewhat more "upbeat" feeling -- but without being too obvious. A change can be felt but perhaps not immediately identified as such by the audience.
♩ = ca. 100
bandwidth of dynamics:
(mp) - mf - f
(generally increasing, with exceptions to this bandwidth notated below respective notehead, and applying to that very note only); every new 'bandwidth signpost' shows which volume level/b.width should have been reached by that moment.
(certain regularity of sonic artefacts within the (base) sound)
(slightly crazy bisb.)

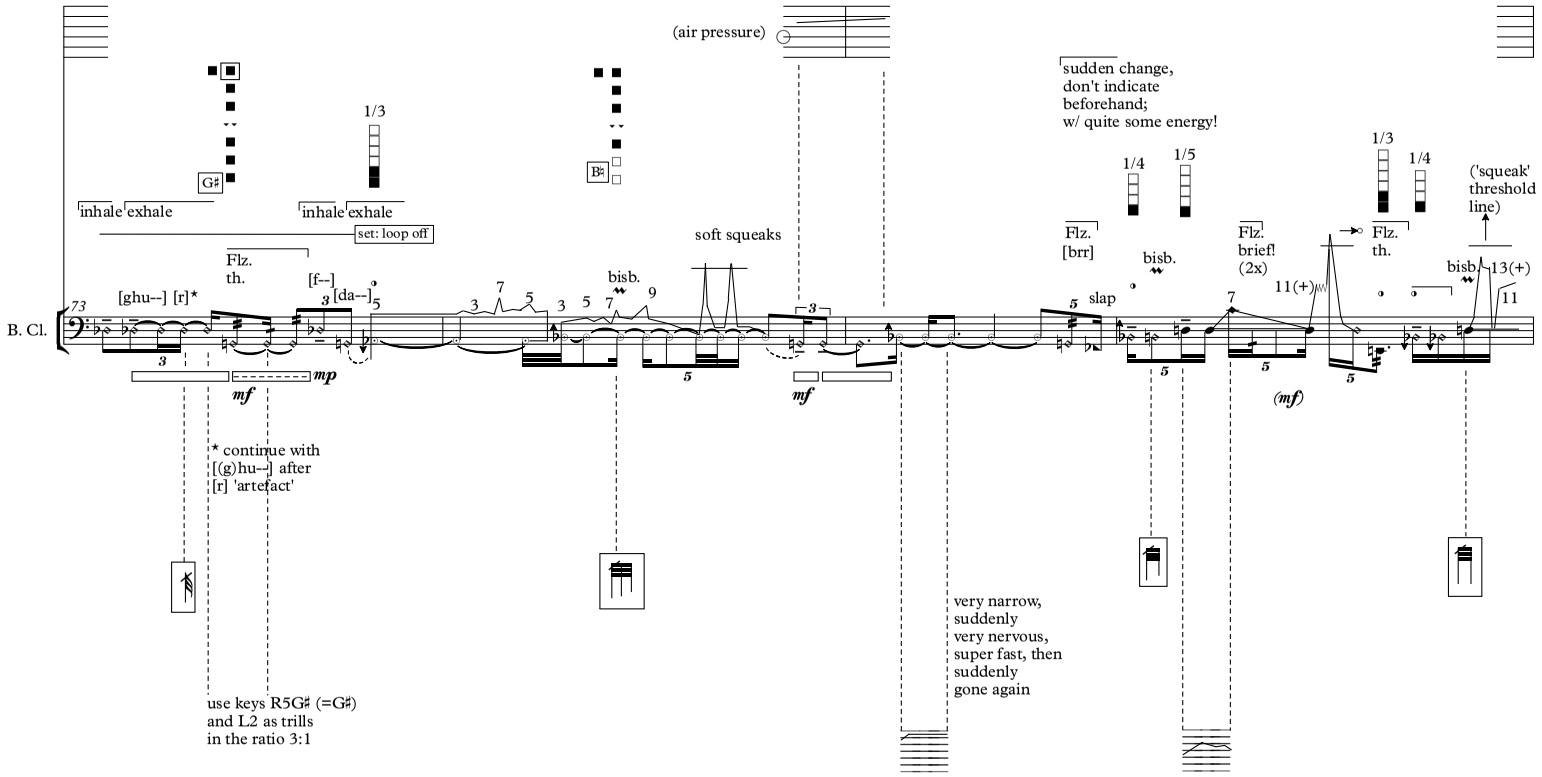

B. Cl.
(Flz. th.)
bisb.
Flz. [buzz]
Flz. th.
slap
soft
1/5
2/5
bandwidth of dynamics:
mf - f
(except as for events that have a specific dynamic mark attached to it (which is only valid for the event itself)
f
mp
well audible, but not aggressive in any way
ff
mp
bandwidth of dynamics:
mf - f

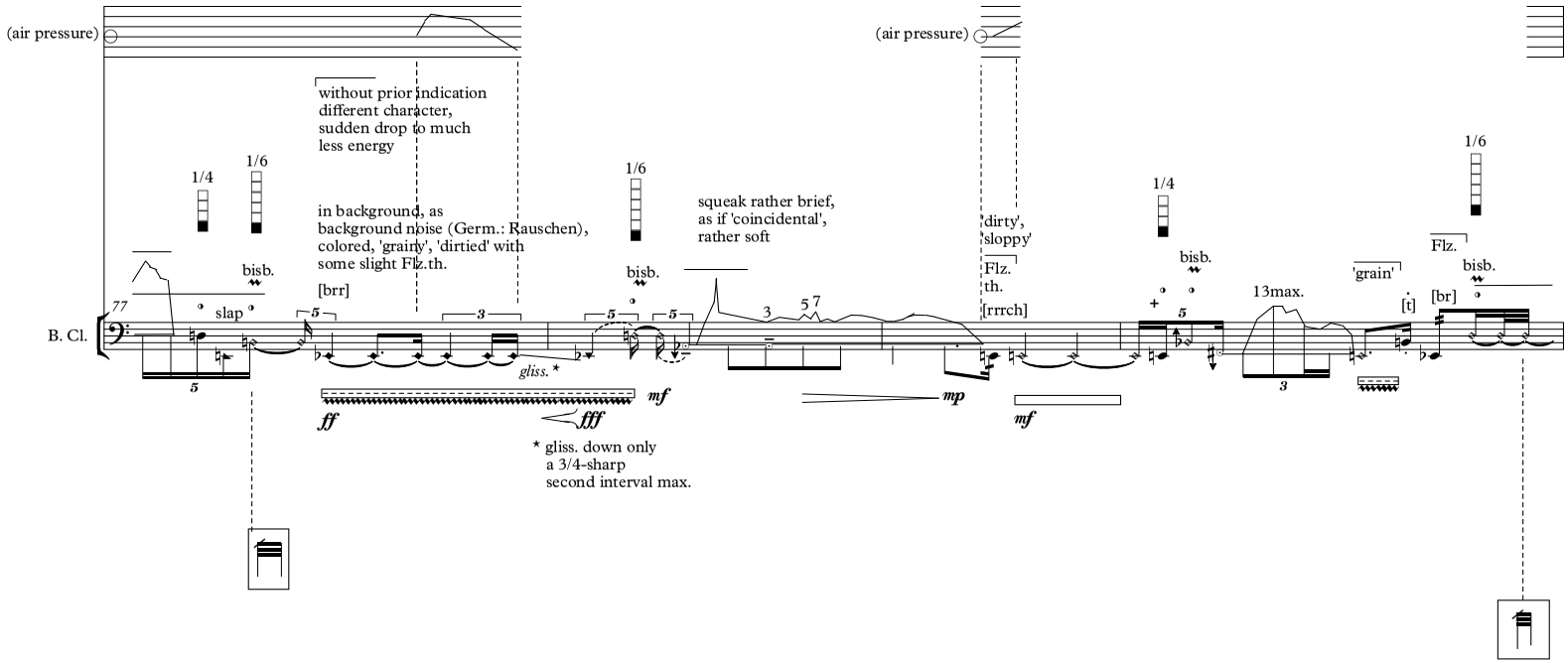

horizontal line = 'squeak' theshold line. Above this line, all overblown sounds squeak.
There are three different areas for the 'squeaks' (in terms of range). The line is always given once the overblowing is either nearing or going beyond the threshold. (For low overtone areas, this line is omitted for reasons of legibility.)
(air pressure)
play non-overblown sounds with lots of air artefacts/rather throaty (Germ.: heiser)
all Flz. start to sound rather coarse
1/3
2/3
2/3
4/5
1/5
very small squeak
squeak (2x)
Flz.
slight squeak
Flz.
with some 'grain'
Flz.
peak
Flz. [gsch]
Flz. [burr] stronger
almost squeak
Flz. th.
Flz.
quick, rather soft peak
Flz.
Flz. th.
Flz.
(no squeak)
B. Cl.
57
(9)
slap
bisb.
bisb.
slap
slap
rather coarse sounds
bandwidth of dynamics:
(mf) - f - f(f)
mostly

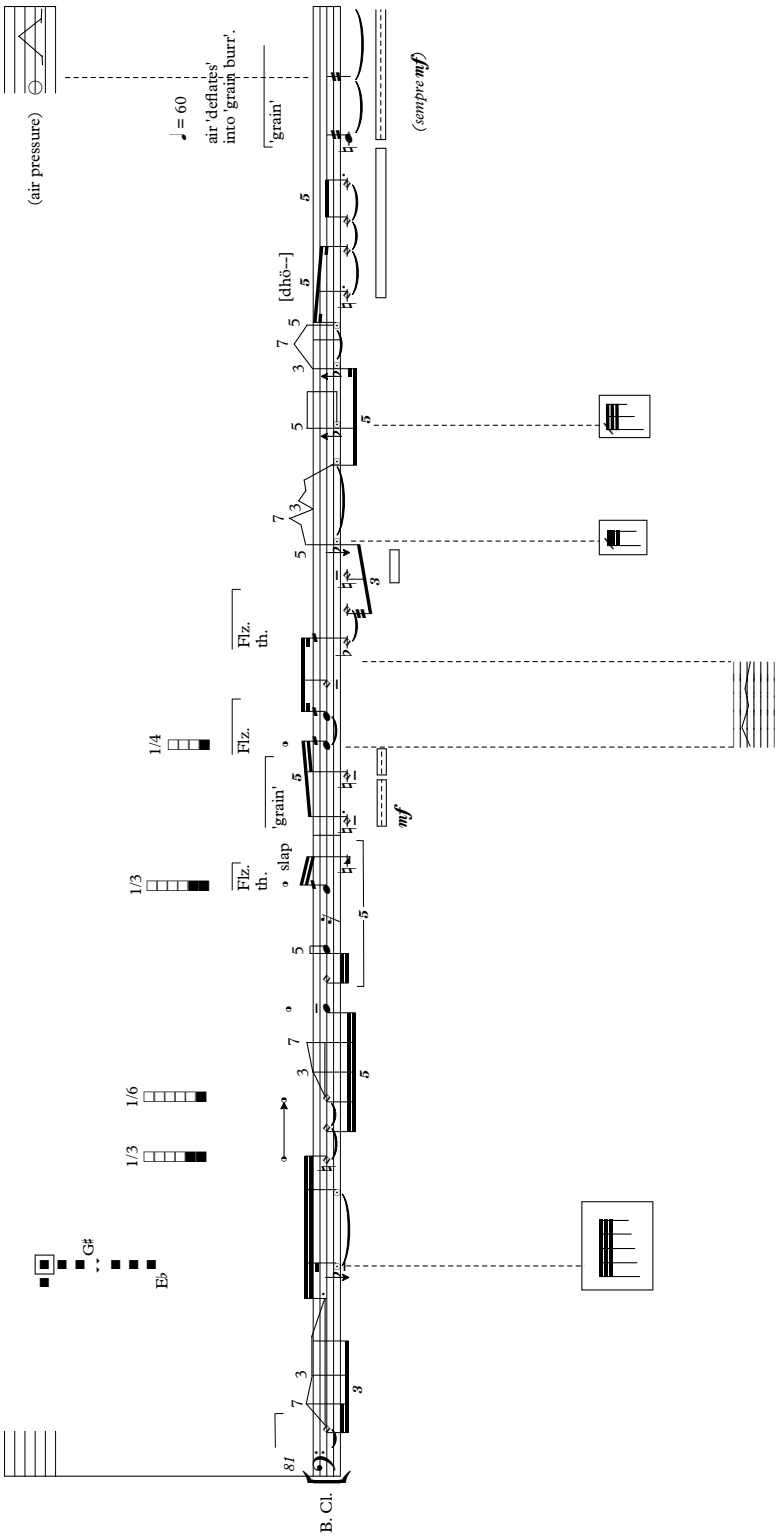

B. Cl.
61
Flz.
'grain'
'dirty'
bisb.
(wildly, go
a 'little crazy')
buzz
buzz.burr
th.
slap
* (6+
number
of times,
as duration
permits
some
th.
really not
squeaking,
but should
go really
high
(17+)
th.
'dirty'
[burr]
small
peak
(air
pressure)
w/some
Flz.th.
'dirty'
bandwidth of dynamics:
(mf-) f - fff
fff
sempre


B. Cl.
(air pressure)
suddenly and briefly very different/unexpected element in that moment, 'unearthing'/ showing a different layer of the piece
two very soft squeaks
4/5
2/3
Flz.
bisb.
'dirty', w/some grain
th.
squeaks
slap
'dirty'
('squeak' threshold line)
1/6
2/3
1/3
13(-15)
15(+)
13(+)
13+
bandwidth of dynamics:
f -ff
f
sub.
(dynamic bandwidth still applies)
(use R4S)

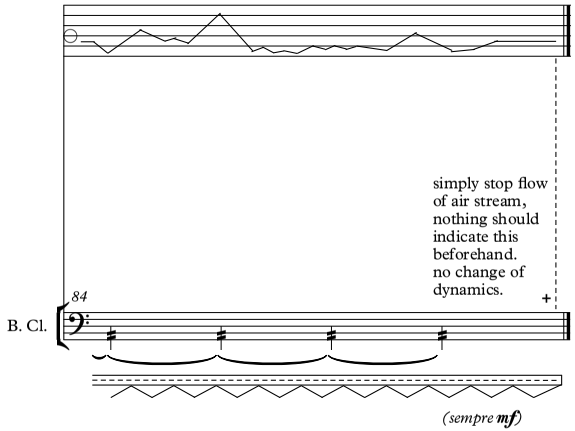

B. Cl.
bisb. bisb.
w/some 'grain'
suddenly totally new character, do not indicate this change beforehand
♩ = ca. 84
f
bandwidth of dynamics
does not apply from here
B♯
1/6
Flz.
Flz. th.
[ho--]
(mp)-mf
(air pressure)
inhale
exhale
set: loop on
[ghu--][dhö--]
f
(f)
1/6
set: loop on
set: loop off
lazy Flz.th. to make sound coarse
[ghu--]
mp
F♯
1/5
'grain'
[dhö--][dhö--]


B. Cl.
73
G♯
B♮
inhale exhale
inhale exhale
set: loop off
1/3
Flz.
th.
[ghu--] [r]*
[f--]
[da--]
bisb.
soft squeaks
(air pressure)
sudden change,
don't indicate
beforehand;
w/ quite some energy!
1/4
1/5
Flz.
[brr]
bisb.
slap
Flz.
brief!
(2x)
11(+)
1/3
1/4
Flz.
th.
('squeak'
threshold
line)
bisb.
13(+)
11
mf
mp
mf
(mf)
* continue with
[(g)hu--] after
[r] 'artefact'
use keys R5G♯ (=G♯)
and L2 as trills
in the ratio 3:1
very narrow,
suddenly
very nervous,
super fast, then
suddenly
gone again


(air pressure)
without prior indication
different character,
sudden drop to much
less energy
1/4
1/6
bisb.
in background, as
background noise (Germ.: Rauschen),
colored, 'grainy', 'dirtied' with
some slight Flz.th.
[brr]
1/6
bisb.
squeak rather brief,
as if 'coincidental',
rather soft
B. Cl.
77
slap
gliss.*
ff
fff
mf
mp
mf
* gliss. down only
a 3/4-sharp
second interval max.
(air pressure)
dirty',
sloppy'
Flz.
th.
[rrrch]
1/4
bisb.
13max.
'grain'
[t]
1/6
Flz.
bisb.
[br]


(air pressure)
♩= 60
air 'deflates'
into 'grain burr'.
'grain'
(sempre mf)
[dhö--]
Flz.
th.
1/4
Flz.
'grain'
mf
1/3
Flz.
th.
slap
1/6
1/3
G♯
E♭
81
B. Cl.

22


simply stop flow
of air stream,
nothing should
indicate this
beforehand.
no change of
dynamics.
84
B. Cl.
(sempre mf)

54

3. CHAPTER 3 – THE PERIPHERAL

3.1. IF ONLY IT WERE NOT BOUND TO (2016) – for string quartet

Written for the JACK Quartet (Christopher Otto, Ari Streisfeld, John Pickford Richards, Kevin McFarland) in December 2015 and early January 2016.

World premiere by the JACK Quartet on February 06, 2016 at John Knowles Paine Concert Hall, Harvard University Music Department.

MANUELA MEIER

if only it were not bound to

for string quartet

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"IF ONLY IT WERE NOT BOUND TO" (2016)

FOR STRING QUARTET (2 vln, vla, vlc)

Duration: approx. 9:30 min

CONCEPTUAL FEATURES:

if only it were not bound to features two types of understanding of time, namely 'relative' and 'absolute' time.
In the score, the notational difference between these two types of time is most apparent in their specific rhythmic notation.

Some non-rhythmic features are specific to one of the two types of time, and are described below in the respective section. Notational features that apply to both kinds of time are listed in "General Features".

GENERAL FEATURES:

Notation of microtones:

quarter tone sharp ♯↑ three quarter tone sharp ♯ quarter tone flat ♭↓ three quarter tone flat 𝄫

Additional arrows attached to these microtones represent cent adjustments. For multiphonic nodes the cents are not given; else follow the instructions in the score, as to how many cents to deviate from the reference pitch.

Multiphonics:

M

The pitch given represents the fingerboard location/fundamental of the multiphonic to be played.

M [5+12+(7)]

Detailed information on sounding result of the multiphonics as given in the parts, with numbers representing the strongest sounding partial(s). The line represents the partials most closely located in regards to the fundamental, and the box gives information about the specific focus (narrower or wider focus, with either one or two partials as the focal area) of pitches within the given multiphonic. This is achieved by listening closely to the partials within the multiphonic -- once the specific partial is clearly sounding, focus and concentrate even more on this specific frequency.
A partial with parenthesis indicates a weak or almost inexistent sounding of a certain partial contained in the multiphonic.

Bow contact locations:

m.s.t.	molto sul tasto
s.t.	sul tasto
ord.	ordinario
s.p.	sul ponticello
m.s.p.	molto sul ponticello

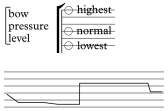
m.s.p. / s.p. — Gradual change of fingerboard location, as indicated in the graphical representation.

Other techniques:

2 — 2-finger trill: place left hand fingers at their closest together, the lowest note being the one given in the score. Very fast movement that gives and overall impression of a continuous sound.
This trill type also exists for 3 fingers (3-finger trill).

Hyper-vibrato: Follow the instructions in the score as to the exact extension of this vibrato movement.

Bow-related notation:



The bottom line represents the lowest bow pressure level. The third line from the bottom represents ordinario bow pressure (relative to the given technique). The top line signifies the highest bow pressure. However, despite the highest bow pressure, the harmonic aspects of the sonority should always prevail, and any scratching artifacts should never cover the rich spectrum of the given sonority.
Vertical lines represent a sudden change to a different level.
Whenever there is no bow pressure level given, the standard pressure relative to the given playing technique applies.

Strong bow pressure, with a fair amount of scratching, but never completely covering the spectrum of the base sonority; subito unless noted otherwise.

Adjust the bow pressure, so that either a buzzing or rattling quality will be added to the rest of the sonority. Comments in the score will further determine the specific quality of the buzz, rattle and/or playing technique used in order to achieve this effect.

Very fast and regular tremolo, very narrow and dense. The intensity level is significantly increased, however it should never give an impression of nervosity.



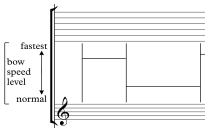
Continuous sound, with audible bow direction changes ('noise' of the bow direction change) well audible 'within' the sound.

'RELATIVE' TIME:

(e.g. see score mm.1-20)

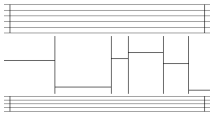
'Relative' time: An approximate duration is given for proportionally equal sections of the piece, and as those are not fixed to a regular metric grid and time. The understanding of this kind of 'relative' time is one of a floating nature. Although navigation around certain anchor points might be necessary for performance practical reasons, those moments should remain as fluid and spontaneous, even over the course of several rehearsals.

Bow speed:



The bow speed level is given by the level of the horizontal lines, in the space between the two staff lines. The fastest bow speed is given closest to the top staff line, the normal/ordinario bow speed level is given closest to the bottom staff line.
The bow direction changes with every change in the bow speed level.
Generally, this should be played molto flaut. and at low bow pressure (but well audible nevertheless) for the parts of the piece that are in 'relative' time, unless noted otherwise.

Rhythmic features:



Each vertical line represents a bow direction change, through which a particular rhythm emerges. It should always sound fluid and spontaneous, and never strict or metered in any way.

Dynamics:

dynamic bandwidth: *mf-f*

The dynamic bandwidth is active for all parts of the piece that are in 'relative' time, and takes place within the given bandwidth. Exceptions will be stated explicitly in the score during those sections of the piece, and will only apply to one individual sonority, after which the dynamic bandwidth applies again.

'ABSOLUTE' TIME:

(e.g. see score m.21-96)

Mostly conventional (rhythmic) notation, with additional sonic information given using a variety of special symbols, graphical elements or comments. However, despite a time signature given, there is no metric differenciation within a measure.

Notational features that further shape an underlying sonority:

Diamond or full noteheads supply the performer with additional information on whether a sound is conceived of conceptually as either an air-based or pitch-based sound, that finds itself altered by other sonic qualities or features.
Unless otherwise noted, diamond-shaped noteheads are conceived of as frequency-colored air sounds -- the air sounds being produced by the bow (no use of the performer's voice at any time).
Sections marked as 'noise machine' should sound particularly regular, and with flat dynamics ("on-off" dynamics, with no 'phrasing'/shaping of the dynamics within a sound).
Flag. are notated in the conventional way.

▲ As high as possible, unless otherwise noted, or unless with additional AWI/AWIV indication (see below).

AWI
▲ Air sound produced by bowing on the waist of the instrument adjacent to the first string (I).
AWIV is the equivalent of this for the fourth string (IV).

Producing a frequency-colored air sound, with bowing as close to bridge (very high m.s.p.) as possible on the indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.

[ho] 'Vocalization': This serves as a reference for the specific coloring of the base sonority, but the vocalization is never spoken itself/pronounced using the performer's voice. Try to imitate this sound as closely as possible on the instrument only (e.g. by adjusting the bow speed, or as indicated in the score). Generally, the vocalizations are pronounced similar to the German pronounciation, unless indicated otherwise (e.g. English, Mandarin Chinese).
[cho]
[f]
[s]
Combinations of various sonic features may result in the following description in the score, as given below.



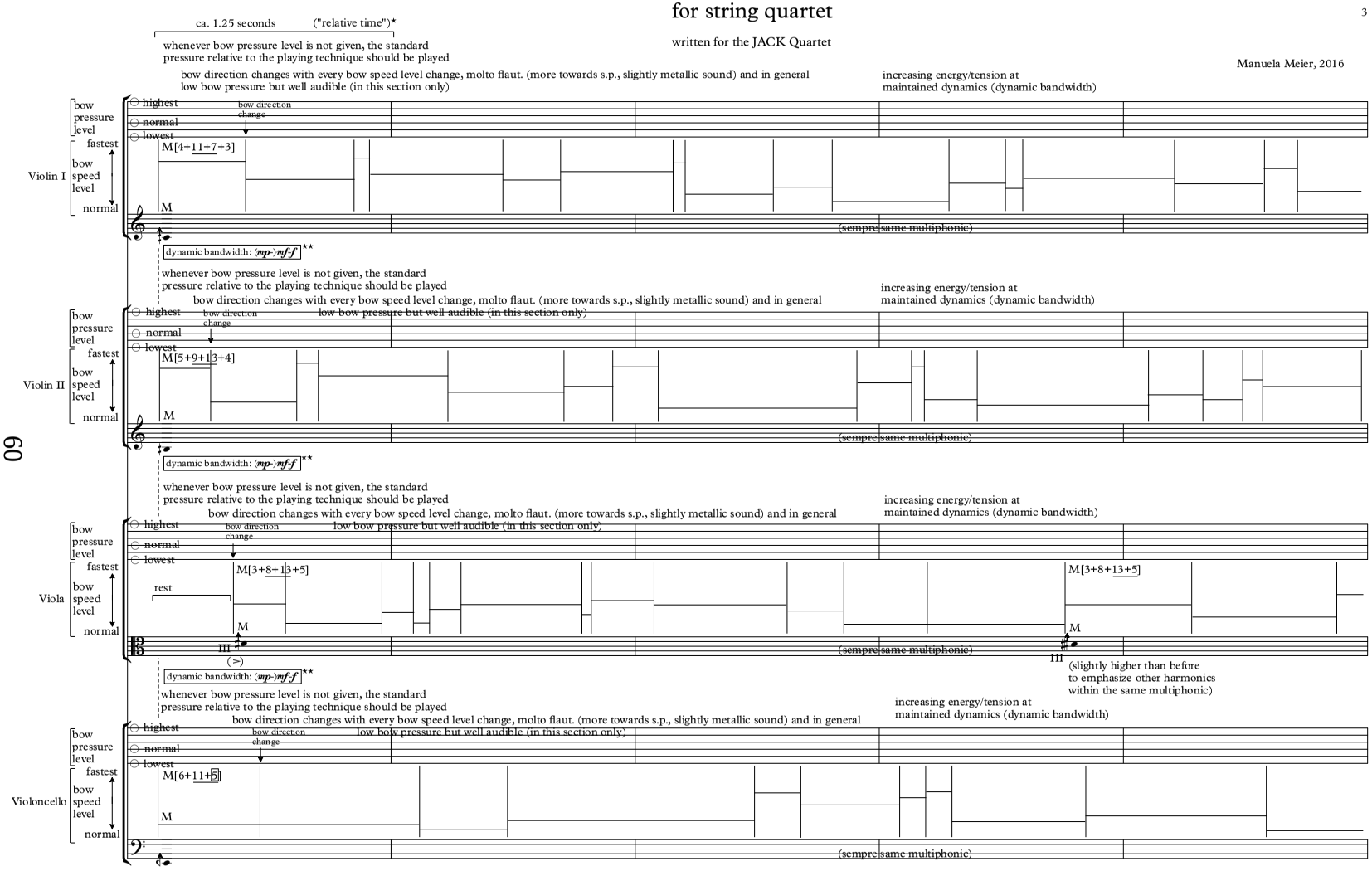
Other features:

—— - - - - - - - - - - - Sound starts to 'break' away; more instable, at times briefly ceasing, then re-appearing.
Follow the instructions in the score, as to the specific nature of the sound (and sound production) at that given moment.

if only it were not bound to
for string quartet

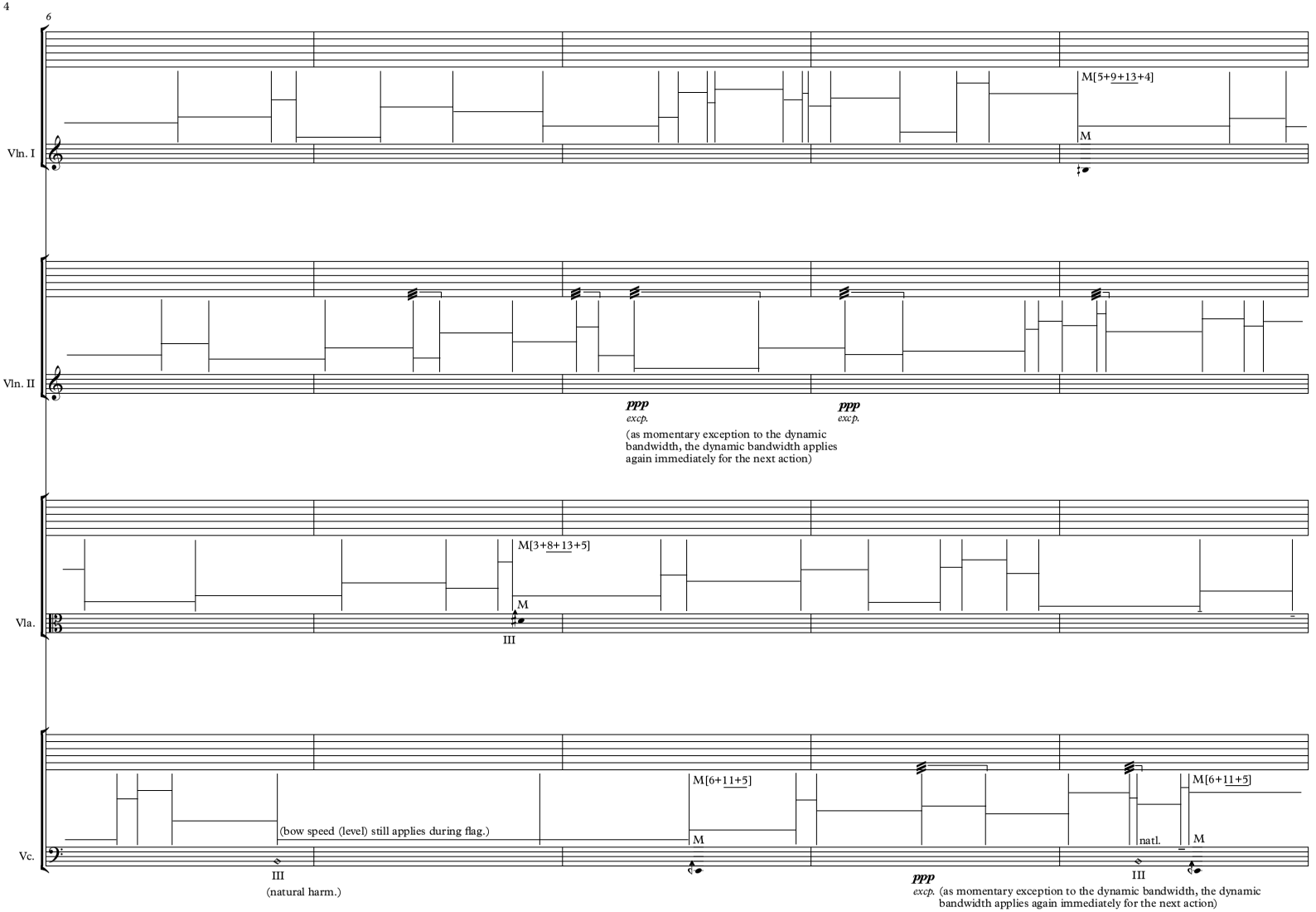
written for the JACK Quartet

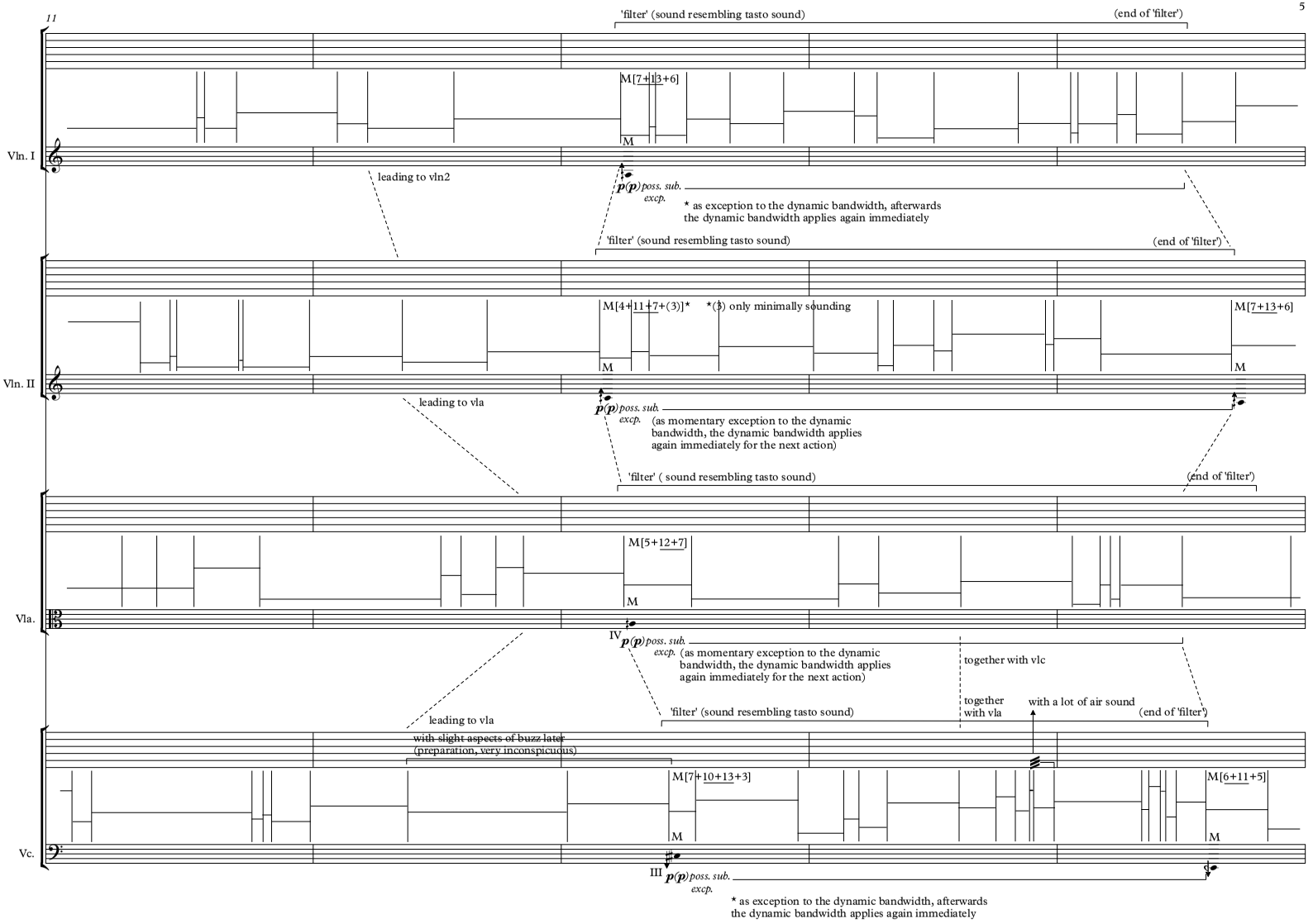
Manuela Meier, 2016

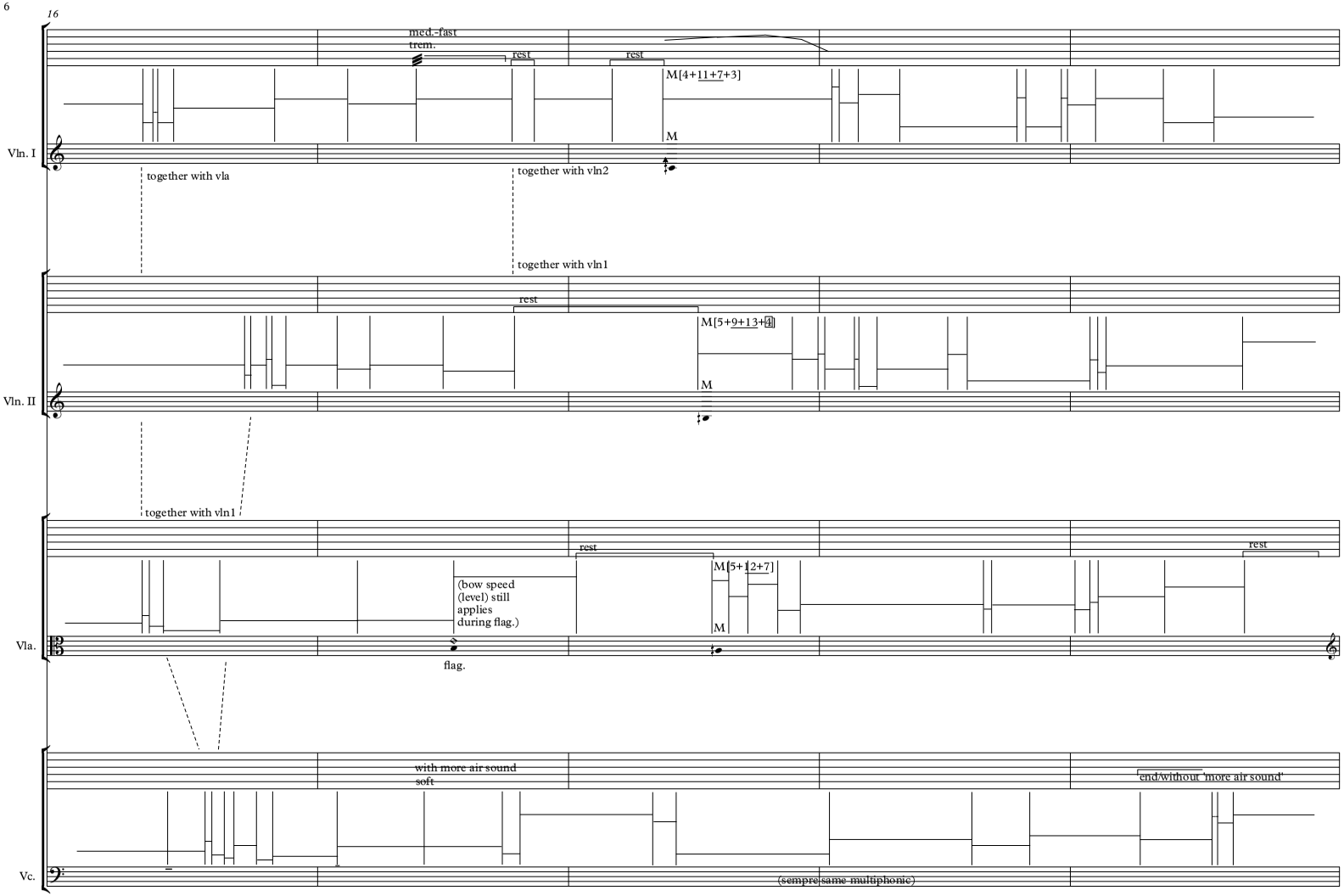


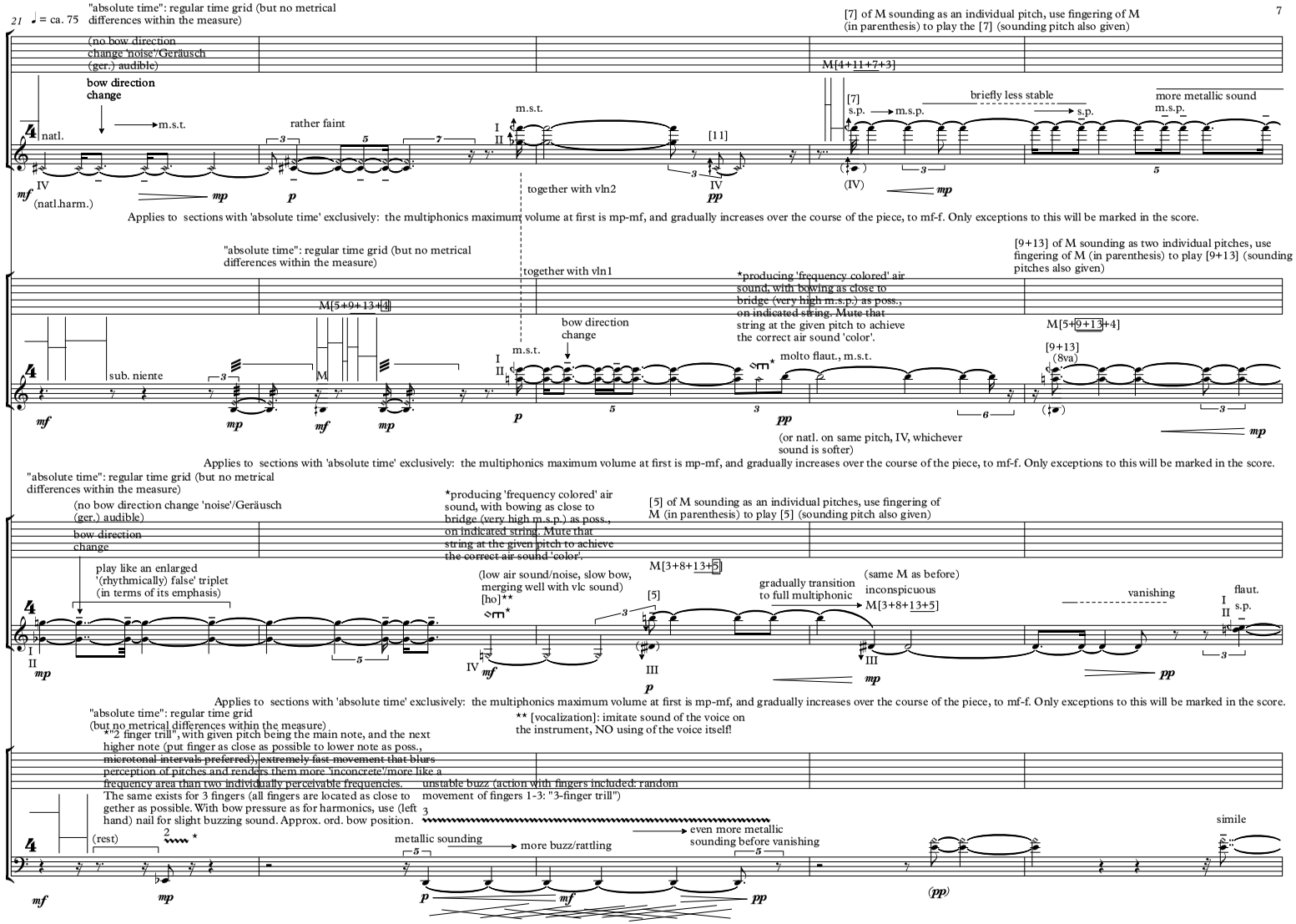
* "relative time": An approximate duration is given for proportionally equal sections of the piece, and as those are not fixed to a regular metric grid and time. The understanding of this kind of "relative time" is one of a floating nature. Although navigation around certain anchor points is necessary, those moments should remain as fluid and spontaneous, even over the course of several rehearsals.

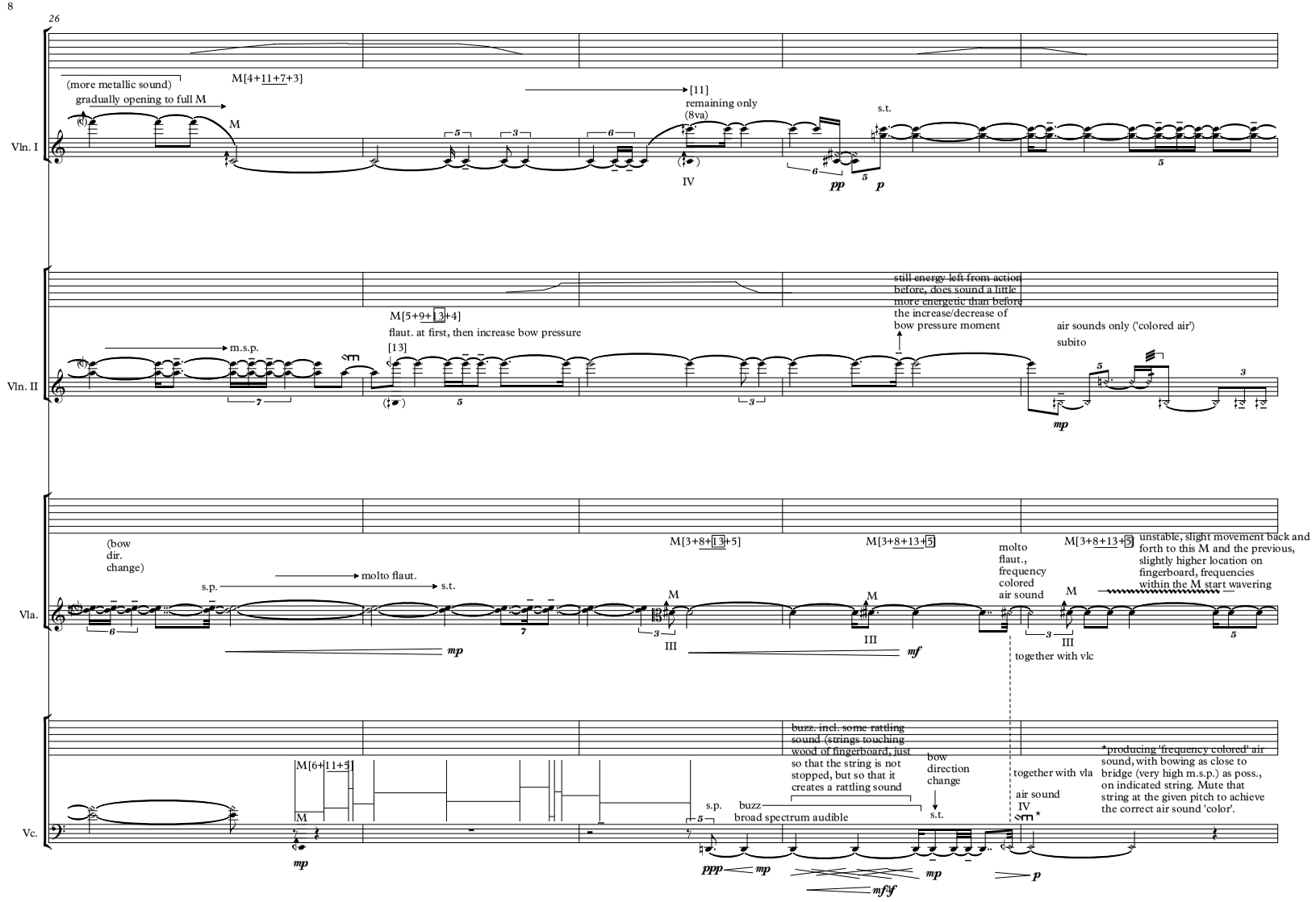
** applies to this section only (until m.20)

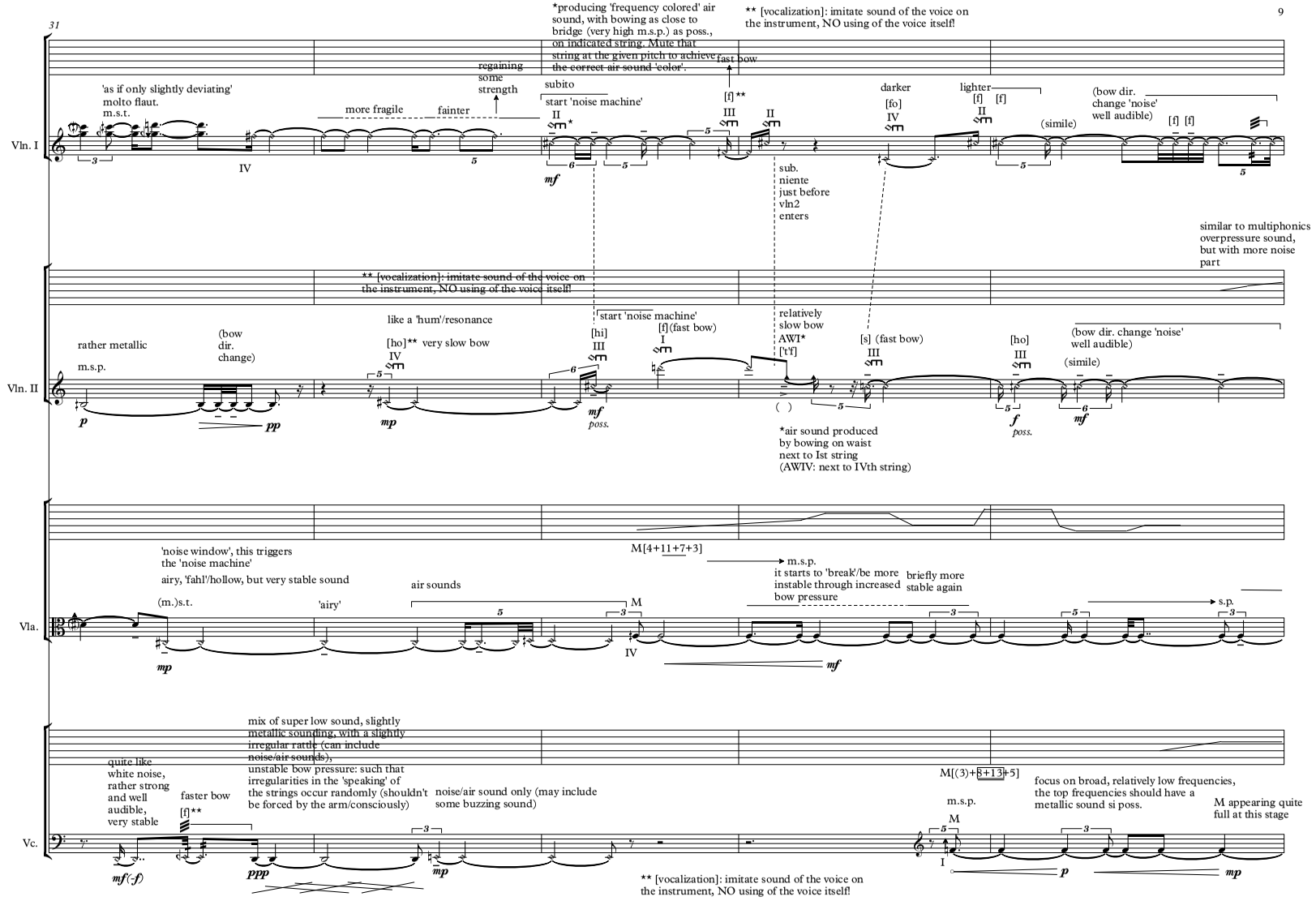

4
6
Vln. I
M[5+9+13+4]
M
Vln. II
ppp
excp.
(as momentary exception to the dynamic bandwidth, the dynamic bandwidth applies again immediately for the next action)
ppp
excp.
Vla.
M[3+8+13+5]
M
III
Vc.
(bow speed (level) still applies during flag.)
M[6+11+5]
M
III
(natural harm.)
ppp
excp.
(as momentary exception to the dynamic bandwidth, the dynamic bandwidth applies again immediately for the next action)
natl.
M[6+11+5]
M
III

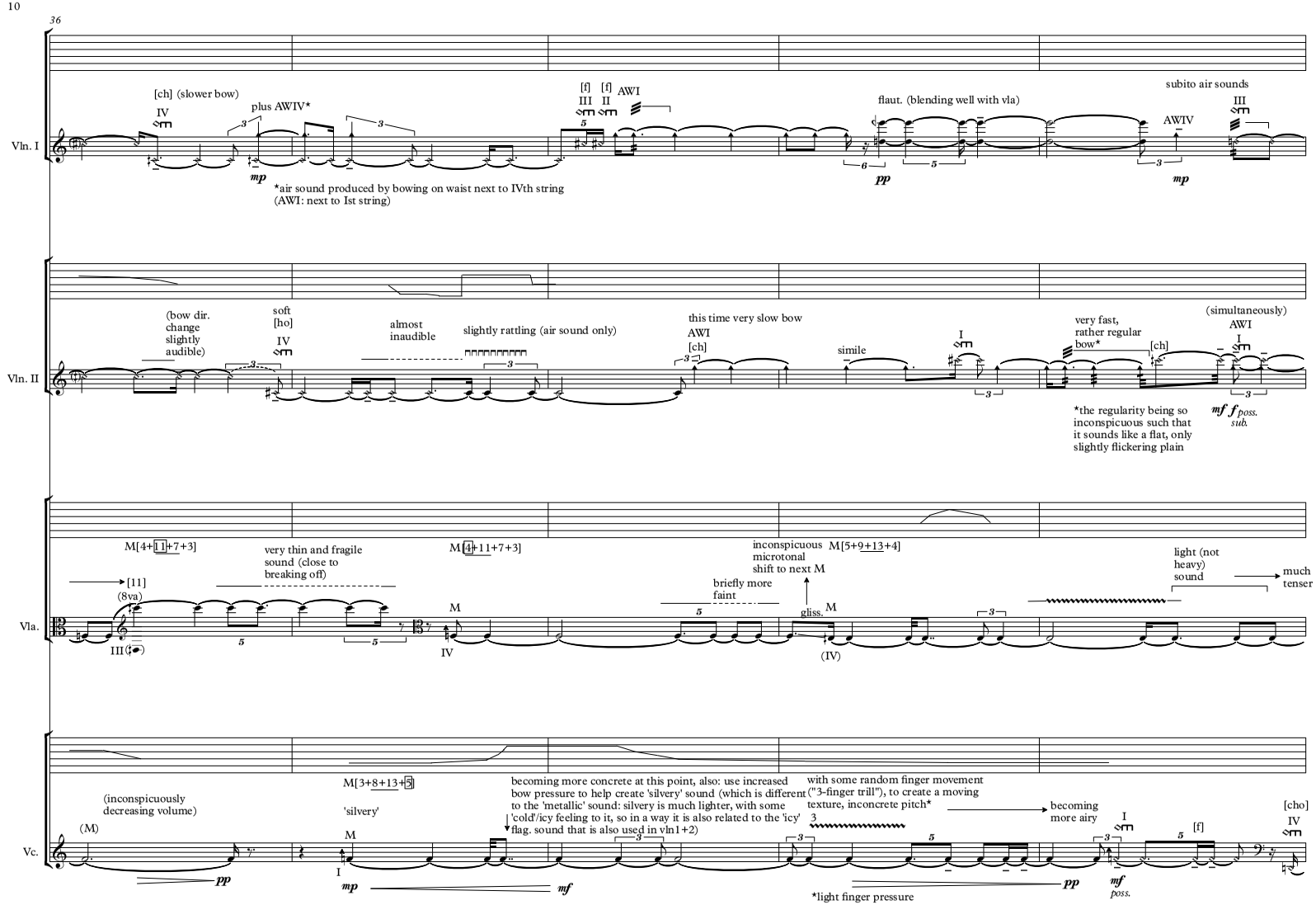

11
'filter' (sound resembling tasto sound)
(end of 'filter')
M[7+13+6]
Vln. I
leading to vln2
p(p) poss. sub.
excp.
* as exception to the dynamic bandwidth, afterwards
the dynamic bandwidth applies again immediately
'filter' (sound resembling tasto sound)
(end of 'filter')
M[4+11+7+(3)]*
*(3) only minimally sounding
M[7+13+6]
Vln. II
leading to vla
p(p) poss. sub.
excp.
(as momentary exception to the dynamic
bandwidth, the dynamic bandwidth applies
again immediately for the next action)
'filter' (sound resembling tasto sound)
(end of 'filter')
M[5+12+7]
Vla.
IV
p(p) poss. sub.
excp.
(as momentary exception to the dynamic
bandwidth, the dynamic bandwidth applies
again immediately for the next action)
together with vlc
together
with vla
with a lot of air sound
'filter' (sound resembling tasto sound)
(end of 'filter')
leading to vla
with slight aspects of buzz later
(preparation, very inconspicuous)
M[7+10+13+3]
M[6+11+5]
Vc.
III
p(p) poss. sub.
excp.
* as exception to the dynamic bandwidth, afterwards
the dynamic bandwidth applies again immediately

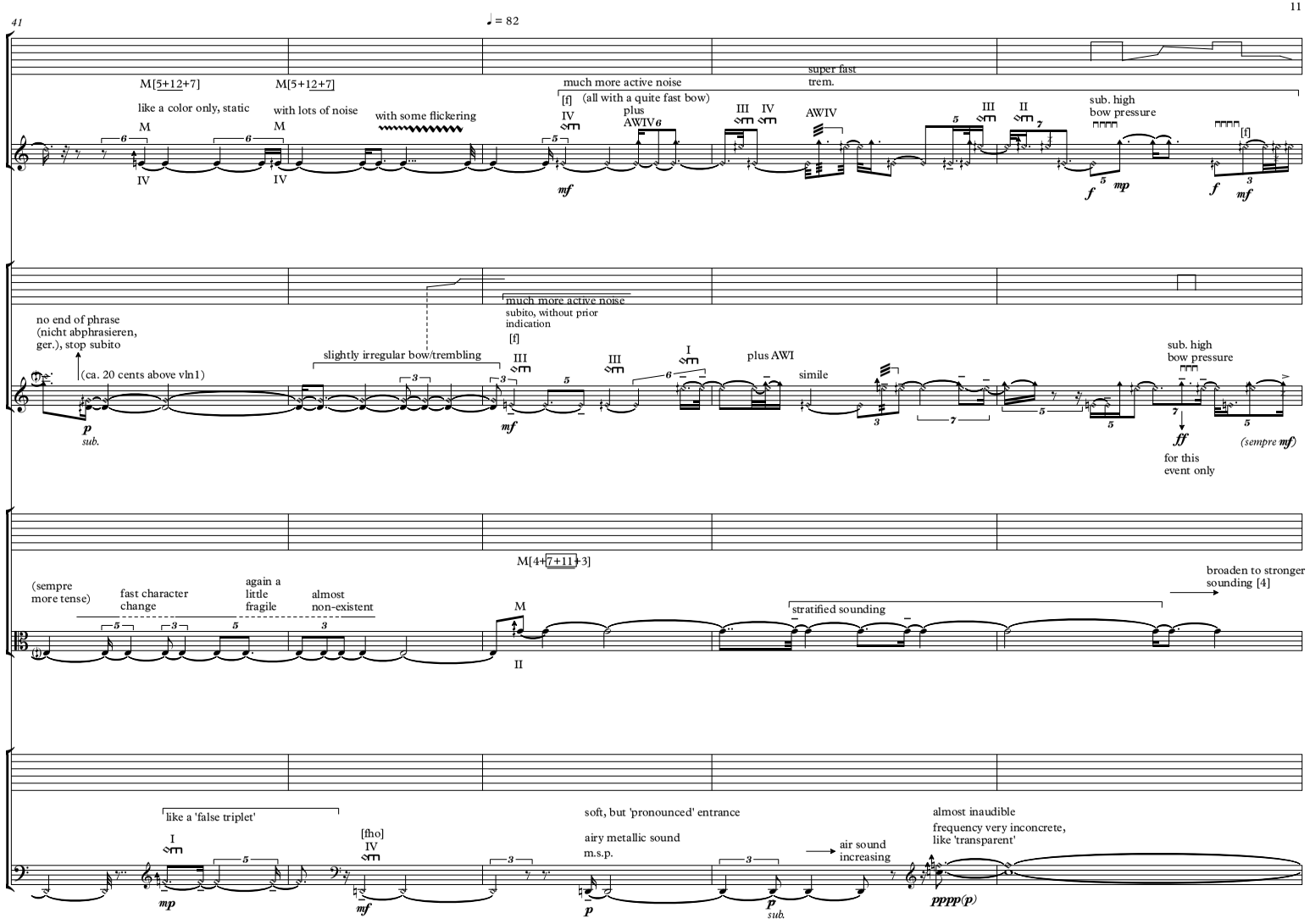

6
16
med.-fast
trem.
rest
rest
M[4+11+7+3]
M
Vln. I
together with vla
together with vln2
together with vln1
rest
M[5+9+13+4]
M
Vln. II
together with vln1
rest
rest
(bow speed
(level) still
applies
during flag.)
M[5+12+7]
M
Vla.
flag.
with more air sound
soft
end/without 'more air sound'
Vc.
(sempre same multiphonic)

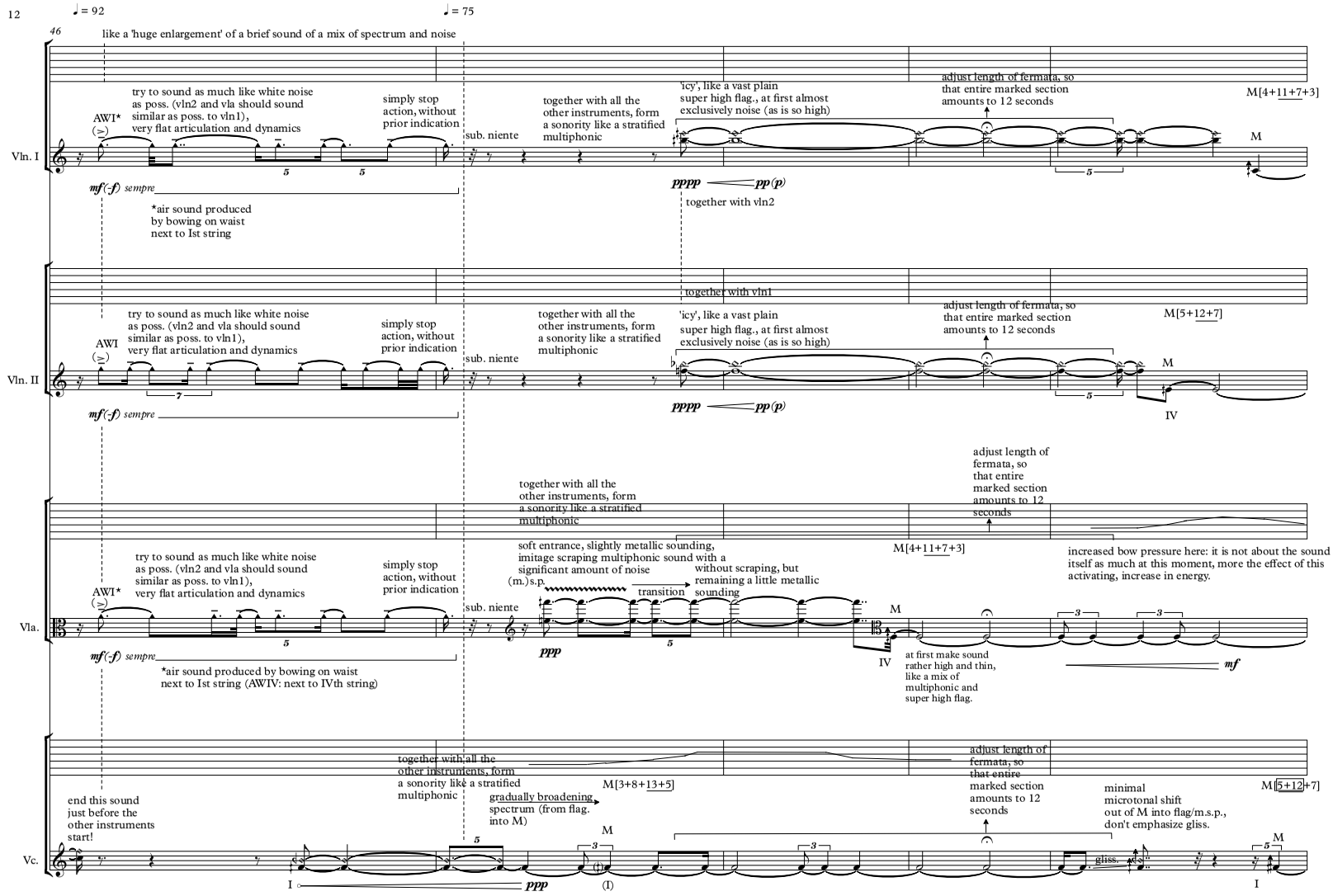

21 ♩ = ca. 75
"absolute time": regular time grid (but no metrical differences within the measure)
[7] of M sounding as an individual pitch, use fingering of M (in parenthesis) to play the [7] (sounding pitch also given)
(no bow direction change 'noise'/Geräusch (ger.) audible)
M[4+11+7+3]
bow direction change
Vln. I
natl.
m.s.t.
rather faint
briefly less stable
more metallic sound
m.s.p.
s.p.
[11]
(natl.harm.)
together with vln2
Applies to sections with 'absolute time' exclusively: the multiphonics maximum volume at first is mp-mf, and gradually increases over the course of the piece, to mf-f. Only exceptions to this will be marked in the score.
"absolute time": regular time grid (but no metrical differences within the measure)
together with vln1
*producing 'frequency colored' air sound, with bowing as close to bridge (very high m.s.p.) as poss., on indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.
[9+13] of M sounding as two individual pitches, use fingering of M (in parenthesis) to play [9+13] (sounding pitches also given)
M[5+9+13+4]
Vln. II
sub. niente
molto flaut., m.s.t.
(8va)
(or natl. on same pitch, IV, whichever sound is softer)
Applies to sections with 'absolute time' exclusively: the multiphonics maximum volume at first is mp-mf, and gradually increases over the course of the piece, to mf-f. Only exceptions to this will be marked in the score.
"absolute time": regular time grid (but no metrical differences within the measure)
(no bow direction change 'noise'/Geräusch (ger.) audible)
*producing 'frequency colored' air sound, with bowing as close to bridge (very high m.s.p.) as poss., on indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.
[5] of M sounding as an individual pitches, use fingering of M (in parenthesis) to play [5] (sounding pitch also given)
bow direction change
play like an enlarged '(rhythmically) false' triplet (in terms of its emphasis)
M[3+8+13+5]
(low air sound/noise, slow bow, merging well with vlc sound) [ho]**
gradually transition to full multiphonic
(same M as before) inconspicuous
M[3+8+13+5]
vanishing
flaut.
s.p.
Vla.
Applies to sections with 'absolute time' exclusively: the multiphonics maximum volume at first is mp-mf, and gradually increases over the course of the piece, to mf-f. Only exceptions to this will be marked in the score.
"absolute time": regular time grid (but no metrical differences within the measure)
** [vocalization]: imitate sound of the voice on the instrument, NO using of the voice itself!
*"2 finger trill", with given pitch being the main note, and the next higher note (put finger as close as possible to lower note as poss., microtonal intervals preferred), extremely fast movement that blurs perception of pitches and renders them more 'inconcrete'/more like a frequency area than two individually perceivable frequencies.
The same exists for 3 fingers (all fingers are located as close to gether as possible. With bow pressure as for harmonics, use (left hand) nail for slight buzzing sound. Approx. ord. bow position.
unstable buzz (action with fingers included: random movement of fingers 1-3: "3-finger trill")
(rest)
metallic sounding
more buzz/rattling
even more metallic sounding before vanishing
simile
Vc.
Applies to sections with 'absolute time' exclusively: the multiphonics maximum volume at first is mp-mf, and gradually increases over the course of the piece, to mf-f. Only exceptions to this will be marked in the score.

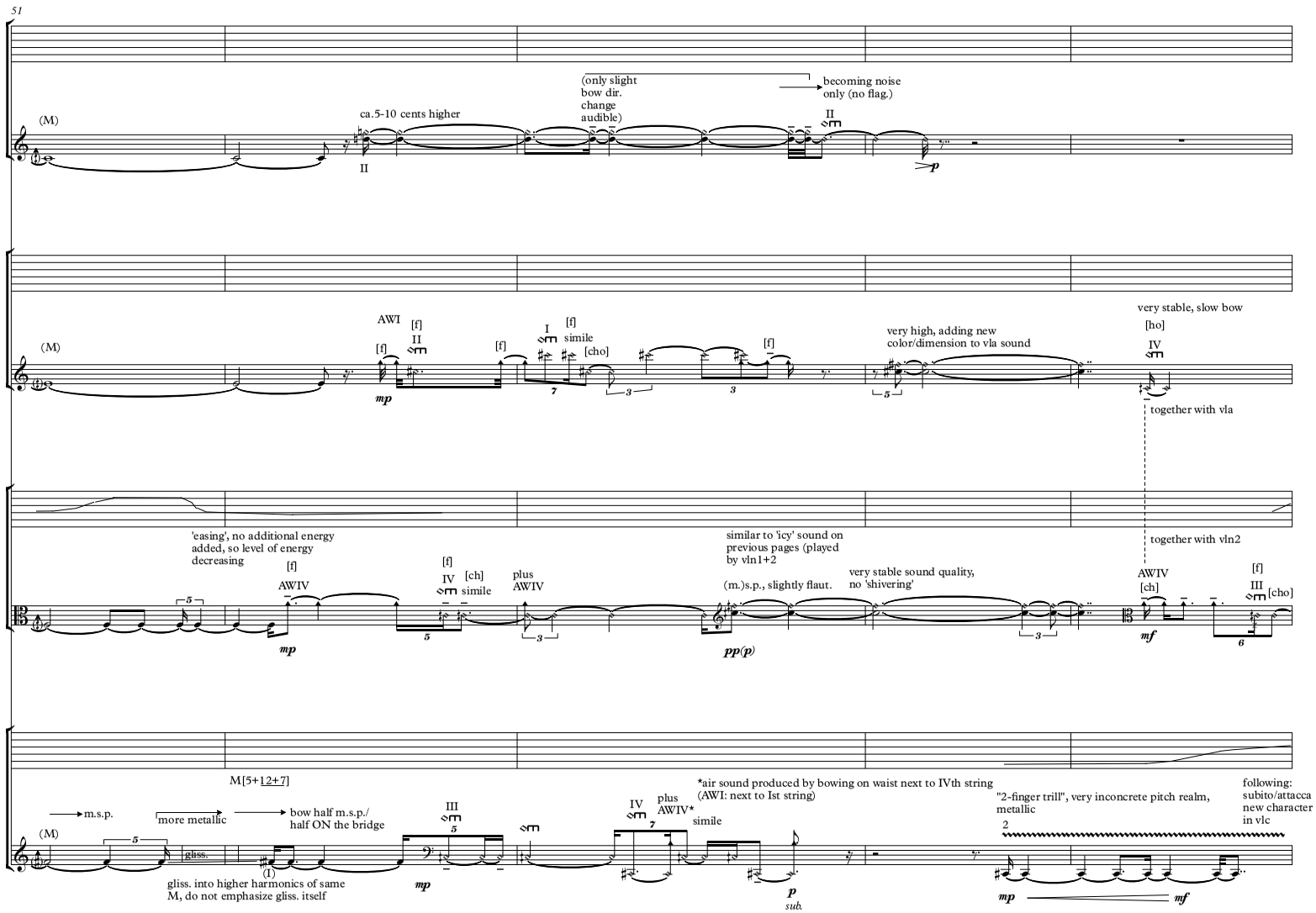

26
Vln. I
(more metallic sound)
gradually opening to full M
M
M[4+11+7+3]
[11]
remaining only
(8va)
IV
s.t.
pp
p
Vln. II
m.s.p.
M[5+9+13+4]
flaut. at first, then increase bow pressure
[13]
still energy left from action before, does sound a little more energetic than before
the increase/decrease of bow pressure moment
air sounds only ('colored air')
subito
mp
Vla.
(bow dir. change)
s.p.
molto flaut.
s.t.
M[3+8+13+5]
M[3+8+13+5]
molto flaut., frequency colored air sound
M[3+8+13+5]
unstable, slight movement back and forth to this M and the previous, slightly higher location on fingerboard, frequencies within the M start wavering
mp
mf
III
together with vlc
Vc.
M[6+11+5]
mp
buzz. incl. some rattling sound (strings touching wood of fingerboard, just so that the string is not stopped, but so that it creates a rattling sound
s.p.
buzz
broad spectrum audible
bow direction change
s.t.
ppp
mf
mf
together with vla
air sound
IV
*producing 'frequency colored' air sound, with bowing as close to bridge (very high m.s.p.) as poss., on indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.
p

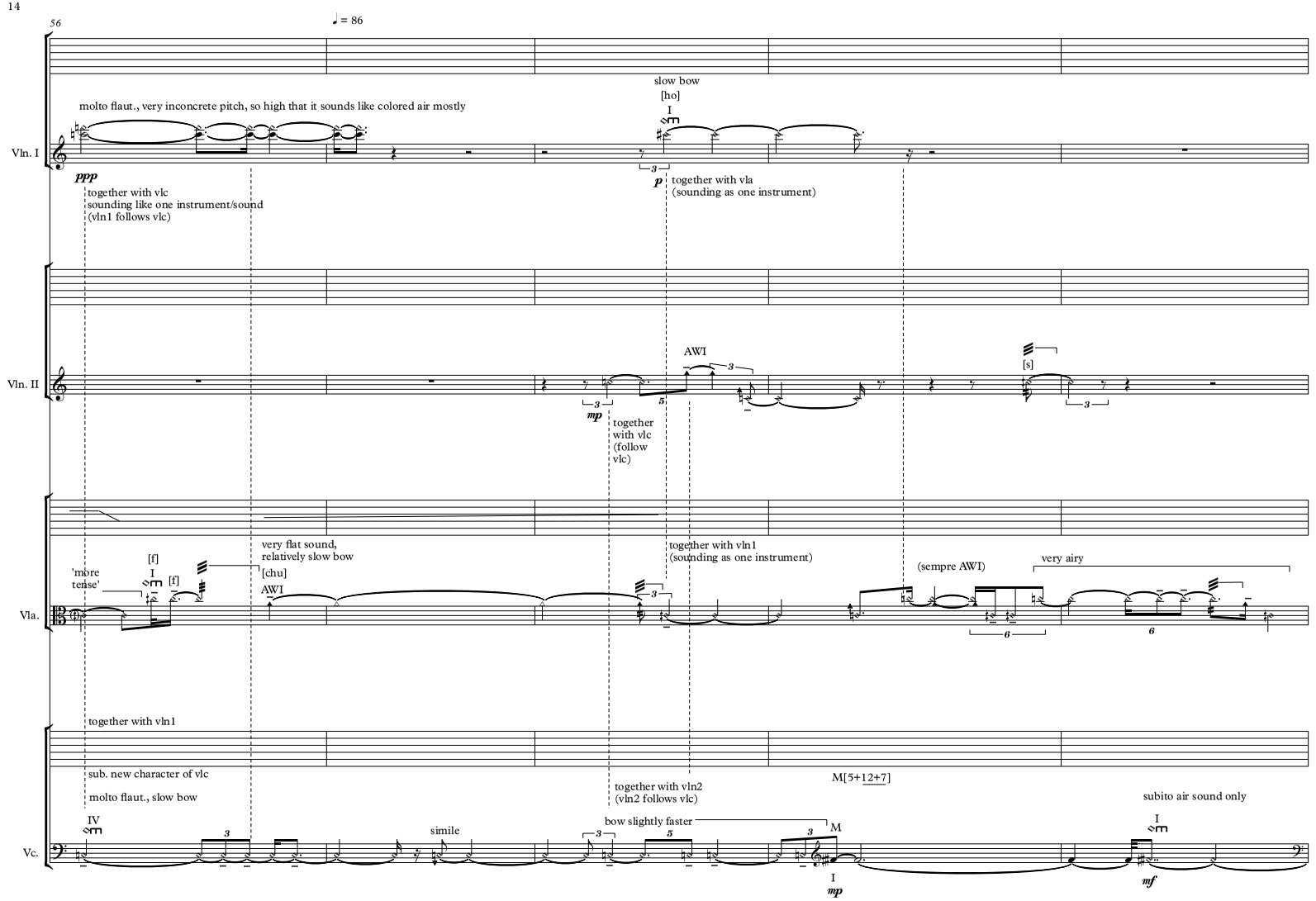

31
*producing 'frequency colored' air sound, with bowing as close to bridge (very high m.s.p.) as poss., on indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.
** [vocalization]: imitate sound of the voice on the instrument, NO using of the voice itself!
Vln. I
'as if only slightly deviating' molto flaut. m.s.t.
more fragile
fainter
regaining some strength
subito
start 'noise machine'
fast bow
[f]**
darker
[fo]
lighter
[f] [f]
(bow dir. change 'noise' well audible)
[f] [f]
(simile)
sub. niente just before vln2 enters
similar to multiphonics overpressure sound, but with more noise part
Vln. II
** [vocalization]: imitate sound of the voice on the instrument, NO using of the voice itself!
rather metallic
m.s.p.
(bow dir. change)
like a 'hum'/resonance
[ho]** very slow bow
start 'noise machine'
[hi]
[f](fast bow)
relatively slow bow
AWI*
['t'f]
[s] (fast bow)
[ho]
(bow dir. change 'noise' well audible)
(simile)
*air sound produced by bowing on waist next to Ist string (AWIV: next to IVth string)
Vla.
'noise window', this triggers the 'noise machine'
airy, 'fahl'/hollow, but very stable sound
(m.)s.t.
'airy'
air sounds
M[4+11+7+3]
m.s.p.
it starts to 'break'/be more instable through increased bow pressure
briefly more stable again
s.p.
Vc.
quite like white noise, rather strong and well audible, very stable
faster bow
[f]**
mix of super low sound, slightly metallic sounding, with a slightly irregular rattle (can include noise/air sounds), unstable bow pressure: such that irregularities in the 'speaking' of the strings occur randomly (shouldn't be forced by the arm/consciously)
noise/air sound only (may include some buzzing sound)
M[(3)+8+13+5]
m.s.p.
focus on broad, relatively low frequencies, the top frequencies should have a metallic sound si poss.
M appearing quite full at this stage
** [vocalization]: imitate sound of the voice on the instrument, NO using of the voice itself!

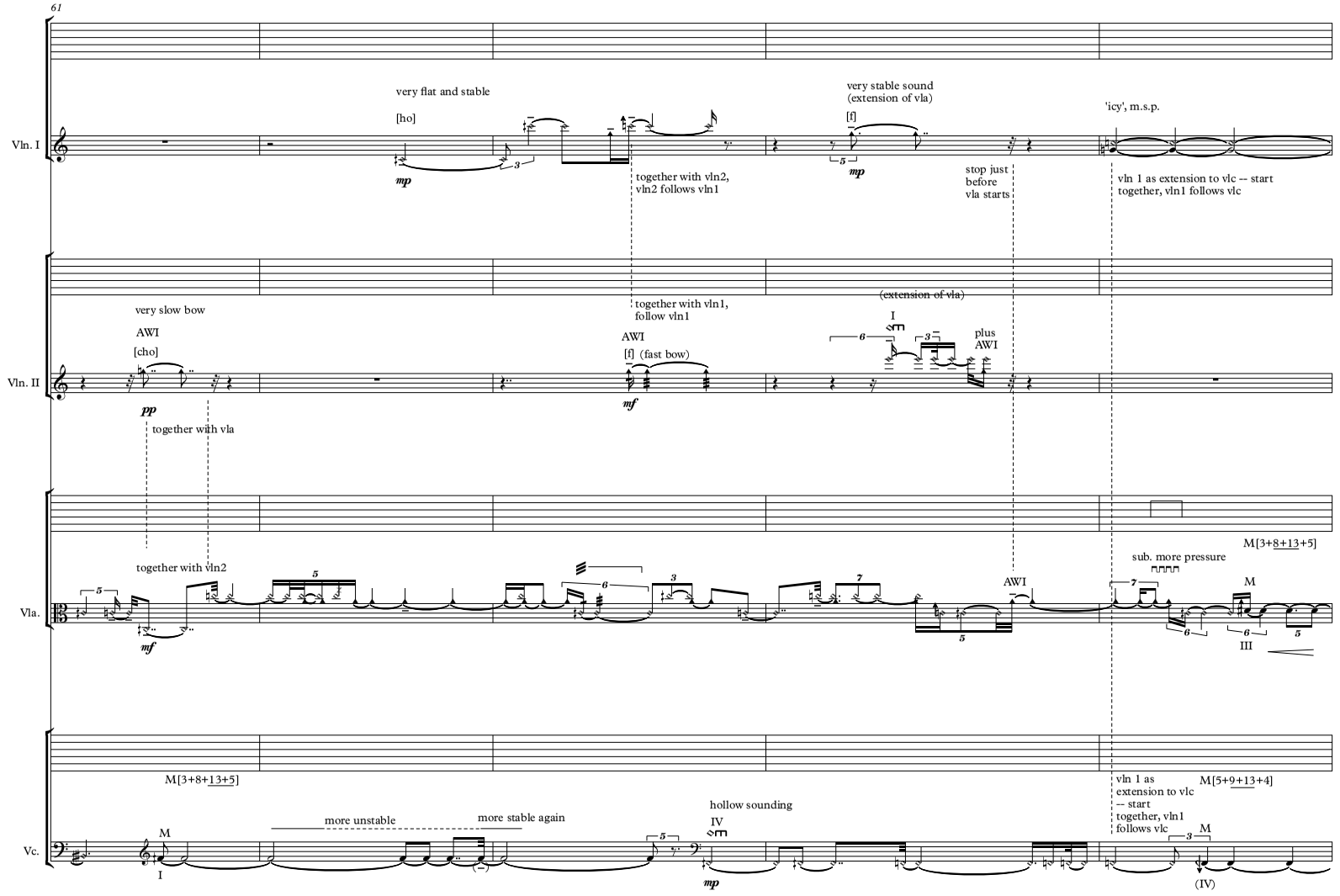

10
36
Vln. I
[ch] (slower bow)
IV
plus AWIV*
[f] [f]
III II
AWI
flaut. (blending well with vla)
subito air sounds
III
AWIV
mp
pp
mp
*air sound produced by bowing on waist next to IVth string
(AWI: next to Ist string)
Vln. II
(bow dir. change slightly audible)
soft
[ho]
IV
almost inaudible
slightly rattling (air sound only)
this time very slow bow
AWI
[ch]
simile
I
very fast, rather regular bow*
[ch]
(simultaneously)
AWI
I
*the regularity being so inconspicuous such that it sounds like a flat, only slightly flickering plain
mf f poss.
sub.
Vla.
M[4+11+7+3]
[11]
(8va)
very thin and fragile sound (close to breaking off)
M[4+11+7+3]
briefly more faint
inconspicuous microtonal shift to next M
M[5+9+13+4]
gliss.
light (not heavy) sound
much tenser
III
IV
M
(IV)
Vc.
(M)
(inconspicuously decreasing volume)
M[3+8+13+5]
'silvery'
becoming more concrete at this point, also: use increased bow pressure to help create 'silvery' sound (which is different to the 'metallic' sound: silvery is much lighter, with some 'cold'/icy feeling to it, so in a way it is also related to the 'icy' flag. sound that is also used in vln1+2)
with some random finger movement ("3-finger trill"), to create a moving texture, inconcrete pitch*
becoming more airy
[f]
[cho]
IV
I
pp
mp
mf
pp
mf
poss.
*light finger pressure

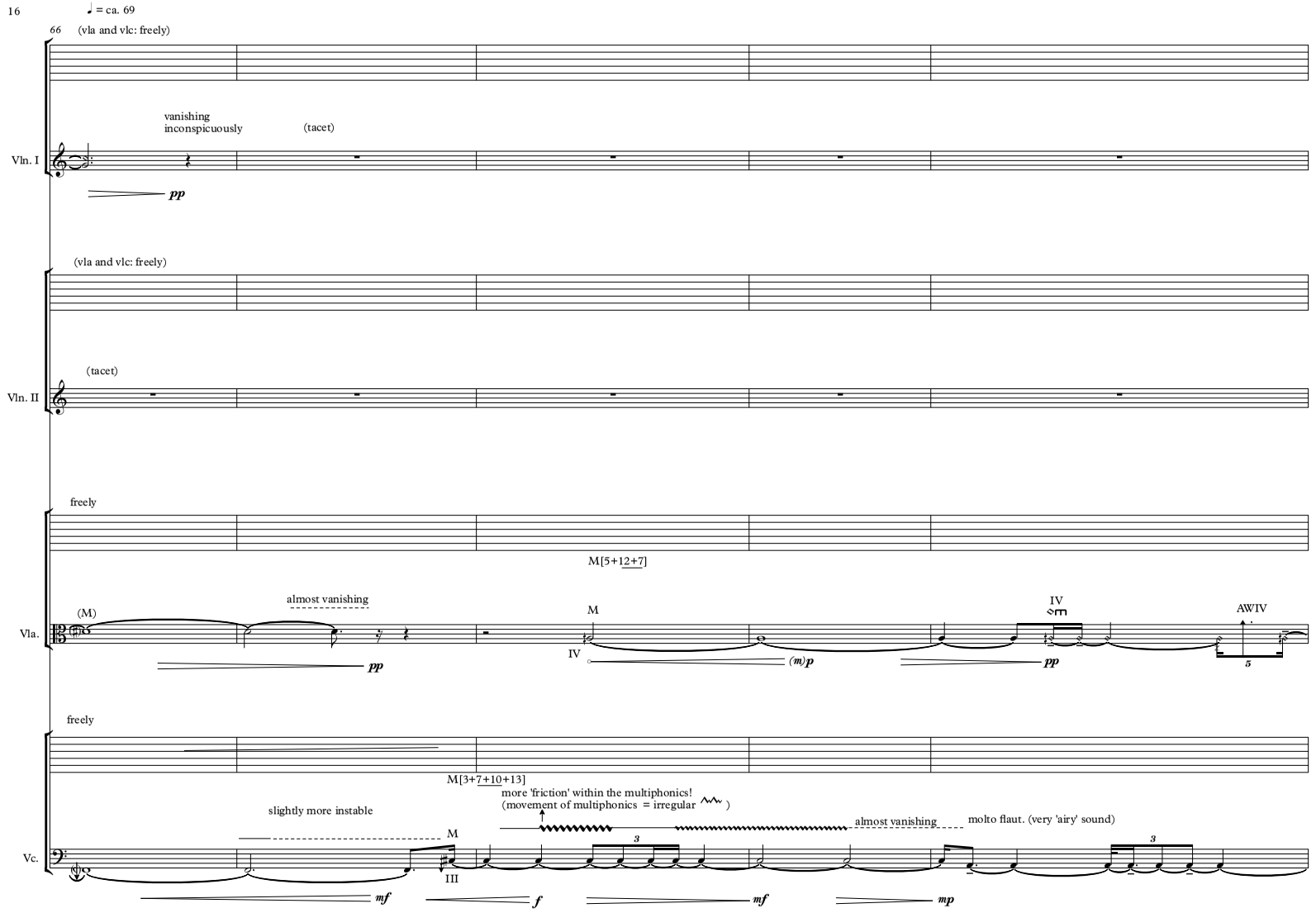

41
♩ = 82
Vln. I
M[5+12+7]
like a color only, static
M
IV
M[5+12+7]
with lots of noise
M
IV
with some flickering
much more active noise
[f]
(all with a quite fast bow)
IV
plus
AWIV
mf
III IV
AWIV
super fast
trem.
III
II
sub. high
bow pressure
f
mp
[f]
f
mf
Vln. II
no end of phrase
(nicht abphrasieren,
ger.), stop subito
(ca. 20 cents above vln1)
p
sub.
slightly irregular bow/trembling
much more active noise
subito, without prior
indication
[f]
III
mf
III
I
plus AWI
simile
sub. high
bow pressure
ff
for this
event only
(sempre mf)
Vla.
(sempre
more tense)
fast character
change
again a
little
fragile
almost
non-existent
M[4+7+11+3]
M
II
stratified sounding
broaden to stronger
sounding [4]
Vc.
like a 'false triplet'
I
mp
[fho]
IV
mf
soft, but 'pronounced' entrance
airy metallic sound
m.s.p.
p
air sound
increasing
p
sub.
almost inaudible
frequency very inconcrete,
like 'transparent'
pppp(p)

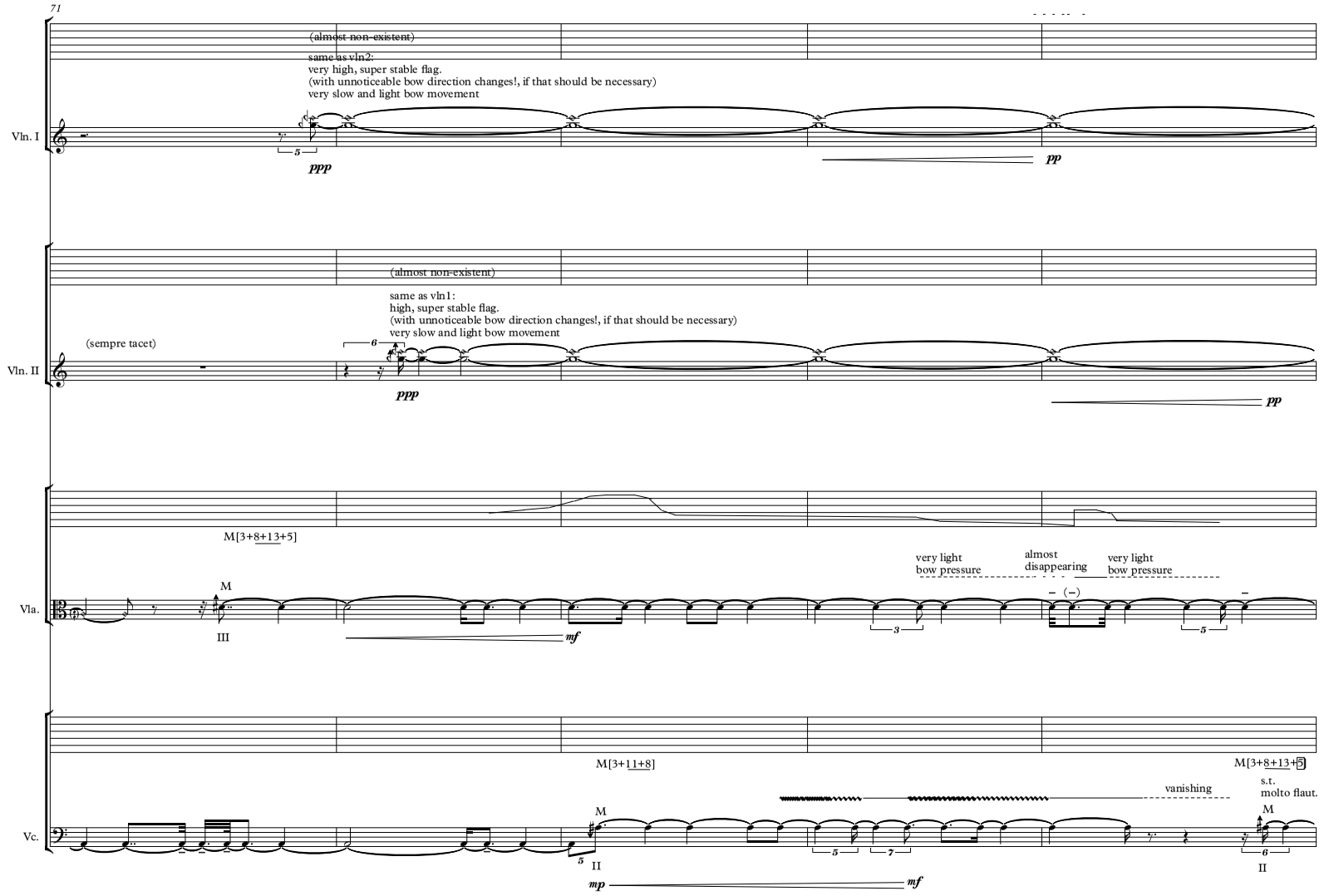

♩ = 92
♩ = 75
46
like a 'huge enlargement' of a brief sound of a mix of spectrum and noise
Vln. I
AWI*
try to sound as much like white noise as poss. (vln2 and vla should sound similar as poss. to vln1), very flat articulation and dynamics
simply stop action, without prior indication
sub. niente
together with all the other instruments, form a sonority like a stratified multiphonic
'icy', like a vast plain super high flag., at first almost exclusively noise (as is so high)
adjust length of fermata, so that entire marked section amounts to 12 seconds
M[4+11+7+3]
mf(-f) sempre
*air sound produced by bowing on waist next to Ist string
pppp
pp(p)
together with vln2
Vln. II
AWI
together with vln1
M[5+12+7]
IV
Vla.
AWI*
soft entrance, slightly metallic sounding, imitage scraping multiphonic sound with a significant amount of noise
(m.)s.p.
transition
without scraping, but remaining a little metallic sounding
ppp
at first make sound rather high and thin, like a mix of multiphonic and super high flag.
increased bow pressure here: it is not about the sound itself as much at this moment, more the effect of this activating, increase in energy.
mf
*air sound produced by bowing on waist next to Ist string (AWIV: next to IVth string)
Vc.
end this sound just before the other instruments start!
gradually broadening spectrum (from flag. into M)
M[3+8+13+5]
minimal microtonal shift out of M into flag/m.s.p., don't emphasize gliss.
gliss.

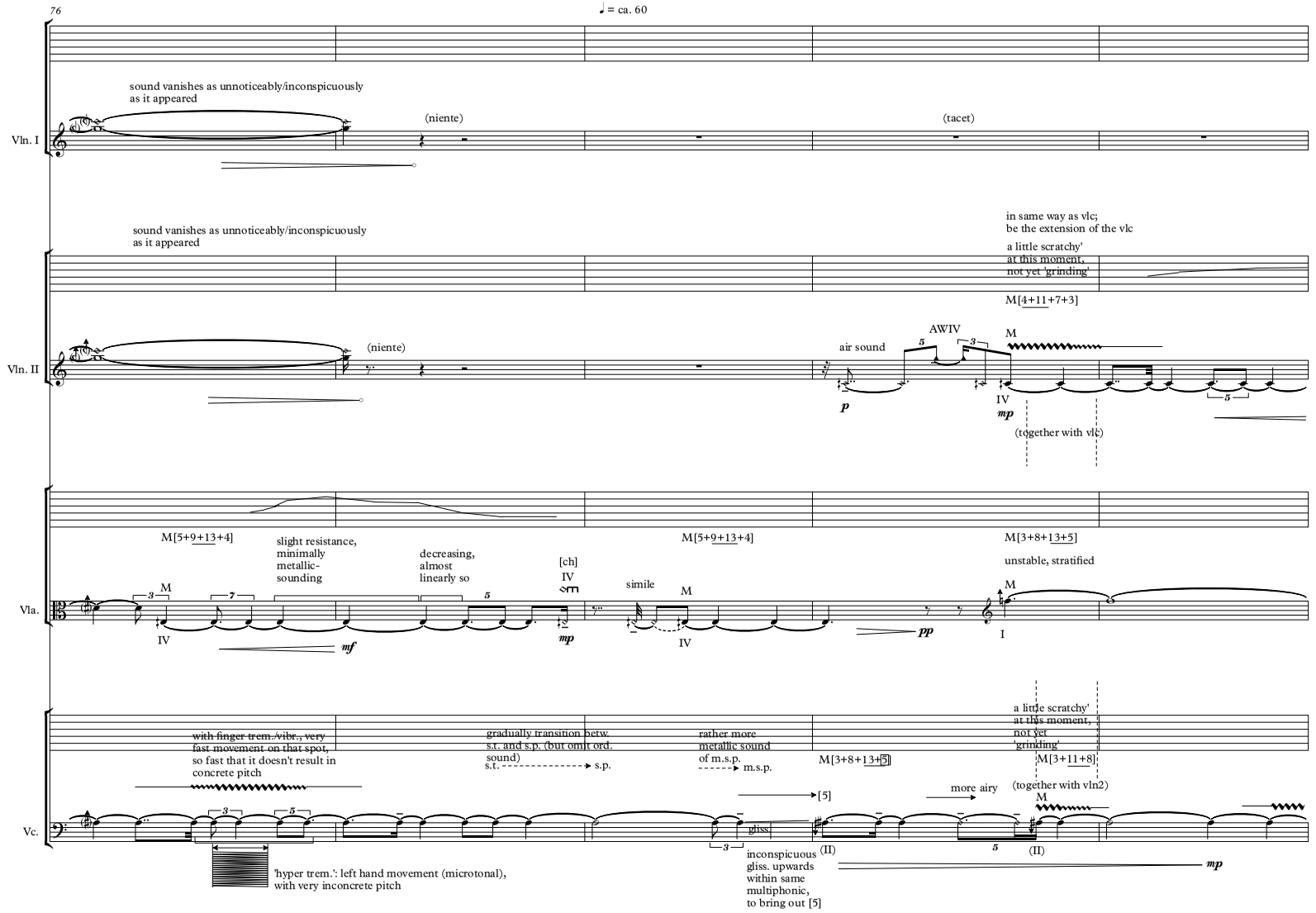

51
Vln. I
(M)
ca.5-10 cents higher
II
(only slight bow dir. change audible)
becoming noise only (no flag.)
II
p
Vln. II
(M)
AWI
[f]
II
mp
I
simile
[cho]
very high, adding new color/dimension to vla sound
very stable, slow bow
[ho]
IV
together with vla
Vla.
'easing', no additional energy added, so level of energy decreasing
AWIV
IV
[ch]
simile
plus AWIV
similar to 'icy' sound on previous pages (played by vln1+2
(m.)s.p., slightly flaut.
pp(p)
very stable sound quality, no 'shivering'
together with vln2
AWIV
[ch]
mf
III
[cho]
Vc.
M[5+12+7]
(M)
m.s.p.
more metallic
bow half m.s.p./ half ON the bridge
gliss.
(I)
gliss. into higher harmonics of same M, do not emphasize gliss. itself
III
mp
IV
plus AWIV*
simile
*air sound produced by bowing on waist next to IVth string (AWI: next to Ist string)
p
sub.
"2-finger trill", very inconcrete pitch realm, metallic
following: subito/attacca new character in vlc
mp
mf

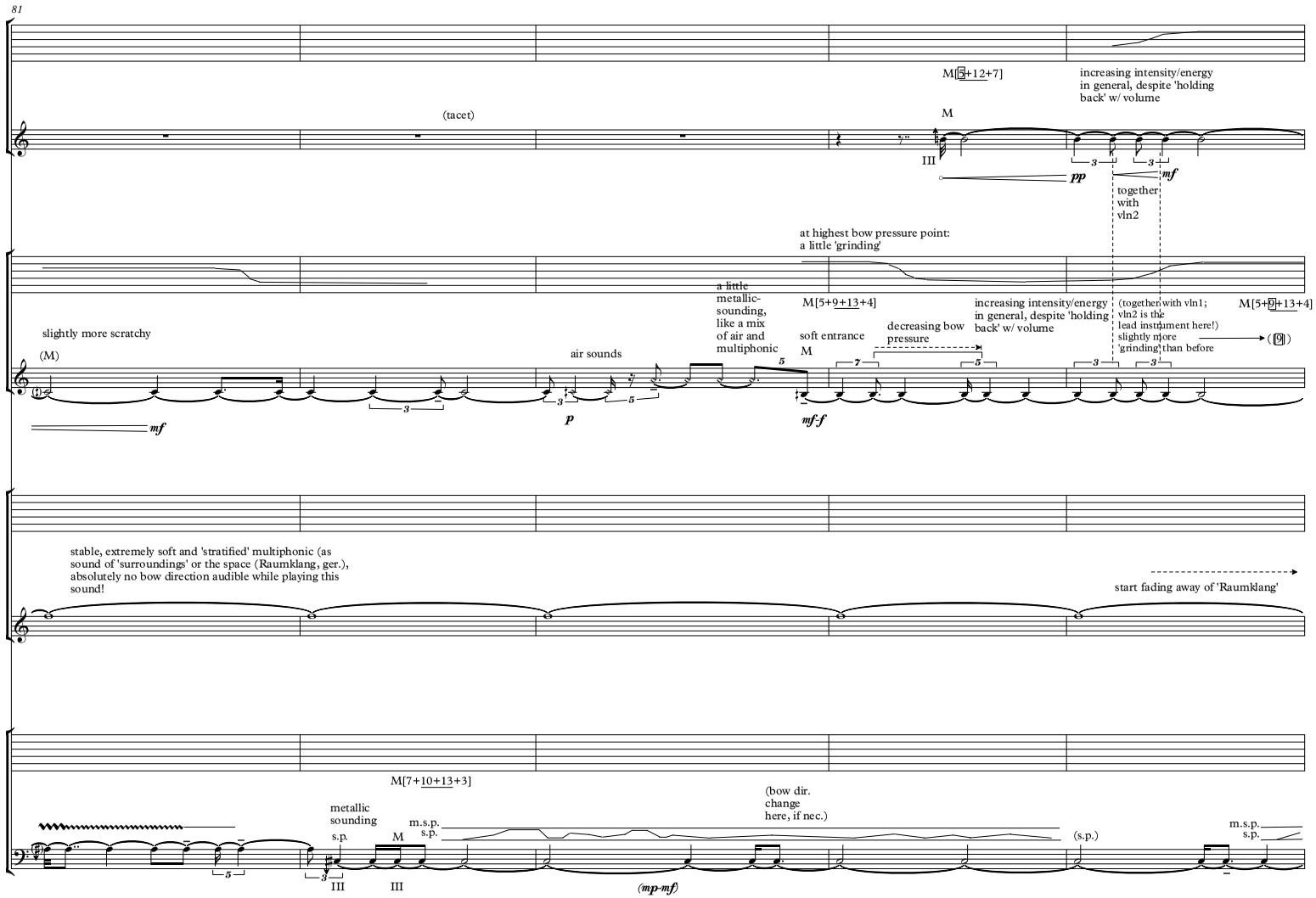

56
♩ = 86
Vln. I
molto flaut., very inconcrete pitch, so high that it sounds like colored air mostly
ppp
together with vlc
sounding like one instrument/sound
(vln1 follows vlc)
slow bow
[ho]
I
p
together with vla
(sounding as one instrument)
Vln. II
AWI
mp
together
with vlc
(follow
vlc)
[s]
Vla.
'more
tense'
[f]
I
[f]
very flat sound,
relatively slow bow
[chu]
AWI
together with vln1
(sounding as one instrument)
(sempre AWI)
very airy
Vc.
together with vln1
sub. new character of vlc
molto flaut., slow bow
IV
simile
together with vln2
(vln2 follows vlc)
bow slightly faster
M
I
mp
M[5+12+7]
subito air sound only
I
mf

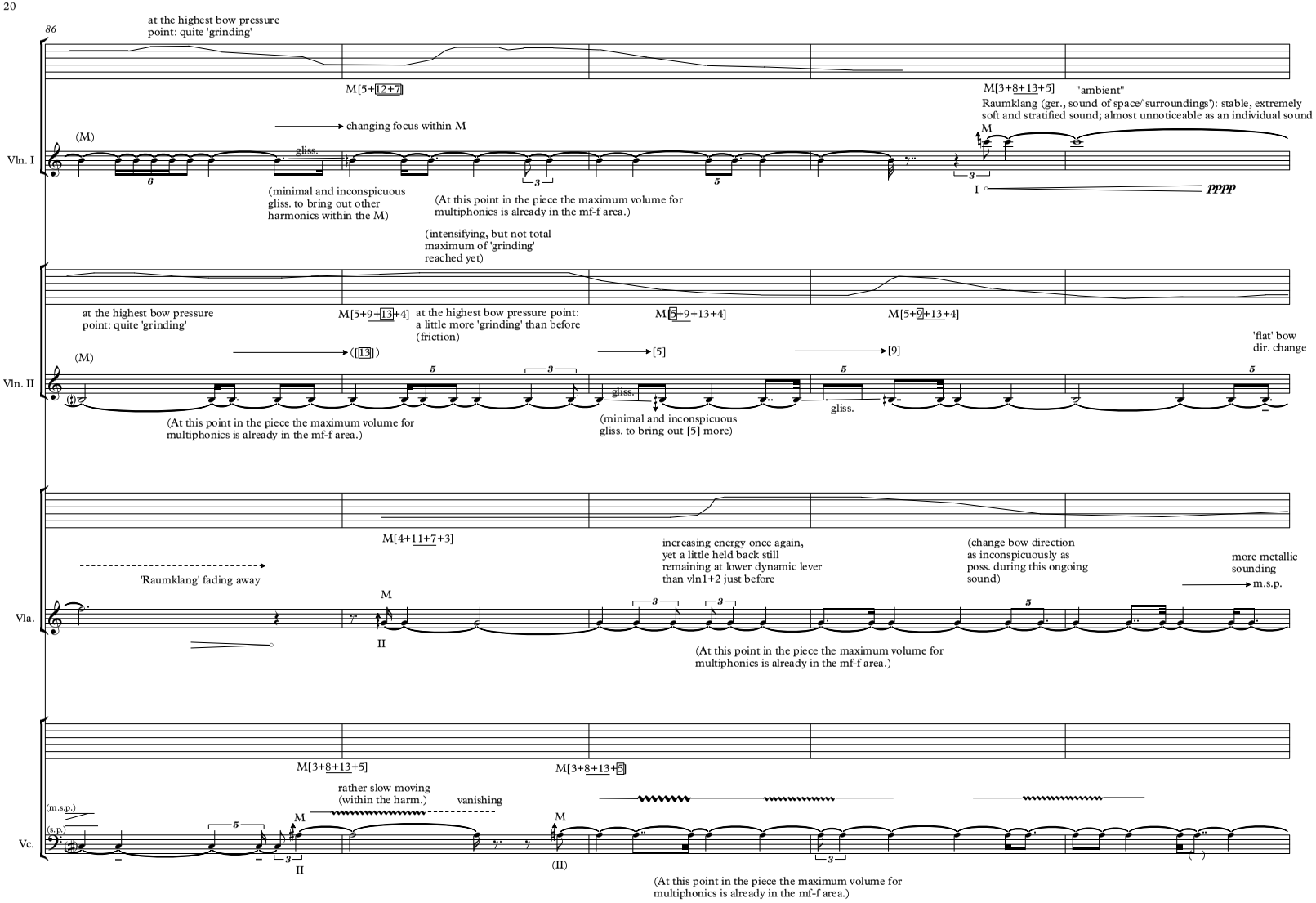

61
Vln. I
very flat and stable
[ho]
mp
together with vln2,
vln2 follows vln1
very stable sound
(extension of vla)
[f]
mp
stop just
before
vla starts
'icy', m.s.p.
vln 1 as extension to vlc -- start
together, vln1 follows vlc
Vln. II
very slow bow
AWI
[cho]
pp
together with vla
together with vln1,
follow vln1
AWI
[f] (fast bow)
mf
(extension of vla)
I
plus
AWI
Vla.
together with vln2
mf
AWI
M[3+8+13+5]
sub. more pressure
M
III
Vc.
M[3+8+13+5]
M
I
more unstable
more stable again
hollow sounding
IV
mp
vln 1 as
extension to vlc
-- start
together, vln1
follows vlc
M[5+9+13+4]
M
(IV)

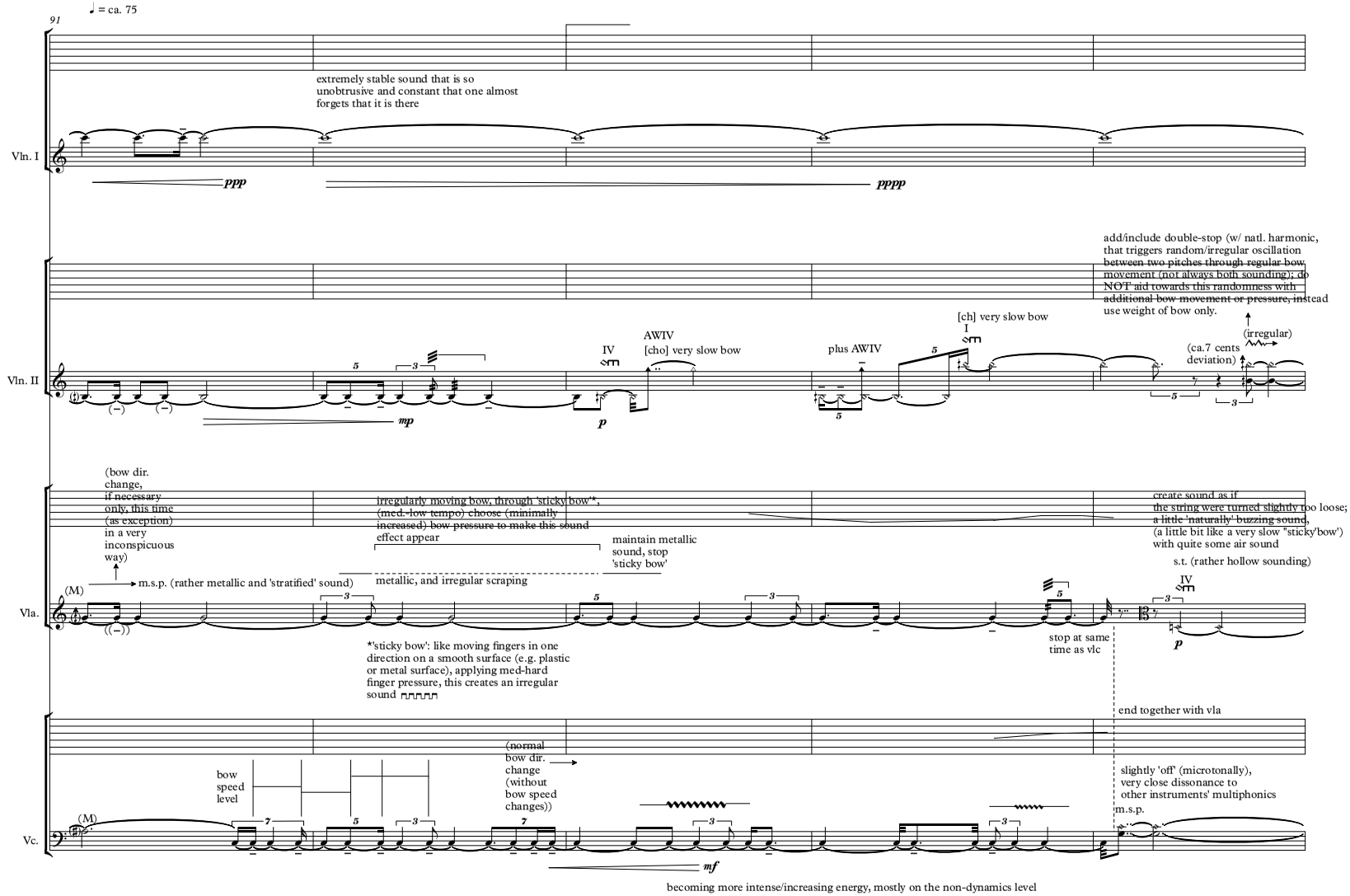

16
♩ = ca. 69
66
(vla and vlc: freely)
vanishing
inconspicuously
(tacet)
Vln. I
pp
(vla and vlc: freely)
(tacet)
Vln. II
freely
M[5+12+7]
almost vanishing
(M)
M
IV
IV
AWIV
Vla.
pp
(m)p
pp
freely
M[3+7+10+13]
more 'friction' within the multiphonics!
(movement of multiphonics = irregular)
slightly more instable
M
almost vanishing
molto flaut. (very 'airy' sound)
III
Vc.
mf
f
mf
mp

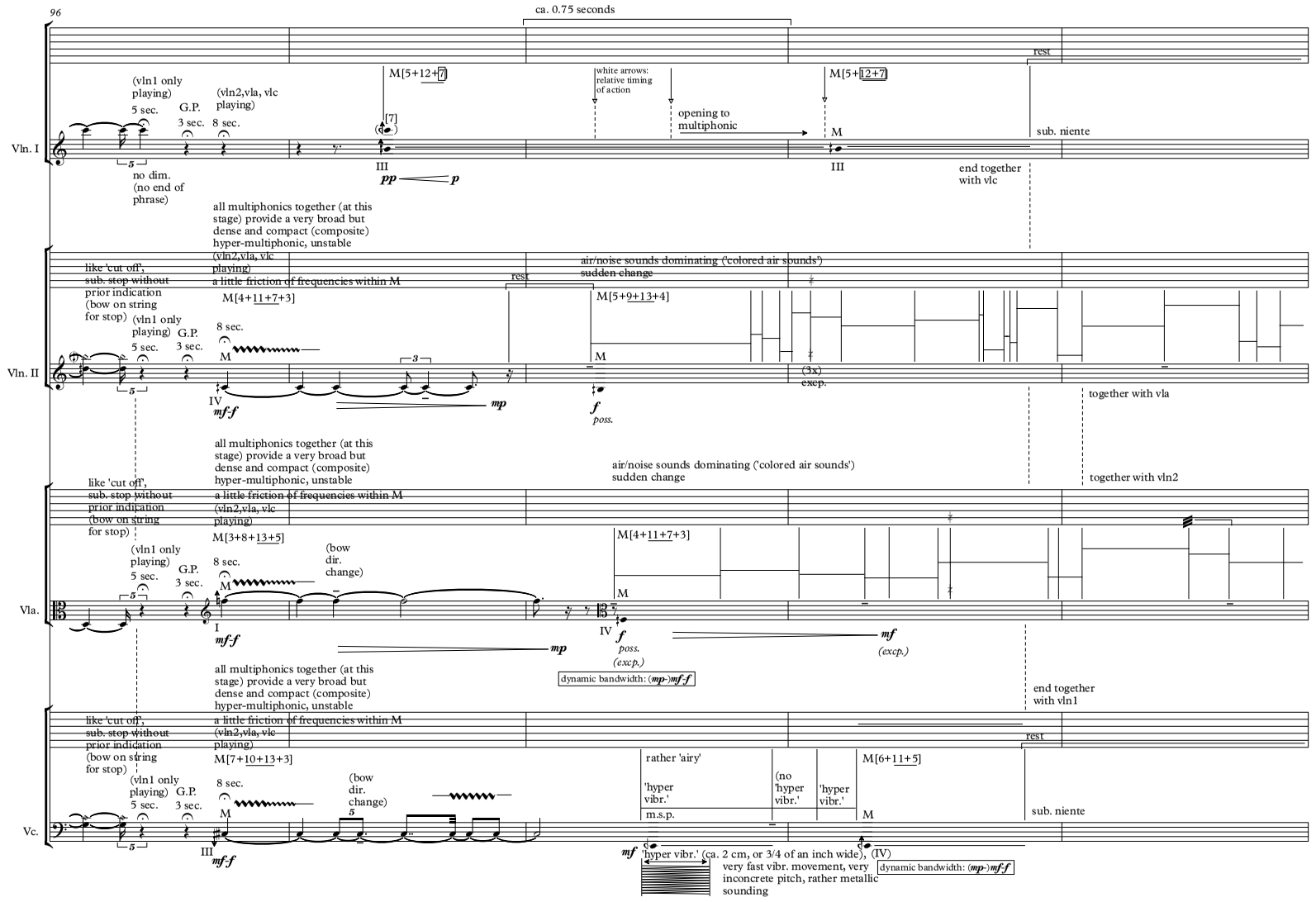

71
Vln. I
(almost non-existent)
same as vln2:
very high, super stable flag.
(with unnoticeable bow direction changes!, if that should be necessary)
very slow and light bow movement
ppp
pp
Vln. II
(sempre tacet)
(almost non-existent)
same as vln1:
high, super stable flag.
(with unnoticeable bow direction changes!, if that should be necessary)
very slow and light bow movement
ppp
pp
Vla.
M[3+8+13+5]
M
III
mf
very light
bow pressure
almost
disappearing
very light
bow pressure
Vc.
M[3+11+8]
M[3+8+13+5]
vanishing
s.t.
molto flaut.
M
II
mp
mf
II

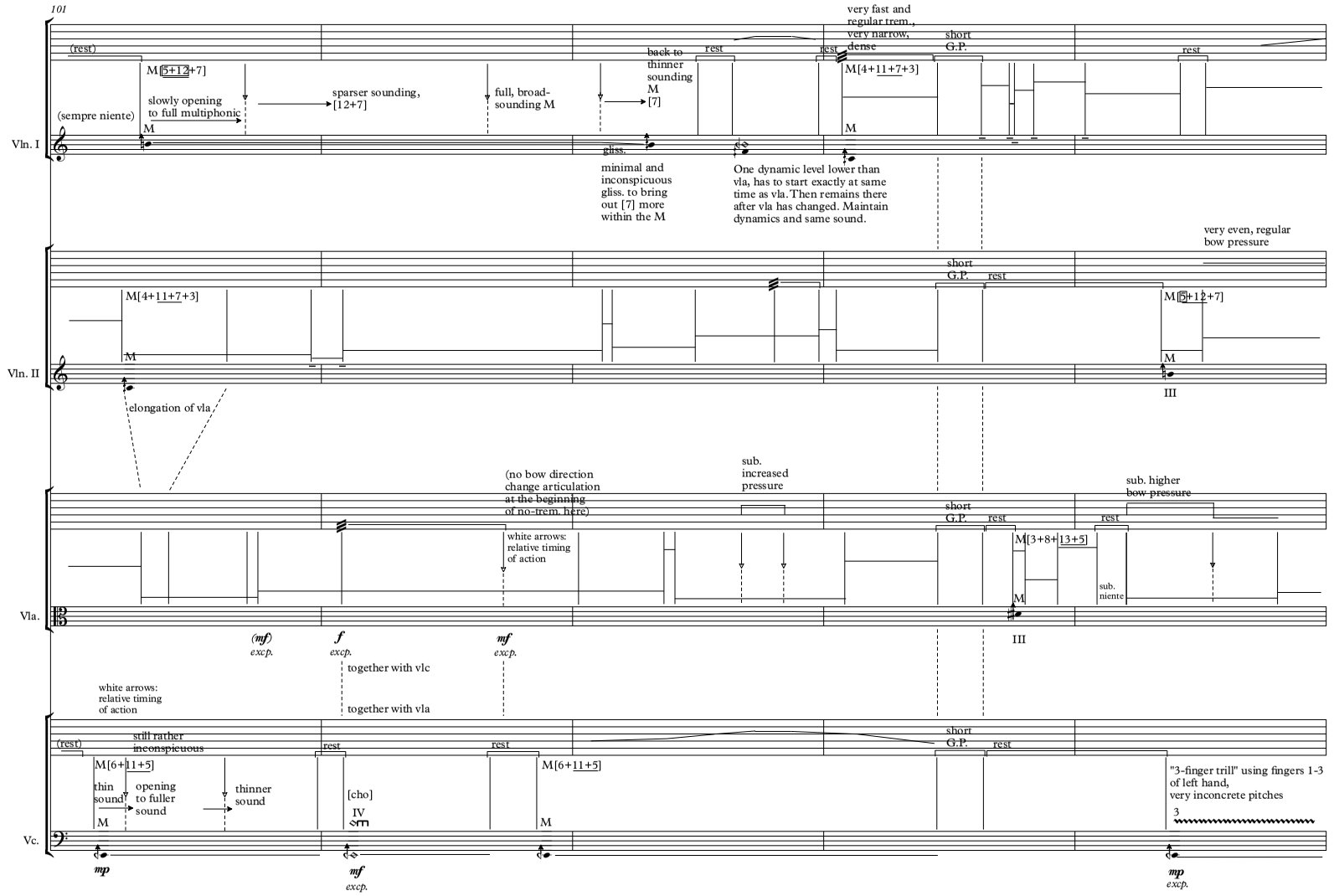

76
♩ = ca. 60
Vln. I
sound vanishes as unnoticeably/inconspicuously as it appeared
(niente)
(tacet)
Vln. II
sound vanishes as unnoticeably/inconspicuously as it appeared
(niente)
in same way as vlc; be the extension of the vlc
a little scratchy' at this moment, not yet 'grinding'
M[4+11+7+3]
air sound
AWIV
M
IV
(together with vlc)
Vla.
M[5+9+13+4]
slight resistance, minimally metallic-sounding
decreasing, almost linearly so
[ch]
IV
simile
M[5+9+13+4]
M[3+8+13+5]
unstable, stratified
Vc.
with finger trem./vibr., very fast movement on that spot, so fast that it doesn't result in concrete pitch
gradually transition betw. s.t. and s.p. (but omit ord. sound)
s.t.
s.p.
rather more metallic sound of m.s.p.
m.s.p.
M[3+8+13+5]
a little scratchy' at this moment, not yet 'grinding'
M[3+11+8]
more airy
(together with vln2)
[5]
gliss.
(II)
'hyper trem.': left hand movement (microtonal), with very inconcrete pitch
inconspicuous gliss. upwards within same multiphonic, to bring out [5]

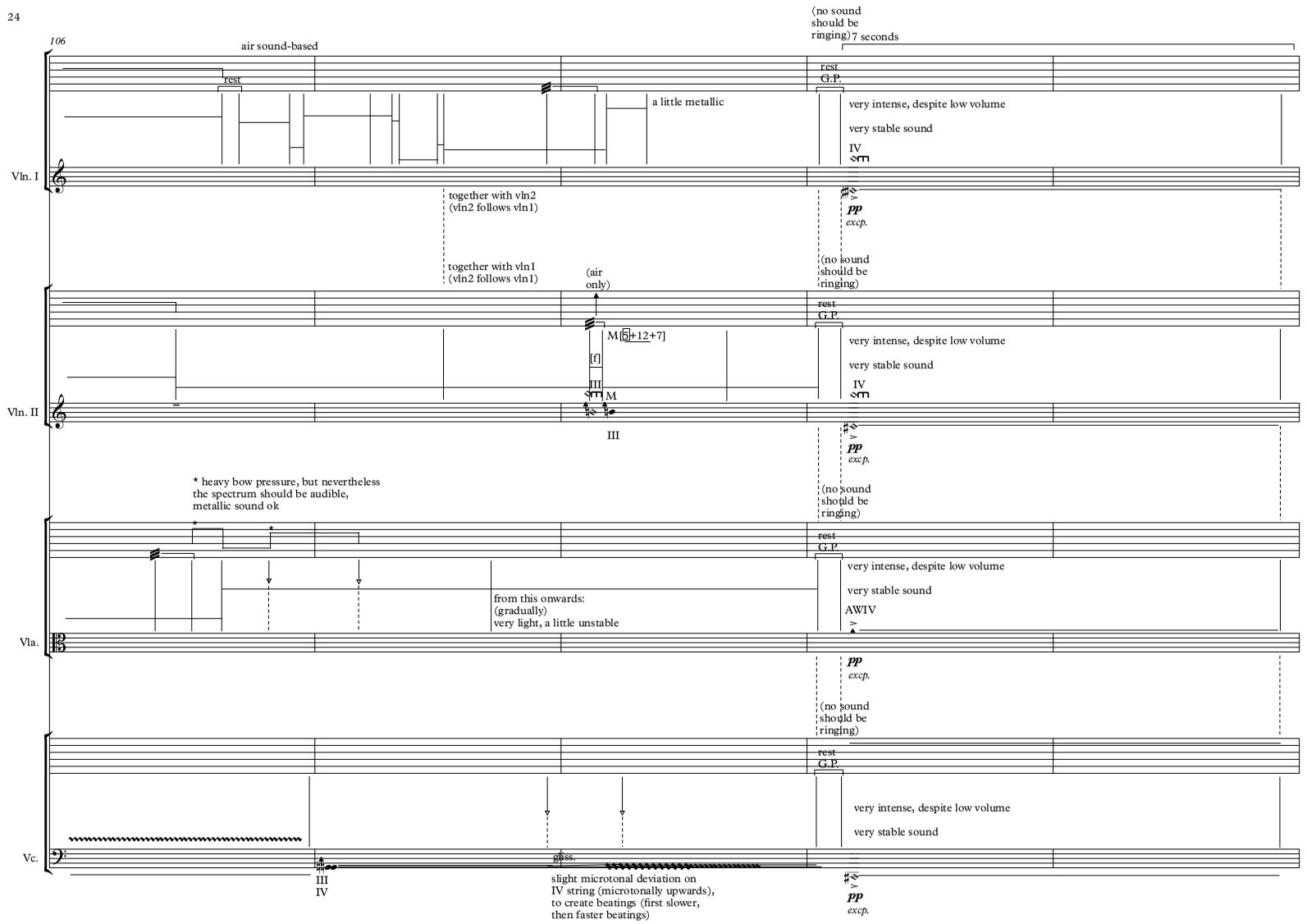

81
Vln. I
(tacet)
M[5+12+7]
M
III
pp
increasing intensity/energy in general, despite 'holding back' w/ volume
mf
together with vln2
at highest bow pressure point: a little 'grinding'
Vln. II
slightly more scratchy
(M)
mf
air sounds
p
a little metallic-sounding, like a mix of air and multiphonic
M[5+9+13+4]
soft entrance
M
mf-f
decreasing bow pressure
increasing intensity/energy in general, despite 'holding back' w/ volume
(together with vln1; vln2 is the lead instrument here!) slightly more 'grinding' than before
M[5+9+13+4]
(9)
Vla.
stable, extremely soft and 'stratified' multiphonic (as sound of 'surroundings' or the space (Raumklang, ger.), absolutely no bow direction audible while playing this sound!
start fading away of 'Raumklang'
Vc.
M[7+10+13+3]
metallic sounding
s.p.
III
m.s.p.
s.p.
M
III
(bow dir. change here, if nec.)
(mp-mf)
(s.p.)
m.s.p.
s.p.

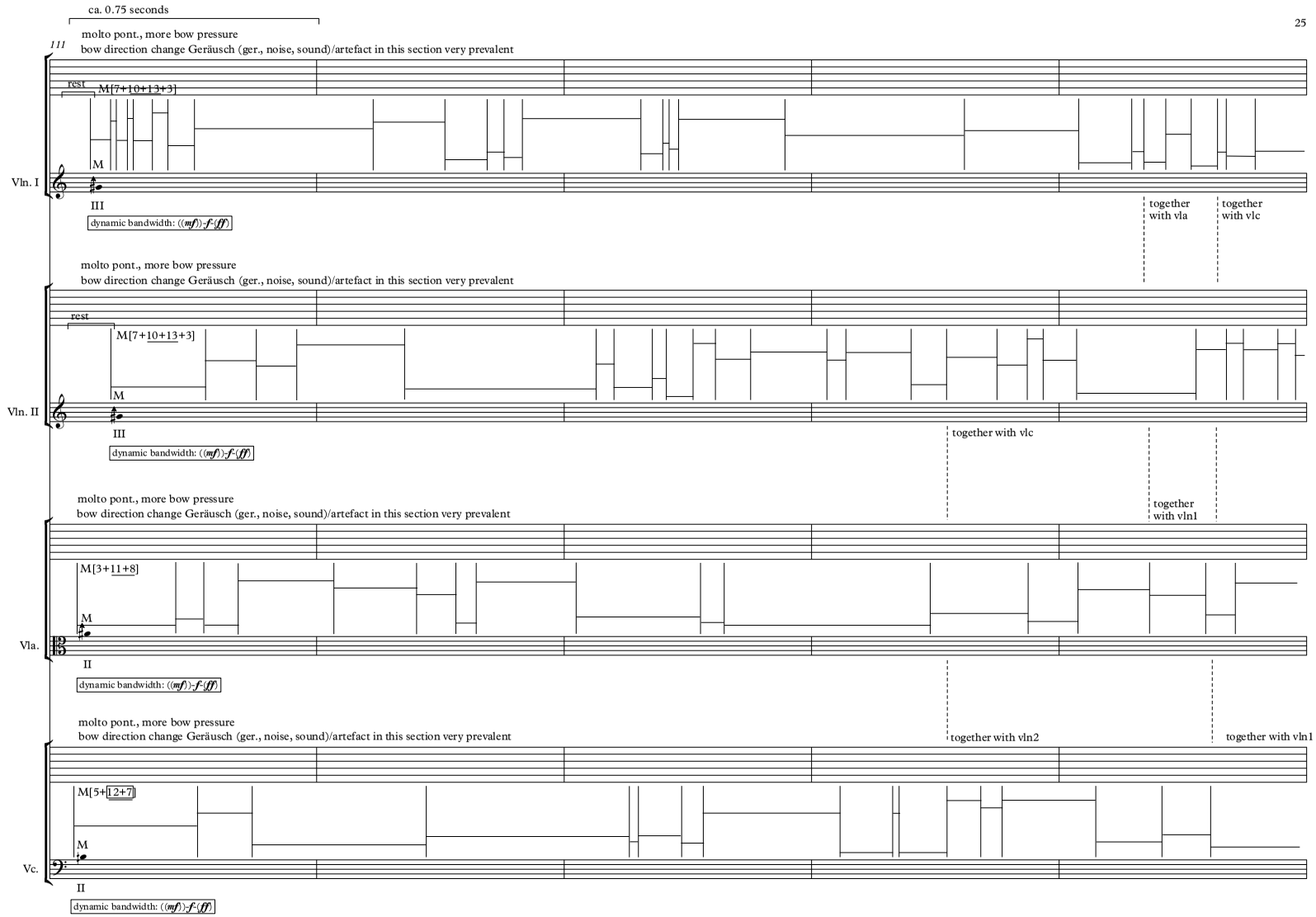

86
at the highest bow pressure point: quite 'grinding'
M[5+12+7]
M[3+8+13+5]
"ambient"
Raumklang (ger., sound of space/'surroundings'): stable, extremely soft and stratified sound; almost unnoticeable as an individual sound
Vln. I
(M)
changing focus within M
gliss.
(minimal and inconspicuous gliss. to bring out other harmonics within the M)
(At this point in the piece the maximum volume for multiphonics is already in the mf-f area.)
(intensifying, but not total maximum of 'grinding' reached yet)
pppp
at the highest bow pressure point: quite 'grinding'
M[5+9+13+4]
at the highest bow pressure point: a little more 'grinding' than before (friction)
M[5+9+13+4]
M[5+9+13+4]
'flat' bow dir. change
Vln. II
([13])
[5]
[9]
gliss.
(At this point in the piece the maximum volume for multiphonics is already in the mf-f area.)
(minimal and inconspicuous gliss. to bring out [5] more)
M[4+11+7+3]
'Raumklang' fading away
increasing energy once again, yet a little held back still remaining at lower dynamic lever than vln1+2 just before
(change bow direction as inconspicuously as poss. during this ongoing sound)
more metallic sounding
m.s.p.
Vla.
(At this point in the piece the maximum volume for multiphonics is already in the mf-f area.)
M[3+8+13+5]
M[3+8+13+5]
rather slow moving (within the harm.)
vanishing
(m.s.p.)
(s.p.)
Vc.
(At this point in the piece the maximum volume for multiphonics is already in the mf-f area.)


♩ = ca. 75
91
Vln. I
extremely stable sound that is so unobtrusive and constant that one almost forgets that it is there
ppp
pppp
Vln. II
add/include double-stop (w/ natl. harmonic, that triggers random/irregular oscillation ~~between two pitches through regular bow~~ movement (not always both sounding); ~~do NOT aid towards this randomness with additional bow movement or pressure, instead~~ use weight of bow only.
IV
AWIV
[cho] very slow bow
plus AWIV
[ch] very slow bow
I
(irregular)
(ca.7 cents deviation)
mp
p
Vla.
(bow dir. change, ~~if necessary~~ only, this time (as exception) in a very inconspicuous way)
m.s.p. (rather metallic and 'stratified' sound)
~~irregularly moving bow, through 'sticky bow'*, (med.-low tempo) choose (minimally increased) bow pressure to make this sound~~ effect appear
maintain metallic sound, stop 'sticky bow'
metallic, and irregular scraping
create sound as if the string were turned slightly too loose; ~~a little 'naturally' buzzing sound~~, (a little bit like a very slow "sticky'bow') with quite some air sound
s.t. (rather hollow sounding)
IV
*'sticky bow': like moving fingers in one direction on a smooth surface (e.g. plastic or metal surface), applying med-hard finger pressure, this creates an irregular sound
stop at same time as vlc
p
Vc.
end together with vla
bow speed level
(normal bow dir. change (without bow speed changes))
slightly 'off' (microtonally), very close dissonance to other instruments' multiphonics m.s.p.
mf
becoming more intense/increasing energy, mostly on the non-dynamics level

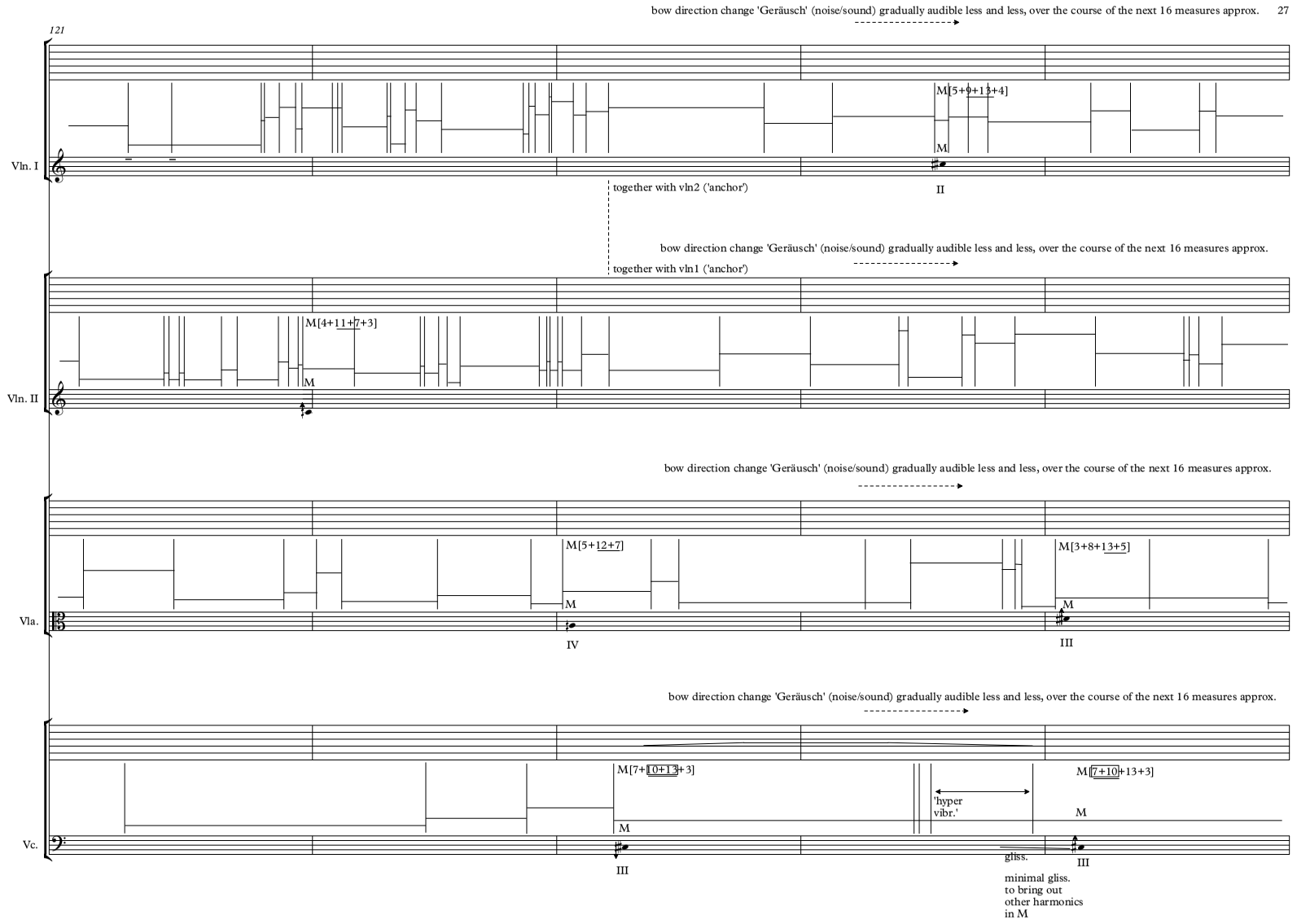

96
ca. 0.75 seconds
Vln. I
(vln1 only playing)
5 sec.
G.P.
3 sec.
(vln2,vla, vlc playing)
8 sec.
M[5+12+7]
[7]
white arrows: relative timing of action
opening to multiphonic
M[5+12+7]
M
rest
sub. niente
no dim. (no end of phrase)
III
pp
p
III
end together with vlc
all multiphonics together (at this stage) provide a very broad but dense and compact (composite) hyper-multiphonic, unstable
Vln. II
like 'cut off', sub. stop without prior indication (bow on string for stop)
(vln2,vla, vlc playing)
a little friction of frequencies within M
air/noise sounds dominating ('colored air sounds')
sudden change
rest
M[4+11+7+3]
M[5+9+13+4]
(vln1 only playing)
5 sec.
G.P.
3 sec.
8 sec.
M
M
(3x)
excp.
IV
mf-f
mp
f
poss.
together with vla
Vla.
like 'cut off', sub. stop without prior indication (bow on string for stop)
(vln2,vla, vlc playing)
a little friction of frequencies within M
air/noise sounds dominating ('colored air sounds')
sudden change
together with vln2
M[3+8+13+5]
M[4+11+7+3]
(vln1 only playing)
5 sec.
G.P.
3 sec.
8 sec.
(bow dir. change)
M
M
I
mf-f
mp
IV
f
poss.
(excp.)
mf
(excp.)
dynamic bandwidth: (mp-)mf-f
Vc.
like 'cut off', sub. stop without prior indication (bow on string for stop)
(vln2,vla, vlc playing)
a little friction of frequencies within M
end together with vln1
rest
M[7+10+13+3]
M[6+11+5]
(vln1 only playing)
5 sec.
G.P.
3 sec.
8 sec.
(bow dir. change)
M
M
rather 'airy'
'hyper vibr.'
(no 'hyper vibr.'
'hyper vibr.'
m.s.p.
sub. niente
III
mf-f
mf
'hyper vibr.' (ca. 2 cm, or 3/4 of an inch wide), (IV)
very fast vibr. movement, very inconcrete pitch, rather metallic sounding
dynamic bandwidth: (mp-)mf-f


101
Vln. I
(rest)
M[5+12+7]
slowly opening to full multiphonic
(sempre niente)
M
sparser sounding, [12+7]
full, broad-sounding M
back to thinner sounding M [7]
rest
rest
very fast and regular trem., very narrow, dense
short G.P.
M[4+11+7+3]
M
rest
gliss.
minimal and inconspicuous gliss. to bring out [7] more within the M
One dynamic level lower than vla, has to start exactly at same time as vla. Then remains there after vla has changed. Maintain dynamics and same sound.
very even, regular bow pressure
Vln. II
short G.P.
rest
M[4+11+7+3]
M
M[5+12+7]
M
III
elongation of vla
Vla.
(no bow direction change articulation at the beginning of no-trem. here)
sub. increased pressure
short G.P.
rest
sub. higher bow pressure
rest
white arrows: relative timing of action
M[3+8+13+5]
M
III
sub. niente
(mf) excp.
f excp.
mf excp.
together with vlc
together with vla
white arrows: relative timing of action
Vc.
(rest)
still rather inconspicuous
M[6+11+5]
thin sound
opening to fuller sound
thinner sound
M
rest
[cho]
IV
rest
M[6+11+5]
M
short G.P.
rest
"3-finger trill" using fingers 1-3 of left hand, very inconcrete pitches
3
mp
mf excp.
mp excp.


106
air sound-based
(no sound should be ringing)
7 seconds
rest
G.P.
a little metallic
very intense, despite low volume
very stable sound
IV
Vln. I
together with vln2
(vln2 follows vln1)
pp
excp.
together with vln1
(vln2 follows vln1)
(air only)
(no sound should be ringing)
M[5+12+7]
[f]
III
M
Vln. II
* heavy bow pressure, but nevertheless the spectrum should be audible, metallic sound ok
from this onwards:
(gradually)
very light, a little unstable
AWIV
Vla.
Vc.
gliss.
III
IV
slight microtonal deviation on IV string (microtonally upwards), to create beatings (first slower, then faster beatings)

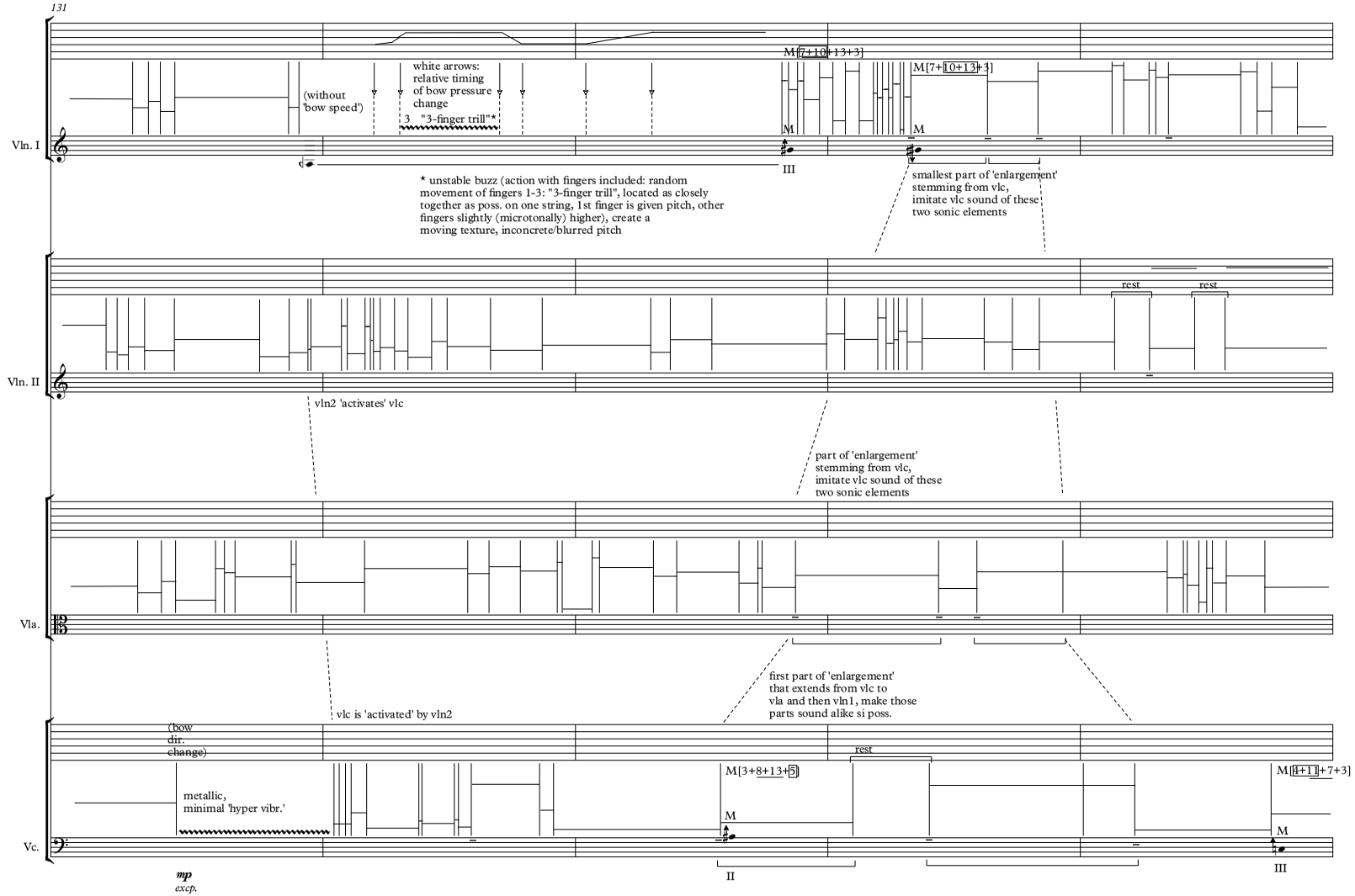

ca. 0.75 seconds
111
molto pont., more bow pressure
bow direction change Geräusch (ger., noise, sound)/artefact in this section very prevalent
rest
M[7+10+13+3]
Vln. I
M
III
dynamic bandwidth: ((mf))-f-((ff))
together with vla
together with vlc
molto pont., more bow pressure
bow direction change Geräusch (ger., noise, sound)/artefact in this section very prevalent
rest
M[7+10+13+3]
Vln. II
M
III
dynamic bandwidth: ((mf))-f-((ff))
together with vlc
together with vln1
molto pont., more bow pressure
bow direction change Geräusch (ger., noise, sound)/artefact in this section very prevalent
M[3+11+8]
Vla.
M
II
dynamic bandwidth: ((mf))-f-((ff))
together with vln2
together with vln1
molto pont., more bow pressure
bow direction change Geräusch (ger., noise, sound)/artefact in this section very prevalent
M[5+12+7]
Vc.
M
II
dynamic bandwidth: ((mf))-f-((ff))


26
116
Vln. I
Vln. II
Vla.
M[3+8+13+5]
M
III
together with vlc ('anchor')
together with vla ('anchor')
Vc.

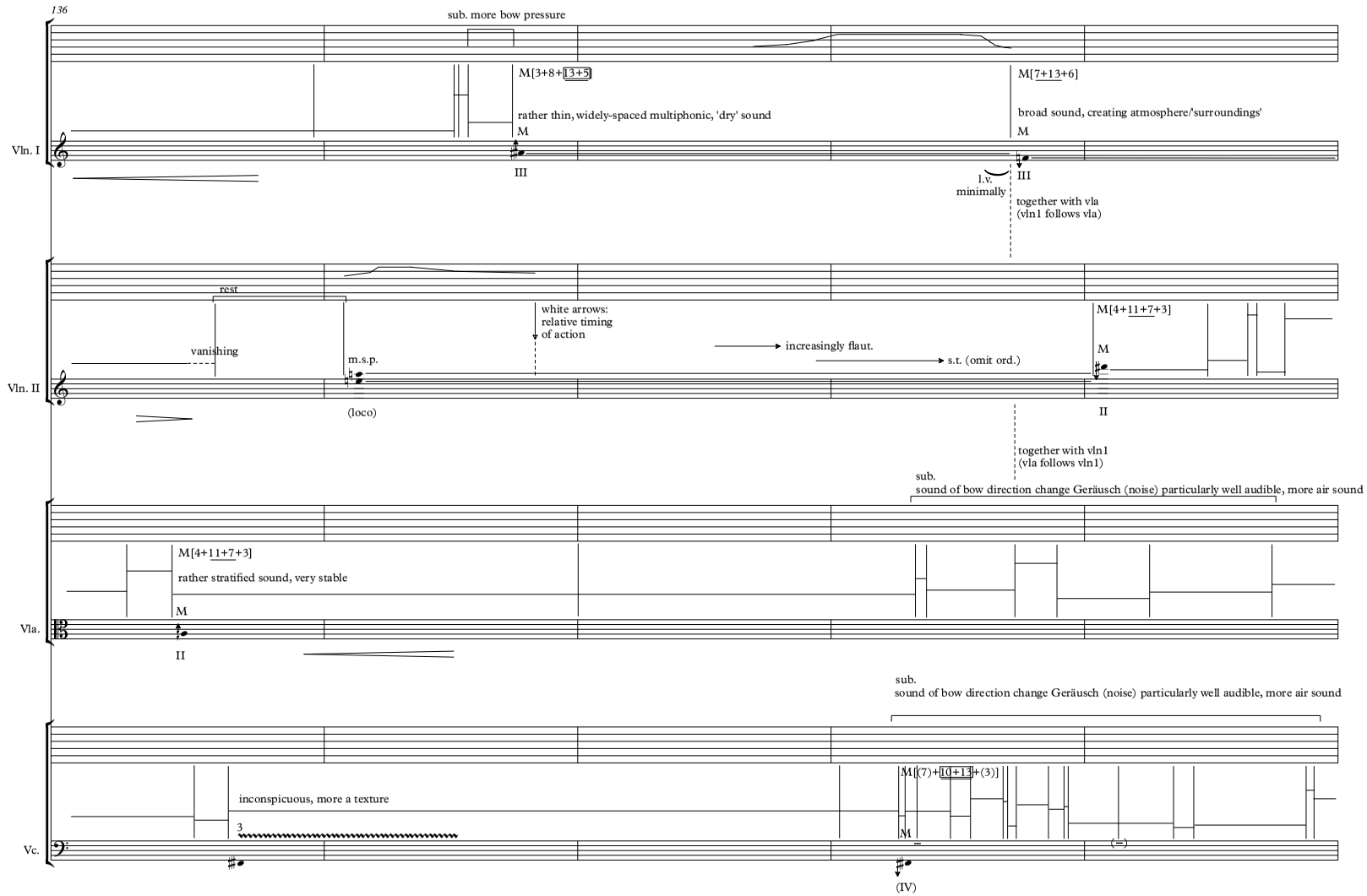

121
bow direction change 'Geräusch' (noise/sound) gradually audible less and less, over the course of the next 16 measures approx.
27
Vln. I
M[5+9+13+4]
M
II
together with vln2 ('anchor')
bow direction change 'Geräusch' (noise/sound) gradually audible less and less, over the course of the next 16 measures approx.
together with vln1 ('anchor')
Vln. II
M[4+11+7+3]
M
bow direction change 'Geräusch' (noise/sound) gradually audible less and less, over the course of the next 16 measures approx.
Vla.
M[5+12+7]
M
IV
M[3+8+13+5]
M
III
bow direction change 'Geräusch' (noise/sound) gradually audible less and less, over the course of the next 16 measures approx.
Vc.
M[7+10+13+3]
M
III
'hyper vibr.'
M[7+10+13+3]
M
gliss.
III
minimal gliss. to bring out other harmonics in M

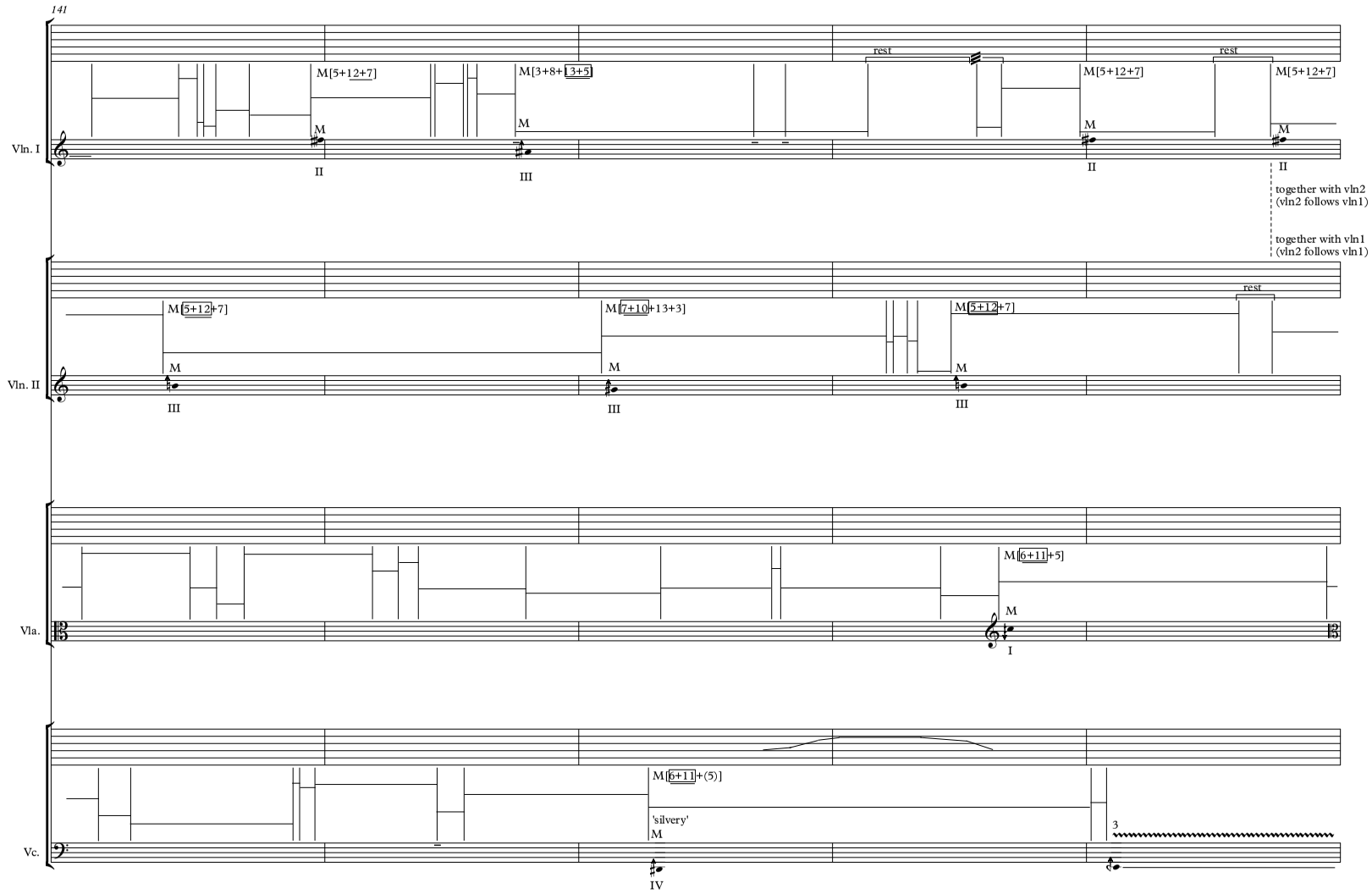
28

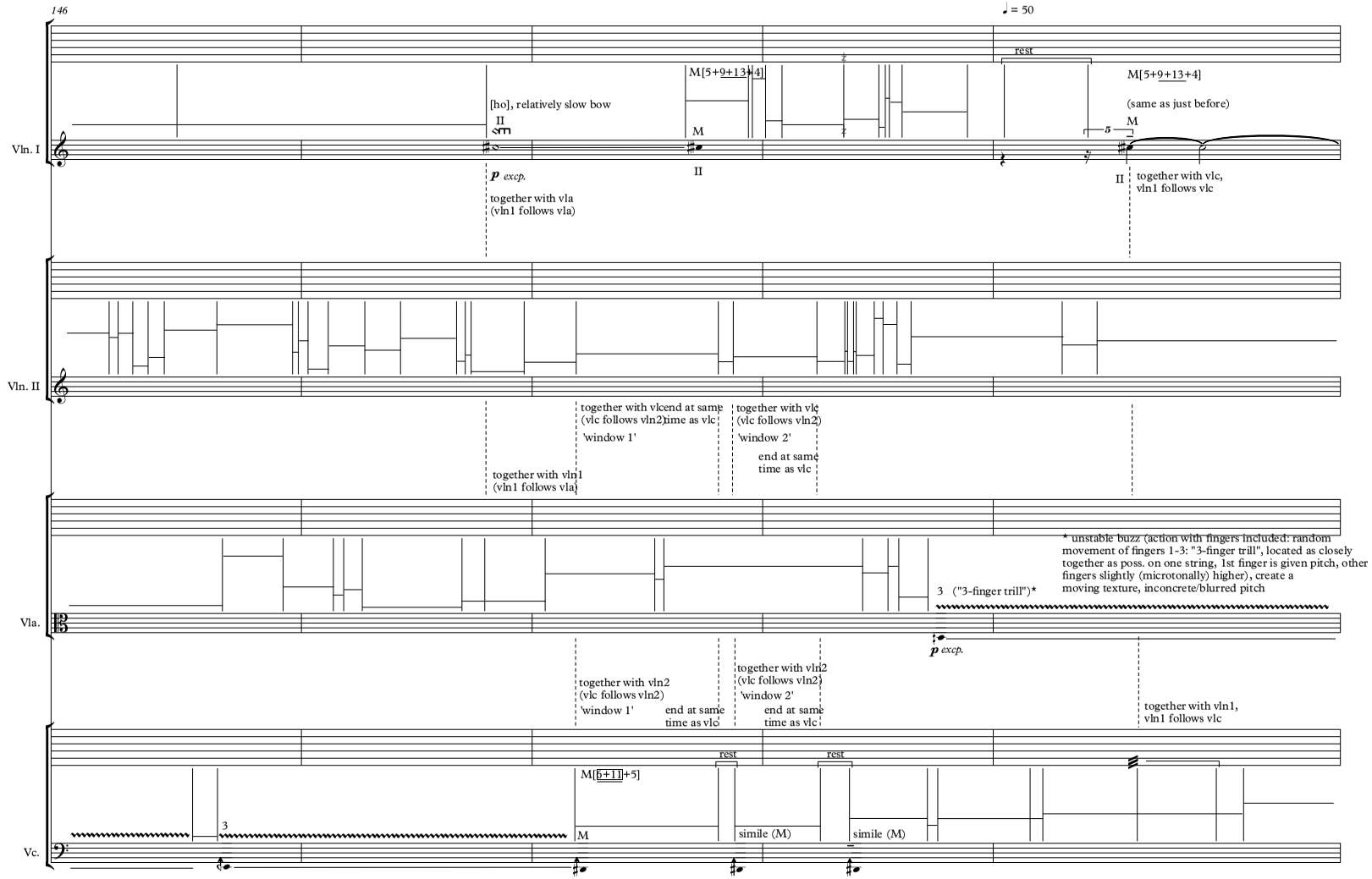

126
Vln. I
M[5+12+7]
M
III
Vln. II
Vla.
M[5+9+13+4]
M
III
Vc.
rest
M[4+11+7+3]
(M)
(without 'bow speed')
white arrows:
relative timing
of bow pressure
change
M
III
M[4+11+7+3]
M
(no gliss.)
III

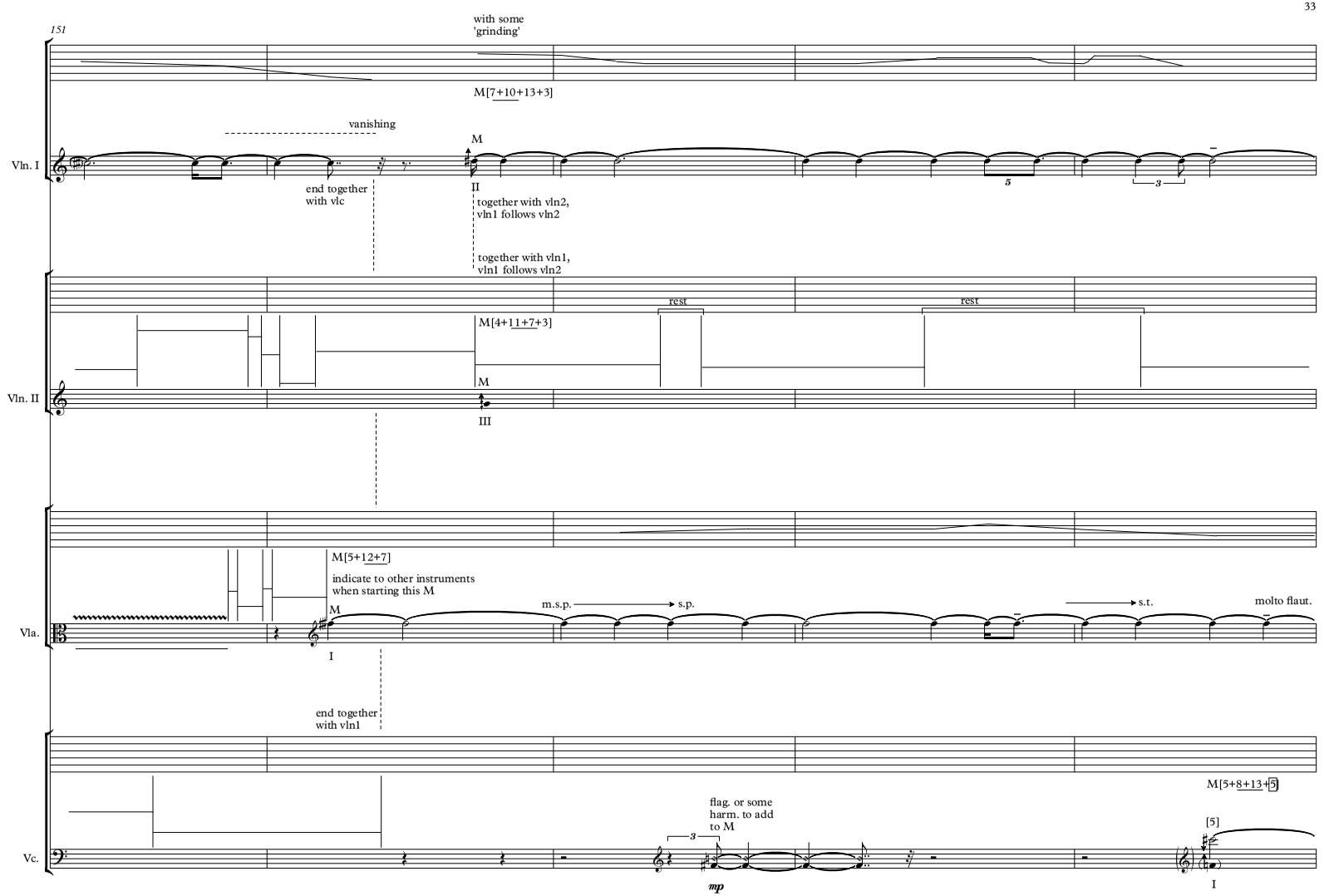

131
Vln. I
Vln. II
Vla.
Vc.
(without 'bow speed')
white arrows: relative timing of bow pressure change
3 "3-finger trill"*
M[7+10+13+3]
M
III
* unstable buzz (action with fingers included: random movement of fingers 1-3: "3-finger trill", located as closely together as poss. on one string, 1st finger is given pitch, other fingers slightly (microtonally) higher), create a moving texture, inconcrete/blurred pitch
smallest part of 'enlargement' stemming from vlc, imitate vlc sound of these two sonic elements
rest
vln2 'activates' vlc
part of 'enlargement' stemming from vlc, imitate vlc sound of these two sonic elements
vlc is 'activated' by vln2
first part of 'enlargement' that extends from vlc to vla and then vln1, make those parts sound alike si poss.
(bow dir. change)
metallic, minimal 'hyper vibr.'
M[3+8+13+5]
M[8+11+7+3]
II
mp
excp.

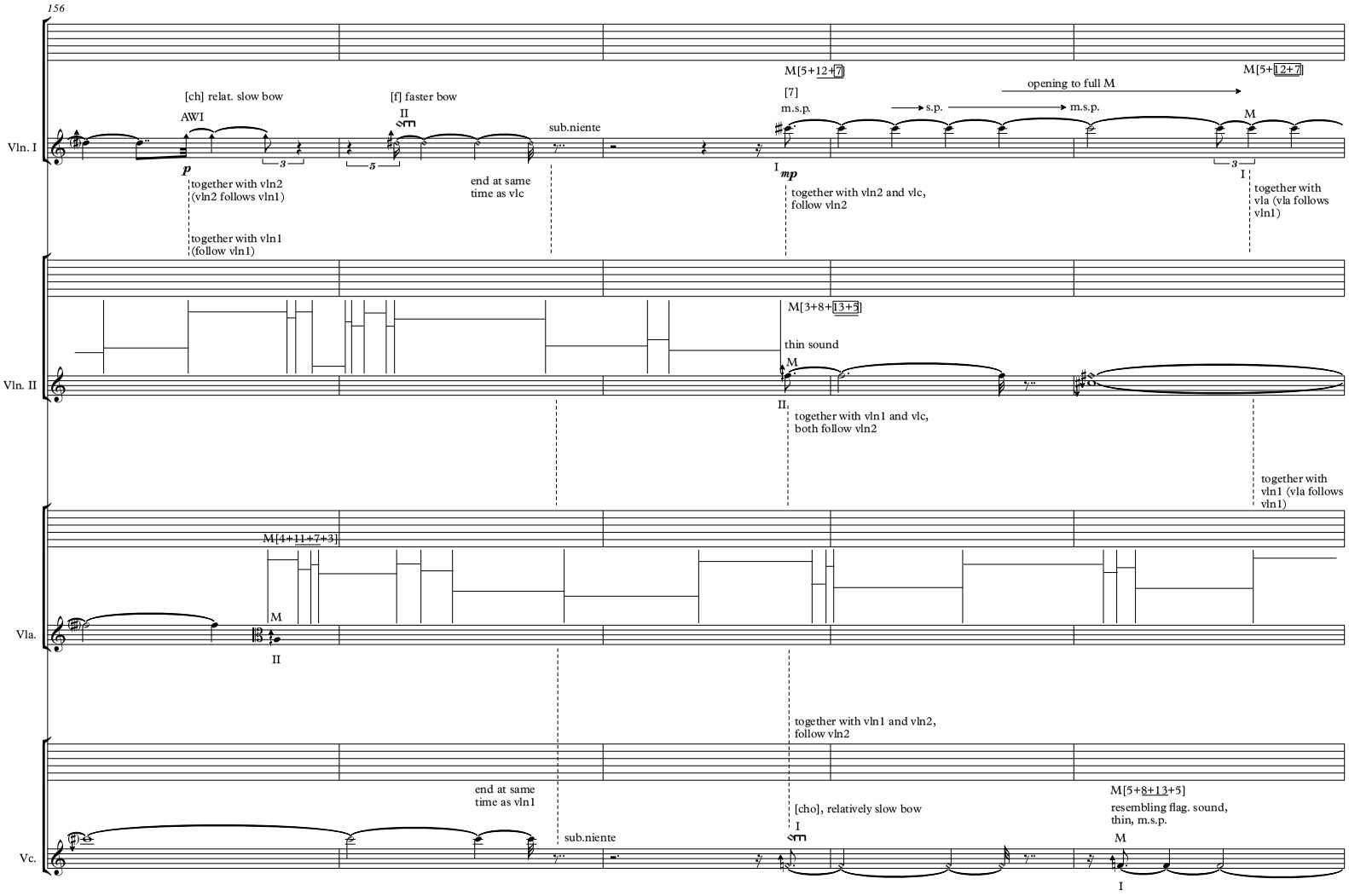
30
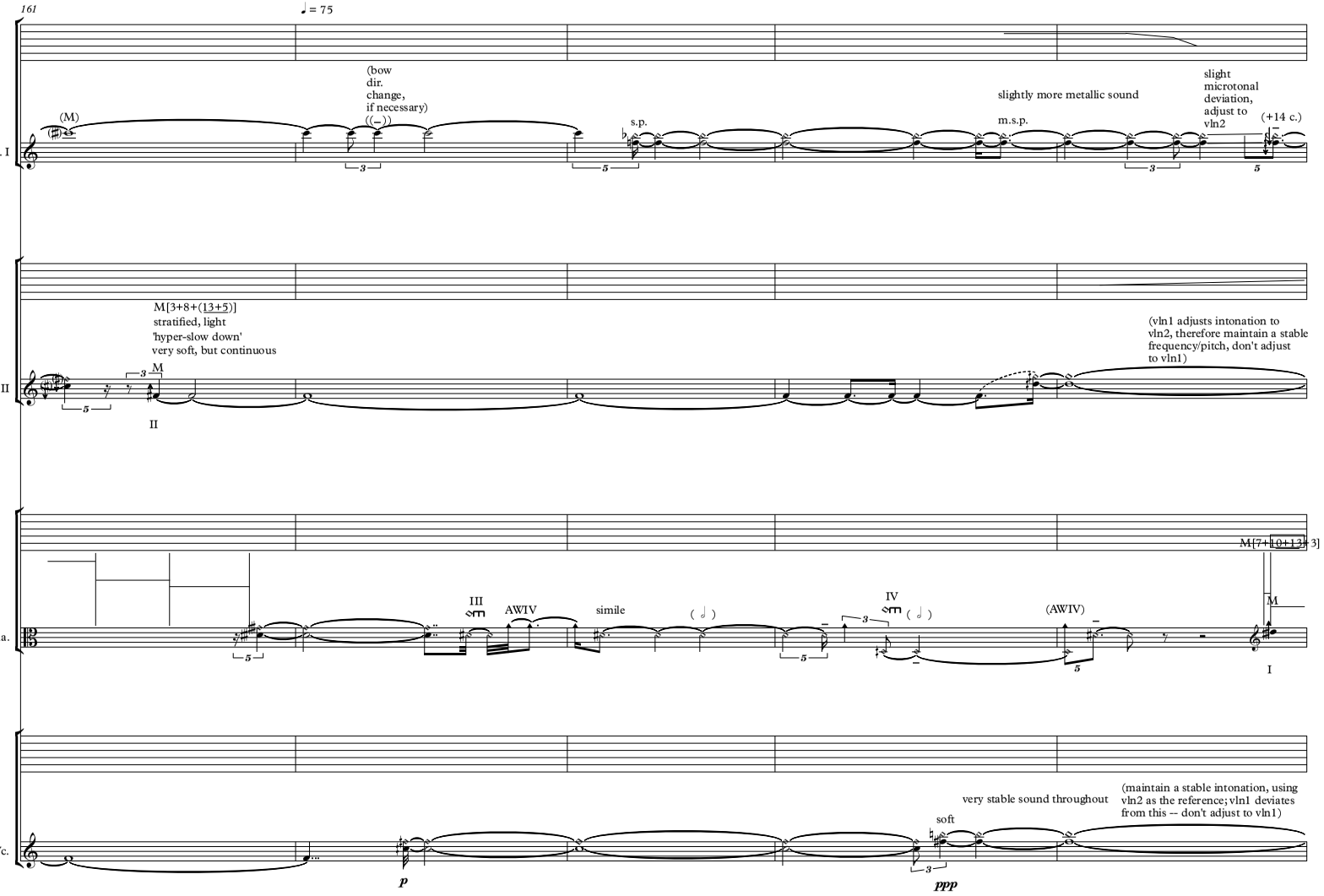

136
sub. more bow pressure
M[3+8+13+5]
rather thin, widely-spaced multiphonic, 'dry' sound
M
III
M[7+13+6]
broad sound, creating atmosphere/'surroundings'
M
l.v.
minimally
III
together with vla
(vln1 follows vla)
Vln. I
rest
vanishing
white arrows:
relative timing
of action
increasingly flaut.
s.t. (omit ord.)
m.s.p.
(loco)
M[4+11+7+3]
M
II
together with vln1
(vla follows vln1)
Vln. II
sub.
sound of bow direction change Geräusch (noise) particularly well audible, more air sound
M[4+11+7+3]
rather stratified sound, very stable
M
II
Vla.
sub.
sound of bow direction change Geräusch (noise) particularly well audible, more air sound
M[(7)+10+13+(3)]
inconspicuous, more a texture
3
M
(IV)
Vc.

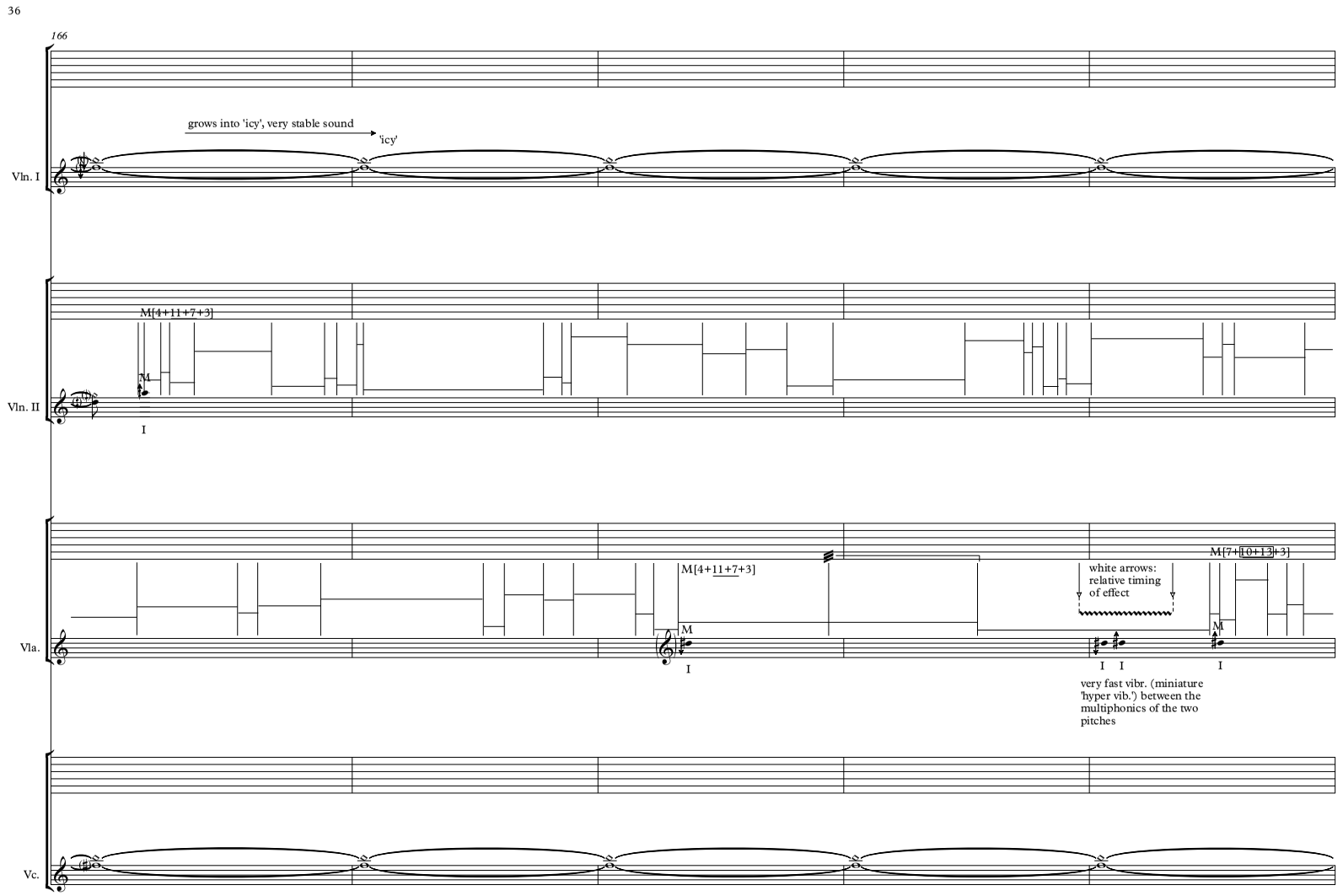

141
Vln. I
M[5+12+7]
M[3+8+13+5]
rest
M[5+12+7]
rest
M[5+12+7]
II
III
II
II
together with vln2
(vln2 follows vln1)
together with vln1
(vln2 follows vln1)
Vln. II
M[5+12+7]
M[7+10+13+3]
rest
M[5+12+7]
III
III
III
Vla.
M[6+11+5]
I
Vc.
M[6+11+(5)]
'silvery'
3
IV

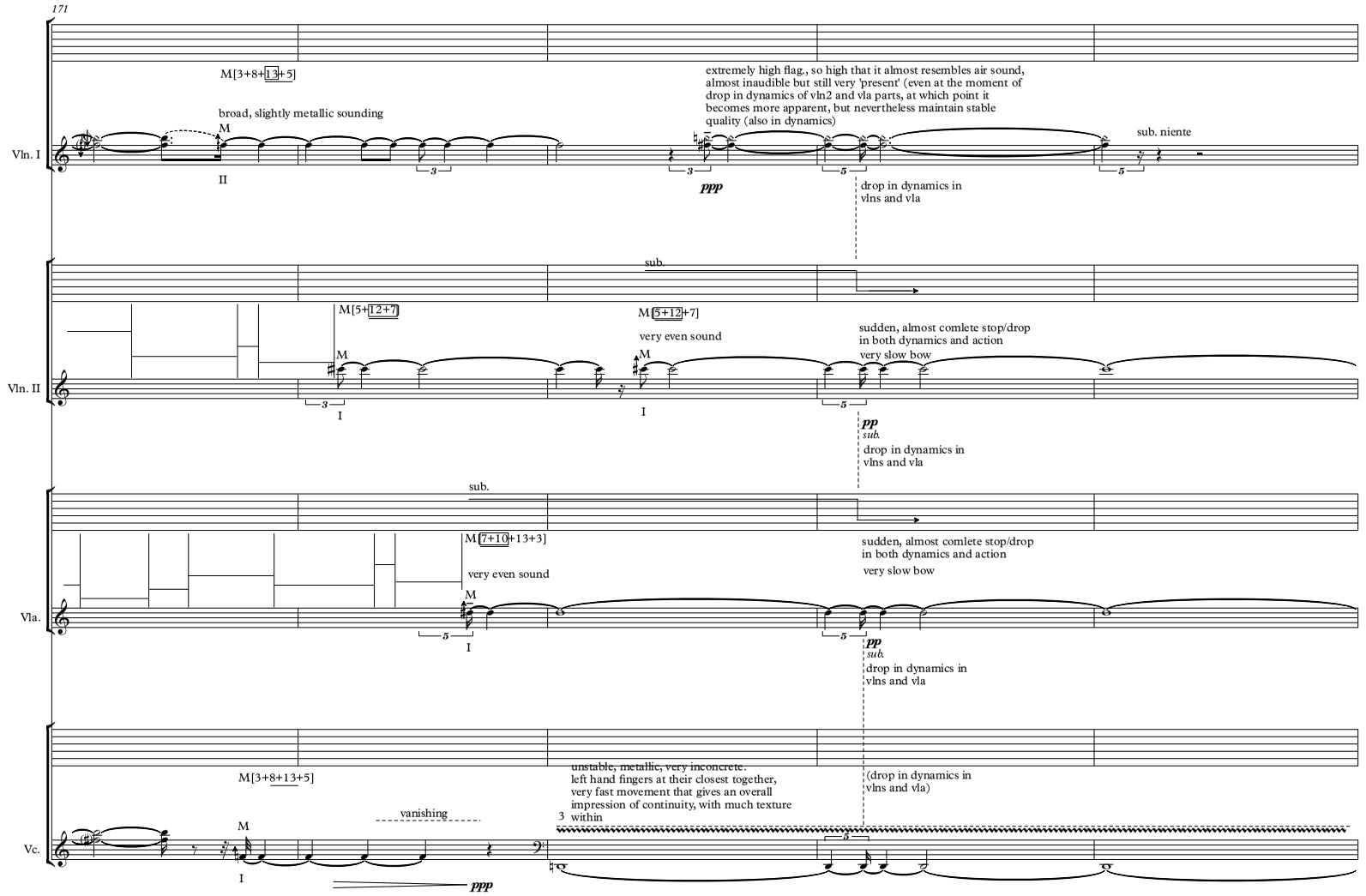

146
♩ = 50
Vln. I
Vln. II
Vla.
Vc.
[ho], relatively slow bow
II
M
p excp.
together with vla
(vln1 follows vla)
M[5+9+13+4]
rest
M[5+9+13+4]
(same as just before)
5
II
together with vlc,
vln1 follows vlc
together with vln1
(vln1 follows vla)
together with vlcend at same time as vlc
(vlc follows vln2)
'window 1'
together with vlc
(vlc follows vln2)
'window 2'
end at same time as vlc
3 ("3-finger trill")*
* unstable buzz (action with fingers included: random movement of fingers 1-3: "3-finger trill", located as closely together as poss. on one string, 1st finger is given pitch, other fingers slightly (microtonally) higher), create a moving texture, inconcrete/blurred pitch
p excp.
together with vln2
(vlc follows vln2)
'window 1'
end at same time as vlc
together with vln2
(vlc follows vln2)
'window 2'
end at same time as vlc
together with vln1,
vln1 follows vlc
3
M[5+11+5]
M
rest
rest
simile (M)
simile (M)


151
with some
'grinding'
M[7+10+13+3]
vanishing
Vln. I
M
end together
with vlc
II
together with vln2,
vln1 follows vln2
together with vln1,
vln1 follows vln2
rest
rest
M[4+11+7+3]
Vln. II
M
III
M[5+12+7]
indicate to other instruments
when starting this M
Vla.
M
m.s.p.
s.p.
s.t.
molto flaut.
I
end together
with vln1
M[5+8+13+5]
flag. or some
harm. to add
to M
[5]
Vc.
mp
I

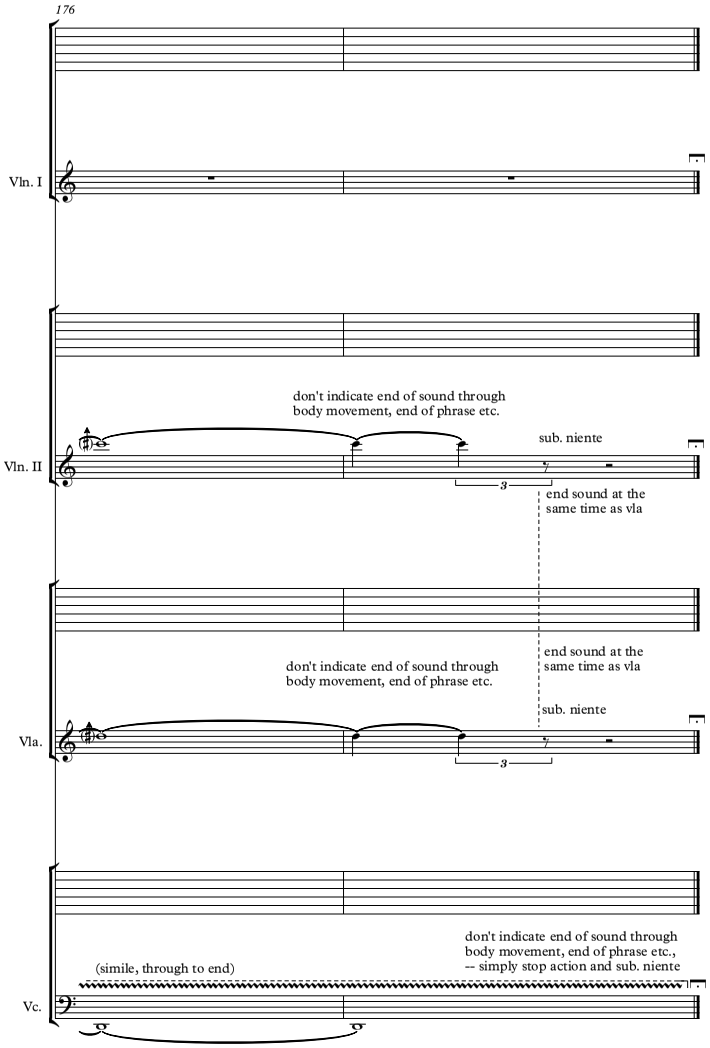

156
Vln. I
[ch] relat. slow bow
AWI
[f] faster bow
II
sub.niente
M[5+12+7]
[7]
m.s.p.
s.p.
m.s.p.
opening to full M
M[5+12+7]
M
p
mp
together with vln2
(vln2 follows vln1)
together with vln1
(follow vln1)
end at same
time as vlc
together with vln2 and vlc,
follow vln2
together with
vla (vla follows
vln1)
Vln. II
M[3+8+13+5]
thin sound
M
II
together with vln1 and vlc,
both follow vln2
together with
vln1 (vla follows
vln1)
Vla.
M[4+11+7+3]
M
II
together with vln1 and vln2,
follow vln2
Vc.
end at same
time as vln1
sub.niente
[cho], relatively slow bow
I
M[5+8+13+5]
resembling flag. sound,
thin, m.s.p.
M
I


161
♩ = 75
Vln. I
(M)
(bow dir. change, if necessary)
((–))
s.p.
slightly more metallic sound
m.s.p.
slight microtonal deviation, adjust to vln2
(+14 c.)
Vln. II
M[3+8+(13+5)]
stratified, light
'hyper-slow down'
very soft, but continuous
M
II
(vln1 adjusts intonation to vln2, therefore maintain a stable frequency/pitch, don't adjust to vln1)
Vla.
III
AWIV
simile
IV
(AWIV)
M[7+10+13+3]
M
I
Vc.
very stable sound throughout
soft
(maintain a stable intonation, using vln2 as the reference; vln1 deviates from this -- don't adjust to vln1)
p
ppp


36
166
Vln. I
grows into 'icy', very stable sound
'icy'
Vln. II
M[4+11+7+3]
M
I
Vla.
M[4+11+7+3]
M
I
white arrows:
relative timing
of effect
M[7+[10+13]+3]
M
I I
I
very fast vib. (miniature
'hyper vib.') between the
multiphonics of the two
pitches
Vc.


171
Vln. I
M[3+8+13+5]
broad, slightly metallic sounding
M
II
extremely high flag., so high that it almost resembles air sound, almost inaudible but still very 'present' (even at the moment of drop in dynamics of vln2 and vla parts, at which point it becomes more apparent, but nevertheless maintain stable quality (also in dynamics)
ppp
drop in dynamics in vlns and vla
sub. niente
Vln. II
sub.
M[5+12+7]
M
I
M[5+12+7]
very even sound
M
I
sudden, almost comlete stop/drop in both dynamics and action
very slow bow
pp
sub.
drop in dynamics in vlns and vla
Vla.
sub.
M[7+10+13+3]
very even sound
M
I
sudden, almost comlete stop/drop in both dynamics and action
very slow bow
pp
sub.
drop in dynamics in vlns and vla
Vc.
M[3+8+13+5]
M
I
vanishing
ppp
unstable, metallic, very inconcrete.
left hand fingers at their closest together, very fast movement that gives an overall impression of continuity, with much texture within
3
(drop in dynamics in vlns and vla)

38



Dec. 2015/Jan. 2016

4. CHAPTER 4 – THE POSSIBLE

4.1. WHAT YOU SEE, IS IT (2016) – for two trombones

Written for the trombone duo Rage Thormbones (Matt Barbier and Weston Olencki).
World premiere by Matt Barbier and Weston Olencki on October 22, 2016 at John Knowles Paine Concert Hall, Harvard University Music Department. Further performances include the New York premiere by trombone duo William Lang and Jennifer Baker on October 02, 2018 at the Moving Sounds Festival, and the Austrian premiere by Matt Barbier and Weston Olencki on November 18, 2018 at the Bludenzer Tage für zeitgemäße Musik Festival.

MANUELA MEIER

what you see, is it

for 2 trombones

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"WHAT YOU SEE, IS IT" (2016)

FOR TWO TENOR TROMBONES

Duration: approx. 8:30 mins

INSTRUMENT PREPARATION:

F-attachment ('valve') 'detached' on one side ('far' side, as seen from performer)/ open wrap, not close wrap. Use harmon mute (with stem) throughout the piece. The right hand is triggering the F-valve. The left hand is used for various muting constellations right at the mute's stem (follow indications given in the score).

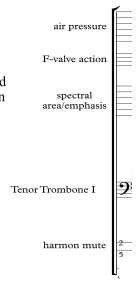
NOTATION OF MICROTONES:

quarter tone sharp — three quarter tone sharp — quarter tone flat — three quarter tone flat

Any additional microtonal deviation (smaller than quarter tones) will be indicated by the respective amount in cents.

SYSTEMS (STAFF LINES):

The time signature and barlines are only given for the purpose of for the player. (no metric differentiation of individual beats within a measure)



Air pressure:standard ('normal') air pressure applied according to the technique used. The air pressure is only given for instances in which the air pressure is decoupled from the respective playing technique.



F-'valve' action: indicates whether the F-valve is to be engaged or disengaged at any given moment. There are 5 different levels of engagement given, indicated by black squares. In some cases shapes are given to further define the exact F-'valve' action.



Spectral area/emphasis: Follow the indications/descriptions in the score as to which overtones or overtone areas/regions should be emphasized most, or played exclusively, in the respective moments.*

Most other performance instructions are provided in this staff line, with the exception to rhythmic features (additional staff lines below this one) that are decoupled from the respective playing technique given (e.g. additional key movements, trill speed)

Harmon mute (with stem in, in normal position); for details see "fingerings for left hand" below

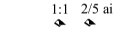
*This staff line is at times also used to indicate the 'brightness level', achieved through changes to the oral cavity only. (Dark/bright (='light') and gradations on between. This does not equal spectral emphasis.) A non-continuous way of notating the brightness level (for individual sonic events) is D/L (=dark/light), on a scale of 1-5 (D5=very dark, D2.5=medium dark; L5=very light/bright).

FINGERINGS FOR LEFT HAND (MUTING THE HARMON MUTE):



small black squares = indicated finger covers the harmon mute stem, so that the sound is partially or entirely muted (as given in score)
2, 3, 4, 5= respective fingers that cover the mute/are muting the sound (2= index finger; 4= ring finger etc. Given in this example: 2nd finger only; 2nd,3rd and 4th finger muting at the same time;
○ = "open harmon mute stem", no muting by fingers)

AIR VS. PITCH RATIO:



2/5 air = 2/5a
2/5 pitch = 2/5p

Various air vs pitch ratios are given throughout the piece. The performer is supplied with additional information on whether a sound is, conceptually, conceived as either an air-based or pitch-based sound, that finds itself "distorted" by the respective "other" quality.
e.g.: 1:1 = half air/half pitch; 4/5 air = the "base" for this sound is considered to be air (rather than pitch), of which there are 4/5ths audible. The rest of the sound is constituted by pitch (1/5th).

'VOCALIZATION':

Form the oral cavity as given with the respective vocalization (given in [ ]). The vocalization is NOT pronounced or spoken itself! Try to find sounds (w/ the oral cavity and tongue) that come closest to these vocalizations.
Always play with closed lips/embochure, unless stated explicitly otherwise. Parentheses within the vocalizations [()] signify that the vowel contained in ( ) is only apparent as a 'hue' (or 'coloring') of the main vocalization sound, and not as concrete as when notated without ( ).
The general pronounciation that the vocalization follows is a *German* pronounciation, with the exception of the following:
[z] -- as in American English pronounciation
[TH] -- with capital letters only: English pronounciation
[e] (as in [che], [ch(e)]) -- Mandarin Chinese pronounciation

BREATHING TECHNIQUE:

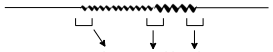
Except for moments marked with either 'exhale' or 'inhale', any (additional) breathing should be absolutely inaudible for the audience throughout the piece.
Breathe exclusively 'through' the instrument (no noise artifacts with embochure) si poss.
For last section of the piece, use circular breathing.

NOTATION OF FLZ. vs. TREMOLI vs. BEATINGS

Flz. — flutter tongue, use tongue for production (not uvula/throat Flz.), like a short artifact influencing the sonic event (only two "tongue movements")

'tremolo' of the sound (adding "movement" within the sound; although frequency at times might be slightly affected, frequency alteration is not the aim for the use of this technique) through movement of right hand fingers (at harmon mute stem). Out of the given fingers (see score for detailed instruction), use 1-2 fingers that are most flexible (unrestricted) in their natural tremolo movement (open/close of mute).
The sound of the tremolo should be naturally flowing, and not forced in an artificial-sounding rhythmical sense. Distinction of 2 vs 3 'closing' movements (see differences in use of symbol). Since the note values usually given with this symbol are rather short, in most cases the resulting sound will be a naturally flowing short and spontaneous "flattern" (germ.:an effect similar to flickering, flimmering).

narrower (faster rate) and wider (slightly slower) tremoli over a longer period of time (length given in score indications). "No-tremolo" indications (a straight line) ———— is usually given before the start of the longer tremoli sections for preparation purposes, but at the same time also specify that there is a short but gradual transition between the different tremolo states (never sudden changes for longer sections).



At certain times in the piece (follow score indications), a similar notation as just shown above will be used as a guideline for the production and listening to (and thus allowing of and focusing on) of beatings (frequency) occurring between the two instruments. Those sections are specifically labelled as such.
Furthermore, the production of beatings between the instruments in sections that have a higher pitch than air sound content is much encouraged/sought after -- especially when indicated, but also if they appear as side-effects of other techniques.

DYNAMICS:

very even, stable, 'flat' dynamics (of given dynamic level), start and stop are like cuts (on/off)

FURTHER CONCEPTUAL FEATURES:

'granularity'/'grains'

'grains ' = artifacts within the given sound, similar to dust or the 'graininess' in analog films. While the envelope of the (base) sound remains fairly stable/static, it should be well saturated by the artifacts/'grains' that are distributed in a quasi-random way (there should not be any regularity, as e.g. would occur if the same sound envelope were subjected to a Flz.).
Density: at least 7-9 'grain' events per beat.
For other "shades", or degrees, of granularity, see the respective indications and descriptions in the score.

TROMB 1 = reference ♭B +12.5c.

'reference pitch' = If the "setting" of 'reference pitch' applies for a given section (instructions given in the score), one instrument will serve as the reference (in terms of frequency) for the other. The other instrument will adjust its intonation/tuning to the reference pitch instrument. To facilitate orientation, the reference pitch is given accordingly in the label (including accidentals and possible additional microtonal deviations (in cents) from the original pitch symbol). For the non-reference instrument, the deviation from the specified reference pitch/frequency played by the other instrument will be given in cents (100 cents = half tone) in an additional instruction given in the score.
In 'reference FLEX' sections, the role of the reference pitch instrument may vary ('flexible', both adjusting to each other equally, depending on score details).

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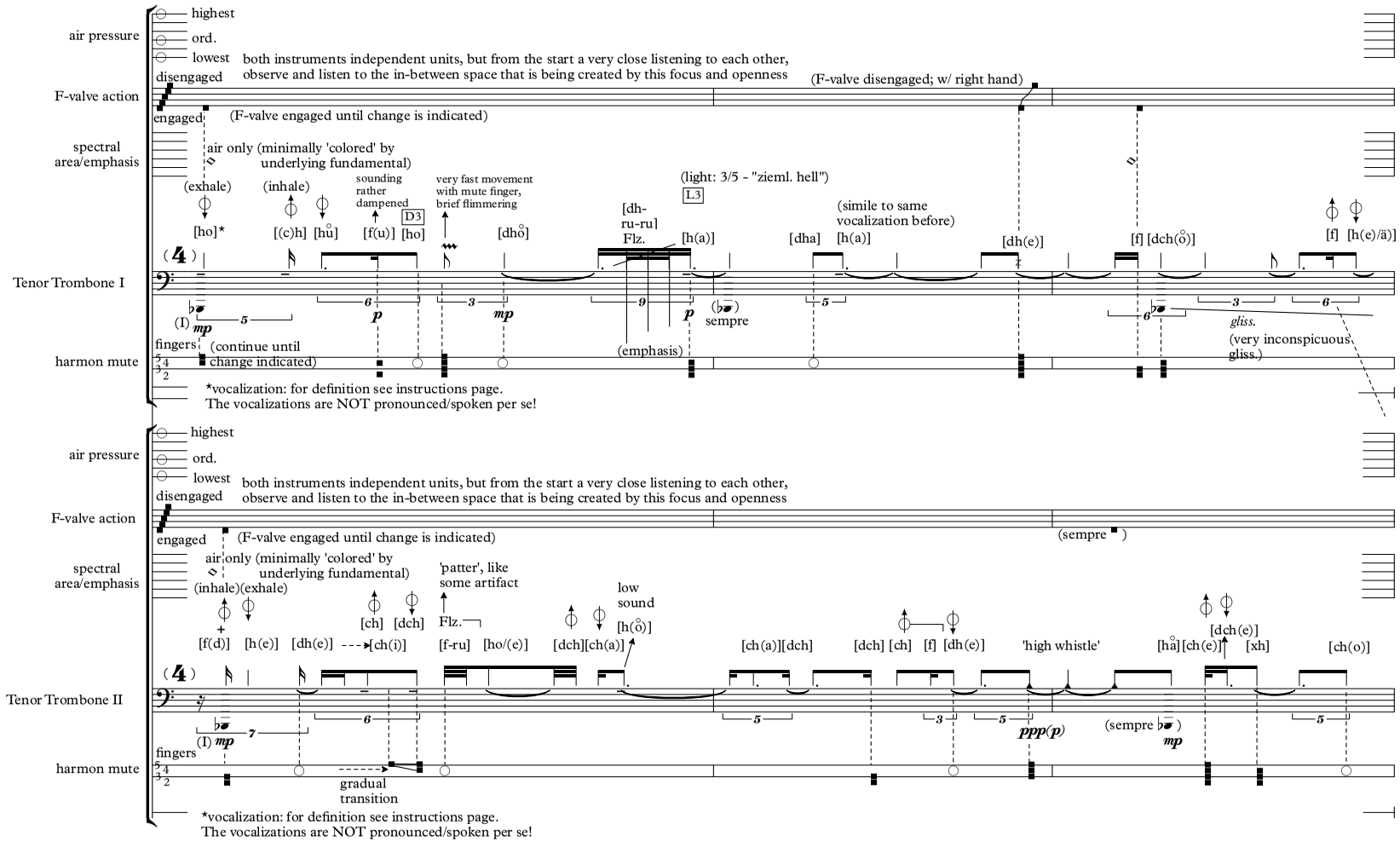
what you see, is it

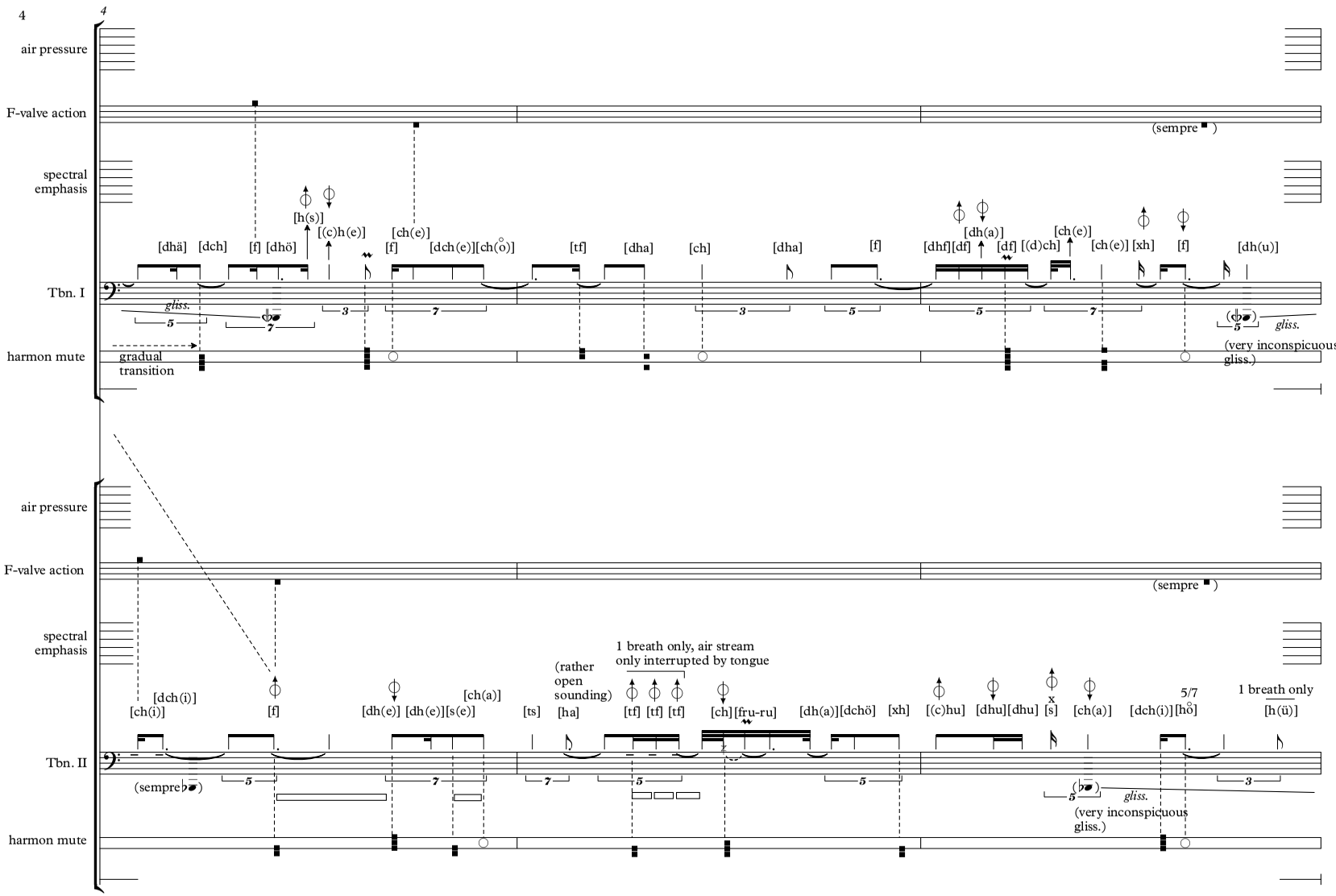
written for Weston Olencki and Matt Barbier

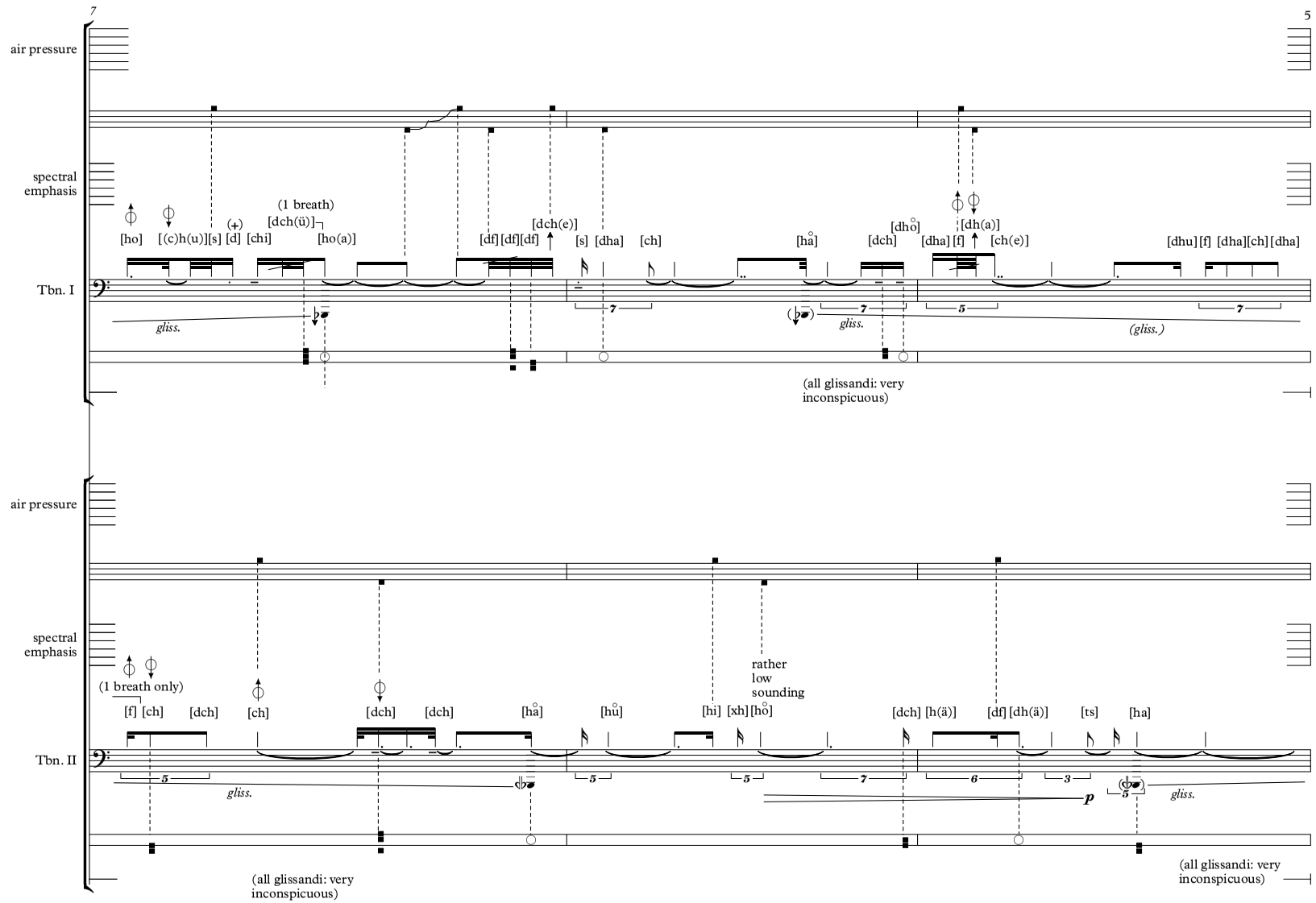
Manuela Meier, 2016

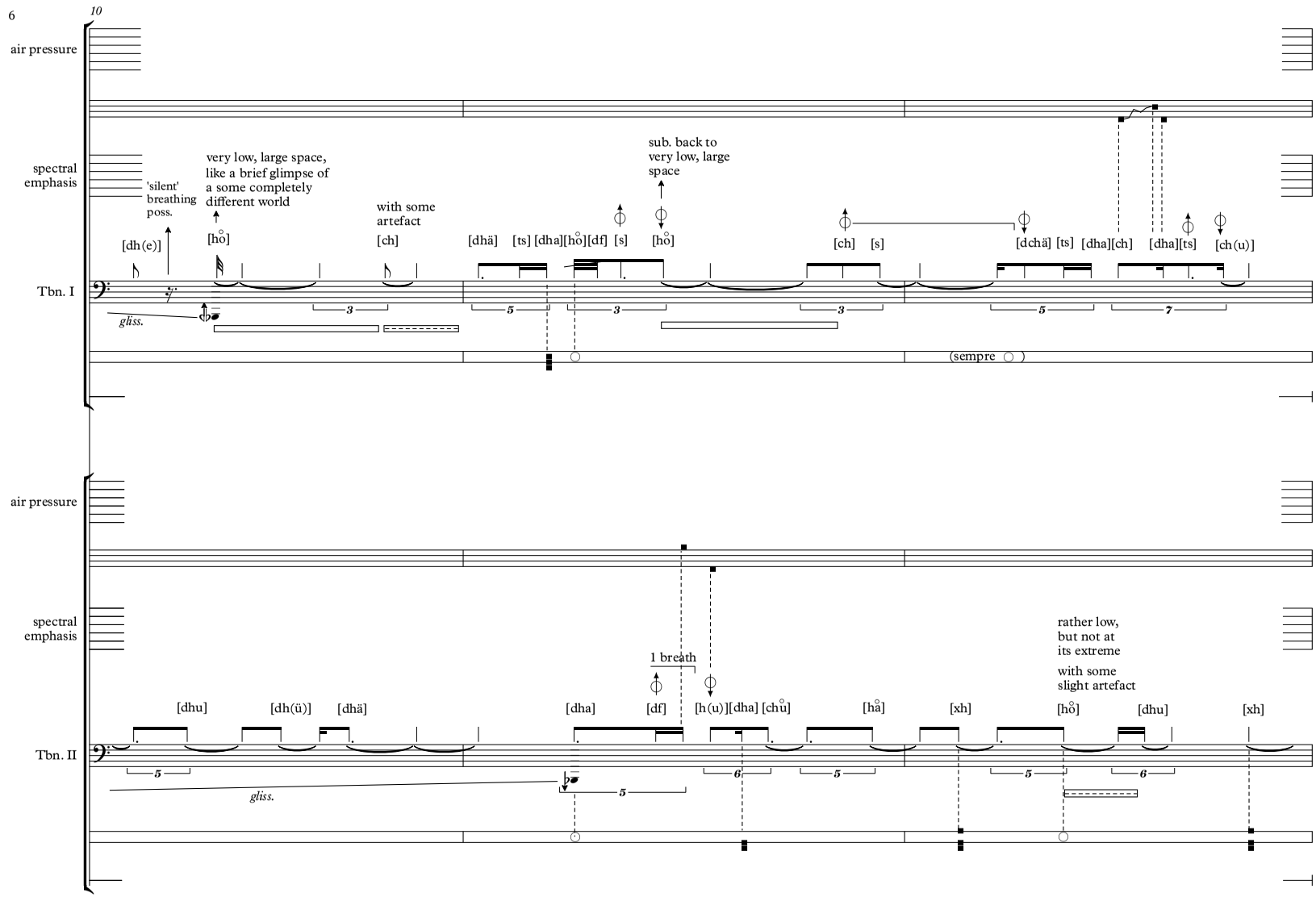
with harmon mute,
F-attachment/valve 'detached/open' on one side (see instructions page)

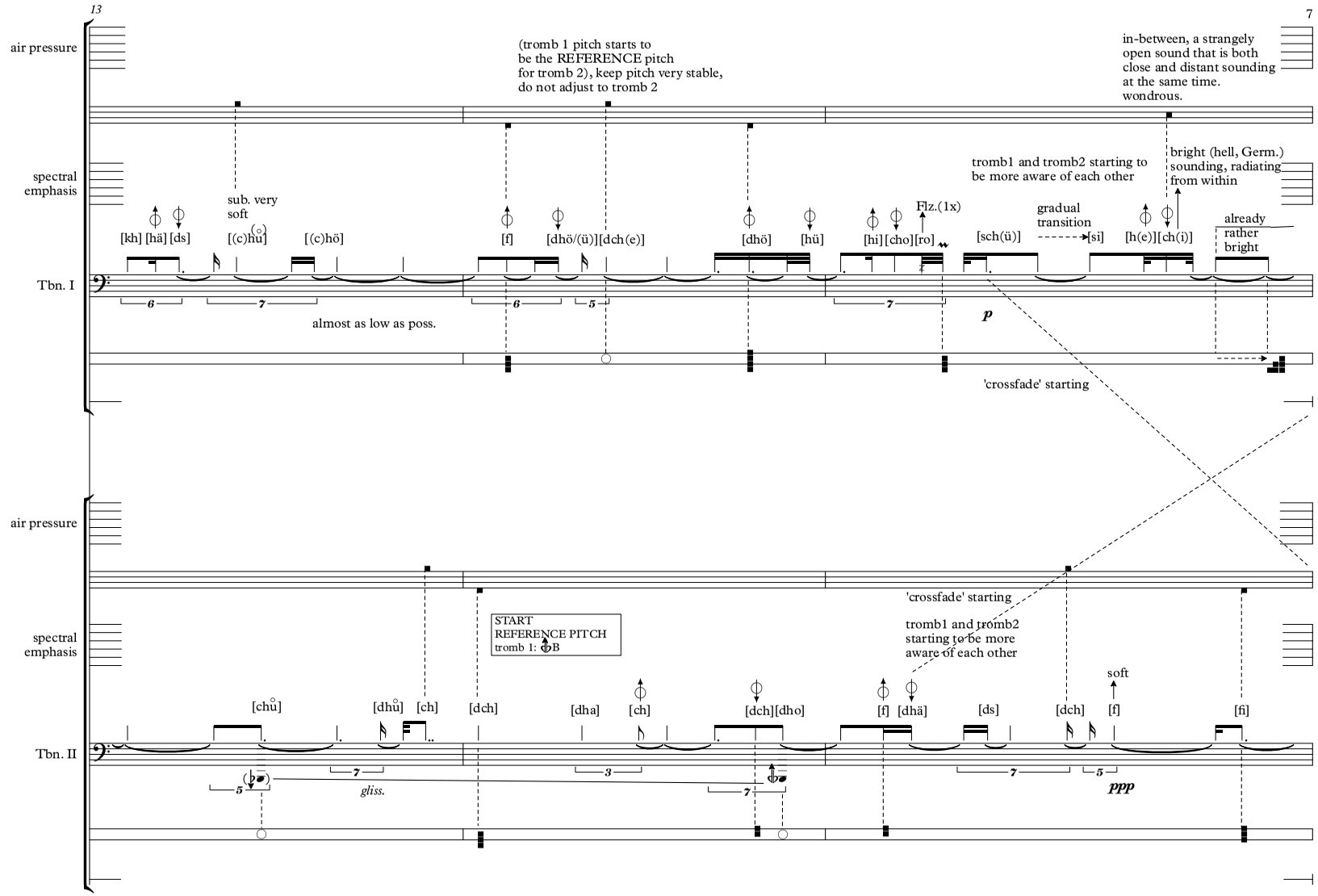
ca. 3.5 seconds (would equal 𝅗𝅥 = ca. 64)

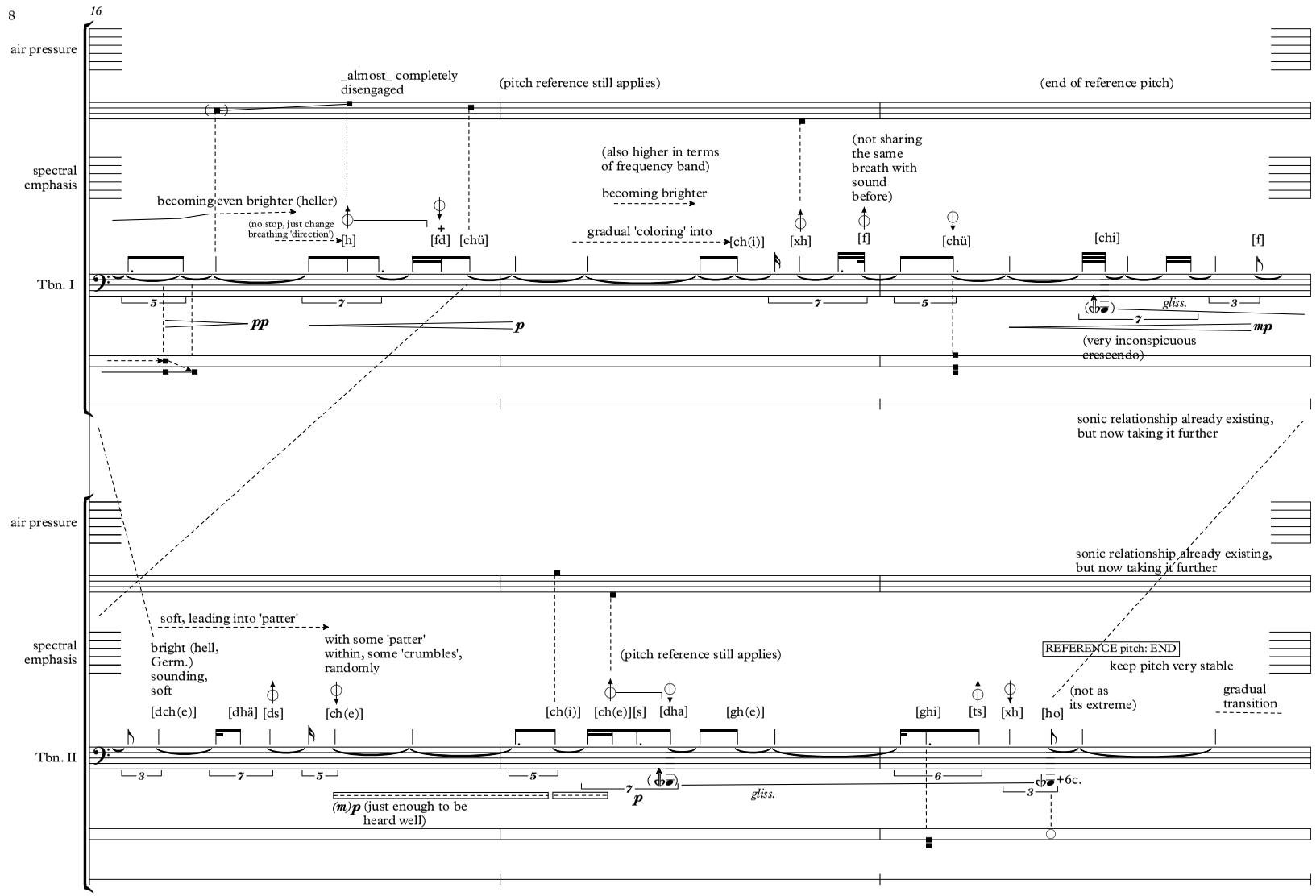


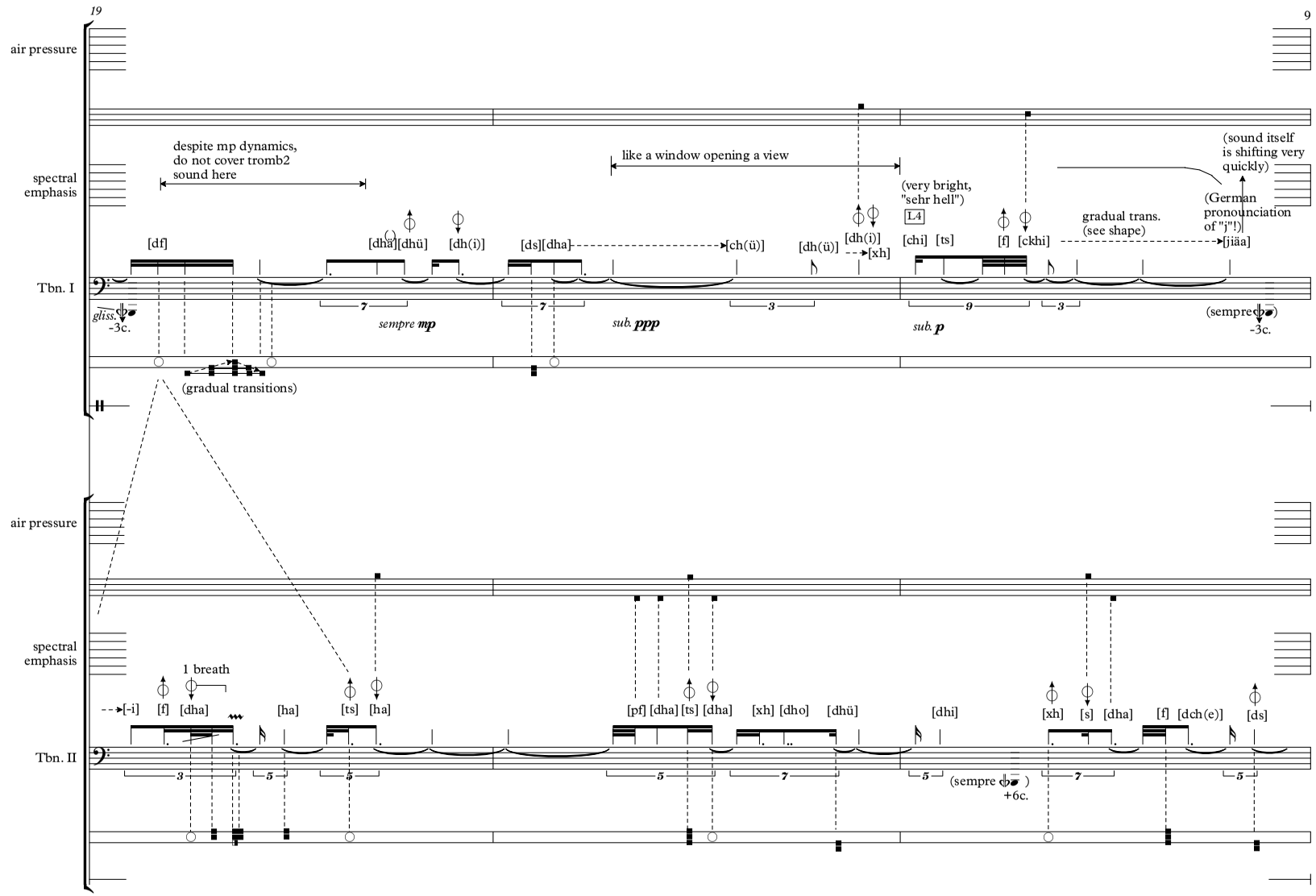

4
4
air pressure
F-valve action
(sempre)
spectral emphasis
[h(s)]
[dhä] [dch] [f] [dhö] [(c)h(e)] [ch(e)] [f] [dch(e)][ch(ö)] [tf] [dha] [ch] [dha] [f] [dhf][df] [dh(a)] [df] [(d)ch] [ch(e)] [ch(e)] [xh] [f] [dh(u)]
Tbn. I
gliss.
(very inconspicuous gliss.)
harmon mute
gradual transition
air pressure
F-valve action
(sempre)
spectral emphasis
1 breath only, air stream only interrupted by tongue
(rather open sounding)
[dch(i)] [ch(i)] [f] [dh(e)] [dh(e)][s(e)] [ch(a)] [ts] [ha] [tf] [tf] [tf] [ch][fru-ru] [dh(a)][dchö] [xh] [(c)hu] [dhu][dhu] x [s] [ch(a)] 5/7 [dch(i)][hö] 1 breath only [h(ü)]
Tbn. II
(sempre)
gliss.
(very inconspicuous gliss.)
harmon mute

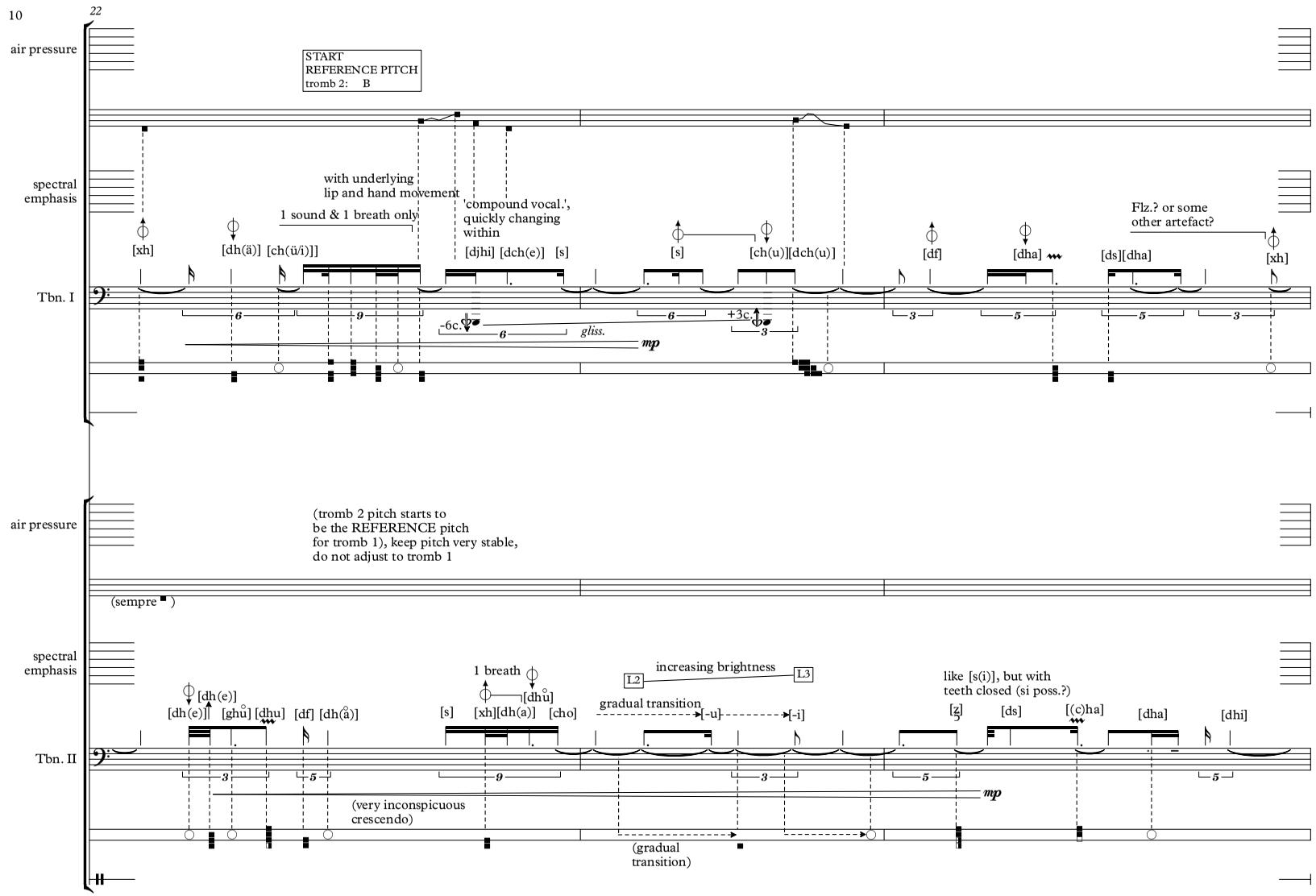

7
5
air pressure
spectral emphasis
Tbn. I
(1 breath)
[ho] [(c)h(u)][s] [d] [chi] [dch(ü)] [ho(a)] [df][df][df] [dch(e)] [s] [dha] [ch] [hå] [dch] [dhŏ] [dha] [f] [dh(a)] [ch(e)] [dhu] [f] [dha][ch][dha]
gliss.
gliss.
(gliss.)
(all glissandi: very inconspicuous)
air pressure
spectral emphasis
Tbn. II
(1 breath only)
[f] [ch] [dch] [ch] [dch] [dch] [hå] [hů] [hi] [xh][hŏ] [dch] [h(ä)] [df] [dh(ä)] [ts] [ha]
rather low sounding
gliss.
p
gliss.
(all glissandi: very inconspicuous)
(all glissandi: very inconspicuous)

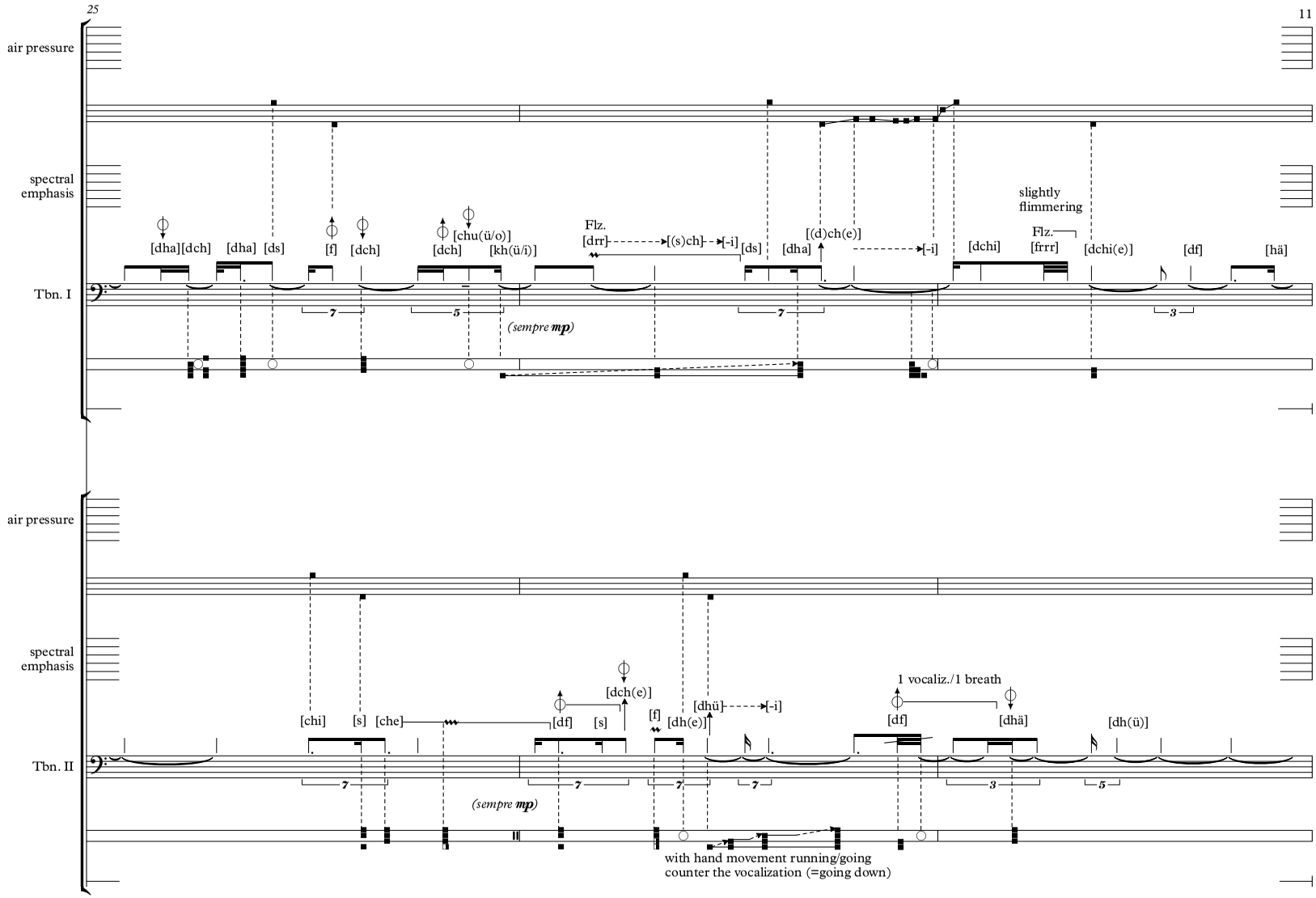

6
10
air pressure
spectral emphasis
'silent' breathing poss.
very low, large space, like a brief glimpse of a some completely different world
with some artefact
sub. back to very low, large space
[dh(e)]
[hŏ]
[ch]
[dhä] [ts] [dha][hŏ][df] [s] [hŏ]
[ch] [s]
[dchä] [ts] [dha][ch] [dha][ts] [ch(u)]
Tbn. I
gliss.
(sempre)
air pressure
spectral emphasis
1 breath
rather low, but not at its extreme
with some slight artefact
[dhu] [dh(ü)] [dhä] [dha] [df] [h(u)][dha] [chů] [hå] [xh] [hŏ] [dhu] [xh]
Tbn. II
gliss.

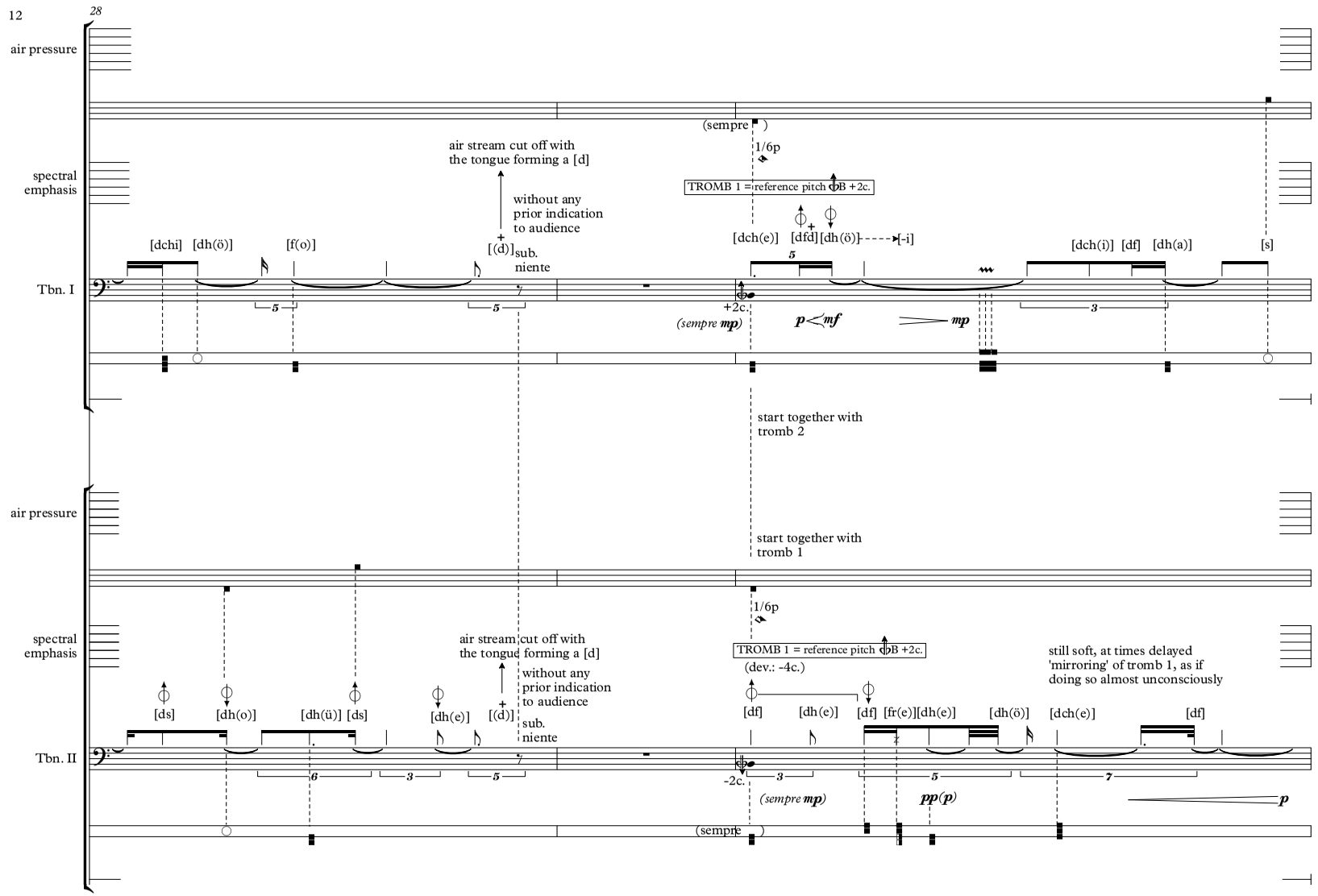

13
7
air pressure
spectral emphasis
Tbn. I
(tromb 1 pitch starts to be the REFERENCE pitch for tromb 2), keep pitch very stable, do not adjust to tromb 2
in-between, a strangely open sound that is both close and distant sounding at the same time. wondrous.
tromb1 and tromb2 starting to be more aware of each other
bright (hell, Germ.) sounding, radiating from within
sub. very soft
Flz.(1x)
gradual transition
already rather bright
[kh] [hä] [ds]
[(c)hů]
[(c)hö]
[f]
[dhö/(ü)][dch(e)]
[dhö]
[hü]
[hi][cho][ro]
[sch(ü)]
[si]
[h(e)][ch(i)]
almost as low as poss.
p
'crossfade' starting
air pressure
spectral emphasis
Tbn. II
START REFERENCE PITCH
tromb 1: B
'crossfade' starting
tromb1 and tromb2 starting to be more aware of each other
soft
[chů]
[dhů]
[ch]
[dch]
[dha]
[ch]
[dch][dho]
[f]
[dhä]
[ds]
[dch]
[f]
[fi]
gliss.
ppp

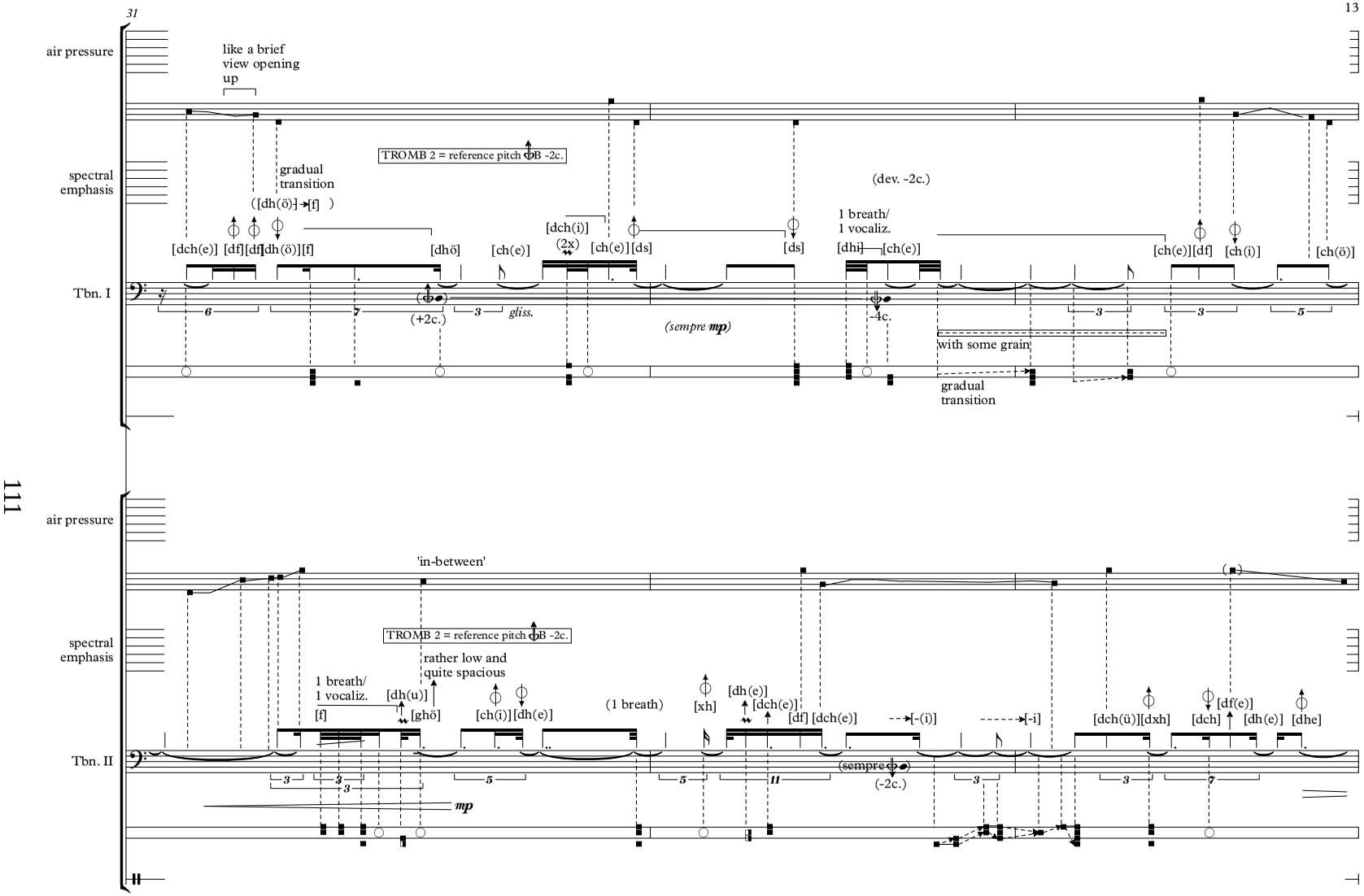

8
16
air pressure
spectral emphasis
Tbn. I
almost completely disengaged
(pitch reference still applies)
(end of reference pitch)
becoming even brighter (heller)
(no stop, just change breathing 'direction')
[h]
[fd]
[chü]
(also higher in terms of frequency band)
becoming brighter
gradual 'coloring' into
[ch(i)]
[xh]
(not sharing the same breath with sound before)
[f]
[chü]
[chi]
[f]
pp
p
gliss.
mp
(very inconspicuous crescendo)
sonic relationship already existing, but now taking it further
air pressure
spectral emphasis
Tbn. II
soft, leading into 'patter'
bright (hell, Germ.) sounding, soft
with some 'patter' within, some 'crumbles', randomly
[dch(e)]
[dhä]
[ds]
[ch(e)]
(pitch reference still applies)
[ch(i)]
[ch(e)][s]
[dha]
[gh(e)]
[ghi]
[ts]
[xh]
[ho]
REFERENCE pitch: END
keep pitch very stable
(not as its extreme)
gradual transition
(m)p (just enough to be heard well)
p
gliss.
+6c.

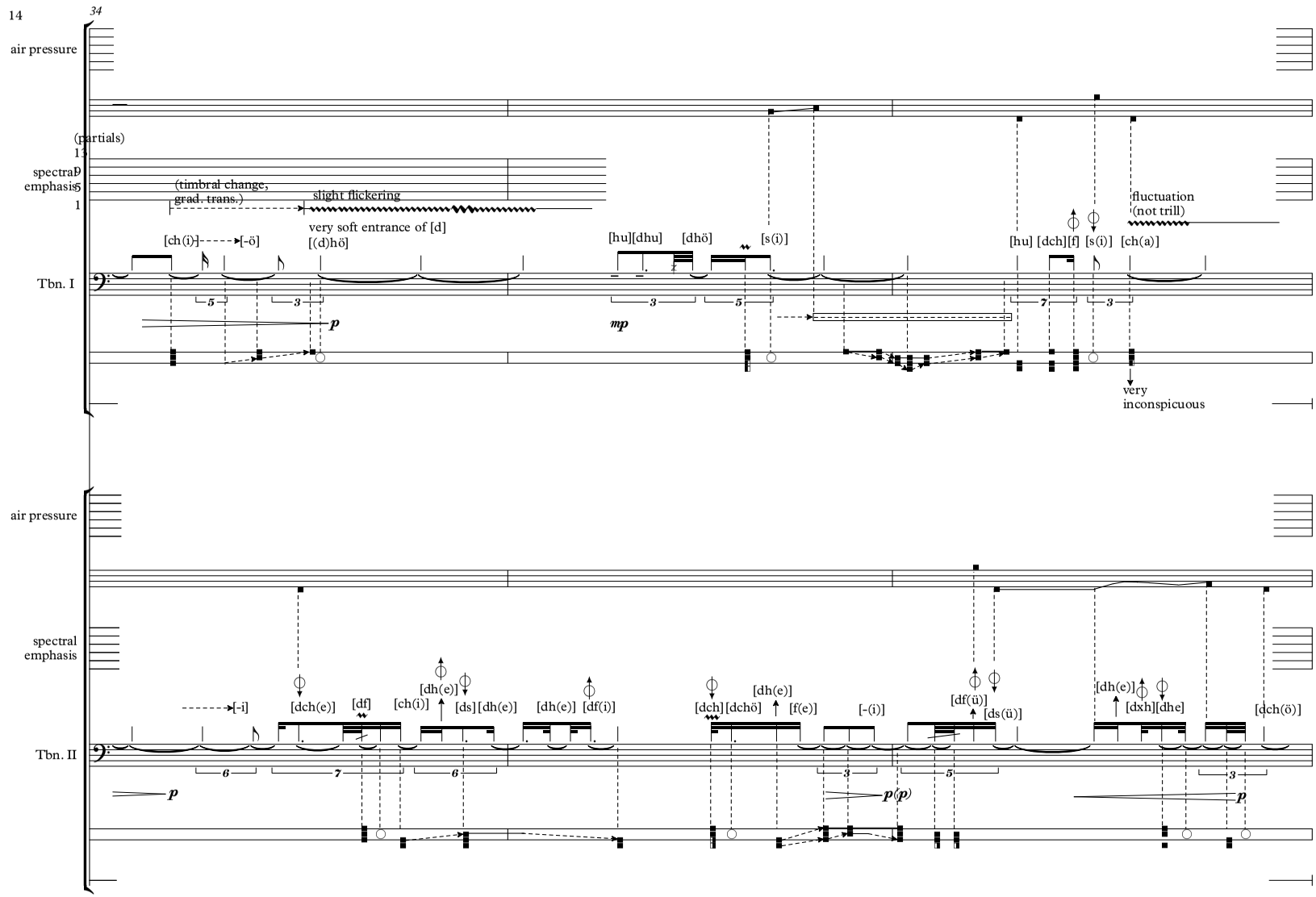

19
9
air pressure
spectral emphasis
Tbn. I
despite mp dynamics, do not cover tromb2 sound here
like a window opening a view
(very bright, "sehr hell")
(sound itself is shifting very quickly)
(German pronounciation of "j"!)
gradual trans. (see shape)
[df]
[dhä][dhü]
[dh(i)]
[ds][dha]
[ch(ü)]
[dh(ü)]
[dh(i)]
[xh]
[chi]
[ts]
[f]
[ckhi]
[jiäa]
gliss.
-3c.
sempre mp
sub. ppp
sub. p
(sempre pp)
-3c.
(gradual transitions)
air pressure
spectral emphasis
Tbn. II
1 breath
[-i]
[f]
[dha]
[ha]
[ts]
[ha]
[pf]
[dha]
[ts]
[dha]
[xh]
[dho]
[dhü]
[dhi]
[xh]
[s]
[dha]
[f]
[dch(e)]
[ds]
(sempre pp)
+6c.

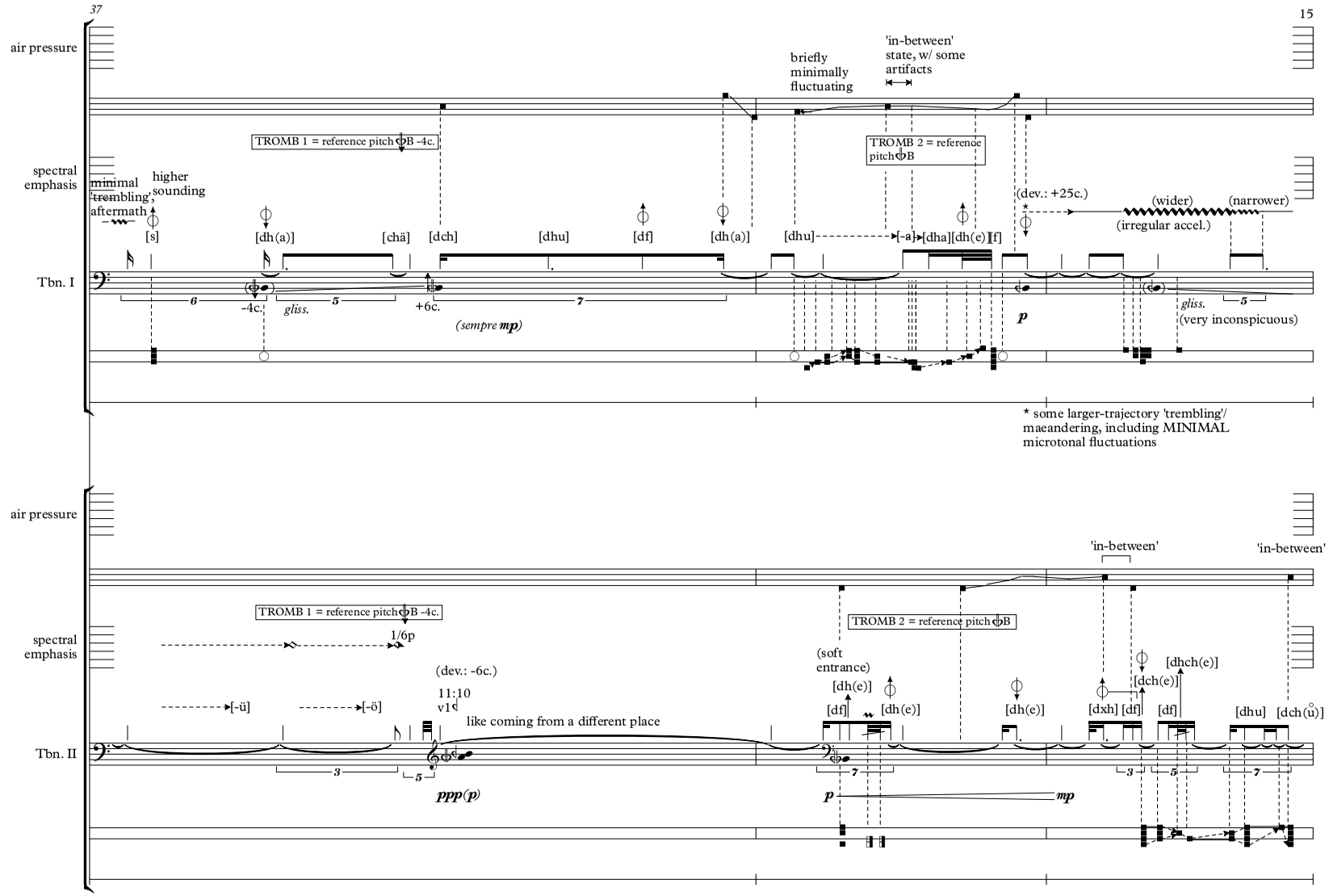

10
22
air pressure
START
REFERENCE PITCH
tromb 2: B
spectral
emphasis
with underlying
lip and hand movement
1 sound & 1 breath only
'compound vocal.',
quickly changing
within
Flz.? or some
other artefact?
[xh]
[dh(ä)] [ch(ü/î)]]
[djhi] [dch(e)] [s]
[s]
[ch(u)][dch(u)]
[df]
[dha]
[ds][dha]
[xh]
Tbn. I
-6c.
+3c.
gliss.
mp
air pressure
(tromb 2 pitch starts to
be the REFERENCE pitch
for tromb 1), keep pitch very stable,
do not adjust to tromb 1
(sempre)
spectral
emphasis
1 breath
increasing brightness
L2
L3
like [s(i)], but with
teeth closed (si poss.?)
[dh(e)]
[dh(e)] [ghů] [dhu] [df] [dh(â)]
[s]
[xh][dh(a)] [cho]
[dhů]
gradual transition
[-u]
[-i]
[z]
[ds]
[(c)ha]
[dha]
[dhi]
Tbn. II
mp
(very inconspicuous
crescendo)
(gradual
transition)

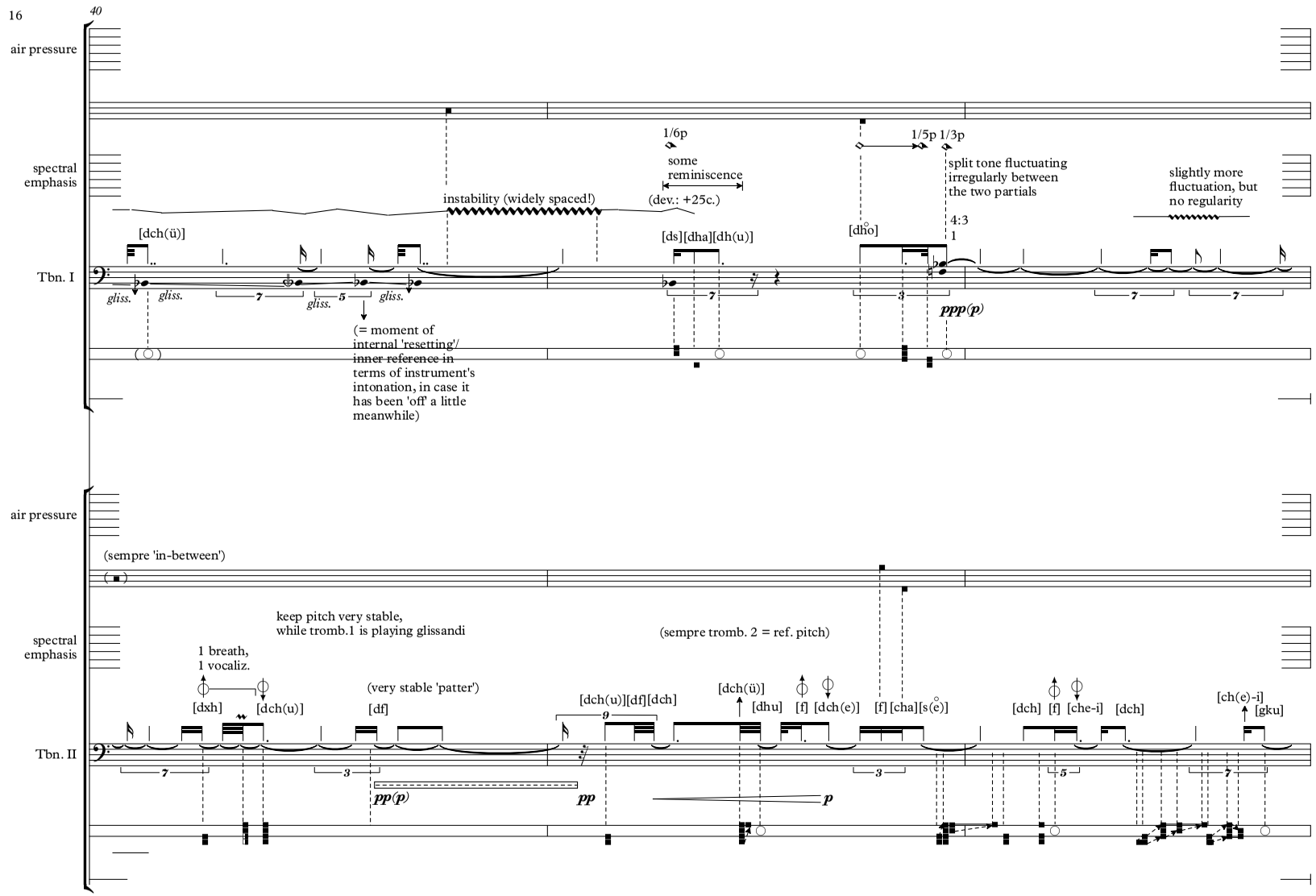

25
11
air pressure
spectral emphasis
Tbn. I
[dha][dch] [dha] [ds] [f] [dch] [dch] [chu(ü/o)] [kh(ü/i)]
Flz. [drr] [(s)ch] [-i] [ds] [dha] [(d)ch(e)] [-i]
slightly flimmering
[dchi] Flz. [frrr] [dchi(e)] [df] [hä]
(sempre mp)
air pressure
spectral emphasis
Tbn. II
[chi] [s] [che] [df] [s] [dch(e)] [f] [dh(e)] [dhü] [-i]
1 vocaliz./1 breath
[df] [dhä] [dh(ü)]
(sempre mp)
with hand movement running/going
counter the vocalization (=going down)

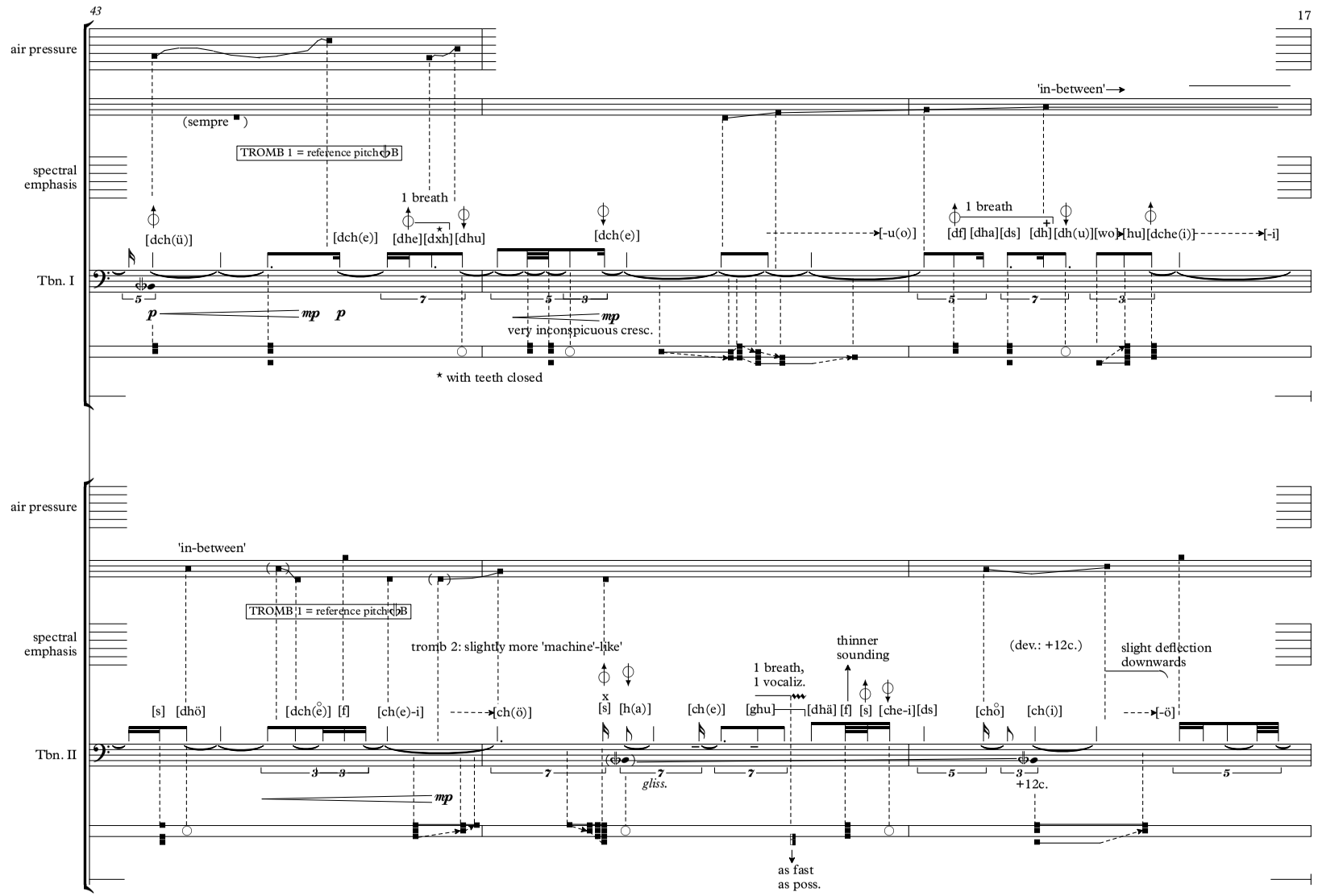

12
28
air pressure
spectral emphasis
Tbn. I
(sempre)
air stream cut off with the tongue forming a [d]
without any prior indication to audience
[(d)] sub. niente
1/6p
TROMB 1 = reference pitch ♭B +2c.
[dchi] [dh(ö)] [f(o)]
[dch(e)] [dfd] [dh(ö)] [-i]
[dch(i)] [df] [dh(a)] [s]
+2c.
(sempre mp)
p < mf
mp
start together with tromb 2
start together with tromb 1
air pressure
spectral emphasis
Tbn. II
[ds] [dh(o)] [dh(ü)] [ds] [dh(e)] [(d)]
air stream cut off with the tongue forming a [d]
without any prior indication to audience
sub. niente
TROMB 1 = reference pitch ♭B +2c.
(dev.: -4c.)
still soft, at times delayed 'mirroring' of tromb 1, as if doing so almost unconsciously
[df] [dh(e)] [df] [fr(e)][dh(e)] [dh(ö)] [dch(e)] [df]
-2c.
(sempre mp)
pp(p)
p
(sempre)

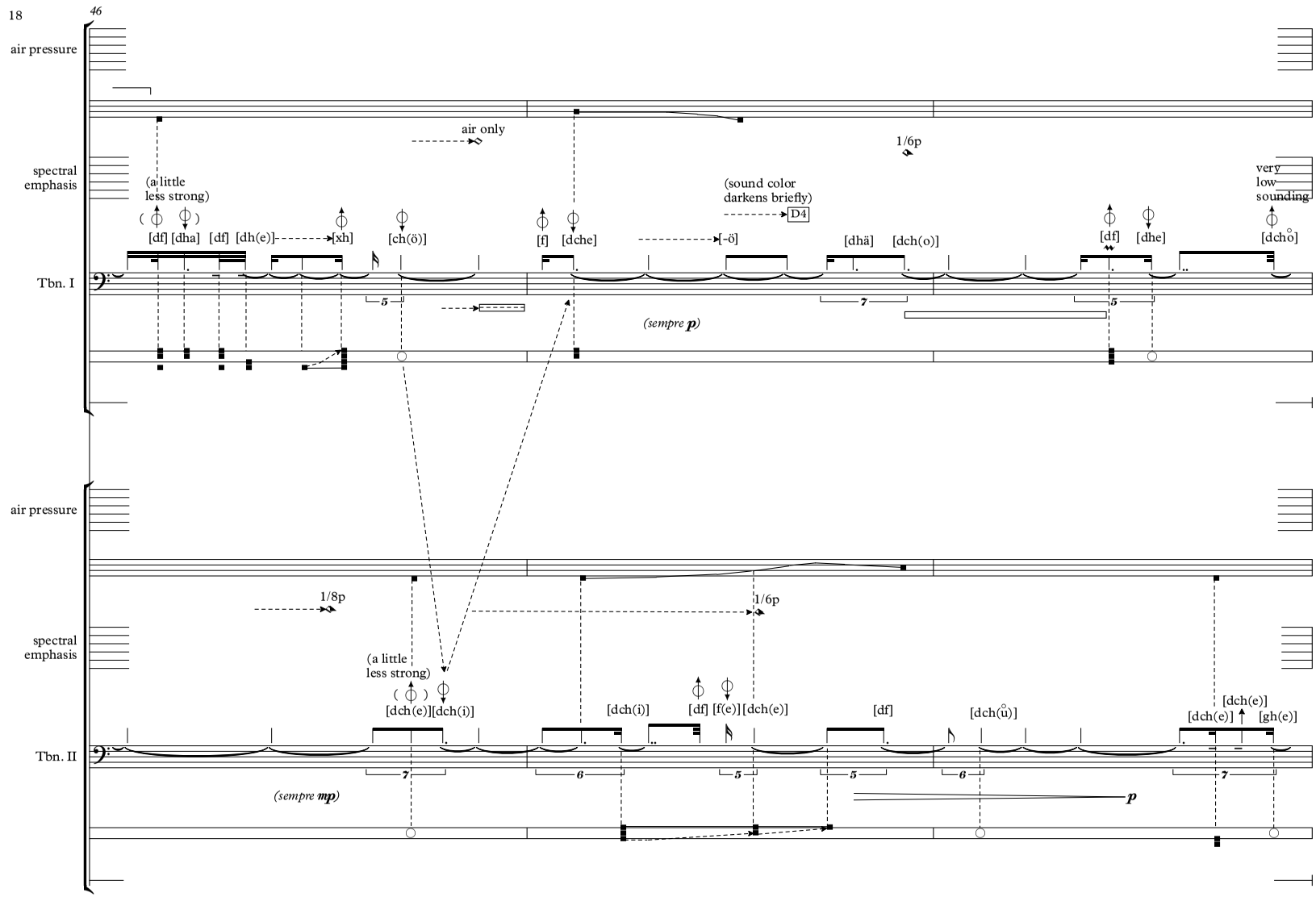

31
air pressure
like a brief
view opening
up
spectral
emphasis
gradual
transition
([dh(ö)] → [f])
TROMB 2 = reference pitch B -2c.
(dev. -2c.)
[dch(e)] [df][df][dh(ö)][f]
[dhö]
[ch(e)]
[dch(i)]
(2x)
[ch(e)][ds]
[ds]
1 breath/
1 vocaliz.
[dhi] [ch(e)]
[ch(e)][df]
[ch(i)]
[ch(ö)]
Tbn. I
(+2c.)
gliss.
(sempre mp)
-4c.
with some grain
gradual
transition
111
air pressure
'in-between'
spectral
emphasis
TROMB 2 = reference pitch B -2c.
rather low and
quite spacious
1 breath/
1 vocaliz.
[f]
[dh(u)]
[ghö]
[ch(i)][dh(e)]
(1 breath)
[xh]
[dh(e)]
[dch(e)]
[df] [dch(e)]
[-(i)]
[-i]
[dch(ü)][dxh]
[dch]
[df(e)]
[dh(e)]
[dhe]
Tbn. II
(sempre p)
(-2c.)
mp

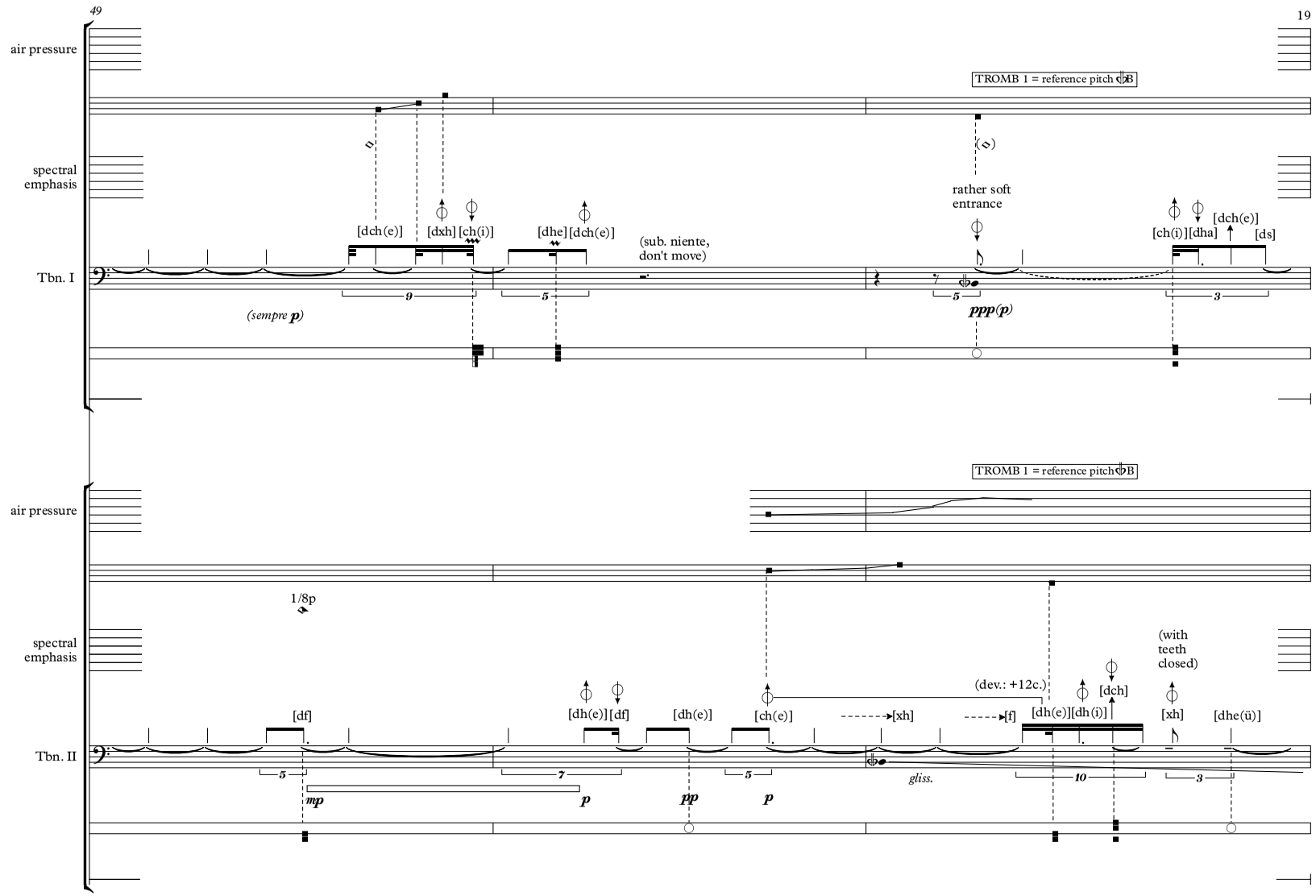

14
34
air pressure
(partials)
13
spectral
emphasis
9
5
1
(timbral change,
grad. trans.)
slight flickering
very soft entrance of [d]
[(d)hö]
fluctuation
(not trill)
[ch(i)]
[-ö]
[hu][dhu]
[dhö]
[s(i)]
[hu]
[dch][f]
[s(i)]
[ch(a)]
Tbn. I
p
mp
very
inconspicuous
air pressure
spectral
emphasis
[-i]
[dch(e)]
[df]
[ch(i)]
[dh(e)]
[ds]
[dh(e)]
[dh(e)]
[df(i)]
[dch]
[dchö]
[dh(e)]
[f(e)]
[-(i)]
[df(ü)]
[ds(ü)]
[dh(e)]
[dxh][dhe]
[dch(ö)]
Tbn. II
p
p(p)
p

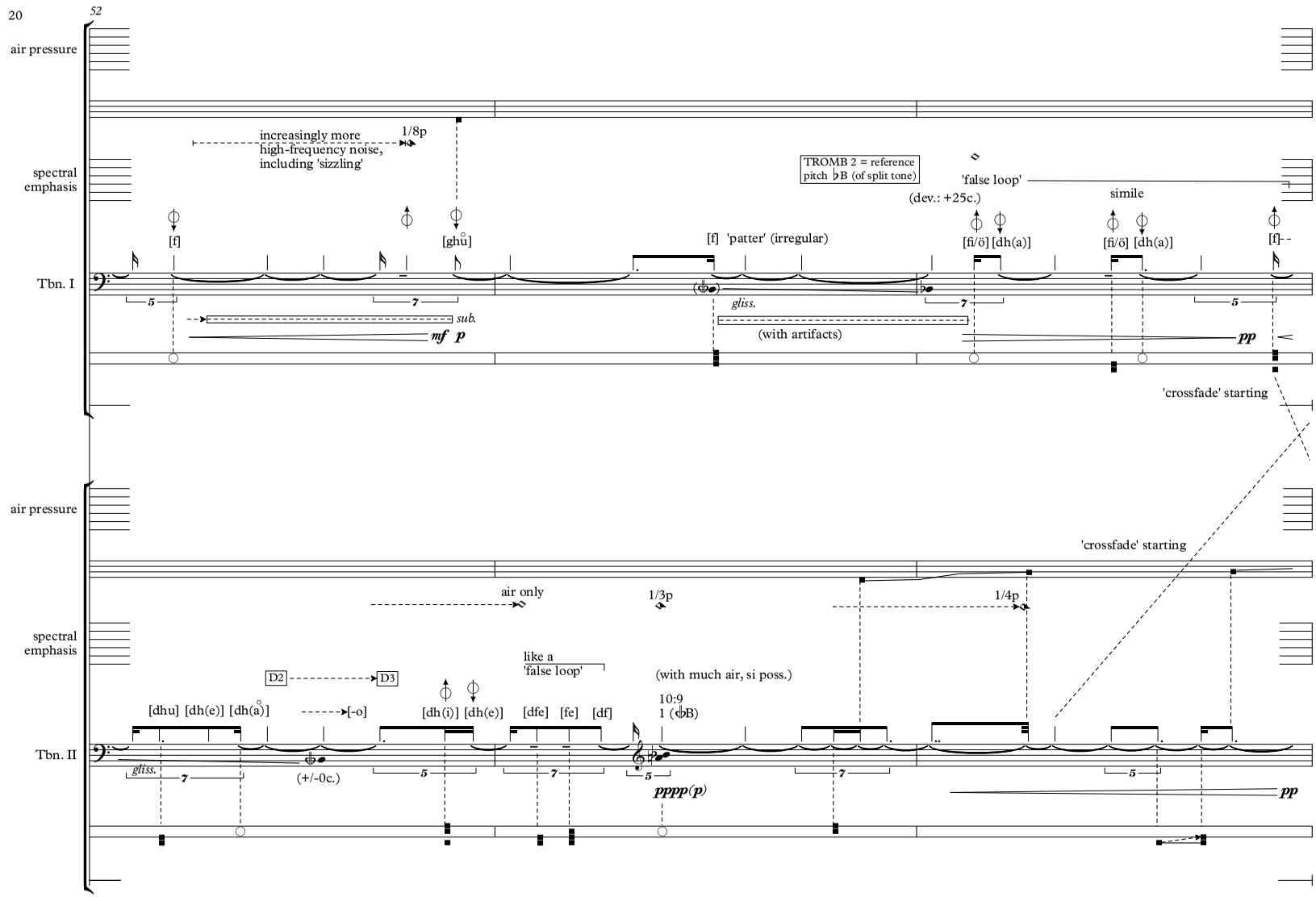

37
15
air pressure
spectral emphasis
Tbn. I
minimal 'trembling' aftermath
higher sounding
[s]
[dh(a)]
[chä]
[dch]
[dhu]
[df]
[dh(a)]
[dhu]
[-a]
[dha]
[dh(e)]
[f]
briefly minimally fluctuating
'in-between' state, w/ some artifacts
TROMB 1 = reference pitch ♭B -4c.
TROMB 2 = reference pitch ♭B
(dev.: +25c.)
(wider)
(narrower)
(irregular accel.)
-4c.
gliss.
+6c.
(sempre mp)
p
gliss.
(very inconspicuous)
* some larger-trajectory 'trembling'/ maeandering, including MINIMAL microtonal fluctuations
air pressure
spectral emphasis
Tbn. II
'in-between'
'in-between'
TROMB 1 = reference pitch ♭B -4c.
TROMB 2 = reference pitch ♭B
1/6p
(dev.: -6c.)
11:10
v1
[-ü]
[-ö]
like coming from a different place
ppp(p)
(soft entrance)
[dh(e)]
[df]
[dh(e)]
[dh(e)]
[dxh]
[df]
[dch(e)]
[dhch(e)]
[df]
[dhu]
[dch(ü)]
p
mp

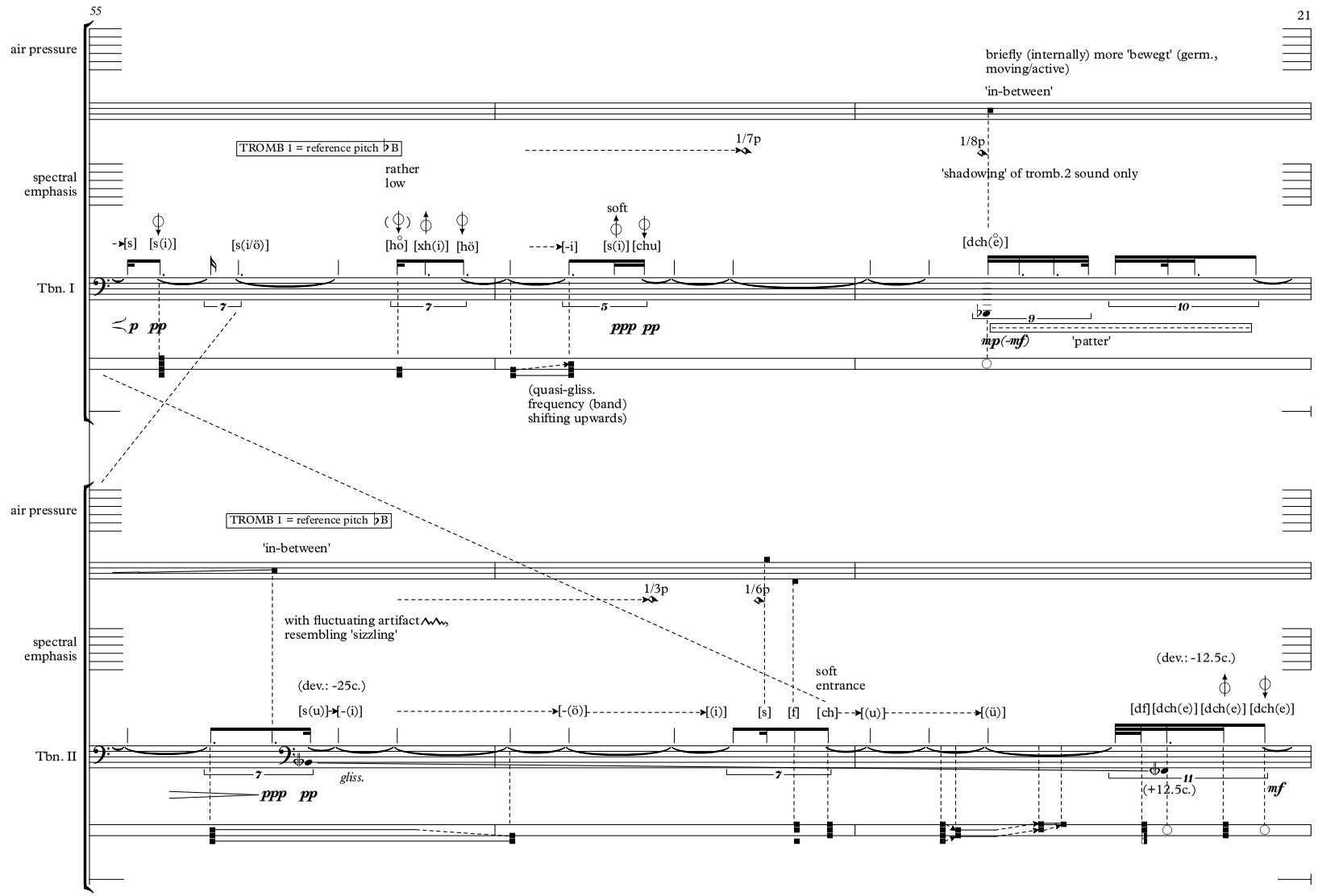

16
40
air pressure
spectral emphasis
Tbn. I
1/6p
some reminiscence
(dev.: +25c.)
instability (widely spaced!)
1/5p 1/3p
split tone fluctuating irregularly between the two partials
slightly more fluctuation, but no regularity
4:3
1
[dch(ü)]
[ds][dha][dh(u)]
[dho]
gliss.
ppp(p)
(= moment of internal 'resetting'/ inner reference in terms of instrument's intonation, in case it has been 'off' a little meanwhile)
air pressure
(sempre 'in-between')
keep pitch very stable, while tromb.1 is playing glissandi
(sempre tromb. 2 = ref. pitch)
spectral emphasis
1 breath, 1 vocaliz.
[dxh]
[dch(u)]
(very stable 'patter')
[df]
[dch(u)][df][dch]
[dch(ü)]
[dhu]
[f]
[dch(e)]
[f]
[cha]
[s(e)]
[dch]
[f]
[che-i]
[dch]
[ch(e)-i]
[gku]
Tbn. II
pp(p)
pp
p

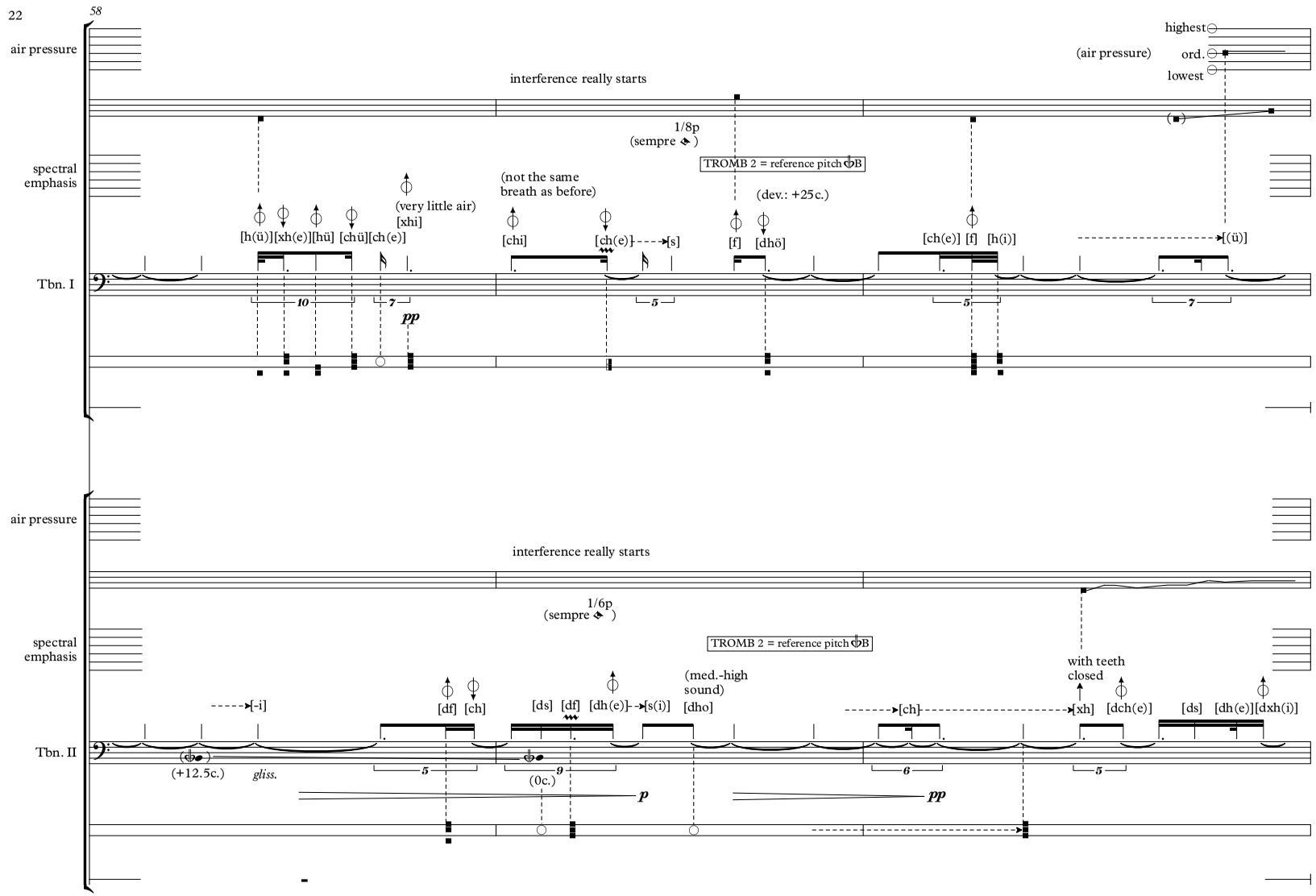

43
17
air pressure
spectral emphasis
Tbn. I
(sempre)
TROMB 1 = reference pitch ♭B
'in-between'
1 breath
[dch(ü)]
[dch(e)]
[dhe][dxh]
[dhu]
[dch(e)]
[-u(o)]
[df] [dha][ds]
[dh][dh(u)][wo]
[hu][dche(i)]
[-i]
p
mp
p
mp
very inconspicuous cresc.
* with teeth closed
air pressure
spectral emphasis
Tbn. II
'in-between'
TROMB 1 = reference pitch ♭B
tromb 2: slightly more 'machine'-like
thinner sounding
(dev.: +12c.)
slight deflection downwards
1 breath, 1 vocaliz.
[s] [dhö]
[dch(ö)] [f]
[ch(e)-i]
[ch(ö)]
x
[s] [h(a)]
[ch(e)]
[ghu]
[dhä] [f] [s] [che-i][ds]
[chö]
[ch(i)]
[-ö]
gliss.
+12c.
as fast as poss.

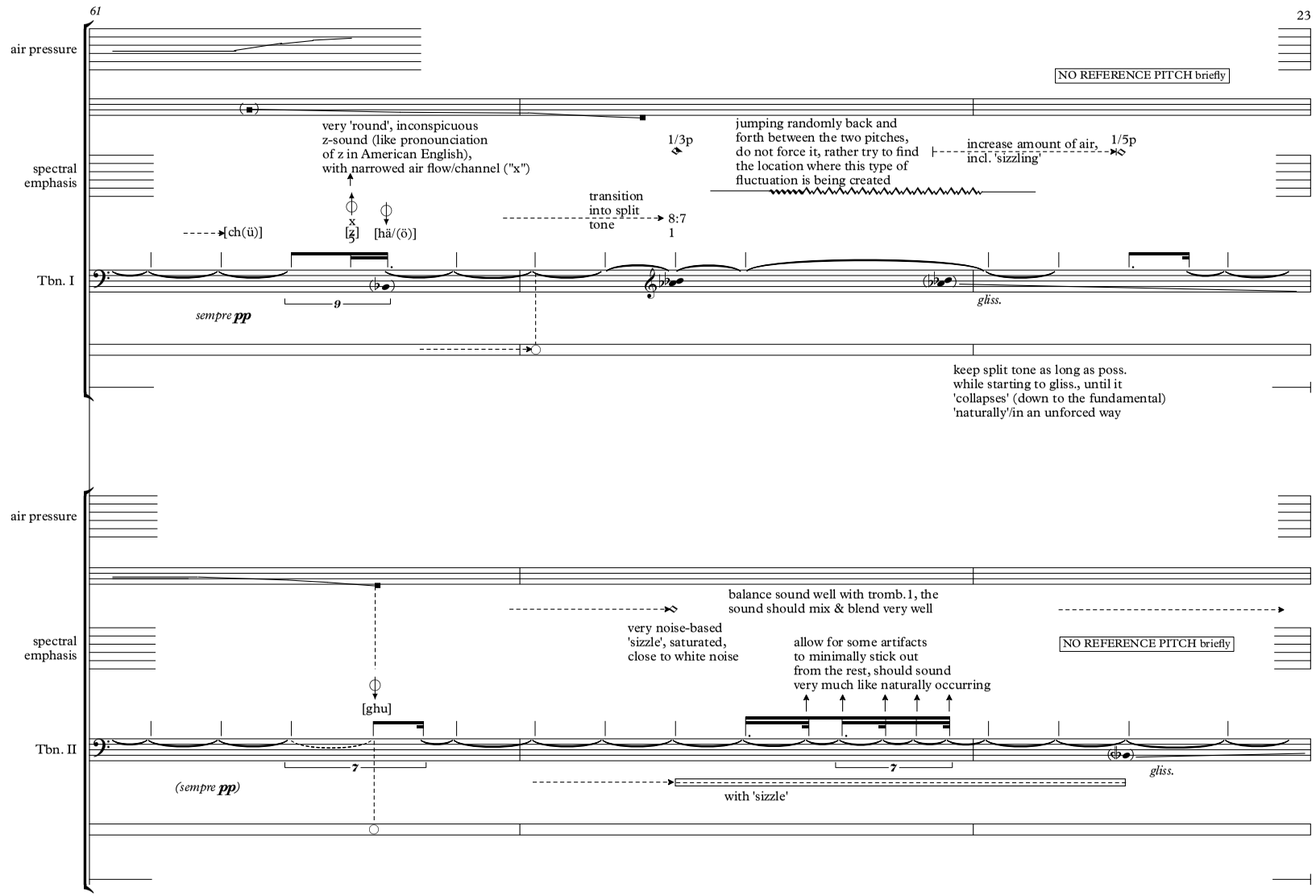

18
46
air pressure
spectral emphasis
Tbn. I
air only
1/6p
(a little less strong)
(sound color darkens briefly)
D4
very low sounding
[df] [dha] [df] [dh(e)] [xh] [ch(ö)] [f] [dche] [-ö] [dhä] [dch(o)] [df] [dhe] [dchô]
(sempre p)
air pressure
spectral emphasis
Tbn. II
1/8p
1/6p
(a little less strong)
[dch(e)][dch(i)] [dch(i)] [df] [f(e)][dch(e)] [df] [dch(û)] [dch(e)] [dch(e)] [gh(e)]
(sempre mp)
p

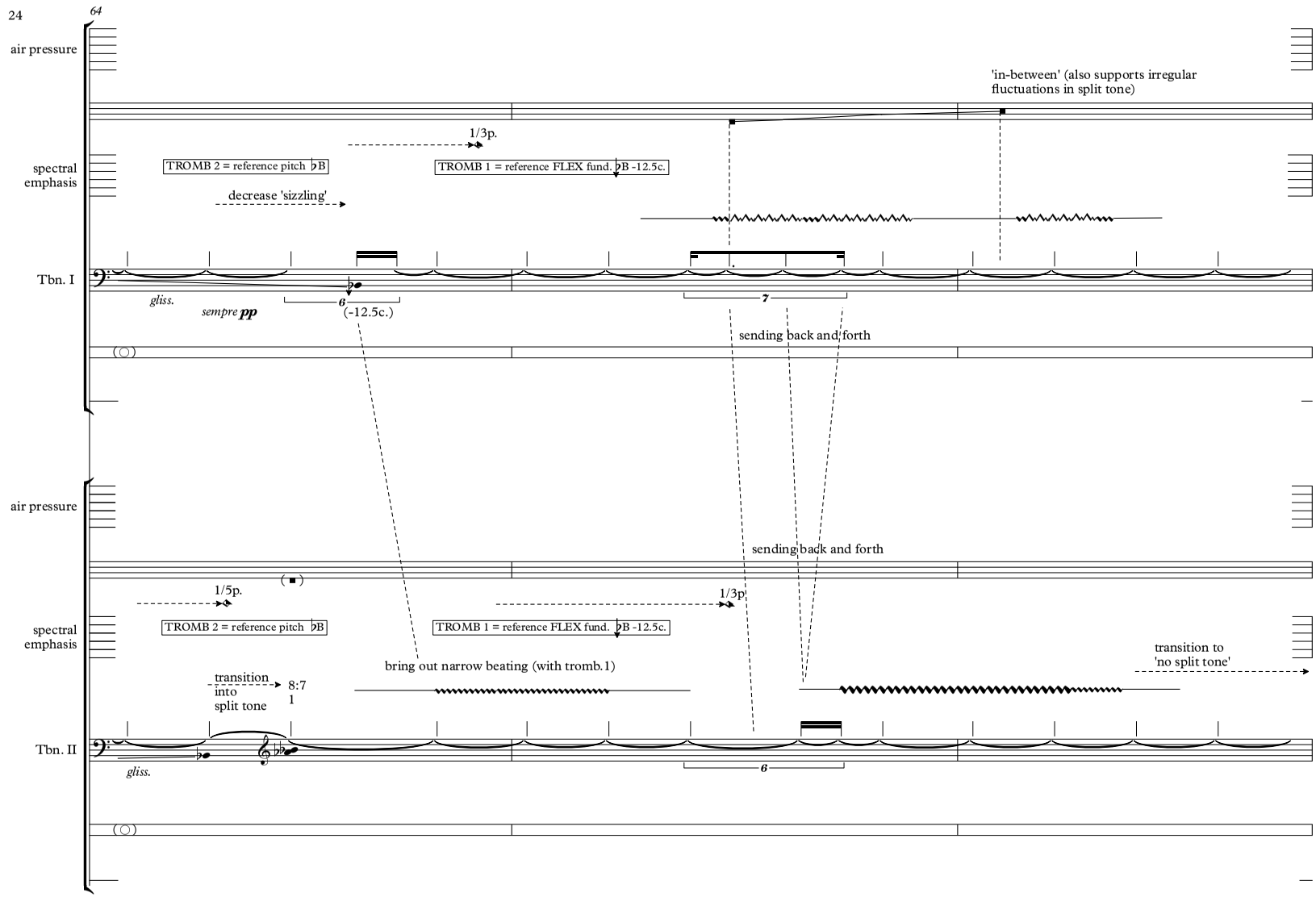

49
19
air pressure
spectral emphasis
Tbn. I
TROMB 1 = reference pitch B
[dch(e)]
[dxh] [ch(i)]
[dhe] [dch(e)]
(sub. niente, don't move)
rather soft entrance
[ch(i)] [dha]
[dch(e)]
[ds]
(sempre p)
ppp (p)
air pressure
TROMB 1 = reference pitch B
1/8p
spectral emphasis
Tbn. II
[df]
[dh(e)] [df]
[dh(e)]
[ch(e)]
[xh]
[f]
(dev.: +12c.)
[dh(e)] [dh(i)]
[dch]
(with teeth closed)
[xh]
[dhe(ü)]
mp
p
pp
p
gliss.

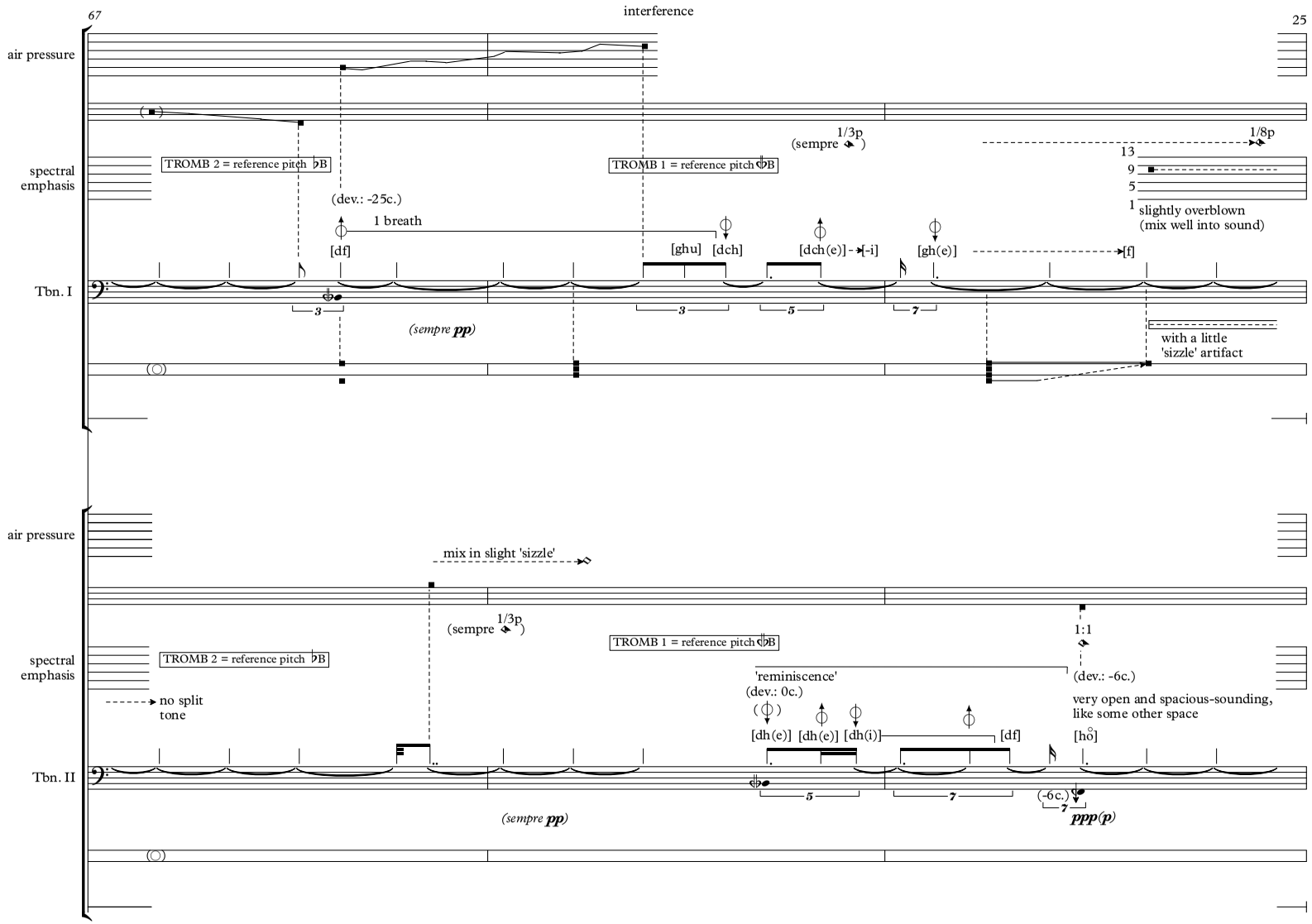

20
52
air pressure
spectral emphasis
Tbn. I
increasingly more high-frequency noise, including 'sizzling'
1/8p
TROMB 2 = reference pitch ♭B (of split tone)
'false loop'
(dev.: +25c.)
simile
[f]
[ghu̯]
[f] 'patter' (irregular)
[fi/ö] [dh(a)]
[fi/ö] [dh(a)]
[f]
gliss.
sub.
mf p
(with artifacts)
pp
'crossfade' starting
air pressure
spectral emphasis
Tbn. II
'crossfade' starting
air only
1/3p
1/4p
like a 'false loop'
(with much air, si poss.)
D2
D3
[dhu] [dh(e)] [dh(a)]
[-o]
[dh(i)] [dh(e)]
[dfe] [fe] [df]
10:9
1 (♭B)
gliss.
(+/-0c.)
pppp(p)
pp

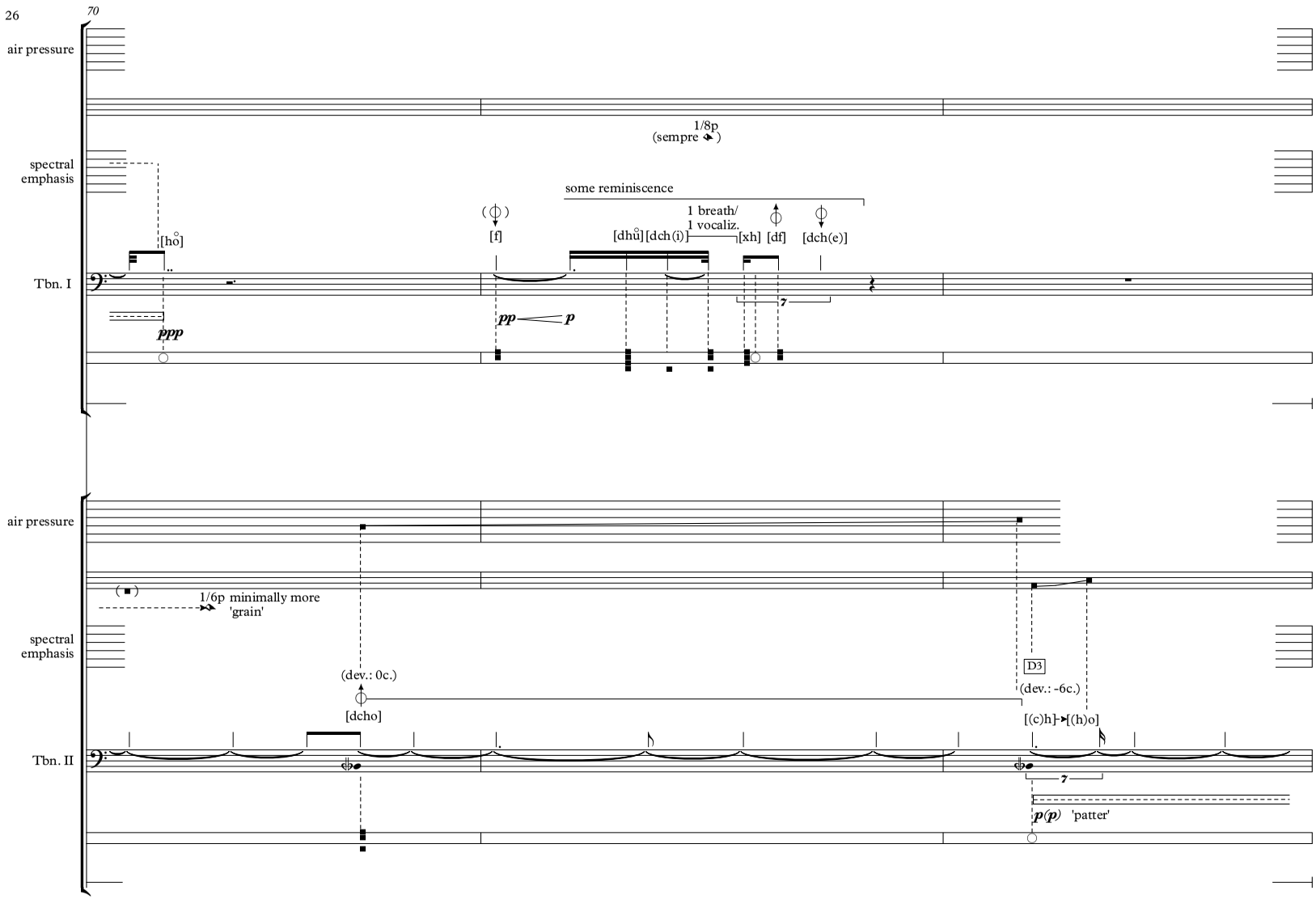

55
21
air pressure
spectral emphasis
Tbn. I
TROMB 1 = reference pitch ♭B
rather low
1/7p
1/8p
briefly (internally) more 'bewegt' (germ., moving/active)
'in-between'
'shadowing' of tromb.2 sound only
soft
[s] [s(i)] [s(i/ö)] [hö] [xh(i)] [hö] [-i] [s(i)] [chu] [dch(ë)]
p pp ppp pp mp(-mf) 'patter'
(quasi-gliss. frequency (band) shifting upwards)
air pressure
spectral emphasis
Tbn. II
TROMB 1 = reference pitch ♭B
'in-between'
1/3p
1/6p
with fluctuating artifact resembling 'sizzling'
(dev.: -25c.)
[s(u)] [-(i)] [-(ö)] [(i)] [s] [f] [ch] [(u)] [(ü)]
soft entrance
(dev.: -12.5c.)
[df] [dch(e)] [dch(e)] [dch(e)]
gliss.
ppp pp
(+12.5c.)
mf

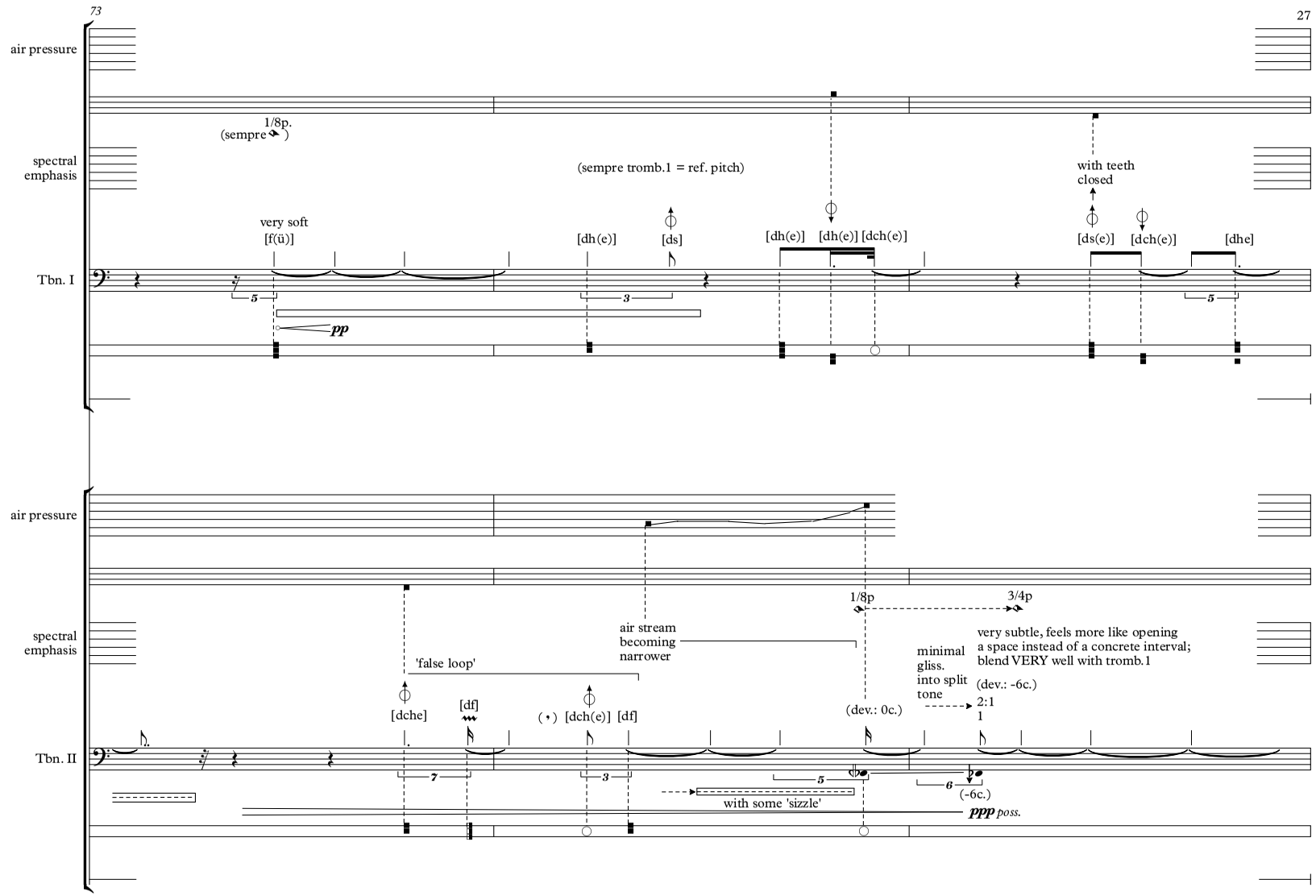

22
58
air pressure
interference really starts
highest
ord.
lowest
(air pressure)
1/8p
(sempre)
TROMB 2 = reference pitch B
spectral emphasis
(not the same breath as before)
(very little air)
[xhi]
(dev.: +25c.)
[h(ü)][xh(e)][hü] [chü][ch(e)]
[chi]
[ch(e)]
[s]
[f] [dhö]
[ch(e)] [f] [h(i)]
[(ü)]
Tbn. I
10
7
5
5
7
pp
air pressure
interference really starts
1/6p
(sempre)
spectral emphasis
TROMB 2 = reference pitch B
with teeth closed
(med.-high sound)
[-i]
[df] [ch]
[ds] [df] [dh(e)]
[s(i)]
[dho]
[ch]
[xh]
[dch(e)]
[ds] [dh(e)][dxh(i)]
Tbn. II
(+12.5c.)
gliss.
5
9
(0c.)
6
5
p
pp

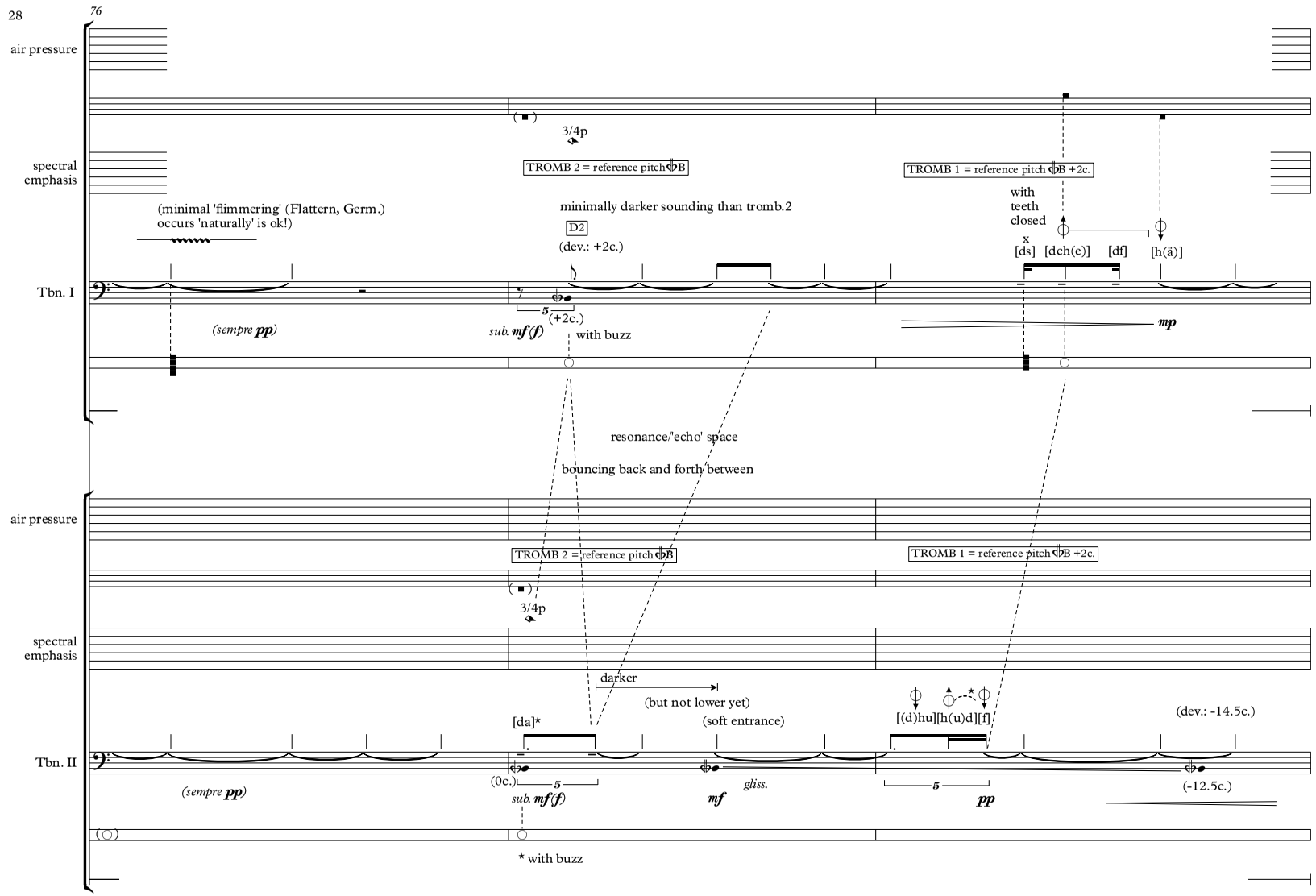

61
23
air pressure
spectral emphasis
Tbn. I
NO REFERENCE PITCH briefly
very 'round', inconspicuous
z-sound (like pronounciation
of z in American English),
with narrowed air flow/channel ("x")
1/3p
jumping randomly back and
forth between the two pitches,
do not force it, rather try to find
the location where this type of
fluctuation is being created
increase amount of air,
incl. 'sizzling'
1/5p
transition
into split
tone
8:7
1
[ch(ü)]
x
[z]
[hä/(ö)]
9
sempre pp
gliss.
keep split tone as long as poss.
while starting to gliss., until it
'collapses' (down to the fundamental)
'naturally'/in an unforced way
air pressure
spectral emphasis
Tbn. II
balance sound well with tromb.1, the
sound should mix & blend very well
very noise-based
'sizzle', saturated,
close to white noise
allow for some artifacts
to minimally stick out
from the rest, should sound
very much like naturally occurring
NO REFERENCE PITCH briefly
[ghu]
7
7
(sempre pp)
gliss.
with 'sizzle'

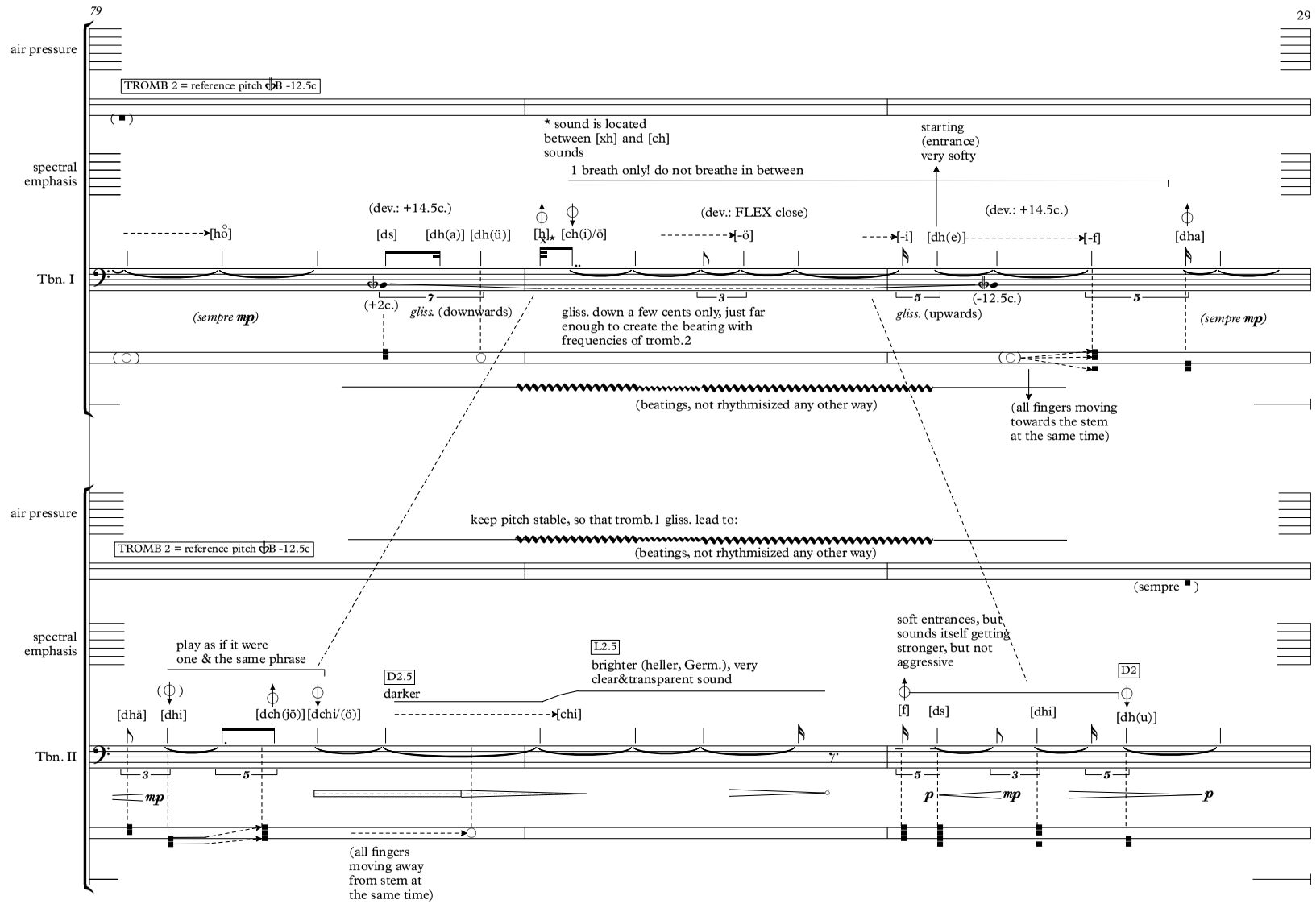

24
64
air pressure
spectral emphasis
Tbn. I
'in-between' (also supports irregular fluctuations in split tone)
1/3p.
TROMB 2 = reference pitch ♭B
TROMB 1 = reference FLEX fund. ♭B -12.5c.
decrease 'sizzling'
gliss.
sempre pp
6
(-12.5c.)
7
sending back and forth
air pressure
spectral emphasis
Tbn. II
sending back and forth
1/5p.
1/3p.
TROMB 2 = reference pitch ♭B
TROMB 1 = reference FLEX fund. ♭B -12.5c.
bring out narrow beating (with tromb.1)
transition into split tone
8:7
1
transition to 'no split tone'
gliss.
6

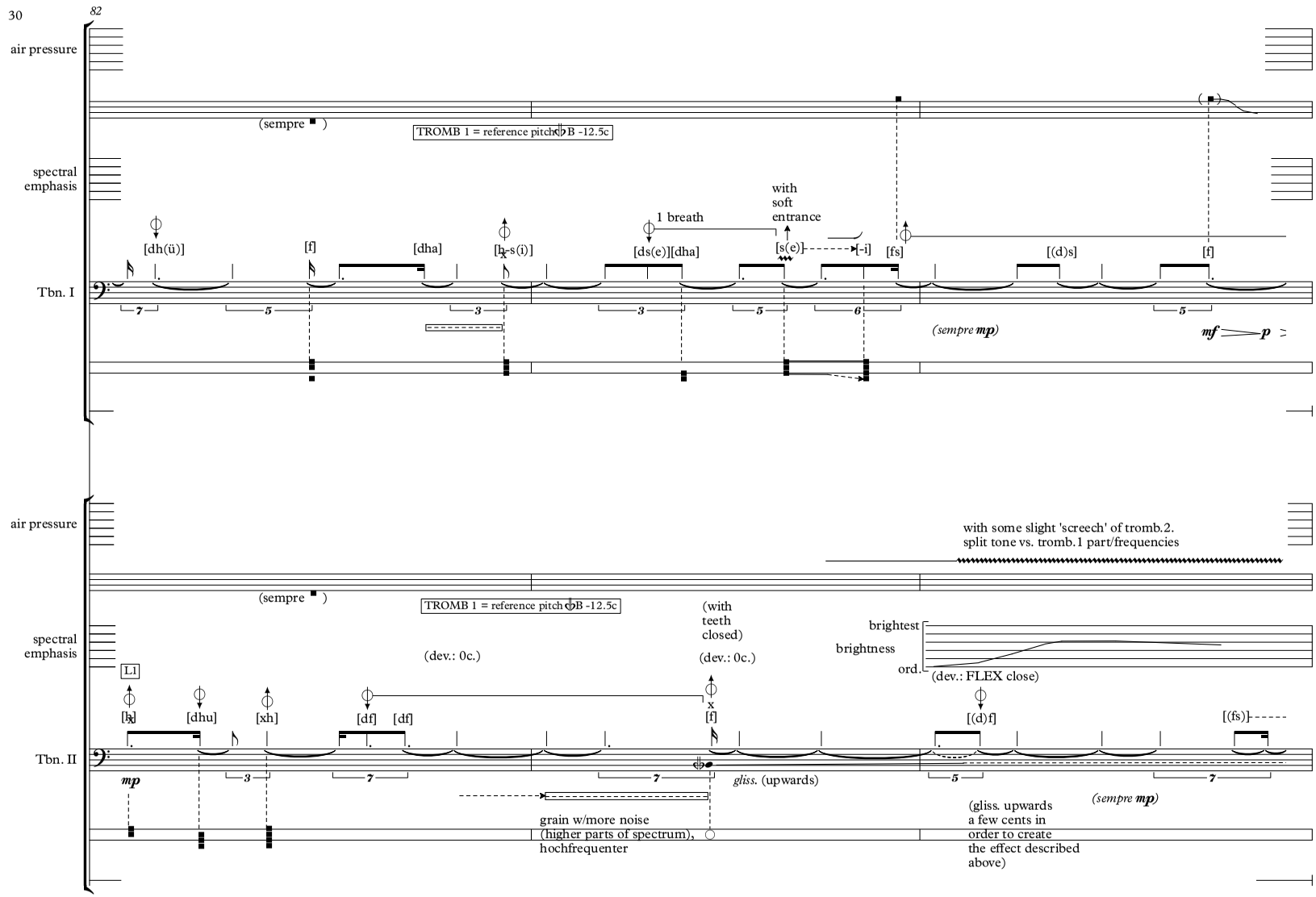

67
interference
25
air pressure
spectral emphasis
TROMB 2 = reference pitch ♭B
TROMB 1 = reference pitch ♭B
(dev.: -25c.)
1 breath
[df]
[ghu] [dch]
[dch(e)] - [-i]
[gh(e)]
[f]
1/3p (sempre)
1/8p
13
9
5
1
slightly overblown (mix well into sound)
Tbn. I
(sempre pp)
with a little 'sizzle' artifact
air pressure
mix in slight 'sizzle'
1/3p (sempre)
1:1
spectral emphasis
TROMB 2 = reference pitch ♭B
TROMB 1 = reference pitch ♭B
'reminiscence'
(dev.: 0c.)
(dev.: -6c.)
no split tone
very open and spacious-sounding, like some other space
[dh(e)] [dh(e)] [dh(i)]
[df]
[hō]
Tbn. II
(-6c.)
(sempre pp)
ppp(p)

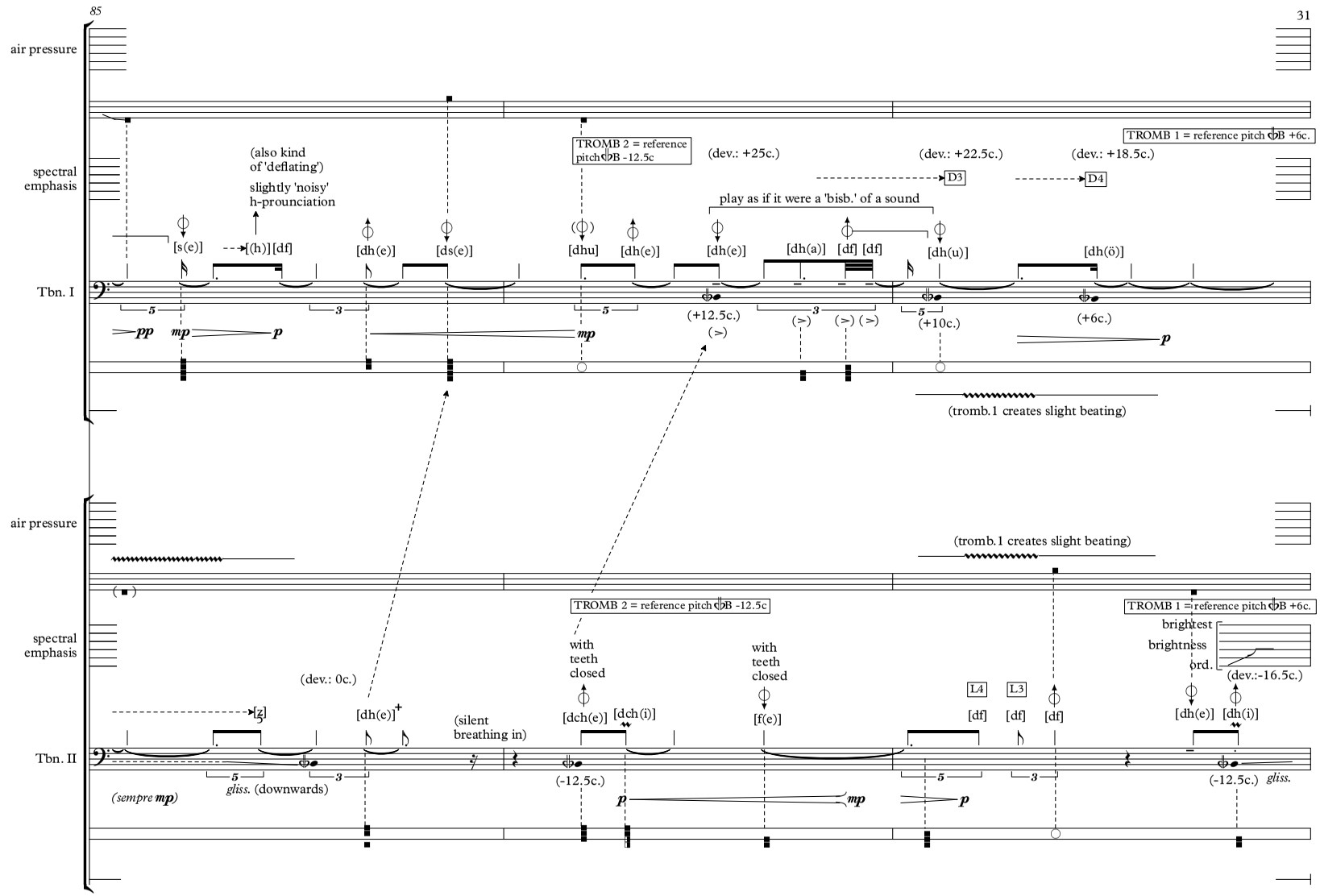

26
70
air pressure
1/8p
(sempre)
spectral
emphasis
some reminiscence
1 breath/
1 vocaliz.
[ho]
[f]
[dhů] [dch(i)] [xh] [df] [dch(e)]
Tbn. I
ppp
pp p
7
air pressure
1/6p minimally more
'grain'
spectral
emphasis
(dev.: 0c.)
[dcho]
D3
(dev.: -6c.)
[(c)h] [(h)o]
Tbn. II
7
p(p) 'patter'

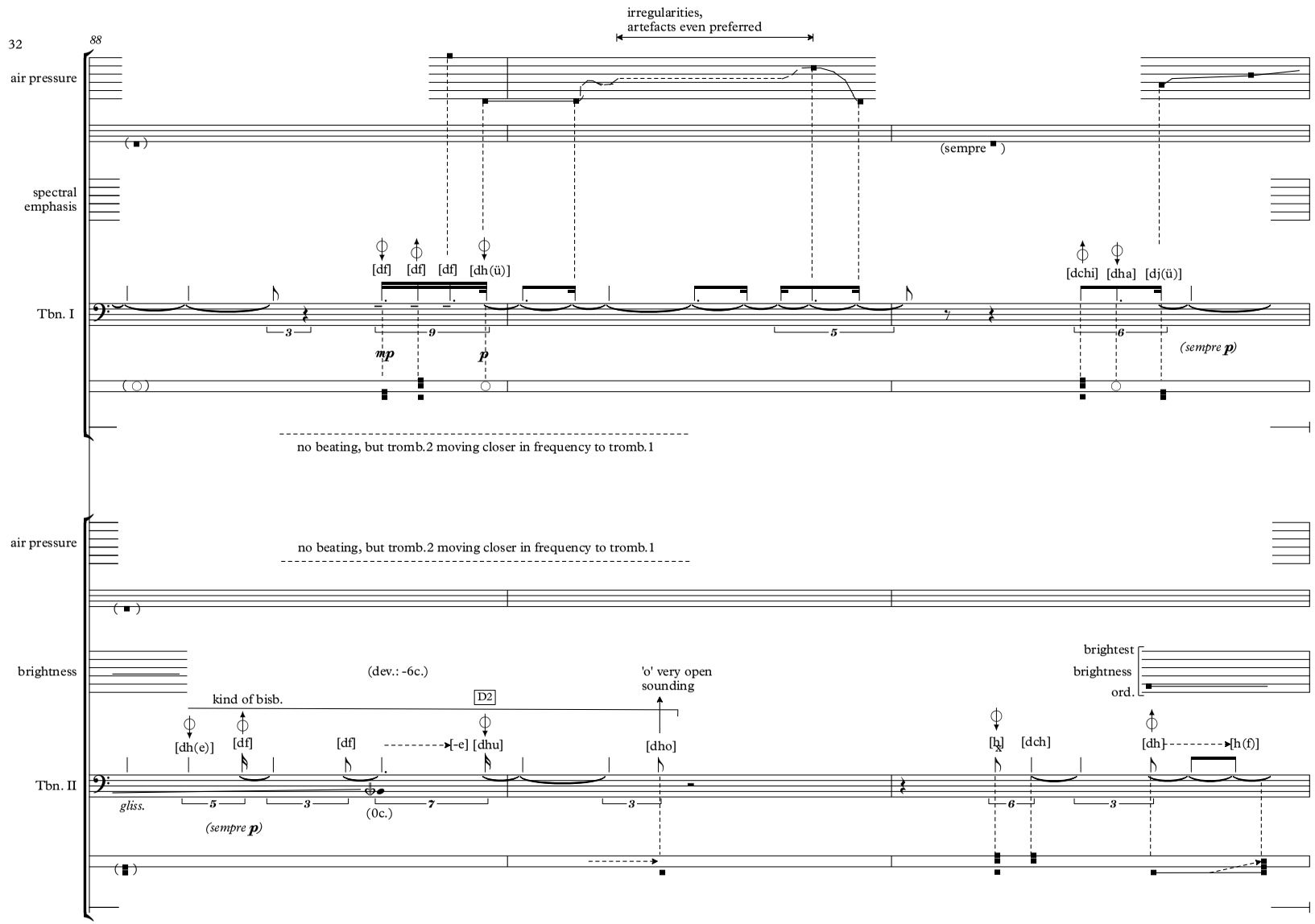

73
27
air pressure
spectral emphasis
Tbn. I
1/8p.
(sempre)
very soft
[f(ü)]
pp
(sempre tromb.1 = ref. pitch)
[dh(e)]
[ds]
[dh(e)]
[dh(e)]
[dch(e)]
with teeth closed
[ds(e)]
[dch(e)]
[dhe]
air pressure
spectral emphasis
Tbn. II
'false loop'
[dche]
[df]
( )
[dch(e)]
[df]
air stream becoming narrower
1/8p
3/4p
(dev.: 0c.)
minimal gliss. into split tone
very subtle, feels more like opening a space instead of a concrete interval; blend VERY well with tromb.1
(dev.: -6c.)
2:1
1
(-6c.)
with some 'sizzle'
ppp poss.

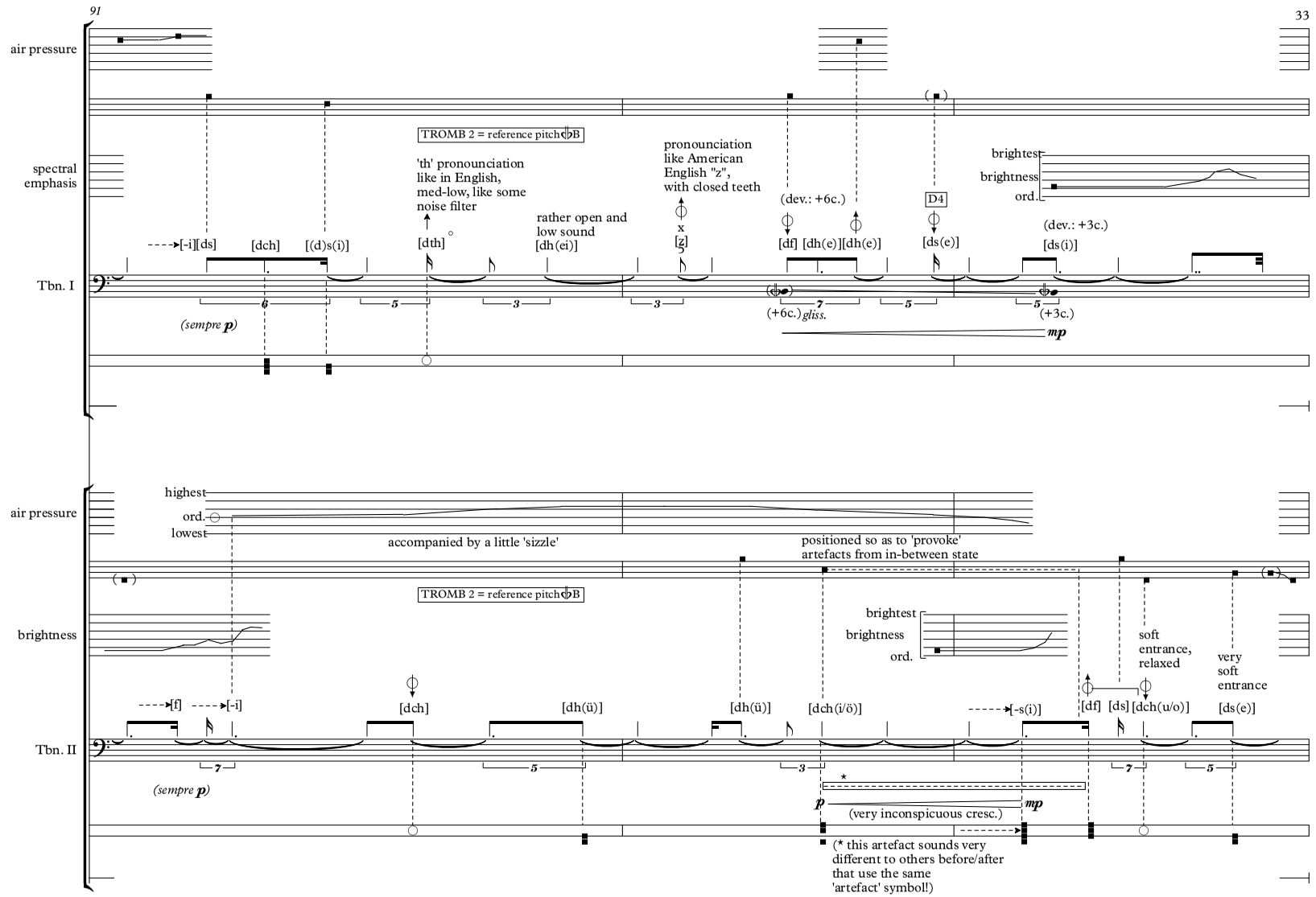

28
76
air pressure
spectral emphasis
Tbn. I
(minimal 'flimmering' (Flattern, Germ.) occurs 'naturally' is ok!)
(sempre pp)
3/4p
TROMB 2 = reference pitch ♭B
minimally darker sounding than tromb.2
D2
(dev.: +2c.)
sub. mf(f)
(+2c.)
with buzz
TROMB 1 = reference pitch ♭B +2c.
with teeth closed
[ds] [dch(e)] [df] [h(ä)]
mp
resonance/'echo' space
bouncing back and forth between
air pressure
spectral emphasis
Tbn. II
TROMB 2 = reference pitch ♭B
TROMB 1 = reference pitch ♭B +2c.
3/4p
darker
(but not lower yet)
[da]*
(soft entrance)
[(d)hu][h(u)d][f]
(dev.: -14.5c.)
(sempre pp)
(0c.)
sub. mf(f)
mf
gliss.
pp
(-12.5c.)
* with buzz

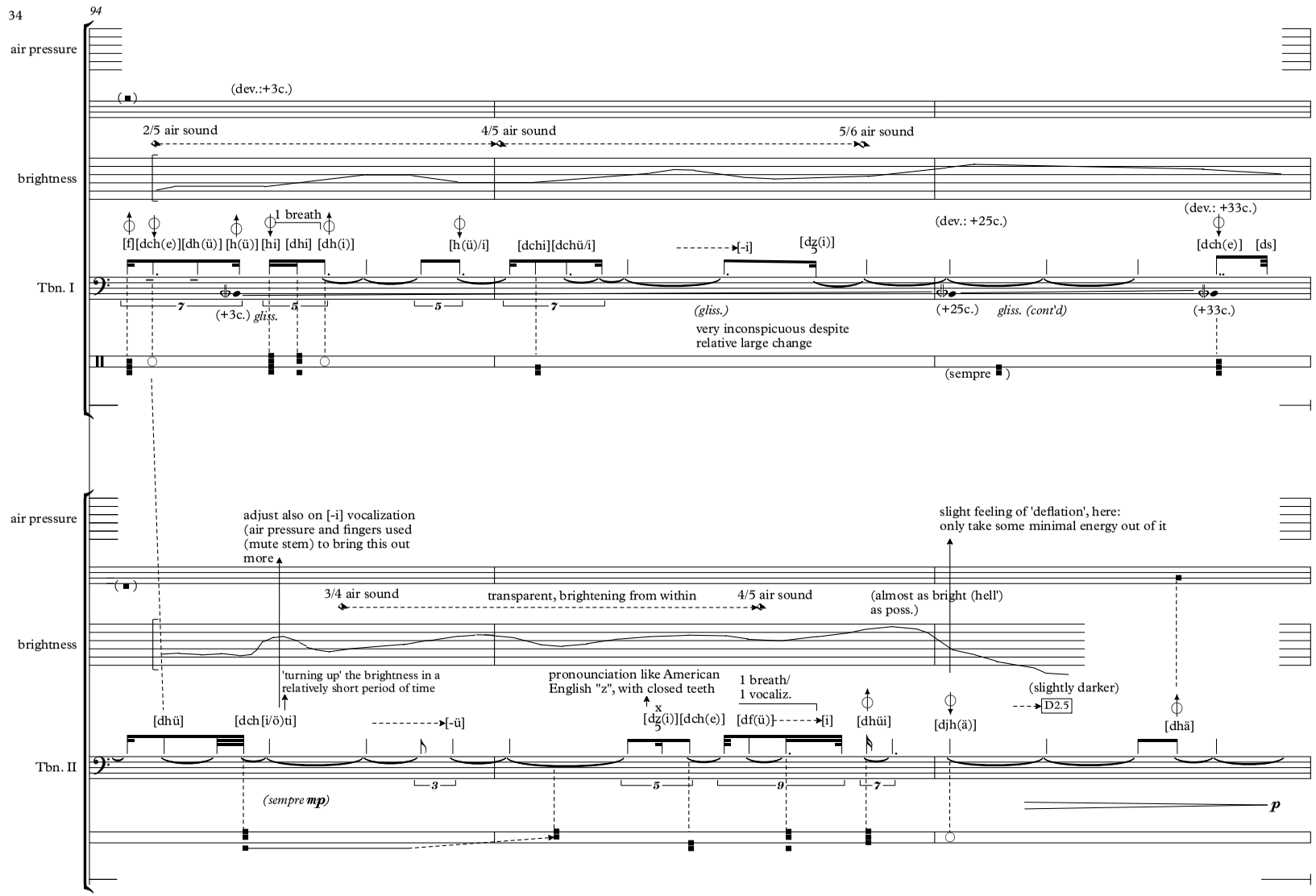

79
29
air pressure
TROMB 2 = reference pitch B -12.5c
spectral emphasis
* sound is located between [xh] and [ch] sounds
1 breath only! do not breathe in between
starting (entrance) very softy
(dev.: +14.5c.)
(dev.: FLEX close)
(dev.: +14.5c.)
[hŏ]
[ds]
[dh(a)]
[dh(ü)]
[h]
[ch(i)/ö]
[-ö]
[-i]
[dh(e)]
[-f]
[dha]
Tbn. I
(+2c.)
gliss. (downwards)
gliss. down a few cents only, just far enough to create the beating with frequencies of tromb.2
(-12.5c.)
gliss. (upwards)
(sempre mp)
(beatings, not rhythmisized any other way)
(all fingers moving towards the stem at the same time)
air pressure
keep pitch stable, so that tromb.1 gliss. lead to:
TROMB 2 = reference pitch B -12.5c
(beatings, not rhythmisized any other way)
(sempre)
spectral emphasis
play as if it were one & the same phrase
D2.5
darker
L2.5
brighter (heller, Germ.), very clear&transparent sound
soft entrances, but sounds itself getting stronger, but not aggressive
D2
[dhä]
[dhi]
[dch(jö)]
[dchi/(ö)]
[chi]
[f]
[ds]
[dhi]
[dh(u)]
Tbn. II
mp
p
(all fingers moving away from stem at the same time)

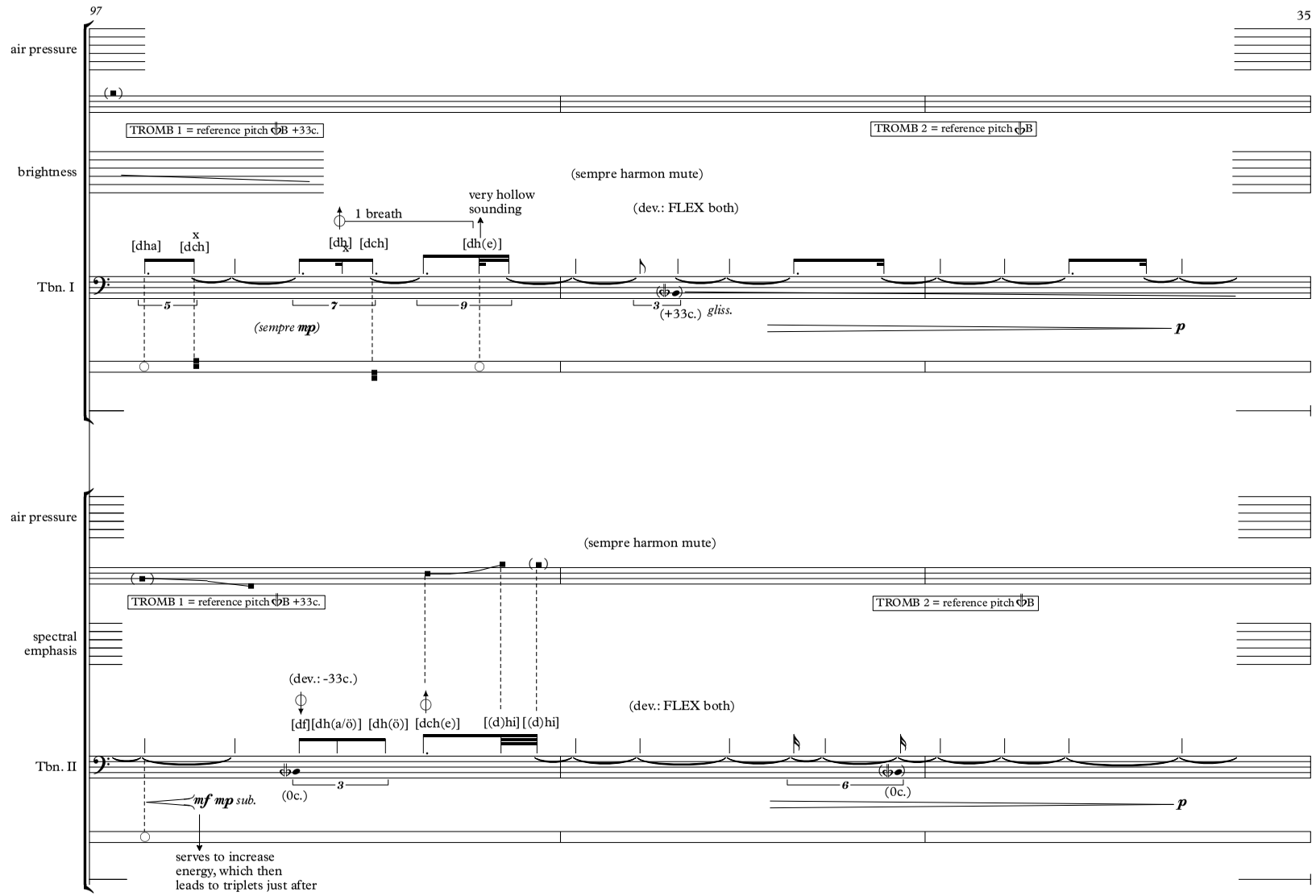

30
82
air pressure
(sempre)
TROMB 1 = reference pitch B -12.5c
spectral emphasis
with soft entrance
1 breath
[dh(ü)]
[f]
[dha]
[h-s(i)]
[ds(e)][dha]
[s(e)]
[-i]
[fs]
[(d)s]
[f]
Tbn. I
(sempre mp)
mf
p
air pressure
with some slight 'screech' of tromb.2. split tone vs. tromb.1 part/frequencies
(sempre)
TROMB 1 = reference pitch B -12.5c
(with teeth closed)
spectral emphasis
brightest
brightness
ord.
(dev.: 0c.)
(dev.: 0c.)
(dev.: FLEX close)
L1
[h]
[dhu]
[xh]
[df]
[df]
[f]
[(d)f]
[(fs)]
Tbn. II
mp
gliss. (upwards)
(sempre mp)
grain w/more noise (higher parts of spectrum), hochfrequenter
(gliss. upwards a few cents in order to create the effect described above)

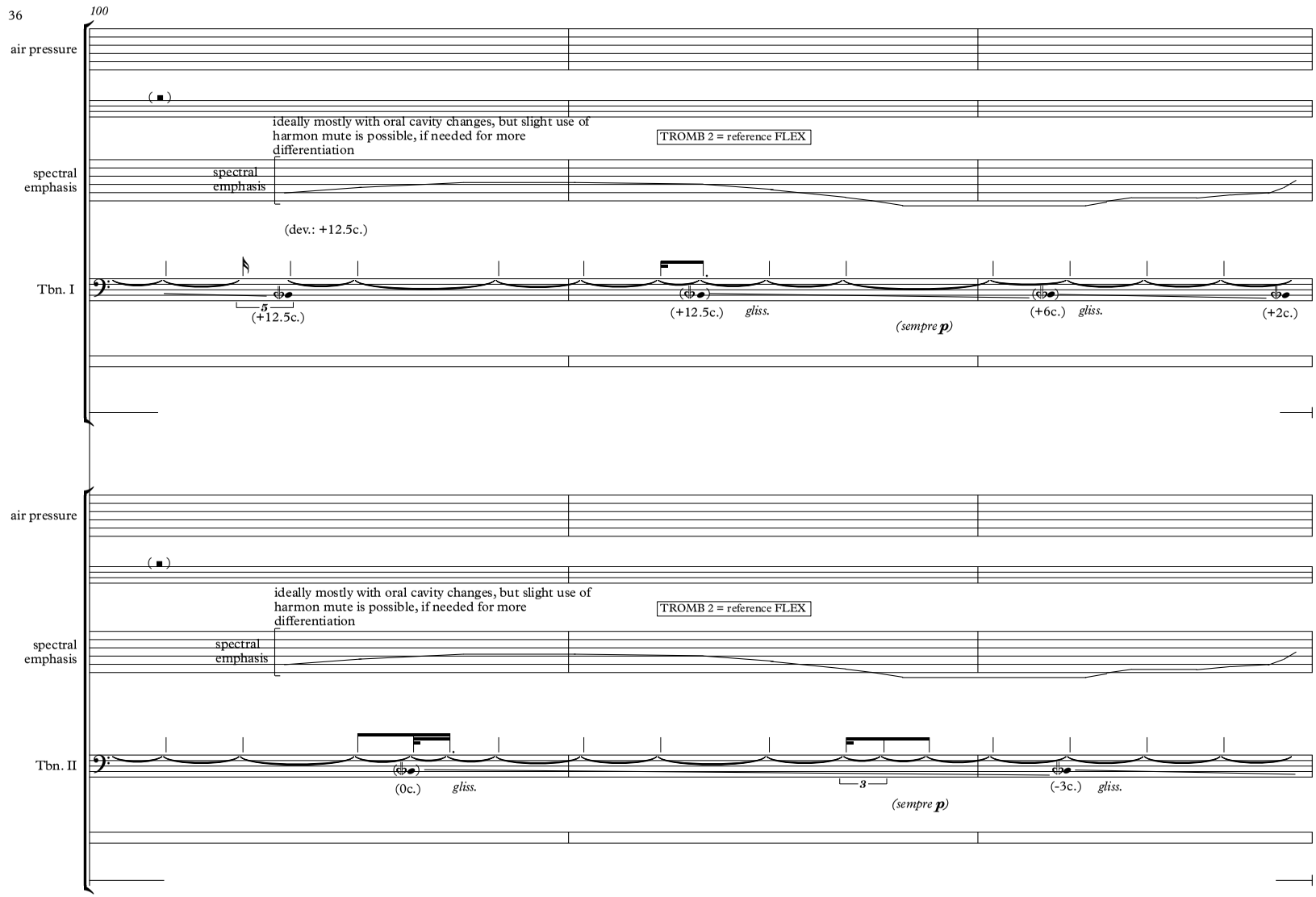

85
31
air pressure
spectral emphasis
Tbn. I
(also kind of 'deflating')
slightly 'noisy' h-prounciation
TROMB 2 = reference pitch ♭B -12.5c
(dev.: +25c.)
(dev.: +22.5c.)
(dev.: +18.5c.)
TROMB 1 = reference pitch ♭B +6c.
D3
D4
play as if it were a 'bisb.' of a sound
[s(e)]
[(h)][df]
[dh(e)]
[ds(e)]
[dhu]
[dh(e)]
[dh(e)]
[dh(a)]
[df] [df]
[dh(u)]
[dh(ö)]
pp
mp
p
(+12.5c.)
(+10c.)
(+6c.)
(tromb.1 creates slight beating)
air pressure
spectral emphasis
Tbn. II
(tromb.1 creates slight beating)
TROMB 2 = reference pitch ♭B -12.5c
TROMB 1 = reference pitch ♭B +6c.
brightest
brightness
ord.
(dev.:-16.5c.)
(dev.: 0c.)
with teeth closed
with teeth closed
L4
L3
[z]
[dh(e)]+
(silent breathing in)
[dch(e)]
[dch(i)]
[f(e)]
[df]
[df]
[df]
[dh(e)]
[dh(i)]
(sempre mp)
gliss. (downwards)
(-12.5c.)
gliss.

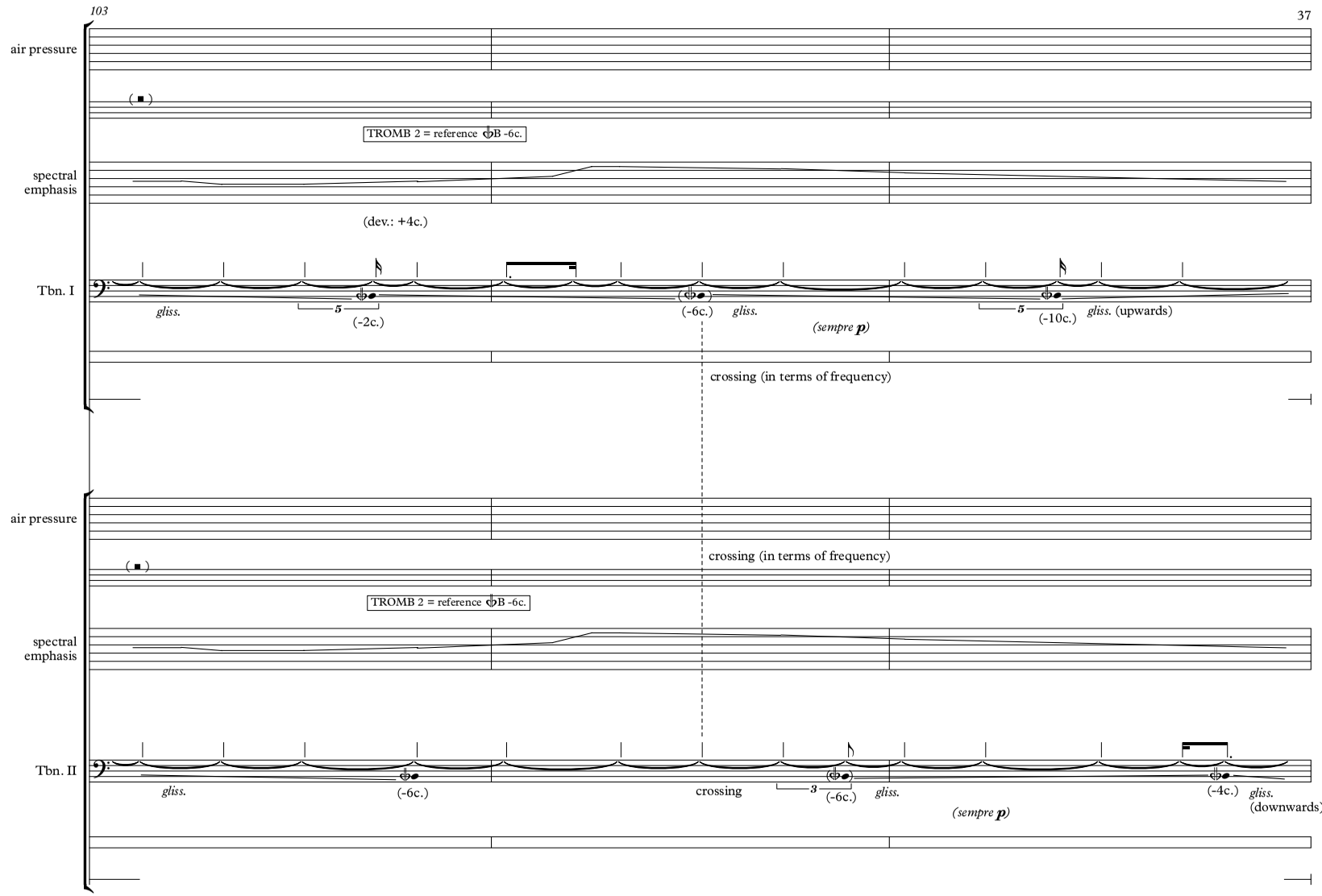

32
88
irregularities,
artefacts even preferred
air pressure
(sempre)
spectral
emphasis
[df] [df] [df] [dh(ü)]
[dchi] [dha] [dj(ü)]
Tbn. I
3
9
5
6
mp
p
(sempre p)
no beating, but tromb.2 moving closer in frequency to tromb.1
air pressure
no beating, but tromb.2 moving closer in frequency to tromb.1
brightness
brightest
brightness
ord.
(dev.: -6c.)
'o' very open
sounding
kind of bisb.
D2
[dh(e)] [df] [df] [-e] [dhu] [dho]
[h] [dch] [dh] [h(f)]
Tbn. II
gliss.
5
3
7
3
6
3
(0c.)
(sempre p)

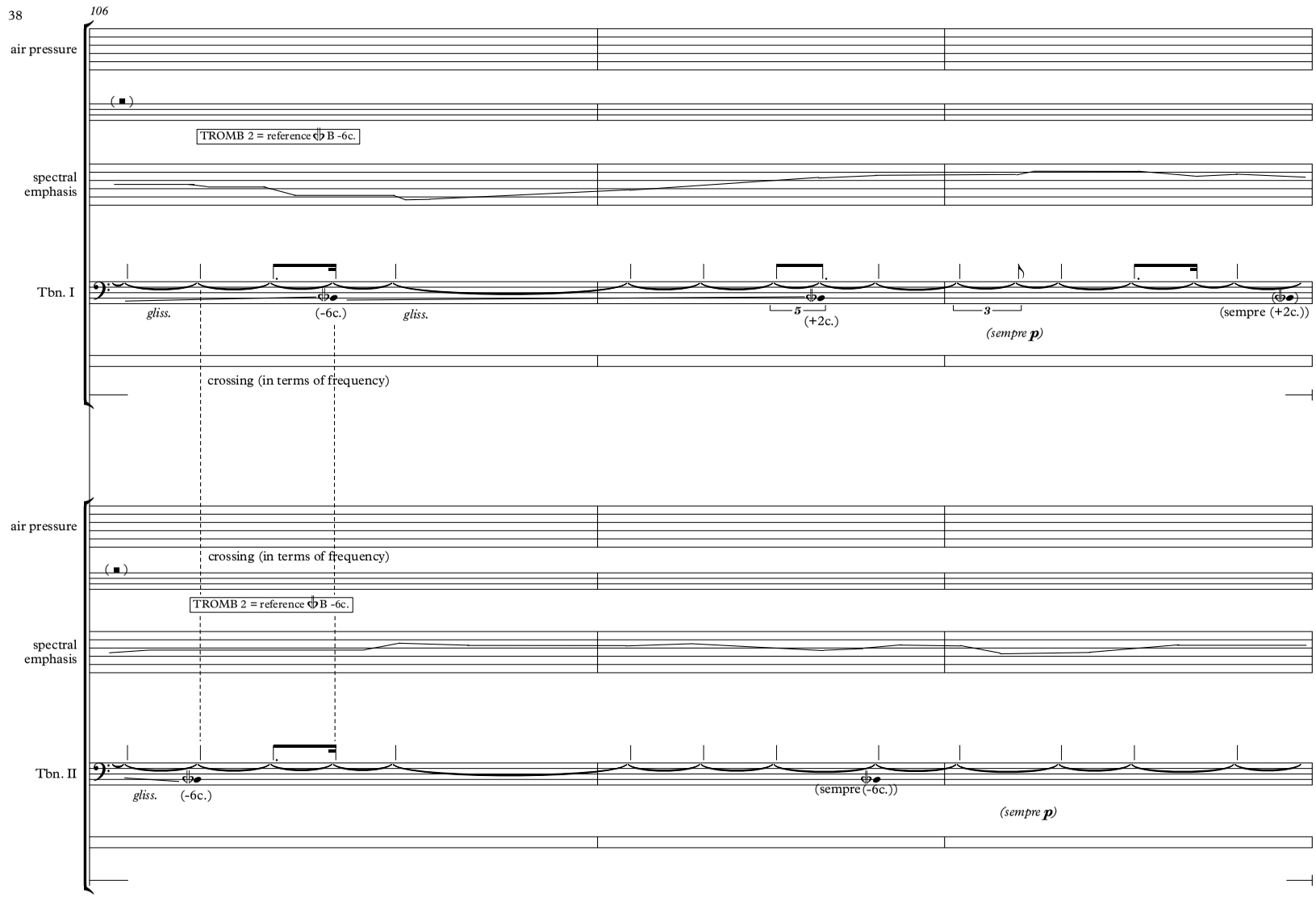

91
33
air pressure
spectral emphasis
Tbn. I
TROMB 2 = reference pitch B
'th' pronounciation like in English, med-low, like some noise filter
pronounciation like American English "z", with closed teeth
rather open and low sound
brightest
brightness
ord.
D4
(dev.: +6c.)
(dev.: +3c.)
[-i][ds]
[dch]
[(d)s(i)]
[dth]
[dh(ei)]
[z]
[df]
[dh(e)][dh(e)]
[ds(e)]
[ds(i)]
(sempre p)
(+6c.) gliss.
(+3c.)
mp
highest
ord.
lowest
accompanied by a little 'sizzle'
positioned so as to 'provoke' artefacts from in-between state
brightness
Tbn. II
soft entrance, relaxed
very soft entrance
[f]
[-i]
[dch]
[dh(ü)]
[dh(ü)]
[dch(i/ö)]
[-s(i)]
[df]
[ds]
[dch(u/o)]
[ds(e)]
(sempre p)
p
mp
(very inconspicuous cresc.)
(* this artefact sounds very different to others before/after that use the same 'artefact' symbol!)

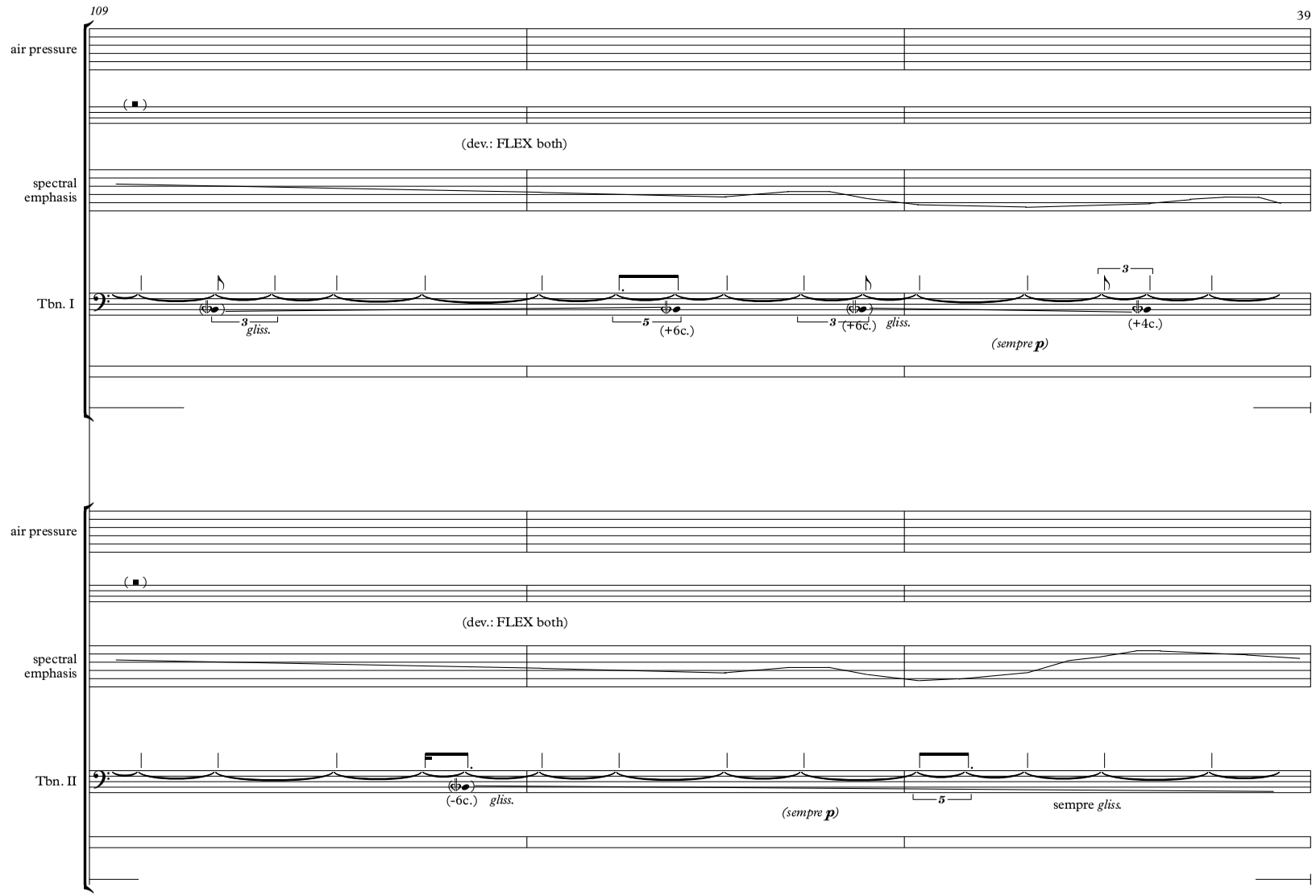

34
94
air pressure
(dev.:+3c.)
2/5 air sound
4/5 air sound
5/6 air sound
brightness
1 breath
[f][dch(e)][dh(ü)] [h(ü)] [hi] [dhi] [dh(i)]
[h(ü)/i]
[dchi][dchü/i]
[-i]
[dz(i)]
5
(dev.: +25c.)
(dev.: +33c.)
[dch(e)] [ds]
Tbn. I
(+3c.) gliss.
(gliss.)
very inconspicuous despite
relative large change
(+25c.)
gliss. (cont'd)
(+33c.)
(sempre)
air pressure
adjust also on [-i] vocalization
(air pressure and fingers used
(mute stem) to bring this out
more
slight feeling of 'deflation', here:
only take some minimal energy out of it
3/4 air sound
transparent, brightening from within
4/5 air sound
(almost as bright (hell')
as poss.)
brightness
'turning up' the brightness in a
relatively short period of time
pronounciation like American
English "z", with closed teeth
1 breath/
1 vocaliz.
(slightly darker)
D2.5
[dhü]
[dch[i/ö)ti]
[-ü]
x
[dz(i)][dch(e)]
5
[df(ü)]
[i]
[dhüi]
[djh(ä)]
[dhä]
Tbn. II
(sempre mp)
p

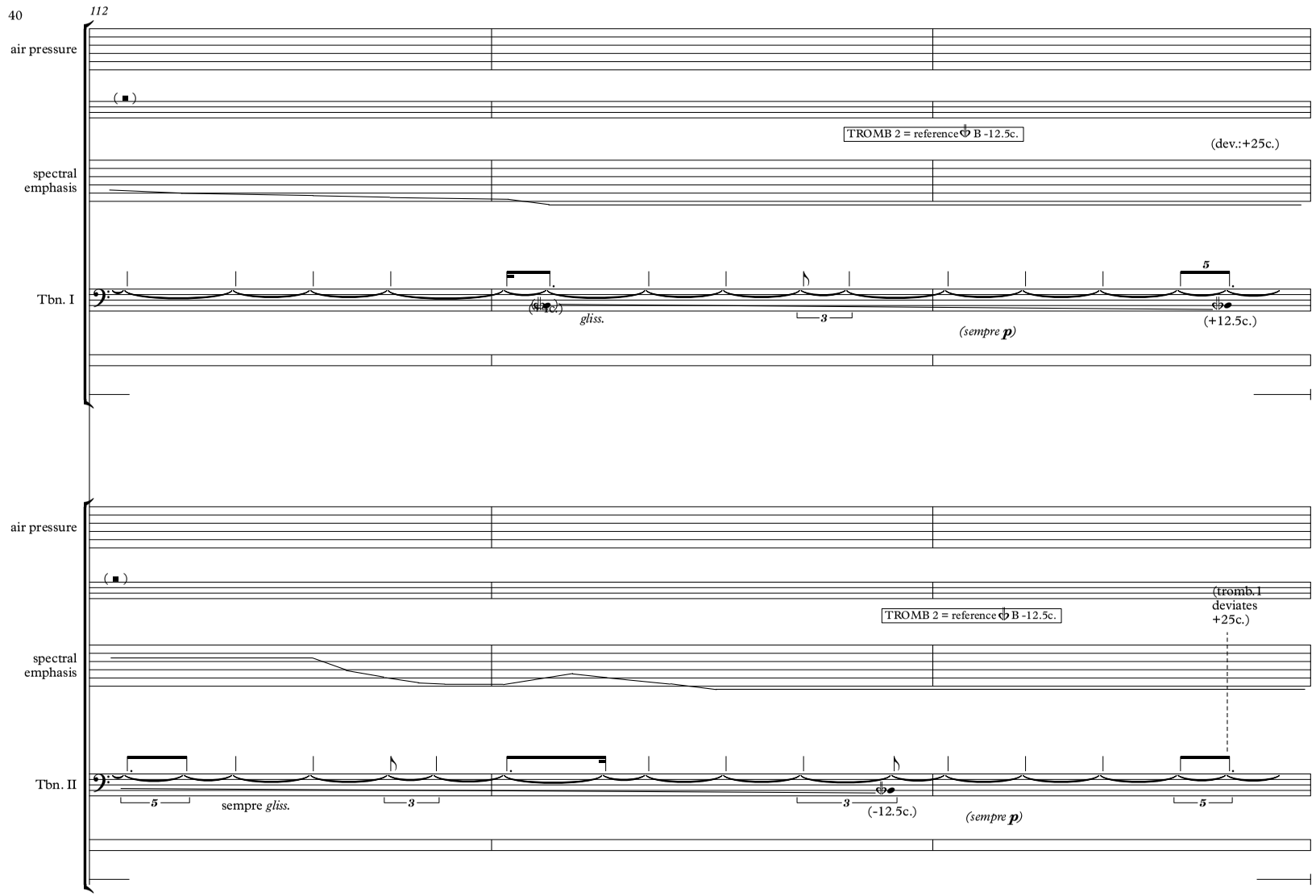

97
35
air pressure
TROMB 1 = reference pitch ♭B +33c.
TROMB 2 = reference pitch ♭B
brightness
(sempre harmon mute)
very hollow sounding
1 breath
(dev.: FLEX both)
[dha]
[dch]
[dh]
[dch]
[dh(e)]
Tbn. I
5
7
9
3
(+33c.)
gliss.
(sempre mp)
p
air pressure
(sempre harmon mute)
TROMB 1 = reference pitch ♭B +33c.
TROMB 2 = reference pitch ♭B
spectral emphasis
(dev.: -33c.)
(dev.: FLEX both)
[df][dh(a/ö)]
[dh(ö)]
[dch(e)]
[(d)hi]
[(d)hi]
Tbn. II
3
(0c.)
6
(0c.)
mf mp sub.
p
serves to increase energy, which then leads to triplets just after

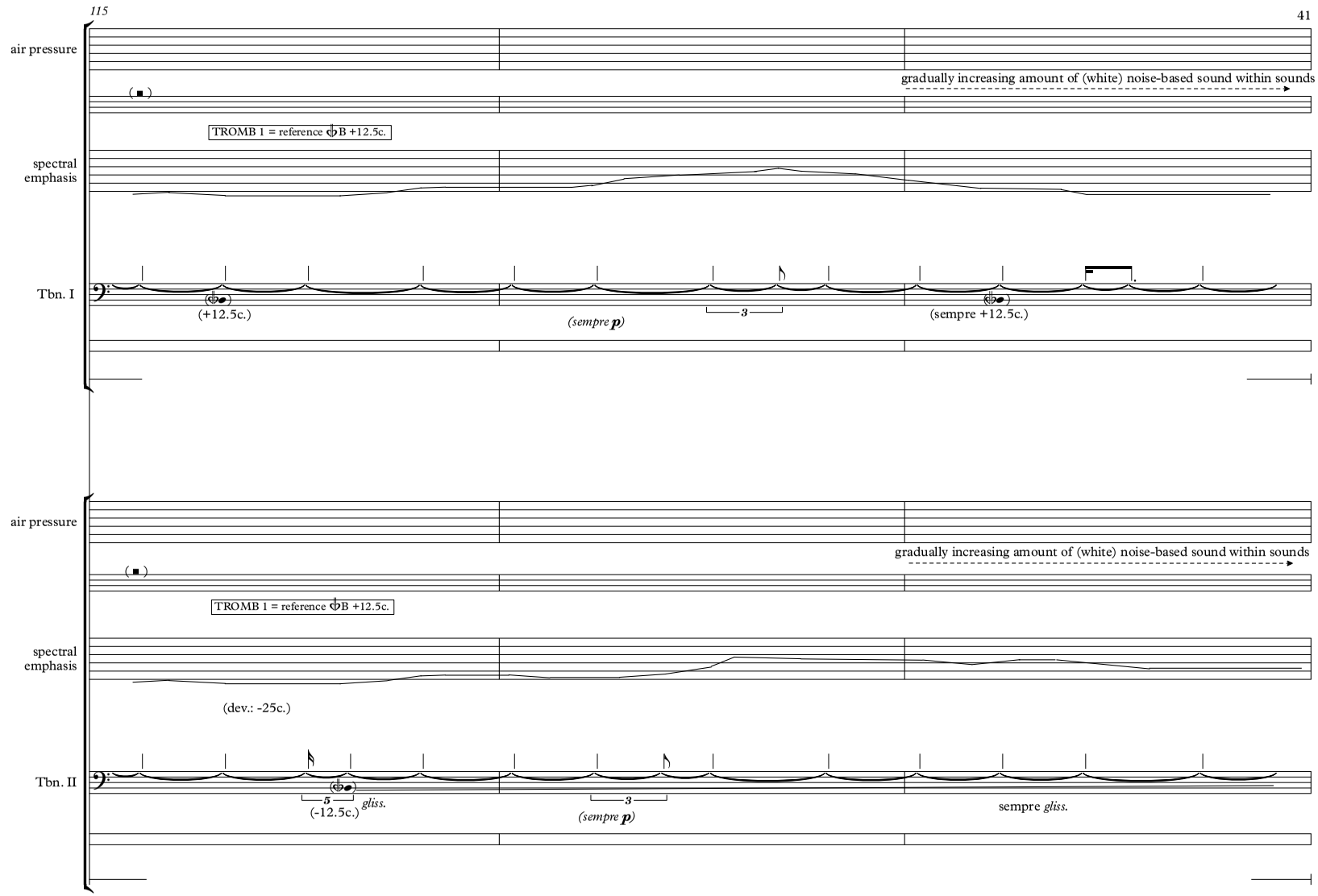

36
100
air pressure
(■)
ideally mostly with oral cavity changes, but slight use of harmon mute is possible, if needed for more differentiation
TROMB 2 = reference FLEX
spectral emphasis
spectral emphasis
(dev.: +12.5c.)
Tbn. I
5
(+12.5c.)
(+12.5c.)
gliss.
(sempre p)
(+6c.)
gliss.
(+2c.)
air pressure
(■)
ideally mostly with oral cavity changes, but slight use of harmon mute is possible, if needed for more differentiation
TROMB 2 = reference FLEX
spectral emphasis
spectral emphasis
Tbn. II
(0c.)
gliss.
3
(sempre p)
(-3c.)
gliss.

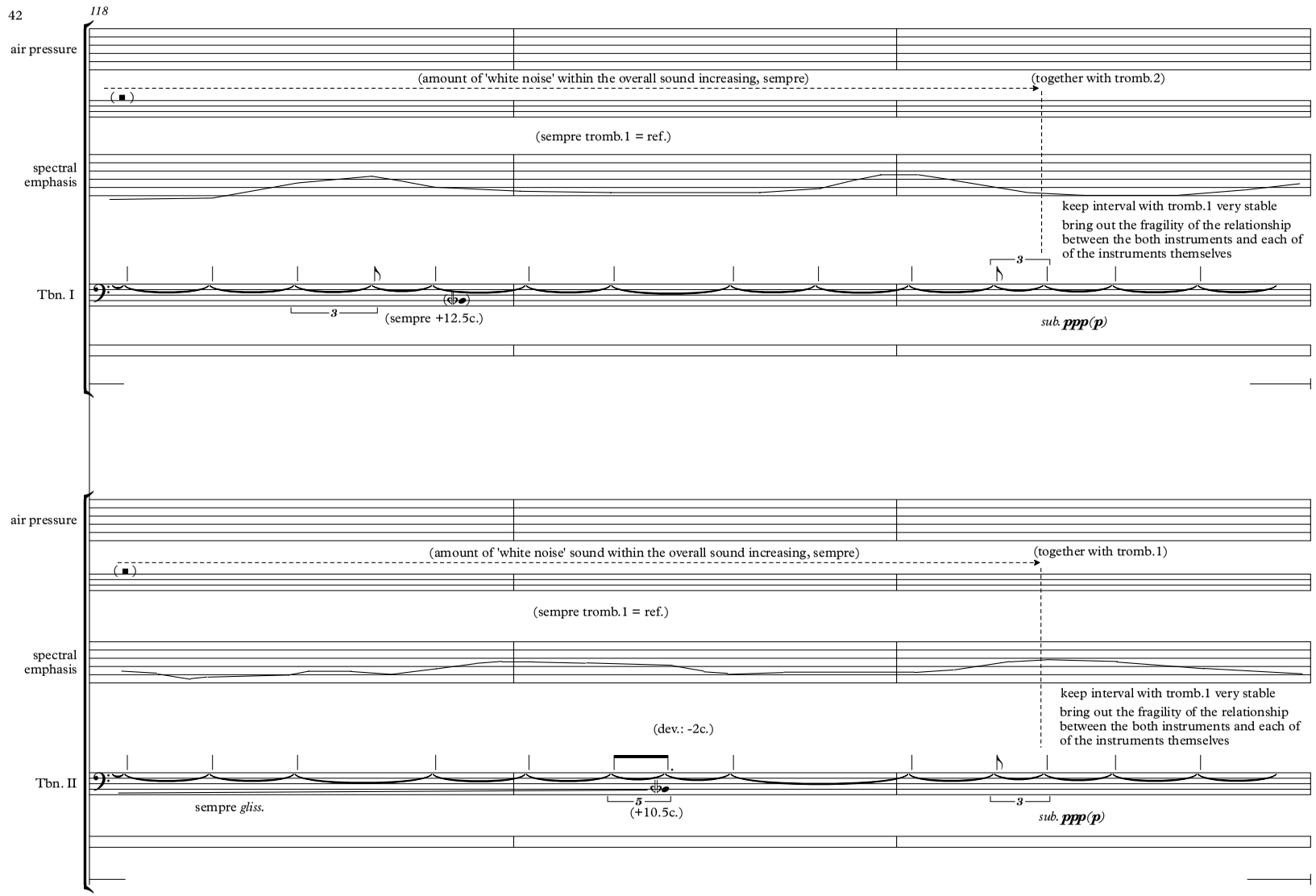

103
37
air pressure
TROMB 2 = reference B -6c.
spectral emphasis
(dev.: +4c.)
Tbn. I
gliss.
5
(-2c.)
(-6c.)
gliss.
(sempre p)
5
(-10c.)
gliss. (upwards)
crossing (in terms of frequency)
air pressure
crossing (in terms of frequency)
TROMB 2 = reference B -6c.
spectral emphasis
Tbn. II
gliss.
(-6c.)
crossing
3
(-6c.)
gliss.
(sempre p)
(-4c.)
gliss.
(downwards)

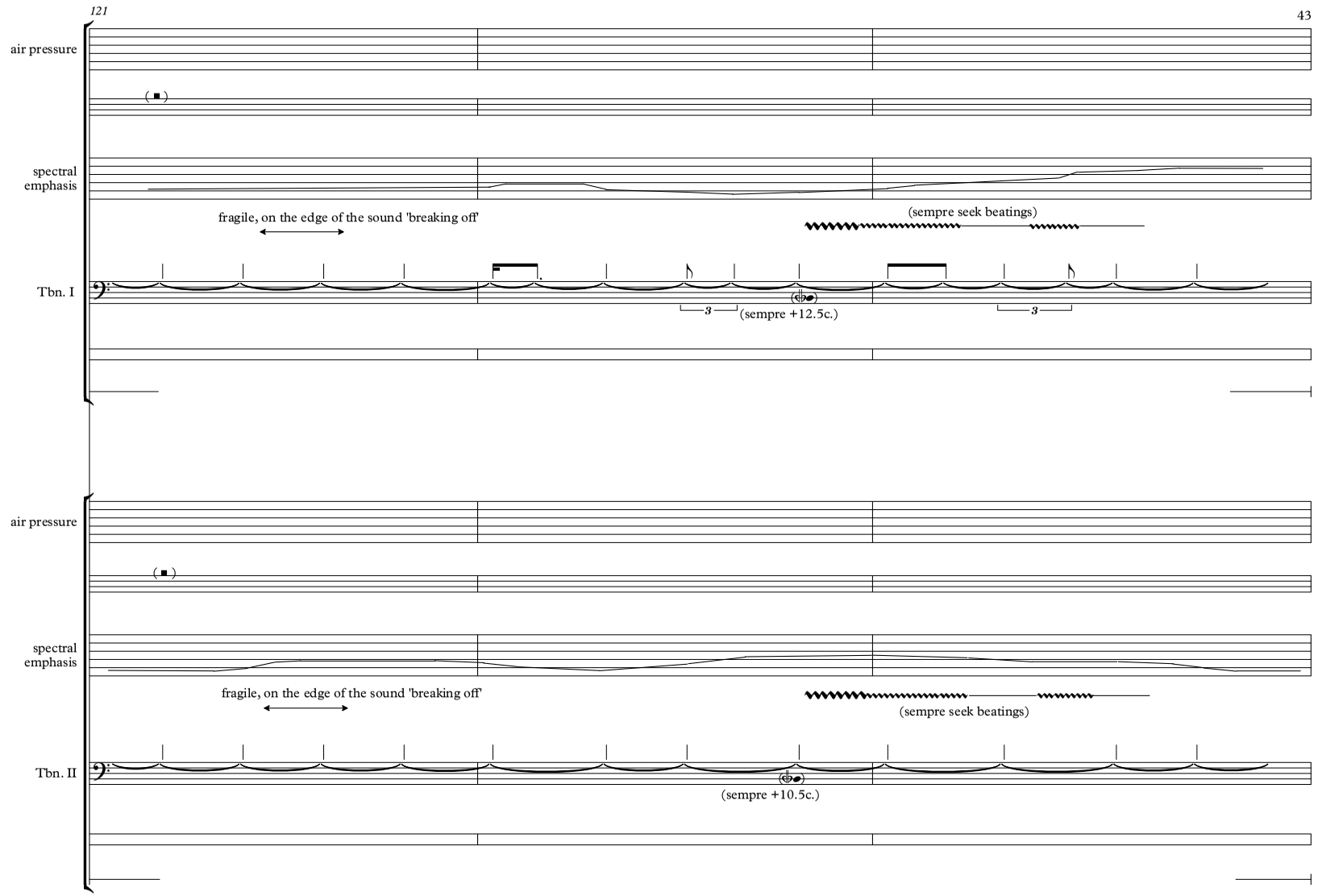

38
106
air pressure
TROMB 2 = reference B -6c.
spectral emphasis
Tbn. I
gliss.
(-6c.)
gliss.
5
(+2c.)
3
(sempre (+2c.))
(sempre p)
crossing (in terms of frequency)
air pressure
crossing (in terms of frequency)
TROMB 2 = reference B -6c.
spectral emphasis
Tbn. II
gliss.
(-6c.)
(sempre (-6c.))
(sempre p)

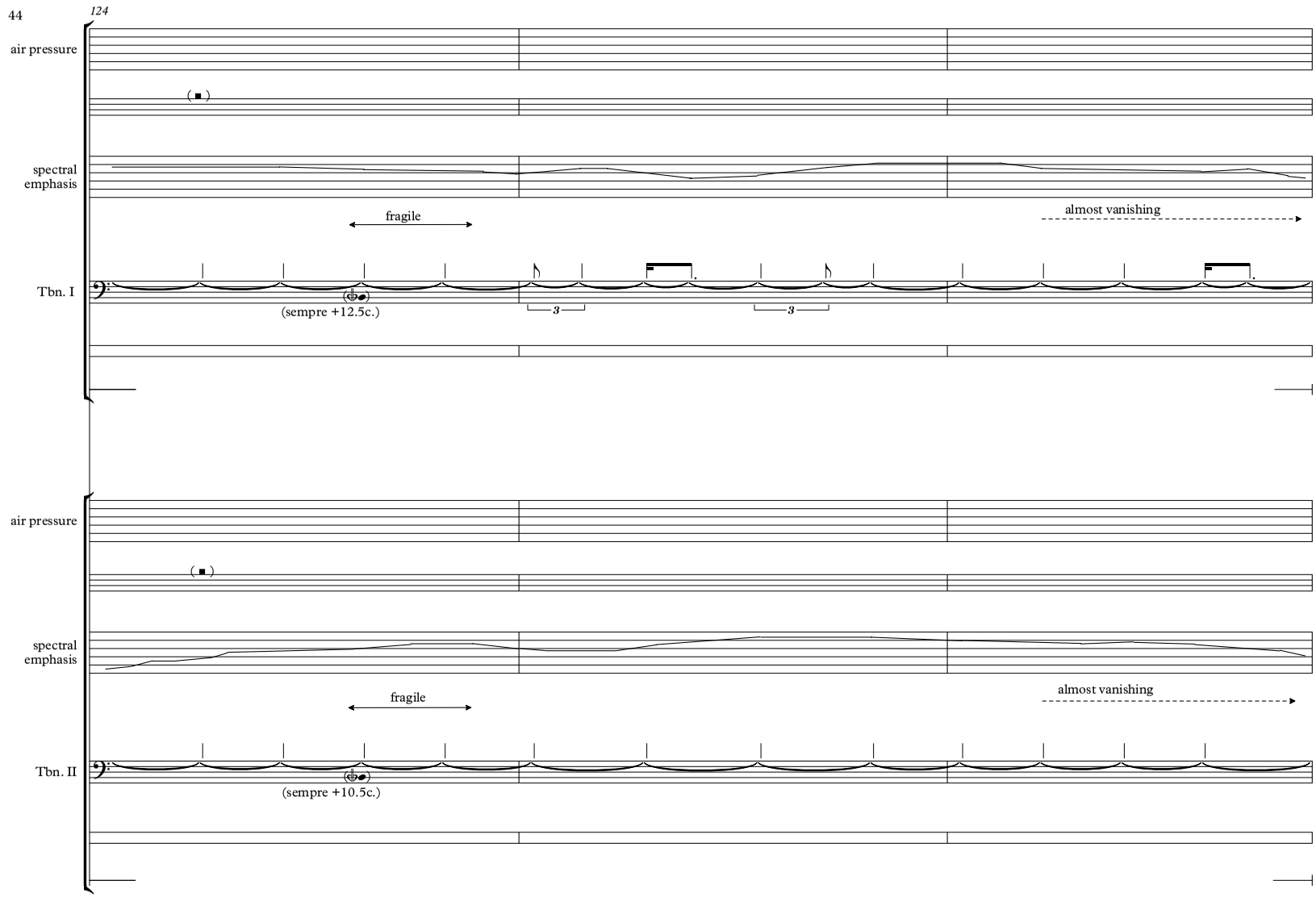

109
39
air pressure
(dev.: FLEX both)
spectral emphasis
Tbn. I
3
gliss.
5
(+6c.)
3
(+6c.)
gliss.
3
(+4c.)
(sempre p)
air pressure
(dev.: FLEX both)
spectral emphasis
Tbn. II
(-6c.)
gliss.
(sempre p)
5
sempre gliss.

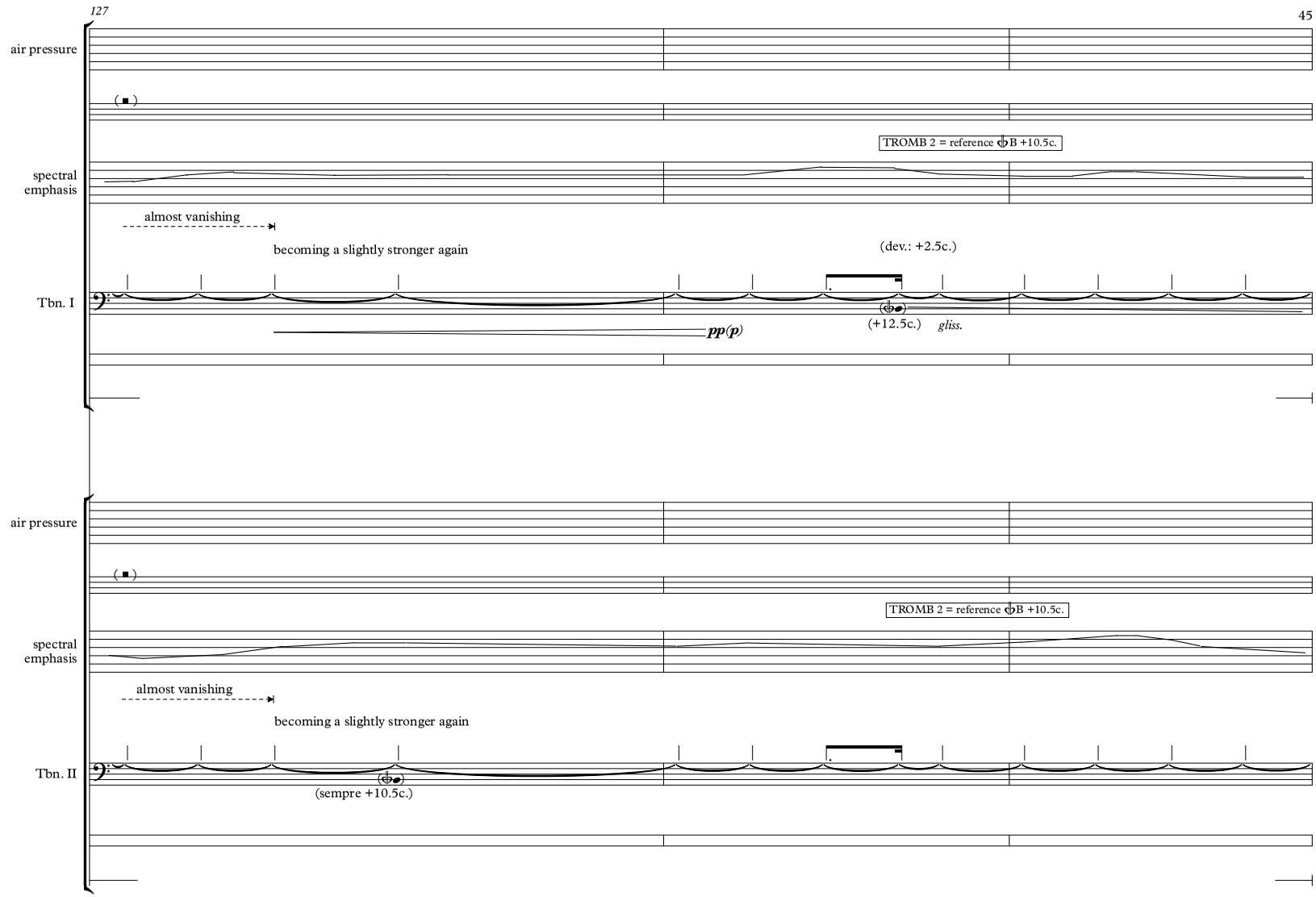

40
112
air pressure
spectral emphasis
Tbn. I
TROMB 2 = reference B -12.5c.
(dev.:+25c.)
gliss.
(sempre p)
(+12.5c.)
air pressure
spectral emphasis
Tbn. II
TROMB 2 = reference B -12.5c.
(tromb.1 deviates +25c.)
sempre gliss.
(-12.5c.)
(sempre p)

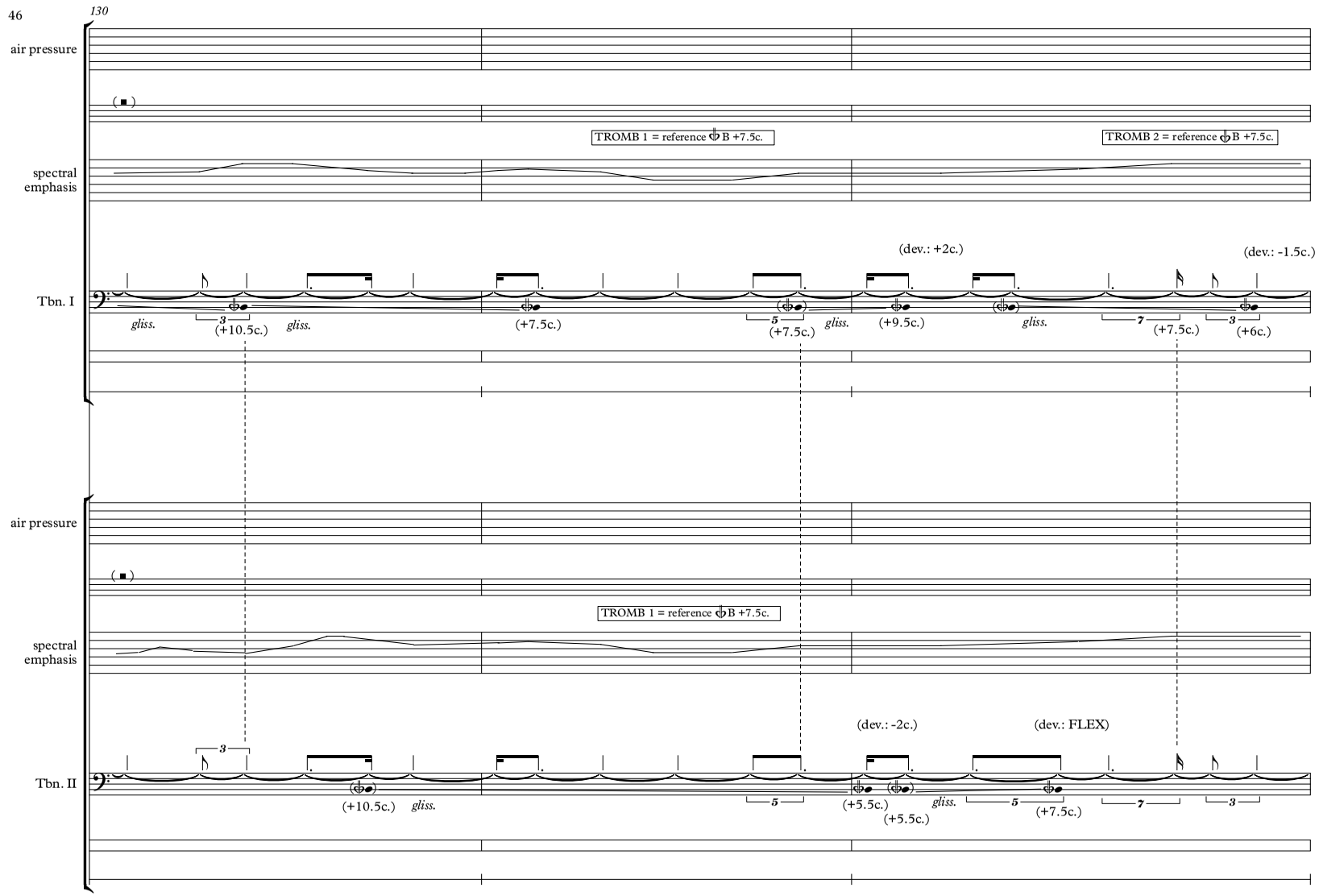

115
41
air pressure
gradually increasing amount of (white) noise-based sound within sounds
TROMB 1 = reference B +12.5c.
spectral emphasis
Tbn. I
(+12.5c.)
(sempre p)
3
(sempre +12.5c.)
air pressure
gradually increasing amount of (white) noise-based sound within sounds
TROMB 1 = reference B +12.5c.
spectral emphasis
(dev.: -25c.)
Tbn. II
5
(-12.5c.)
gliss.
3
(sempre p)
sempre gliss.

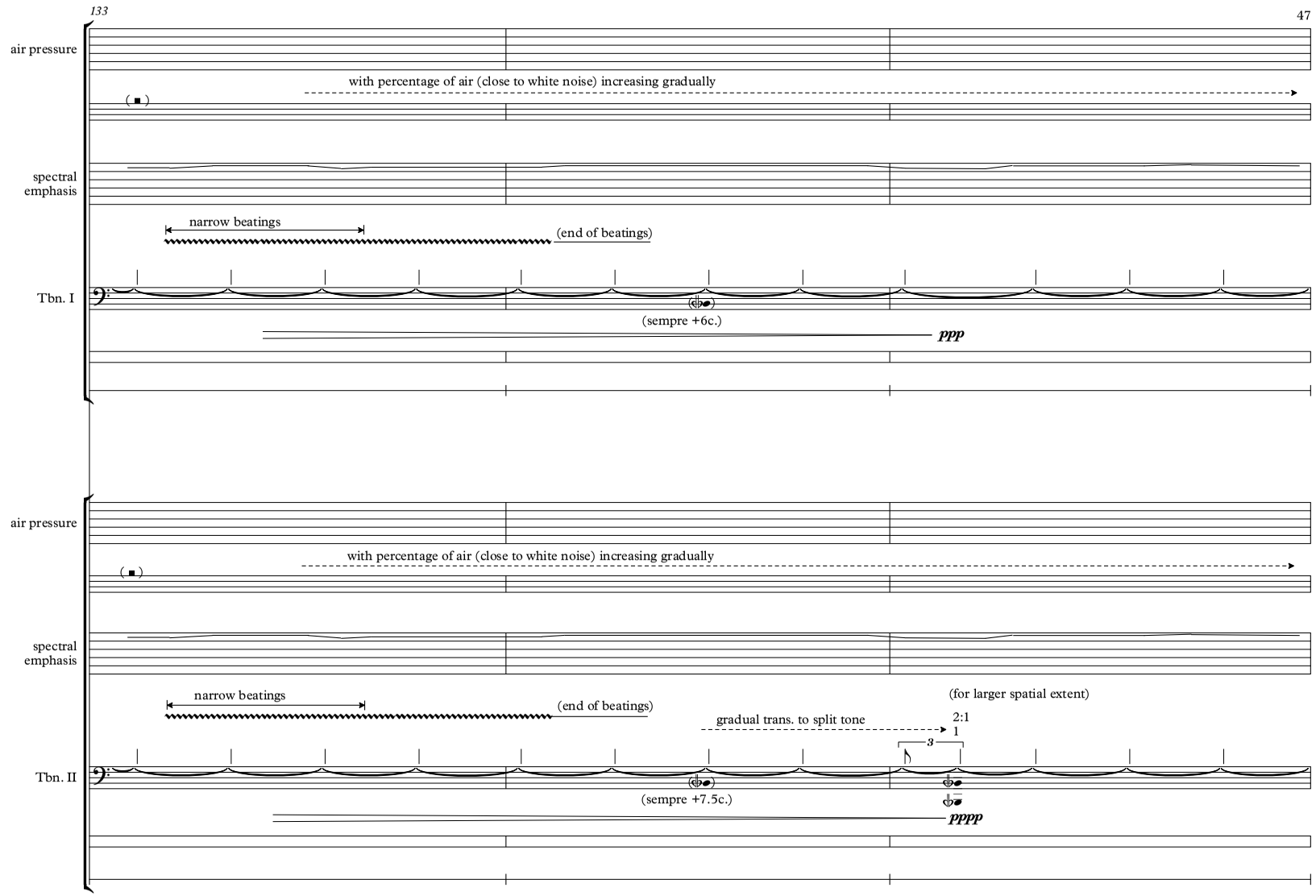

42
118
air pressure
(amount of 'white noise' within the overall sound increasing, sempre)
(together with tromb.2)
(sempre tromb.1 = ref.)
spectral emphasis
keep interval with tromb.1 very stable
bring out the fragility of the relationship between the both instruments and each of of the instruments themselves
Tbn. I
(sempre +12.5c.)
sub. ppp(p)
air pressure
(amount of 'white noise' sound within the overall sound increasing, sempre)
(together with tromb.1)
(sempre tromb.1 = ref.)
spectral emphasis
keep interval with tromb.1 very stable
bring out the fragility of the relationship between the both instruments and each of of the instruments themselves
(dev.: -2c.)
Tbn. II
sempre gliss.
(+10.5c.)
sub. ppp(p)

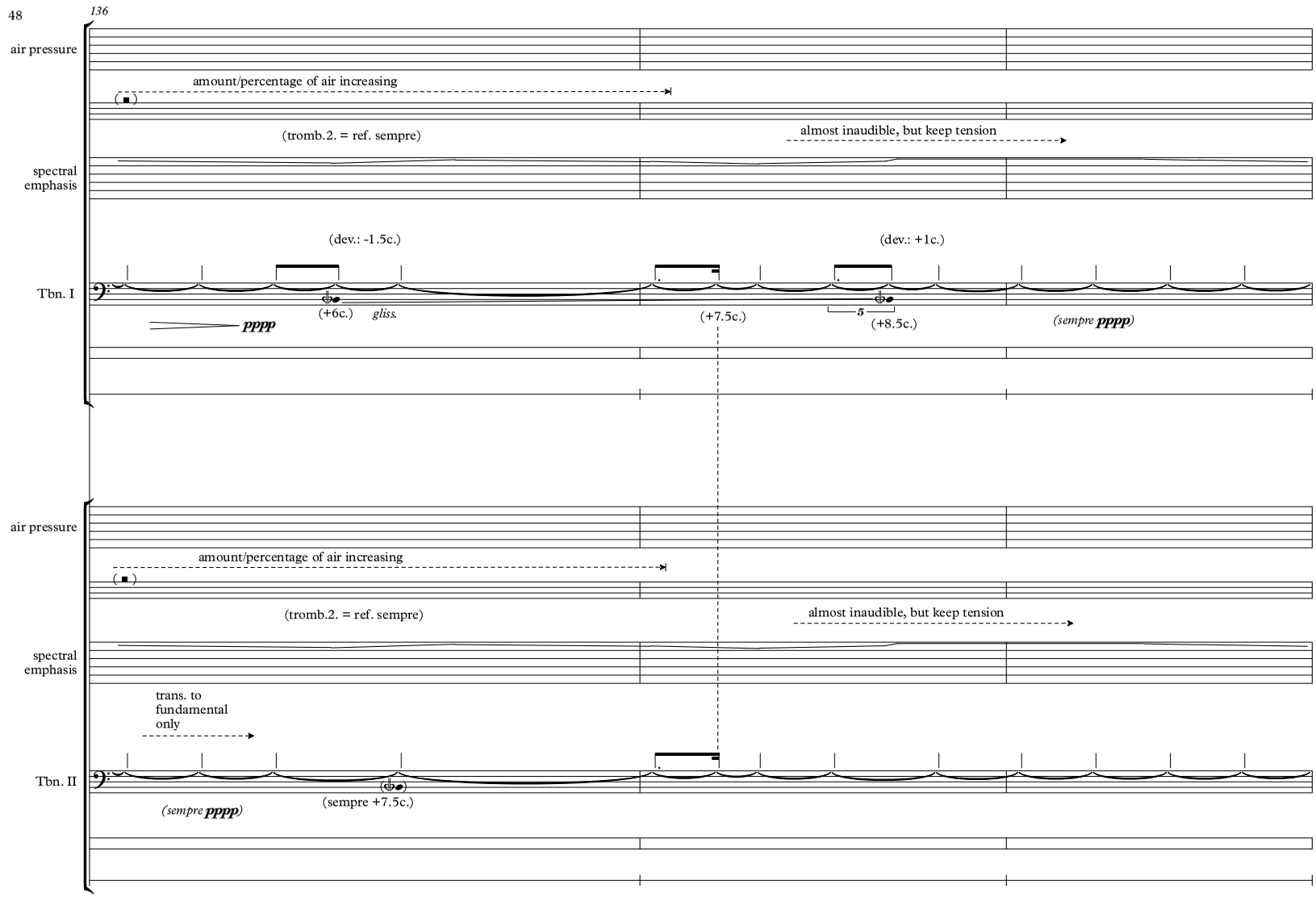

121
43
air pressure
spectral emphasis
fragile, on the edge of the sound 'breaking off'
(sempre seek beatings)
Tbn. I
3
(sempre +12.5c.)
3
air pressure
spectral emphasis
fragile, on the edge of the sound 'breaking off'
(sempre seek beatings)
Tbn. II
(sempre +10.5c.)

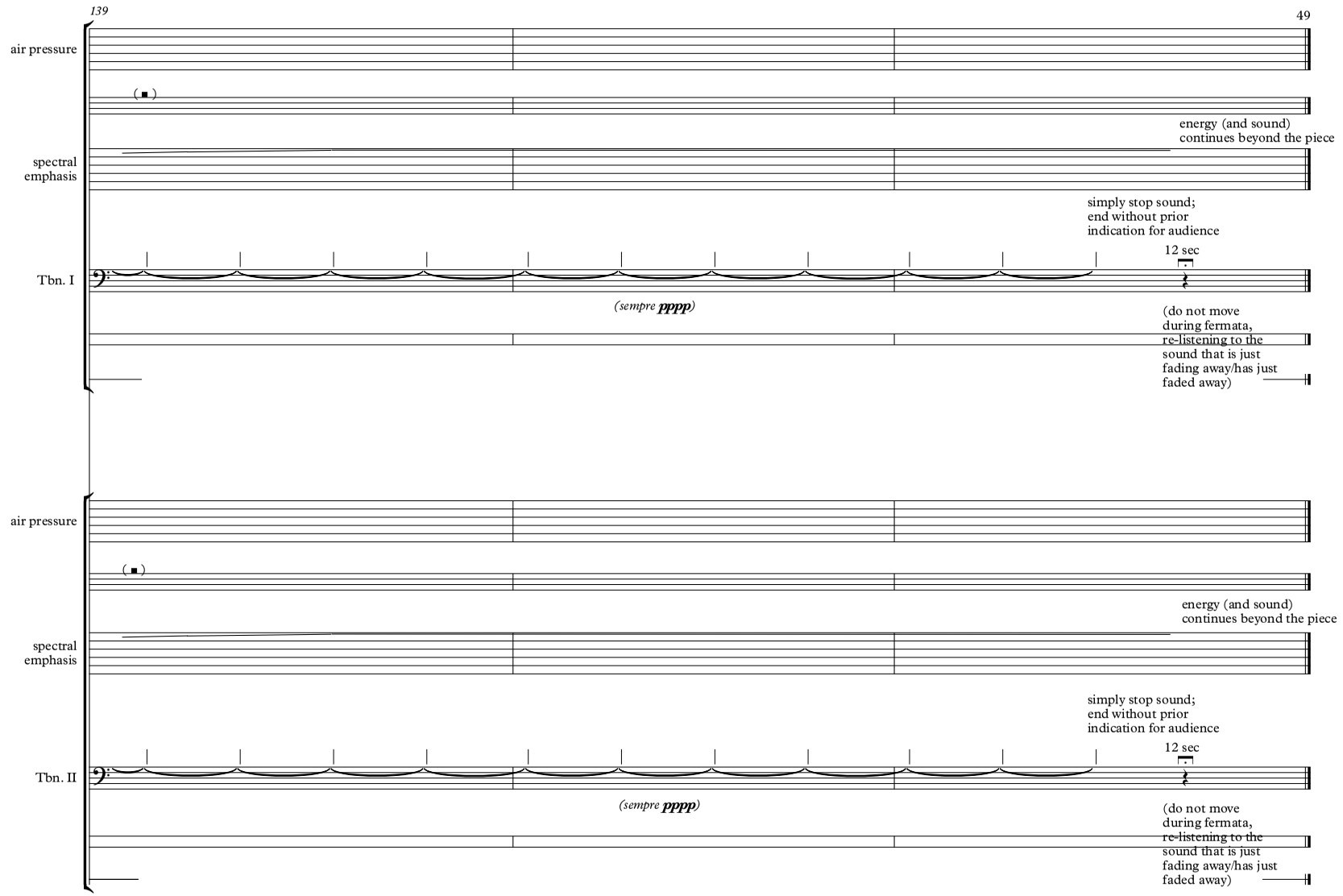

44
124
air pressure
spectral emphasis
fragile
almost vanishing
Tbn. I
(sempre +12.5c.)
3
3
air pressure
spectral emphasis
fragile
almost vanishing
Tbn. II
(sempre +10.5c.)


127
45
air pressure
spectral emphasis
TROMB 2 = reference B +10.5c.
almost vanishing
becoming a slightly stronger again
(dev.: +2.5c.)
Tbn. I
pp(p)
(+12.5c.)
gliss.
air pressure
spectral emphasis
TROMB 2 = reference B +10.5c.
almost vanishing
becoming a slightly stronger again
Tbn. II
(sempre +10.5c.)


46
130
air pressure
TROMB 1 = reference B +7.5c.
TROMB 2 = reference B +7.5c.
spectral emphasis
(dev.: +2c.)
(dev.: -1.5c.)
Tbn. I
gliss.
(+10.5c.)
gliss.
(+7.5c.)
(+7.5c.)
gliss.
(+9.5c.)
gliss.
(+7.5c.)
(+6c.)
144
air pressure
TROMB 1 = reference B +7.5c.
spectral emphasis
(dev.: -2c.)
(dev.: FLEX)
Tbn. II
(+10.5c.)
gliss.
(+5.5c.)
(+5.5c.)
gliss.
(+7.5c.)


air pressure
with percentage of air (close to white noise) increasing gradually
spectral emphasis
narrow beatings
(end of beatings)
Tbn. I
(sempre +6c.)
ppp
air pressure
with percentage of air (close to white noise) increasing gradually
spectral emphasis
narrow beatings
(end of beatings)
(for larger spatial extent)
gradual trans. to split tone
2:1
1
3
Tbn. II
(sempre +7.5c.)
pppp


48
136
air pressure
amount/percentage of air increasing
(tromb.2. = ref. sempre)
almost inaudible, but keep tension
spectral emphasis
(dev.: -1.5c.)
(dev.: +1c.)
Tbn. I
(+6c.)
gliss.
pppp
(+7.5c.)
(+8.5c.)
(sempre pppp)
air pressure
amount/percentage of air increasing
(tromb.2. = ref. sempre)
almost inaudible, but keep tension
spectral emphasis
trans. to fundamental only
Tbn. II
(sempre pppp)
(sempre +7.5c.)


139
49
air pressure
spectral emphasis
energy (and sound) continues beyond the piece
simply stop sound; end without prior indication for audience
12 sec
Tbn. I
(sempre pppp)
(do not move during fermata, re-listening to the sound that is just fading away/has just faded away)
air pressure
spectral emphasis
energy (and sound) continues beyond the piece
simply stop sound; end without prior indication for audience
12 sec
Tbn. II
(sempre pppp)
(do not move during fermata, re-listening to the sound that is just fading away/has just faded away)

5. CHAPTER 5 - THE OTHER, BEYOND BORDERLINES

5.1. OTHERWISE (2017) – for two pianists and two percussionists

Written for the ensemble Yarn/Wire (pno: Laura Berger, Eric Wubbels[39], perc: Ian Antonio, Russell Greenberg).

World premiere by Ensemble Yarn wire (Berger, Wubbels, Antonio, Greenberg) on March 18, 2017 at John Knowles Paine Concert Hall, Harvard University Music Department.

39 The pianist Eric Wubbels was filling in as guest pianist for the premiere of the piece, instead of the second Yarn/Wire pianist Ning Yu.

MANUELA MEIER

otherwise

for two pianos and
bowed woodblocks, tamtams and cymbals

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"OTHERWISE" (2017)

FOR TWO PIANOS AND BOWED WOODBLOCKS, TAMTAMS AND CYMBALS

Duration: ca. 21 minutes

GENERAL NOTE:

All percussion instruments (whether played by percussionists or the pianists) are bowed (arco) in this piece. The pianos will be played by both the pianists and the percussionists. Perc 2 will also need unobstructed access in between the two pianos, in order to reach the respective piano strings.

INSTRUMENTATION:

PERC 1:
5 woodblocks
1 large tamtam (shared with pno2)
1 med-sized tamtam
2 cymbals
arco (cb.)
1 pair of fuzzy felt mallets
1 pair of med-hard felt mallets
1 soft tamtam felt mallet

PERC 2:
5 woodblocks
1 med-sized tamtam
2 cymbals
arco (cb.)
1 pair of fuzzy felt mallets
1 pair of med-hard felt mallets
1 soft tamtam felt mallet

PNO 1:
5 woodblocks
1 large tamtam
1 med-sized tamtam
1 cymbal
arco (cb.)
1 fuzzy felt mallet
1 pair of med-hard felt mallets
1 soft tamtam felt mallet

PNO 2:
5 woodblocks
1 large tamtam (shared with perc1)
1 cymbal
arco (vlc)
1 fuzzy felt mallet
1 pair of med-hard felt mallets
1 soft tamtam felt mallet

GENERAL NOTATION:

Bowing:

◇ woodblock/tamtam/cymbal (follow details in the score)

↑ upbow (direction of bowing)

↓ downbow (direction of bowing)

BSP: +2.5
BP: +0.5

BSP = Bow speed (range:-5 to +5, with 0 being the ordinario bow speed relative to the given playing technique)
BP= Bow pressure (range: -4 to +4, with 0 being the ordinario bow speed relative to the given playing technique)

[cho] 'vocalization': serves as a reference for the sonic result (produced on the instrument), it is never to be spoken/pronounced with the performer's voice. Try to imitate this sound as closely as possible on the instrument only. Generally, the vocalizations are pronounced similar to the German pronounciation, unless stated otherwise. [ɐ] is generally pronounced with a Chinese Mandarin pronounciation.

Multiphonics:

M [(3)5-9] Tamtam and cymbal multiphonics. The numbers represent the focus on certain partials within the multiphonic. A partial in parenthesis indicates a weak or almost inexistent sounding of a certain partial contained within the multiphonic.

Dynamics:

very even, stable, 'flat' dynamics (of given dynamic level), start and stop are like cuts (on/off)
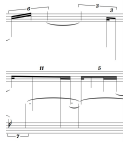
The sound should be of 'grainy' nature.
'granularity'/'grains' = artifacts within the given sound, similar to dust or the grains in analog films. While the envelope of the (base) sound remains fairly stable/static, it should be well saturated by the artifacts/'grains' that are distributed in a quasi-random way (there should not be any regularity).

dynamic bandwidth: ***mp-mf***

The dynamic bandwidth is active for all parts of the piece that are in 'relative' time, and takes place within the given bandwidth. Exceptions will be stated explicitly in the score.

PERCUSSION:

PERC on PNO STRINGS notation:



The middle staff line represents the 'core' of this percussion part. In addition to this part, the top staff line material focuses on the 'bounce' aspects of the mallet action, and the bottom staff line on the 'towards' (directionality of the mallet use/technique).

The size of the beams/flags shows the 'lightness' vs. 'heaviness' of the respective sound, whereas the lenghth of the stem represents its emphasis (the longer and lower, the more emphasized).
The tilt of the beam indicates a slight intensification, or lessening thereof (from low to high = increasing intensity, or a trajectory towards a certain point, and vice versa).

PIANO:



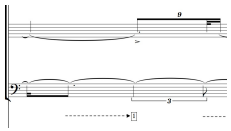
Dimensional Touch (DT): indicates (in black) the part of the hand to be used to carry out the action. The black parts are parts of the hand that depress the keys, whereas the white parts of the hand show the parts of the pianist's hand that only touch the keys, but do not depress it. If possible, keep the distinction between the two poles (depressed, vs. non-depressed parts) as clear as possible, in order to achieve clear sonic characteristics that differ from other DT patterns. However, a slight transitional area surrounding the clear boundaries between the poles is expected due to the nature of the anatomy of the hand.

Ped. 1 use of pedal: 1 (or "8/8") represents a fully depressed pedal. At 1/3, the pedal is only depressed one third of its potential full use.

Ped. ◇ silently depressed pedal befor actual sound/action starts

range: X-Y
focus:
density: Z/10

Shows the maximum range of pitch, its pitch focus, and its density (number of pitches sounding at the same time) for a given moment.



The top staff line represents the action of either both hands, or the left hand (follow the indications in the score).

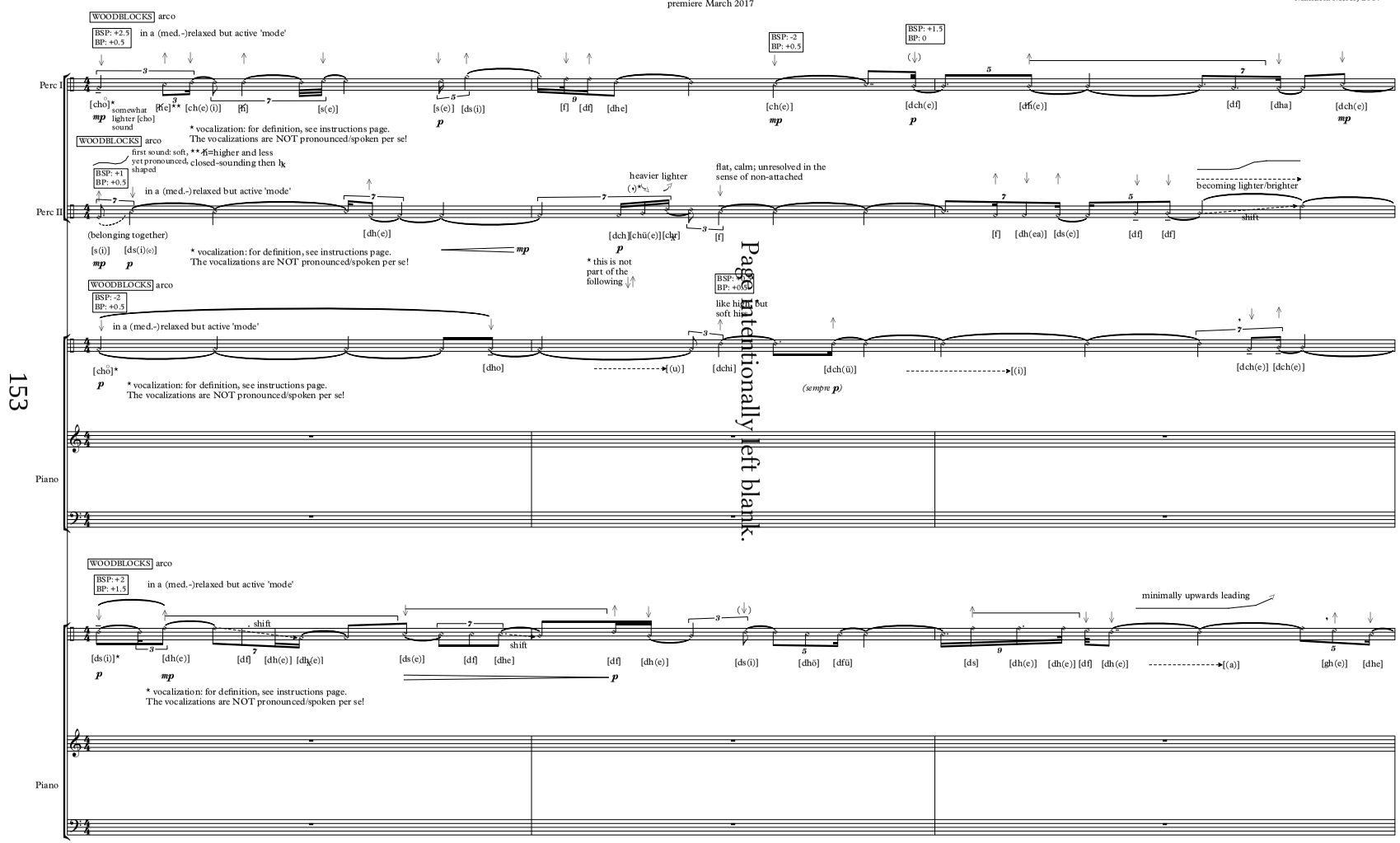
The bottom staff line represents the rhythm and the "depth" (level, i.e. fully depressed, half depressed, and gradations in between) of the pedaling.

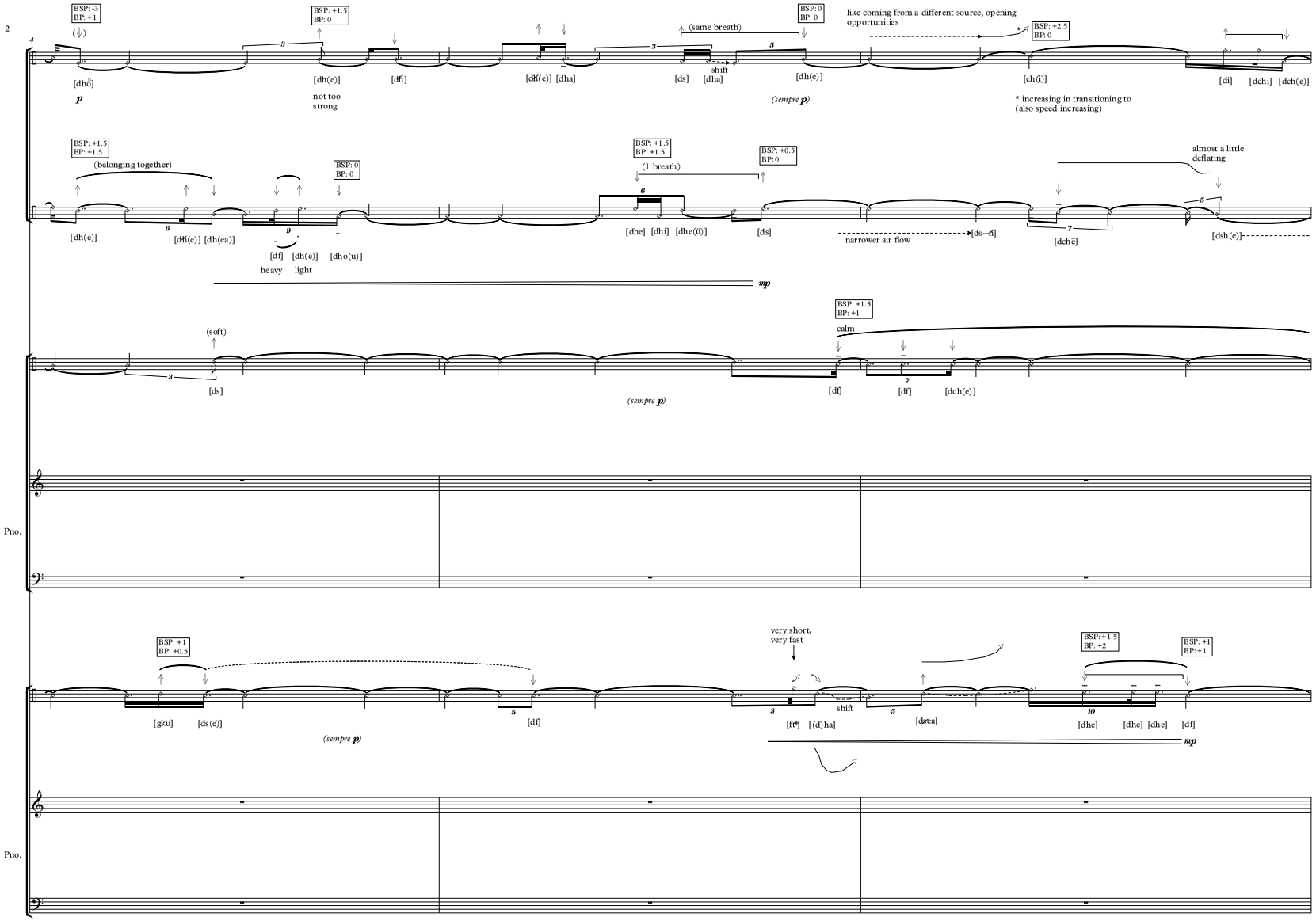
OTHERWISE

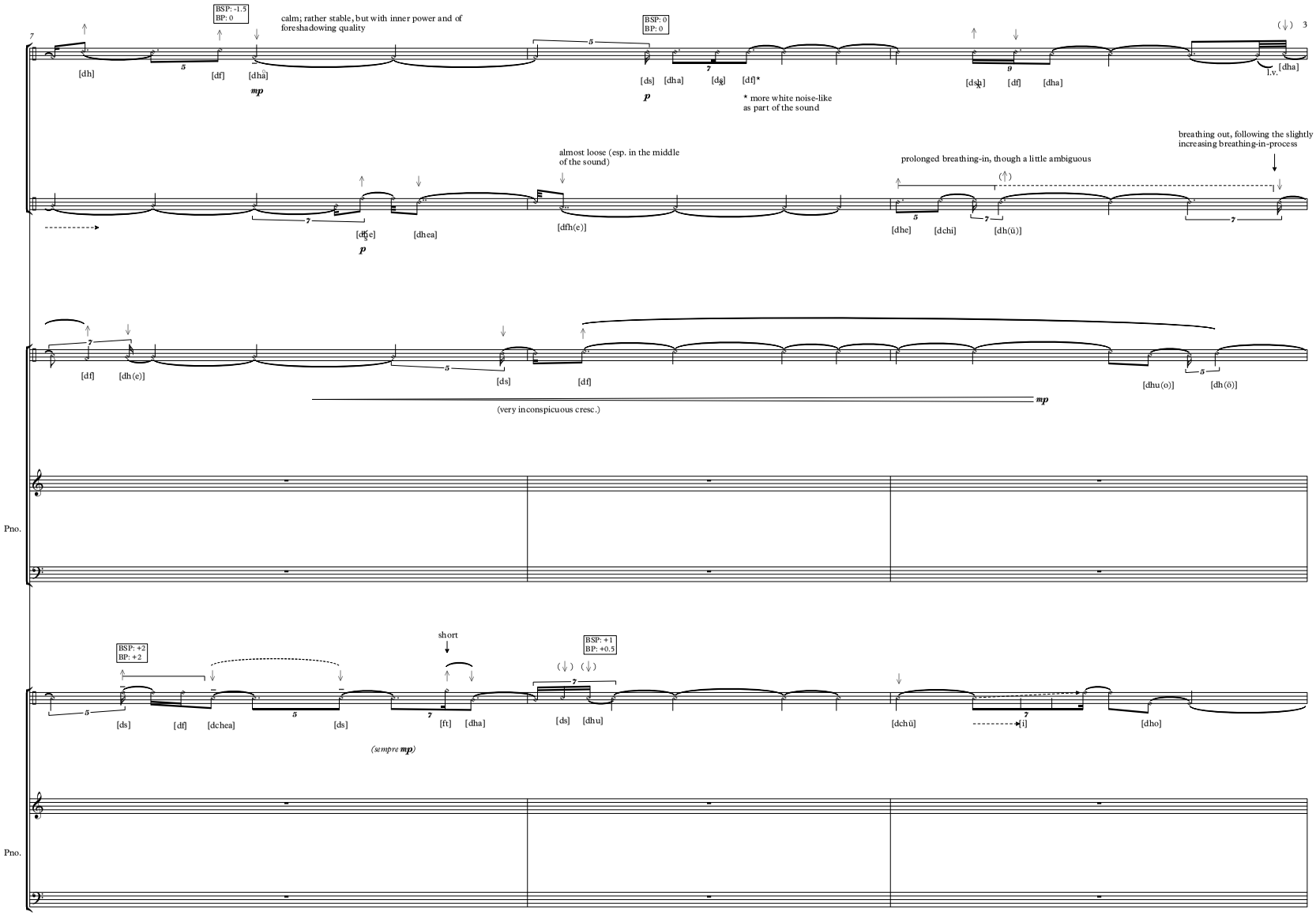
score version for premiere

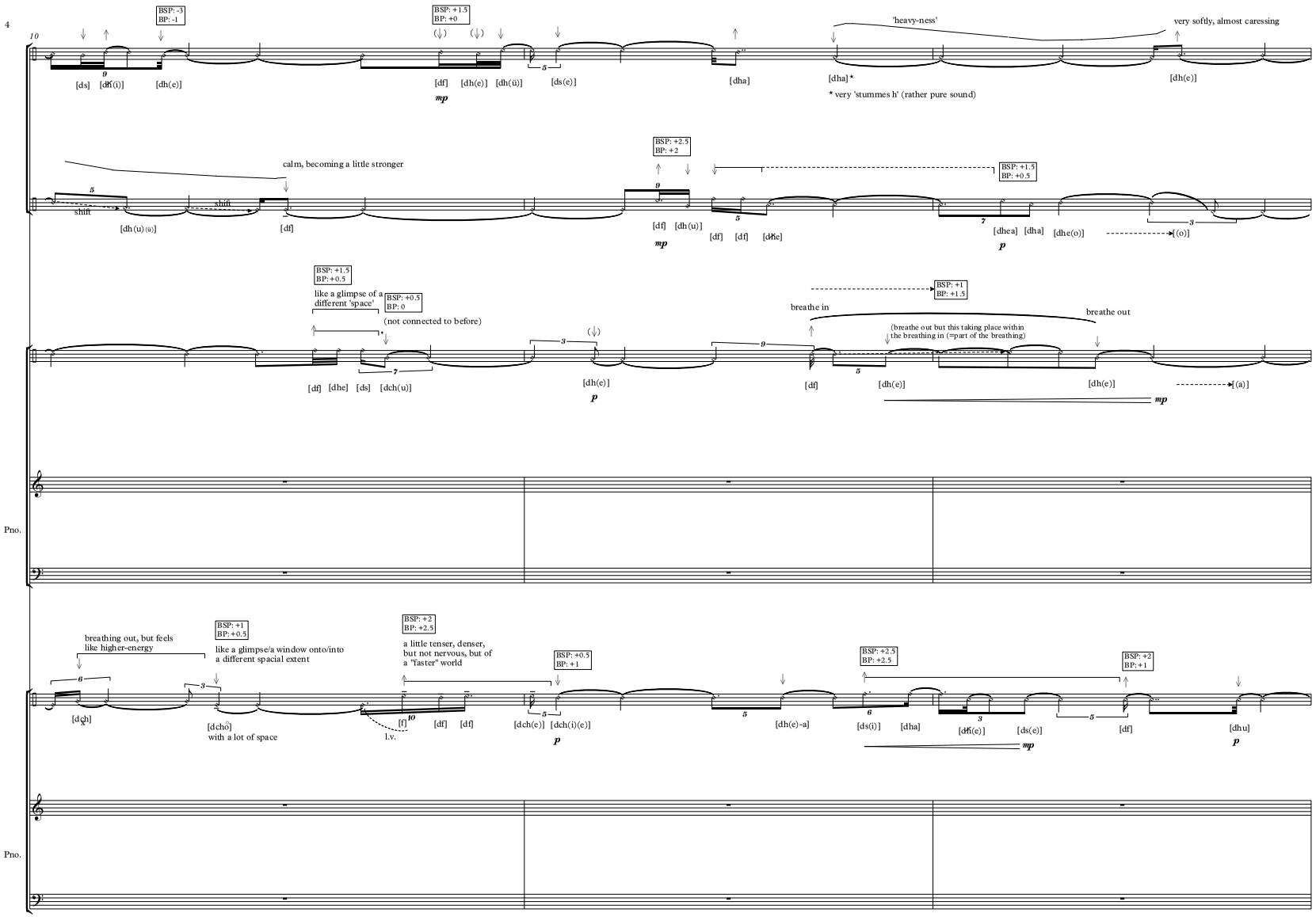
written for Ensemble Yarn/Wire,
premiere March 2017

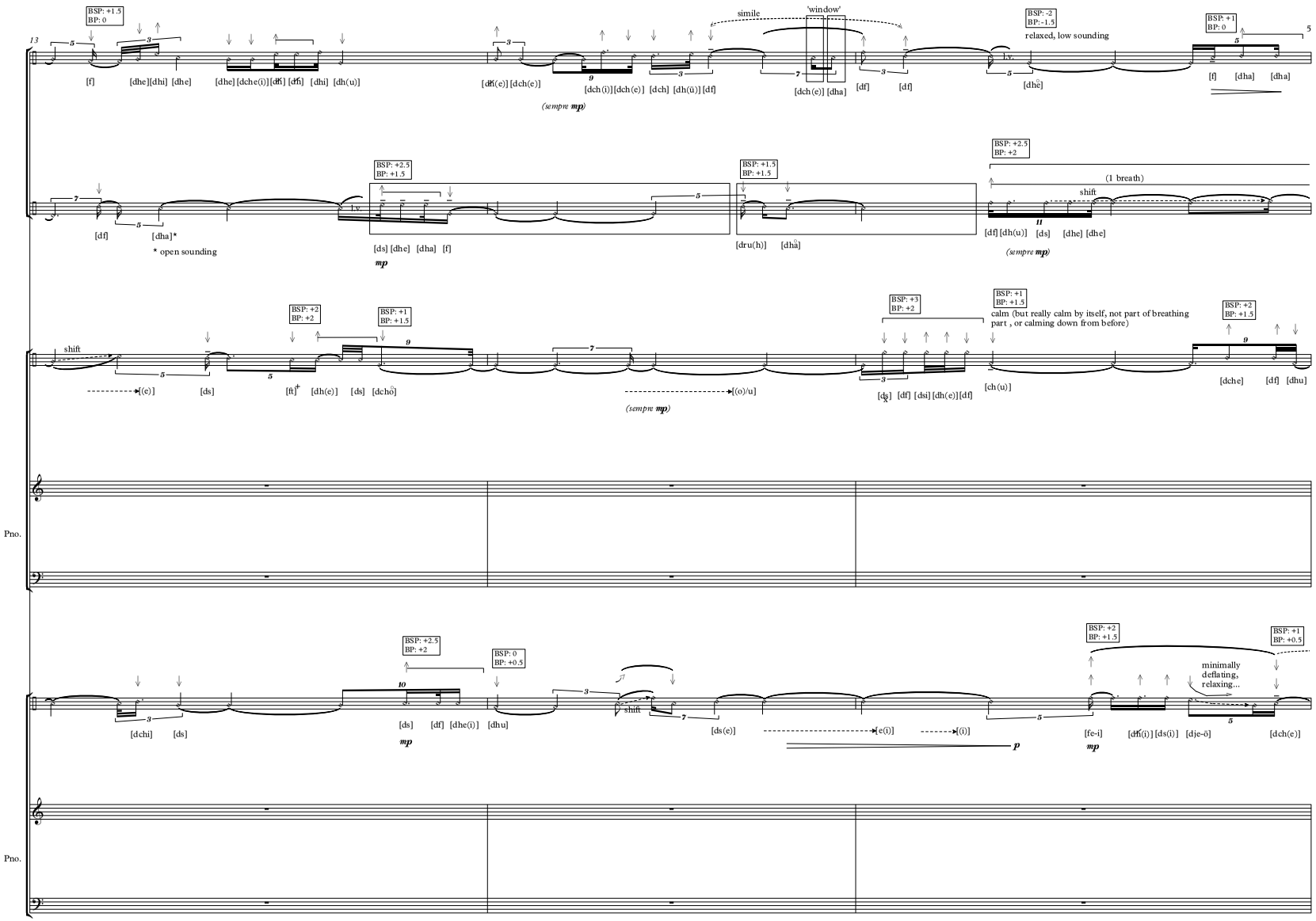
Manuela Meier, 2017

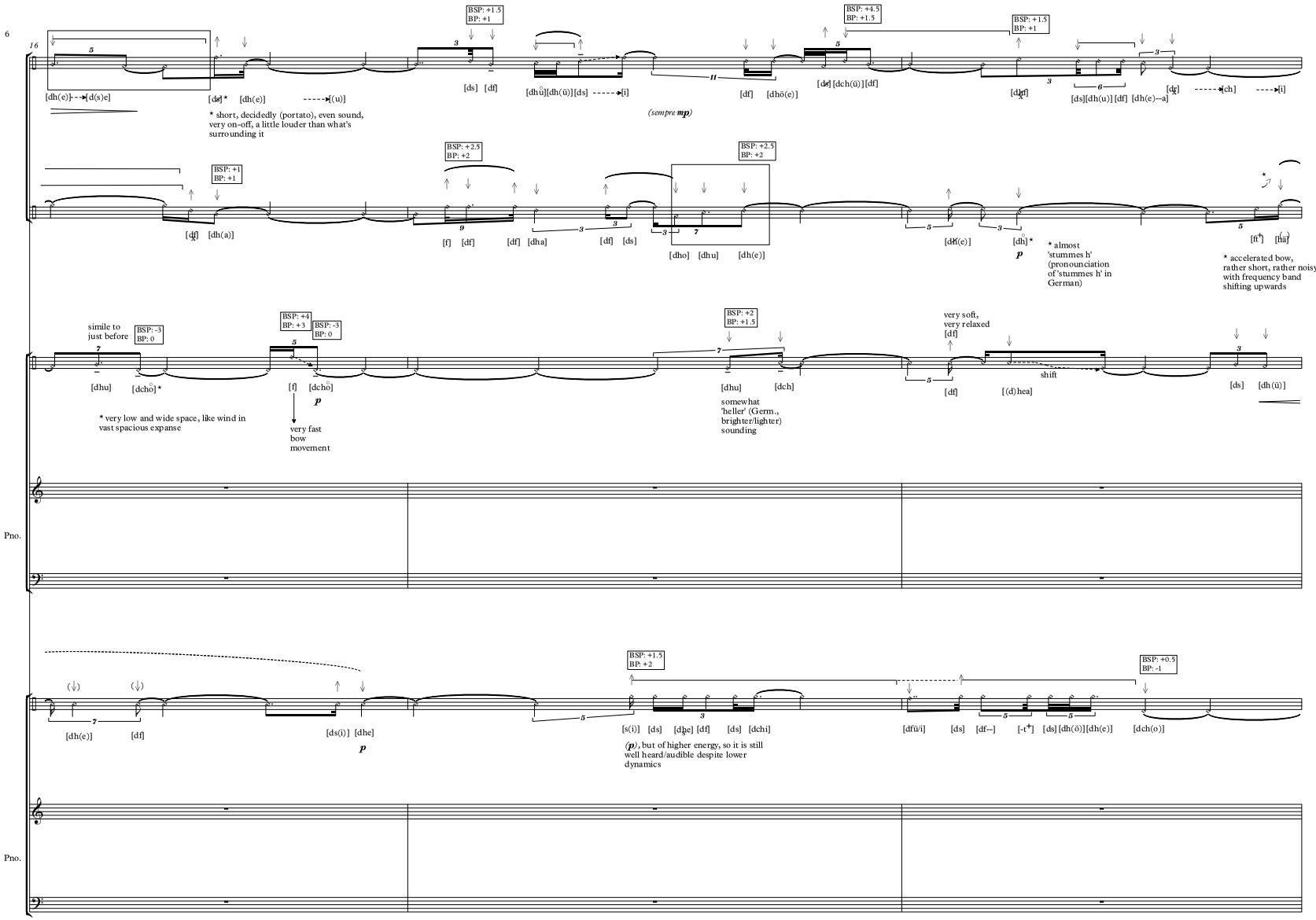


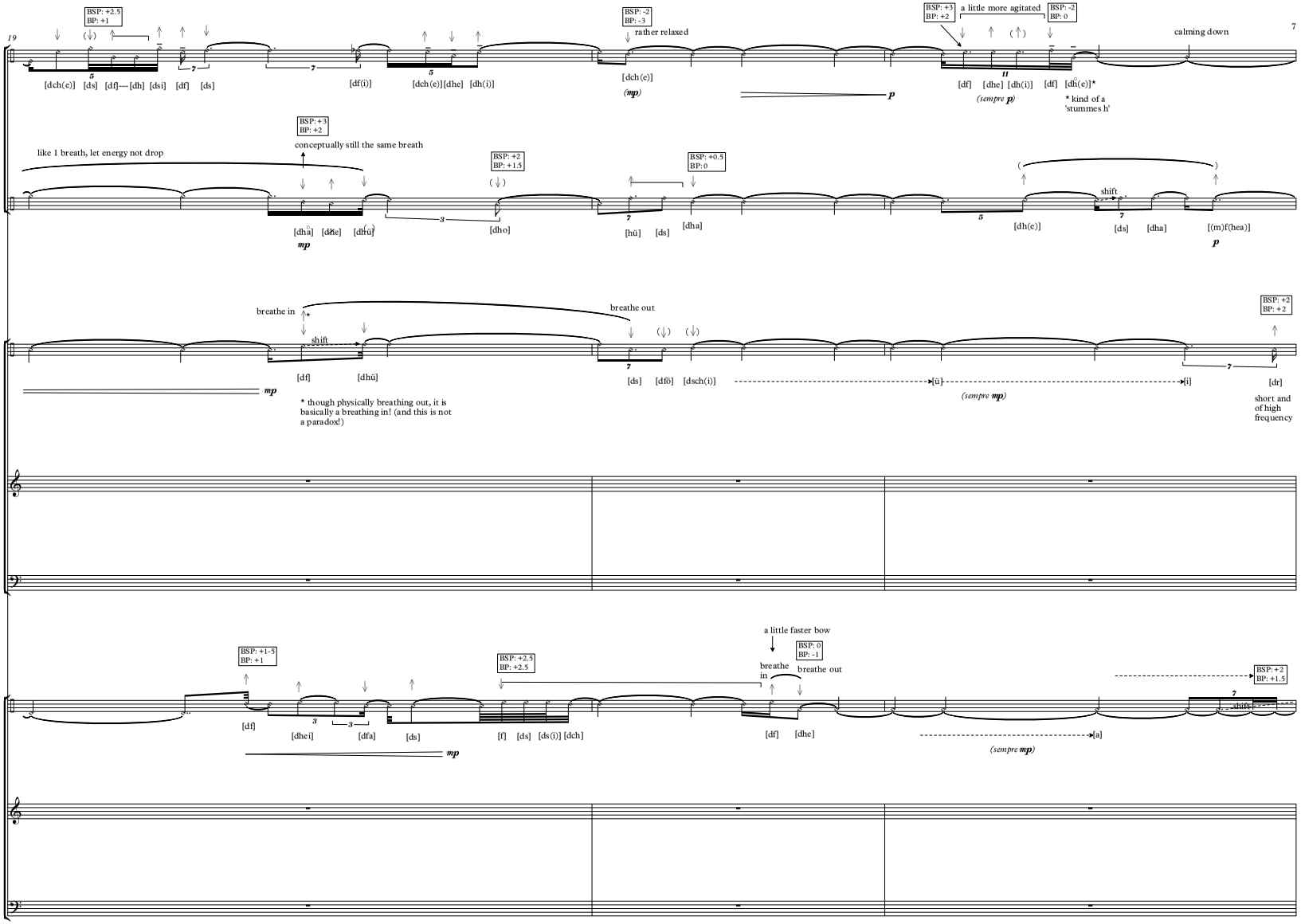

2
BSP: -3
BP: +1
[dhõ]
p
BSP: +1.5
BP: 0
[dh(e)]
not too
strong
[dfɾ]
[dfɾ(e)] [dha]
(same breath)
BSP: 0
BP: 0
[ds] [dha]
shift
[dh(e)]
(sempre p)
like coming from a different source, opening
opportunities
BSP: +2.5
BP: 0
[ch(i)]
* increasing in transitioning to
(also speed increasing)
[di] [dchi] [dch(e)]
BSP: +1.5
BP: +1.5
(belonging together)
[dh(e)]
[dfɾ(e)] [dh(ea)]
BSP: 0
BP: 0
[df] [dh(e)] [dho(u)]
heavy light
BSP: +1.5
BP: +1.5
(1 breath)
[dhe] [dhi] [dhe(ü)]
BSP: +0.5
BP: 0
[ds]
narrower air flow
[ds→ɾ]
[dchɛ̃]
almost a little
deflating
[dsh(e)]
mp
(soft)
[ds]
(sempre p)
BSP: +1.5
BP: +1
calm
[df] [df] [dch(e)]
Pno.
BSP: +1
BP: +0.5
[gku] [ds(e)]
(sempre p)
[df]
very short,
very fast
[frˠ] [(d)ha]
shift
[dsɐ̃a]
BSP: +1.5
BP: +2
[dhe] [dhe] [dhe] [df]
BSP: +1
BP: +1
mp
Pno.

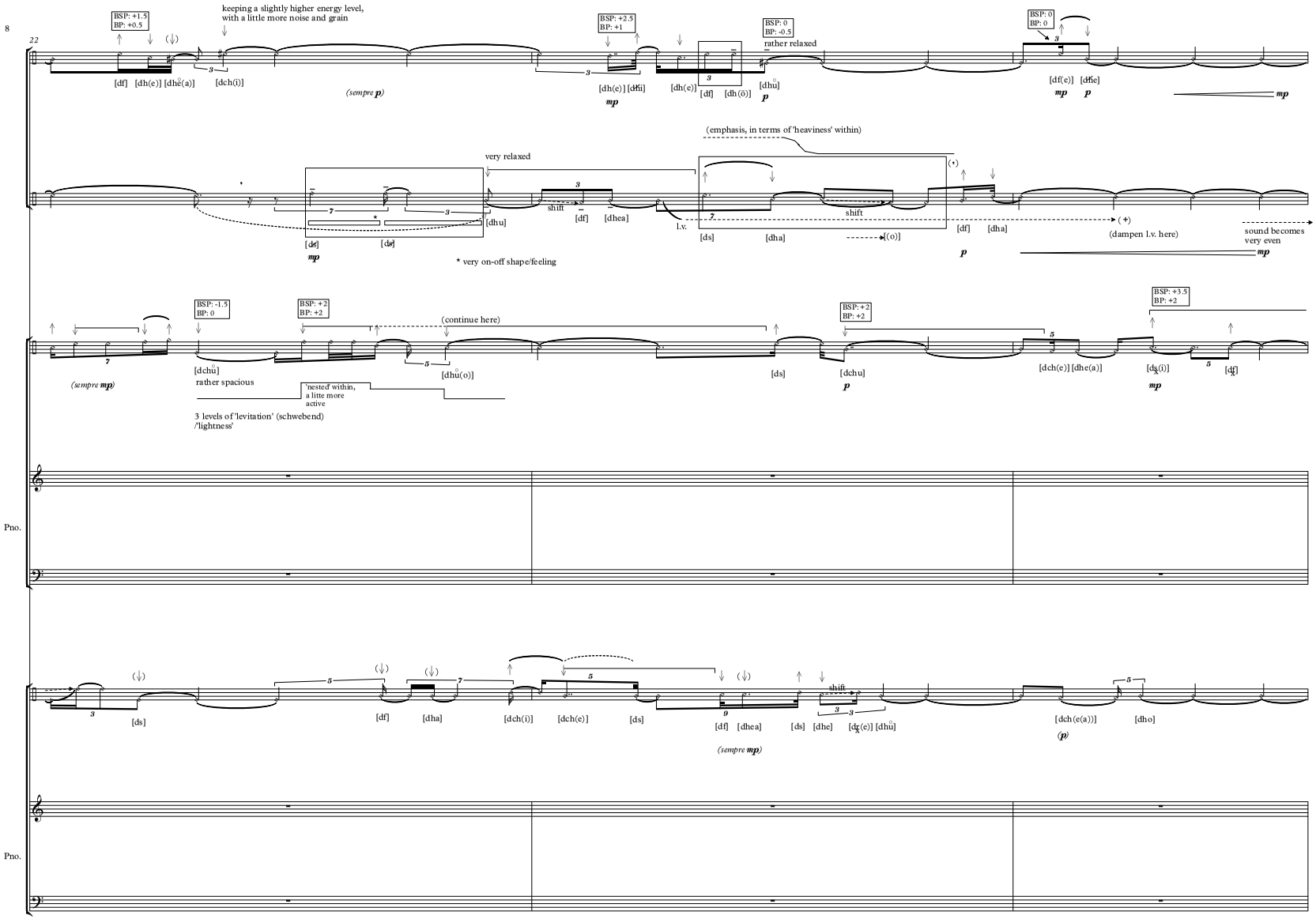

BSP: -1.5
BP: 0
calm; rather stable, but with inner power and of foreshadowing quality
BSP: 0
BP: 0
[dh] [df] [dhä] mp
[ds] [dha] [dg] [df]* p
* more white noise-like as part of the sound
[dsh] [df] [dha]
l.v. [dha]
almost loose (esp. in the middle of the sound)
breathing out, following the slightly increasing breathing-in-process
prolonged breathing-in, though a little ambiguous
[dge] [dhea] p
[dfh(e)]
[dhe] [dchi] [dh(ü)]
[df] [dh(e)] [ds] [df] [dhu(o)] [dh(ö)]
(very inconspicuous cresc.) mp
Pno.
BSP: +2
BP: +2
short
BSP: +1
BP: +0,5
[ds] [df] [dchea] [ds] [ft] [dha] [ds] [dhu] [dchü] [i] [dho]
(sempre mp)
Pno.


4
BSP: -3
BP: -1
BSP: +1.5
BP: +0
'heavy-ness'
very softly, almost caressing
[ds] [dh(i)] [dh(e)]
[df] [dh(e)] [dh(ü)] [ds(e)]
[dha]
[dha]*
[dh(e)]
mp
* very 'stummes h' (rather pure sound)
calm, becoming a little stronger
shift
shift
[dh(u)] [df]
BSP: +2.5
BP: +2
BSP: +1.5
BP: +0.5
[df] [dh(u)]
[df] [df] [dhe]
[dhea] [dha] [dhe(o)] [(o)]
mp
p
BSP: +1.5
BP: +0.5
like a glimpse of a different 'space'
BSP: +0.5
BP: 0
(not connected to before)
BSP: +1
BP: +1.5
breathe in
breathe out
(breathe out but this taking place within the breathing in (=part of the breathing)
[df] [dhe] [ds] [dch(u)]
[dh(e)]
[df]
[dh(e)]
[dh(e)]
[(a)]
p
mp
Pno.
breathing out, but feels like higher-energy
BSP: +1
BP: +0.5
like a glimpse/a window onto/into a different spacial extent
BSP: +2
BP: +2.5
a little tenser, denser, but not nervous, but of a "faster" world
BSP: +0.5
BP: +1
BSP: +2.5
BP: +2.5
BSP: +2
BP: +1
[dch]
[dchô]
with a lot of space
[f]
l.v.
[df] [df]
[dch(e)] [dch(i)(e)]
[dh(e)-a]
[ds(i)] [dha]
[dhi(e)] [ds(e)]
[df]
[dhu]
p
mp
p
Pno.

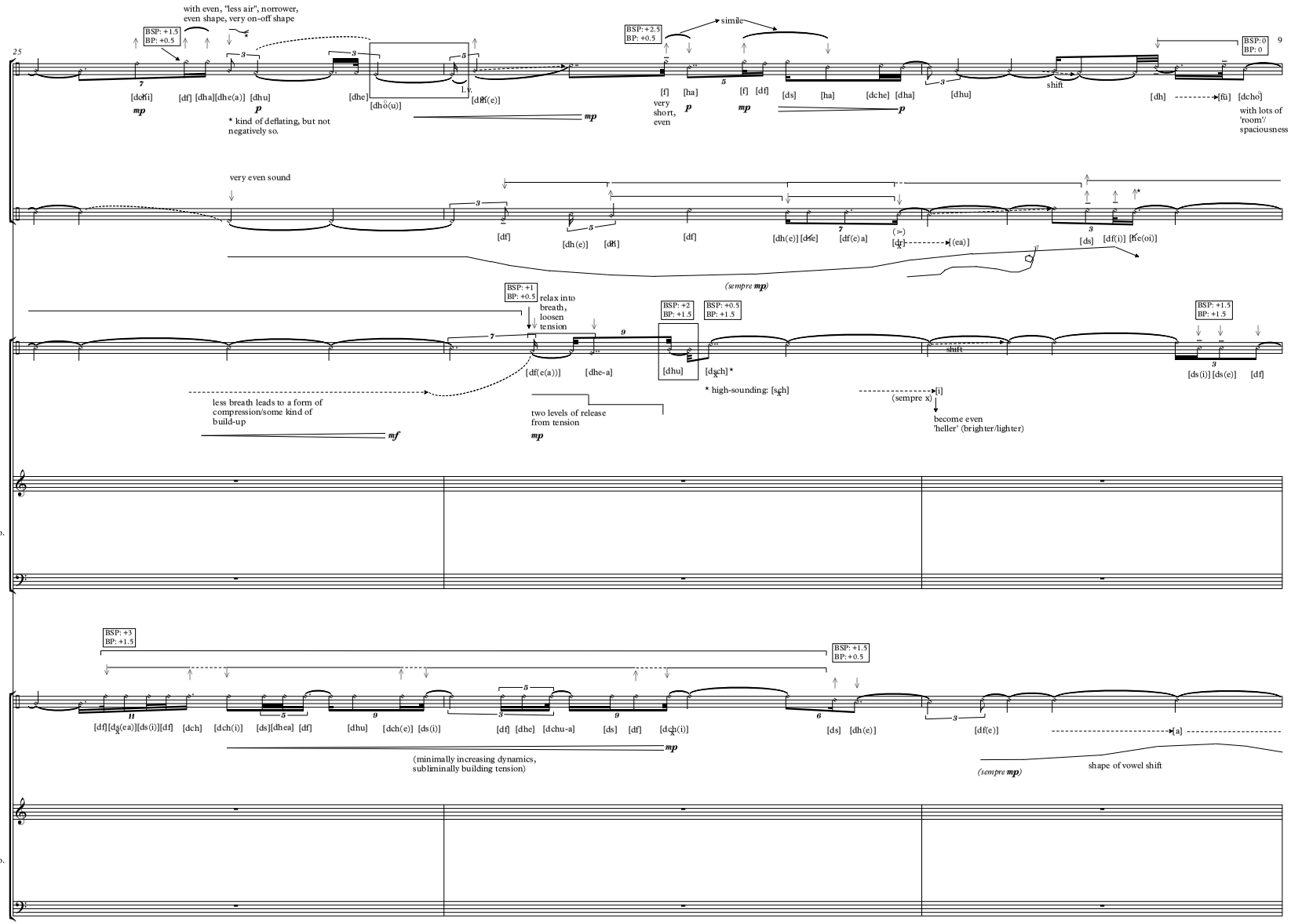

BSP: +1.5
BP: 0
simile
'window'
BSP: -2
BP: -1.5
relaxed, low sounding
BSP: +1
BP: 0
[f] [dhe][dhi] [dhe] [dhe][dche(i)][df] [df] [dhi] [dh(u)]
[df(e)][dch(e)]
[dch(i)][dch(e)] [dch] [dh(ü)][df]
[dch(e)] [dha]
[df] [df]
[dhê]
[f] [dha] [dha]
(sempre mp)
BSP: +2.5
BP: +1.5
BSP: +1.5
BP: +1.5
BSP: +2.5
BP: +2
(1 breath)
shift
[df] [dha]*
* open sounding
[ds] [dhe] [dha] [f]
mp
[dru(h)] [dhâ]
[df] [dh(u)] [ds] [dhe] [dhe]
(sempre mp)
BSP: +2
BP: +2
BSP: +1
BP: +1.5
BSP: +3
BP: +2
BSP: +1
BP: +1.5
BSP: +2
BP: +1.5
shift
calm (but really calm by itself, not part of breathing part , or calming down from before)
[(e)] [ds] [fi] [dh(e)] [ds] [dchô]
[(o)/u]
[dg] [df] [dsi] [dh(e)][df]
[ch(u)]
[dche] [df] [dhu]
(sempre mp)
Pno.
BSP: +2.5
BP: +2
BSP: 0
BP: +0.5
BSP: +2
BP: +1.5
BSP: +1
BP: +0.5
minimally deflating, relaxing...
[dchi] [ds]
[ds] [df] [dhe(i)] [dhu]
mp
shift
[ds(e)]
[e(i)]
[(i)]
p
[fe-i]
mp
[df(i)] [ds(i)] [dje-ô]
[dch(e)]
Pno.

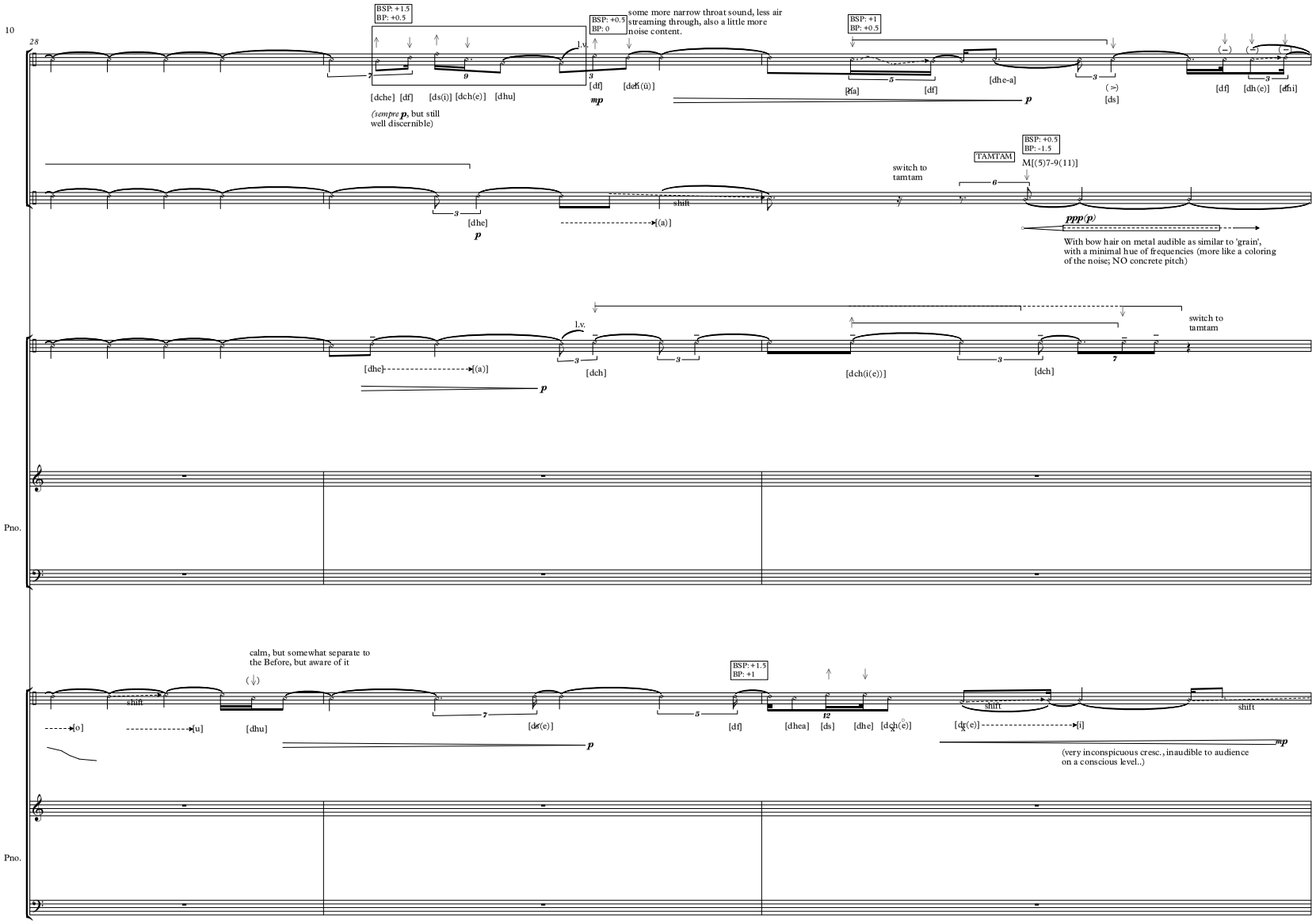

6
BSP: +1.5
BP: +1
BSP: +4.5
BP: +1.5
BSP: +1.5
BP: +1
[dh(e)]-->[d(s)e]
[dʃ]*
[dh(e)]
[(u)]
* short, decidedly (portato), even sound, very on-off, a little louder than what's surrounding it
[ds]
[df]
[dhû][dh(ü)][ds]
[i]
(sempre mp)
[df]
[dhô(e)]
[dʃ][dch(ü)][df]
[dʃ]
[ds][dh(u)]
[df]
[dh(e)--a]
[ch]
[i]
BSP: +1
BP: +1
BSP: +2.5
BP: +2
BSP: +2.5
BP: +2
[df]
[dh(a)]
[f]
[df]
[df]
[dha]
[df]
[ds]
[dho]
[dhu]
[dh(e)]
[dʃ(e)]
[dh]*
p
* almost 'stummes h' (pronounciation of 'stummes h' in German)
[ft]
[ha]
* accelerated bow, rather short, rather noisy, with frequency band shifting upwards
simile to just before
BSP: -3
BP: 0
BSP: +4
BP: +3
BSP: -3
BP: 0
BSP: +2
BP: +1.5
very soft, very relaxed
[df]
shift
[dhu]
[dch̊]*
[f]
[dch̊]
p
very fast bow movement
* very low and wide space, like wind in vast spacious expanse
[dhu]
[dch]
somewhat 'heller' (Germ., brighter/lighter) sounding
[df]
[(d)hea]
[ds]
[dh(ü)]
Pno.
[dh(e)]
[df]
[ds(i)]
[dhe]
p
BSP: +1.5
BP: +2
BSP: +0.5
BP: -1
[s(i)]
[ds]
[dge]
[df]
[ds]
[dchi]
(p), but of higher energy, so it is still well heard/audible despite lower dynamics
[dfü/i]
[ds]
[df--]
[-t]
[ds]
[dh(ô)]
[dh(e)]
[dch(o)]
Pno.
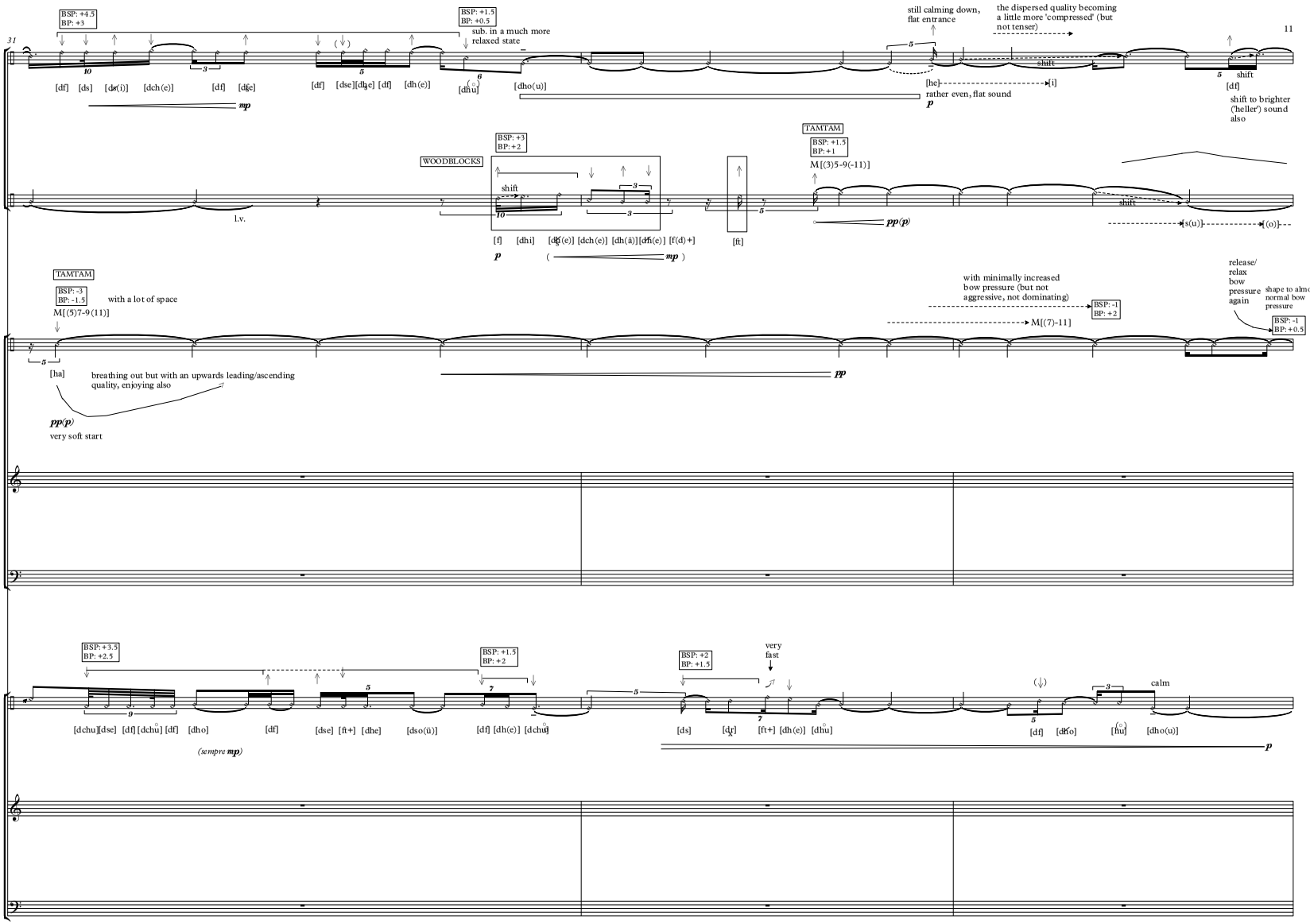

19
7
BSP: +2.5
BP: +1
[dch(e)] [ds] [df]—[dh] [dsi] [df] [ds]
[df(i)]
[dch(e)][dhe] [dh(i)]
BSP: -2
BP: -3
rather relaxed
[dch(e)]
(mp)
p
BSP: +3
BP: +2
a little more agitated
BSP: -2
BP: 0
[df] [dhe] [dh(i)] [df] [dh(e)]*
(sempre p)
* kind of a 'stummes h'
calming down
like 1 breath, let energy not drop
BSP: +3
BP: +2
conceptually still the same breath
BSP: +2
BP: +1.5
BSP: +0.5
BP: 0
[dhā] [dhe] [dhū]
mp
[dho]
[hū] [ds]
[dha]
[dh(e)]
shift
[ds] [dha]
[(m)f(hea)]
p
breathe in
shift
breathe out
BSP: +2
BP: +2
[df] [dhū]
mp
[ds] [dfō] [dsch(i)]
[ū]
[i]
(sempre mp)
[dr]
short and of high frequency
* though physically breathing out, it is basically a breathing in! (and this is not a paradox!)
Pno.
BSP: +1-5
BP: +1
BSP: +2.5
BP: +2.5
a little faster bow
BSP: 0
BP: -1
breathe in
breathe out
BSP: +2
BP: +1.5
[df]
[dhei] [dfa] [ds]
[f] [ds] [ds(i)] [dch]
[df] [dhe]
(sempre mp)
[a]
shift
mp
Pno.

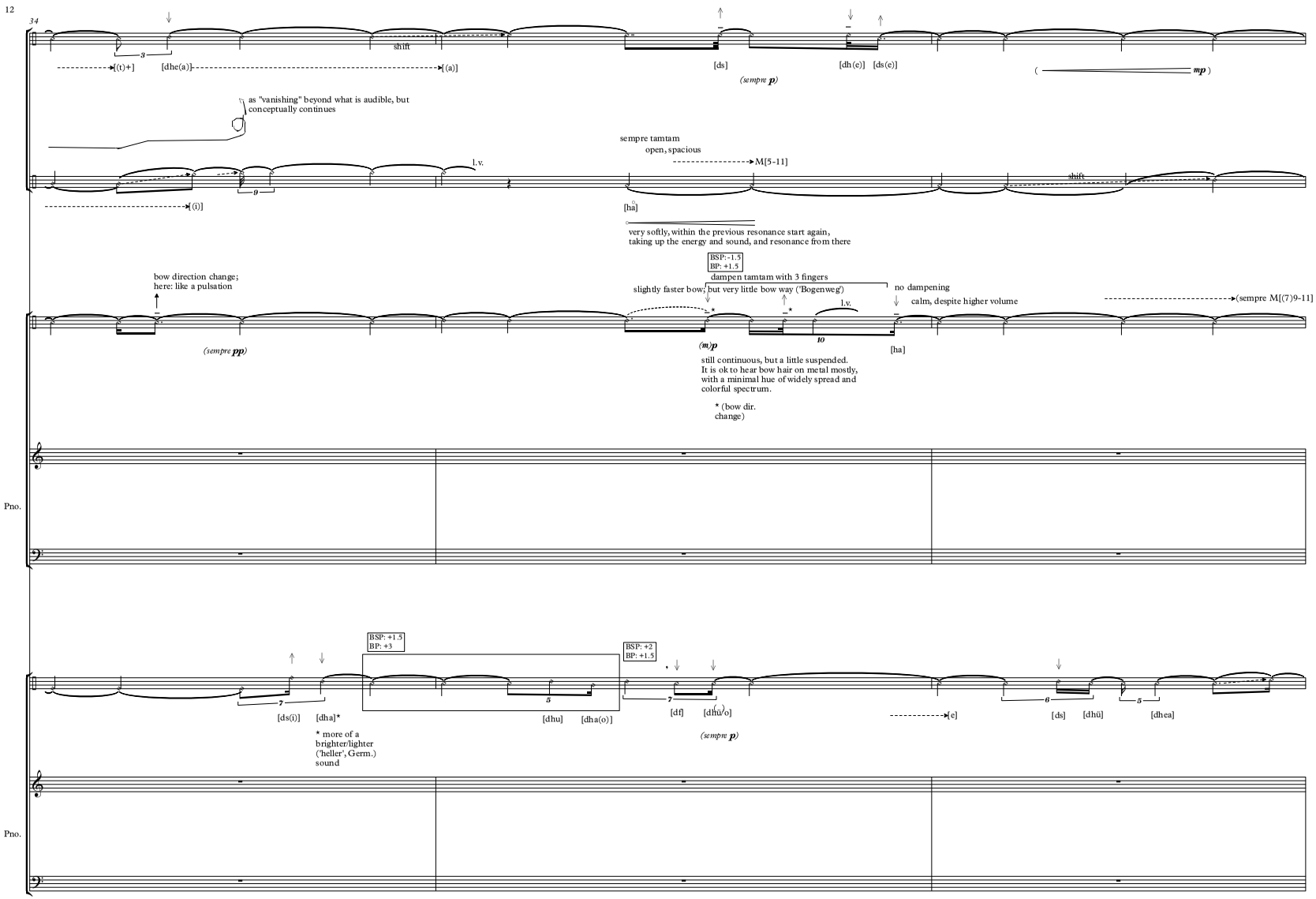

8
22
BSP: +1.5
BP: +0.5
keeping a slightly higher energy level,
with a little more noise and grain
BSP: +2.5
BP: +1
BSP: 0
BP: -0.5
rather relaxed
BSP: 0
BP: 0
[df] [dh(e)] [dhe(a)] [dch(i)]
(sempre p)
[dh(e)] [dhi] [dh(e)] [df] [dh(ö)] [dhu]
mp p
[df(e)] [dhe]
mp p
mp
very relaxed
(emphasis, in terms of 'heaviness' within)
shift
[df] [dhea]
l.v.
shift
[dhu]
[ds] [ds]
mp
[ds] [dha] [(o)]
[df] [dha]
p
(dampen l.v. here)
sound becomes
very even
mp
* very on-off shape/feeling
BSP: -1.5
BP: 0
BSP: +2
BP: +2
(continue here)
BSP: +2
BP: +2
BSP: +3.5
BP: +2
(sempre mp)
[dchu]
rather spacious
[dhu(o)]
'nested' within,
a litte more
active
3 levels of 'levitation' (schwebend)
/'lightness'
[ds]
[dchu]
p
[dch(e)] [dhe(a)] [dx(i)] [df]
mp
Pno.
(↓)
[ds]
[df] [dha] [dch(i)] [dch(e)] [ds]
[df] [dhea] [ds] [dhe] [dx(e)] [dhü]
shift
(sempre mp)
[dch(e(a))] [dho]
(p)
Pno.

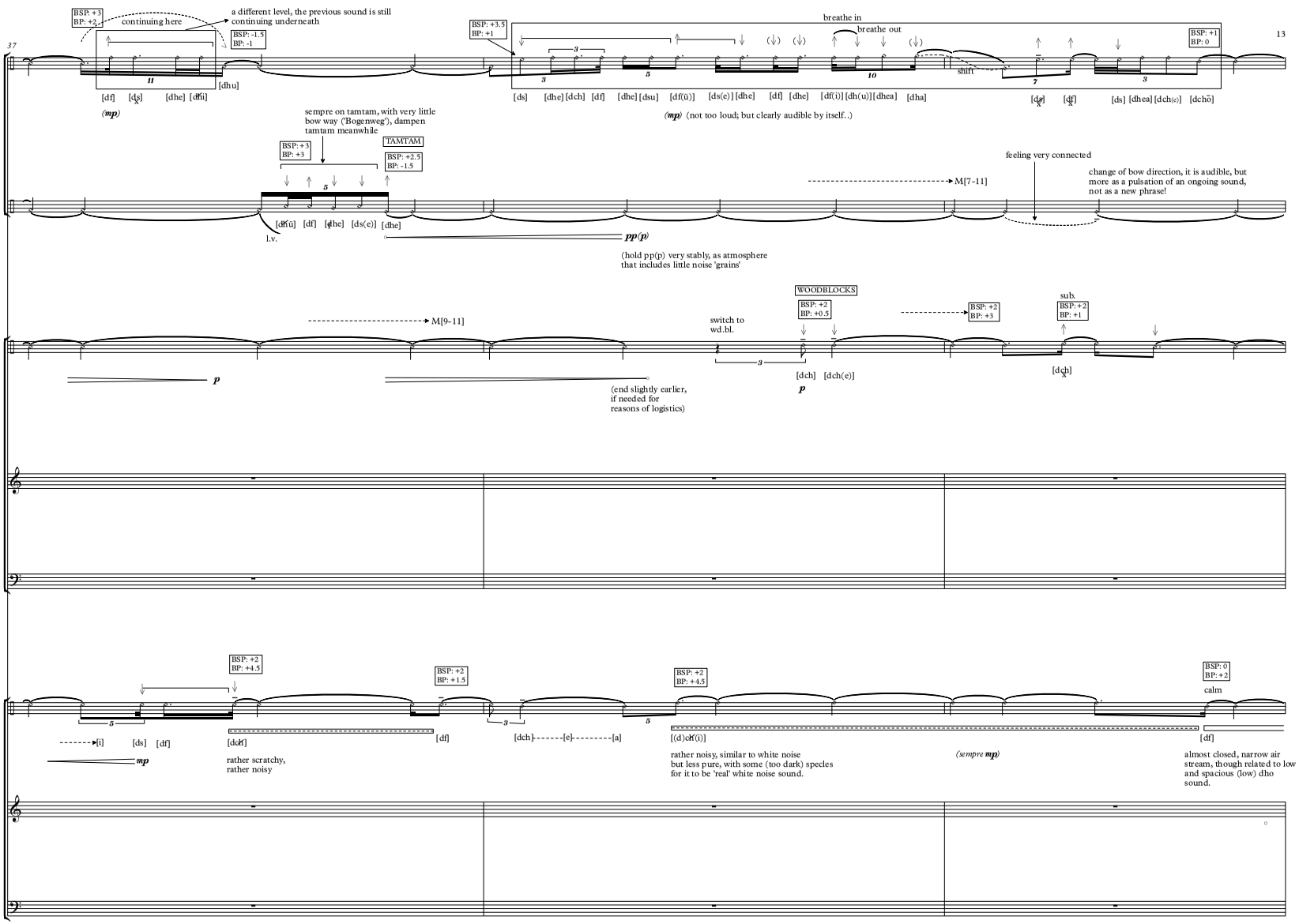
160

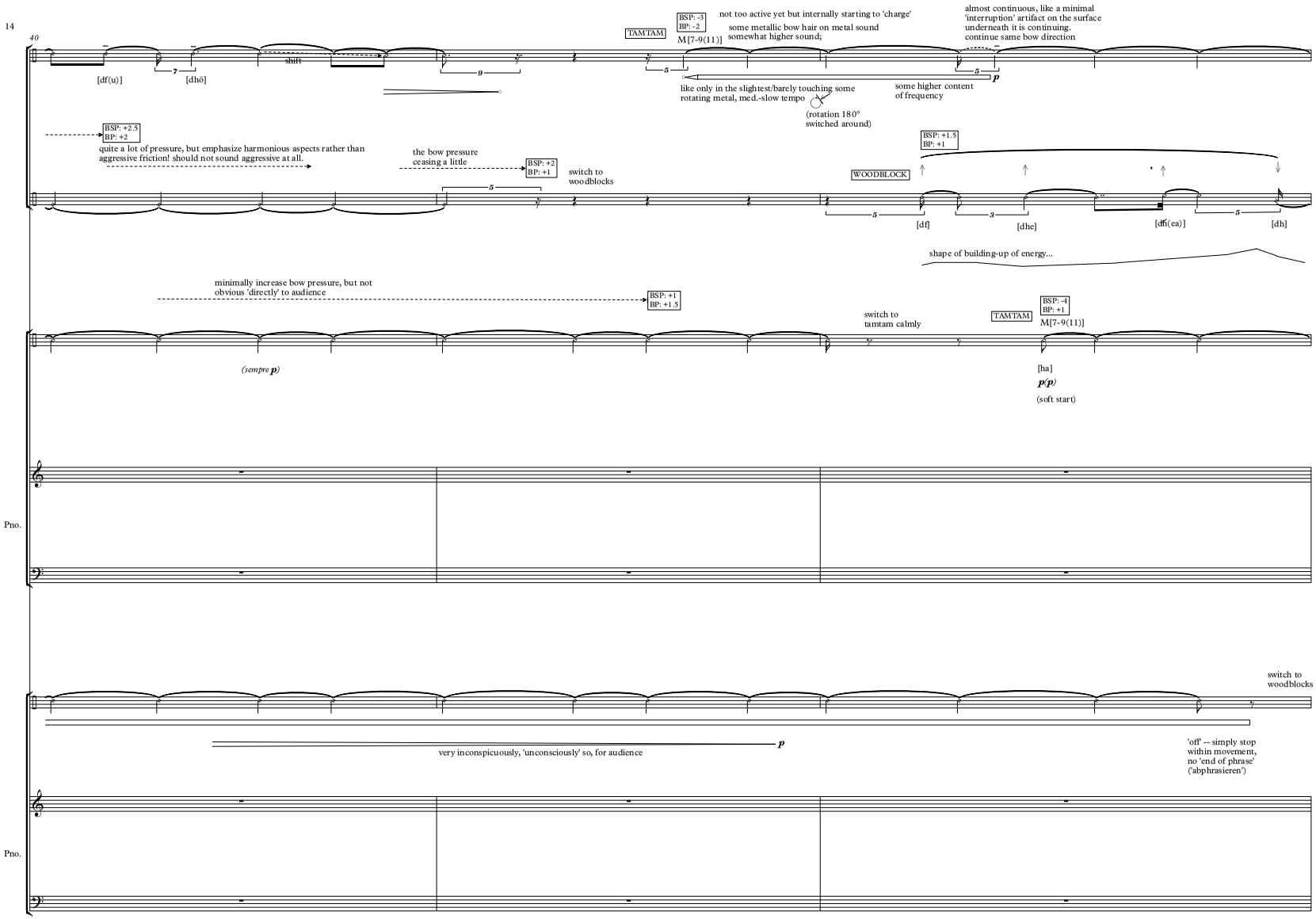

with even, "less air", narrower, even shape, very on-off shape
BSP: +1.5
BP: +0.5
25
[dch(i)]
mp
[df] [dha][dhe(a)] [dhu]
p
* kind of deflating, but not negatively so.
[dhe]
[dhö(u)]
l.v.
[dh(e)]
mp
BSP: +2.5
BP: +0.5
simile
[f] very short, even
[ha]
p
[f] [df]
mp
[ds] [ha] [dche] [dha]
p
[dhu]
shift
BSP: 0
BP: 0
9
[dh] [fü] [dchö]
with lots of 'room'/ spaciousness
very even sound
[df]
[dh(e)] [dh]
[df]
[dh(e)] [dhe]
[df(e)a]
(>)
[dh] [(ea)]
[ds] [df(i)] [fe(oi)]
(sempre mp)
BSP: +1
BP: +0.5
relax into breath, loosen tension
BSP: +2
BP: +1.5
BSP: +0.5
BP: +1.5
BSP: +1.5
BP: +1.5
shift
[df(e(a))] [dhe-a]
[dhu]
[dsch] *
* high-sounding: [sch]
[ds(i)] [ds(e)] [df]
less breath leads to a form of compression/some kind of build-up
mf
two levels of release from tension
mp
(sempre x)
[i]
become even 'heller' (brighter/lighter)
Pno.
BSP: +3
BP: +1.5
BSP: +1.5
BP: +0.5
[df] [dsch(ea)] [ds(i)] [df] [dch] [dch(i)] [ds] [dhea] [df] [dhu] [dch(e)] [ds(i)] [df] [dhe] [dchu-a] [ds] [df] [dsch(i)] [ds] [dh(e)] [df(e)] [a]
mp
(minimally increasing dynamics, subliminally building tension)
(sempre mp)
shape of vowel shift
Pno.

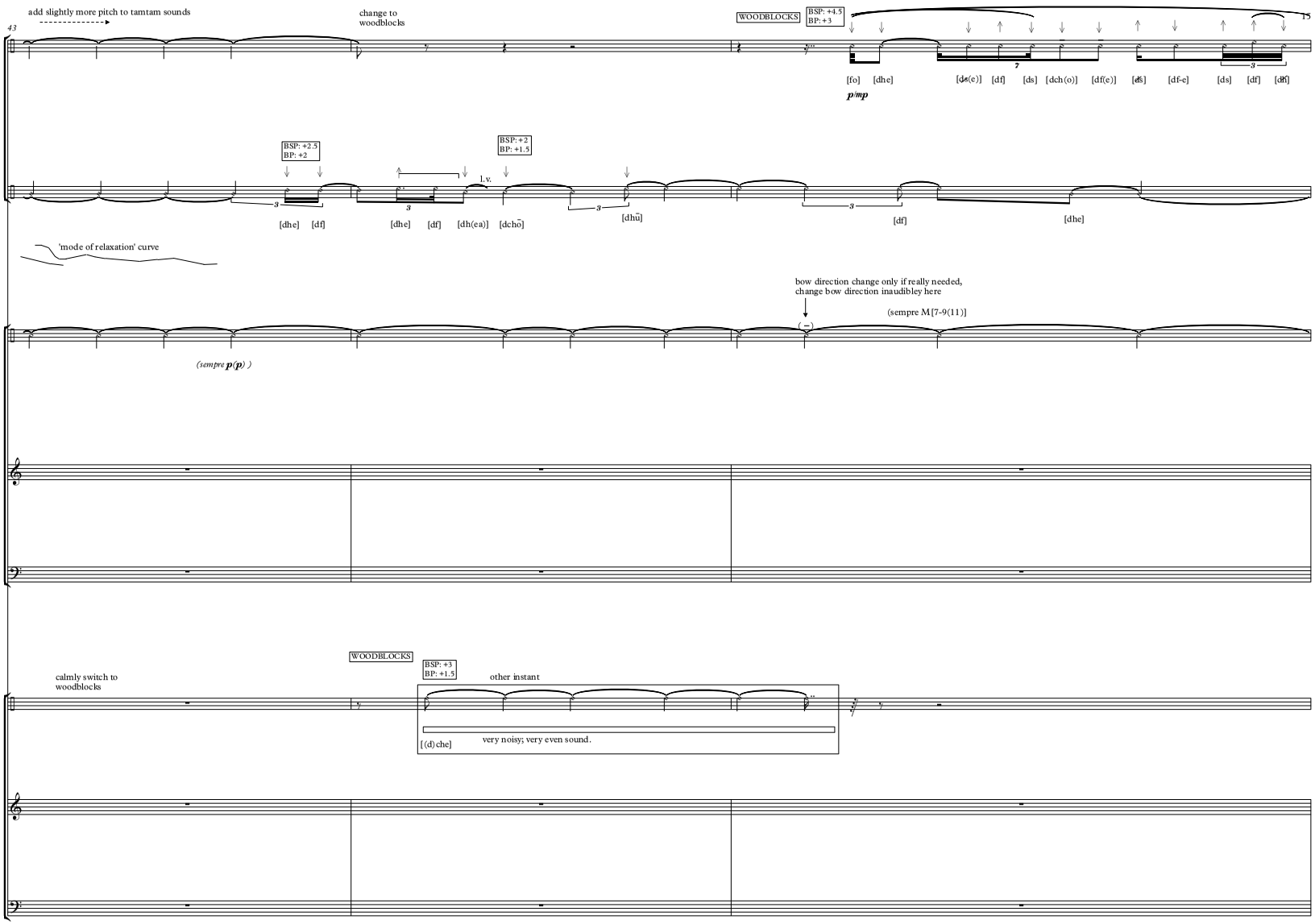

10
Pno.
BSP: +1.5
BP: +0.5
BSP: +0.5
BP: 0
some more narrow throat sound, less air streaming through, also a little more noise content.
BSP: +1
BP: +0.5
[dche] [df] [ds(i)] [dch(e)] [dhu]
(sempre p, but still well discernible)
[df] [deh(ü)]
[dhe-a]
[ds]
[df] [dh(e)] [dhi]
switch to tamtam
TAMTAM
BSP: +0.5
BP: -1.5
M[(5)7-9(11)]
shift
[dhe]
[(a)]
ppp(p)
With bow hair on metal audible as similar to 'grain', with a minimal hue of frequencies (more like a coloring of the noise; NO concrete pitch)
switch to tamtam
[dch]
[dch(i(e))]
calm, but somewhat separate to the Before, but aware of it
BSP: +1.5
BP: +1
shift
[o]
[u]
[dhu]
[de(e)]
[df]
[dhea]
[ds]
[dhe]
[dch(e)]
[de(e)]
[i]
(very inconspicuous cresc., inaudible to audience on a conscious level..)

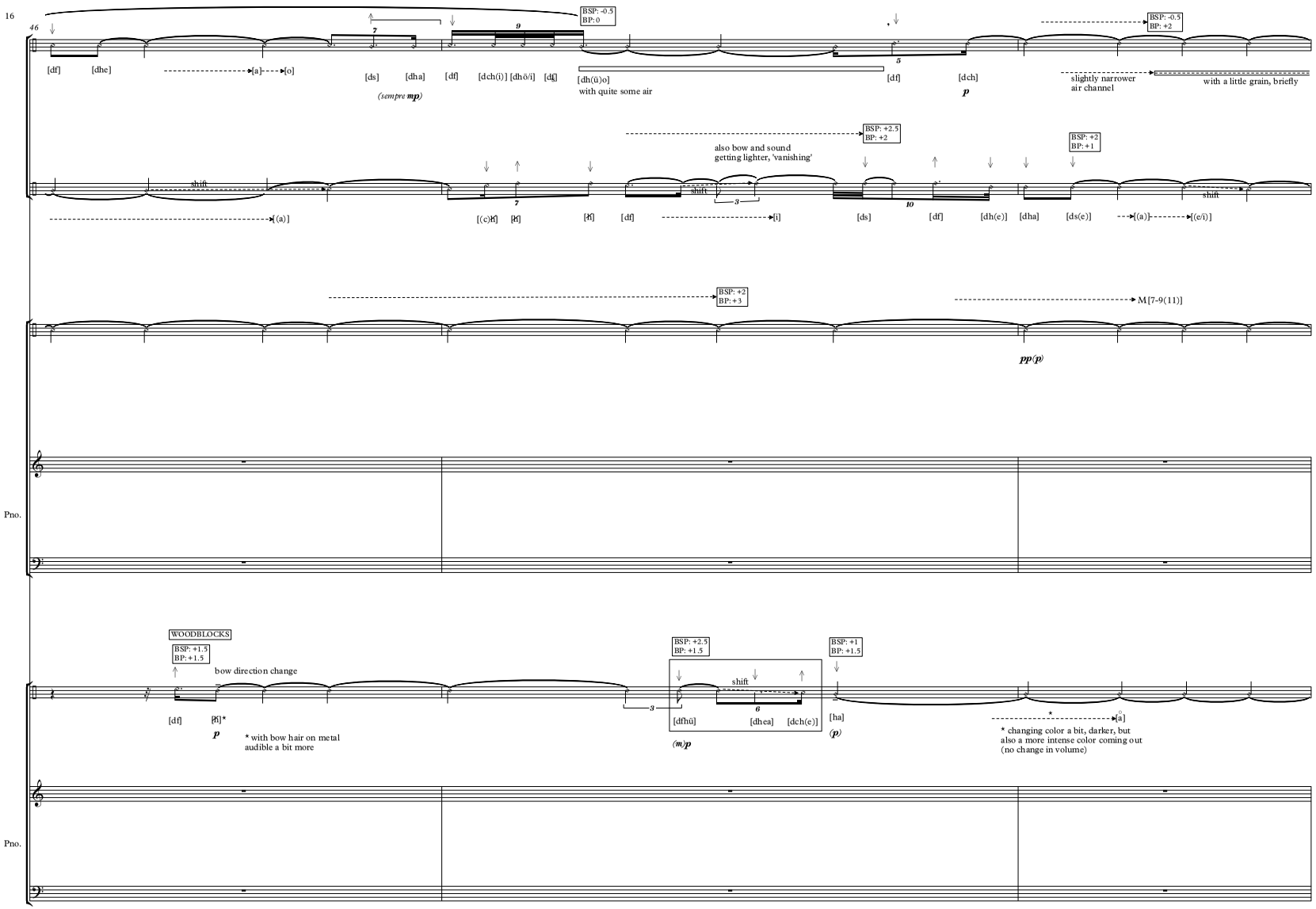

31
BSP: +4.5
BP: +3
BSP: +1.5
BP: +0.5
sub. in a much more relaxed state
still calming down, flat entrance
the dispersed quality becoming a little more 'compressed' (but not tenser)
11
shift
shift
shift to brighter ('heller') sound also
[df] [ds] [dsʲ(i)] [dch(e)] [df] [dʲe] [df] [dse][dʲe] [df] [dh(e)] [dhu] [dho(u)] [he] [i] rather even, flat sound
mp
p
WOODBLOCKS
BSP: +3
BP: +2
TAMTAM
BSP: +1.5
BP: +1
M[(3)5-9(-11)]
l.v.
shift
shift
[f] [dhi] [dʲe(e)] [dch(e)] [dh(ä)] [dʲh(e)] [f(d)+] [ft]
pp(p)
p
mp
TAMTAM
BSP: -3
BP: -1.5
with a lot of space
M[(5)7-9(11)]
with minimally increased bow pressure (but not aggressive, not dominating)
BSP: -1
BP: +2
M[(7)-11]
release/ relax bow pressure again
shape to almost normal bow pressure
BSP: -1
BP: +0.5
[ha]
breathing out but with an upwards leading/ascending quality, enjoying also
pp
pp(p)
very soft start
Pno.
BSP: +3.5
BP: +2.5
BSP: +1.5
BP: +2
BSP: +2
BP: +1.5
very fast
calm
[dchu][dse] [df][dchü] [df] [dho] [df] [dse] [ft+] [dhe] [dso(ü)] [df] [dh(e)] [dchü] [ds] [dʲe] [ft+] [dh(e)] [dhü] [df] [dʲo] [hü] [dho(u)]
(sempre mp)
p
Pno.

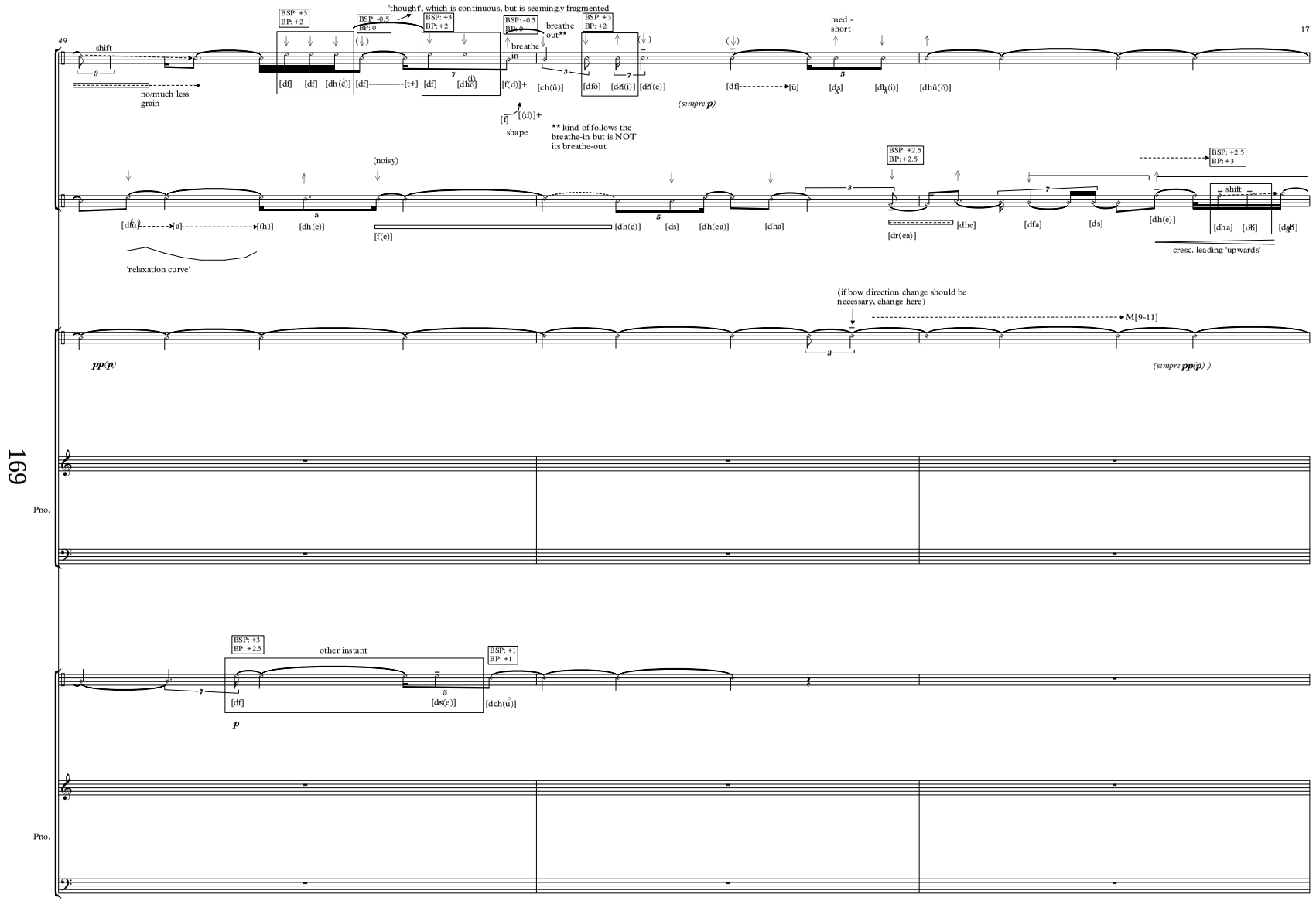

12
34
shift
[(i)+]
[dhe(a)]
[(a)]
[ds]
[dh(e)]
[ds(e)]
(sempre p)
(mp)
as "vanishing" beyond what is audible, but conceptually continues
sempre tamtam
open, spacious
M[5-11]
l.v.
shift
[(i)]
[hä]
very softly, within the previous resonance start again, taking up the energy and sound, and resonance from there
BSP: -1.5
BP: +1.5
dampen tamtam with 3 fingers
bow direction change; here: like a pulsation
slightly faster bow, but very little bow way ('Bogenweg')
no dampening
calm, despite higher volume
(sempre M[(7)9-11])
l.v.
(sempre pp)
(m)p
[ha]
still continuous, but a little suspended. It is ok to hear bow hair on metal mostly, with a minimal hue of widely spread and colorful spectrum.
* (bow dir. change)
Pno.
BSP: +1.5
BP: +3
BSP: +2
BP: +1.5
[ds(i)]
[dha]*
[dhu]
[dha(o)]
[df]
[dhü/o]
[e]
[ds]
[dhü]
[dhea]
* more of a brighter/lighter ('heller', Germ.) sound
(sempre p)
Pno.

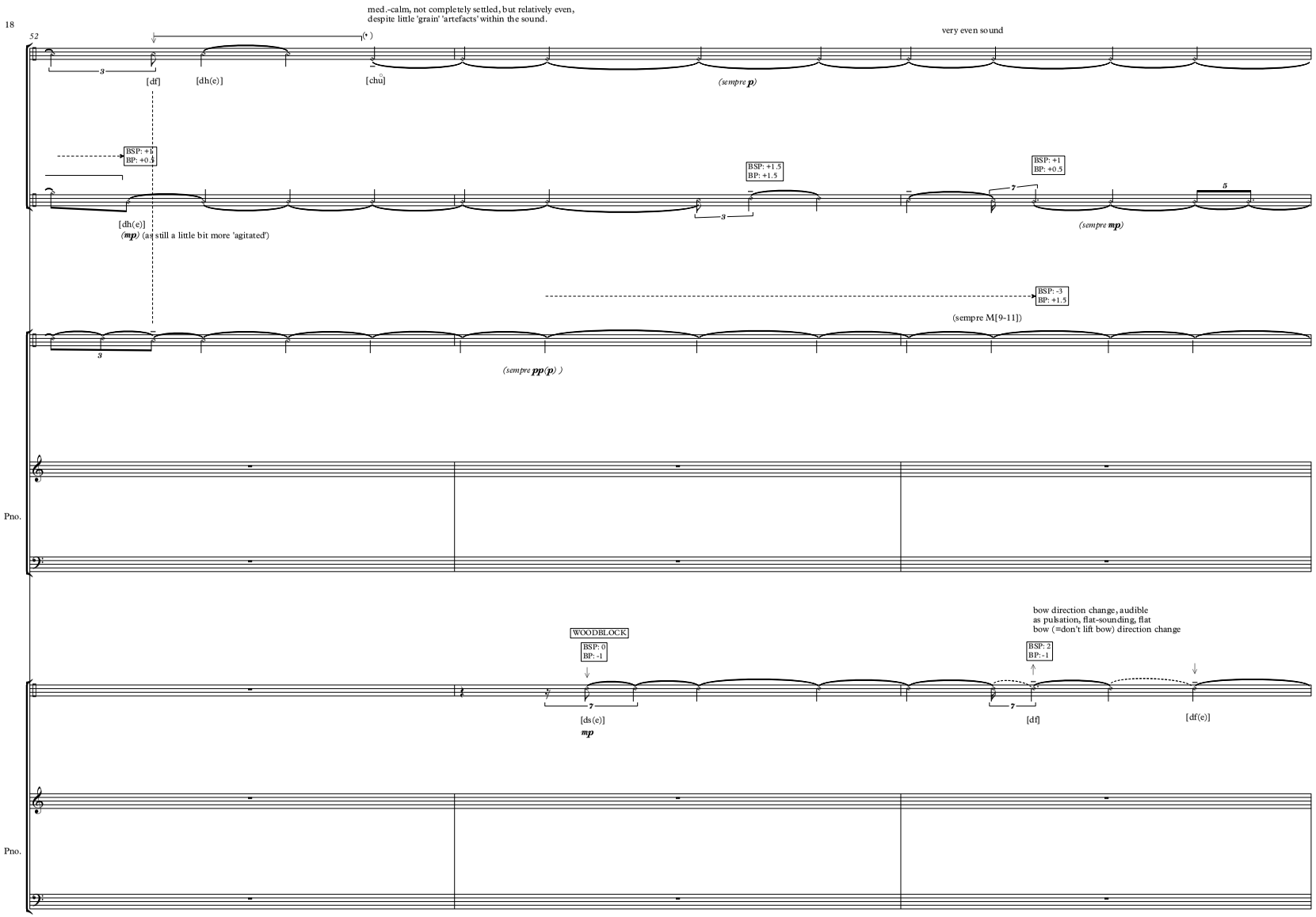

37
13
BSP: +3
BP: +2
continuing here
a different level, the previous sound is still continuing underneath
BSP: -1.5
BP: -1
[df] [ds] [dhe] [df'ü] [dhu]
⟨mp⟩
BSP: +3.5
BP: +1
breathe in
breathe out
shift
BSP: +1
BP: 0
[ds] [dhe] [dch] [df] [dhe] [dsu] [df'(ü)] [ds(e)] [dhe] [df] [dhe] [df'(i)] [dh(u)] [dhea] [dha] [dch] [df] [ds] [dhea] [dch(e)] [dchõ]
⟨mp⟩ (not too loud; but clearly audible by itself..)
sempre on tamtam, with very little bow way ('Bogenweg'), dampen tamtam meanwhile
TAMTAM
BSP: +3
BP: +3
BSP: +2.5
BP: -1.5
[df'ü] [df] [dhe] [ds(e)] [dhe]
l.v.
pp⟨p
feeling very connected
M[7-11]
change of bow direction, it is audible, but more as a pulsation of an ongoing sound, not as a new phrase!
(hold pp⟨p) very stably, as atmosphere that includes little noise 'grains'
M[9-11]
switch to wd.bl.
WOODBLOCKS
BSP: +2
BP: +0.5
BSP: +2
BP: +3
sub.
BSP: +2
BP: +1
p
[dch] [dch(e)]
p
[dch]
(end slightly earlier, if needed for reasons of logistics)
Pno.
BSP: +2
BP: +4.5
BSP: +2
BP: +1.5
BSP: +2
BP: +4.5
BSP: 0
BP: +2
calm
[i] [ds] [df]
mp
[dch'] [df]
[dch] [e] [a]
[(d)ch'(i)]
(sempre mp)
[df]
rather scratchy, rather noisy
rather noisy, similar to white noise but less pure, with some (too dark) specles for it to be 'real' white noise sound.
almost closed, narrow air stream, though related to low and spacious (low) dho sound.
Pno.

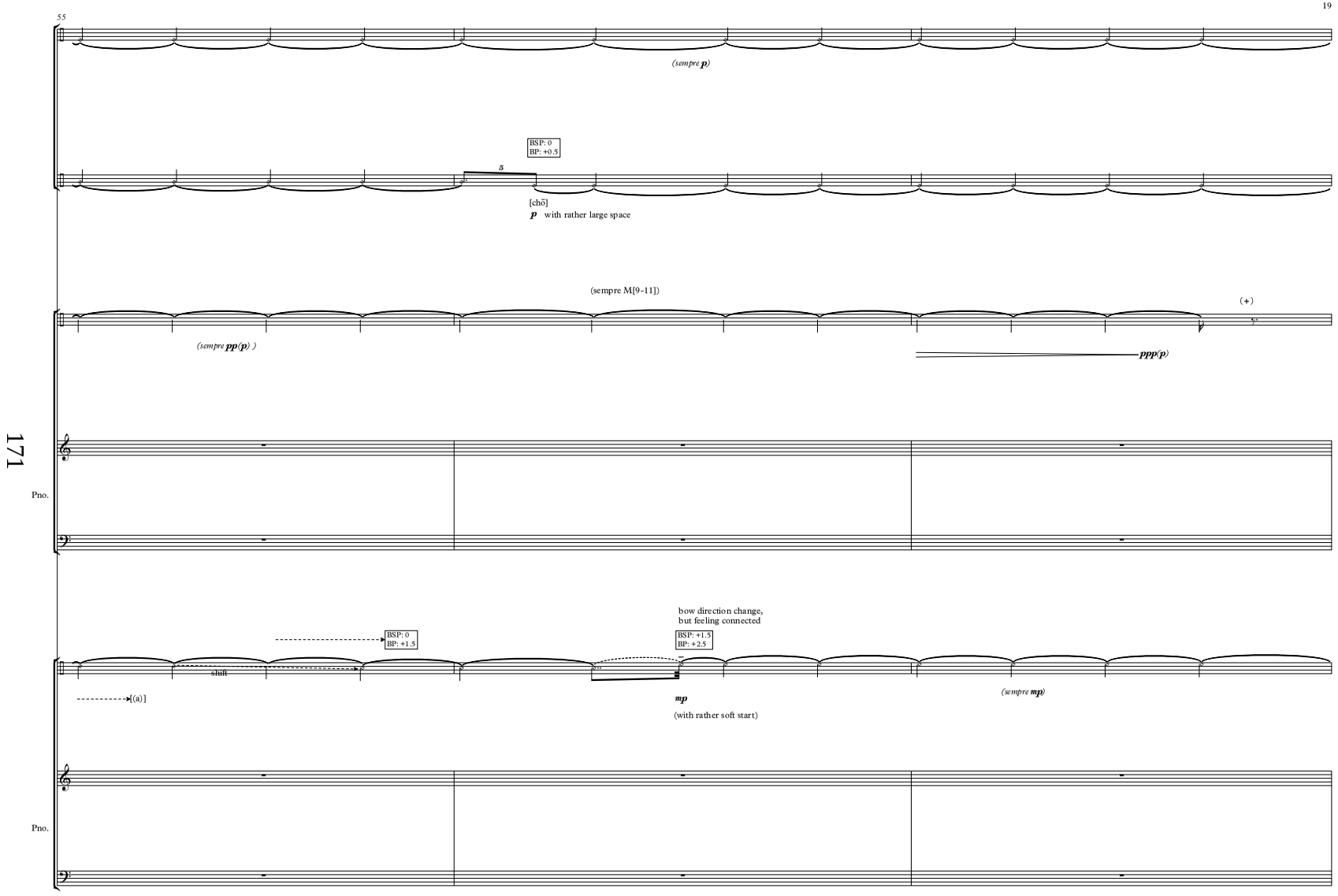

14
40
[df'(u)]
[dhō]
shift
TAMTAM
BSP: -3
BP: -2
M[7-9(11)]
not too active yet but internally starting to 'charge'
some metallic bow hair on metal sound
somewhat higher sound;
almost continuous, like a minimal
'interruption' artifact on the surface
underneath it is continuing.
continue same bow direction
like only in the slightest/barely touching some
rotating metal, med.-slow tempo
(rotation 180°
switched around)
some higher content
of frequency
BSP: +2.5
BP: +2
quite a lot of pressure, but emphasize harmonious aspects rather than
aggressive friction! should not sound aggressive at all.
the bow pressure
ceasing a little
BSP: +2
BP: +1
switch to
woodblocks
BSP: +1.5
BP: +1
WOODBLOCK
[df]
[dhe]
[dh̄f'(ea)]
[dh]
shape of building-up of energy...
minimally increase bow pressure, but not
obvious 'directly' to audience
BSP: +1
BP: +1.5
switch to
tamtam calmly
TAMTAM
BSP: -4
BP: +1
M[7-9(11)]
(sempre p)
[ha]
p(p)
(soft start)
Pno.
switch to
woodblocks
very inconspicuously, 'unconsciously' so, for audience
'off' -- simply stop
within movement,
no 'end of phrase'
('abphrasieren')
Pno.

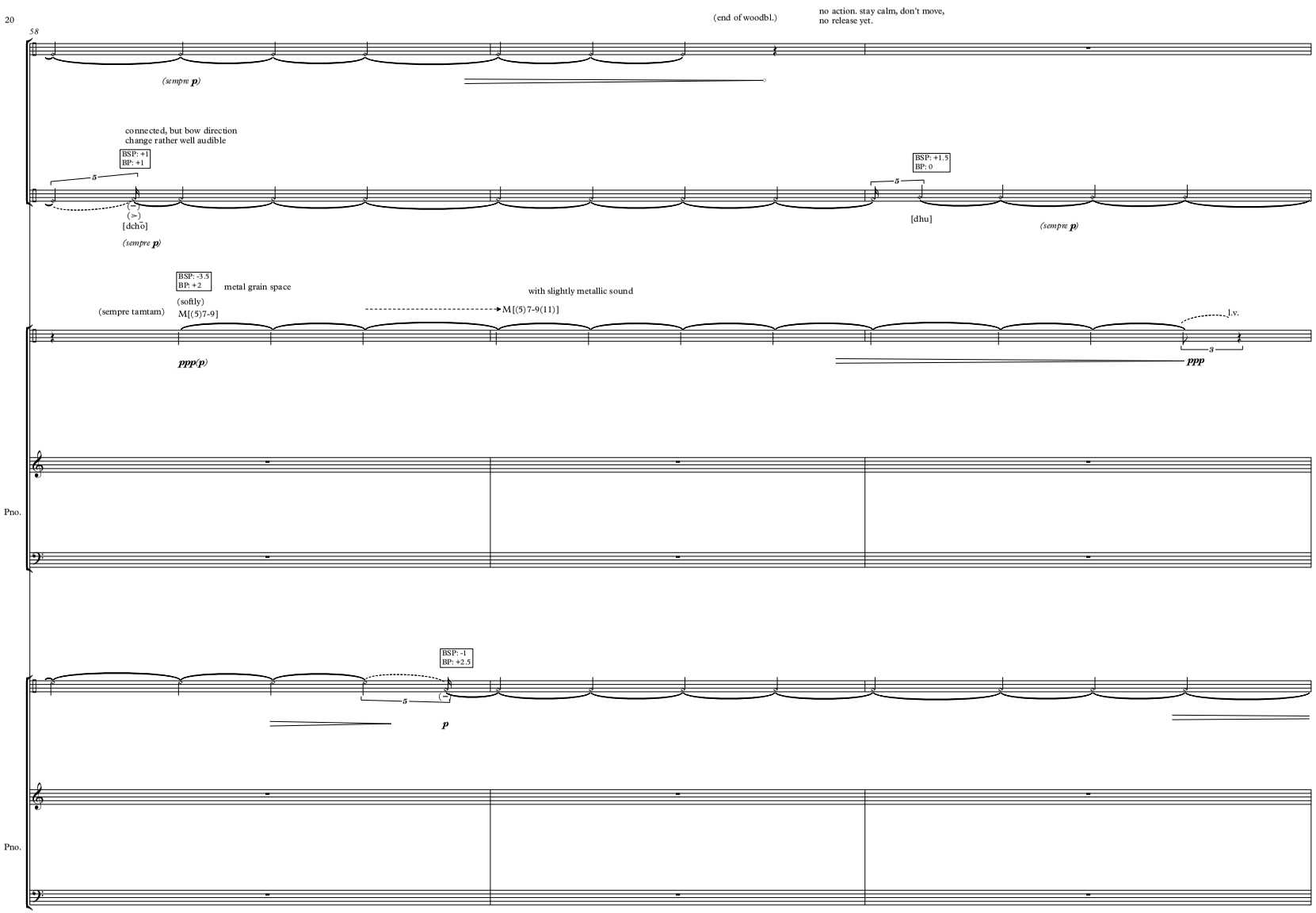

add slightly more pitch to tamtam sounds
change to woodblocks
WOODBLOCKS
BSP: +4.5
BP: +3
15
43
[fo] [dhe]
[dɕ(e)] [df] [ds] [dch(o)] [df(e)] [dɕ] [df-e] [ds] [df] [dfˀ]
p/mp
BSP: +2.5
BP: +2
BSP: +2
BP: +1.5
l.v.
[dhe] [df]
[dhe] [df] [dh(ea)] [dchõ]
[dhũ]
[df]
[dhe]
'mode of relaxation' curve
bow direction change only if really needed,
change bow direction inaudibley here
(sempre M[7-9(11)]
(sempre p(p))
Pno.
WOODBLOCKS
BSP: +3
BP: +1.5
calmly switch to woodblocks
other instant
[(d)che]
very noisy; very even sound.
Pno.

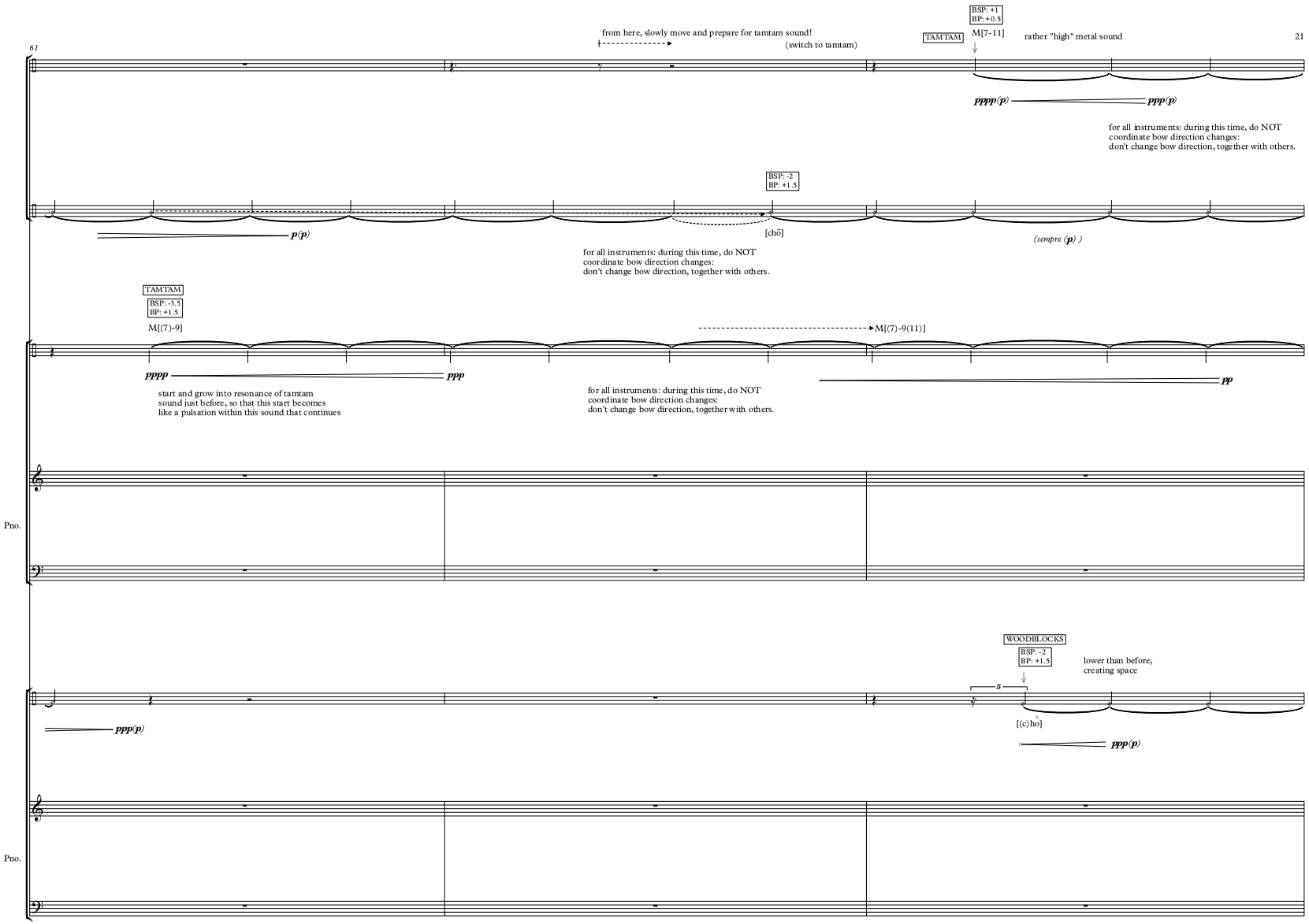

16
46
BSP: -0.5
BP: 0
BSP: -0.5
BP: +2
[df] [dhe] [a] [o]
[ds] [dha] [df] [dch(i)] [dhö/i] [df]
(sempre mp)
[dh(ü)o]
with quite some air
[df]
[dch]
p
slightly narrower
air channel
with a little grain, briefly
BSP: +2.5
BP: +2
BSP: +2
BP: +1
also bow and sound
getting lighter, 'vanishing'
shift
shift
shift
[(a)]
[(c)ʁ] [ʁ] [ʁ] [df] [i] [ds] [df] [dh(e)] [dha] [ds(e)] [(a)] [(e/i)]
BSP: +2
BP: +3
M[7-9(11)]
pp⟨p⟩
Pno.
WOODBLOCKS
BSP: +1.5
BP: +1.5
bow direction change
BSP: +2.5
BP: +1.5
BSP: +1
BP: +1.5
shift
[df] [ʁ]*
p
* with bow hair on metal
audible a bit more
[dfhū] [dhea] [dch(e)]
⟨m⟩p
[ha]
⟨p⟩
*
[ä]
* changing color a bit, darker, but
also a more intense color coming out
(no change in volume)
Pno.

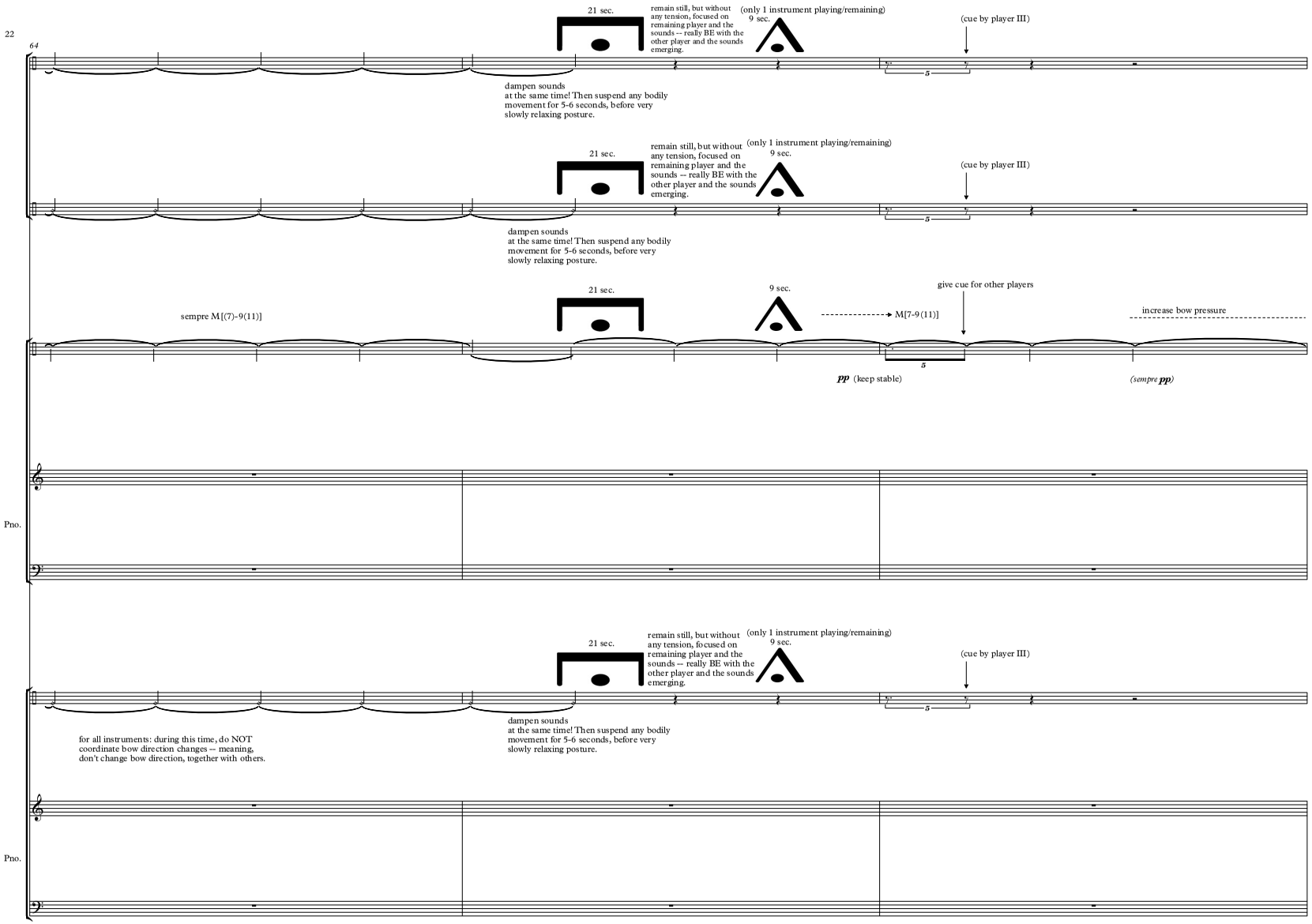

49
17
shift
no/much less grain
BSP: +3
BP: +2
BSP: -0.5
BP: 0
'thought', which is continuous, but is seemingly fragmented
BSP: +3
BP: +2
BSP: -0.5
BP: 0
breathe
breathe out**
BSP: +3
BP: +2
med.-short
[df] [df] [dh(i)] [df] [t+] [df] [dhõ] [f(d)]+ [ch(ü)] [dfõ] [dfʏ(i)] [dfʏ(e)] [df] [ü] [ds] [dhü(i)] [dhü(ö)]
shape
[f] [(d)]+
** kind of follows the breathe-in but is NOT its breathe-out
(sempre p)
(noisy)
BSP: +2.5
BP: +2.5
BSP: +2.5
BP: +3
shift
[dfü] [a] [(h)] [dh(e)] [f(e)] [dh(e)] [ds] [dh(ea)] [dha] [dr(ea)] [dhe] [dfa] [ds] [dh(e)] [dha] [dfʏ] [dsʃ]
'relaxation curve'
cresc. leading 'upwards'
(if bow direction change should be necessary, change here)
M[9-11]
pp(p)
(sempre pp(p))
BSP: +3
BP: +2.5
other instant
BSP: +1
BP: +1
[df] [ds(e)] [dch(ü)]
p
Pno.
Pno.
169

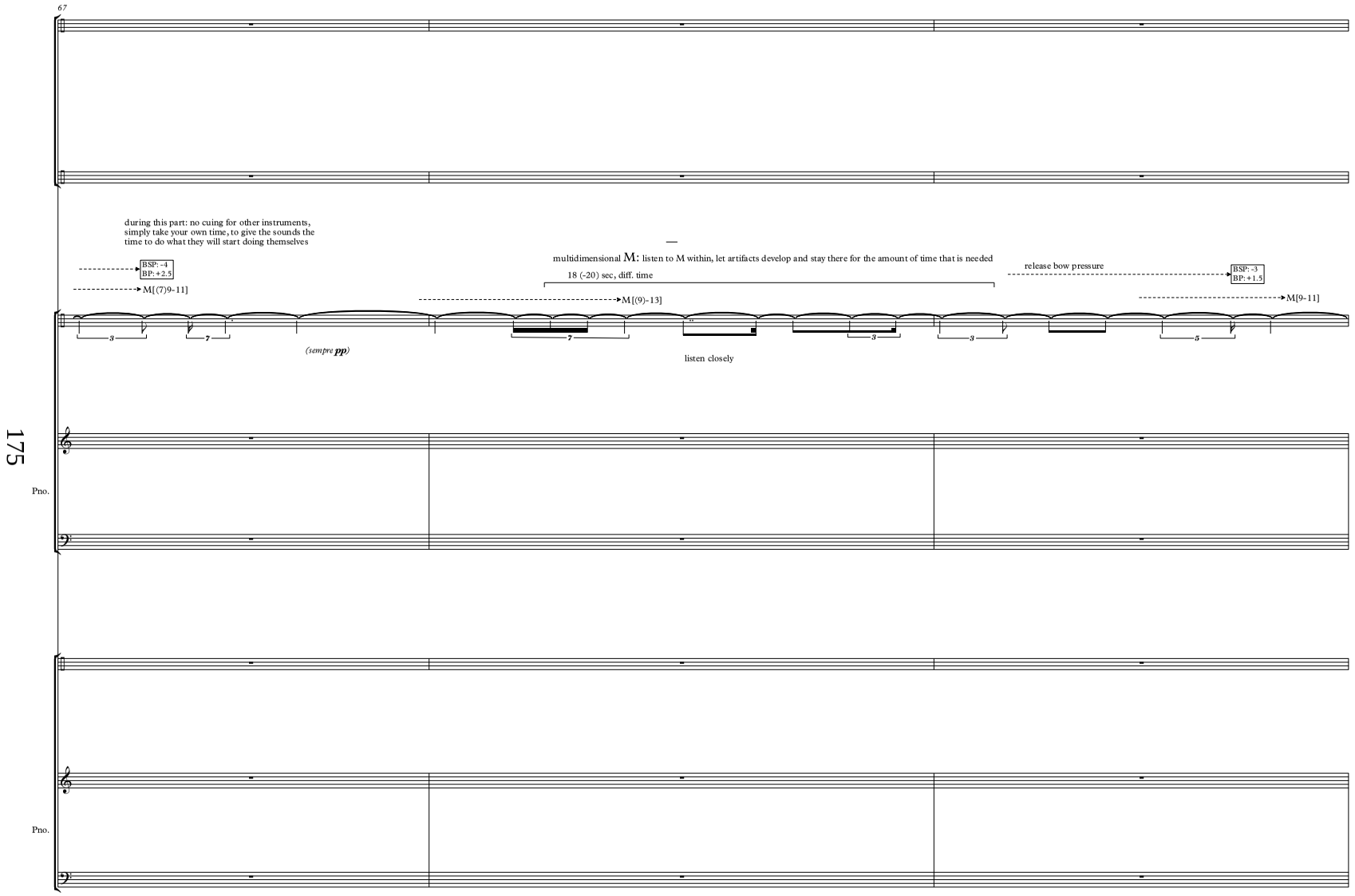

18
med.-calm, not completely settled, but relatively even,
despite little 'grain' 'artefacts' within the sound.
very even sound
[df]
[dh(e)]
[chû]
(sempre p)
BSP: +1
BP: +0.5
BSP: +1.5
BP: +1.5
BSP: +1
BP: +0.5
[dh(e)]
(mp) (a still a little bit more 'agitated')
(sempre mp)
BSP: -3
BP: +1.5
(sempre M[9-11])
(sempre pp(p))
Pno.
WOODBLOCK
BSP: 0
BP: -1
bow direction change, audible
as pulsation, flat-sounding, flat
bow (=don't lift bow) direction change
BSP: 2
BP: -1
[ds(e)]
mp
[df]
[df'(e)]
Pno.

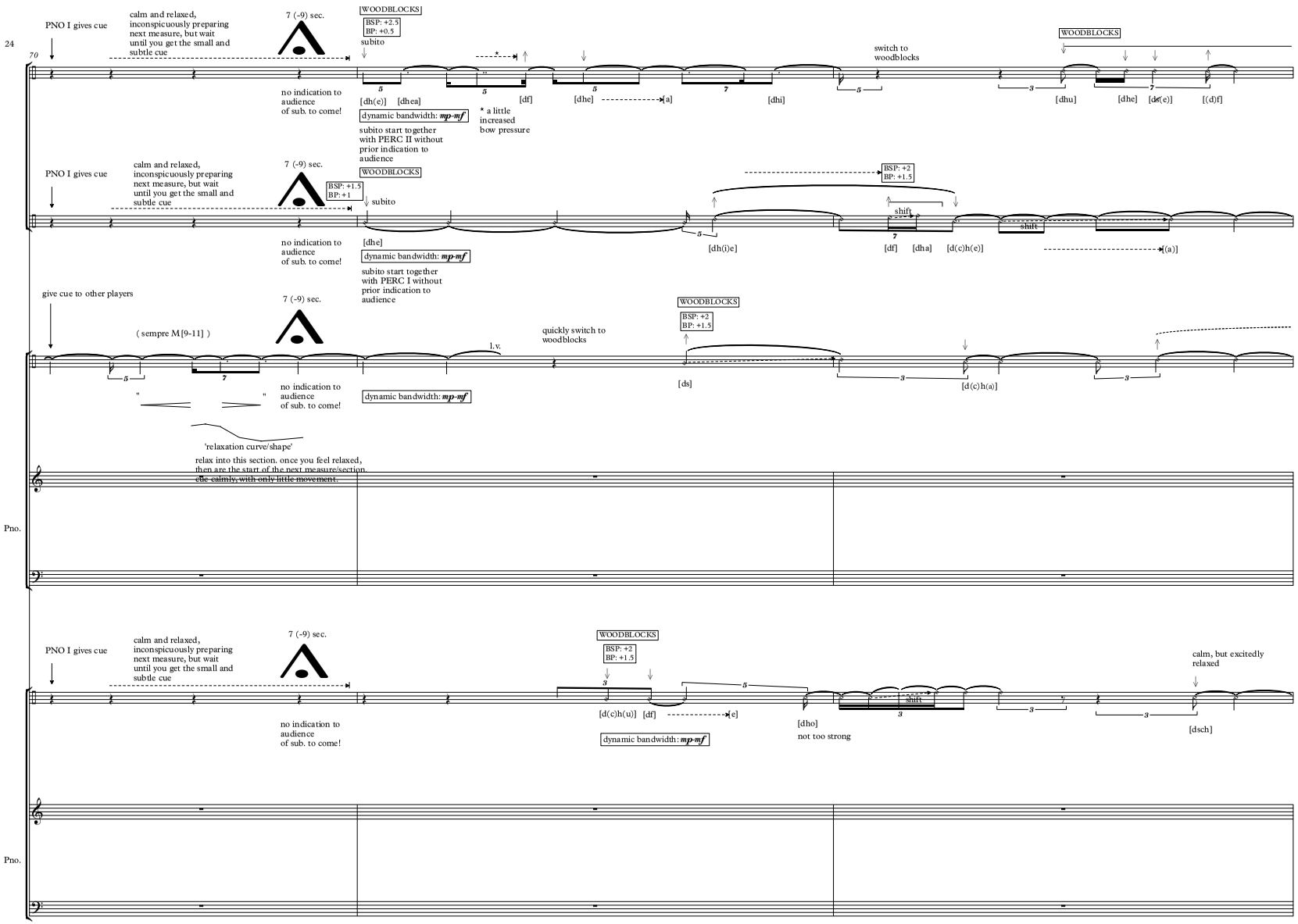

55
(sempre p)
BSP: 0
BP: +0.5
5
[chō]
p with rather large space
(sempre M[9-11])
(+)
(sempre pp(p))
ppp(p)
Pno.
bow direction change,
but feeling connected
BSP: 0
BP: +1.5
BSP: +1.5
BP: +2.5
shift
[(a)]
mp
(with rather soft start)
(sempre mp)
Pno.

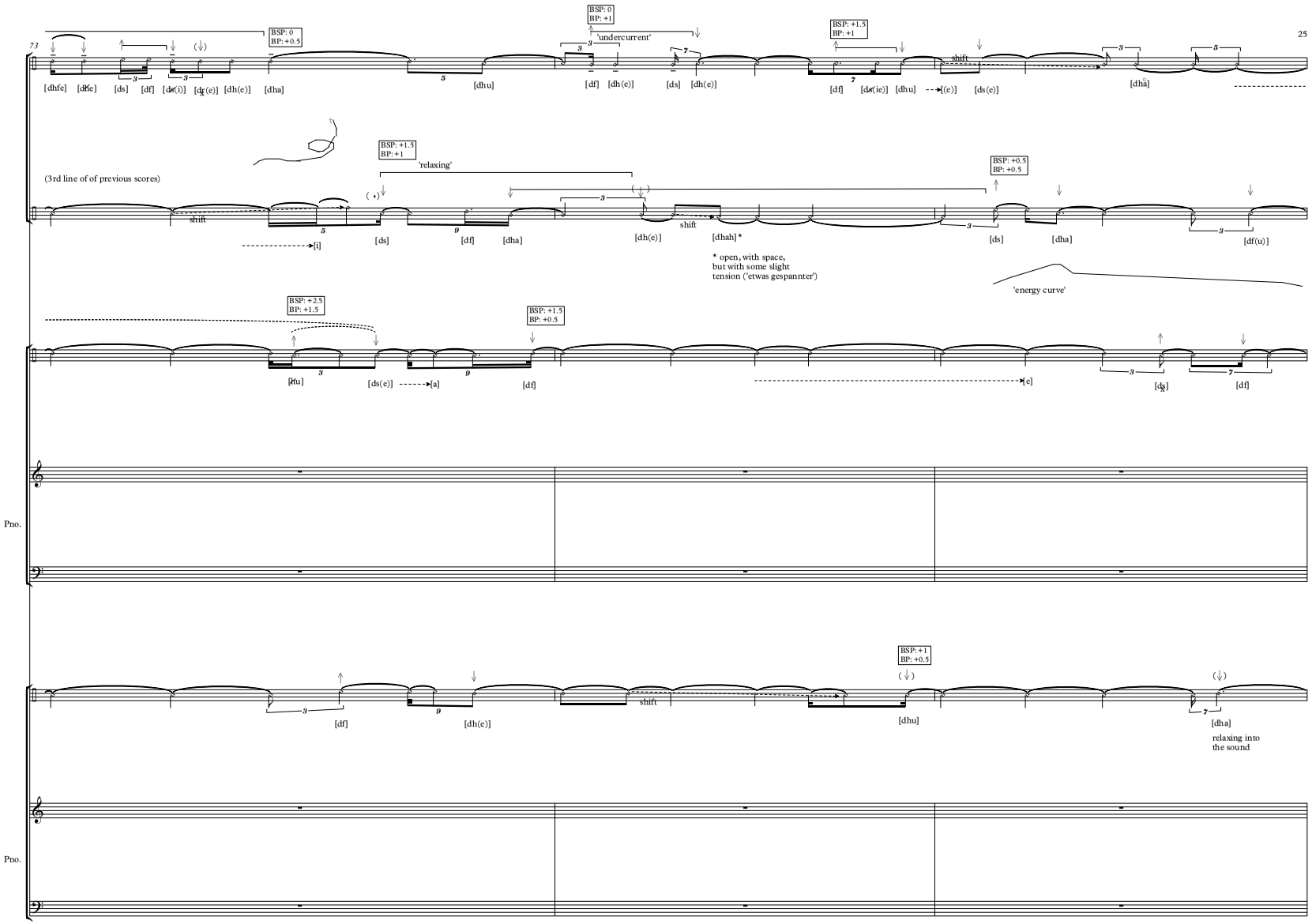

20
58
(end of woodbl.)
no action. stay calm, don't move,
no release yet.
(sempre p)
connected, but bow direction
change rather well audible
BSP: +1
BP: +1
5
(>)
[dchō]
(sempre p)
BSP: +1.5
BP: 0
5
[dhu]
(sempre p)
BSP: -3.5
BP: +2
metal grain space
(softly)
(sempre tamtam)
M[(5)7-9]
with slightly metallic sound
M[(5)7-9(11)]
l.v.
3
ppp(p)
ppp
Pno.
BSP: -1
BP: +2.5
5
p
Pno.

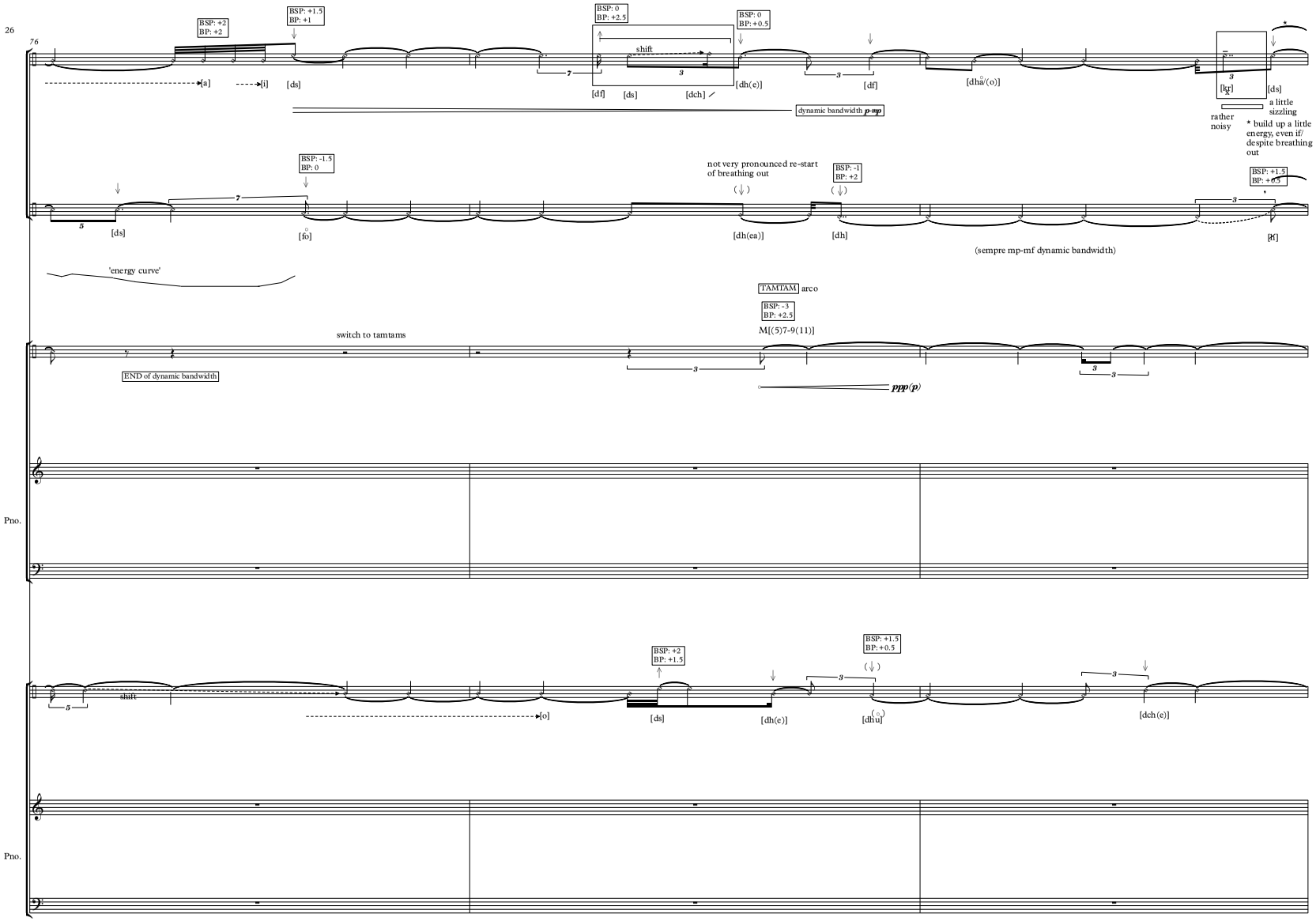

61
from here, slowly move and prepare for tamtam sound!
(switch to tamtam)
TAMTAM
BSP: +1
BP: +0.5
M[7-11]
rather "high" metal sound
21
pppp⟨p⟩
ppp⟨p⟩
for all instruments: during this time, do NOT
coordinate bow direction changes:
don't change bow direction, together with others.
BSP: -2
BP: +1.5
p⟨p⟩
[chō]
(sempre ⟨p⟩)
for all instruments: during this time, do NOT
coordinate bow direction changes:
don't change bow direction, together with others.
TAMTAM
BSP: -3.5
BP: +1.5
M[(7)-9]
M[(7)-9(11)]
pppp
ppp
pp
start and grow into resonance of tamtam
sound just before, so that this start becomes
like a pulsation within this sound that continues
for all instruments: during this time, do NOT
coordinate bow direction changes:
don't change bow direction, together with others.
Pno.
WOODBLOCKS
BSP: -2
BP: +1.5
lower than before,
creating space
5
ppp⟨p⟩
[(c)ho]
ppp⟨p⟩
Pno.

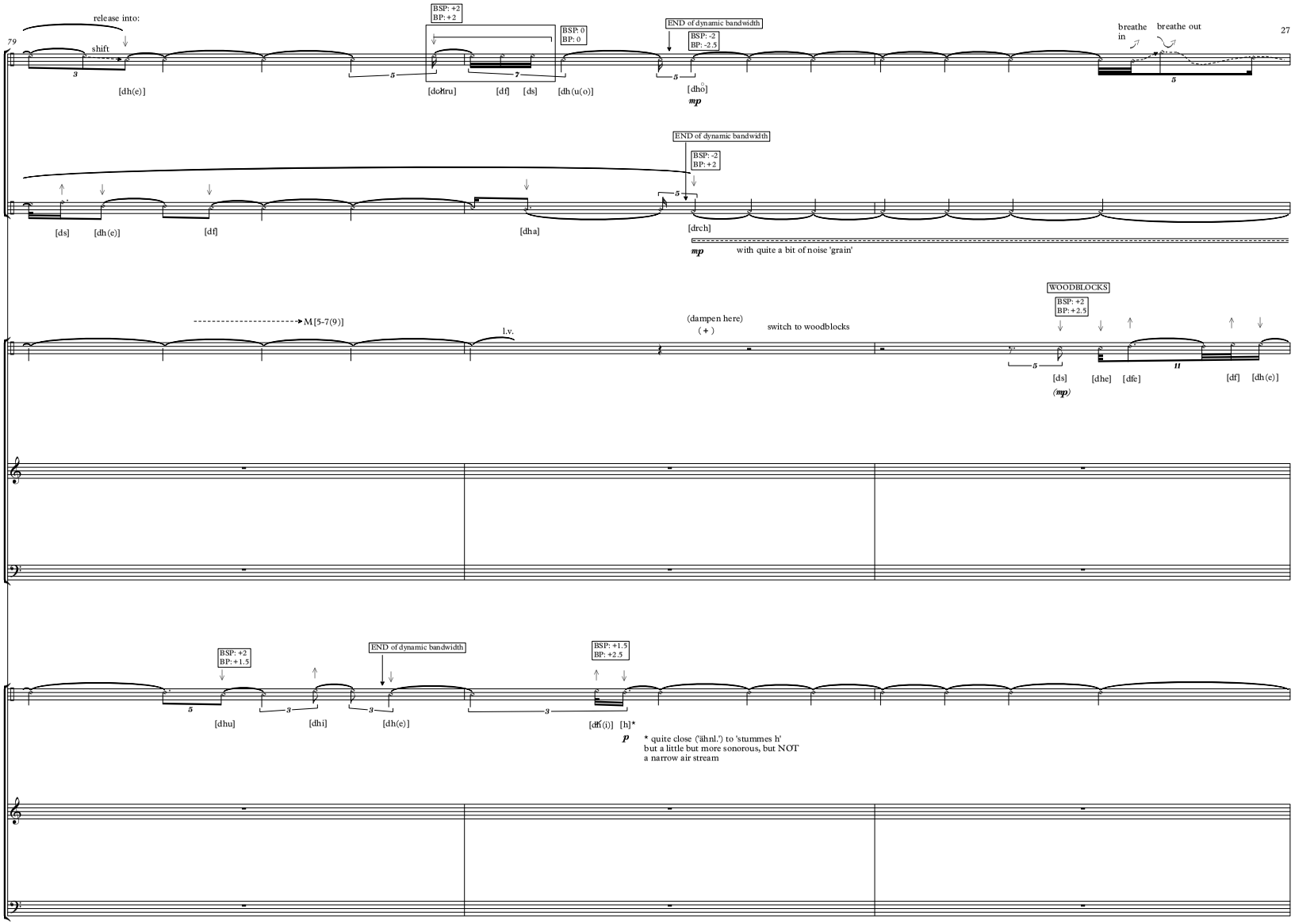

22
64
21 sec.
remain still, but without any tension, focused on remaining player and the sounds -- really BE with the other player and the sounds emerging.
(only 1 instrument playing/remaining)
9 sec.
(cue by player III)
dampen sounds at the same time! Then suspend any bodily movement for 5-6 seconds, before very slowly relaxing posture.
21 sec.
remain still, but without any tension, focused on remaining player and the sounds -- really BE with the other player and the sounds emerging.
(only 1 instrument playing/remaining)
9 sec.
(cue by player III)
dampen sounds at the same time! Then suspend any bodily movement for 5-6 seconds, before very slowly relaxing posture.
sempre M[(7)-9(11)]
21 sec.
9 sec.
M[7-9(11)]
give cue for other players
increase bow pressure
pp (keep stable)
(sempre pp)
Pno.
21 sec.
remain still, but without any tension, focused on remaining player and the sounds -- really BE with the other player and the sounds emerging.
(only 1 instrument playing/remaining)
9 sec.
(cue by player III)
for all instruments: during this time, do NOT coordinate bow direction changes -- meaning, don't change bow direction, together with others.
dampen sounds at the same time! Then suspend any bodily movement for 5-6 seconds, before very slowly relaxing posture.
Pno.

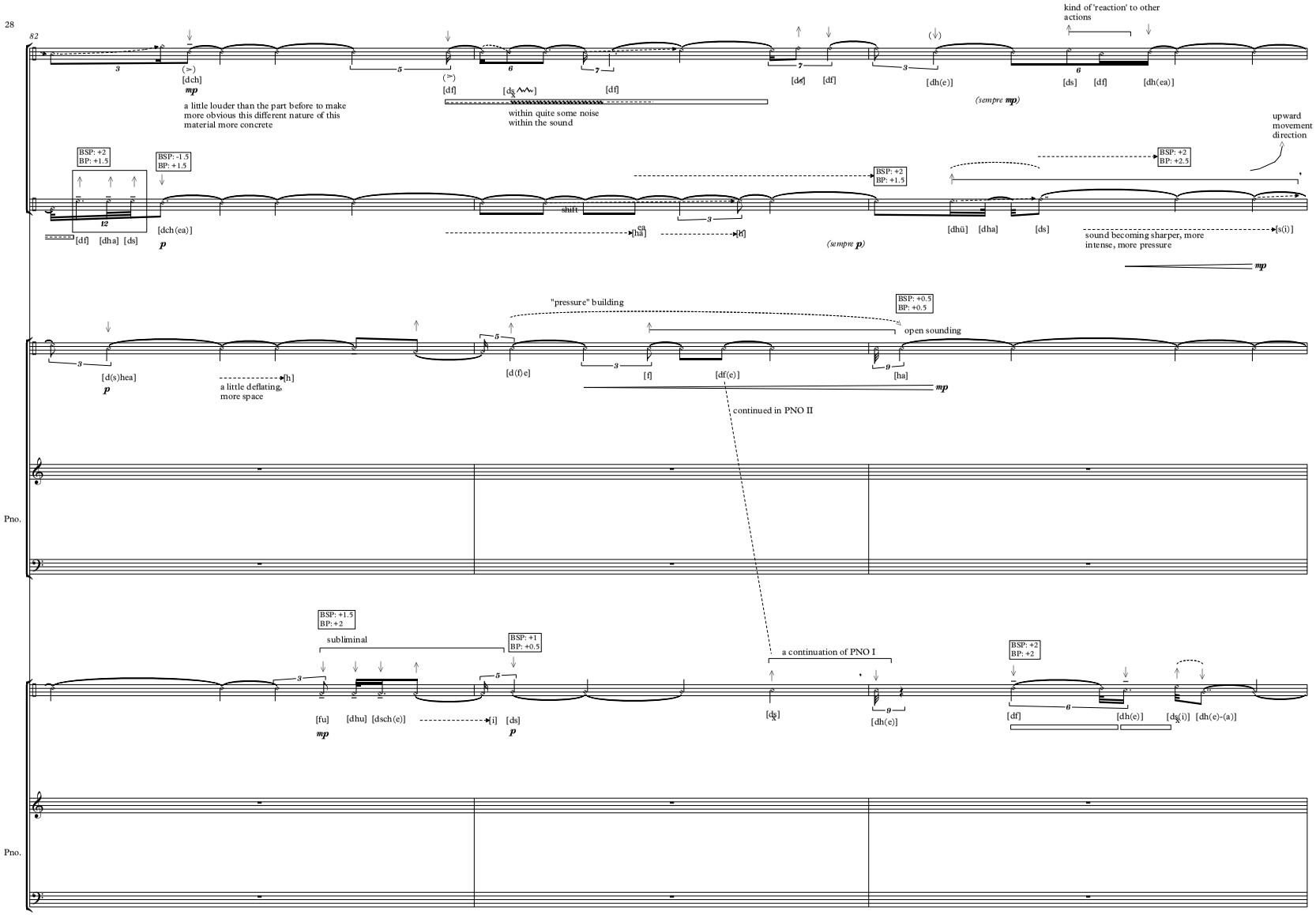

67
during this part: no cuing for other instruments,
simply take your own time, to give the sounds the
time to do what they will start doing themselves
BSP: -4
BP: +2.5
M[(7)9-11]
(sempre pp)
multidimensional M: listen to M within, let artifacts develop and stay there for the amount of time that is needed
18 (-20) sec, diff. time
M[(9)-13]
listen closely
release bow pressure
BSP: -3
BP: +1.5
M[9-11]
175
Pno.
Pno.

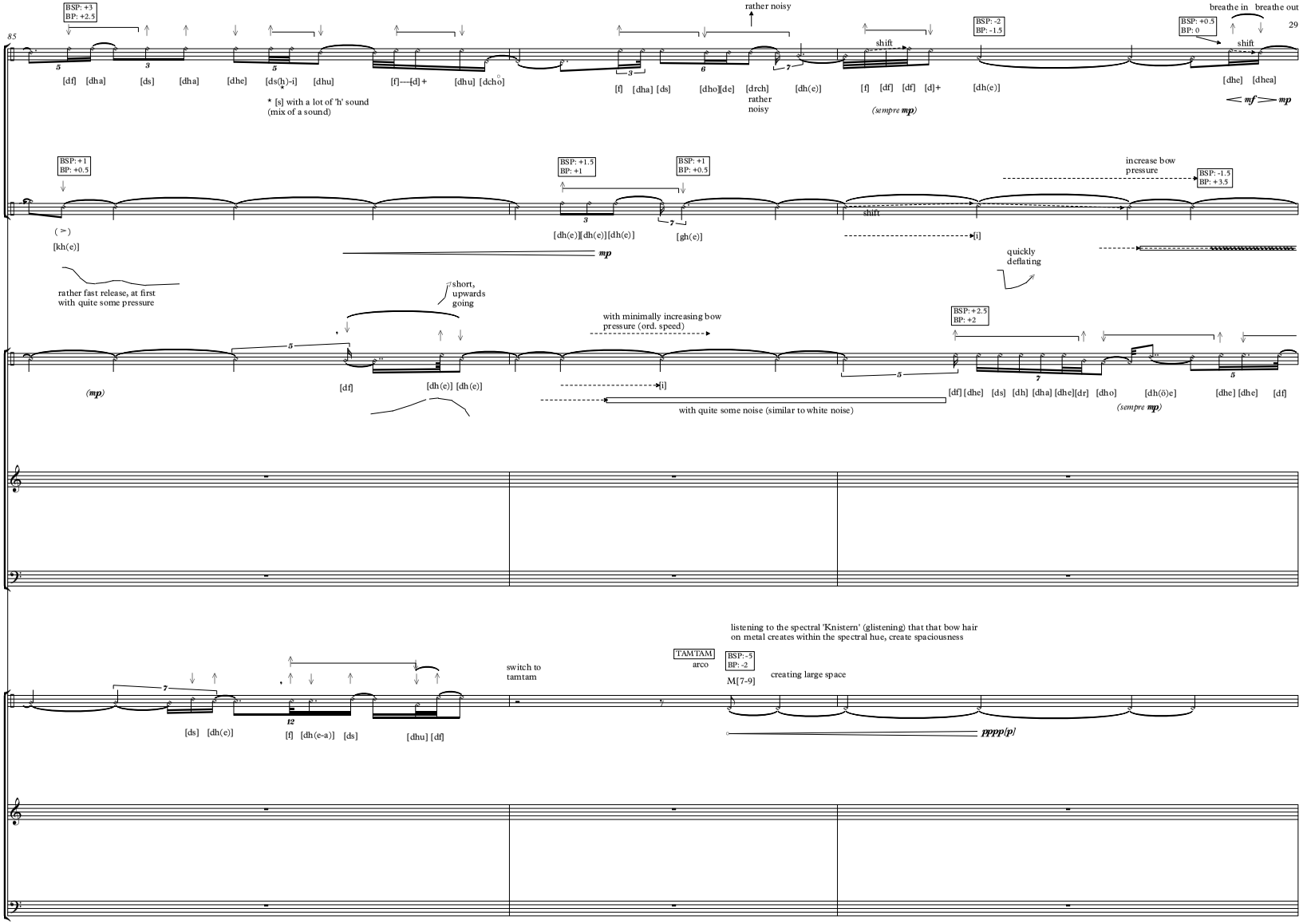

24
PNO I gives cue
calm and relaxed, inconspicuously preparing next measure, but wait until you get the small and subtle cue
7 (-9) sec.
WOODBLOCKS
BSP: +2.5
BP: +0.5
subito
no indication to audience of sub. to come!
[dh(e)] [dhea]
dynamic bandwidth: mp-mf
subito start together with PERC II without prior indication to audience
* a little increased bow pressure
[df] [dhe] [a] [dhi]
switch to woodblocks
WOODBLOCKS
[dhu] [dhe] [ds(e)] [(d)f]
PNO I gives cue
calm and relaxed, inconspicuously preparing next measure, but wait until you get the small and subtle cue
7 (-9) sec.
WOODBLOCKS
BSP: +1.5
BP: +1
subito
no indication to audience of sub. to come!
[dhe]
dynamic bandwidth: mp-mf
subito start together with PERC I without prior indication to audience
BSP: +2
BP: +1.5
shift
shift
[dh(i)e] [df] [dha] [d(c)h(e)] [(a)]
give cue to other players
(sempre M [9-11])
7 (-9) sec.
l.v.
no indication to audience of sub. to come!
dynamic bandwidth: mp-mf
'relaxation curve/shape'
quickly switch to woodblocks
WOODBLOCKS
BSP: +2
BP: +1.5
[ds]
[d(c)h(a)]
relax into this section. once you feel relaxed, then are the start of the next measure/section. ~~the calmly, with only little movement.~~
Pno.
PNO I gives cue
calm and relaxed, inconspicuously preparing next measure, but wait until you get the small and subtle cue
7 (-9) sec.
no indication to audience of sub. to come!
WOODBLOCKS
BSP: +2
BP: +1.5
[d(c)h(u)] [df] [e]
dynamic bandwidth: mp-mf
[dho]
not too strong
shift
calm, but excitedly relaxed
[dsch]
Pno.

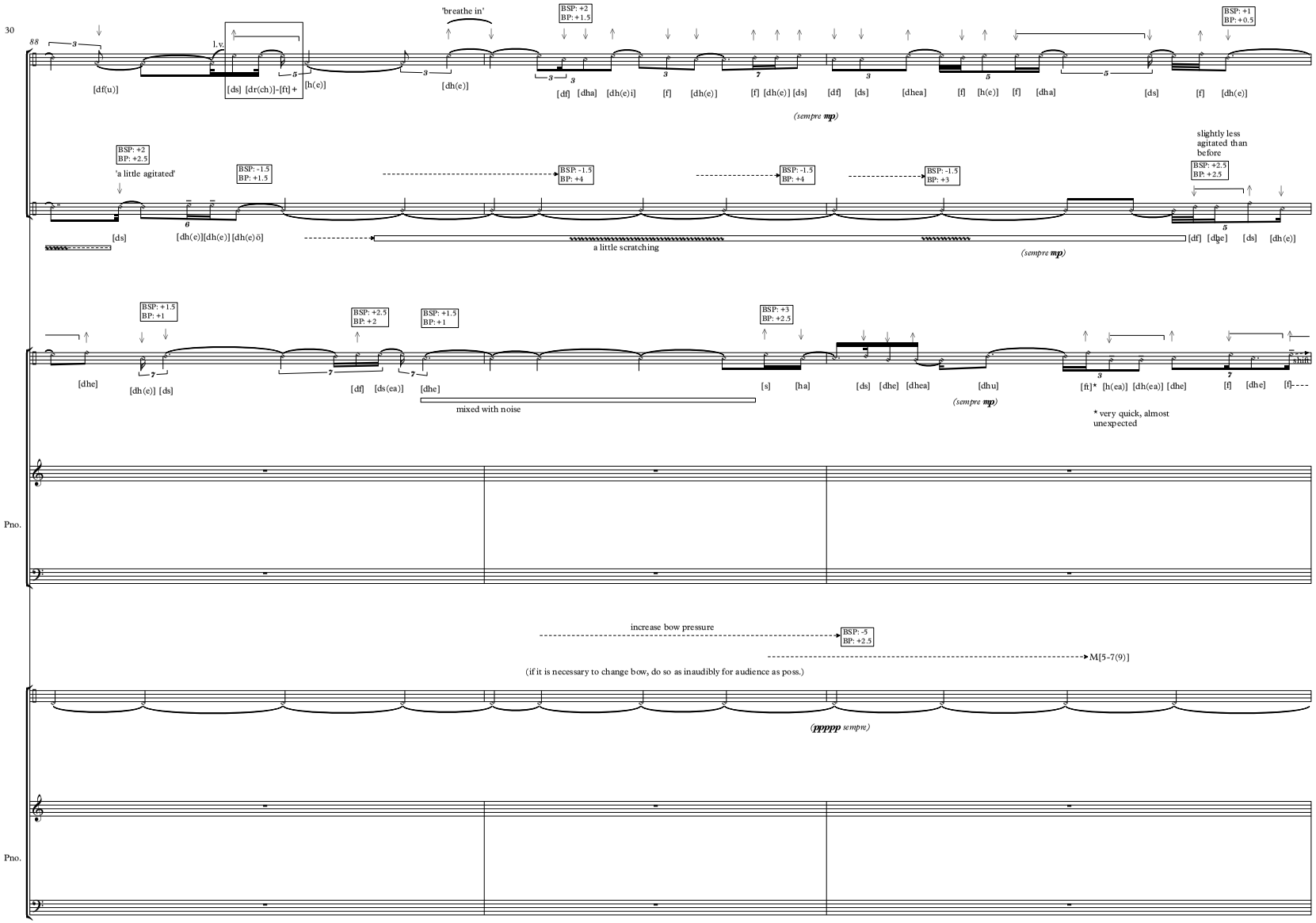

73
25
BSP: 0
BP: +0.5
BSP: 0
BP: +1
'undercurrent'
BSP: +1.5
BP: +1
shift
[dhfe] [dhfe] [ds] [df] [ds(i)] [ds(e)] [dh(e)] [dha]
[dhu]
[df] [dh(e)] [ds] [dh(e)]
[df] [ds(ie)] [dhu] [(e)] [ds(e)]
[dhä]
(3rd line of of previous scores)
BSP: +1.5
BP: +1
'relaxing'
BSP: +0.5
BP: +0.5
shift
shift
[i]
[ds] [df] [dha]
[dh(e)]
[dhah] *
[ds] [dha]
[df'(u)]
* open, with space,
but with some slight
tension ('etwas gespannter')
'energy curve'
BSP: +2.5
BP: +1.5
BSP: +1.5
BP: +0.5
[dhu]
[ds(e)] [a]
[df]
[e]
[ds]
[df]
Pno.
BSP: +1
BP: +0.5
shift
[df]
[dh(e)]
[dhu]
[dha]
relaxing into
the sound
Pno.

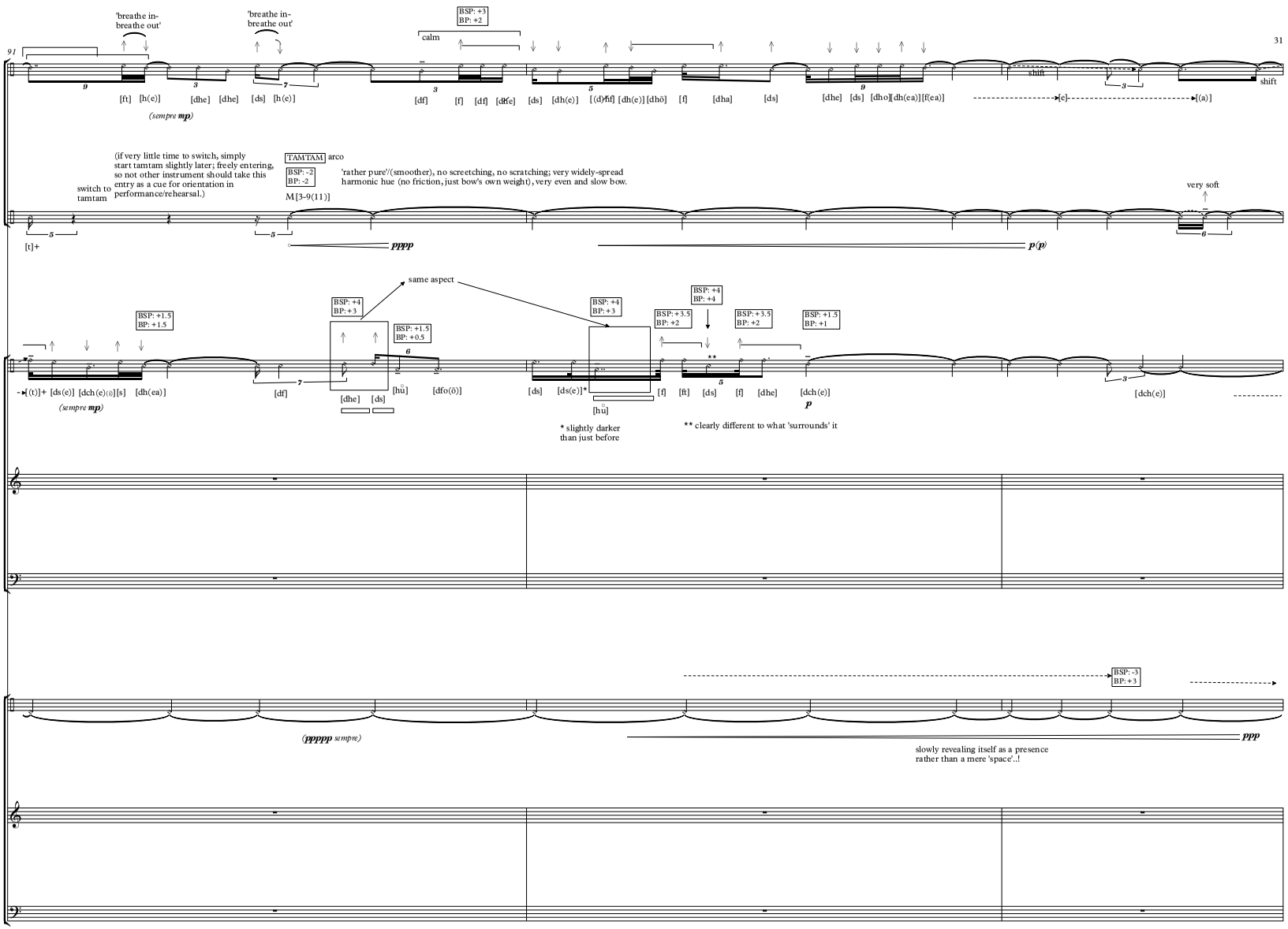

26
BSP: +2
BP: +2
BSP: +1.5
BP: +1
BSP: 0
BP: +2.5
BSP: 0
BP: +0.5
shift
[a]
[i]
[ds]
[df]
[ds]
[dch]
[dh(e)]
[df]
[dhâ/(o)]
[kr]
[ds]
a little sizzling
rather noisy
* build up a little energy, even if/ despite breathing out
dynamic bandwidth p-mp
BSP: -1.5
BP: 0
not very pronounced re-start of breathing out
BSP: -1
BP: +2
BSP: +1.5
BP: +0.5
[ds]
[fo]
[dh(ea)]
[dh]
[kr]
(sempre mp-mf dynamic bandwidth)
'energy curve'
TAMTAM arco
BSP: -3
BP: +2.5
M[(5)7-9(11)]
switch to tamtams
END of dynamic bandwidth
ppp(p)
Pno.
shift
[o]
BSP: +2
BP: +1.5
BSP: +1.5
BP: +0.5
[ds]
[dh(e)]
[dhu]
[dch(e)]
Pno.

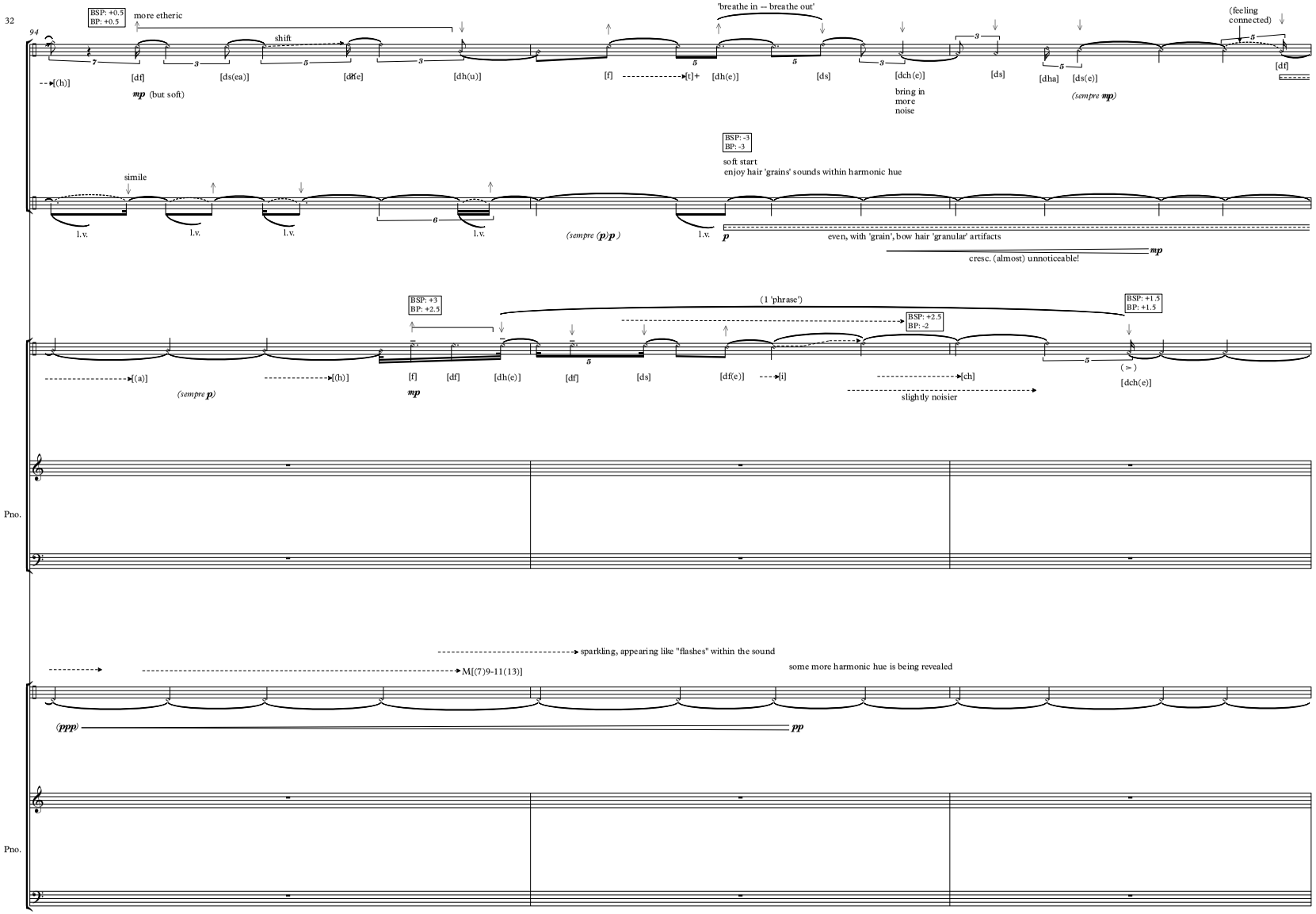

79
release into:
shift
BSP: +2
BP: +2
BSP: 0
BP: 0
END of dynamic bandwidth
BSP: -2
BP: -2.5
breathe in
breathe out
27
[dh(e)]
[dorru]
[df]
[ds]
[dh(u(o)]
[dho]
mp
END of dynamic bandwidth
BSP: -2
BP: +2
[ds]
[dh(e)]
[df]
[dha]
[drch]
mp
with quite a bit of noise 'grain'
M [5-7(9)]
l.v.
(dampen here)
(+)
switch to woodblocks
WOODBLOCKS
BSP: +2
BP: +2.5
[ds]
[dhe]
[dfe]
[df]
[dh(e)]
(mp)
Pno.
BSP: +2
BP: +1.5
END of dynamic bandwidth
BSP: +1.5
BP: +2.5
[dhu]
[dhi]
[dh(e)]
[dfi(i)]
[h]*
p
* quite close ('ähnl.') to 'stummes h'
but a little but more sonorous, but NOT
a narrow air stream
Pno.

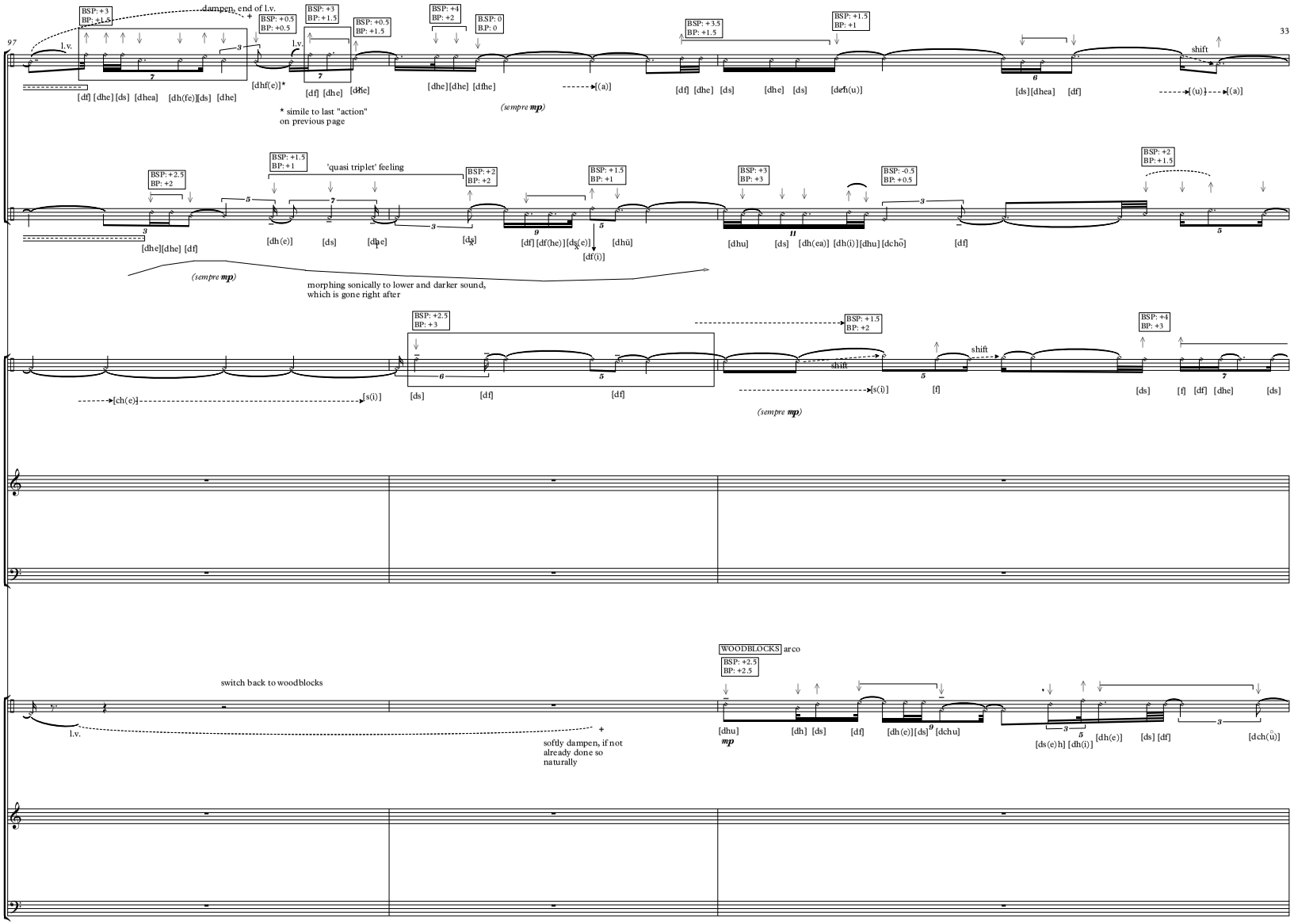

kind of 'reaction' to other actions
[dch] mp
a little louder than the part before to make more obvious this different nature of this material more concrete
[df] [ds] [df]
within quite some noise within the sound
[ds] [df]
[dh(e)]
(sempre mp)
[ds] [df] [dh(ea)]
upward movement direction
BSP: +2 BP: +1.5
BSP: -1.5 BP: +1.5
[df] [dha] [ds]
[dch(ea)] p
shift
BSP: +2 BP: +1.5
[ha] [h]
(sempre p)
BSP: +2 BP: +2.5
[dhû] [dha] [ds]
sound becoming sharper, more intense, more pressure
[s(i)]
mp
"pressure" building
BSP: +0.5 BP: +0.5
open sounding
[d(s)hea] p
a little deflating, more space
[h]
[d(ʃ)e]
[f]
[df(e)]
[ha]
mp
continued in PNO II
180
Pno.
BSP: +1.5 BP: +2
subliminal
BSP: +1 BP: +0.5
[fu] [dhu] [dsch(e)] mp
[i] [ds] p
a continuation of PNO I
[dh(e)]
BSP: +2 BP: +2
[df] [dh(e)] [ds(i)] [dh(e)-(a)]
Pno.

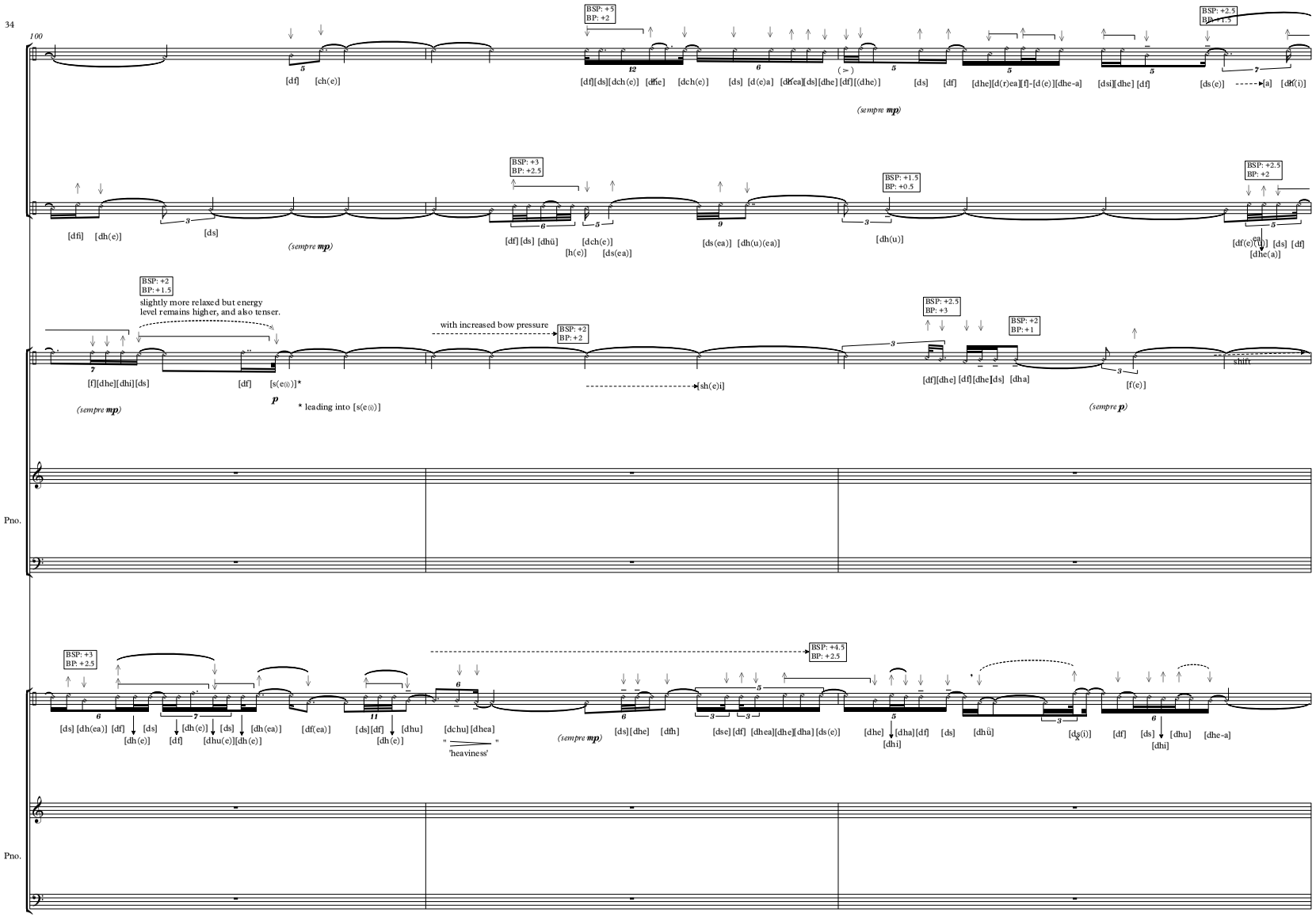

85
BSP: +3
BP: +2.5
rather noisy
BSP: -2
BP: -1.5
BSP: +0.5
BP: 0
breathe in
breathe out
29
shift
shift
[df] [dha] [ds] [dha] [dhe] [ds(h)-i] [dhu] [f]—[d]+ [dhu] [dch°]
* [s] with a lot of 'h' sound
(mix of a sound)
[f] [dha] [ds] [dho][de] [drch] [dh(e)] [f] [df] [df] [d]+ [dh(e)]
rather noisy
(sempre mp)
[dhe] [dhea]
mf mp
BSP: +1
BP: +0.5
BSP: +1.5
BP: +1
BSP: +1
BP: +0.5
increase bow pressure
BSP: -1.5
BP: +3.5
shift
(>)
[kh(e)]
[dh(e)][dh(e)][dh(e)]
[gh(e)]
[i]
mp
quickly deflating
rather fast release, at first with quite some pressure
short, upwards going
with minimally increasing bow pressure (ord. speed)
BSP: +2.5
BP: +2
(mp)
[df]
[dh(e)] [dh(e)]
[i]
[df] [dhe] [ds] [dh] [dha] [dhe][dr] [dho] [dh(ö)e] [dhe] [dhe] [df]
with quite some noise (similar to white noise)
(sempre mp)
Pno.
listening to the spectral 'Knistern' (glistening) that that bow hair on metal creates within the spectral hue, create spaciousness
switch to tamtam
TAMTAM
arco
BSP: -5
BP: -2
M[7-9]
creating large space
[ds] [dh(e)]
[f] [dh(e-a)] [ds]
[dhu] [df]
pppp(p)
Pno.

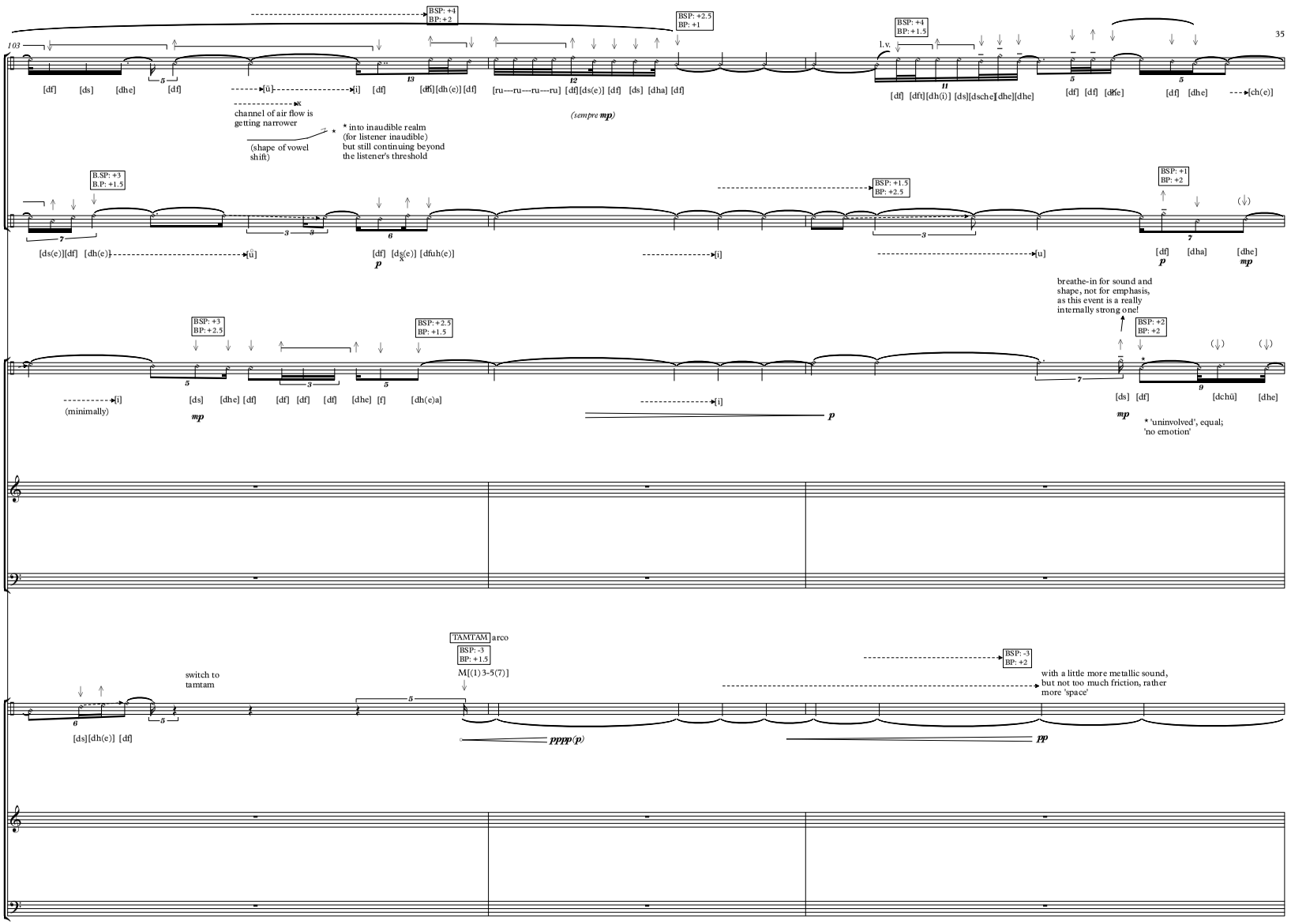

30
'breathe in'
BSP: +2
BP: +1.5
BSP: +1
BP: +0.5
l.v.
[df(u)]
[ds] [dr(ch)]-[ft]+
[h(e)]
[dh(e)]
[df] [dha] [dh(e)i] [f] [dh(e)] [f] [dh(e)] [ds] [df] [ds] [dhea] [f] [h(e)] [f] [dha] [ds] [f] [dh(e)]
(sempre mp)
BSP: +2
BP: +2.5
'a little agitated'
BSP: -1.5
BP: +1.5
BSP: -1.5
BP: +4
BSP: -1.5
BP: +4
BSP: -1.5
BP: +3
slightly less agitated than before
BSP: +2.5
BP: +2.5
[ds]
[dh(e)][dh(e)] [dh(e)ō]
a little scratching
[df] [dhe] [ds] [dh(e)]
(sempre mp)
BSP: +1.5
BP: +1
BSP: +2.5
BP: +2
BSP: +1.5
BP: +1
BSP: +3
BP: +2.5
[dhe]
[dh(e)] [ds]
[df] [ds(ea)]
[dhe]
mixed with noise
[s] [ha]
[ds] [dhe] [dhea] [dhu]
(sempre mp)
[ft]* [h(ea)] [dh(ea)] [dhe]
[f] [dhe] [f]
* very quick, almost unexpected
Pno.
increase bow pressure
BSP: -5
BP: +2.5
M[5-7(9)]
(if it is necessary to change bow, do so as inaudibly for audience as poss.)
(ppppp sempre)
Pno.

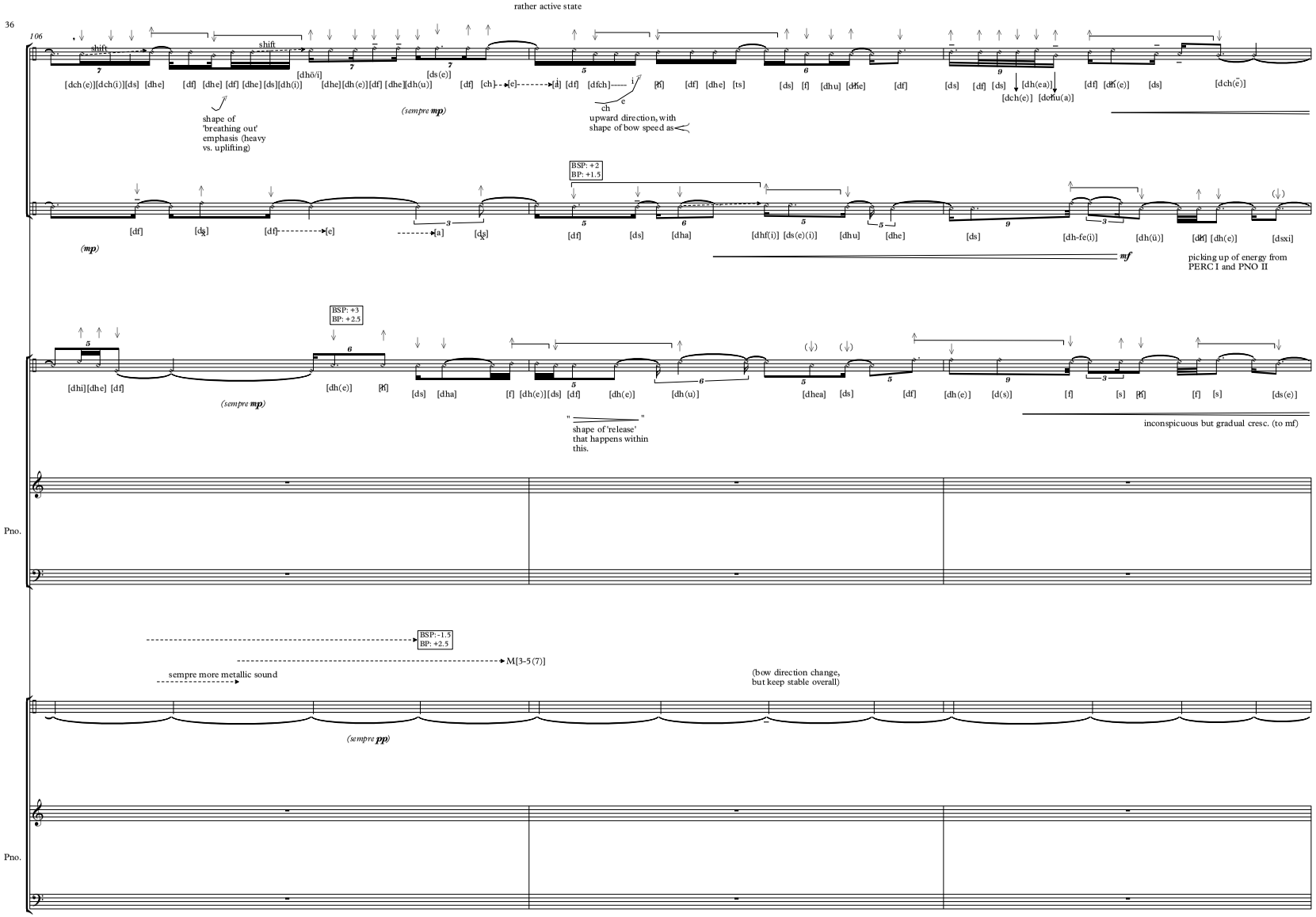

'breathe in-breathe out'
'breathe in-breathe out'
BSP: +3
BP: +2
calm
31
91
[ft] [h(e)]
[dhe] [dhe]
[ds] [h(e)]
[df] [f] [df] [dfe]
[ds] [dh(e)] [(d)fif] [dh(e)] [dhō] [f] [dha] [ds] [dhe] [ds] [dho] [dh(ea)] [f(ea)]
shift
shift
(sempre mp)
(if very little time to switch, simply start tamtam slightly later; freely entering, so not other instrument should take this entry as a cue for orientation in performance/rehearsal.)
switch to tamtam
TAM-TAM arco
BSP: -2
BP: -2
'rather pure'/(smoother), no screetching, no scratching; very widely-spread harmonic hue (no friction, just bow's own weight), very even and slow bow.
M [3-9(11)]
very soft
[t]+
pppp
p (p)
same aspect
BSP: +1.5
BP: +1.5
BSP: +4
BP: +3
BSP: +1.5
BP: +0.5
BSP: +4
BP: +3
BSP: +4
BP: +4
BSP: +3.5
BP: +2
BSP: +3.5
BP: +2
BSP: +1.5
BP: +1
[t]+ [ds(e)] [dch(e)(ü)] [s] [dh(ea)]
(sempre mp)
[df]
[dhe] [ds]
[hů]
[dfo(ö)]
[ds]
[ds(e)]*
[hů]
[f] [ft] [ds] [f] [dhe]
[dch(e)]
p
[dch(e)]
* slightly darker than just before
** clearly different to what 'surrounds' it
Pno.
BSP: -3
BP: +3
(ppppp sempre)
ppp
slowly revealing itself as a presence rather than a mere 'space'..!
Pno.

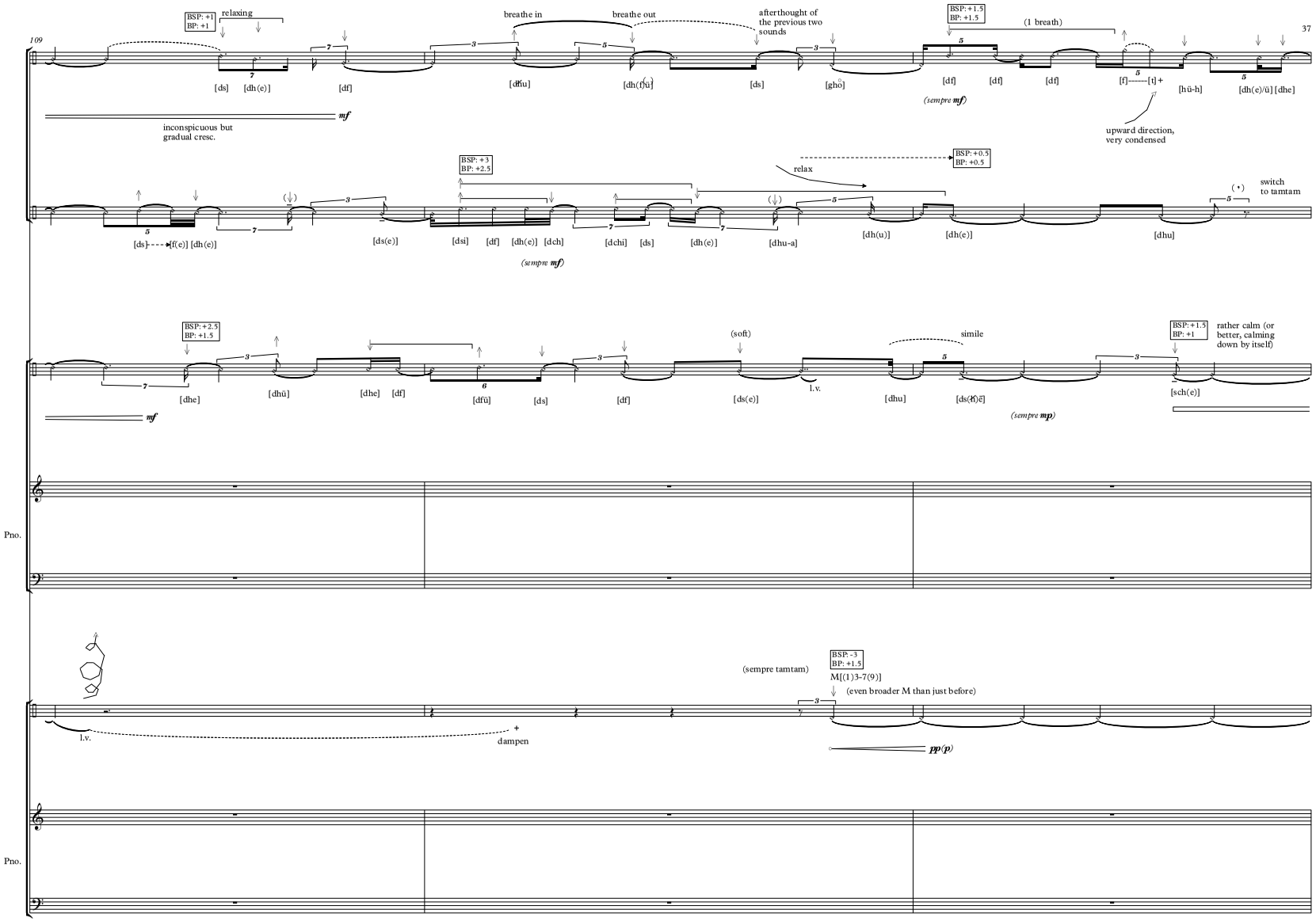

32
94
BSP: +0.5
BP: +0.5
more etheric
shift
'breathe in — breathe out'
(feeling
connected)
[(h)]
[df]
mp (but soft)
[ds(ea)]
[dfe]
[dh(u)]
[f]
[t]+
[dh(e)]
[ds]
[dch(e)]
bring in
more
noise
[ds]
[dha]
[ds(e)]
(sempre mp)
[df]
BSP: -3
BP: -3
soft start
enjoy hair 'grains' sounds within harmonic hue
simile
l.v.
l.v.
l.v.
l.v.
(sempre p)
l.v.
p
even, with 'grain', bow hair 'granular' artifacts
cresc. (almost) unnoticeable!
mp
BSP: +3
BP: +2.5
(1 'phrase')
BSP: +2.5
BP: -2
BSP: +1.5
BP: +1.5
[(a)]
(sempre p)
[(h)]
[f]
mp
[df]
[dh(e)]
[df]
[ds]
[df(e)]
[i]
[ch]
slightly noisier
(>)
[dch(e)]
Pno.
sparkling, appearing like "flashes" within the sound
M[(7)9-11(13)]
some more harmonic hue is being revealed
(ppp)
pp
Pno.

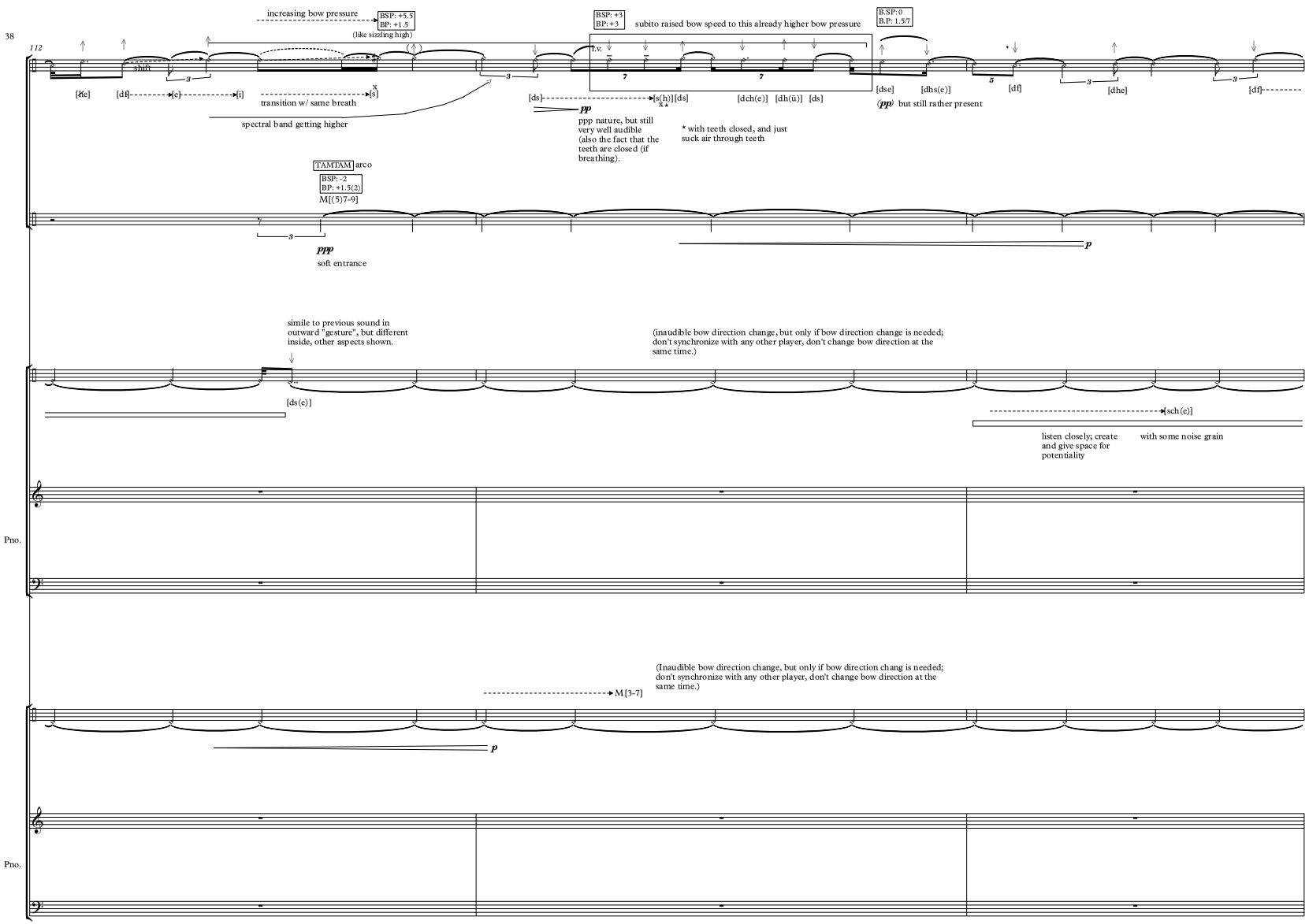

97
33
dampen, end of l.v.
l.v.
shift
[df] [dhe] [ds] [dhea] [dh(fe)][ds] [dhe]
[dhf(e)]*
* simile to last "action" on previous page
[df] [dhe] [dhe]
[dhe][dhe] [dfhe]
(sempre mp)
[(a)]
[df] [dhe] [ds] [dhe] [ds] [de(h)(u)]
[ds][dhea] [df]
[(u)] [(a)]
'quasi triplet' feeling
[dhe][dhe] [df]
[dh(e)] [ds] [dhe] [ds]
[df] [df(he)][ds(e)] [df(i)] [dhū]
[dhu] [ds] [dh(ea)] [dh(i)][dhu] [dchō] [df]
(sempre mp)
morphing sonically to lower and darker sound, which is gone right after
[ch(e)] [s(i)]
[ds] [df] [df]
[s(i)] [f]
shift
[ds] [f] [df] [dhe] [ds]
(sempre mp)
Pno.
WOODBLOCKS arco
switch back to woodblocks
l.v.
softly dampen, if not already done so naturally
[dhu] [dh] [ds] [df] [dh(e)][ds] [dchu]
[ds(e)h] [dh(i)] [dh(e)] [ds] [df] [dch(û)]
Pno.

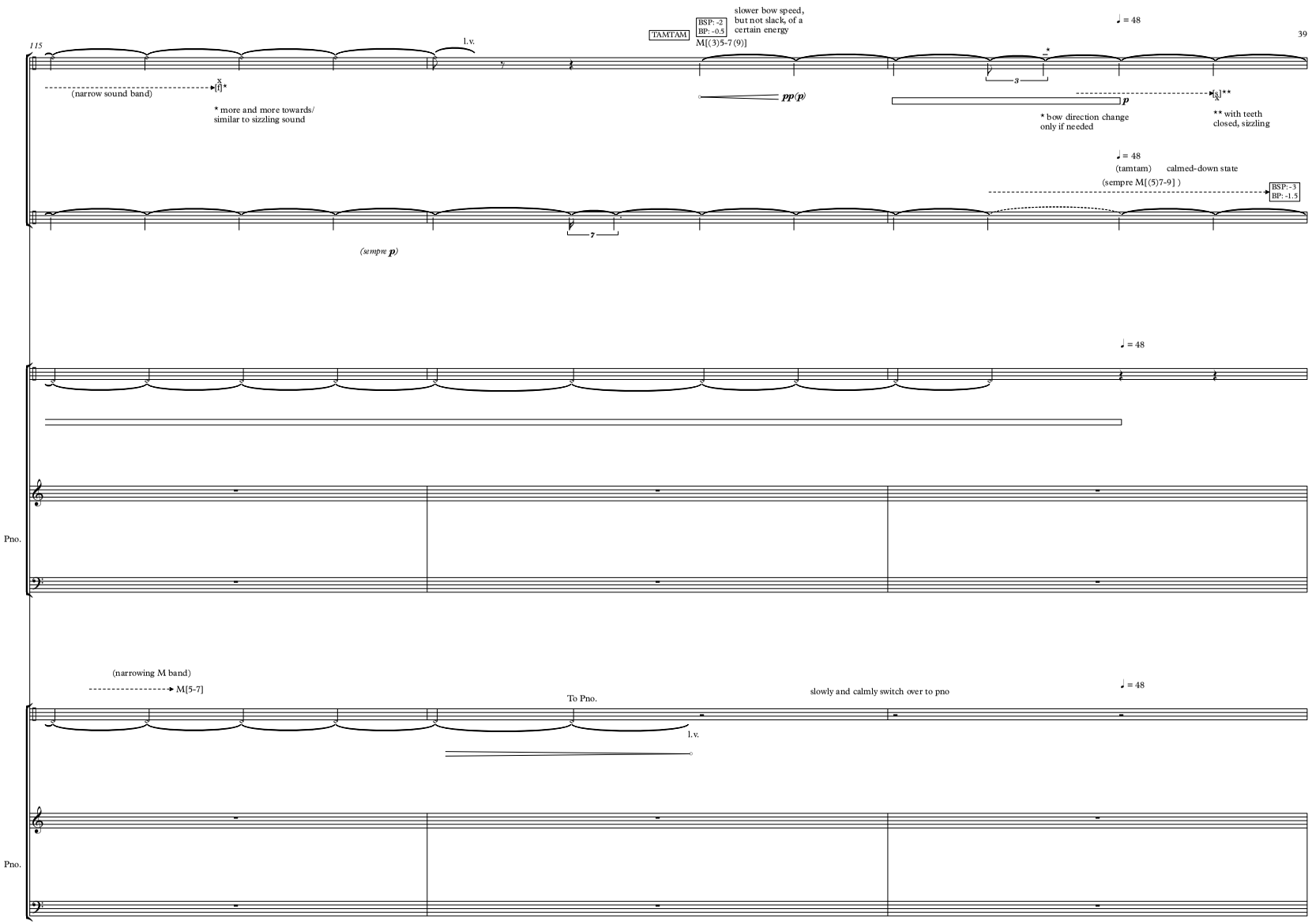

34
186
100
BSP: +5
BP: +2
BSP: +2.5
BP: +1.5
[df] [ch(e)]
[df][ds][dch(e)] [dfie] [dch(e)] [ds] [d(e)a] [dfea][ds][dhe] [df][(dhe)] [ds] [df] [dhe][d(r)ea][f]-[d(e)][dhe-a] [dsi][dhe] [df] [ds(e)] [a] [dfi(i)]
(sempre mp)
BSP: +3
BP: +2.5
BSP: +1.5
BP: +0.5
BSP: +2.5
BP: +2
[dfi] [dh(e)] [ds] [df] [ds] [dhü] [dch(e)] [h(e)] [ds(ea)] [ds(ea)] [dh(u)(ea)] [dh(u)] [df(e)] [ds] [df] [dhe(a)]
(sempre mp)
BSP: +2
BP: +1.5
slightly more relaxed but energy
level remains higher, and also tenser.
with increased bow pressure
BSP: +2
BP: +2
BSP: +2.5
BP: +3
BSP: +2
BP: +1
[f][dhe][dhi][ds] [df] [s(e(i))]* [sh(e)i] [df][dhe] [df][dhe][ds] [dha] [f(e)] shift
p
* leading into [s(e(i))]
(sempre mp)
(sempre p)
Pno.
BSP: +3
BP: +2.5
BSP: +4.5
BP: +2.5
[ds] [dh(ea)] [df] [ds] [dh(e)] [df] [dh(e)] [ds] [dhu(e)][dh(e)] [dh(ea)] [df(ea)] [ds][df] [dh(e)] [dhu] [dchu] [dhea] 'heaviness'
(sempre mp)
[ds][dhe] [dfh] [dse] [df] [dhea][dhe][dha] [ds(e)] [dhe] [dha][df] [dhi] [ds] [dhü] [ds(i)] [df] [ds] [dhi] [dhu] [dhe-a]
Pno.

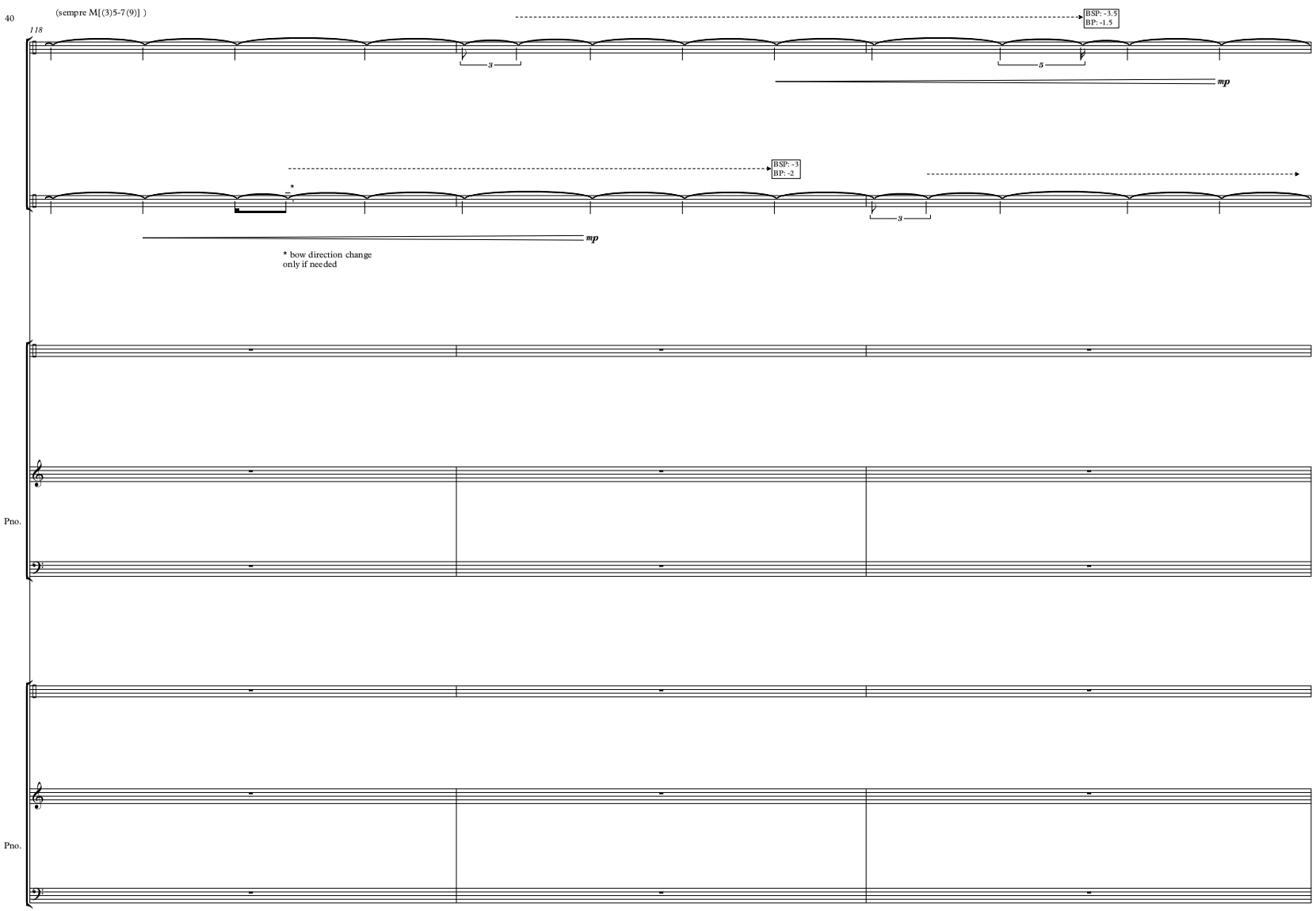

35
BSP: +4
BP: +2
BSP: +2.5
BP: +1
BSP: +4
BP: +1.5
l.v.
[df] [ds] [dhe] [df] [ü] [i] [df] [df][dh(e)] [df] [ru---ru---ru---ru] [df][ds(e)] [df] [ds] [dha] [df]
[df] [dft][dh(i)] [ds][dsche][dhe][dhe] [df] [df] [dfe] [df] [dhe] [ch(e)]
channel of air flow is getting narrower
(shape of vowel shift)
* into inaudible realm (for listener inaudible) but still continuing beyond the listener's threshold
(sempre mp)
B.SP: +3
B.P: +1.5
BSP: +1.5
BP: +2.5
BSP: +1
BP: +2
[ds(e)][df] [dh(e)] [ü] [df] [ds(e)] [dfuh(e)] [i] [u] [df] [dha] [dhe]
p p mp
breathe-in for sound and shape, not for emphasis, as this event is a really internally strong one!
BSP: +3
BP: +2.5
BSP: +2.5
BP: +1.5
BSP: +2
BP: +2
[i] [ds] [dhe] [df] [df] [df] [df] [dhe] [f] [dh(e)a] [i] [ds] [df] [dchü] [dhe]
(minimally)
mp p mp
* 'uninvolved', equal; 'no emotion'
Pno.
TAMTAM arco
BSP: -3
BP: +1.5
BSP: -3
BP: +2
switch to tamtam
M[(1) 3-5(7)]
with a little more metallic sound, but not too much friction, rather more 'space'
[ds][dh(e)] [df]
pppp(p) pp
Pno.

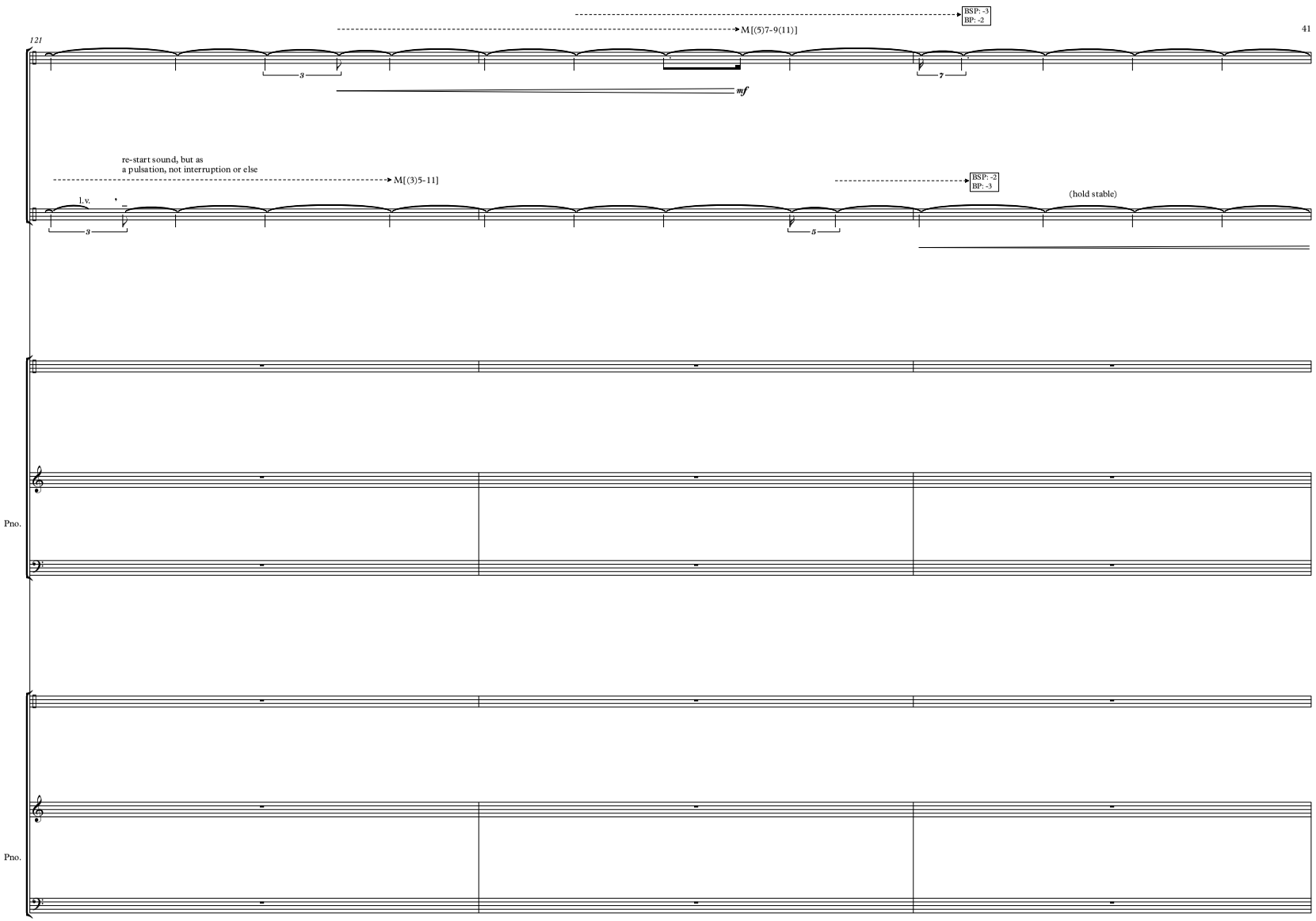

rather active state
36
106
shift
shift
[dch(e)][dch(i)][ds] [dhe] [df] [dhe] [df] [dhe] [ds][dh(i)] [dhe][dh(e)][df] [dhe][dh(u)] [df] [ch] [e] [a] [df] [dfch] [ds(e)] [dhö/i]
shape of 'breathing out' emphasis (heavy vs. uplifting)
(sempre mp)
ch
e
upward direction, with shape of bow speed as
[df] [ds] [df] [ds] [dh(ea)] [dch(e)] [dohu(a)] [df] [df] [ds] [dch(ē)]
BSP: +2
BP: +1.5
[df] [ds] [df] [e] [a] [ds] [df] [ds] [dha] [dhff(i)] [ds(e)(i)] [dhu] [dhe] [ds] [dh-fe(i)] [dh(ü)] [df] [dh(e)] [dsxi]
(mp)
mf
picking up of energy from PERC I and PNO II
BSP: +3
BP: +2.5
[dhi][dhe] [df] [dh(e)] [ds] [dha] [f] [dh(e)][ds] [df] [dh(e)] [dh(u)] [dhea] [ds] [df] [dh(e)] [d(s)] [f] [s] [f] [s] [ds(e)]
(sempre mp)
shape of 'release' that happens within this.
inconspicuous but gradual cresc. (to mf)
Pno.
BSP: -1.5
BP: +2.5
M[3-5(7)]
sempre more metallic sound
(bow direction change, but keep stable overall)
(sempre pp)
Pno.

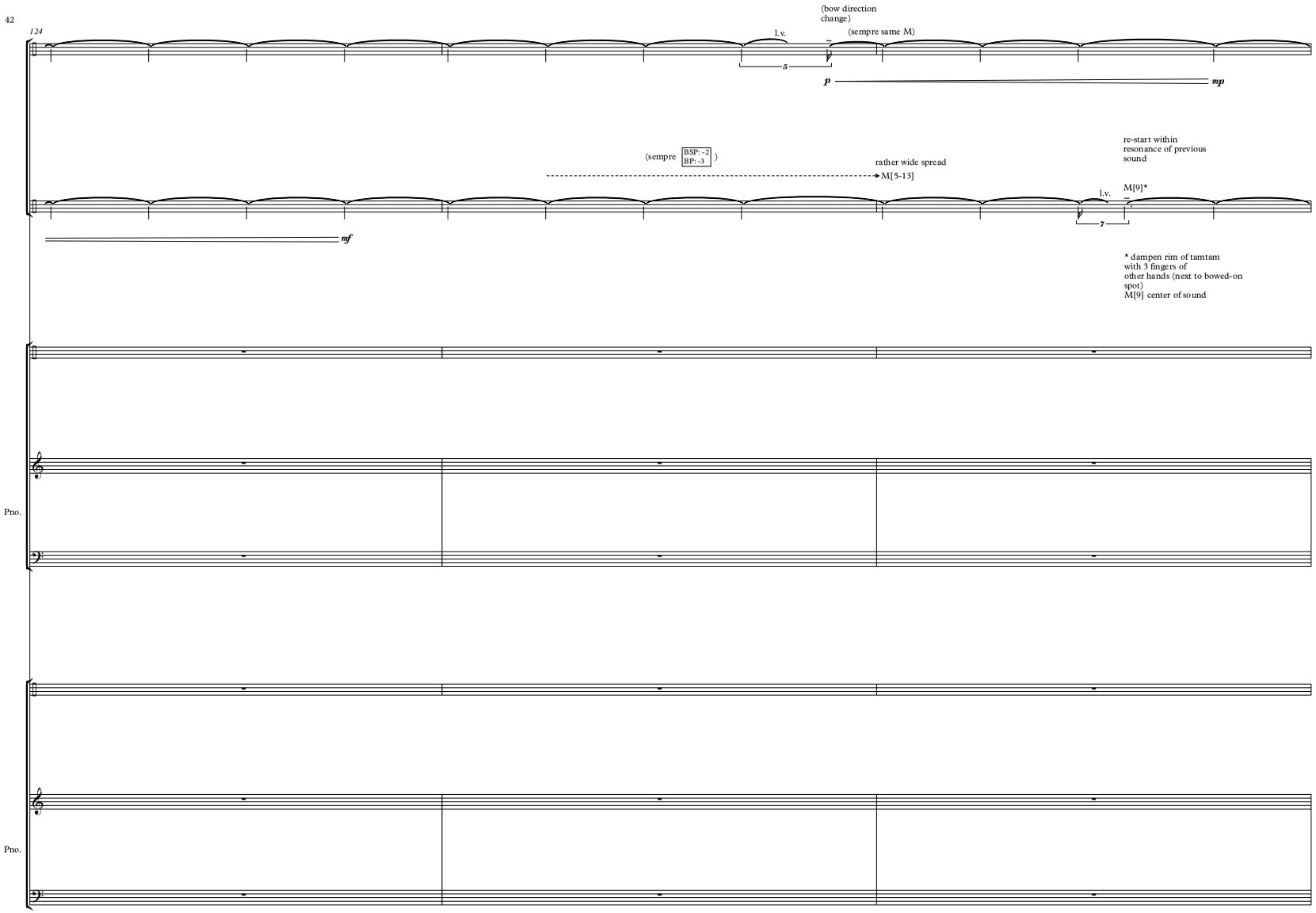

109
37
BSP: +1
BP: +1
relaxing
breathe in
breathe out
afterthought of the previous two sounds
BSP: +1.5
BP: +1.5
(1 breath)
[ds] [dh(e)] [df] [dfu] [dh(f)ü] [ds] [ghŏ] [df] [df] [df] [f] [t] + [hü-h] [dh(e)/ü] [dhe]
(sempre mf)
mf
inconspicuous but gradual cresc.
upward direction, very condensed
BSP: +3
BP: +2.5
BSP: +0.5
BP: +0.5
relax
switch to tamtam
[ds] [f(e)] [dh(e)] [ds(e)] [dsi] [df] [dh(e)] [dch] [dchi] [ds] [dh(e)] [dhu-a] [dh(u)] [dh(e)] [dhu]
(sempre mf)
BSP: +2.5
BP: +1.5
(soft)
simile
BSP: +1.5
BP: +1
rather calm (or better, calming down by itself)
[dhe] [dhü] [dhe] [df] [dfü] [ds] [df] [ds(e)] [dhu] [ds(f)ē] [sch(e)]
l.v.
mf
(sempre mp)
Pno.
(sempre tamtam)
BSP: -3
BP: +1.5
M[(1)3-7(9)]
(even broader M than just before)
l.v.
dampen
pp(p)
Pno.

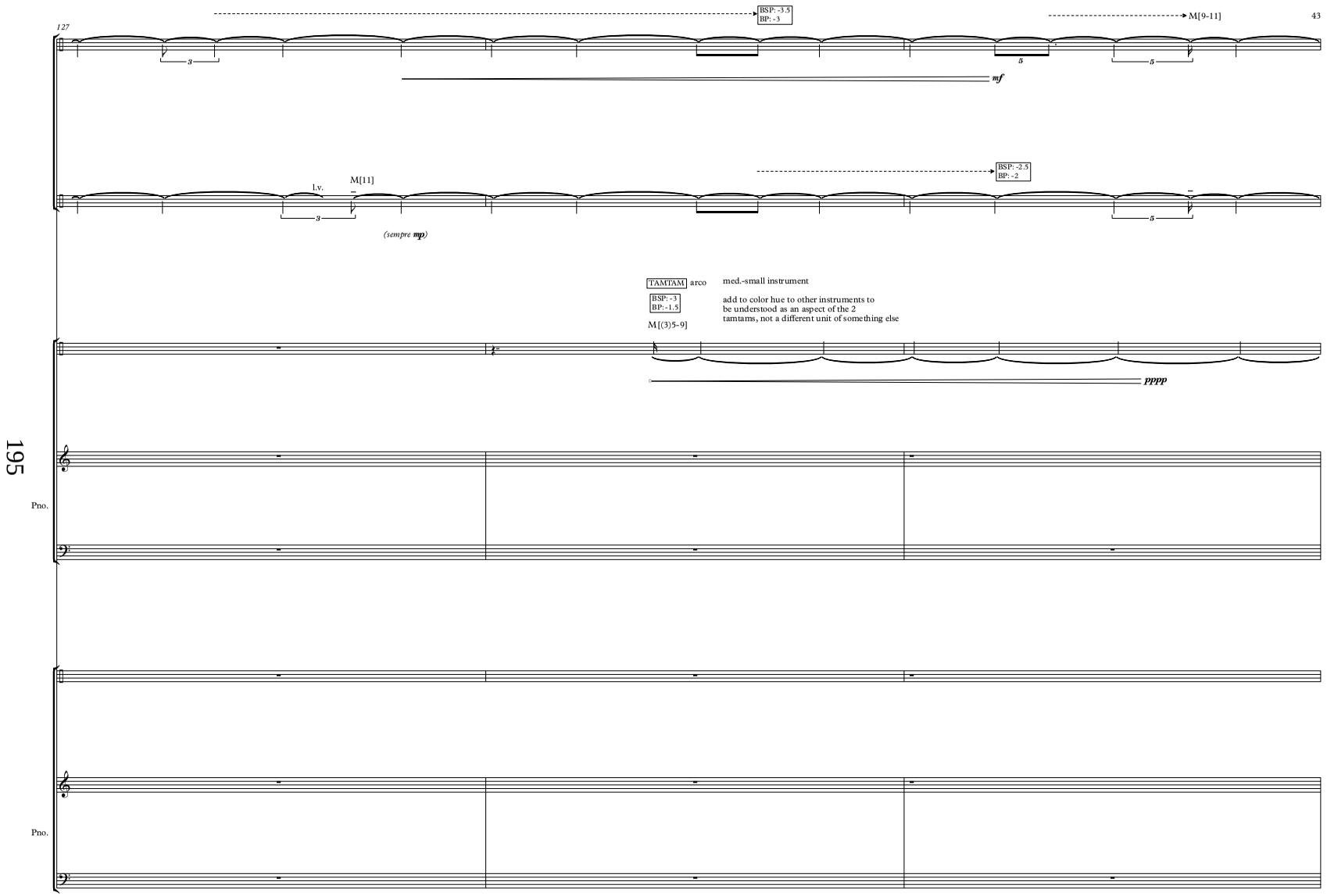

38
112
increasing bow pressure
BSP: +5.5
BP: +1.5
(like sizzling high)
BSP: +3
BP: +3
subito raised bow speed to this already higher bow pressure
B.SP: 0
B.P: 1.5/7
l.v.
shift
[ʁe]
[dʁ]
[ɛ]
[i]
[s]
transition w/ same breath
spectral band getting higher
[ds]
[s(h)][ds]
[dch(e)]
[dh(ü)]
[ds]
pp
ppp nature, but still very well audible (also the fact that the teeth are closed (if breathing).
* with teeth closed, and just suck air through teeth
[dse]
[dhs(e)]
(pp) but still rather present
[df]
[dhe]
[df]
TAMTAM arco
BSP: -2
BP: +1.5(2)
M[(5)7-9]
ppp
soft entrance
p
simile to previous sound in outward "gesture", but different inside, other aspects shown.
(inaudible bow direction change, but only if bow direction change is needed; don't synchronize with any other player, don't change bow direction at the same time.)
[ds(e)]
[sch(e)]
listen closely; create and give space for potentiality
with some noise grain
Pno.
(Inaudible bow direction change, but only if bow direction chang is needed; don't synchronize with any other player, don't change bow direction at the same time.)
M[3-7]
p
Pno.

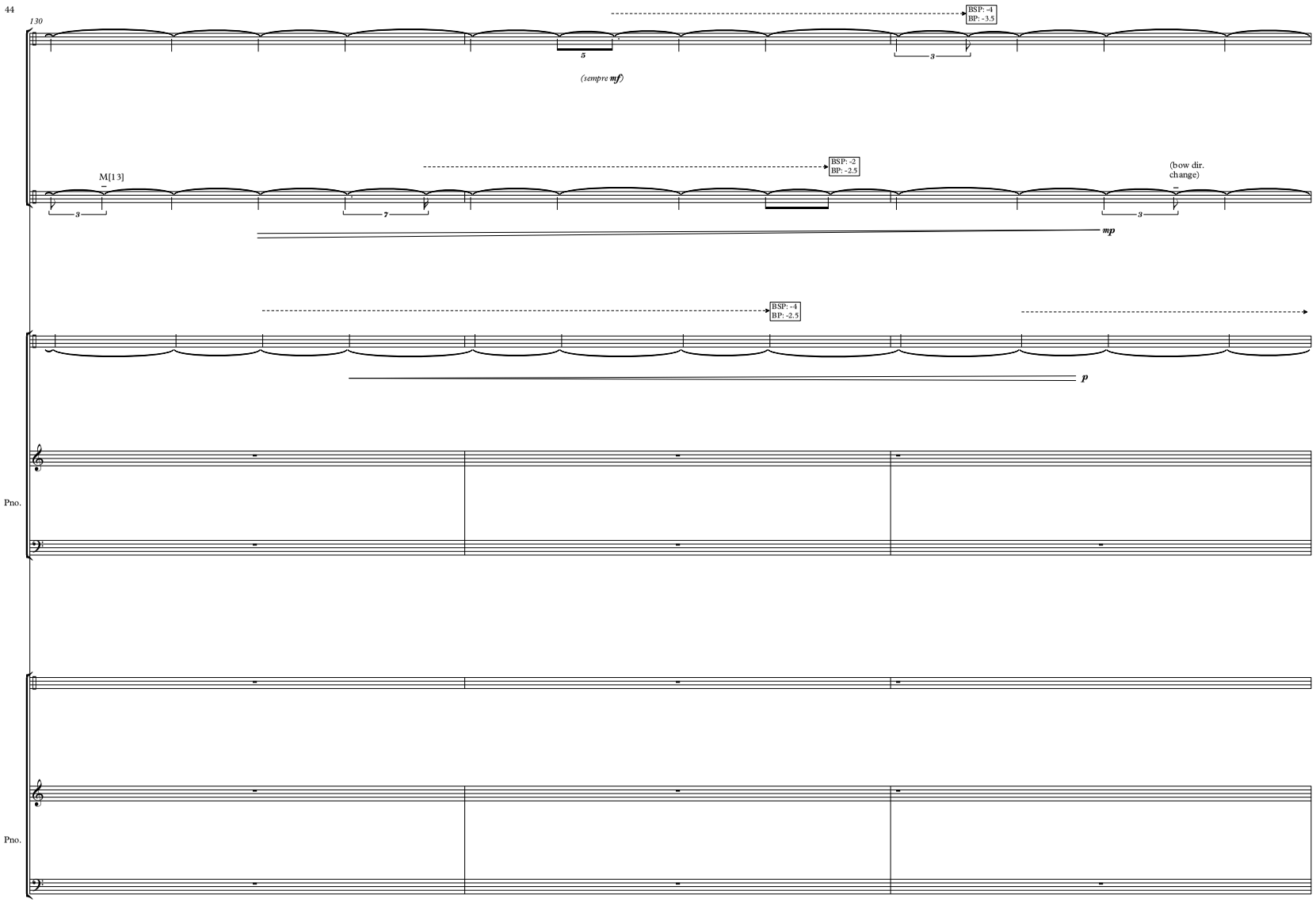

115
l.v.
TAMTAM
BSP: -2
BP: -0.5
slower bow speed,
but not slack, of a
certain energy
M[(3)5-7 (9)]
♩ = 48
39
(narrow sound band)
* more and more towards/
similar to sizzling sound
pp(p)
p
* bow direction change
only if needed
** with teeth
closed, sizzling
♩ = 48
(tamtam)
calmed-down state
(sempre M[(5)7-9])
BSP: -3
BP: -1.5
(sempre p)
♩ = 48
Pno.
(narrowing M band)
M[5-7]
To Pno.
l.v.
slowly and calmly switch over to pno
♩ = 48
Pno.

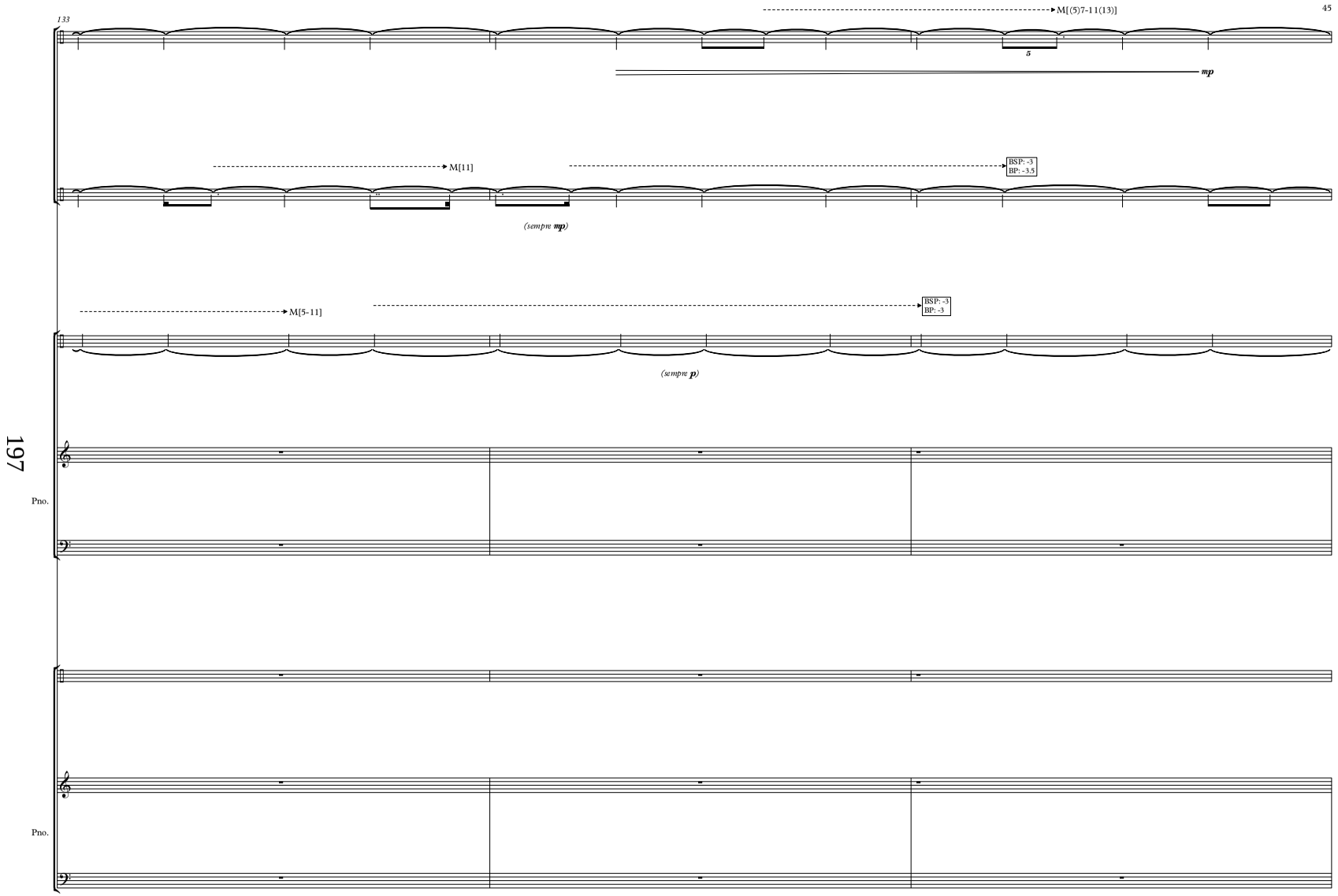

40
(sempre M[(3)5-7(9)])
118
BSP: -3.5
BP: -1.5
3
5
mp
BSP: -3
BP: -2
*
3
mp
* bow direction change
only if needed
Pno.
Pno.

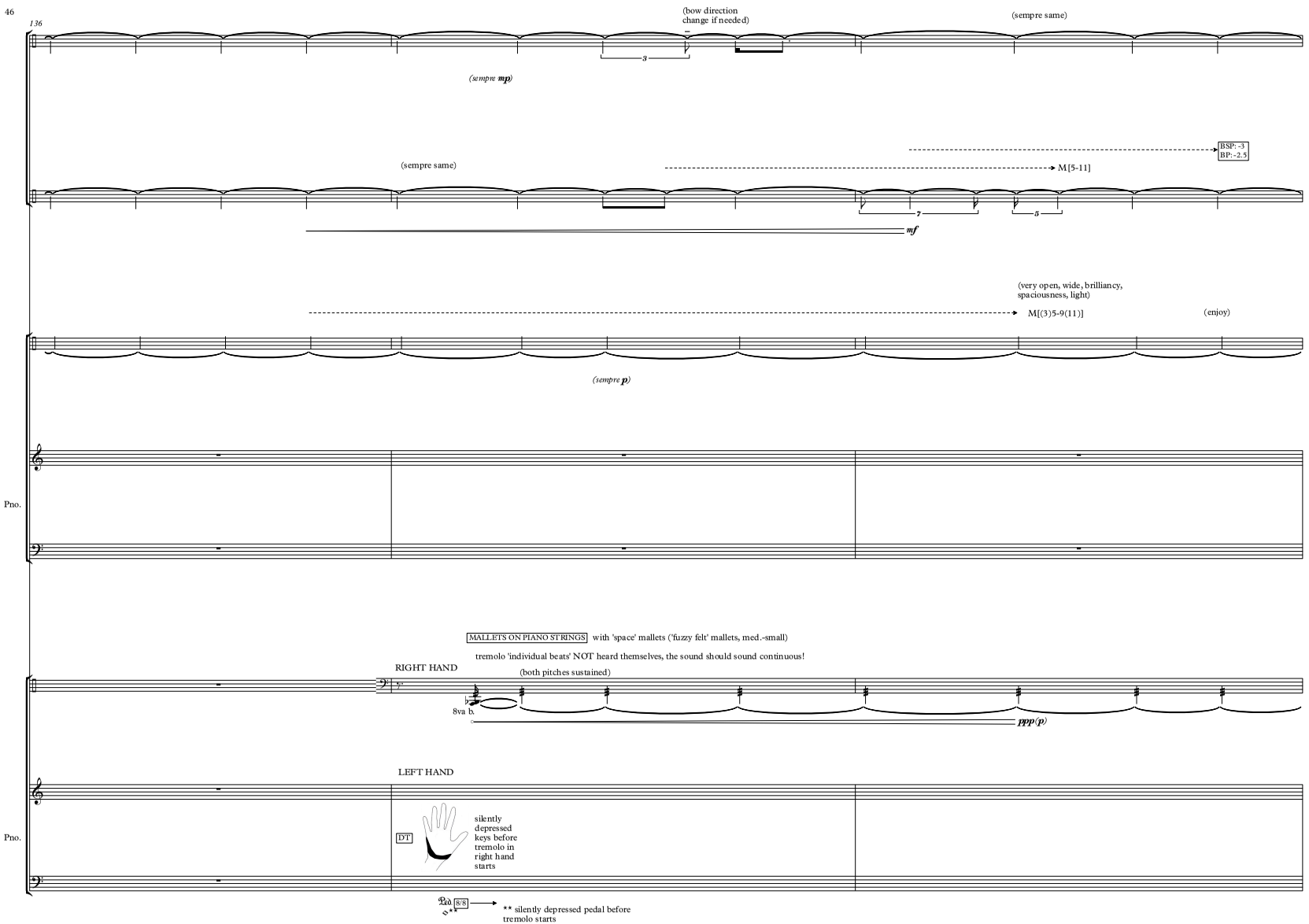

41
BSP: -3
BP: -2
M[(5)7-9(11)]
mf
re-start sound, but as
a pulsation, not interruption or else
M[(3)5-11]
l.v.
BSP: -2
BP: -3
(hold stable)
Pno.
Pno.

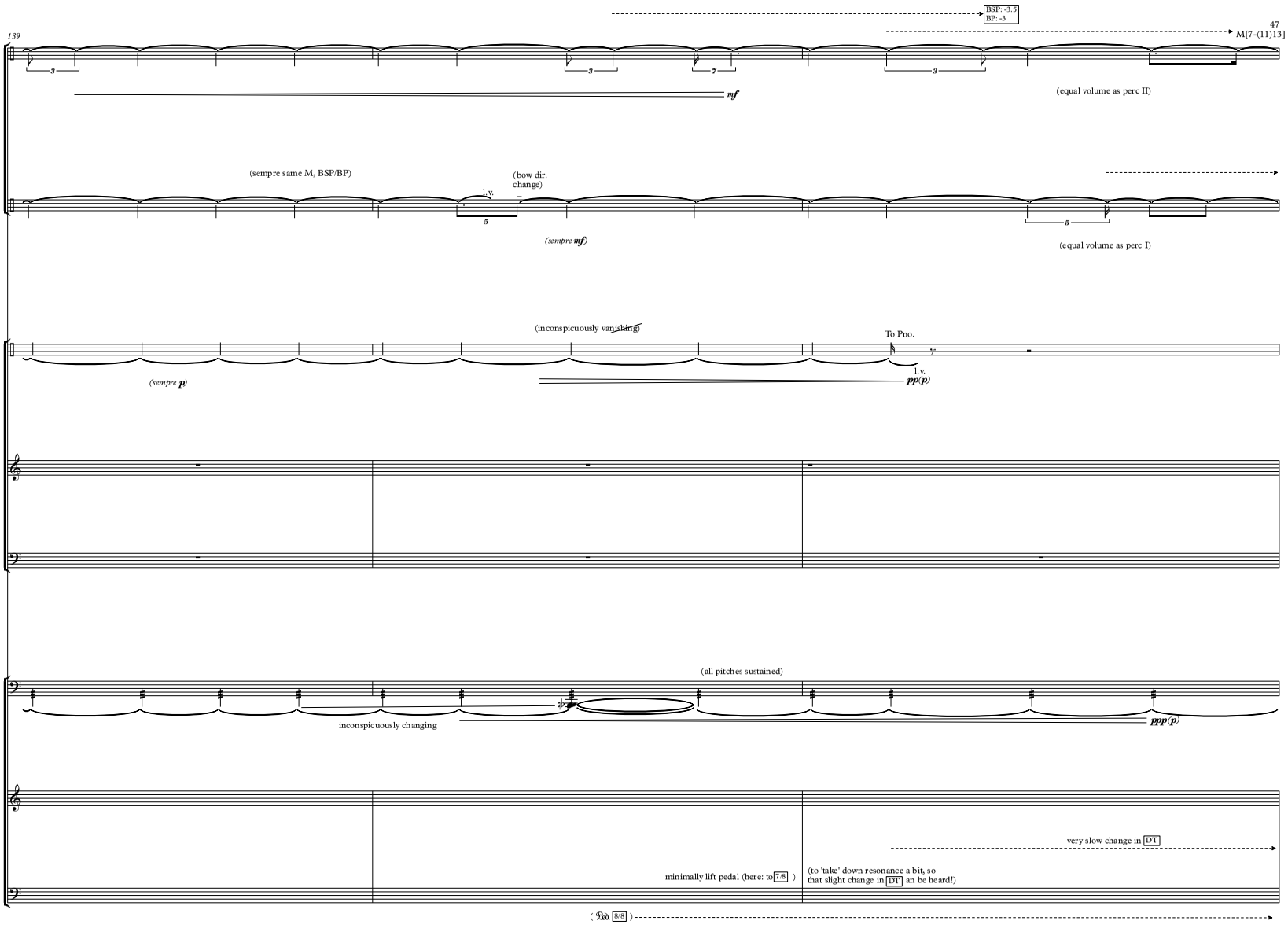

42
124
l.v.
(bow direction change)
(sempre same M)
5
p
mp
(sempre BSP: -2 BP: -3)
rather wide spread
M[5-13]
re-start within resonance of previous sound
l.v.
M[9]*
7
mf
* dampen rim of tamtam with 3 fingers of other hands (next to bowed-on spot)
M[9] center of sound
Pno.
Pno.

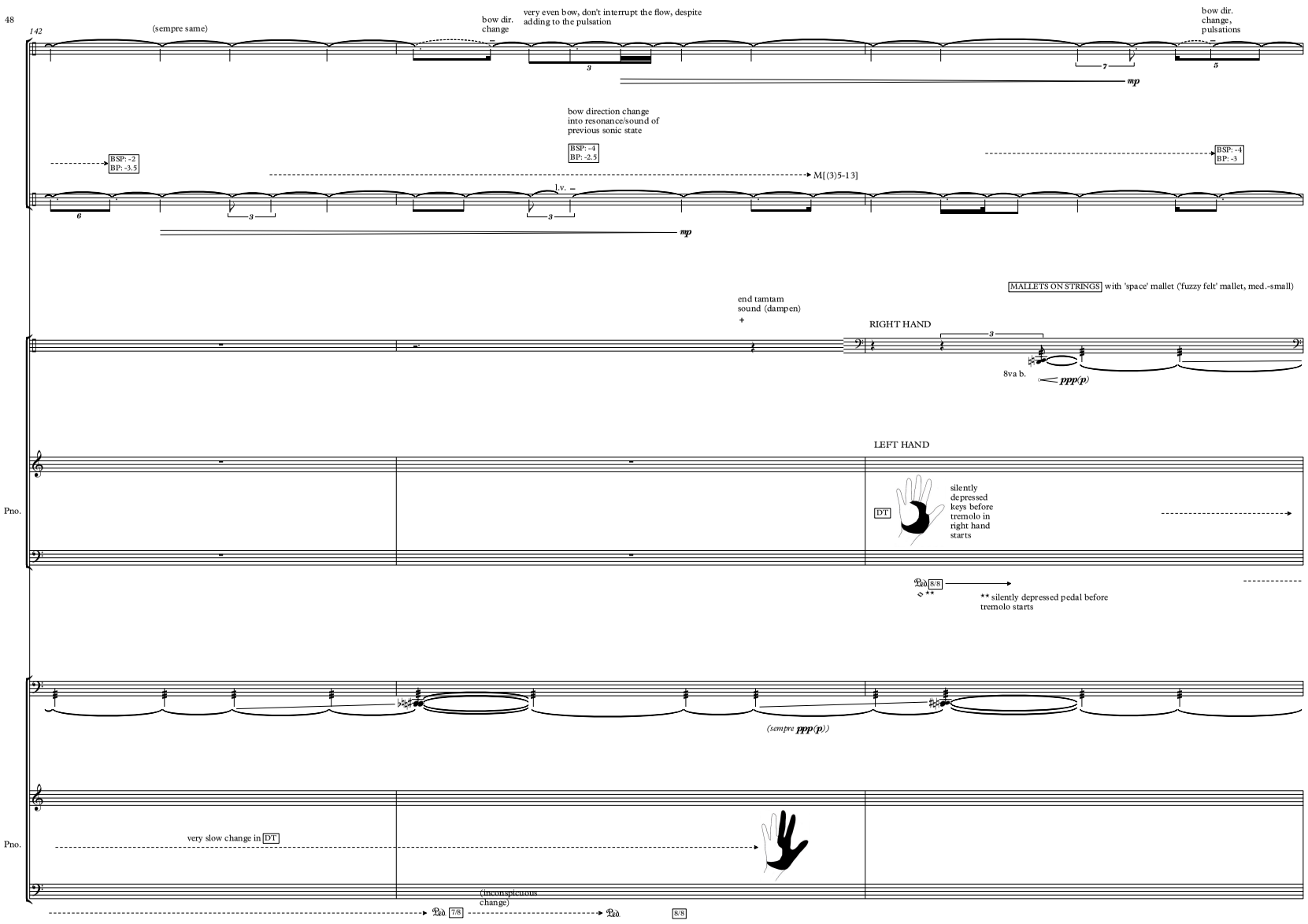

127
BSP: -3.5
BP: -3
M[9-11]
mf
l.v.
M[11]
(sempre mp)
BSP: -2.5
BP: -2
TAMTAM arco
BSP: -3
BP: -1.5
M[(3)5-9]
med.-small instrument
add to color hue to other instruments to
be understood as an aspect of the 2
tamtams, not a different unit of something else
pppp
Pno.
Pno.

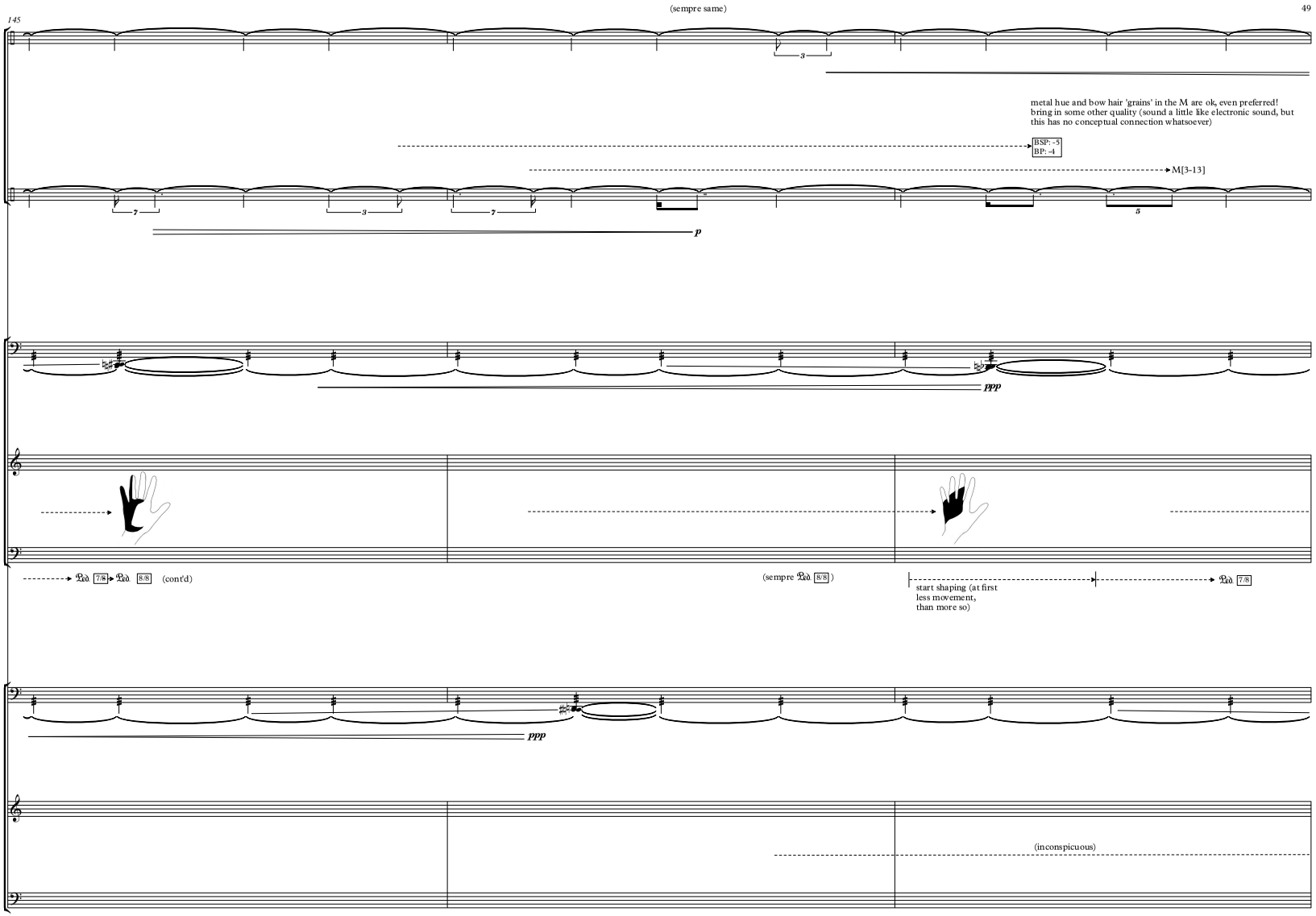

44
130
BSP: -4
BP: -3.5
(sempre mf)
M[13]
BSP: -2
BP: -2.5
(bow dir.
change)
mp
BSP: -4
BP: -2.5
p
Pno.
Pno.

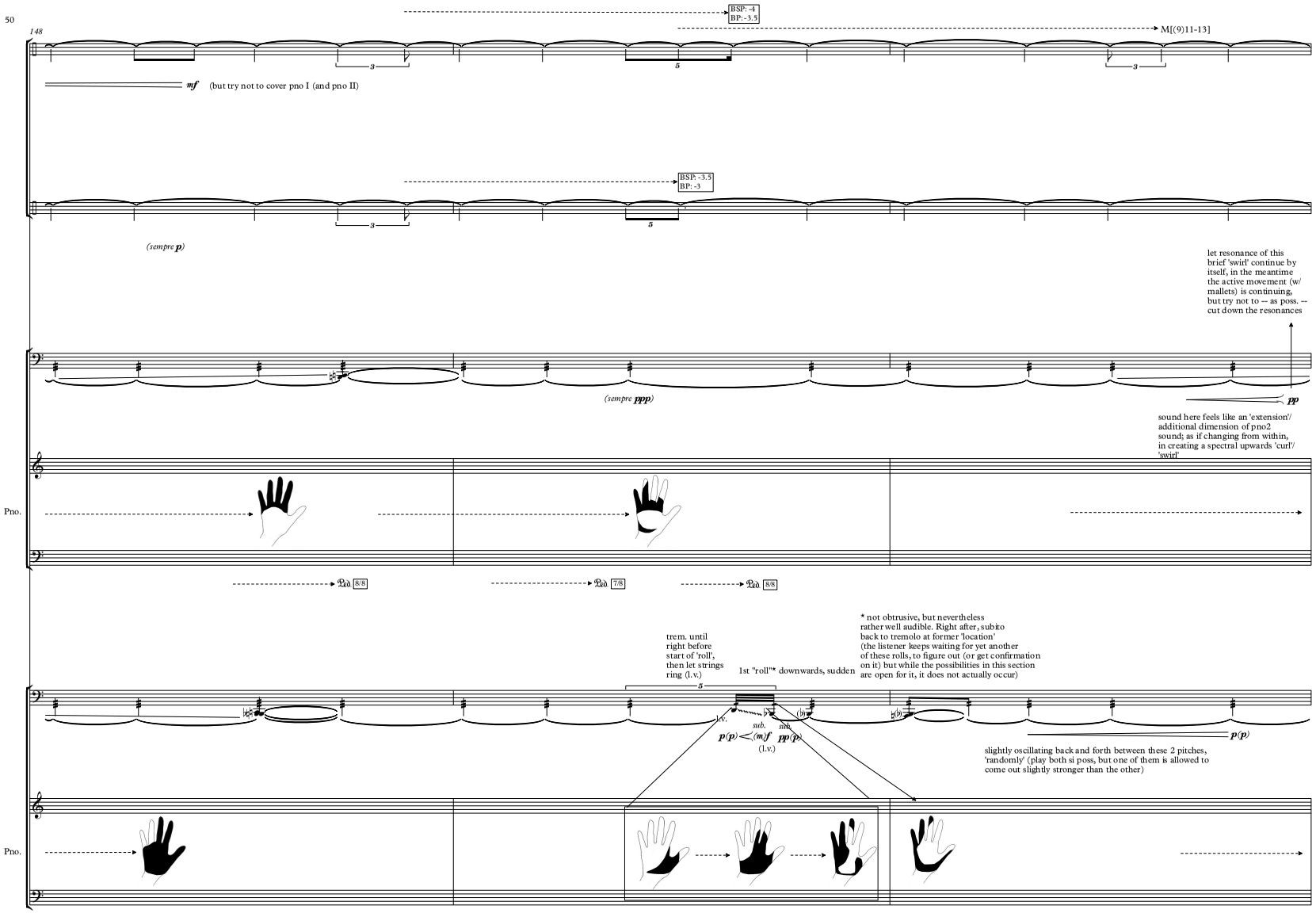

133
M[(5)7-11(13)]
5
mp
M[11]
BSP: -3
BP: -3.5
(sempre mp)
M[5-11]
BSP: -3
BP: -3
(sempre p)
197
Pno.
Pno.

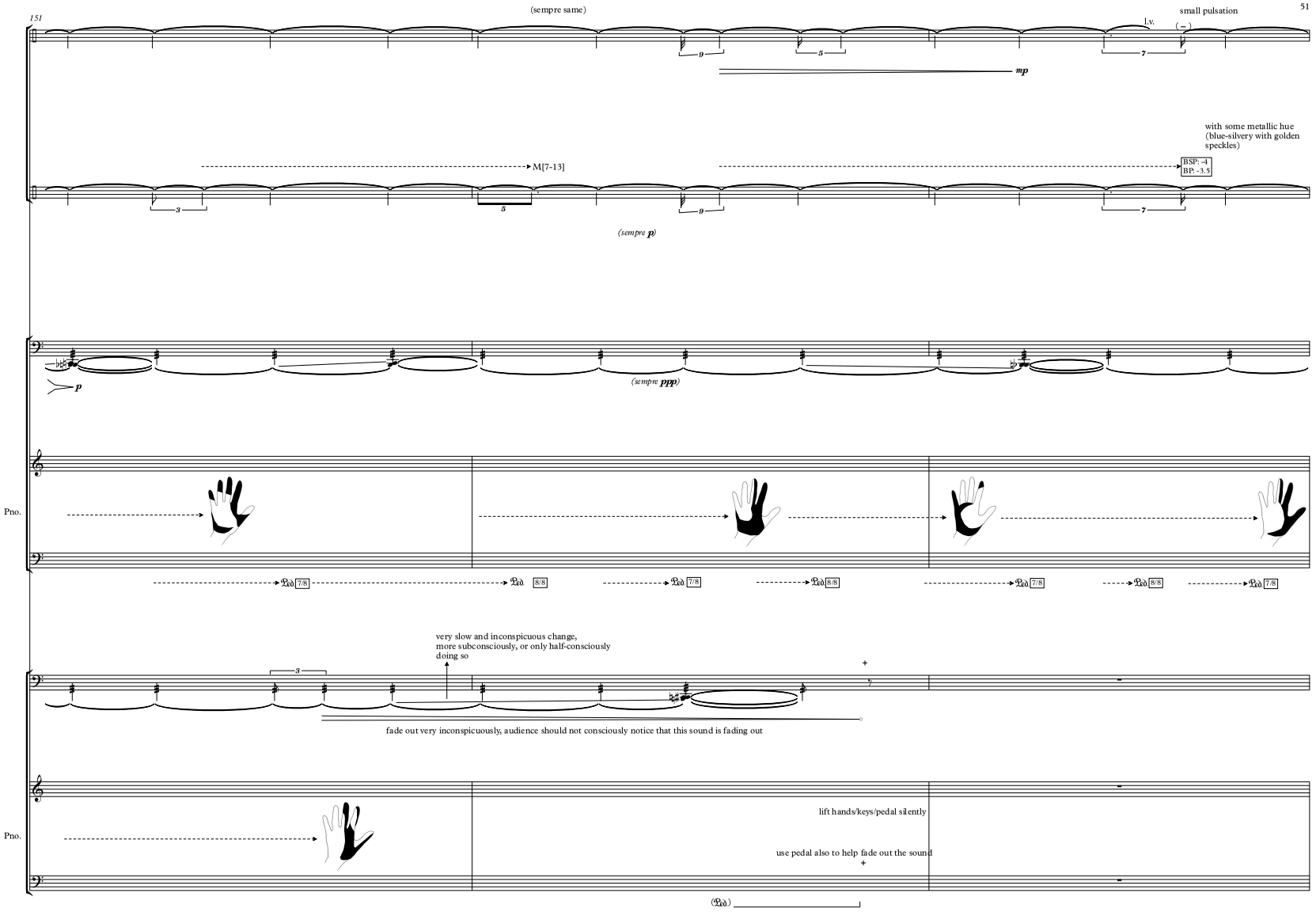

46
136
(bow direction change if needed)
(sempre same)
3
(sempre mp)
(sempre same)
BSP: -3
BP: -2.5
M[5-11]
7
5
mf
(very open, wide, brilliancy, spaciousness, light)
M[(3)5-9(11)]
(enjoy)
(sempre p)
Pno.
MALLETS ON PIANO STRINGS with 'space' mallets ('fuzzy felt' mallets, med.-small)
tremolo 'individual beats' NOT heard themselves, the sound should sound continuous!
RIGHT HAND
(both pitches sustained)
8va b.
ppp (p)
LEFT HAND
DT
silently depressed keys before tremolo in right hand starts
Ped.
R/S
** silently depressed pedal before tremolo starts
Pno.

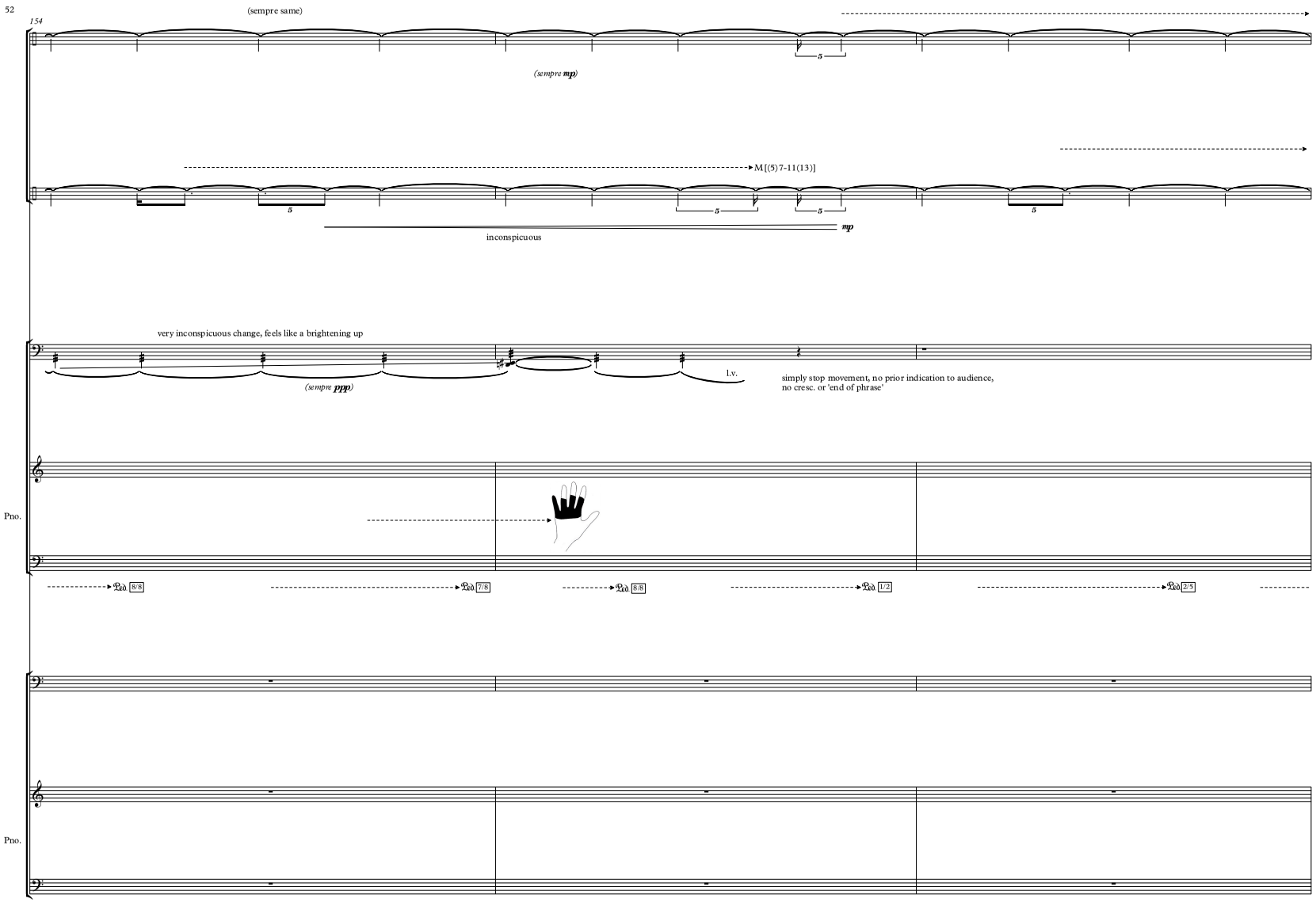

139
BSP: -3.5
BP: -3
47
M[7-(11)13]
mf
(equal volume as perc II)
(sempre same M, BSP/BP)
(bow dir. change)
l.v.
(sempre mf)
(equal volume as perc I)
(inconspicuously vanishing)
To Pno.
(sempre p)
pp(p)
Pno.
(all pitches sustained)
inconspicuously changing
ppp(p)
Pno.
very slow change in DT
minimally lift pedal (here: to 7/8)
(to 'take' down resonance a bit, so that slight change in DT an be heard!)
(8/8)

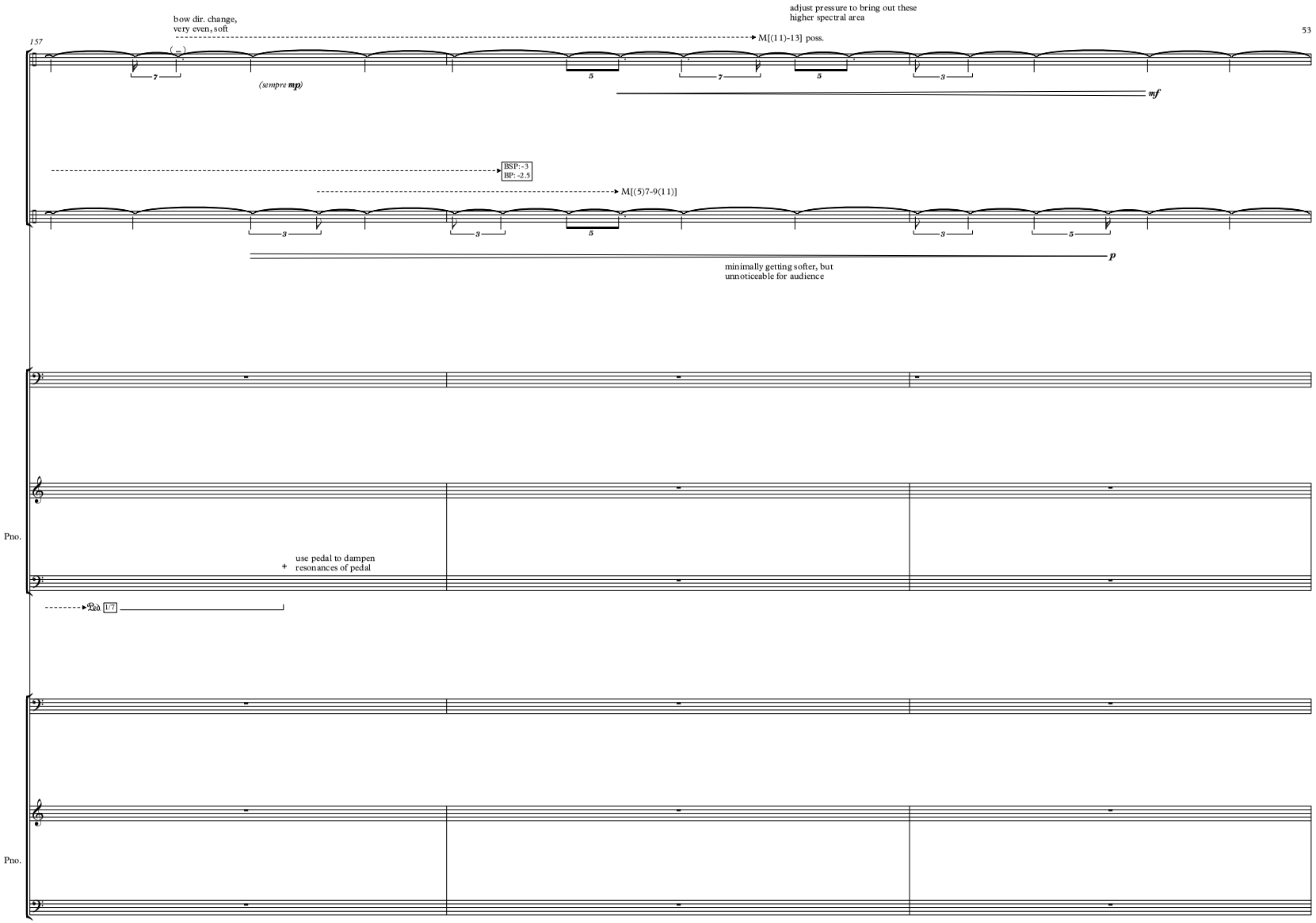

48
142
(sempre same)
bow dir. change
very even bow, don't interrupt the flow, despite adding to the pulsation
bow dir. change, pulsations
mp
bow direction change into resonance/sound of previous sonic state
BSP: -2
BP: -3.5
BSP: -4
BP: -2.5
BSP: -4
BP: -3
M[(3)5-1 3]
l.v.
mp
MALLETS ON STRINGS with 'space' mallet ('fuzzy felt' mallet, med.-small)
end tamtam sound (dampen)
RIGHT HAND
8va b.
ppp(p)
LEFT HAND
Pno.
DT
silently depressed keys before tremolo in right hand starts
8/8
** silently depressed pedal before tremolo starts
(sempre ppp(p))
Pno.
very slow change in DT
(inconspicuous change)
7/8
8/8

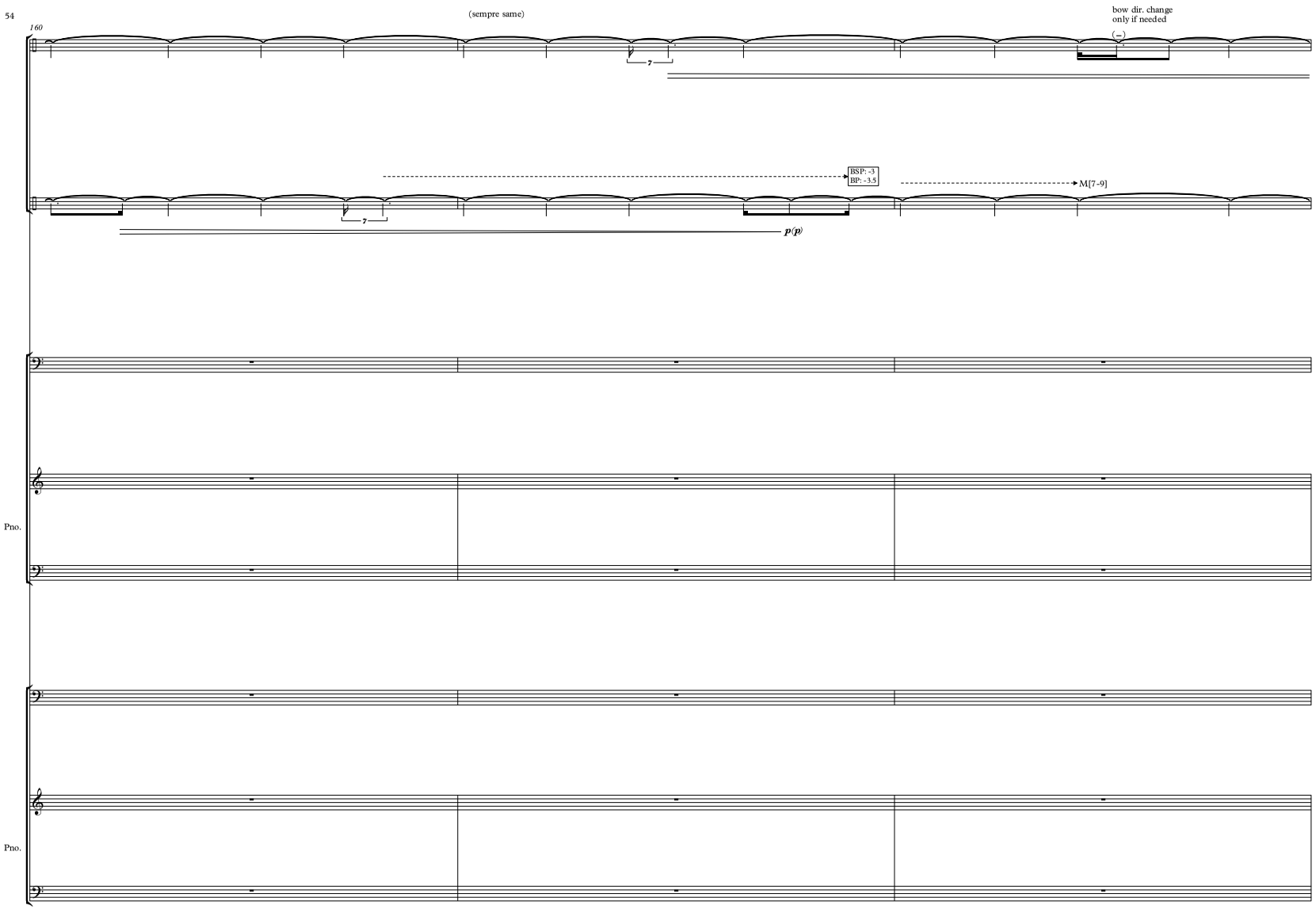

145
(sempre same)
49
metal hue and bow hair 'grains' in the M are ok, even preferred!
bring in some other quality (sound a little like electronic sound, but
this has no conceptual connection whatsoever)
BSP: -5
BP: -4
M[3-13]
p
ppp
Pno.
7/8
8/8
(cont'd)
(sempre 8/8)
start shaping (at first
less movement,
than more so)
7/8
ppp
Pno.
(inconspicuous)

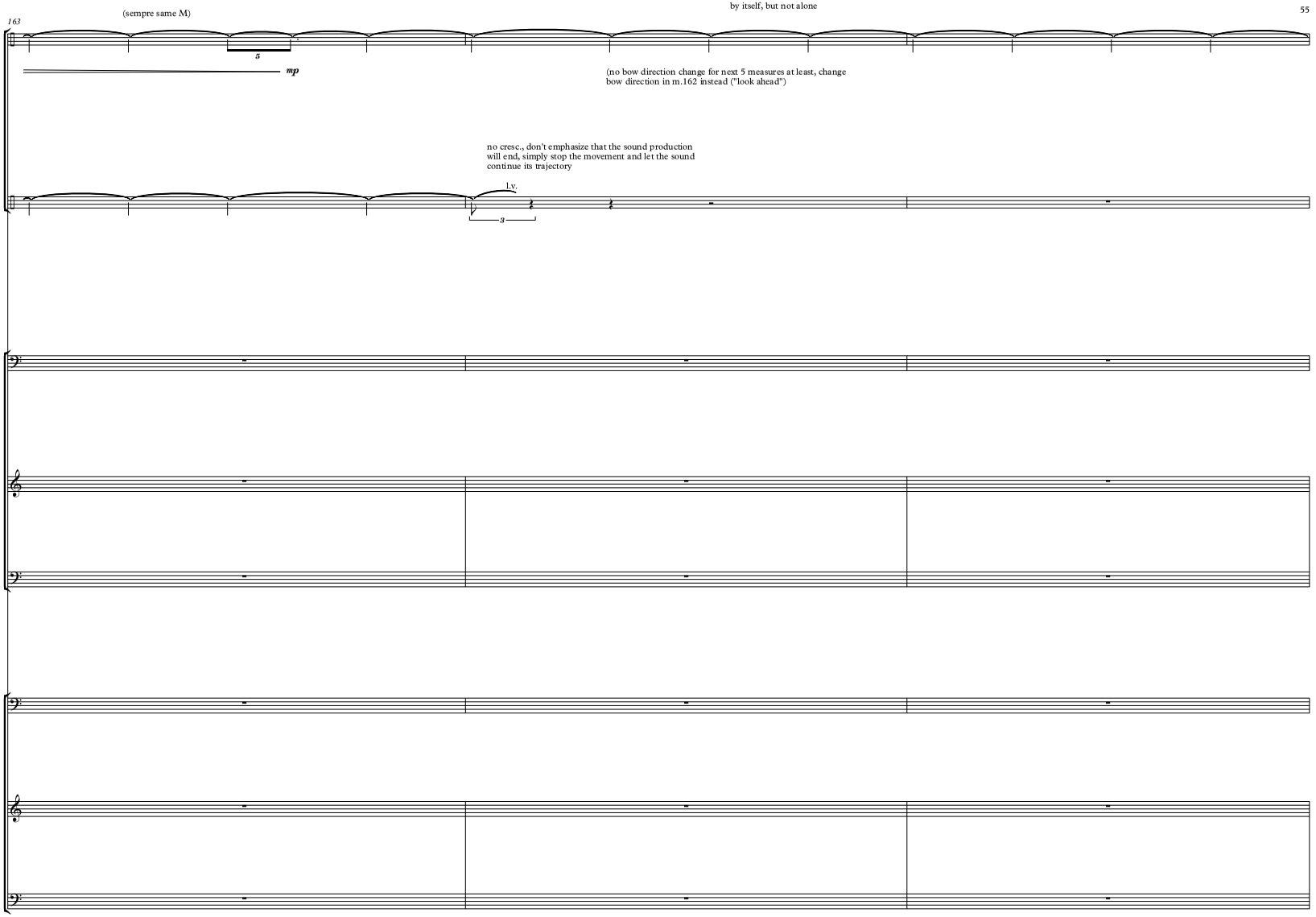

50
148
BSP: -4
BP: -3.5
M[(9)11-13]
mf
(but try not to cover pno I (and pno II)
BSP: -3.5
BP: -3
(sempre p)
let resonance of this brief 'swirl' continue by itself, in the meantime the active movement (w/ mallets) is continuing, but try not to -- as poss. -- cut down the resonances
(sempre ppp)
pp
sound here feels like an 'extension'/ additional dimension of pno2 sound; as if changing from within, in creating a spectral upwards 'curl'/ 'swirl'
Pno.
Ped. 8/8
Ped. 7/8
Ped. 8/8
trem. until right before start of 'roll', then let strings ring (l.v.)
1st "roll"* downwards, sudden
* not obtrusive, but nevertheless rather well audible. Right after, subito back to tremolo at former 'location' (the listener keeps waiting for yet another of these rolls, to figure out (or get confirmation on it) but while the possibilities in this section are open for it, it does not actually occur)
l.v.
sub.
sub.
p (p)
(mf
pp (p)
(l.v.)
p (p)
slightly oscillating back and forth between these 2 pitches, 'randomly' (play both si poss, but one of them is allowed to come out slightly stronger than the other)
Pno.

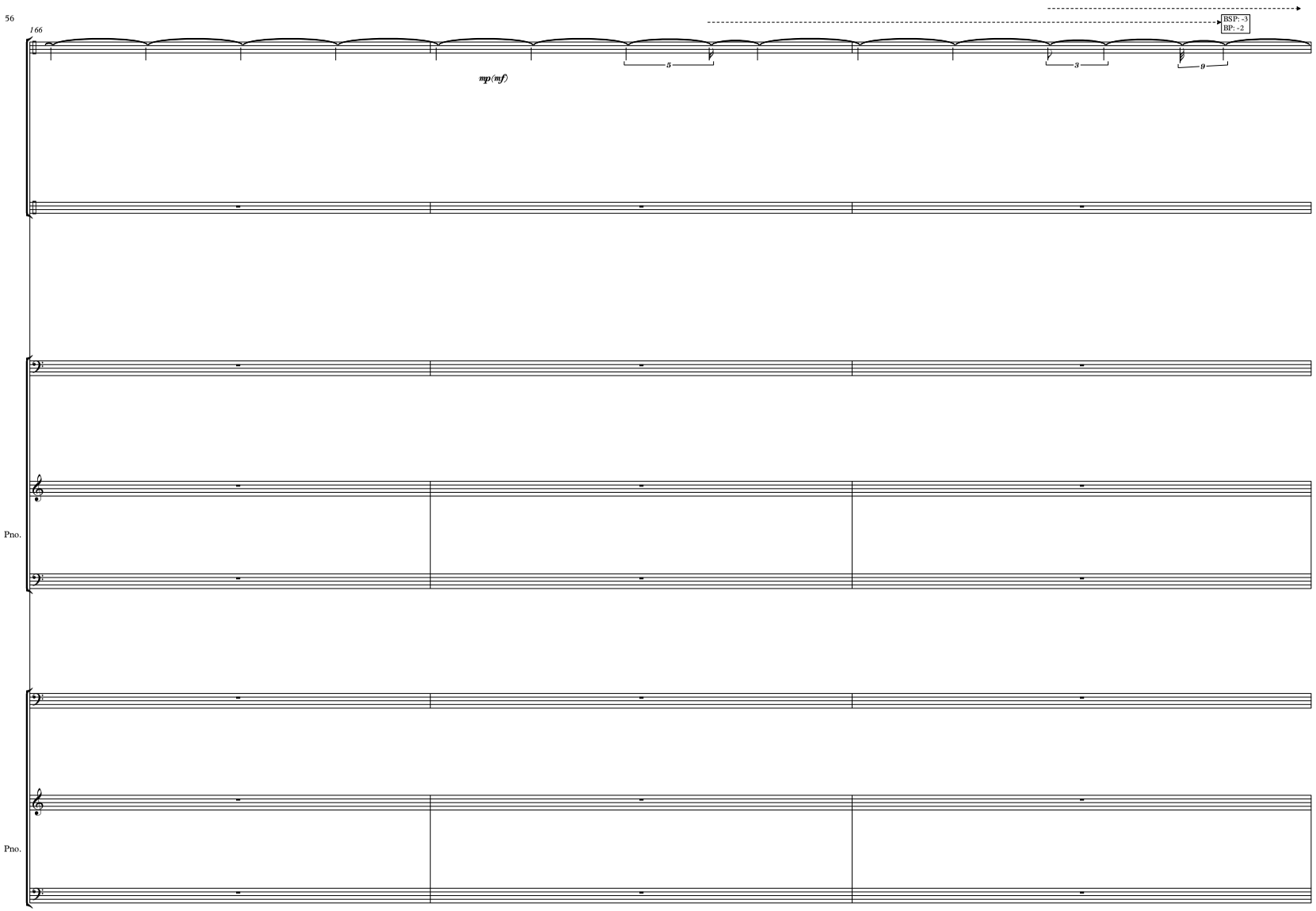

151
(sempre same)
small pulsation
51
l.v.
mp
with some metallic hue
(blue-silvery with golden
speckles)
M[7-13]
BSP: -4
BP: -3.5
(sempre p)
p
(sempre ppp)
Pno.
very slow and inconspicuous change,
more subconsciously, or only half-consciously
doing so
fade out very inconspicuously, audience should not consciously notice that this sound is fading out
Pno.
lift hands/keys/pedal silently
use pedal also to help fade out the sound


52
154
(sempre same)
(sempre mp)
M[(5)7-11(13)]
inconspicuous
mp
very inconspicuous change, feels like a brighteningup
(sempre ppp)
l.v.
simply stop movement, no prior indication to audience,
no cresc. or 'end of phrase'
Pno.
Pno.


157
bow dir. change,
very even, soft
M[(11)-13] poss.
adjust pressure to bring out these
higher spectral area
53
(sempre mp)
mf
BSP: -3
BP: -2.5
M[(5)7-9(11)]
p
minimally getting softer, but
unnoticeable for audience
Pno.
use pedal to dampen
resonances of pedal
1/7
Pno.


54
160
(sempre same)
bow dir. change
only if needed
BSP: -3
BP: -3.5
M[7-9]
p (p)
Pno.
Pno.


163
(sempre same M)
5
mp
(no bow direction change for next 5 measures at least, change bow direction in m.162 instead ("look ahead")
no cresc., don't emphasize that the sound production will end, simply stop the movement and let the sound continue its trajectory
l.v.
3
Pno.
Pno.


56
166
RSP: -3
BP: -2
mp⟨mf⟩
5
3
9
Pno.
Pno.


M[(7)9-11(13)]
briefly broadening spectrum, but then becoming more
fragile again (but enjoyably so, fragile is not meant to be negative here!)
let the audience listen, given them time, with you just staying there
57
169
9
(dynamics: (mp)-mf)
Pno.
Pno.

58

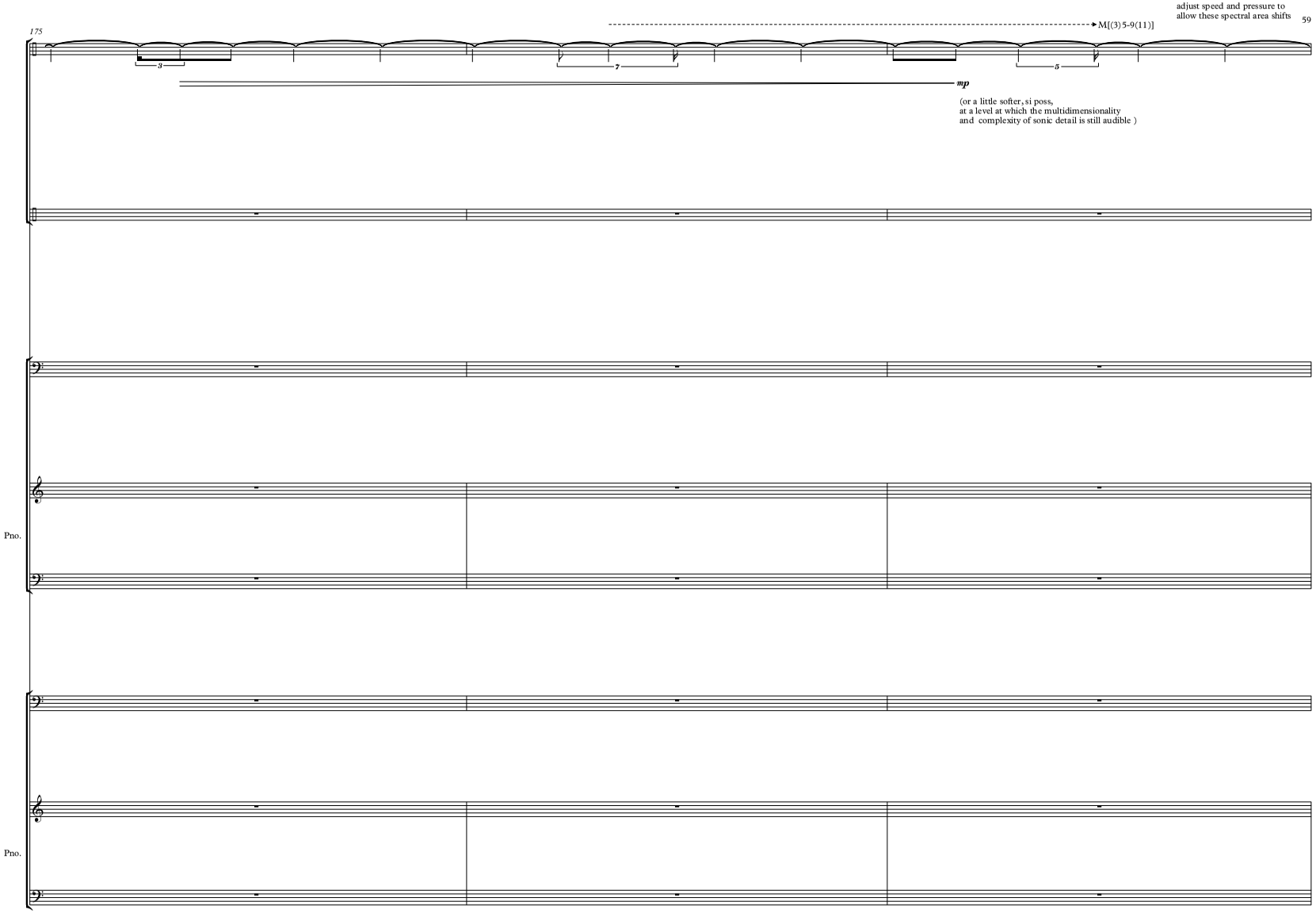
(sempre same)

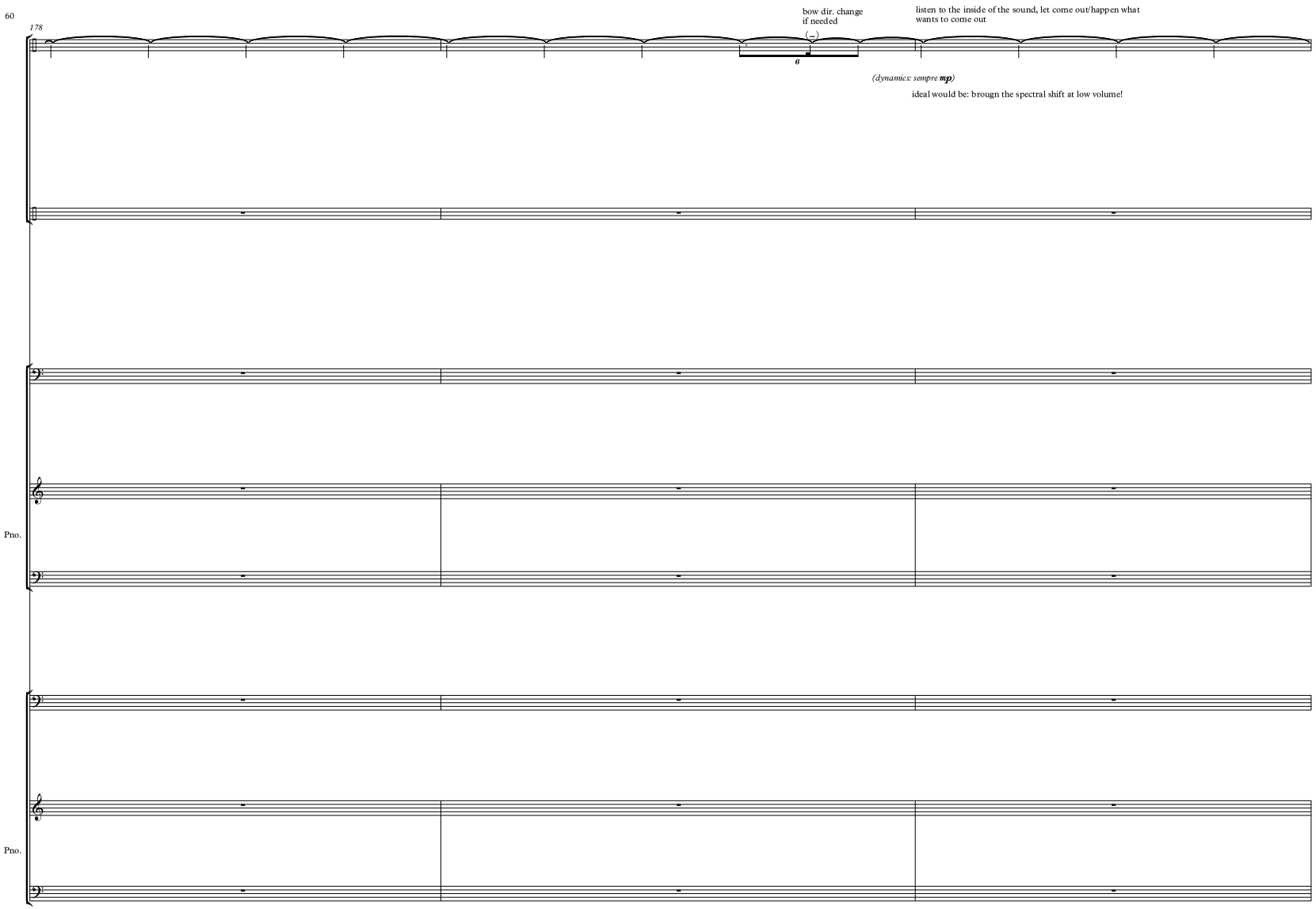
172

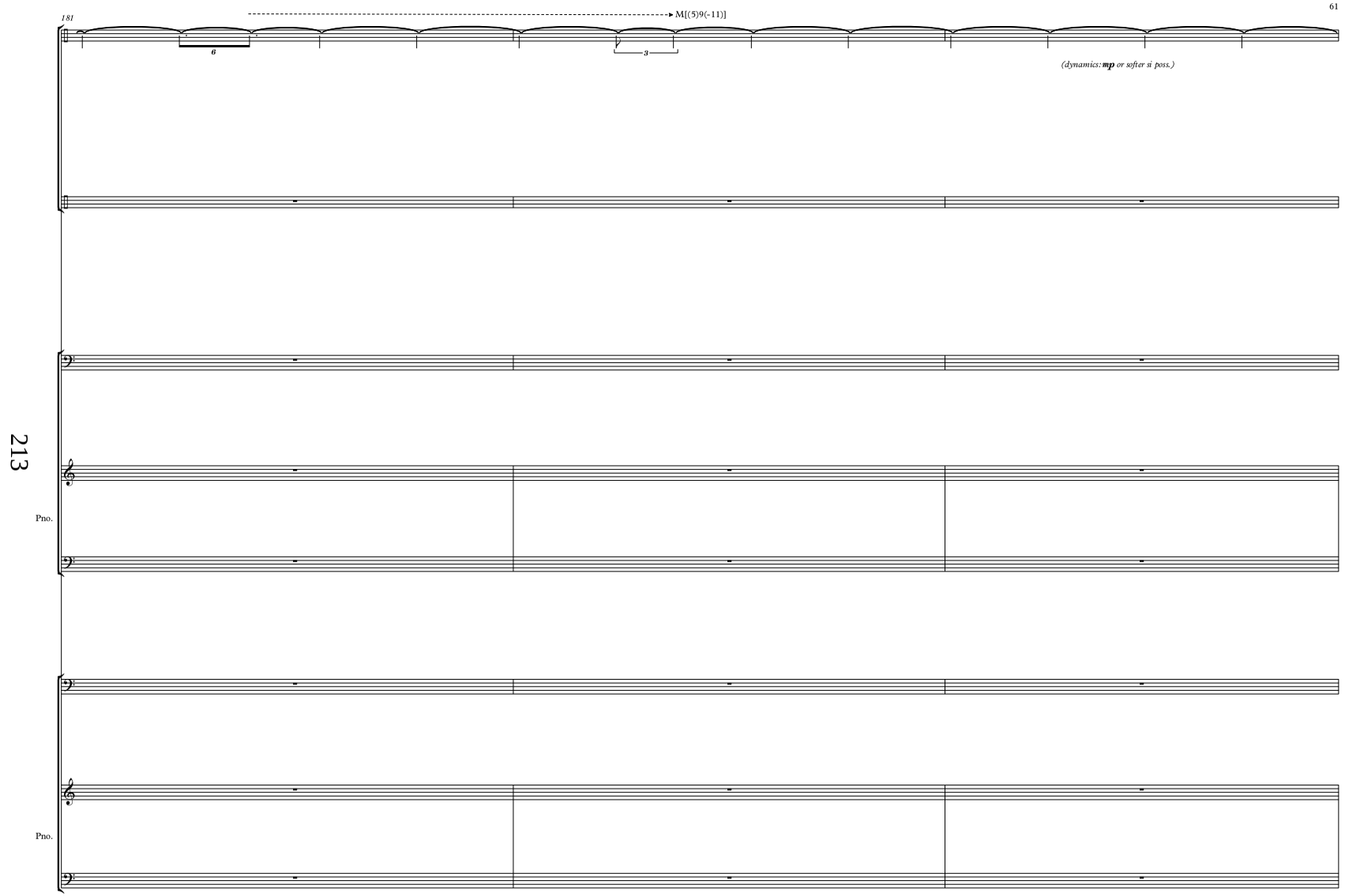
*(dynamics: (**mp**)-**mf**)*

Pno.

Pno.


175
M[(3)5-9(11)]
adjust speed and pressure to
allow these spectral area shifts
59
3
7
5
mp
(or a little softer, si poss,
at a level at which the multidimensionality
and complexity of sonic detail is still audible)
Pno.
Pno.


60
178
bow dir. change
if needed
listen to the inside of the sound, let come out/happen what
wants to come out
(dynamics: sempre mp)
ideal would be: brougn the spectral shift at low volume!
Pno.
Pno.


181
M[(5)9(-11)]
6
3
(dynamics: mp or softer si poss.)
213
Pno.
Pno.

62

184

starting to become more fragile

M[9-13]

5 5 9 5

p (or softer, but loud enough to bring out spectral changes. Hearing bow hair and metallic hue/'breath' is ok and considered part of this sound.

Pno.

Pno.


187
very fragile, but beautiful, start to 'sit there' and just watch it
M[(9)-13]
7
215
Pno.
Pno.

64

very fragile, but in a positive way, enjoy listening and being out there

190

M[11-13]

5

very soft dynamics, but keep (and enjoy) the level of detail and complexity revealing itself, and spontaneous occurrences emerging!

Pno.

Pno.

193

sempre very fragile

217

MALLETS ON PNO STRINGS

8va b.

ppppppp

Pno.

DT

8/8

pedal and keys
depressed silently
before start of
mallet sound

Pno.

66

196

minimally strengthening, so that re-starting of others doesn't sound violent, as it is no interruption or disturbance. Only the 'space' is getting consciously larger, although it was already large anyway, butwe forgot about it...

(sempre same M and BSP/BP)
stay there for a bit, let the other sounds/players slowly shift into your sound

ppppp

minimal pulsations
(like a little artifact)
audible within
continuous sound
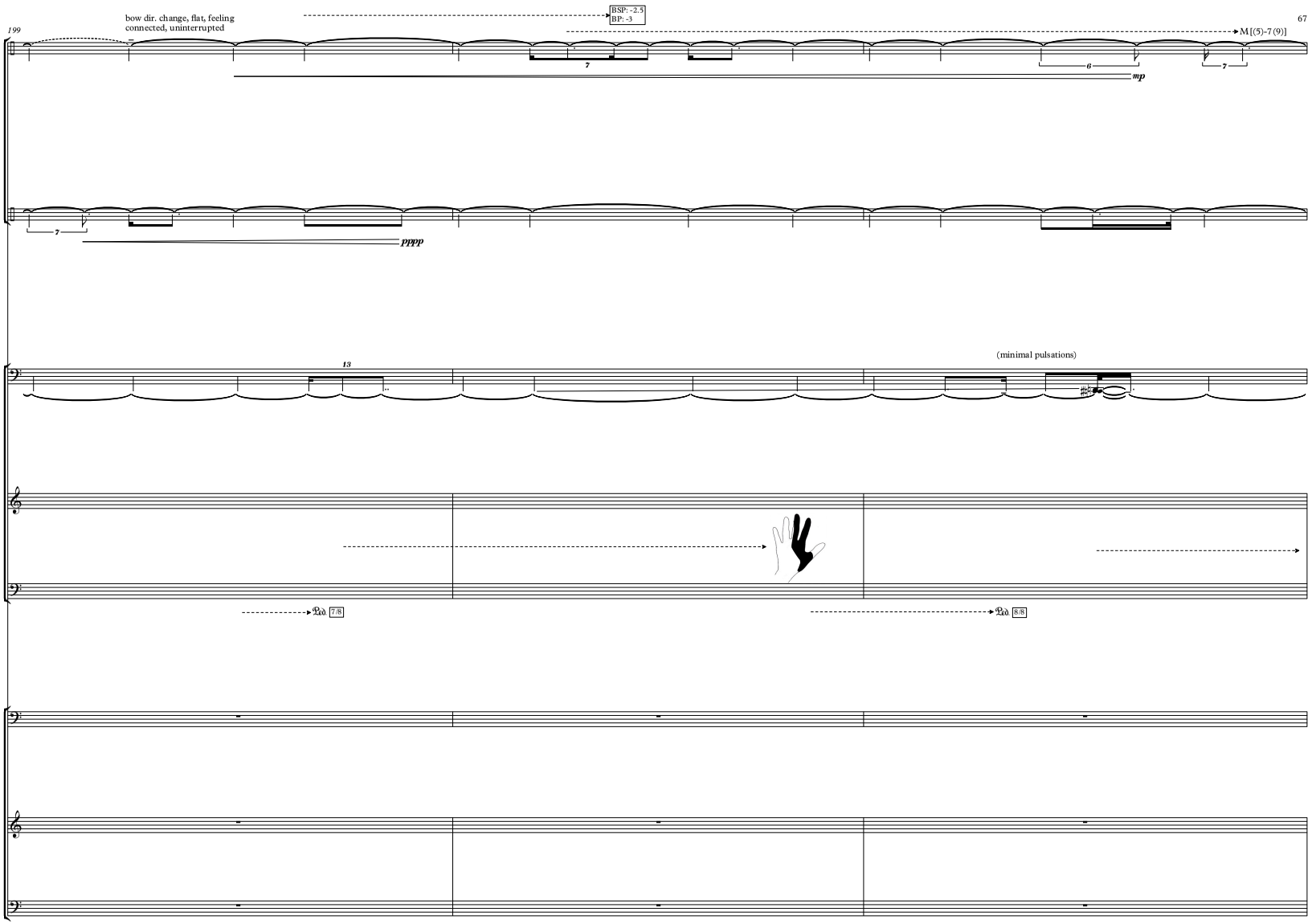
(minimal pulsation)

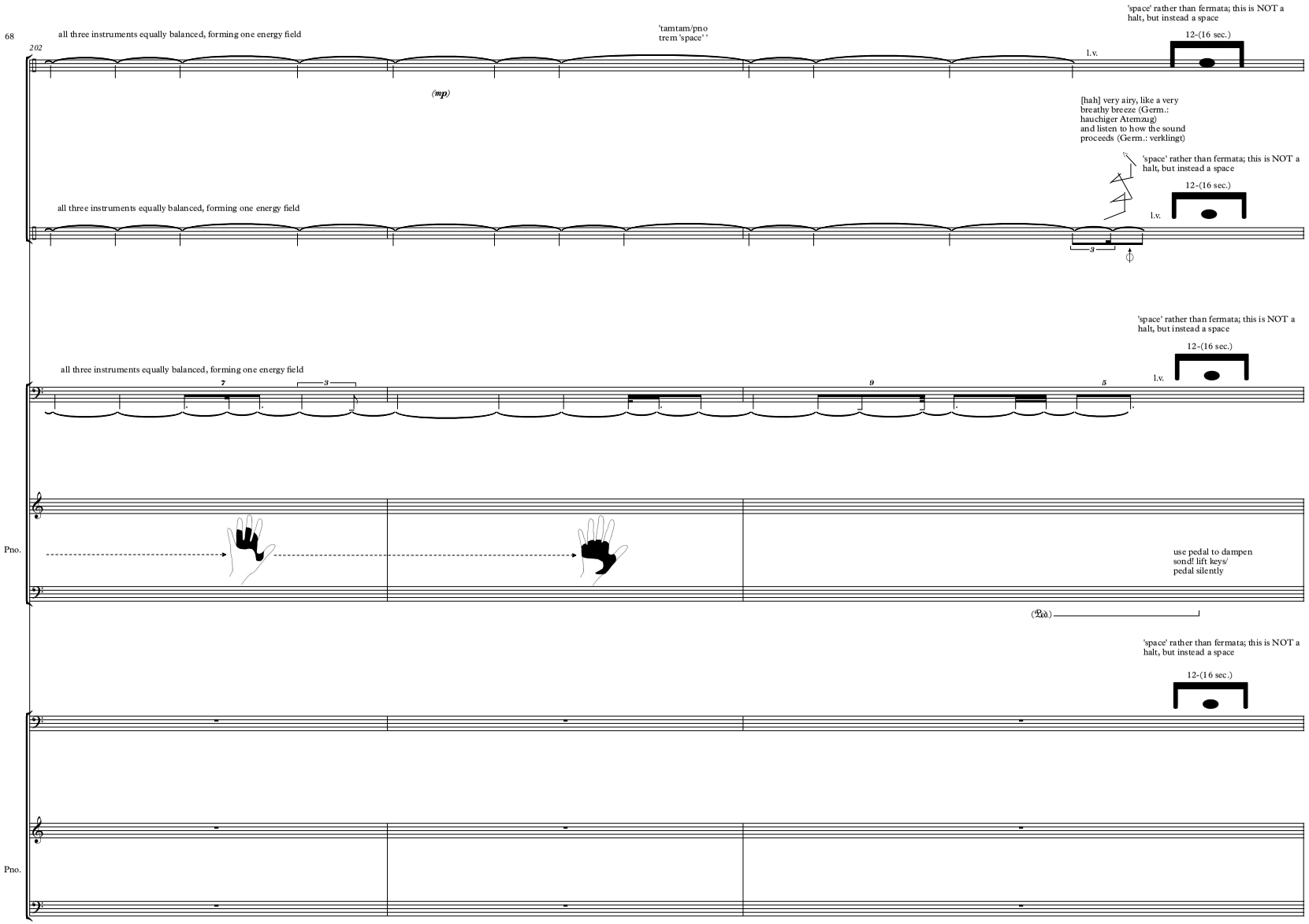
pppp

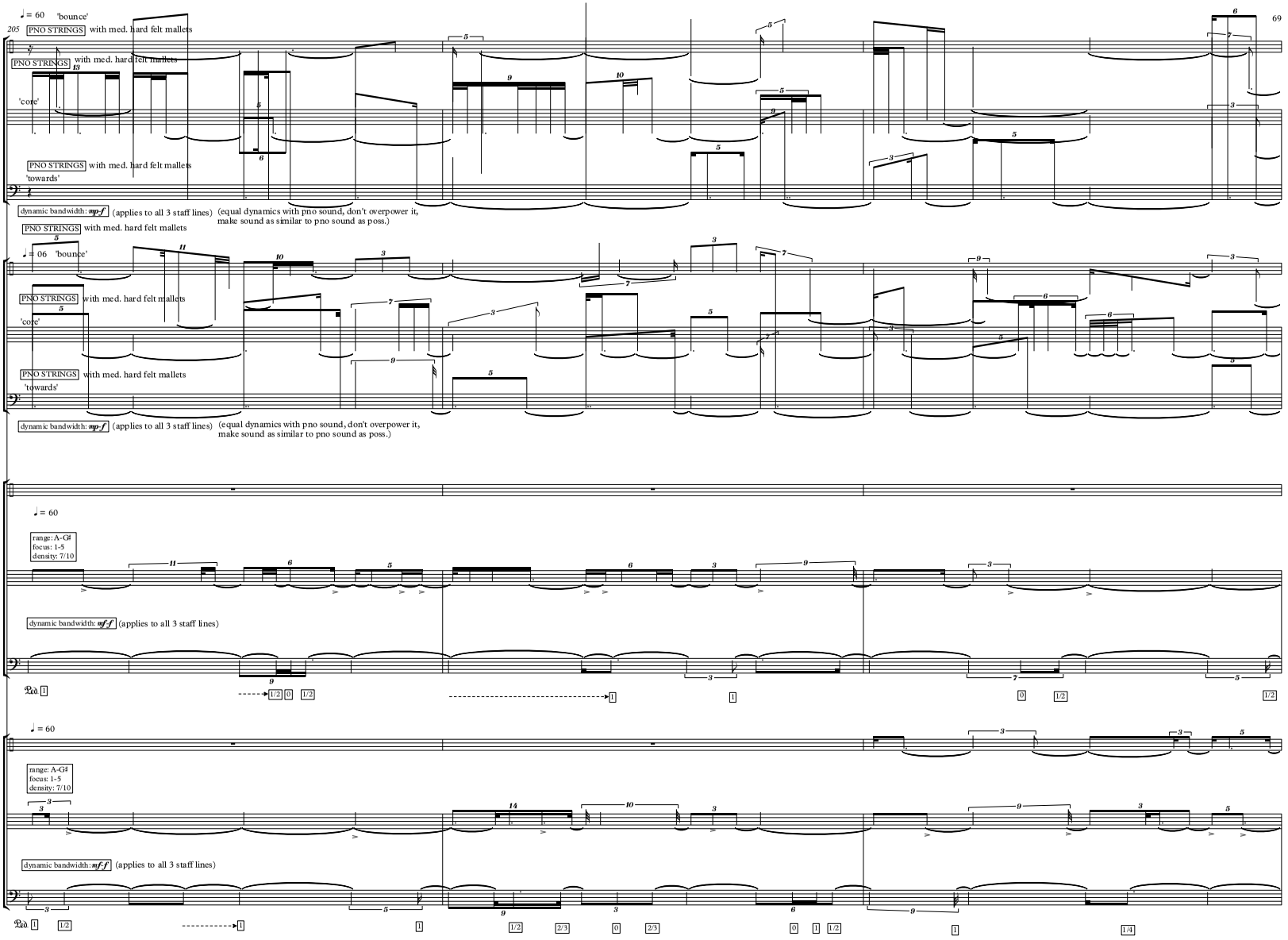
Pno.

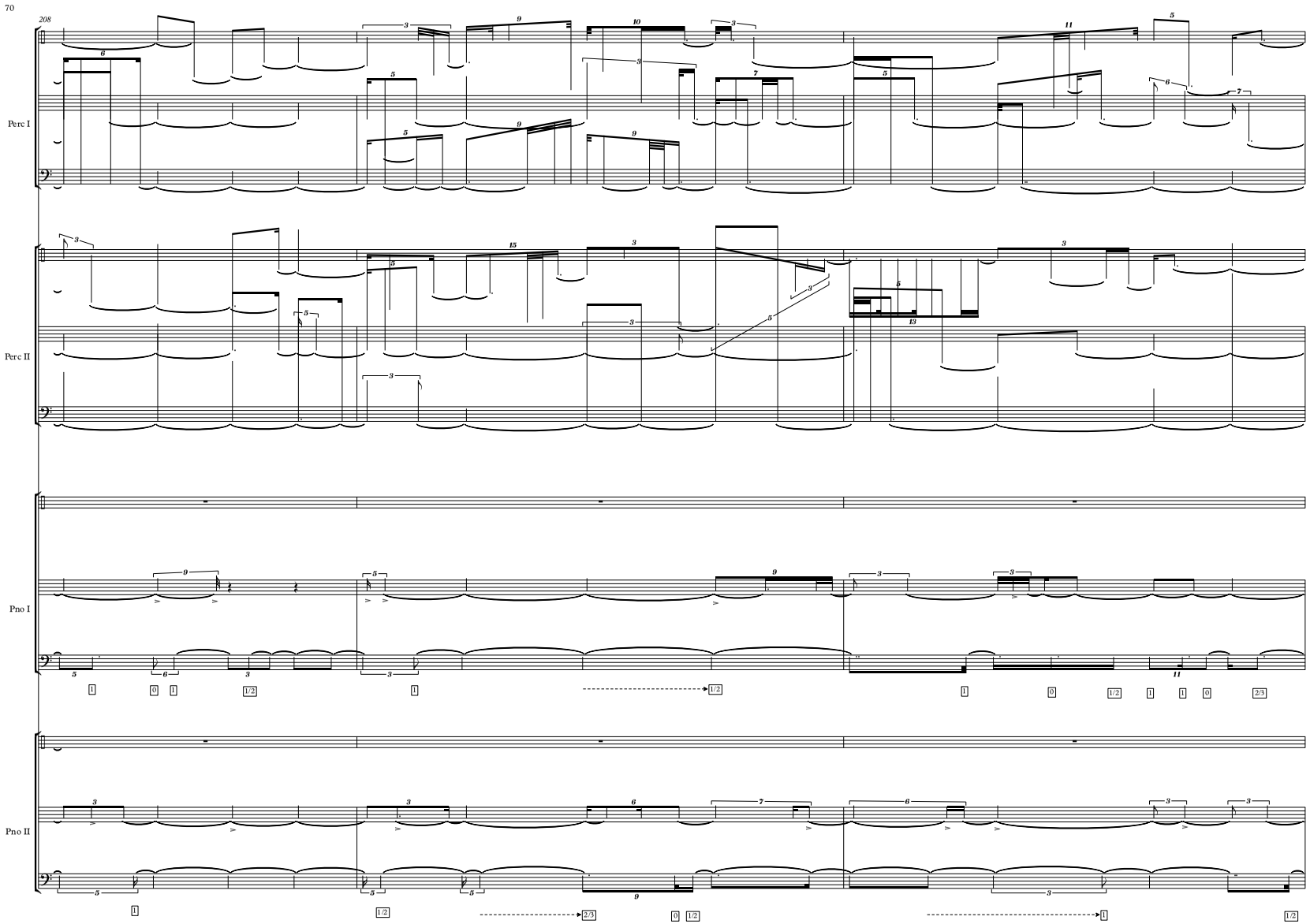
7/8 8/8 7/8 8/8

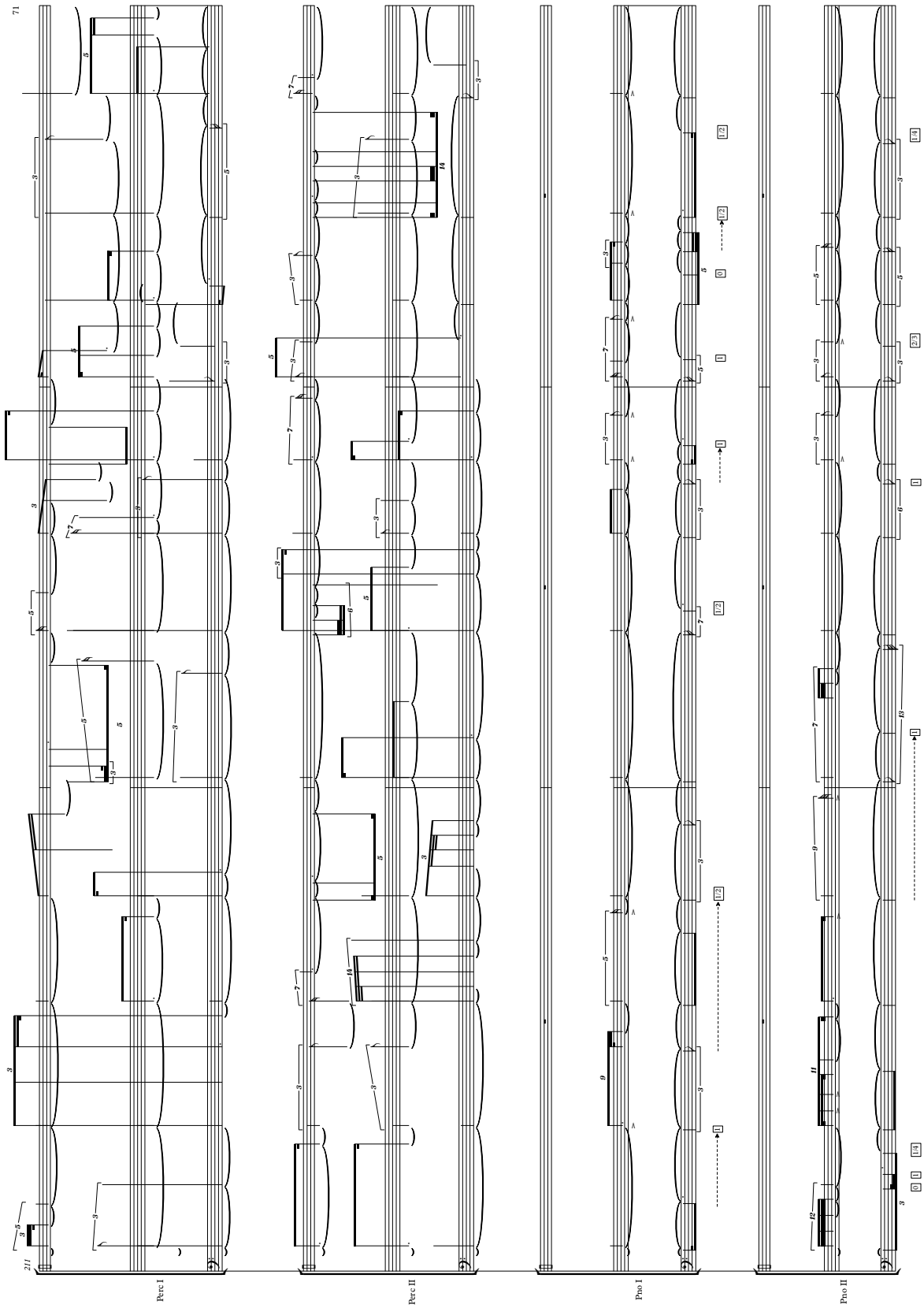
Pno.

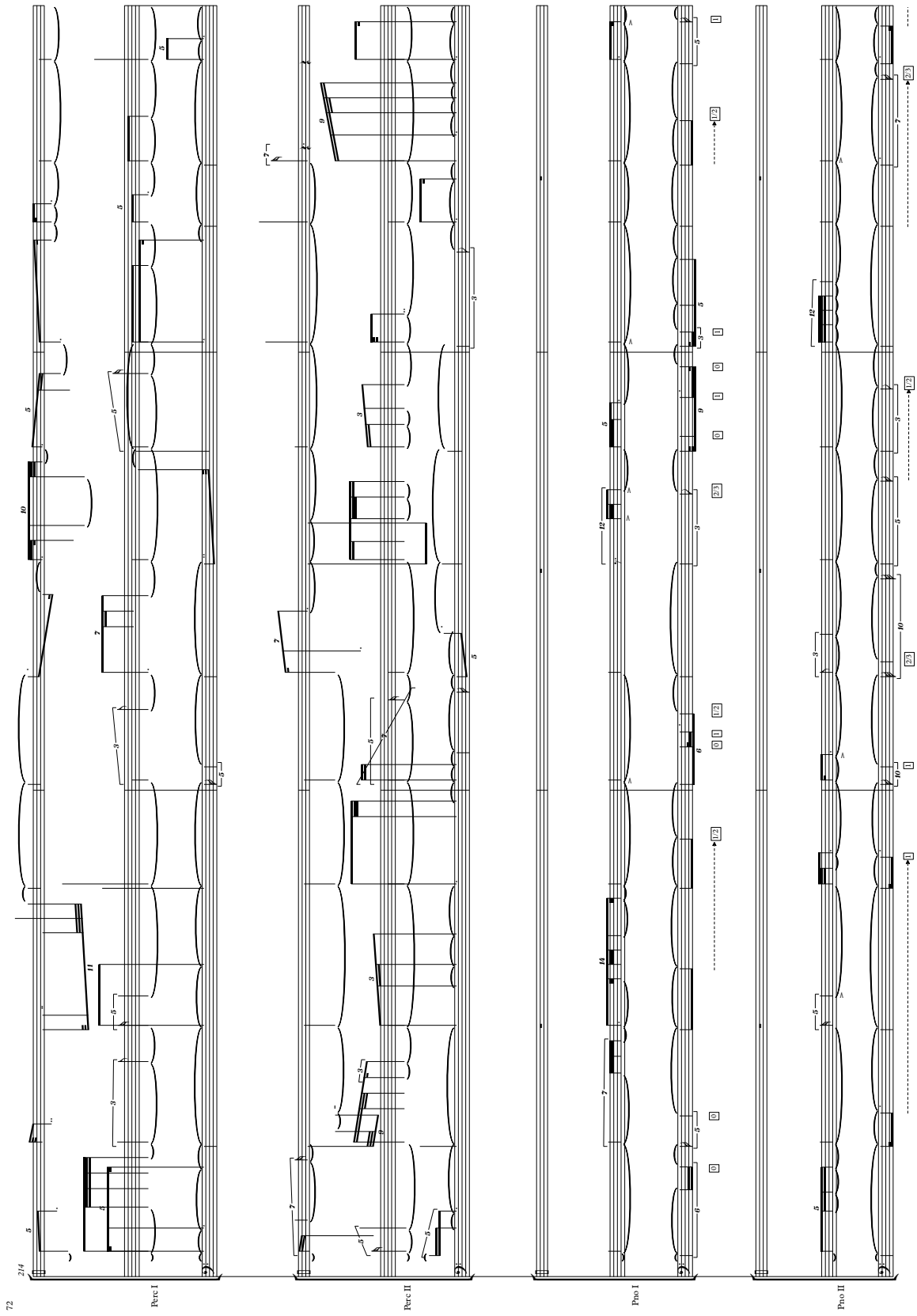

199
bow dir. change, flat, feeling
connected, uninterrupted
BSP: -2.5
BP: -3
67
M [(5)-7 (9)]
mp
pppp
13
(minimal pulsations)
Pno.
7/8
8/8
Pno.

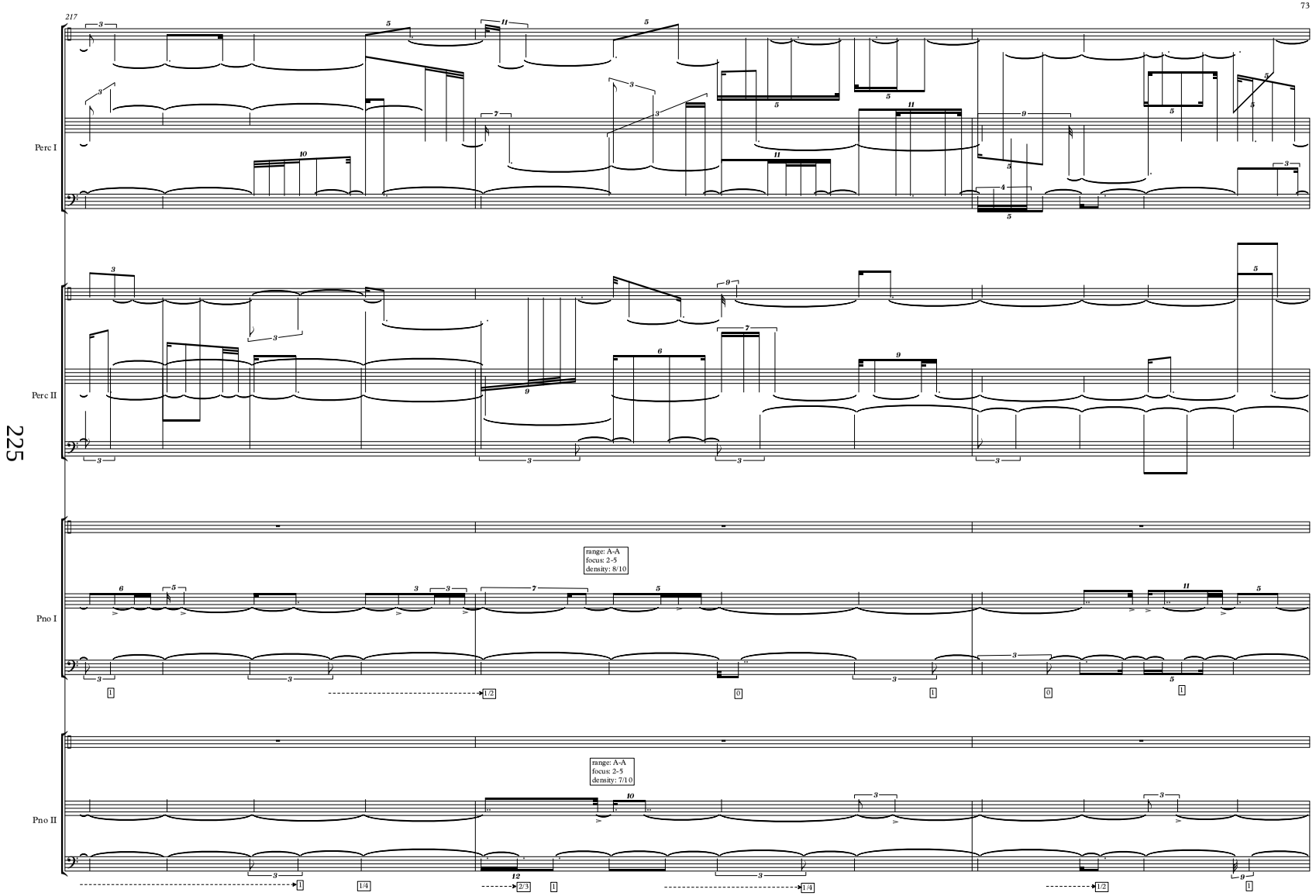

68
all three instruments equally balanced, forming one energy field
'tamtam/pno trem 'space' '
'space' rather than fermata; this is NOT a halt, but instead a space
12-(16 sec.)
l.v.
(mp)
[hah] very airy, like a very breathy breeze (Germ.: hauchiger Atemzug) and listen to how the sound proceeds (Germ.: verklingt)
all three instruments equally balanced, forming one energy field
'space' rather than fermata; this is NOT a halt, but instead a space
12-(16 sec.)
l.v.
all three instruments equally balanced, forming one energy field
'space' rather than fermata; this is NOT a halt, but instead a space
12-(16 sec.)
l.v.
Pno.
use pedal to dampen sond! lift keys/ pedal silently
'space' rather than fermata; this is NOT a halt, but instead a space
12-(16 sec.)
Pno.

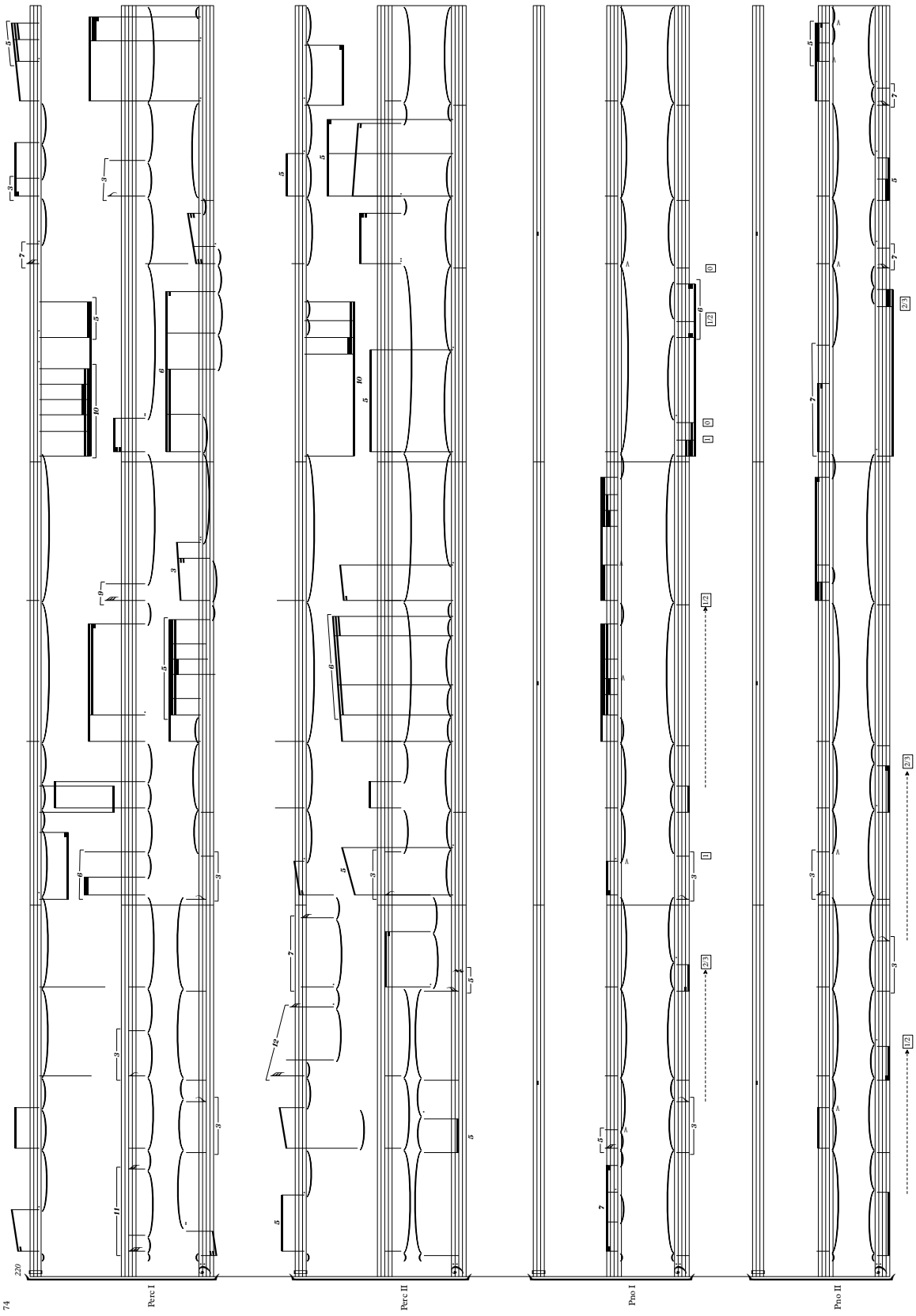

205
69
♩ = 60 'bounce'
PNO STRINGS with med. hard felt mallets
'core'
'towards'
Perc I
dynamic bandwidth: mp-f (applies to all 3 staff lines) (equal dynamics with pno sound, don't overpower it, make sound as similar to pno sound as poss.)
♩ = 06 'bounce'
Perc II
♩ = 60
range: A-G♯
focus: 1-5
density: 7/10
Pno I
dynamic bandwidth: mf-f (applies to all 3 staff lines)
Pno II

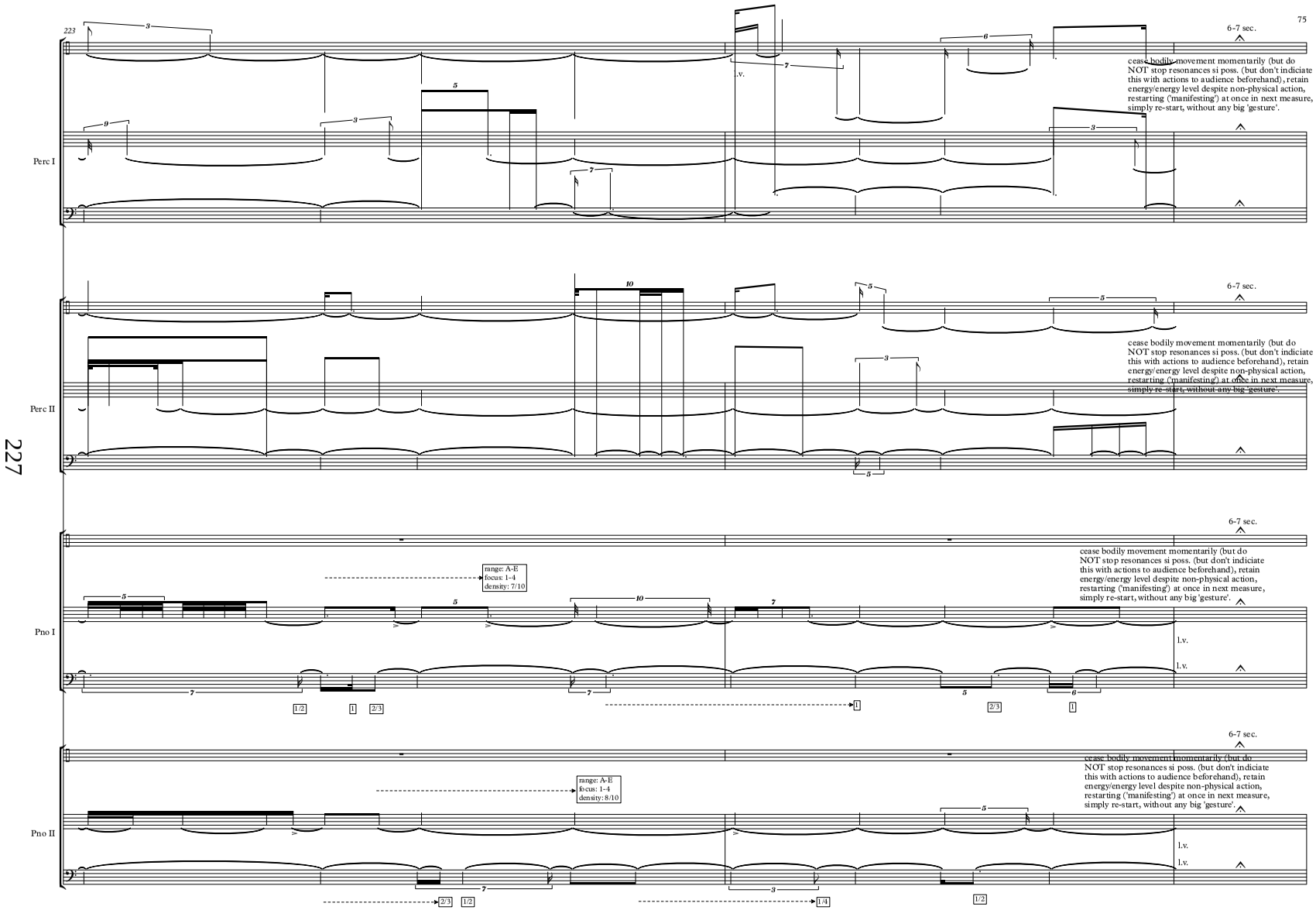

70
208
Perc I
Perc II
Pno I
Pno II
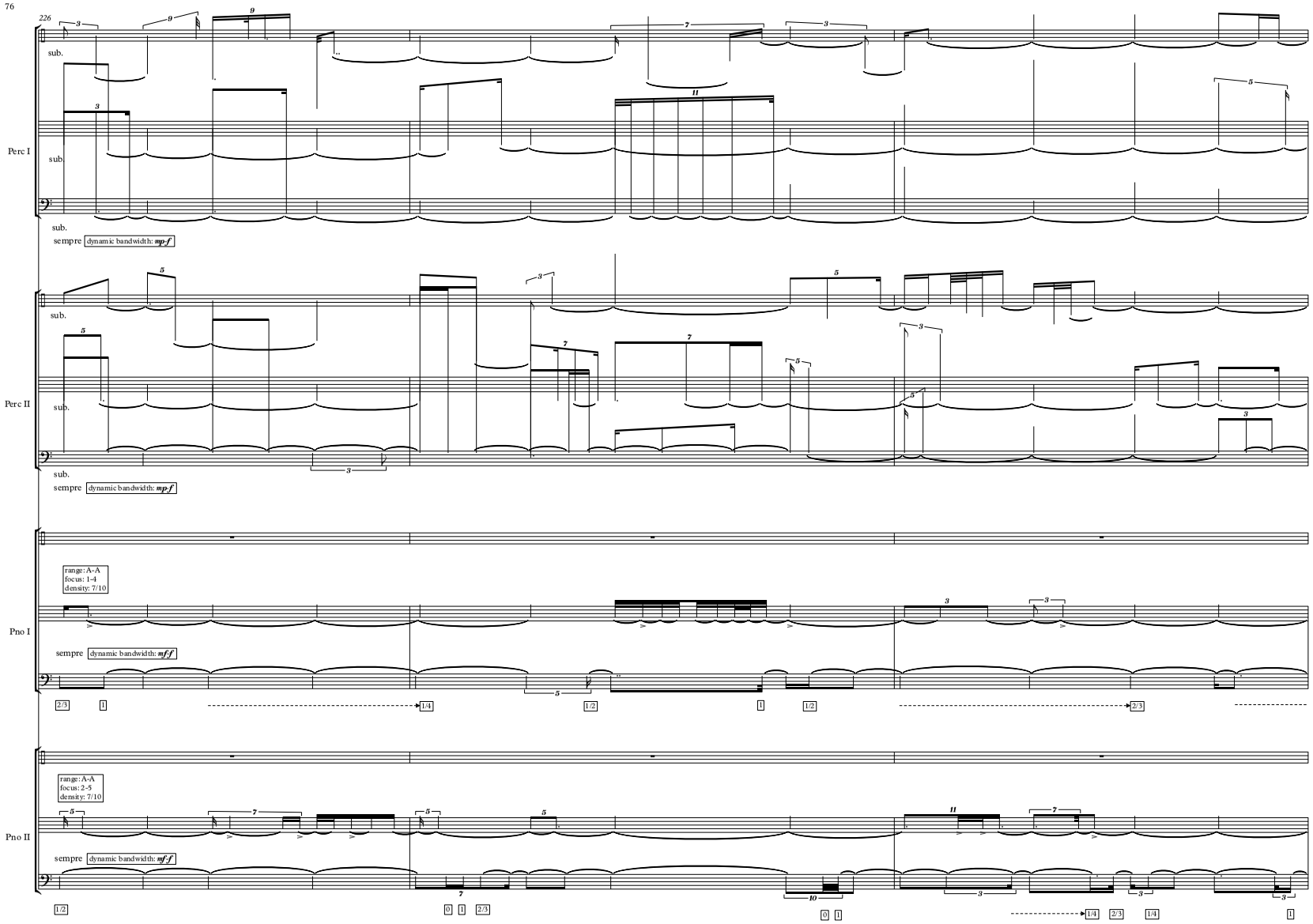

71
211
Perc I
Perc II
Pno I
Pno II

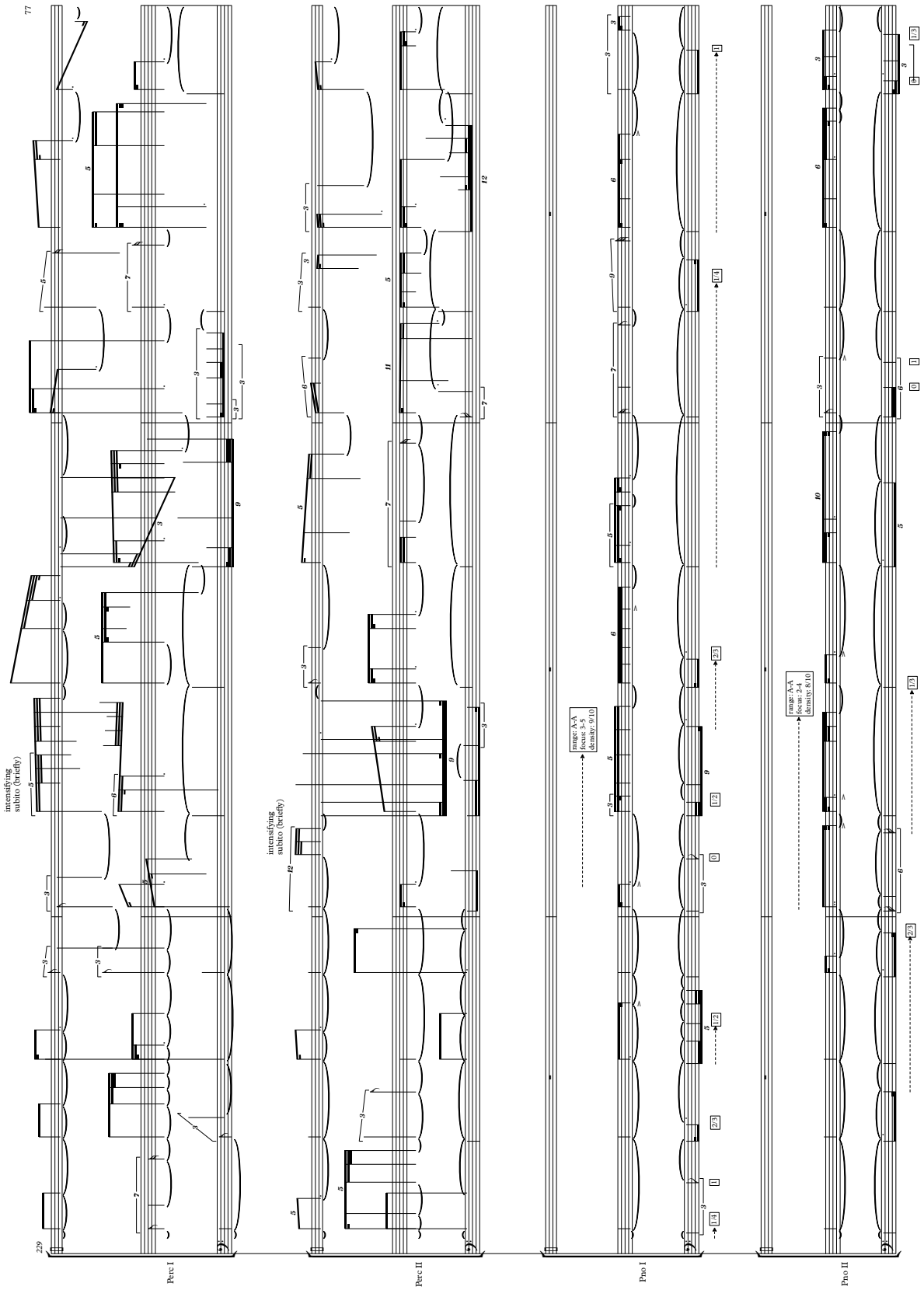

72
214
Perc I
Perc II
Pno I
Pno II

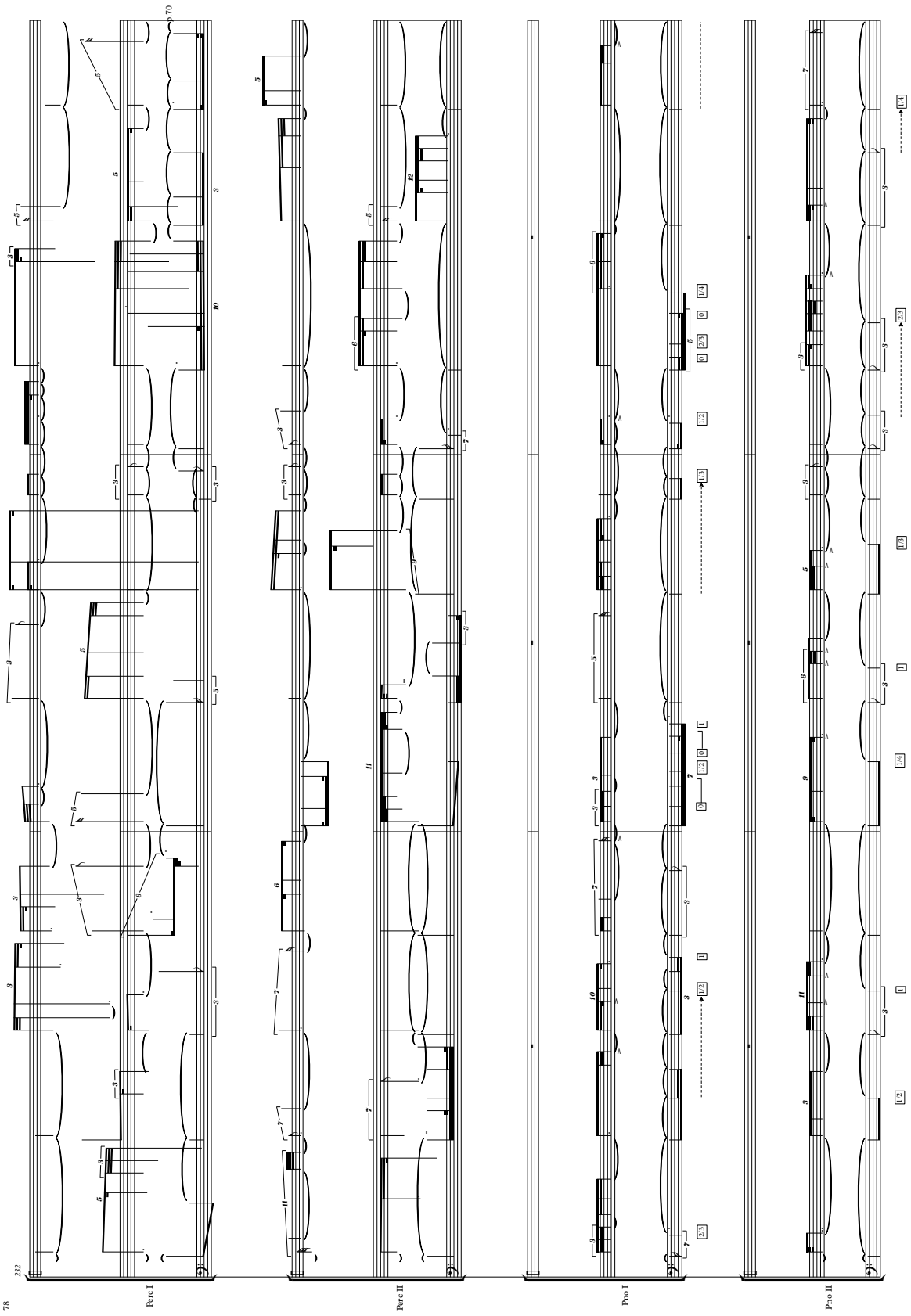

217
Perc I
Perc II
Pno I
Pno II
range: A–A
focus: 2-5
density: 8/10
range: A–A
focus: 2-5
density: 7/10

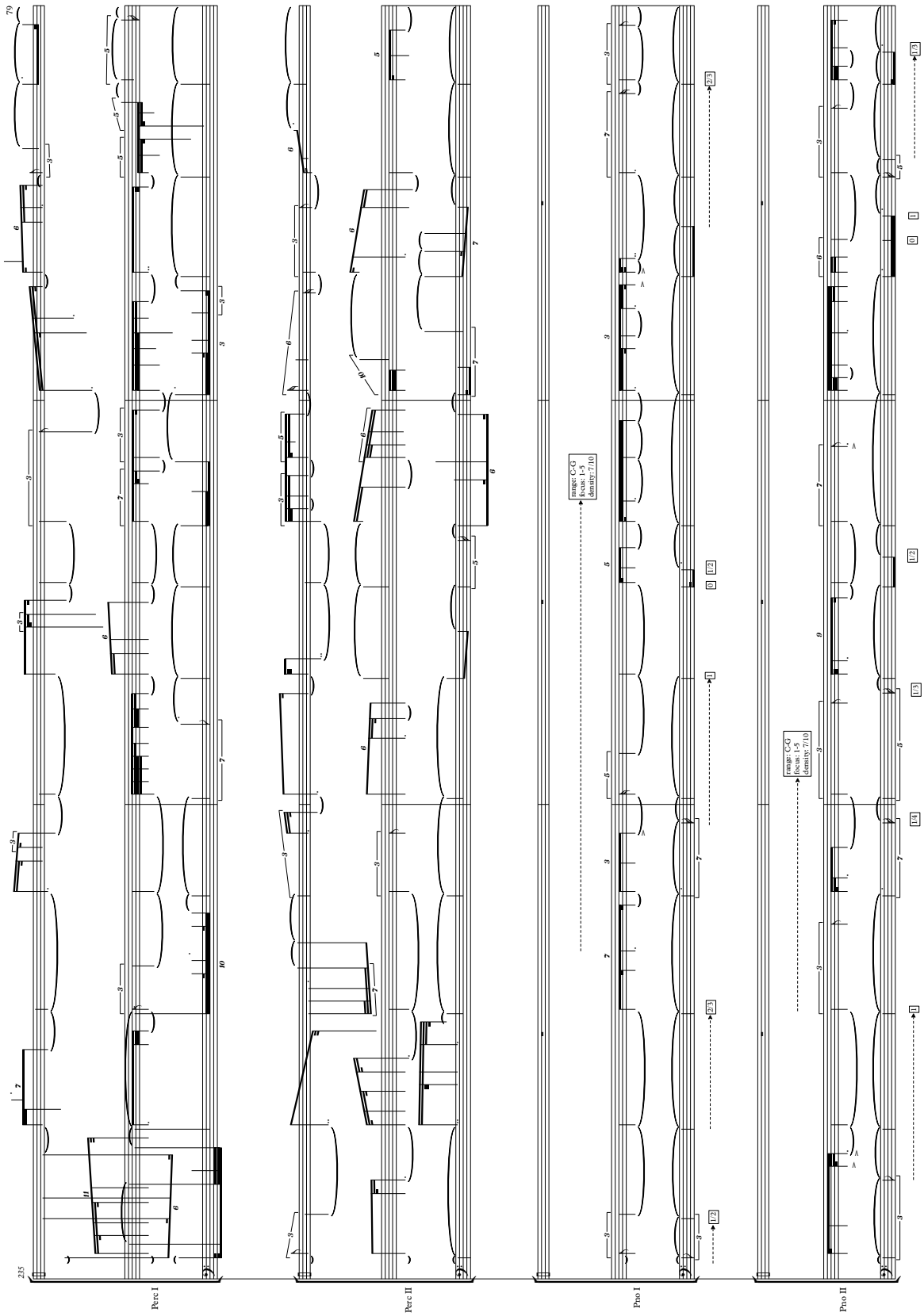

74
220
Perc I
Perc II
Pno I
Pno II

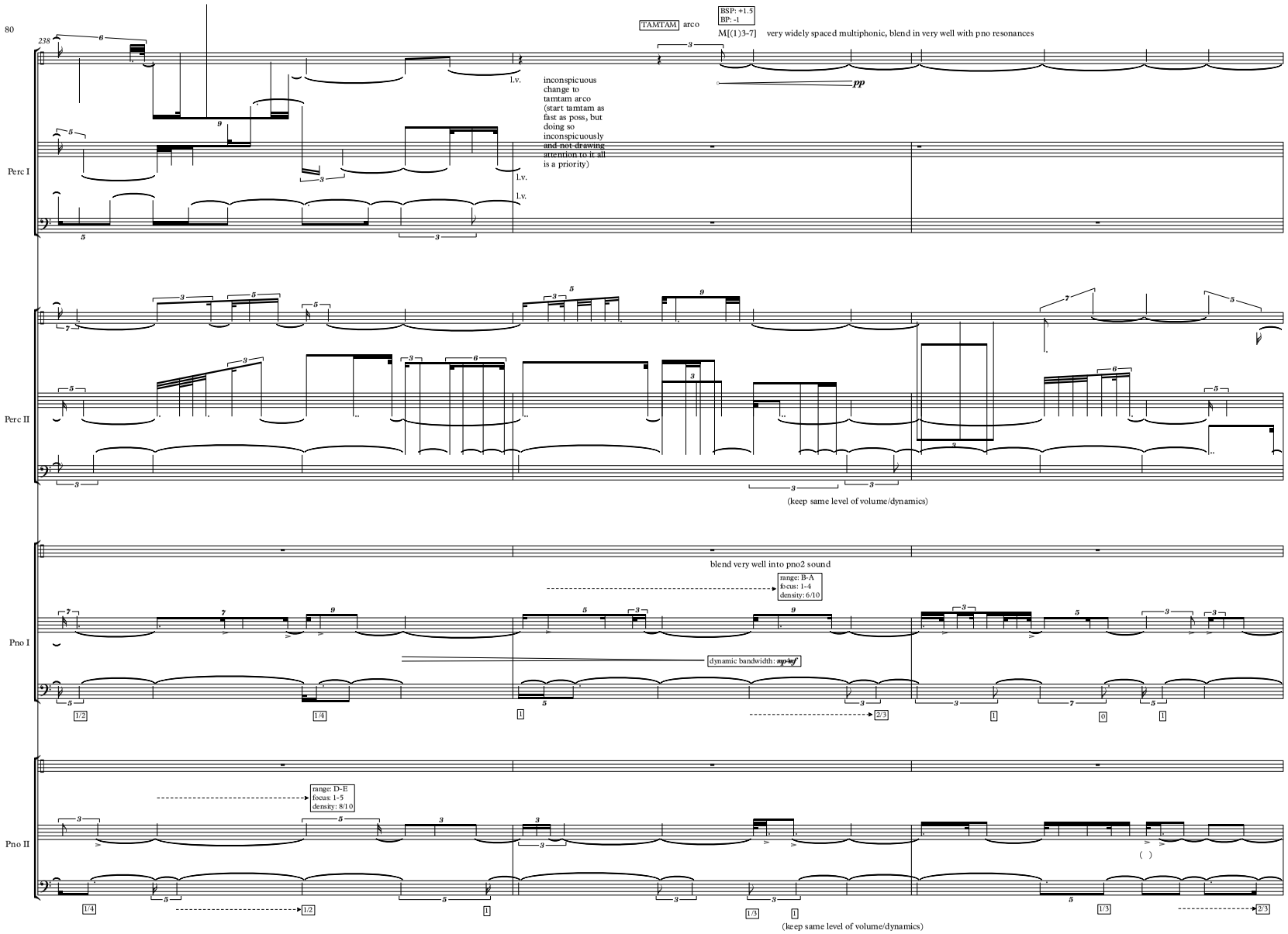

223
Perc I
Perc II
Pno I
Pno II
6-7 sec.
cease bodily movement momentarily (but do NOT stop resonances si poss. (but don't indiciate this with actions to audience beforehand), retain energy/energy level despite non-physical action, restarting ('manifesting') at once in next measure, simply re-start, without any big 'gesture'.
l.v.
range: A-E
focus: 1-4
density: 7/10
range: A-E
focus: 1-4
density: 8/10

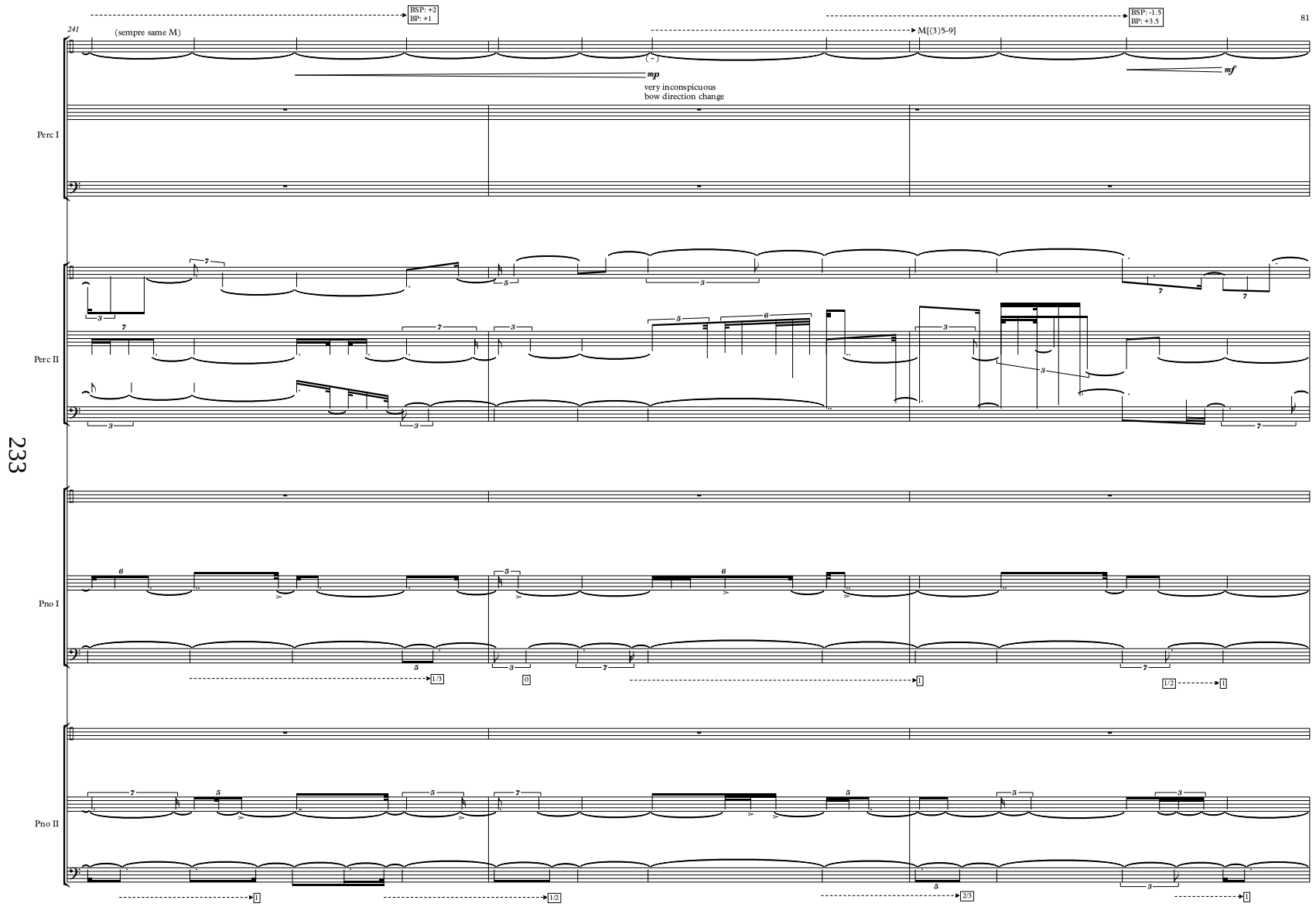

226
Perc I
sub.
sempre dynamic bandwidth: mp-f
Perc II
sub.
sempre dynamic bandwidth: mp-f
Pno I
range: A-A
focus: 1-4
density: 7/10
sempre dynamic bandwidth: mf-f
Pno II
range: A-A
focus: 2-5
density: 7/10
sempre dynamic bandwidth: mf-f

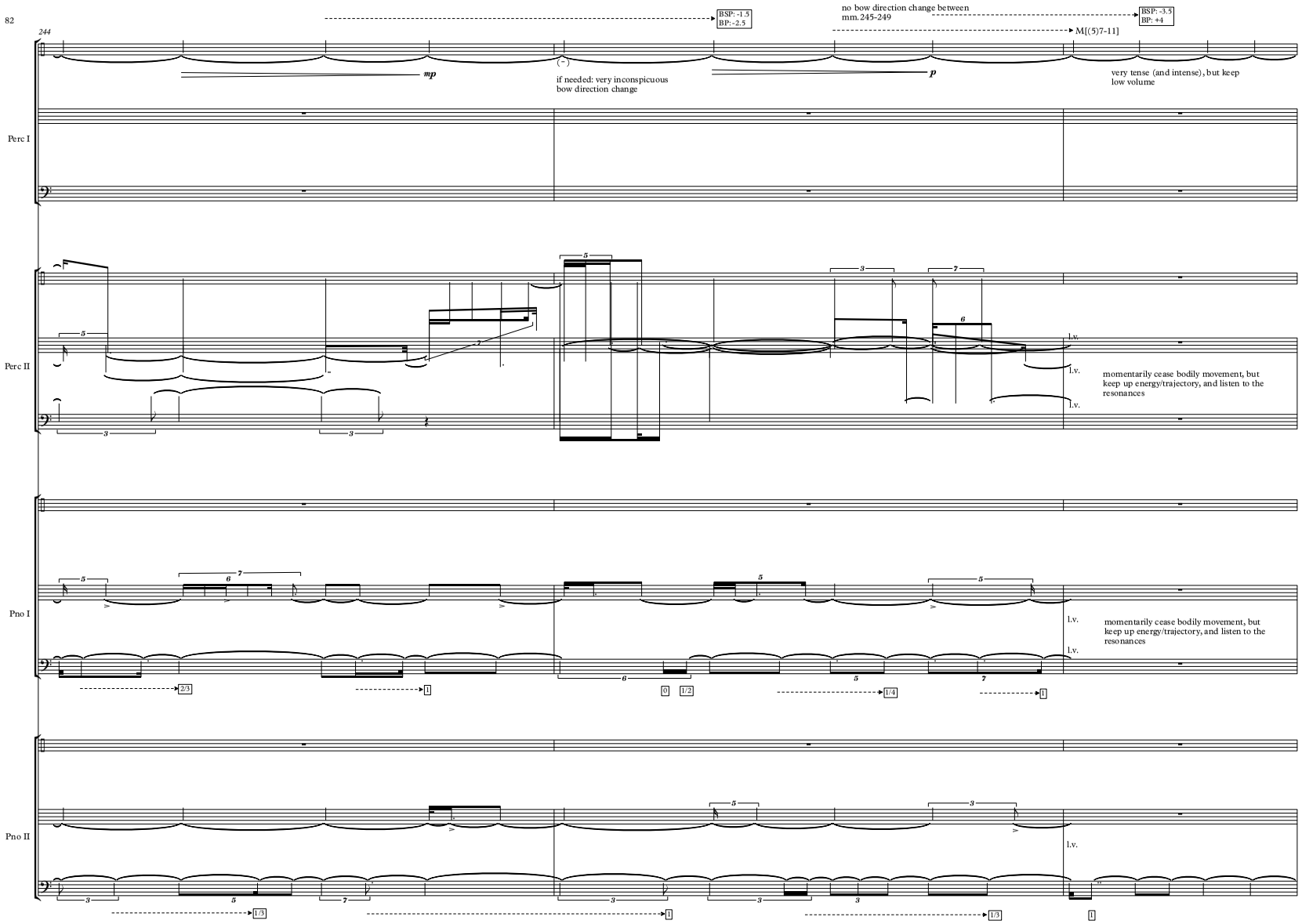

77
229
intensifying
subito (briefly)
intensifying
subito (briefly)
range: A-A
focus: 4-5
density: 9/10
range: A-A
focus: 2-4
density: 8/10
Perc I
Perc II
Pno I
Pno II

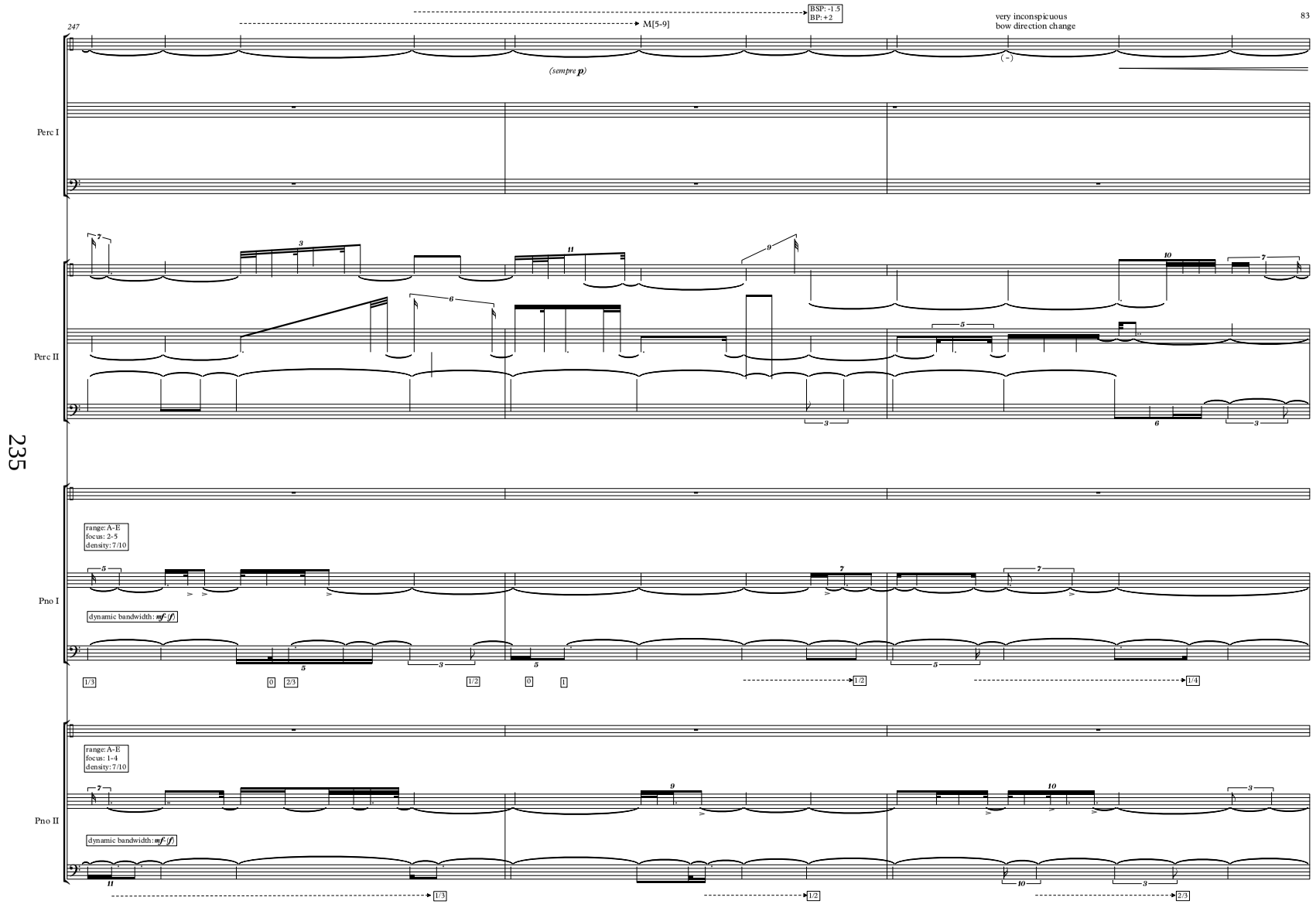

78
232
Perc I
Perc II
Pno I
Pno II

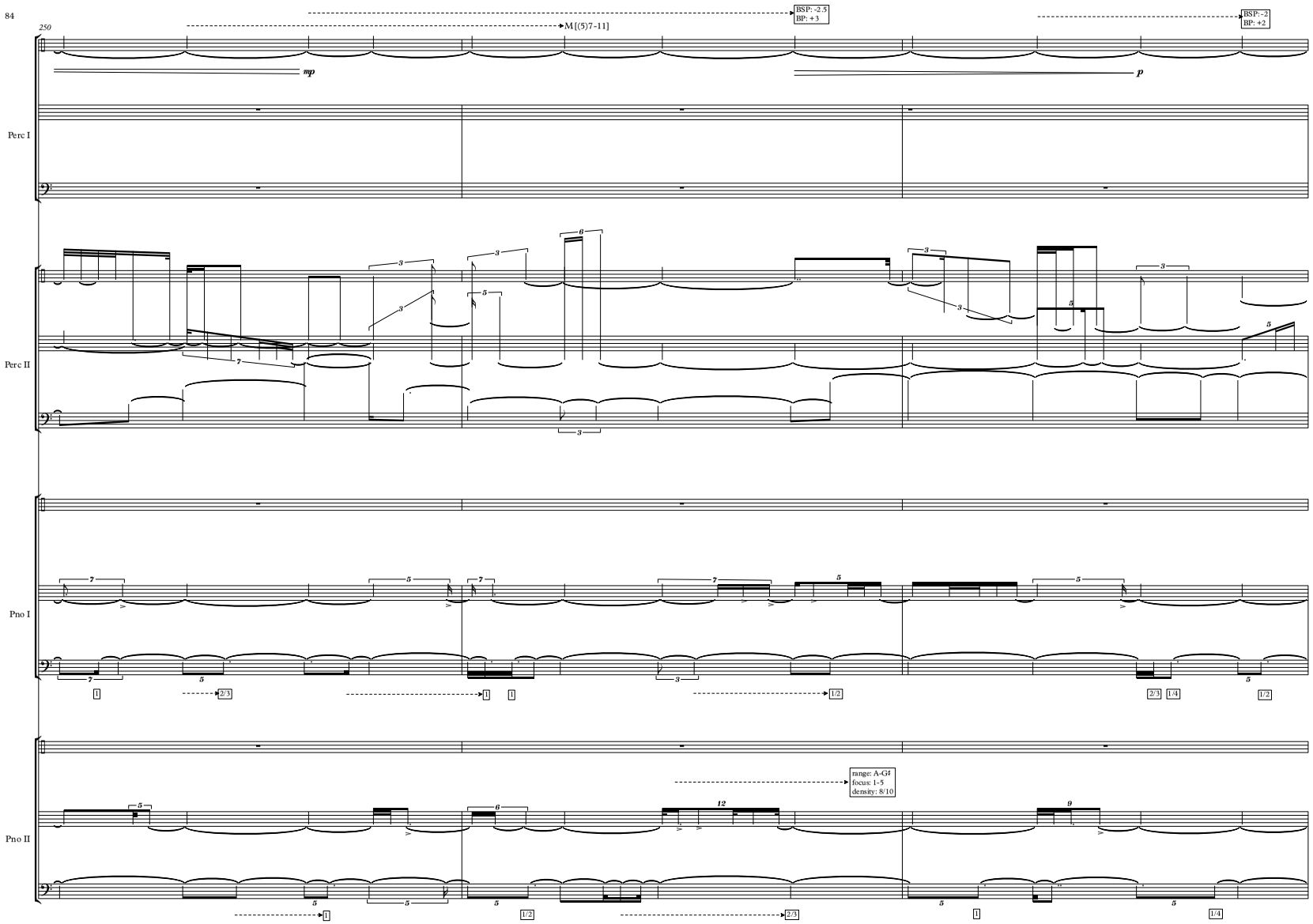

79
235
Perc I
Perc II
range: C-G
focus: 1–5
density: 7:10
Pno I
range: C-G
focus: 1–5
density: 7:10
Pno II

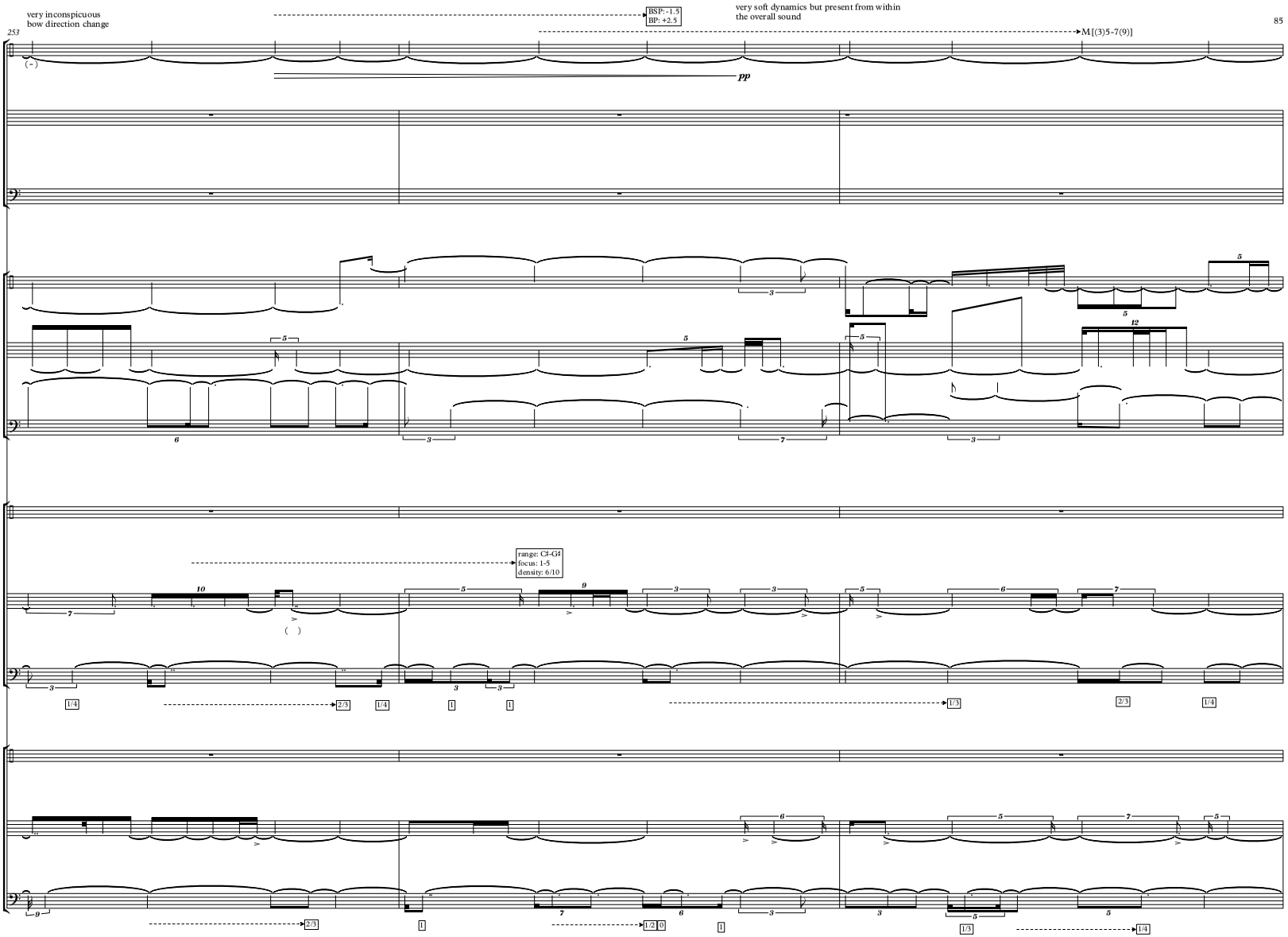

80
238
TAMTAM arco
BSP: +1.5
BP: -1
M[(1)3-7]
very widely spaced multiphonic, blend in very well with pno resonances
pp
l.v.
inconspicuous change to tamtam arco (start tamtam as fast as poss, but doing so inconspicuously and not drawing attention to it all is a priority)
Perc I
Perc II
(keep same level of volume/dynamics)
blend very well into pno2 sound
range: B-A
focus: 1-4
density: 6/10
Pno I
dynamic bandwidth: mp-fff
range: D-E
focus: 1-5
density: 8/10
Pno II
( )
(keep same level of volume/dynamics)

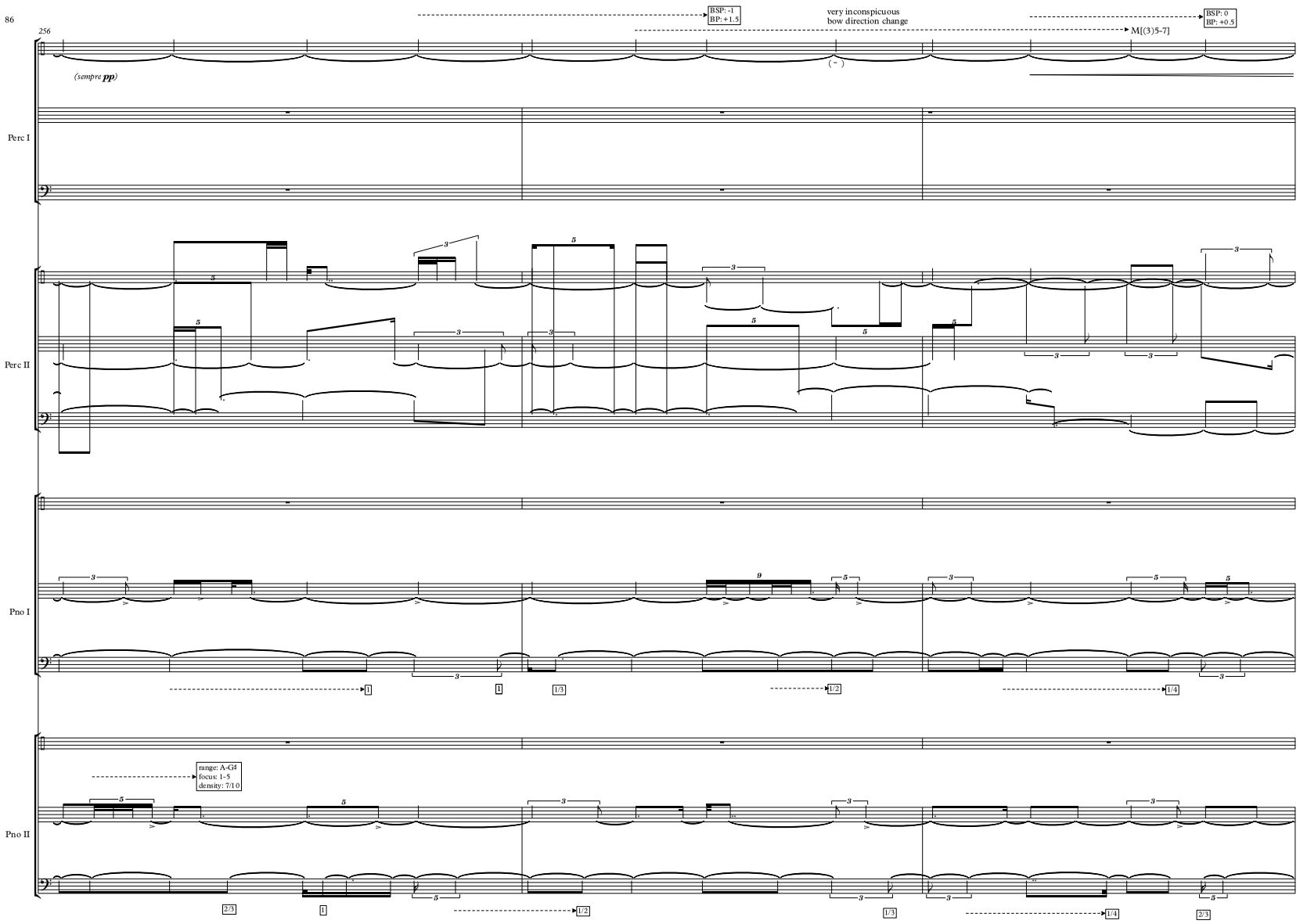

241
(sempre same M)
BSP: +2
BP: +1
M[(3)5-9]
BSP: -1.5
BP: +3.5
mp
very inconspicuous
bow direction change
mf
Perc I
Perc II
Pno I
Pno II
233

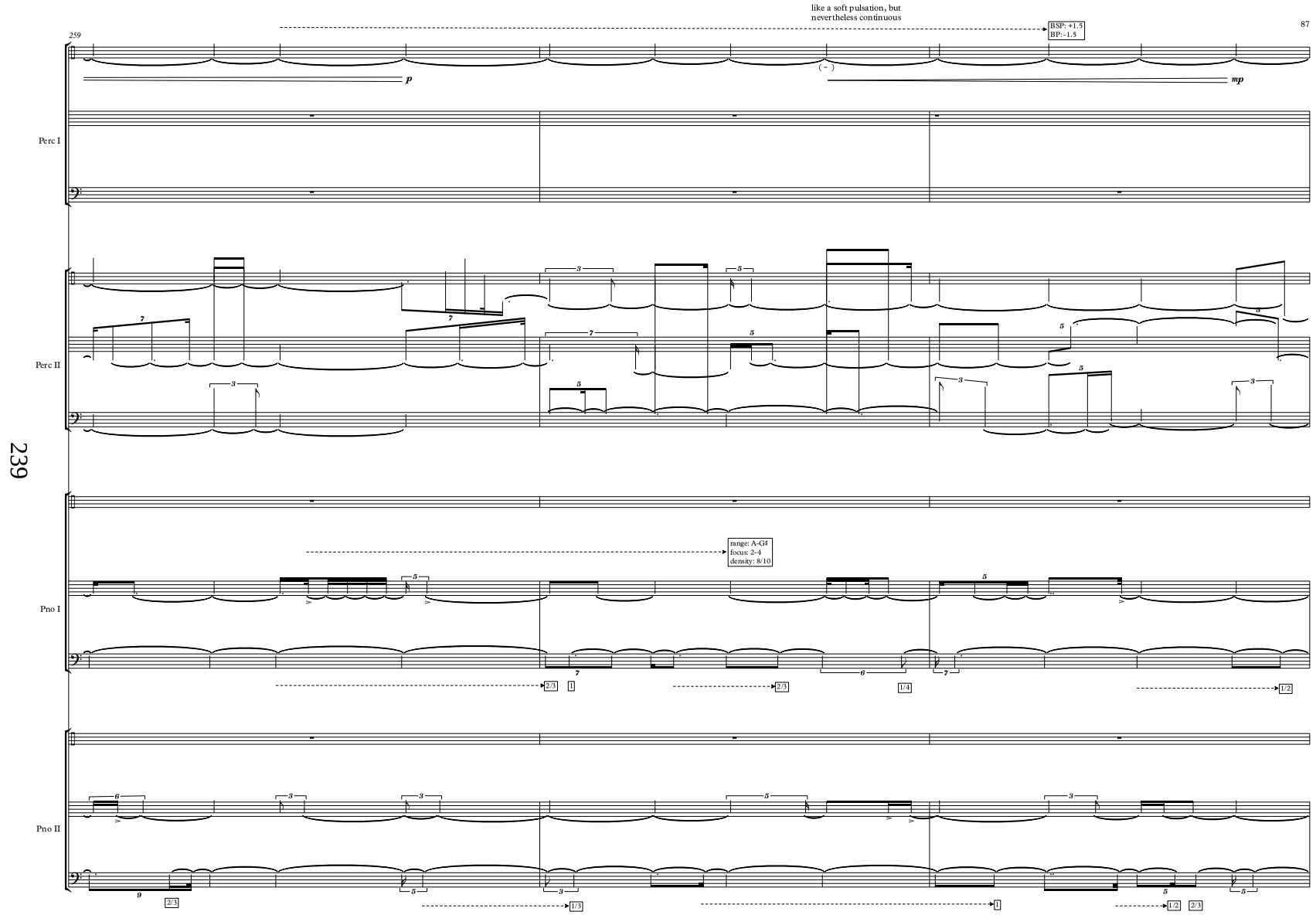

244
BSP: -1.5
BP: -2.5
no bow direction change between mm.245-249
BSP: -3.5
BP: +4
M[(5)7-11]
mp
p
if needed: very inconspicuous bow direction change
very tense (and intense), but keep low volume
Perc I
Perc II
momentarily cease bodily movement, but keep up energy/trajectory, and listen to the resonances
l.v.
Pno I
Pno II
2/3
1
0
1/2
1/4
1/3
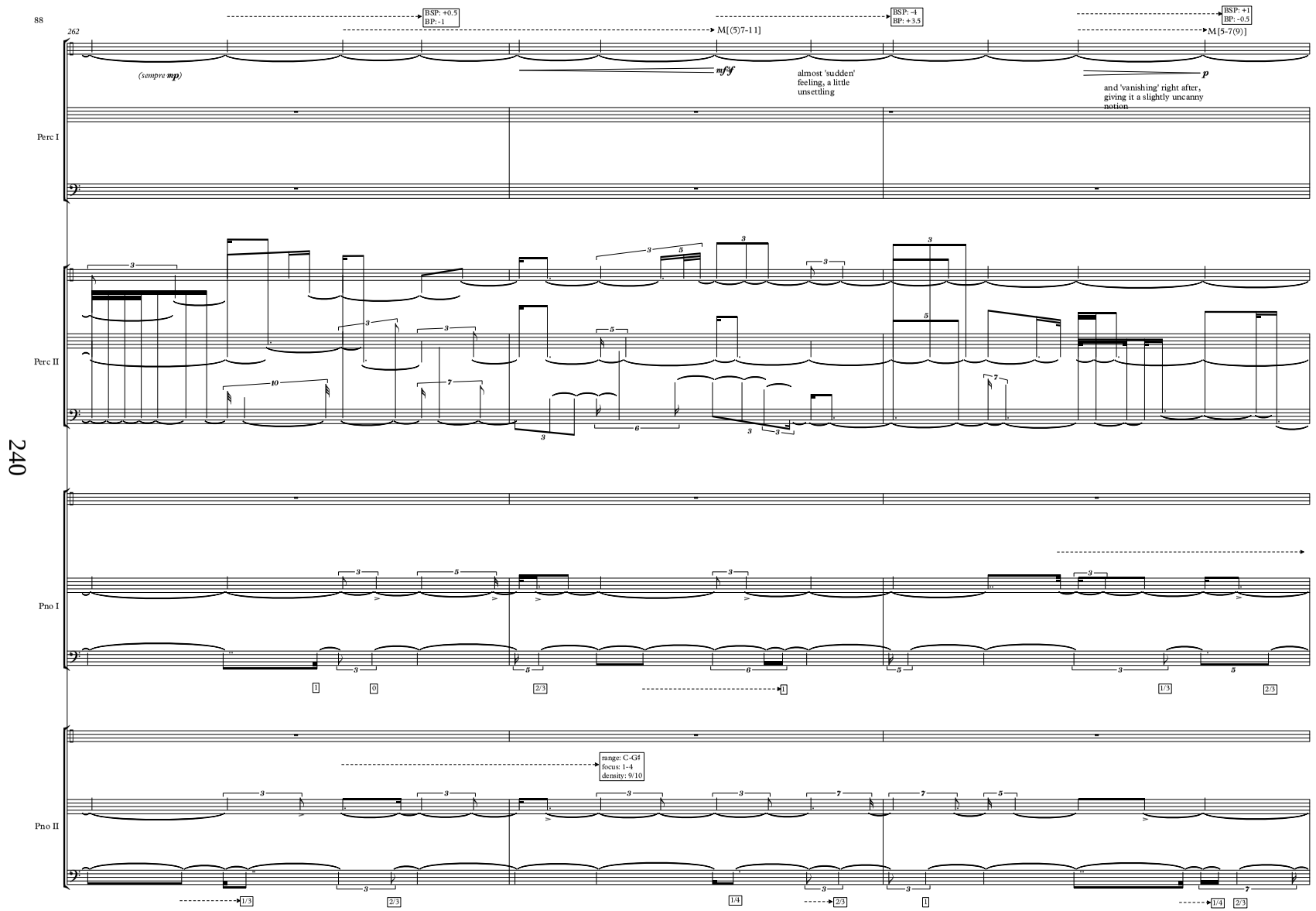

247
M[5-9]
BSP: -1.5
BP: +2
very inconspicuous
bow direction change
(sempre p)
Perc I
Perc II
Pno I
Pno II
range: A-E
focus: 2-5
density: 7/10
dynamic bandwidth: mf-(f)
range: A-E
focus: 1-4
density: 7/10
dynamic bandwidth: mf-(f)
1/3
0
2/3
1/2
0
1
1/2
1/4
1/3
1/2
2/3

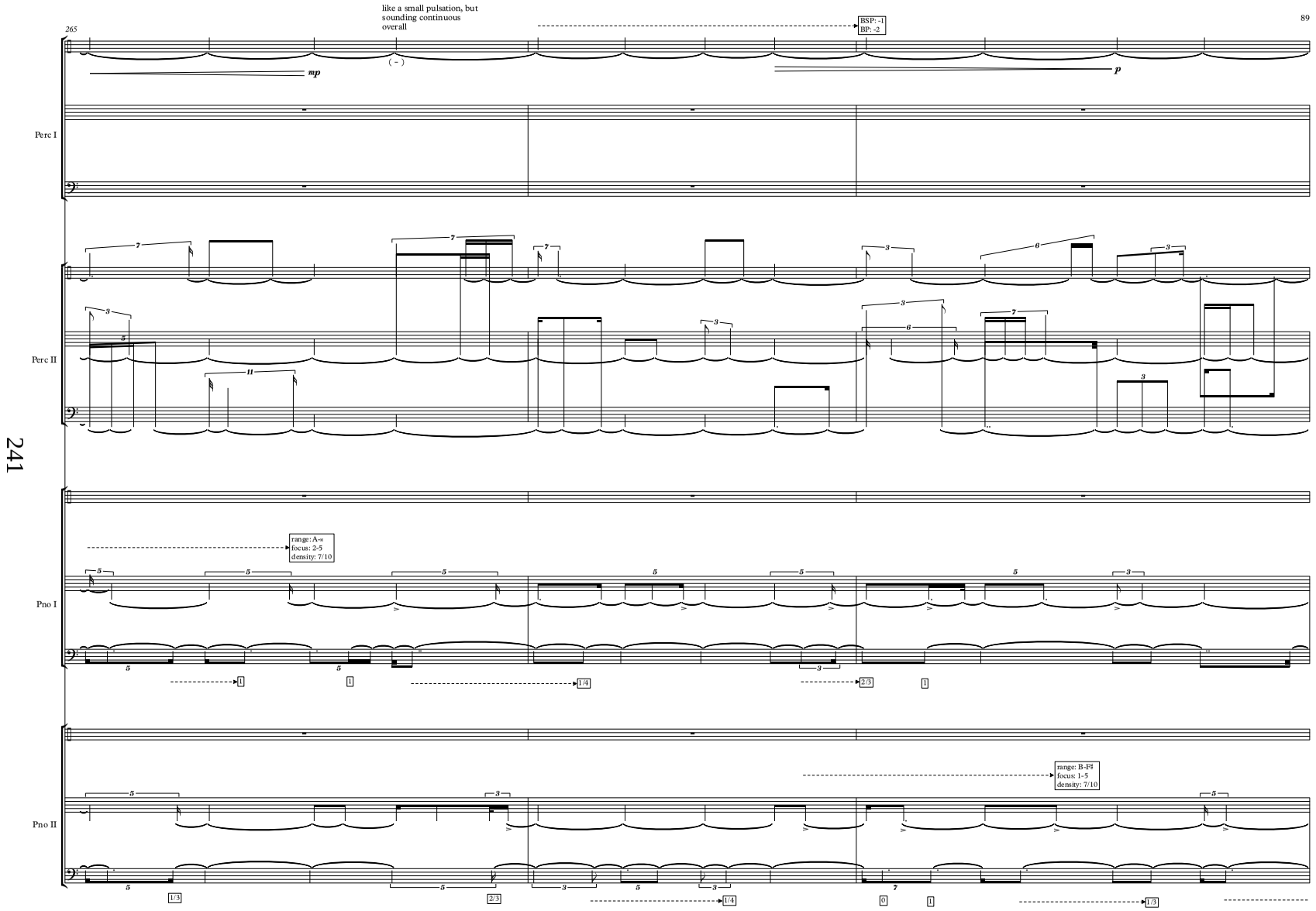

250
M[(5)7-11]
BSP: -2.5
BP: +3
BSP: -2
BP: +2
mp
p
Perc I
Perc II
Pno I
Pno II
range: A-G♯
focus: 1-5
density: 8/10


very inconspicuous
bow direction change
253
BSP: -1.5
BP: +2.5
very soft dynamics but present from within
the overall sound
M[(3)5-7(9)]
85
Perc I
Perc II
Pno I
Pno II
pp
range: C4-G4
focus: 1-5
density: 6/10

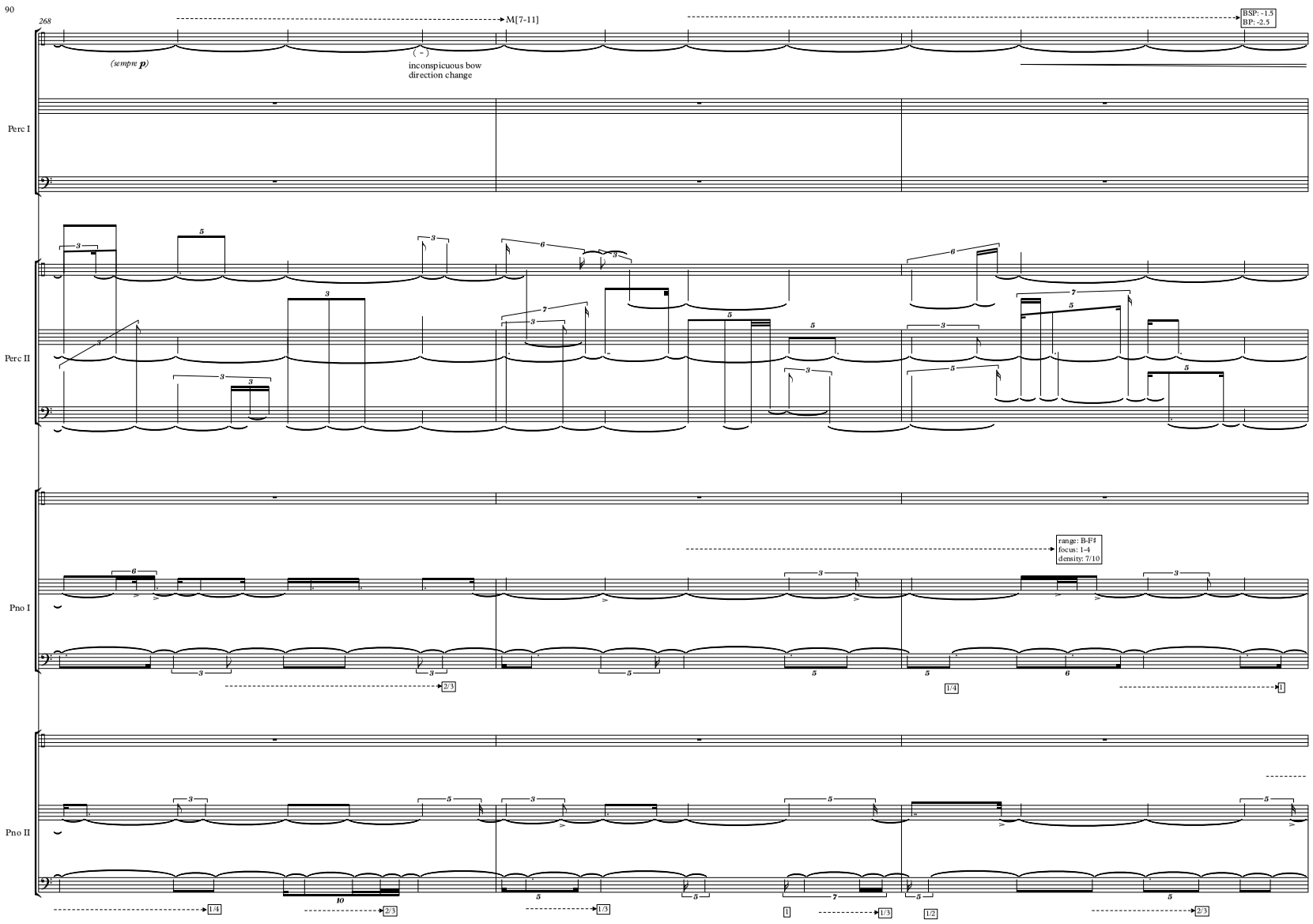

86
256
BSP: -1
BP: +1.5
very inconspicuous
bow direction change
M[(3)5-7]
BSP: 0
BP: +0.5
(sempre pp)
Perc I
Perc II
Pno I
Pno II
range: A-G♯
focus: 1-5
density: 7/1 0

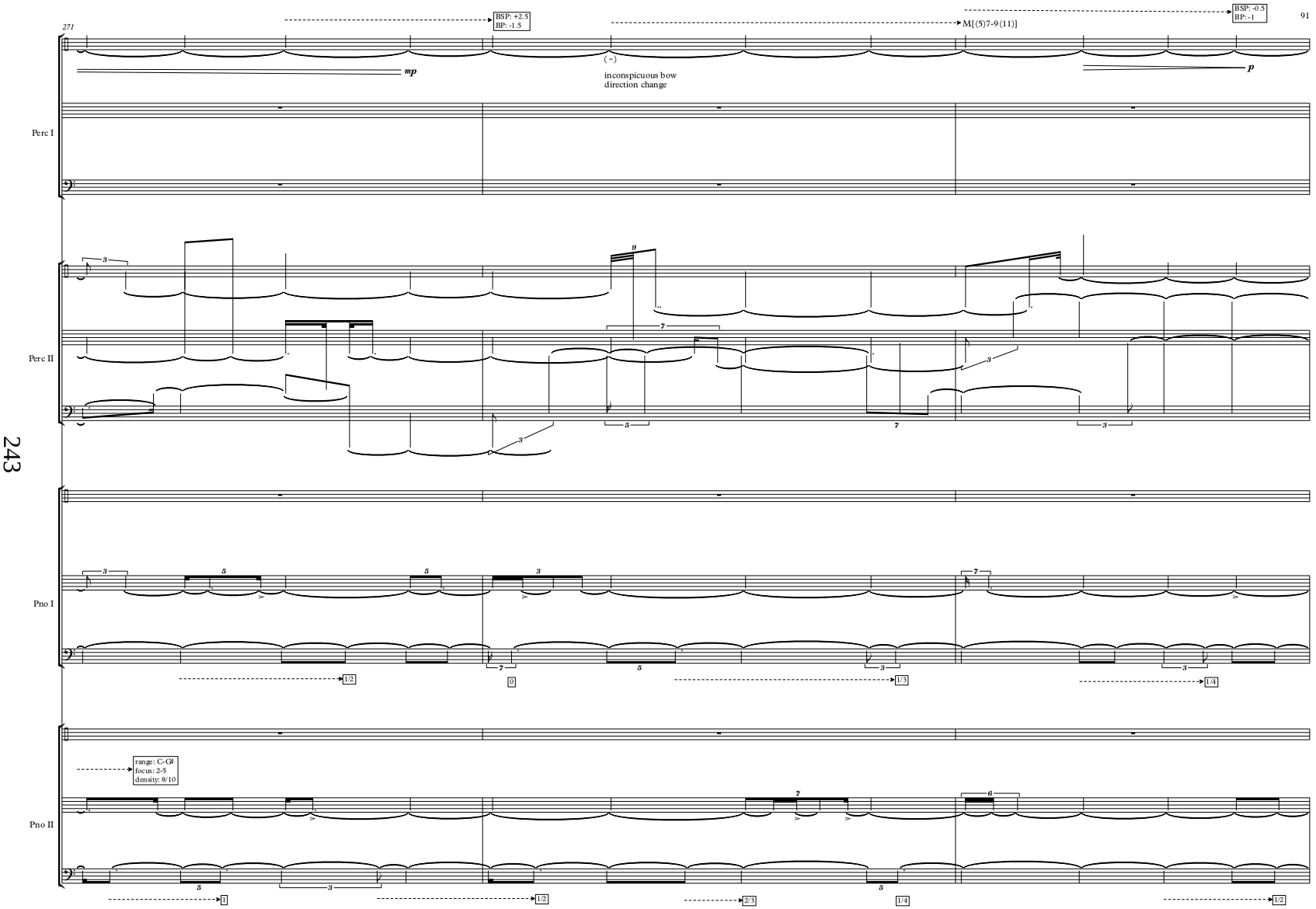

259
like a soft pulsation, but
nevertheless continuous
BSP: +1.5
BP: -1.5
p
mp
Perc I
Perc II
range: A-G♯
focus: 2-4
density: 8/10
Pno I
Pno II
2/3
1
1/4
1/2
1/3

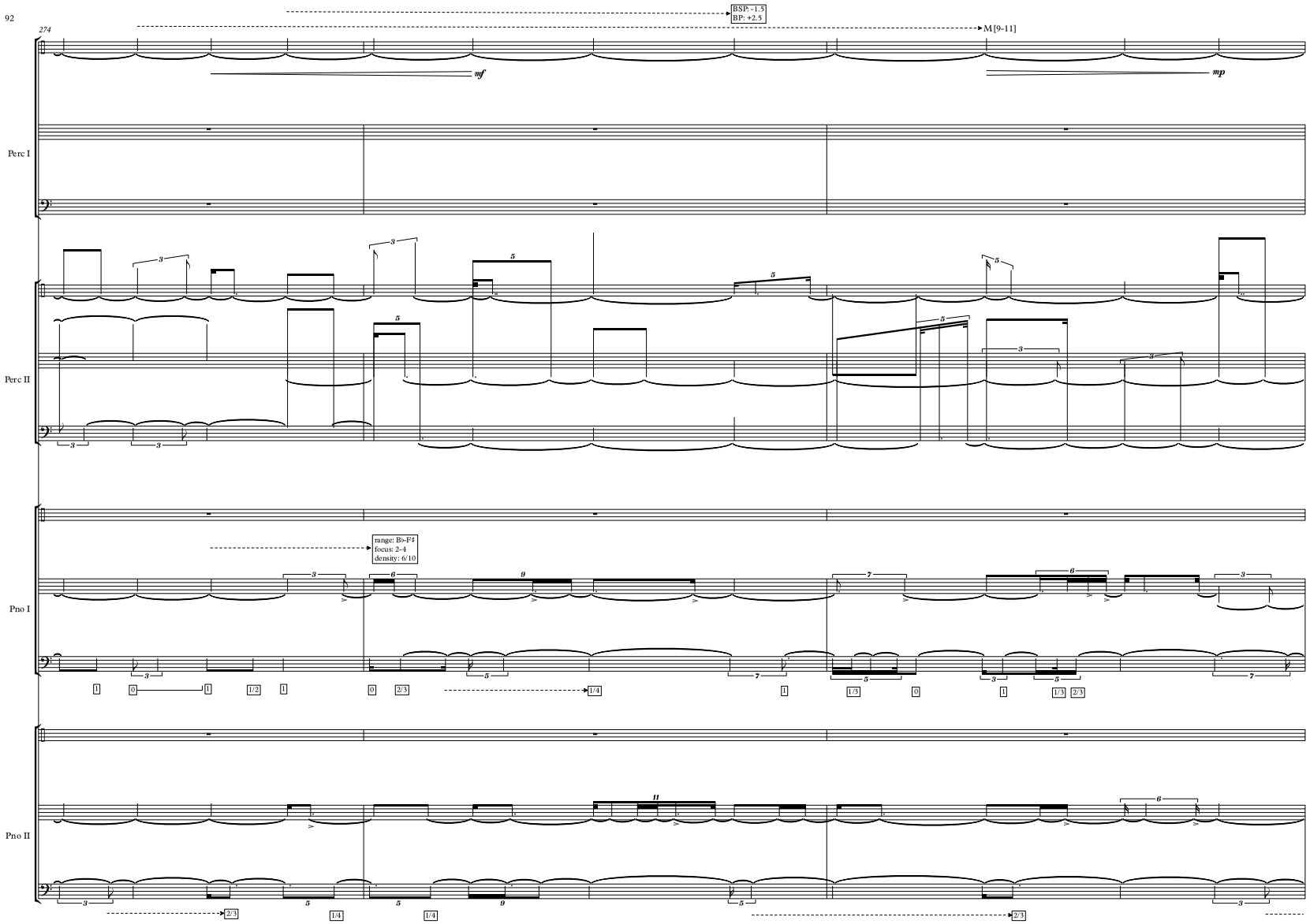

262
BSP: +0.5
BP: -1
M[(5)7-1 1]
BSP: -4
BP: + 3.5
BSP: +1
BP: -0.5
M[5-7(9)]
(sempre mp)
mf/f
almost 'sudden'
feeling, a little
unsettling
p
and 'vanishing' right after,
giving it a slightly uncanny
notion
Perc I
Perc II
Pno I
Pno II
range: C-G♯
focus: 1-4
density: 9/10

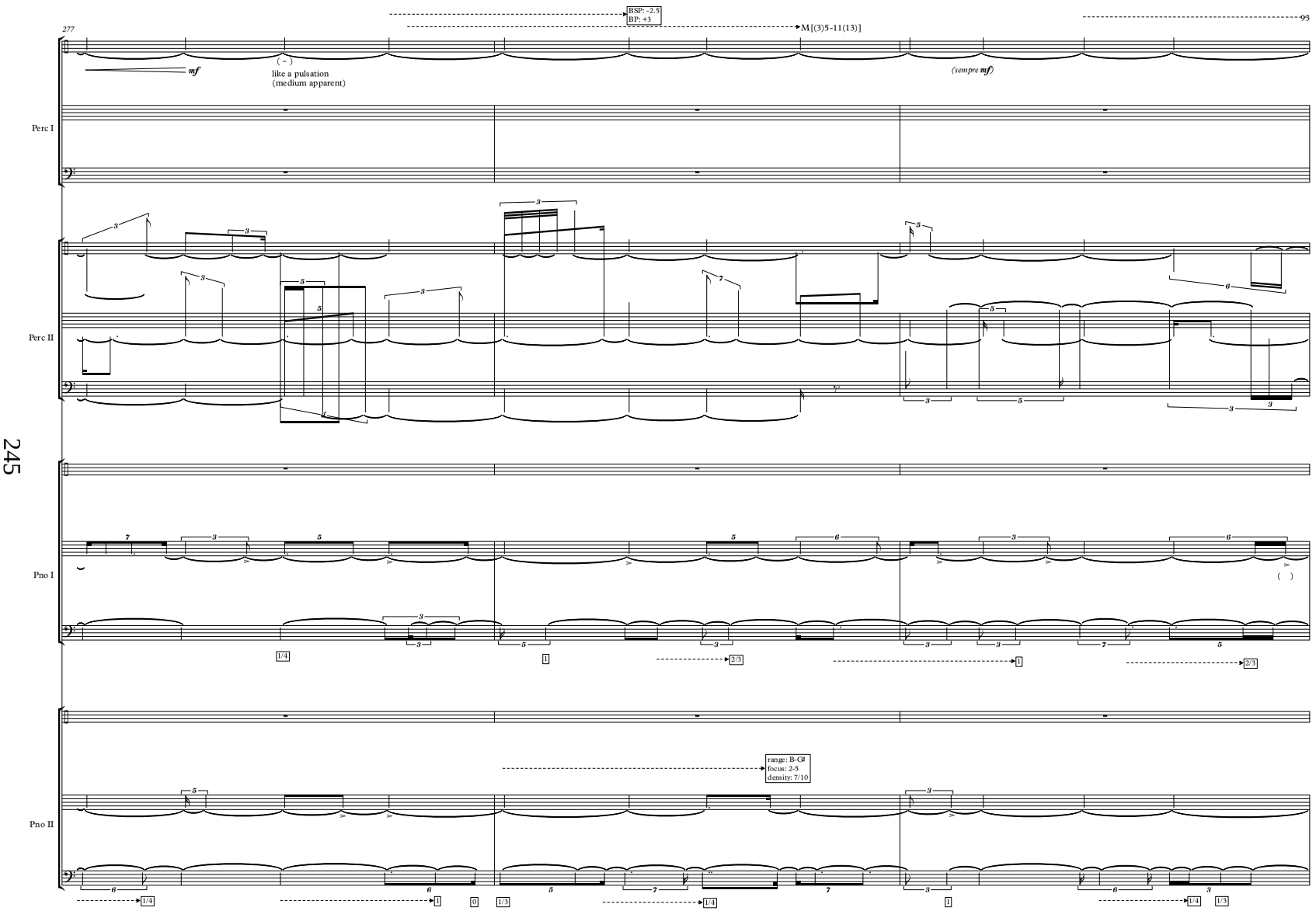

265
like a small pulsation, but sounding continuous overall
BSP: -1
BP: -2
mp
p
Perc I
Perc II
range: A-∞
focus: 2-5
density: 7/10
Pno I
range: B-F♯
focus: 1-5
density: 7/10
Pno II

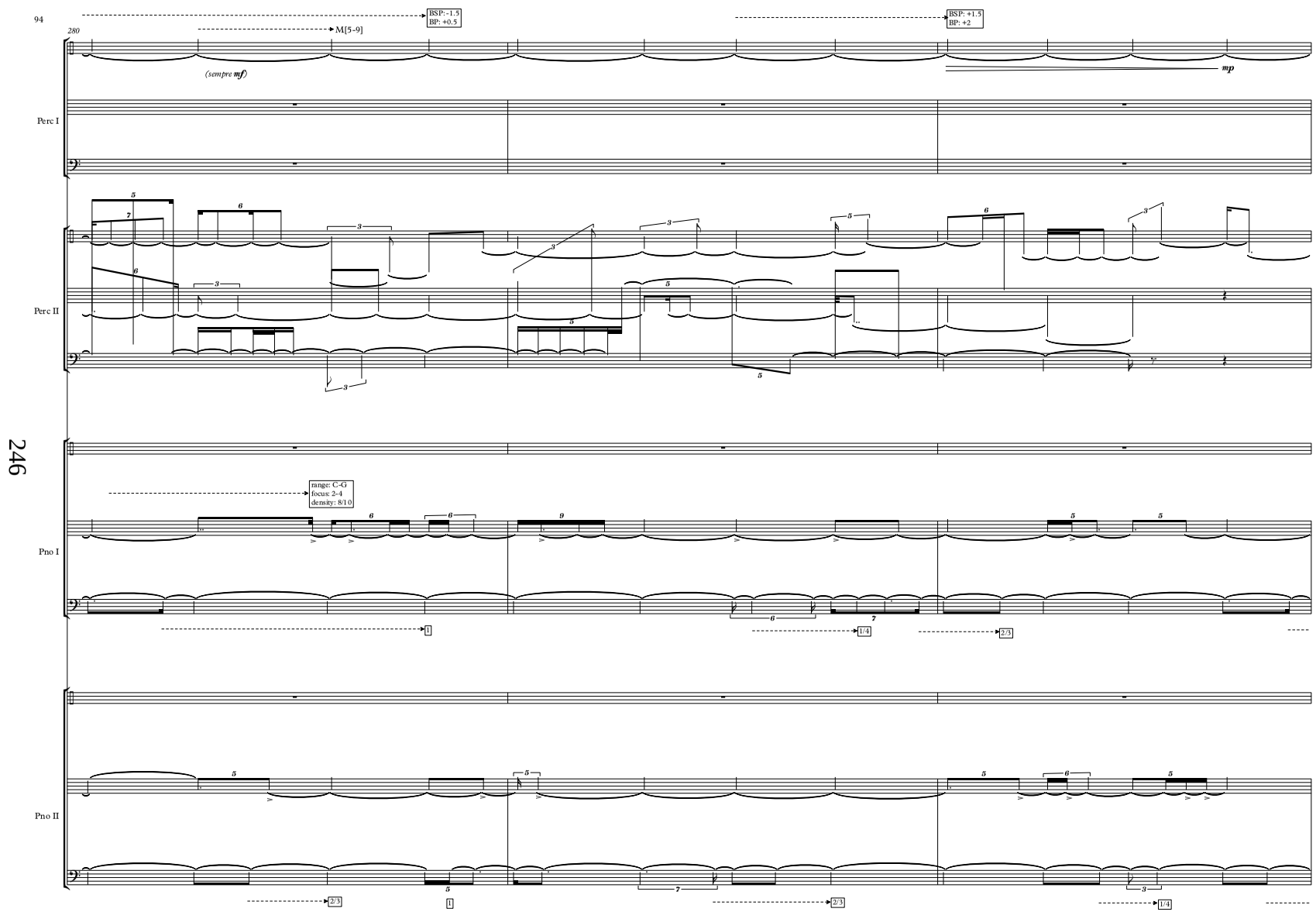
241

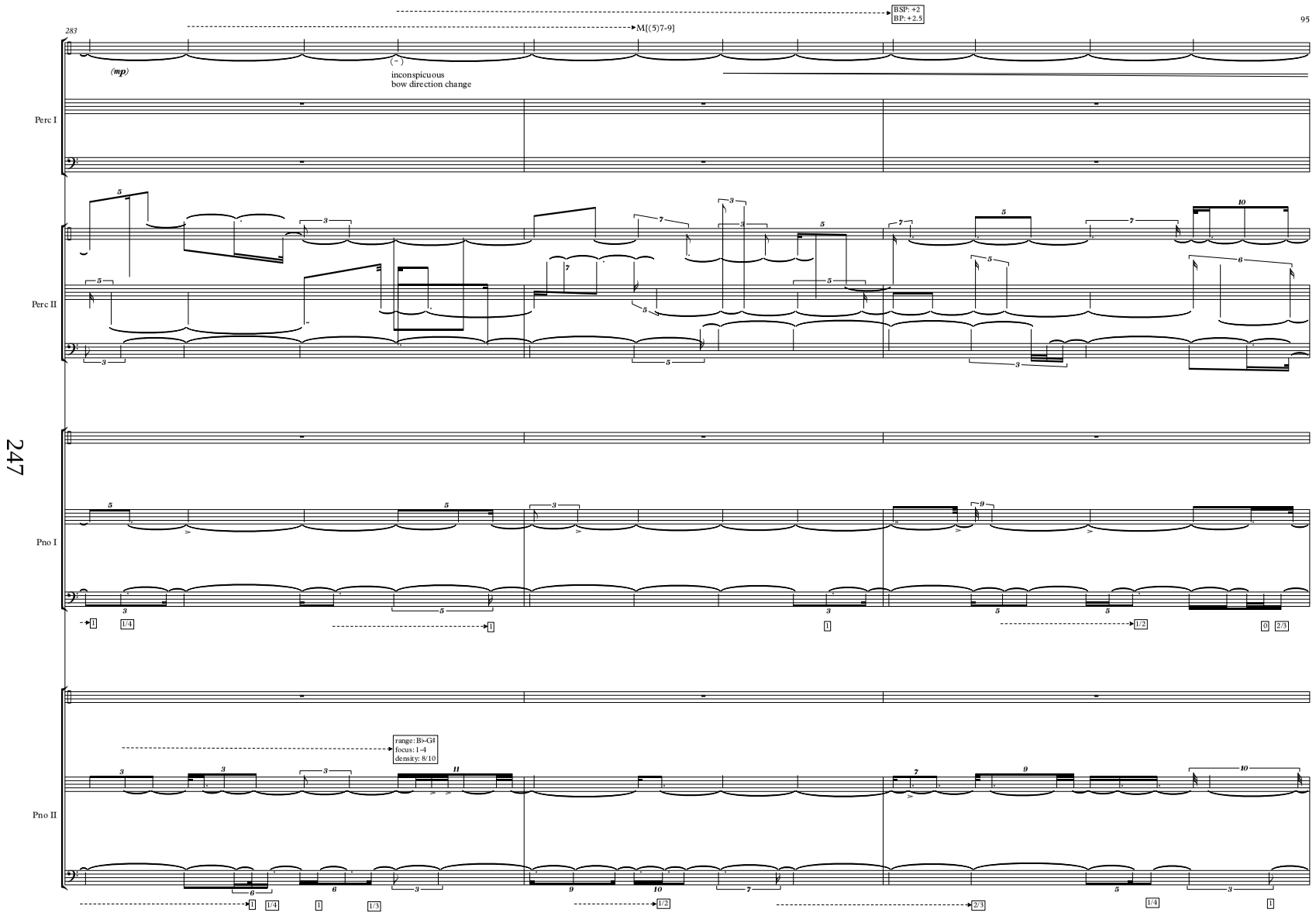

90
268
M[7-11]
BSP: -1.5
BP: -2.5
(sempre p)
inconspicuous bow direction change
Perc I
Perc II
Pno I
range: B-F♯
focus: 1-4
density: 7/10
Pno II


271
BSP: +2.5
BP: -1.5
M[(5)7-9(11)]
BSP: -0.5
BP: -1
91
mp
inconspicuous bow
direction change
p
Perc I
Perc II
Pno I
Pno II
range: C-G#
focus: 2-5
density: 8/10
1/2
0
1/3
1/4
1
1/2
2/3
1/4
1/2

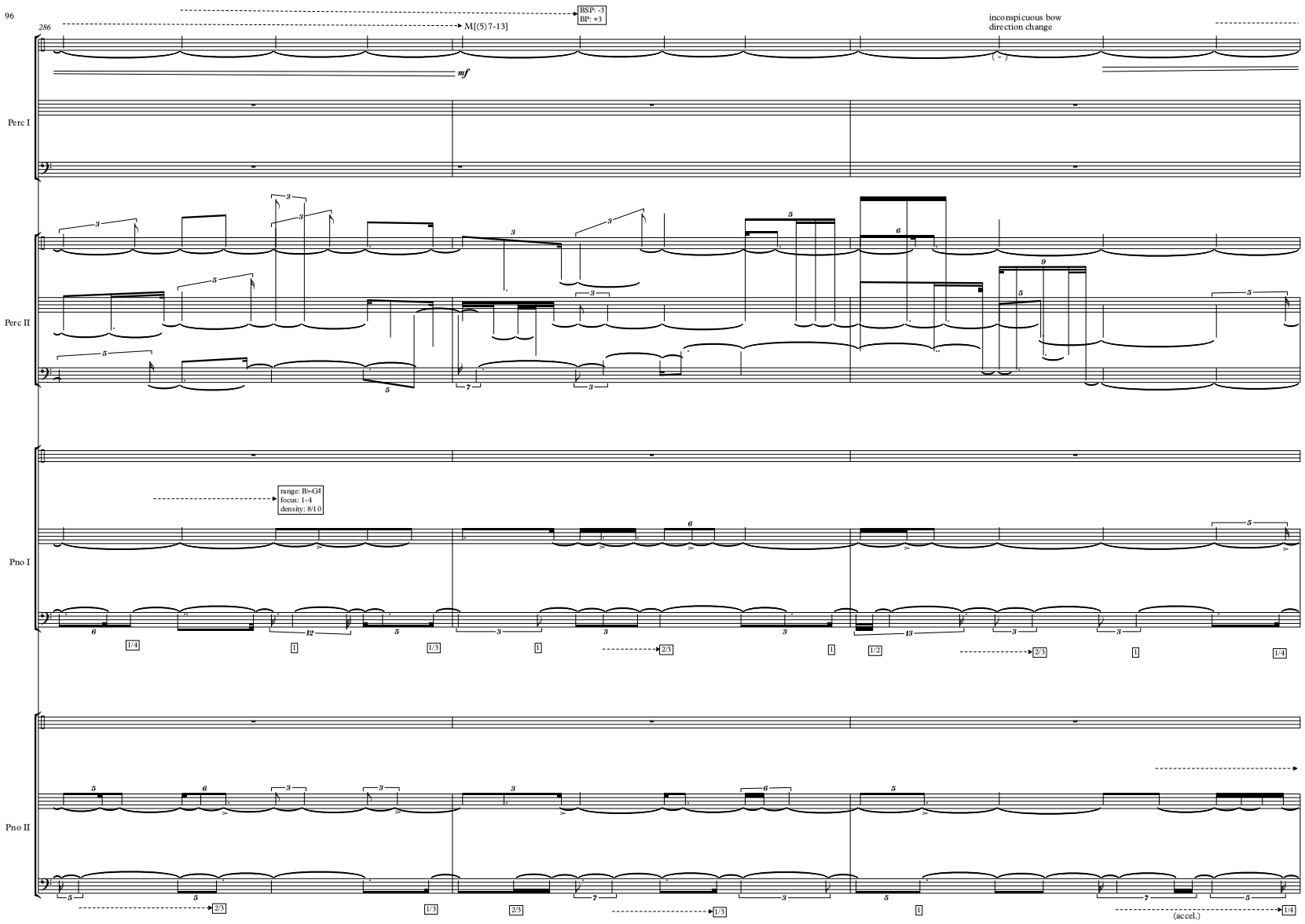

92
274
BSP: -1.5
BP: +2.5
M[9-11]
mf
mp
Perc I
Perc II
range: Bb-F#
focus: 2-4
density: 6/10
Pno I
Pno II
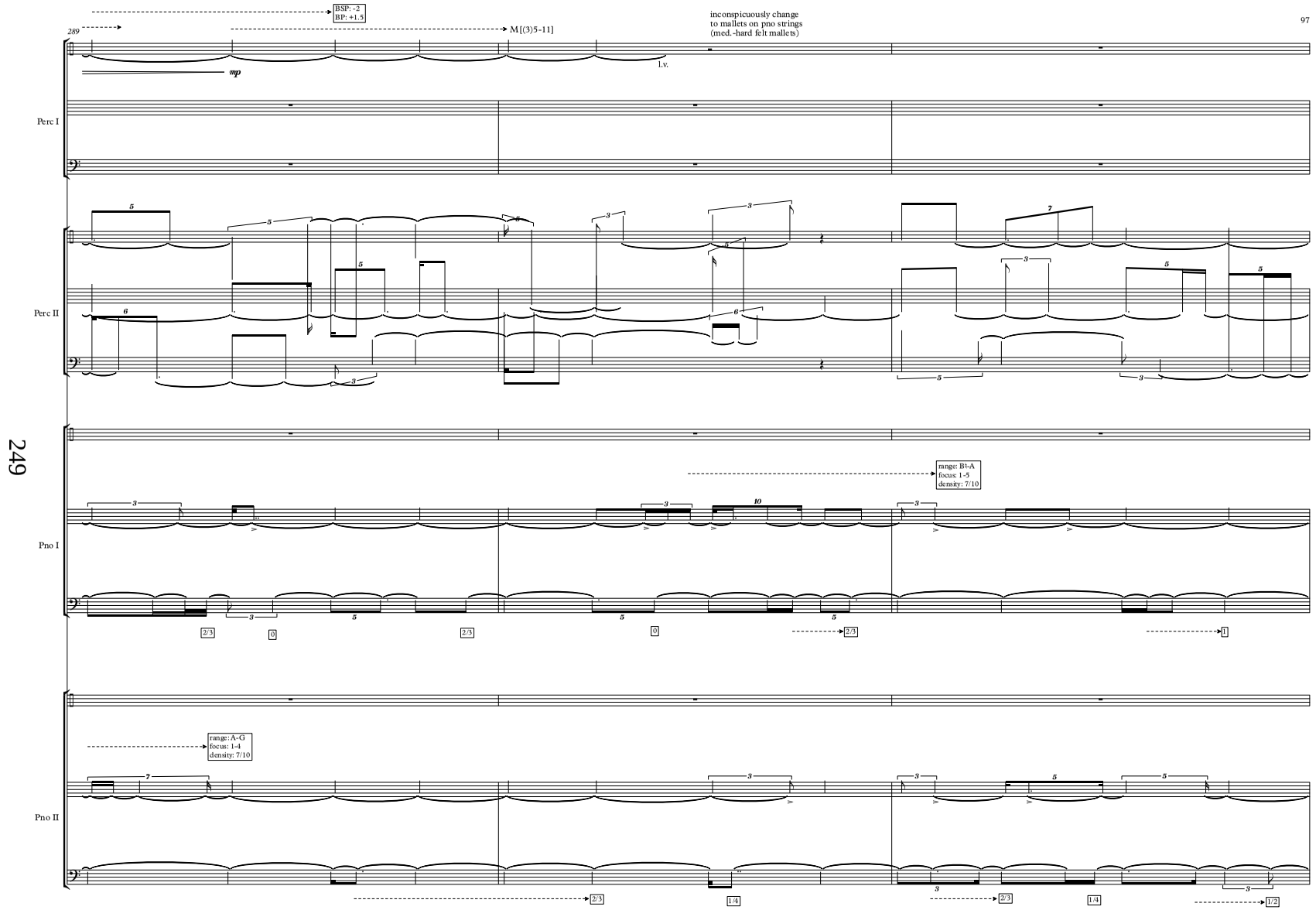

277
BSP: -2.5
BP: +3
M[(3)5-11(13)]
93
mf
like a pulsation
(medium apparent)
(sempre mf)
Perc I
Perc II
Pno I
Pno II
range: B-G#
focus: 2-5
density: 7/10


94
280
BSP: -1.5
BP: +0.5
M[5-9]
BSP: +1.5
BP: +2
(sempre mf)
mp
Perc I
Perc II
range: C-G
focus: 2-4
density: 8/10
Pno I
Pno II
1
1/4
2/3
246

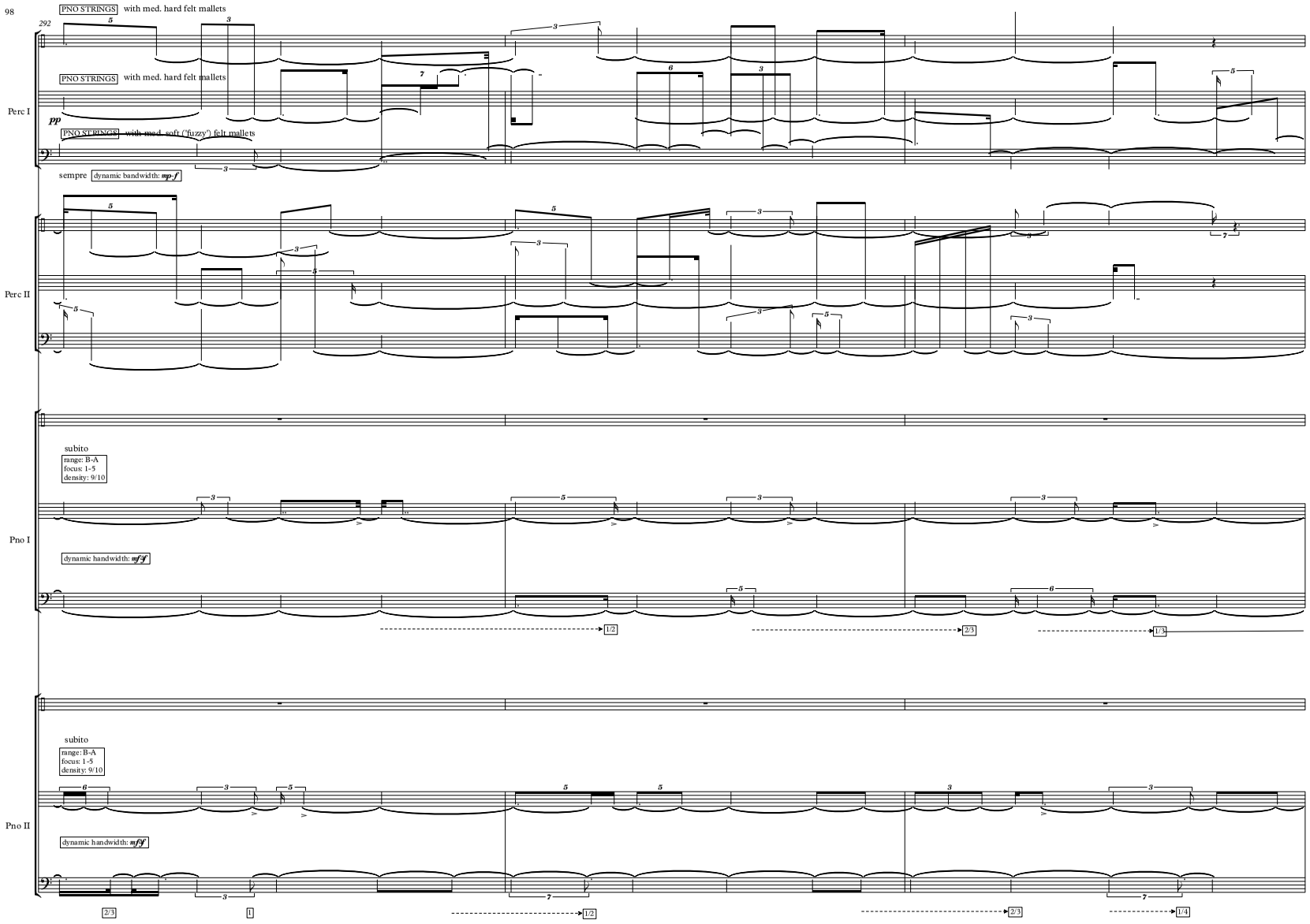

283
M[(5)7-9]
BSP: +2
BP: +2.5
(mp)
inconspicuous
bow direction change
Perc I
Perc II
Pno I
Pno II
range: B♭-G♯
focus: 1-4
density: 8/10

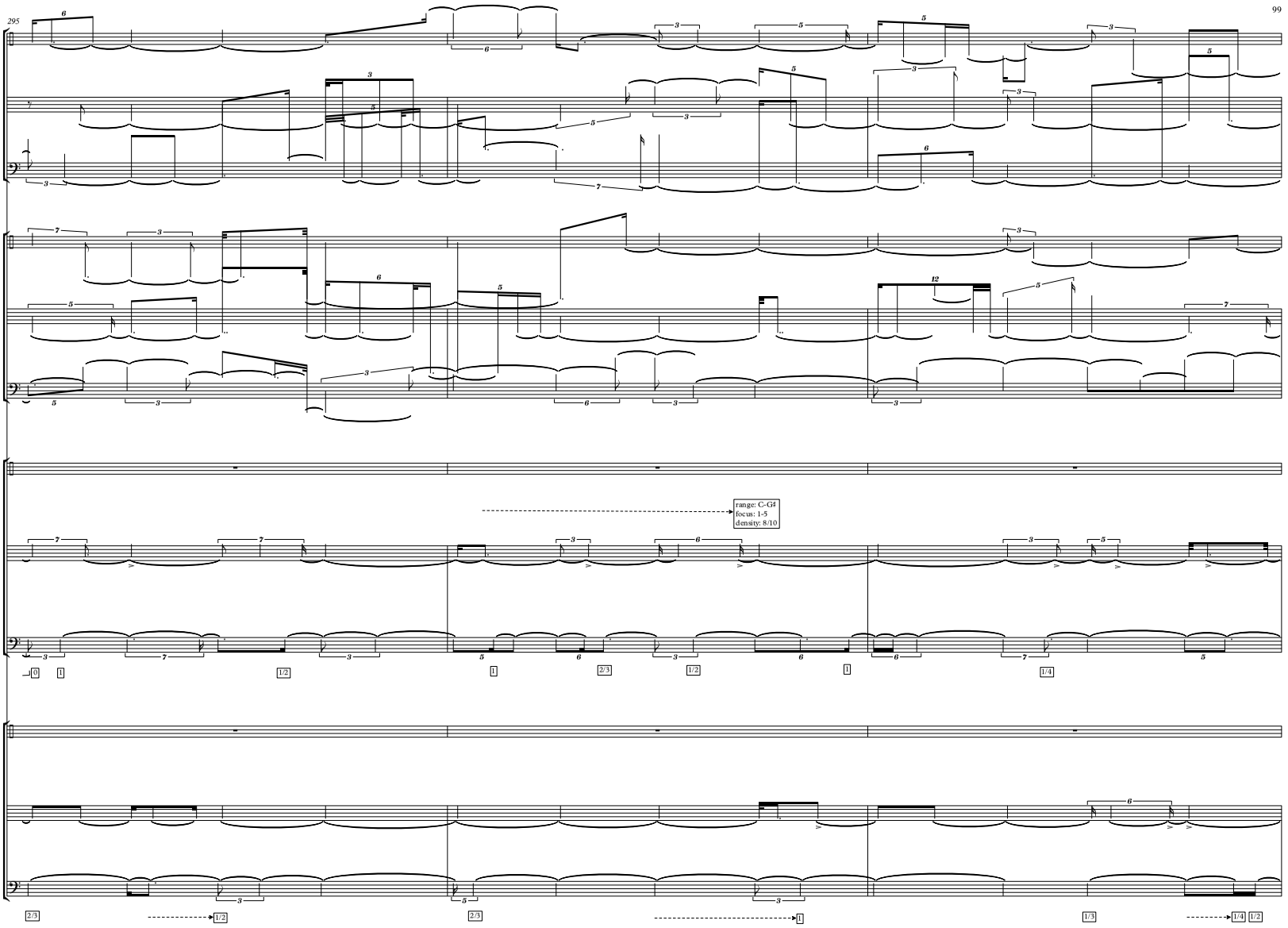
247

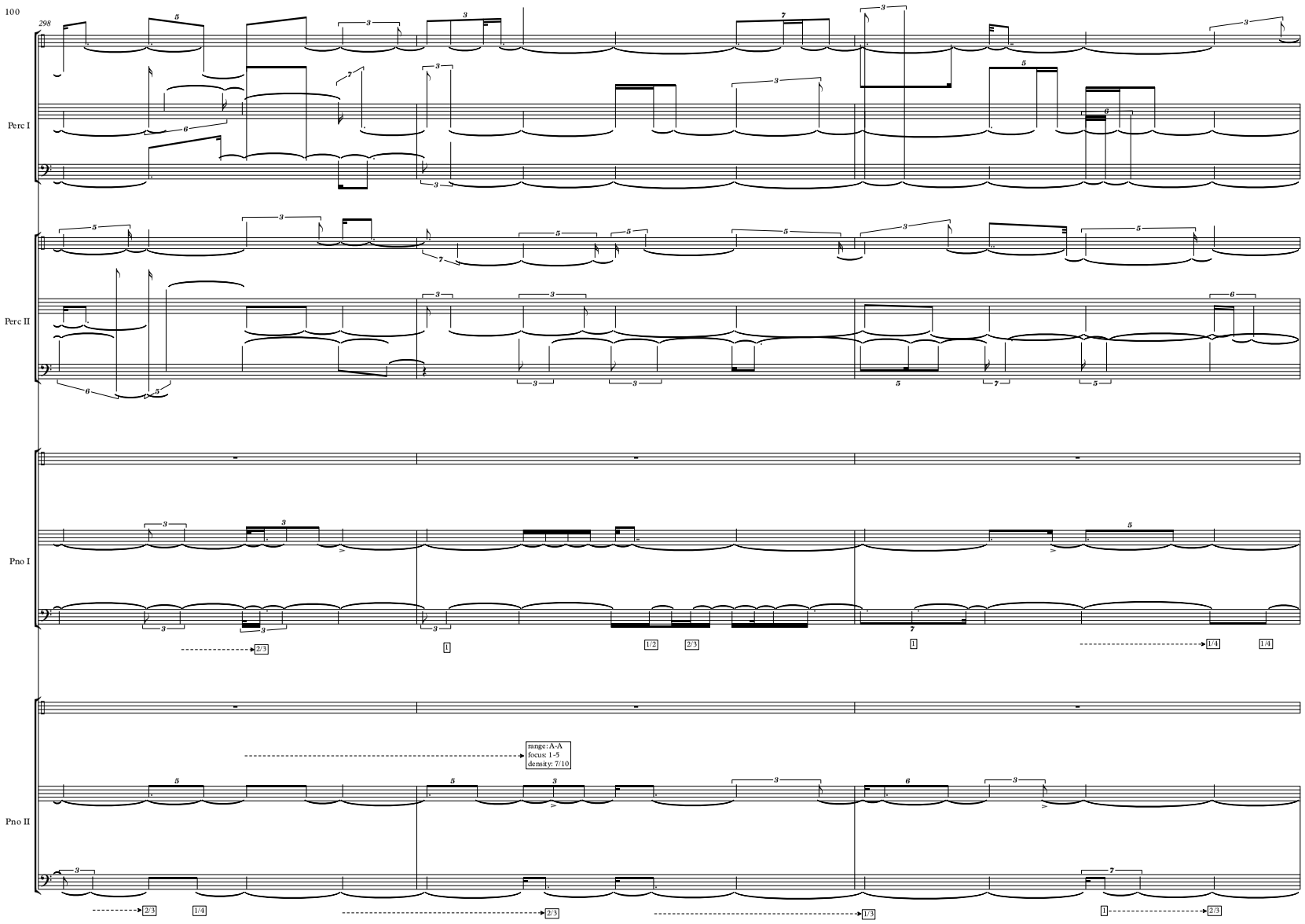

286
M[(5)7-13]
BSP: -3
BP: +3
inconspicuous bow
direction change
mf
Perc I
Perc II
range: B♭-G♯
focus: 1-4
density: 8/1 0
Pno I
Pno II
(accel.)

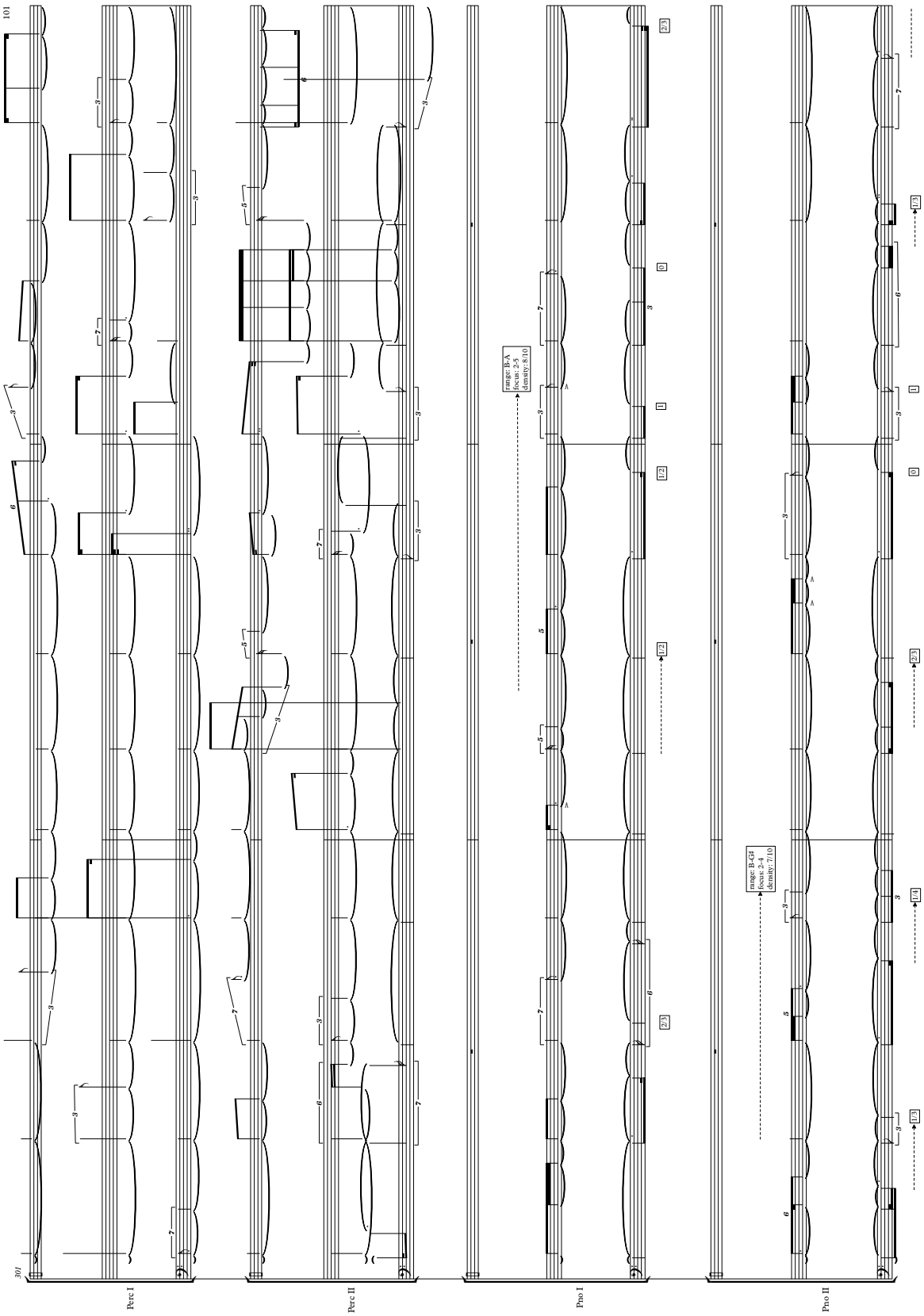

289
BSP: -2
BP: +1.5
M[(3)5-11]
inconspicuously change
to mallets on pno strings
(med.-hard felt mallets)
mp
l.v.
Perc I
Perc II
Pno I
Pno II
range: Bb-A
focus: 1-5
density: 7/10
range: A-G
focus: 1-4
density: 7/10
2/3
0
1
1/4
1/2

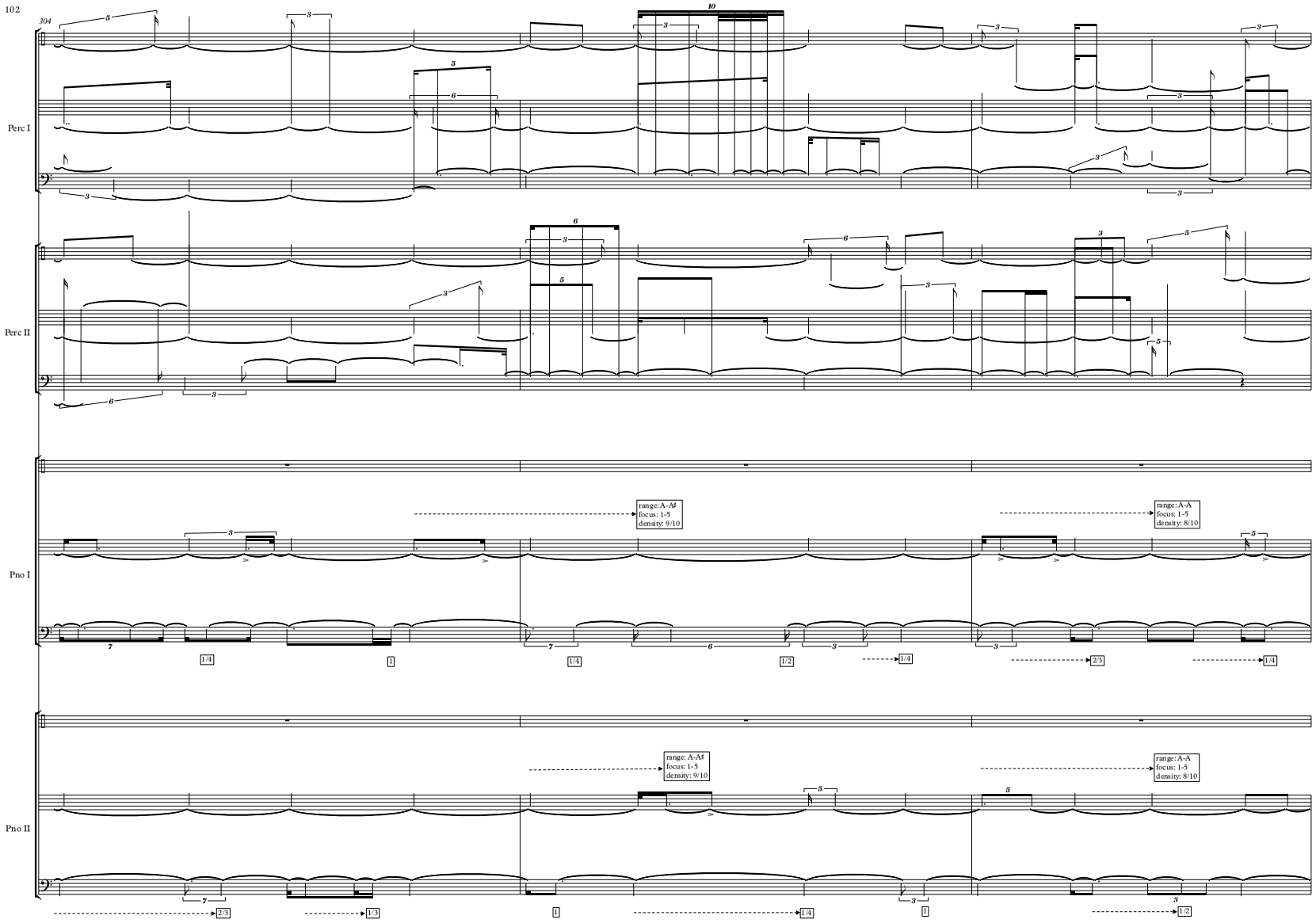
249

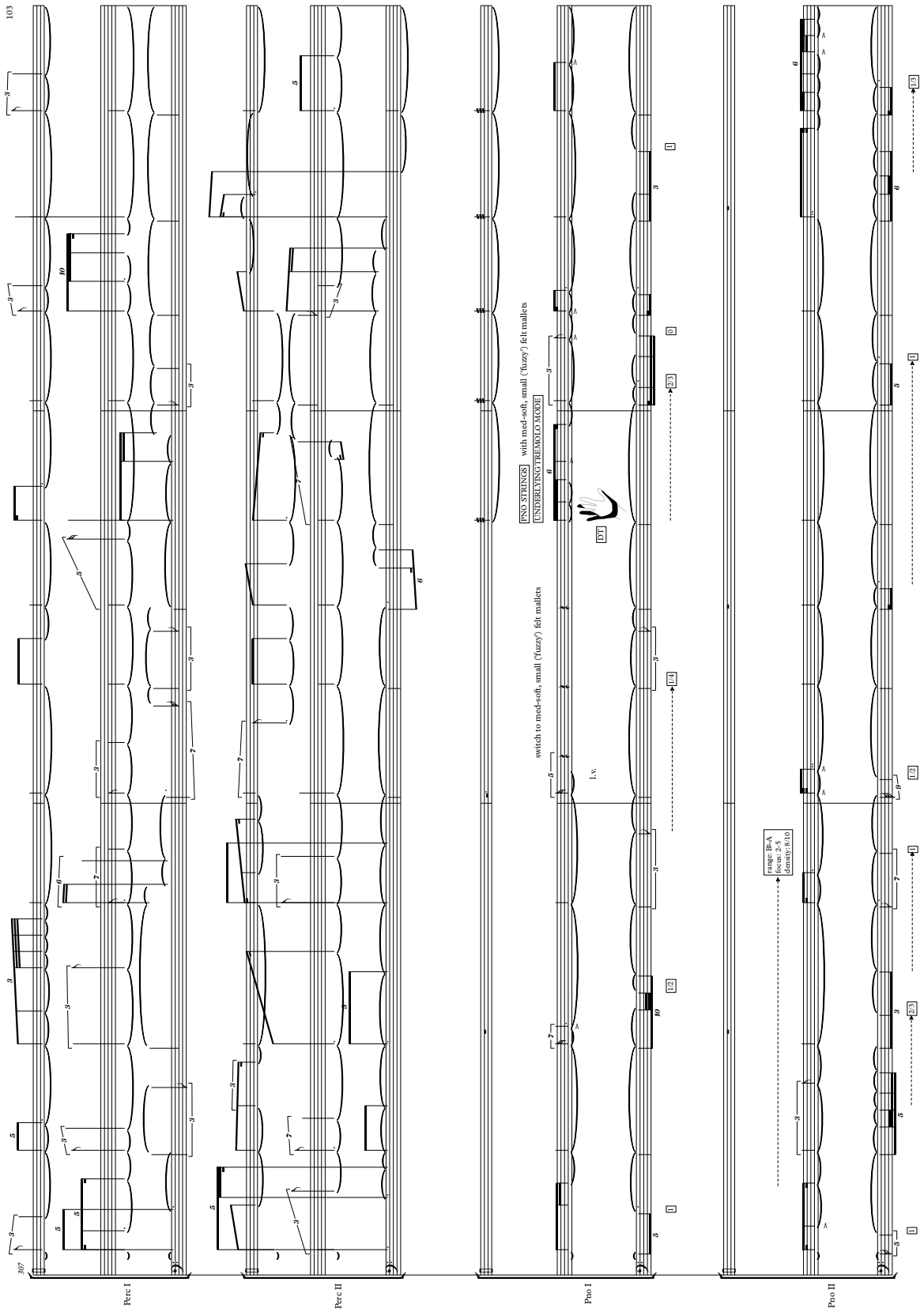

98
292
PNO STRINGS with med. hard felt mallets
PNO STRINGS with med. hard felt mallets
Perc I
pp
PNO STRINGS with med. soft ('fuzzy') felt mallets
sempre dynamic bandwidth: mp-f
Perc II
subito
range: B-A
focus: 1-5
density: 9/10
Pno I
dynamic bandwidth: mf-ff
1/2
2/3
1/4
subito
range: B-A
focus: 1-5
density: 9/10
Pno II
dynamic bandwidth: mf-ff
2/3
1
1/2
2/3
1/4

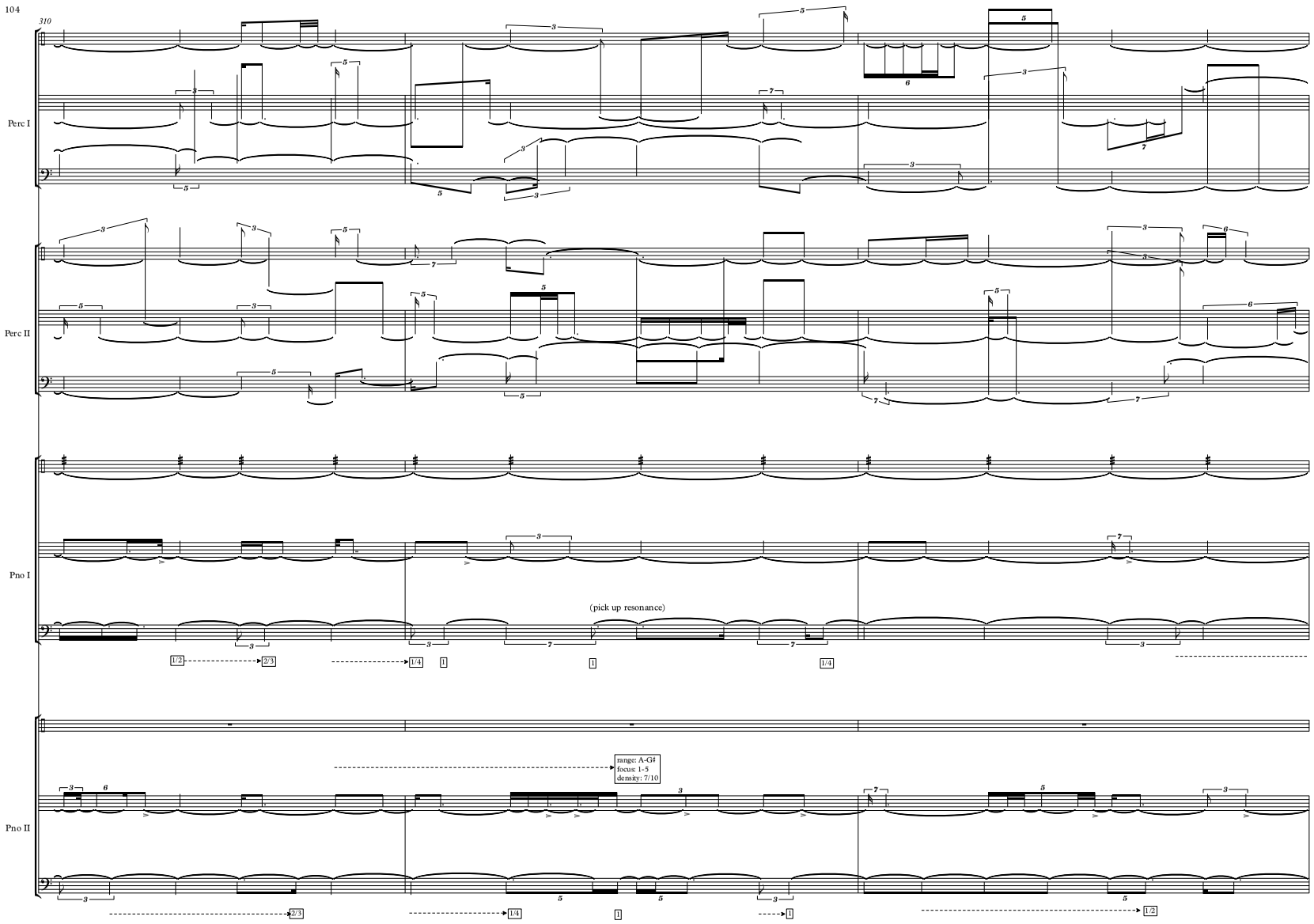

295
99
Perc I
Perc II
range: C-G♯
focus: 1-5
density: 8/10
Pno I
Pno II


100
298
Perc I
Perc II
Pno I
Pno II
range: A-A
focus: 1-5
density: 7/10


101
301
Perc I
Perc II
Pno I
Pno II
range: B-A
range: 2-5
density: 8/10
range: B-G#
range: 2-4
density: 7/10


102
304
Perc I
Perc II
Pno I
Pno II
range: A–A♯
focus: 1-5
density: 9/10
range: A–A
focus: 1-5
density: 8/10
range: A–A♯
focus: 1-5
density: 9/10
range: A–A
focus: 1-5
density: 8/10


103
307
Perc I
Perc II
Pno I
Pno II
PNO STRINGS
UNDERLYING TREMOLO MODE
with med-soft, small ('fuzzy') felt mallets
switch to med-soft, small ('fuzzy') felt mallets
DT
l.v.
range: B♭-A
focus: 2-5
density: 8:10


104
310
Perc I
Perc II
Pno I
Pno II
(pick up resonance)
range: A-G♯
focus: 1-5
density: 7/10
1/2
2/3
1/4
1
1/4
1
1
2/3
1/4
1
1
1/2

313

Perc I

Perc II

Pno I

Pno II

very inconspicuously switch to tamtam

l.v.

TAMTAM arco

BSP: -1
BP: +1.5

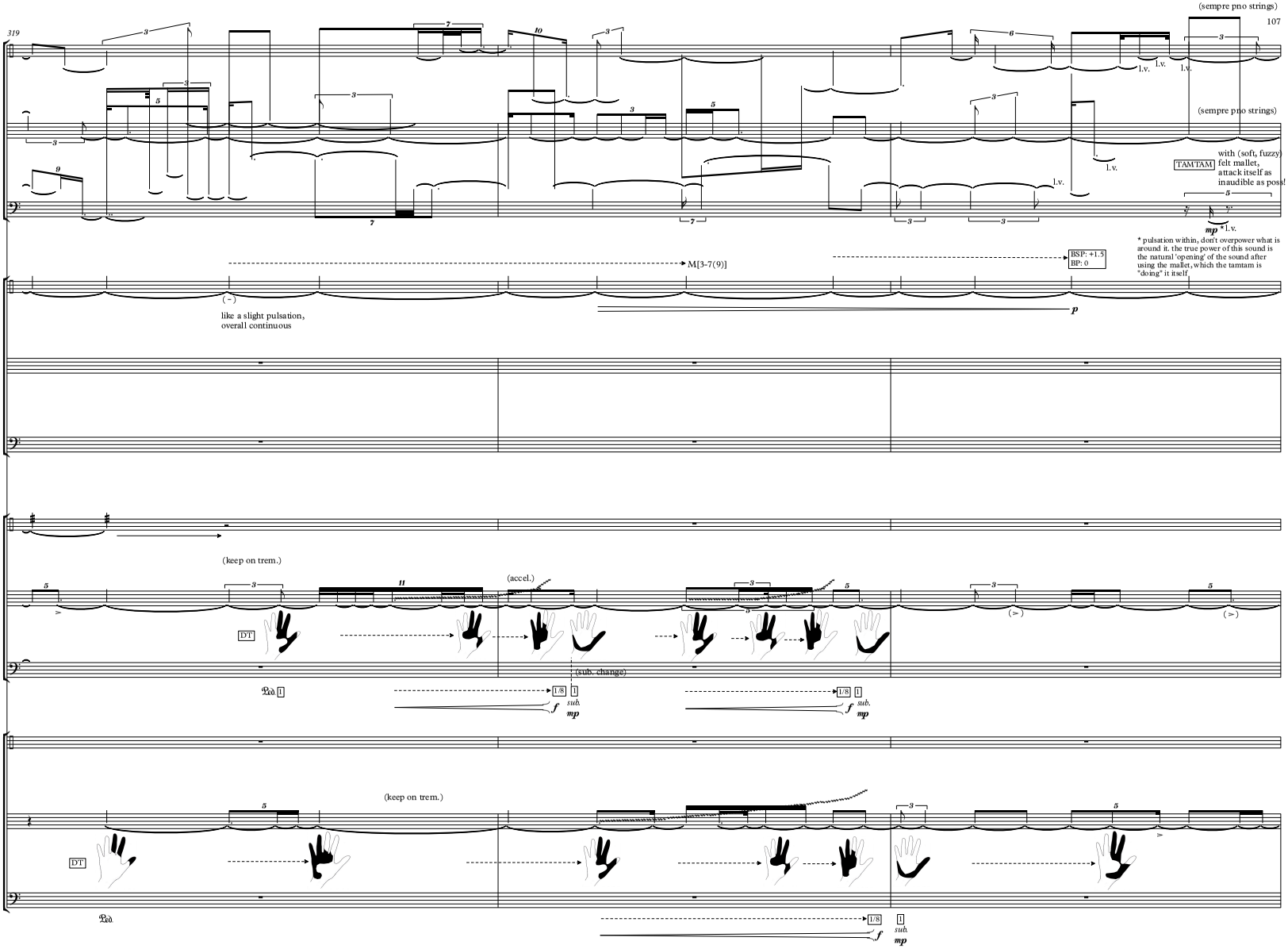
M [(3) 5-7]

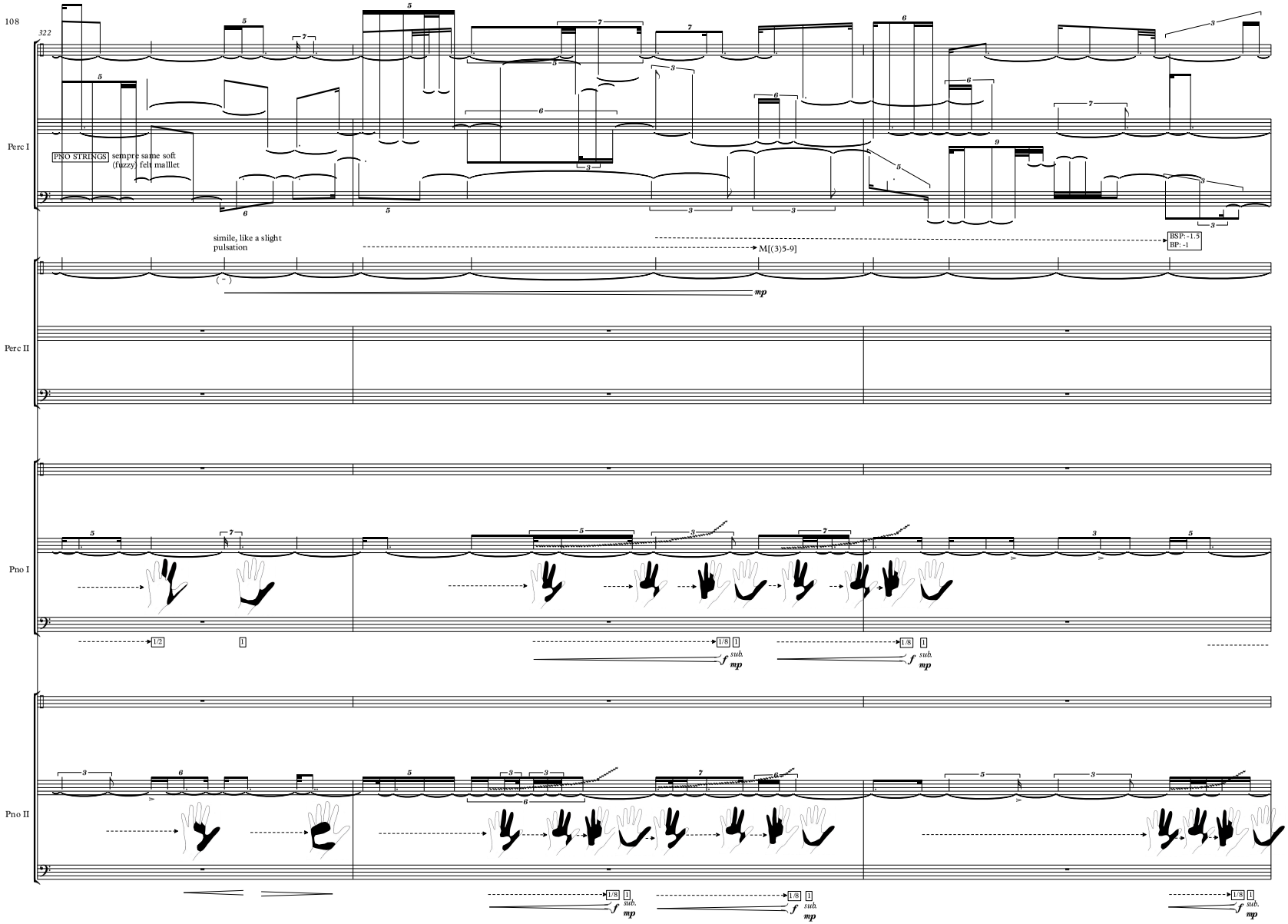
start as soon as poss.

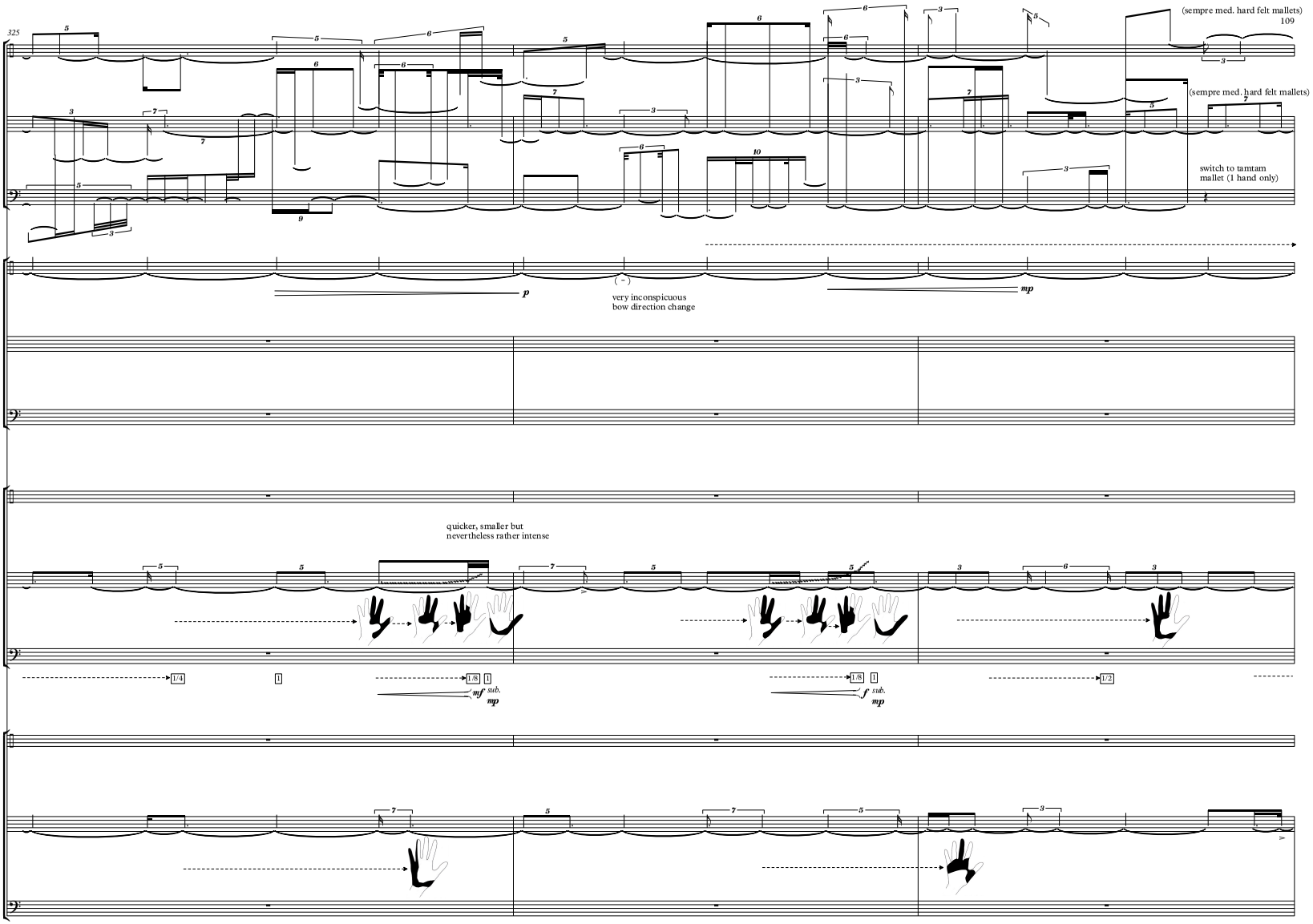
ppp
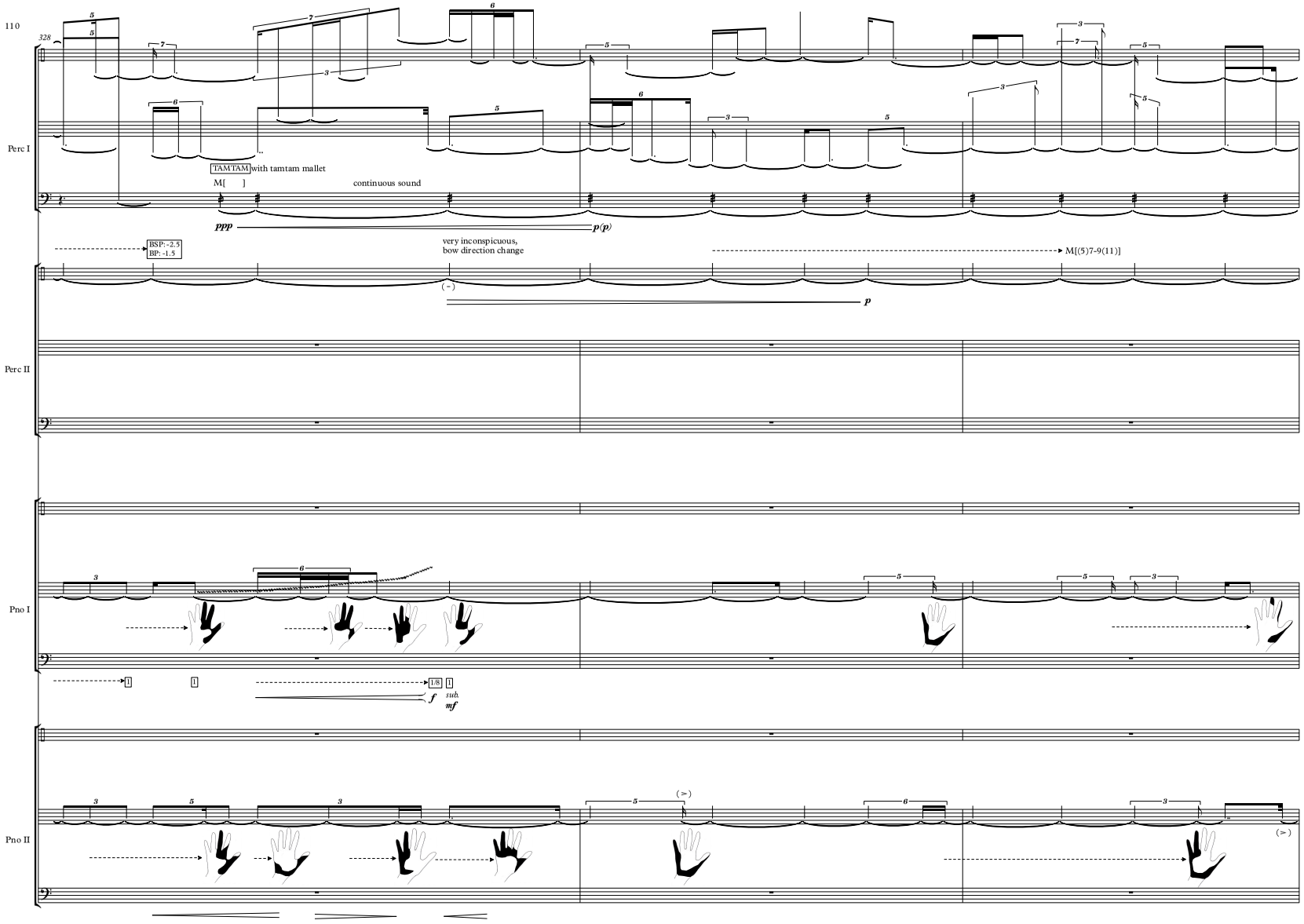
257

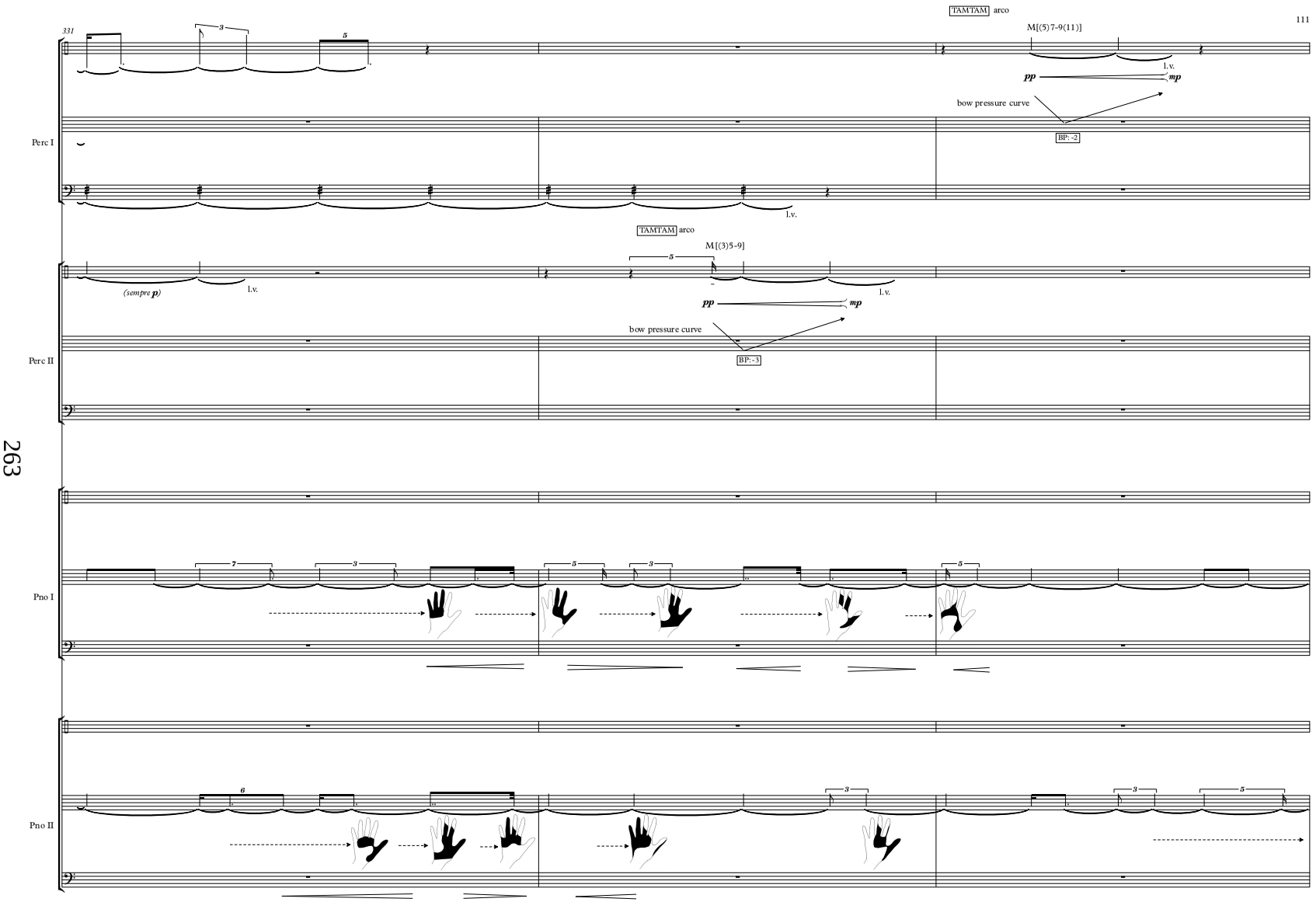

106
316
Perc I
BSP: -1.5
BP: +1.5
M[7-9(11)]
p
mp
Perc II
Pno I
switch to med.-soft,
small(fuzzy) felt mallets
Pno II
l.v.
l.v.

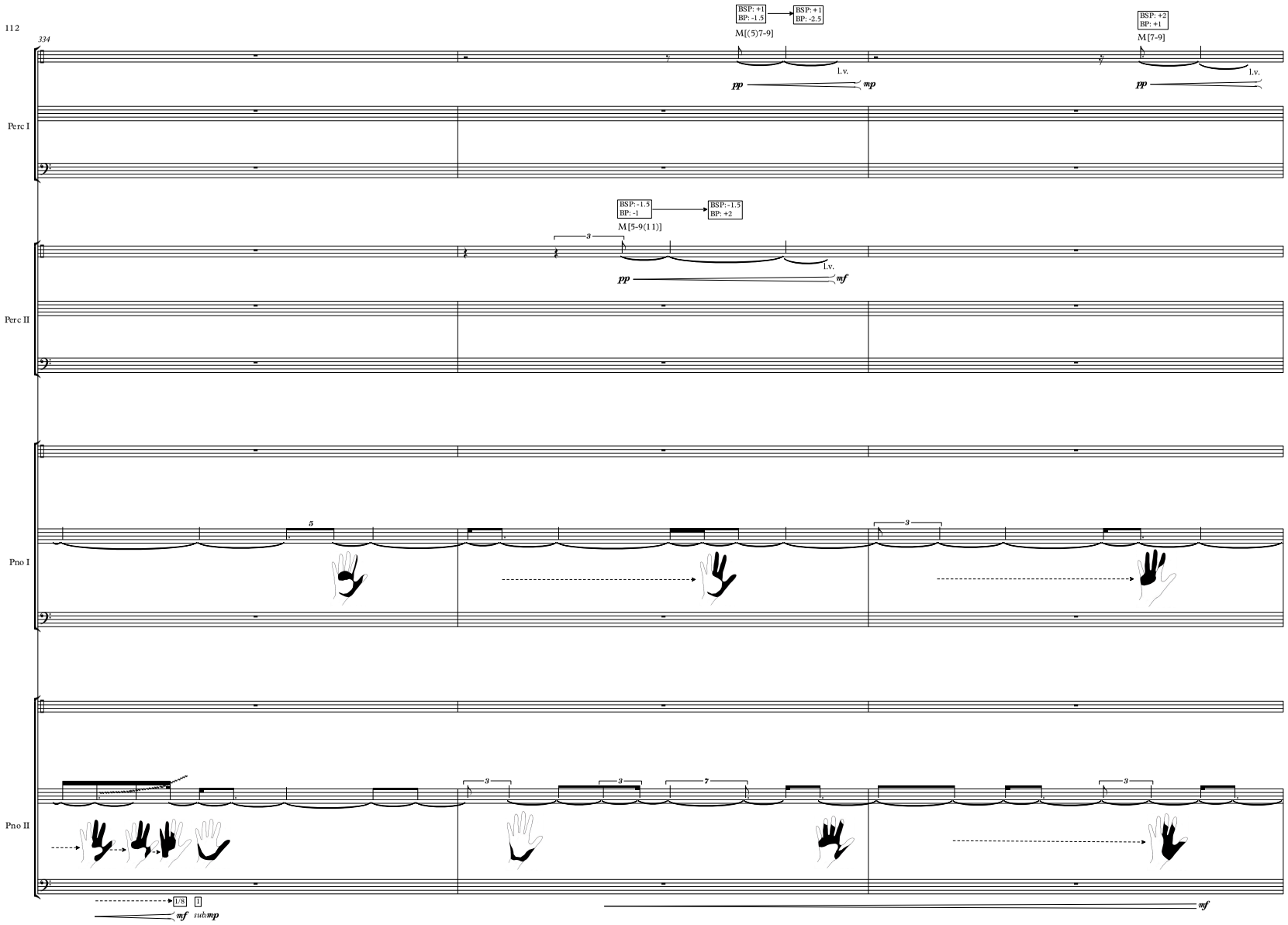

319
107
(sempre pno strings)
Perc I
TAMTAM
with (soft, fuzzy) felt mallet, attack itself as inaudible as poss!
* pulsation within, don't overpower what is around it. the true power of this sound is the natural 'opening' of the sound after using the mallet, which the tamtam is "doing" it itself.
M[3-7(9)]
BSP: +1.5
BP: 0
like a slight pulsation, overall continuous
Perc II
Pno I
(keep on trem.)
(accel.)
DT
(sub. change)
sub.
Pno II

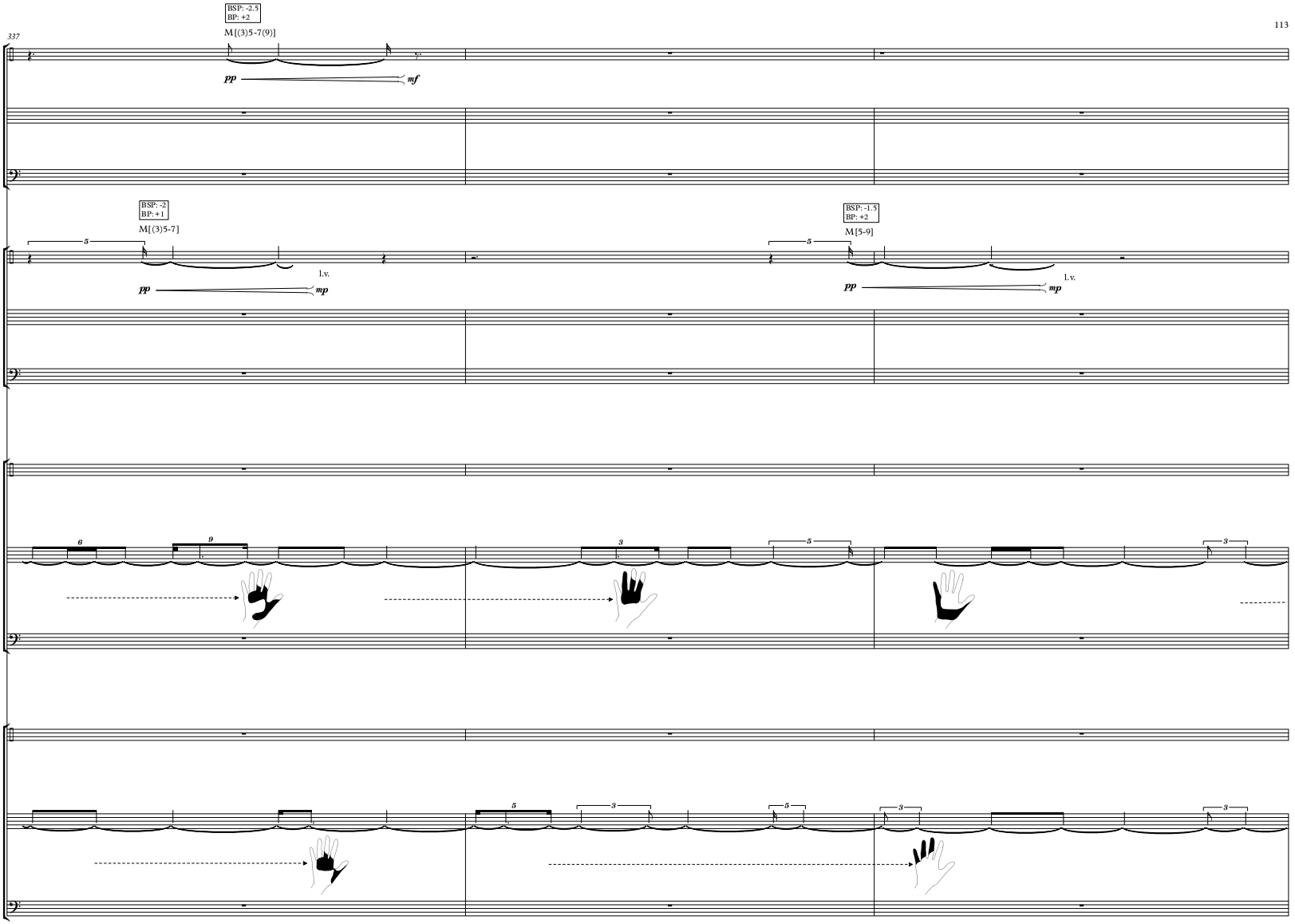

108
322
Perc I
PNO STRINGS sempre same soft
(fuzzy) felt malllet
simile, like a slight
pulsation
M[(3)5–9]
BSP: -1.5
BP: -1
mp
Perc II
Pno I
1/2
1
1/8
1
sub.
f
mp
Pno II

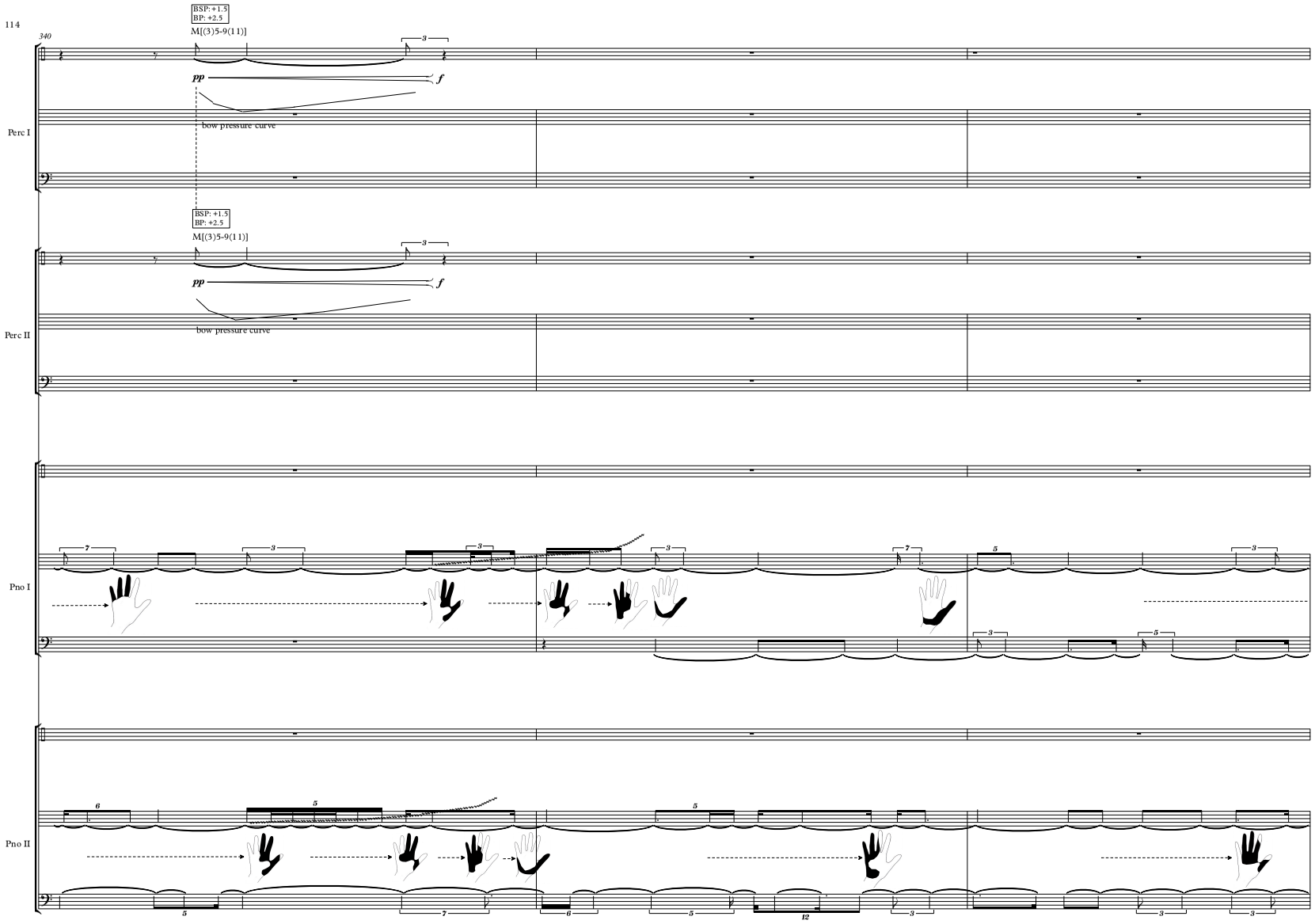

325
(sempre med. hard felt mallets)
109
(sempre med. hard felt mallets)
Perc I
switch to tamtam
mallet (1 hand only)
p
mp
(-)
very inconspicuous
bow direction change
Perc II
quicker, smaller but
nevertheless rather intense
Pno I
mf sub.
mp
f sub.
mp
Pno II

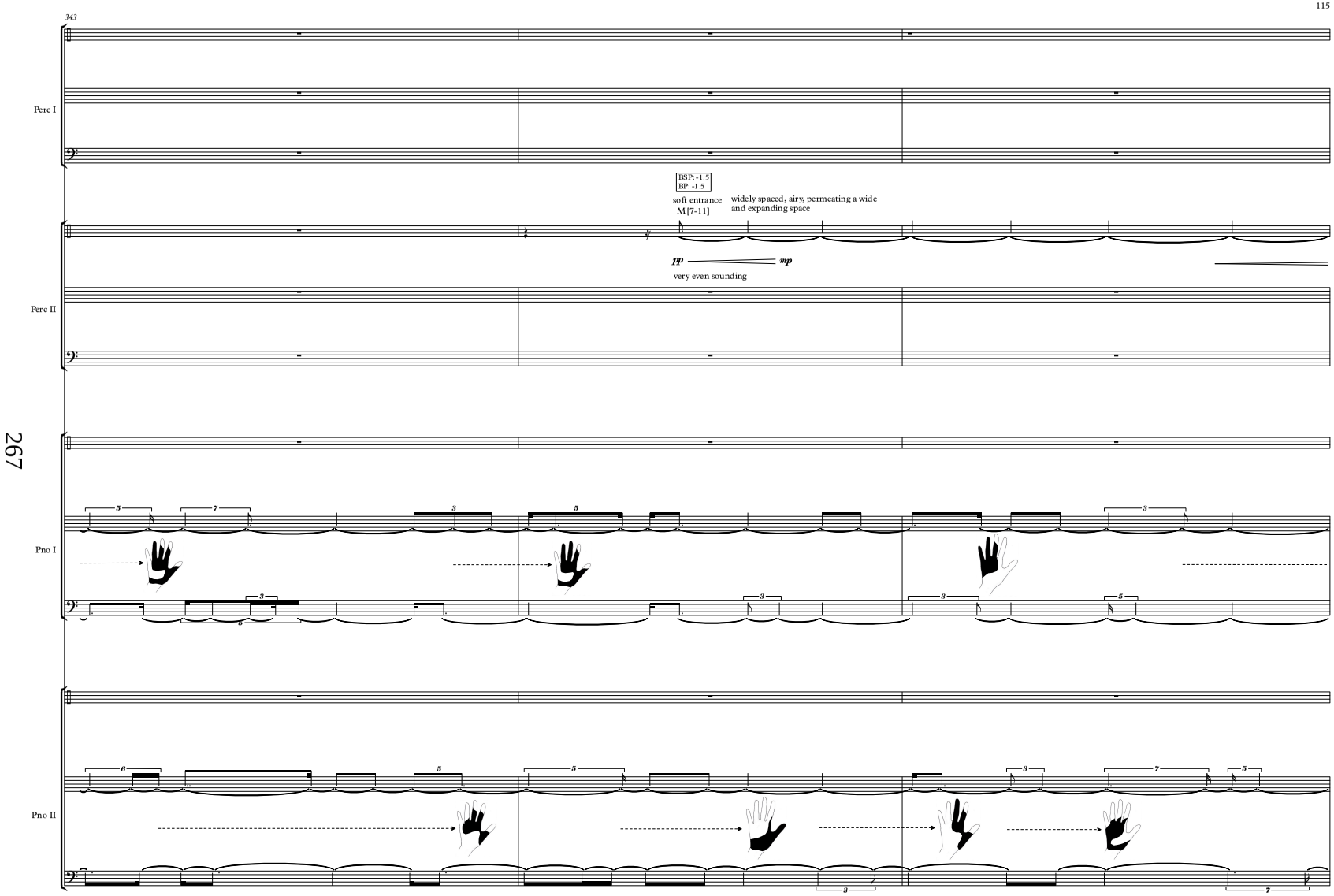

110
328
Perc I
TAMTAM with tamtam mallet
M[ ]
continuous sound
ppp
p (p)
BSP: -2.5
BP: -1.5
very inconspicuous,
bow direction change
M[(5)7-9(11)]
p
Perc II
Pno I
1/8
f
sub.
mf
Pno II

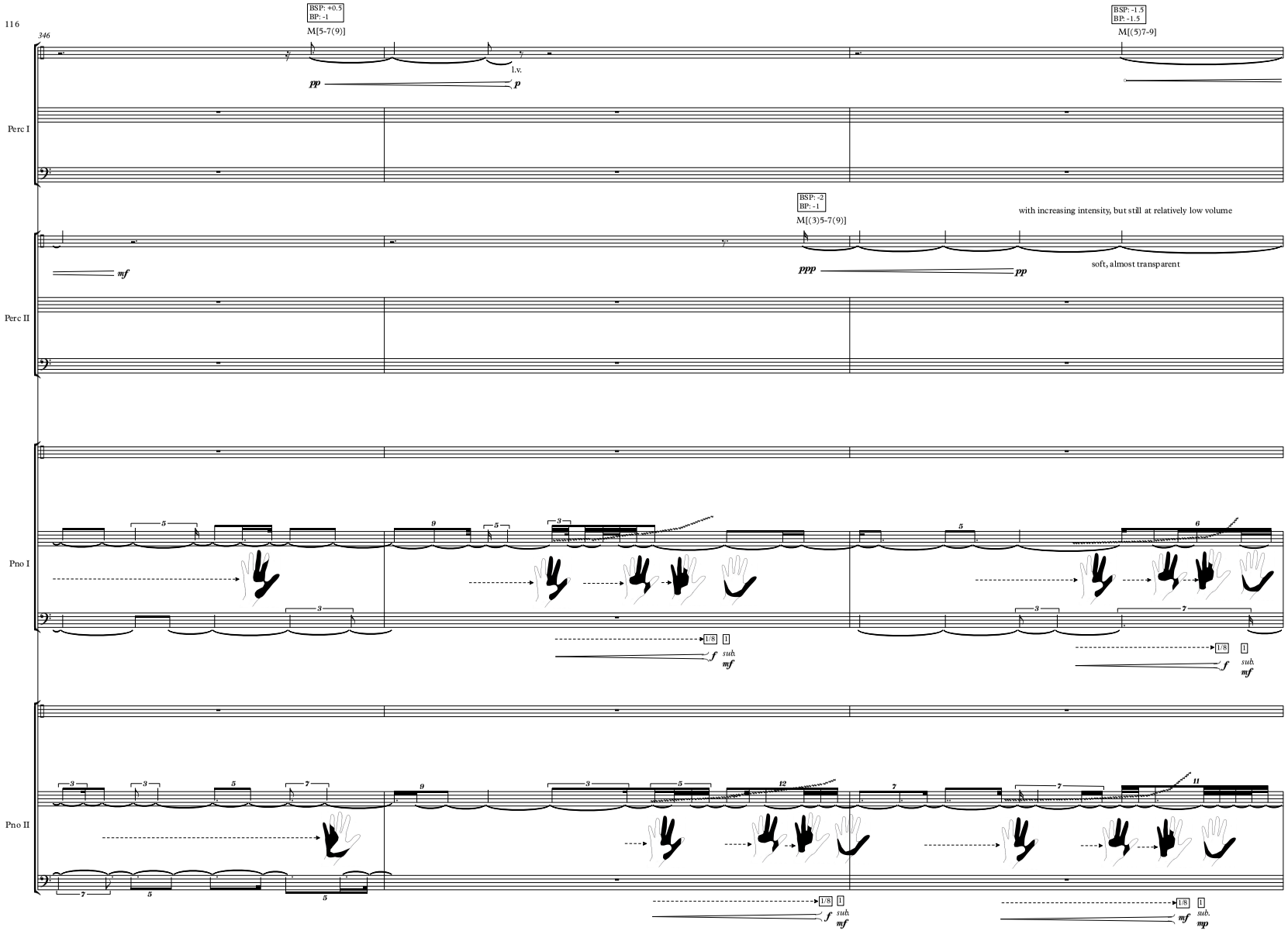

331
111
TAMTAM arco
M[(5)7-9(11)]
l.v.
pp
mp
bow pressure curve
BP: -2
Perc I
l.v.
TAMTAM arco
M[(3)5-9]
(sempre p)
l.v.
l.v.
pp
mp
bow pressure curve
BP: -3
Perc II
Pno I
Pno II

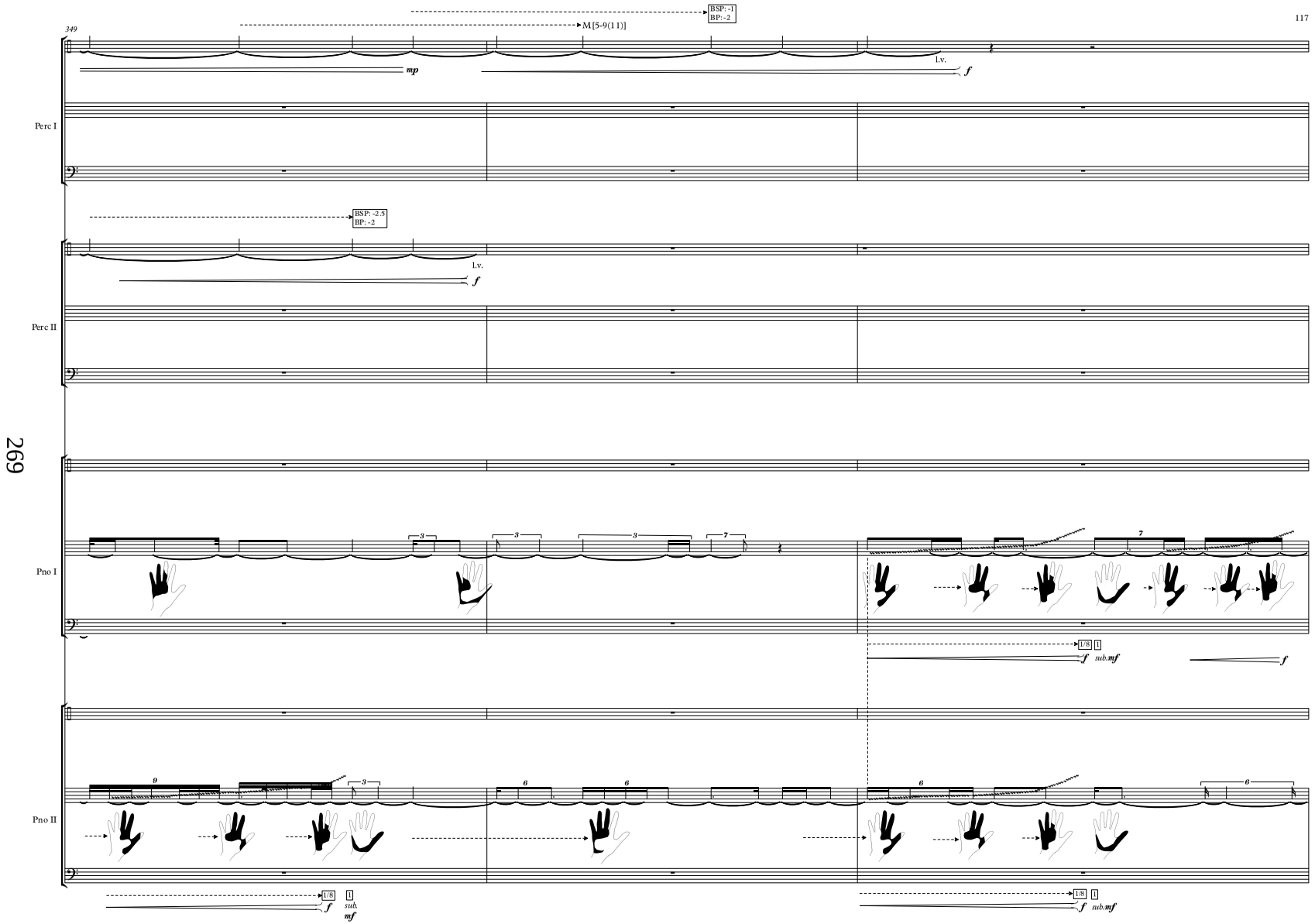

112
334
Perc I
Perc II
Pno I
Pno II
BSP: +1
BP: -1.5
BSP: +1
BP: -2.5
M[(5)7-9]
l.v.
pp
mp
BSP: +2
BP: +1
M[7-9]
l.v.
pp
BSP: -1.5
BP: -1
BSP: -1.5
BP: +2
M[5-9(1 1)]
l.v.
pp
mf
5
3
3
3
3
7
3
1/8
mf
submp
mf

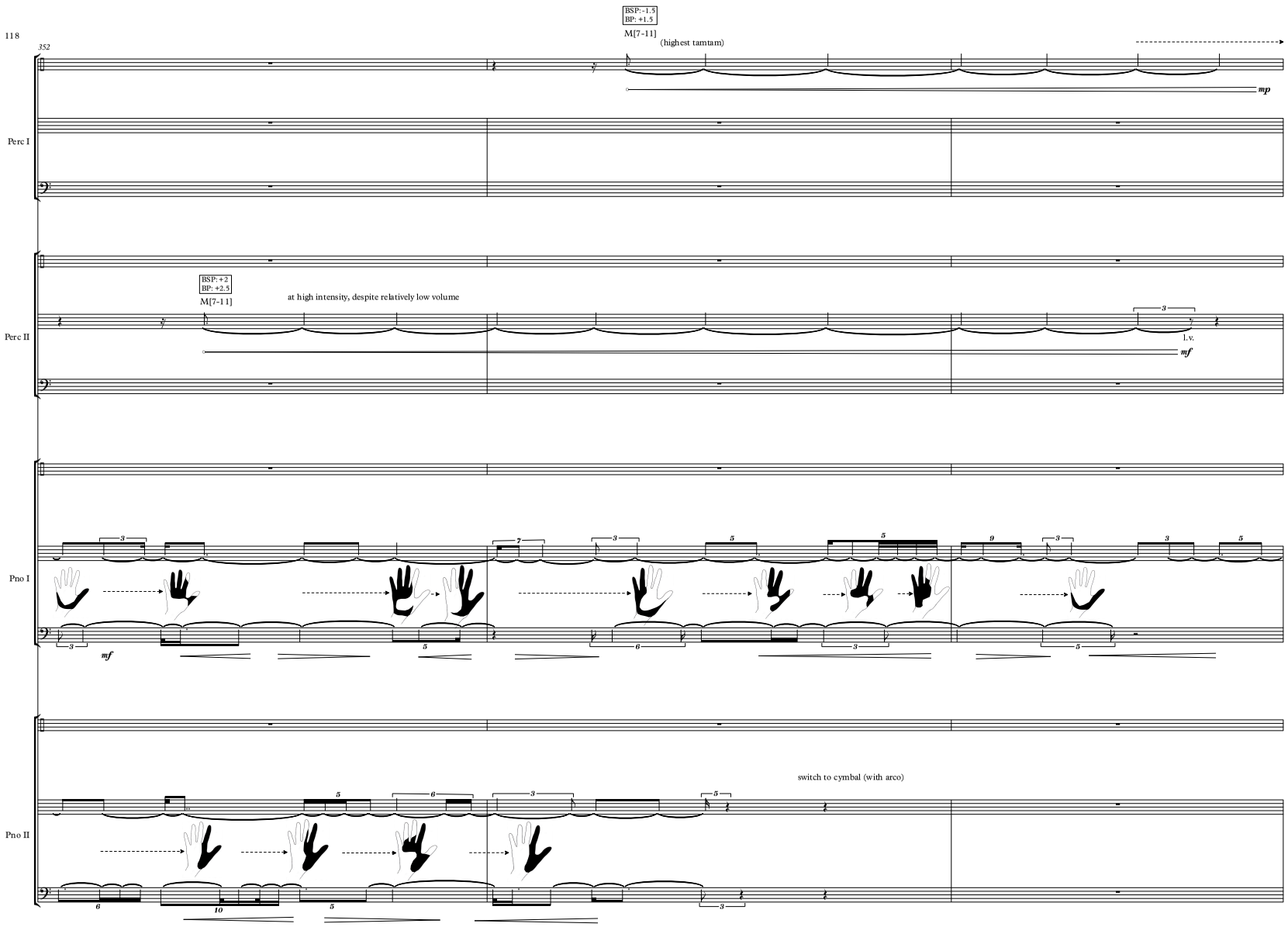

337
BSP: -2.5
BP: +2
M[(3)5-7(9)]
pp
mf
Perc I
BSP: -2
BP: +1
M[(3)5-7]
l.v.
pp
mp
BSP: -1.5
BP: +2
M[5-9]
l.v.
pp
mp
Perc II
Pno I
Pno II

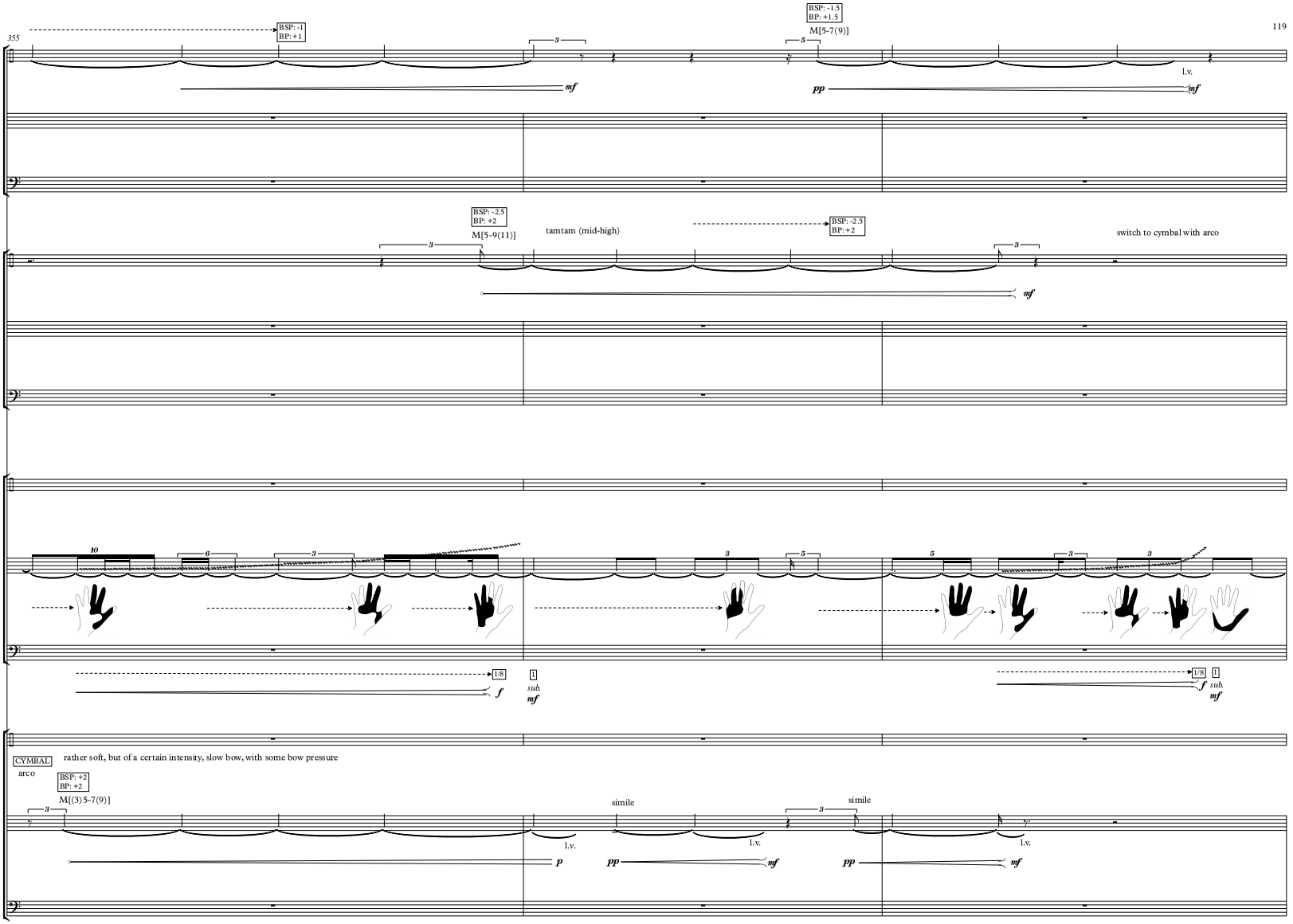

114
340
BSP: +1.5
BP: +2.5
M[(3)5-9(11)]
pp
f
bow pressure curve
Perc I
Perc II
Pno I
Pno II

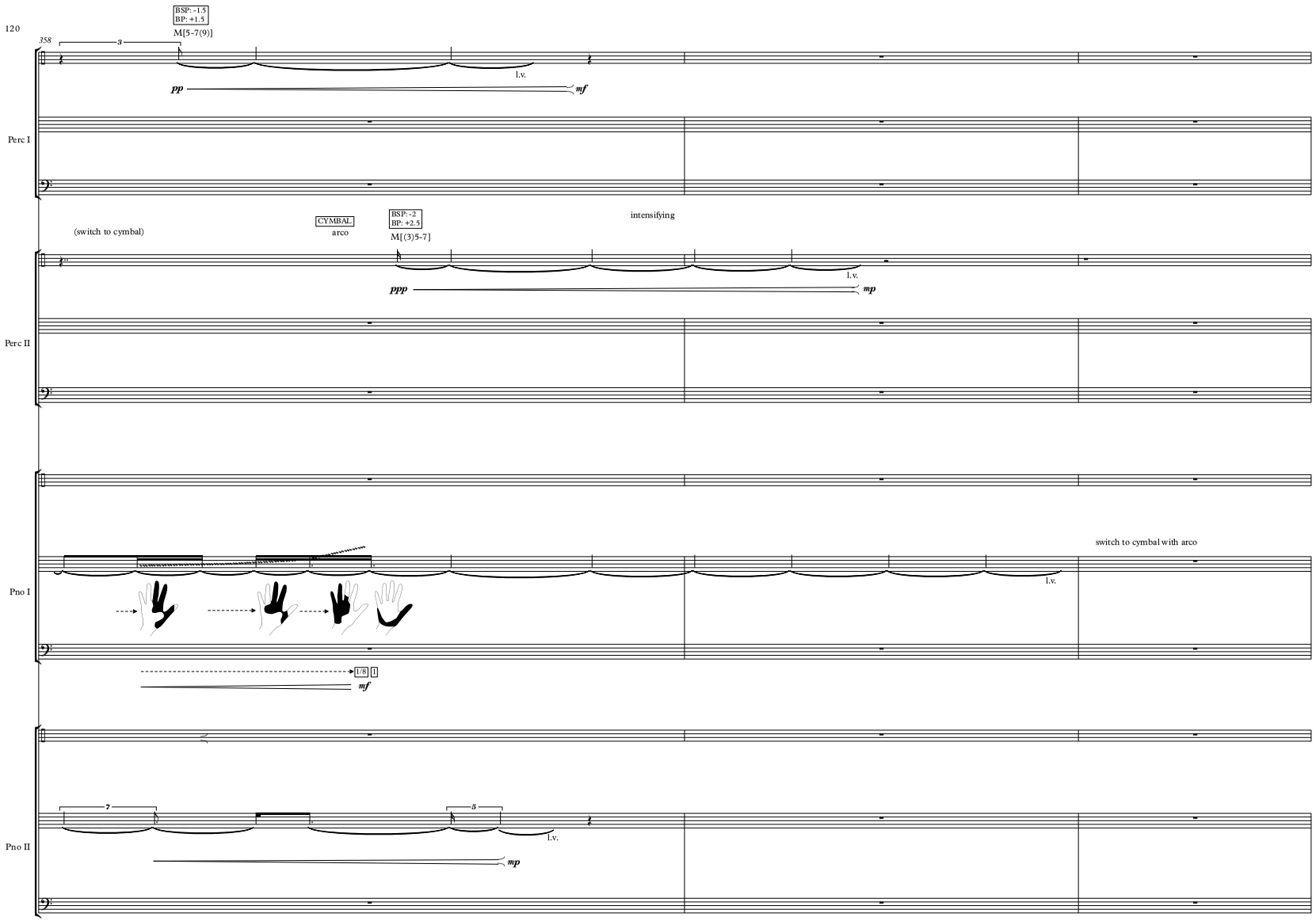

343
Perc I
BSP: -1.5
BP: -1.5
soft entrance
M [7-11]
widely spaced, airy, permeating a wide and expanding space
pp
mp
very even sounding
Perc II
Pno I
Pno II

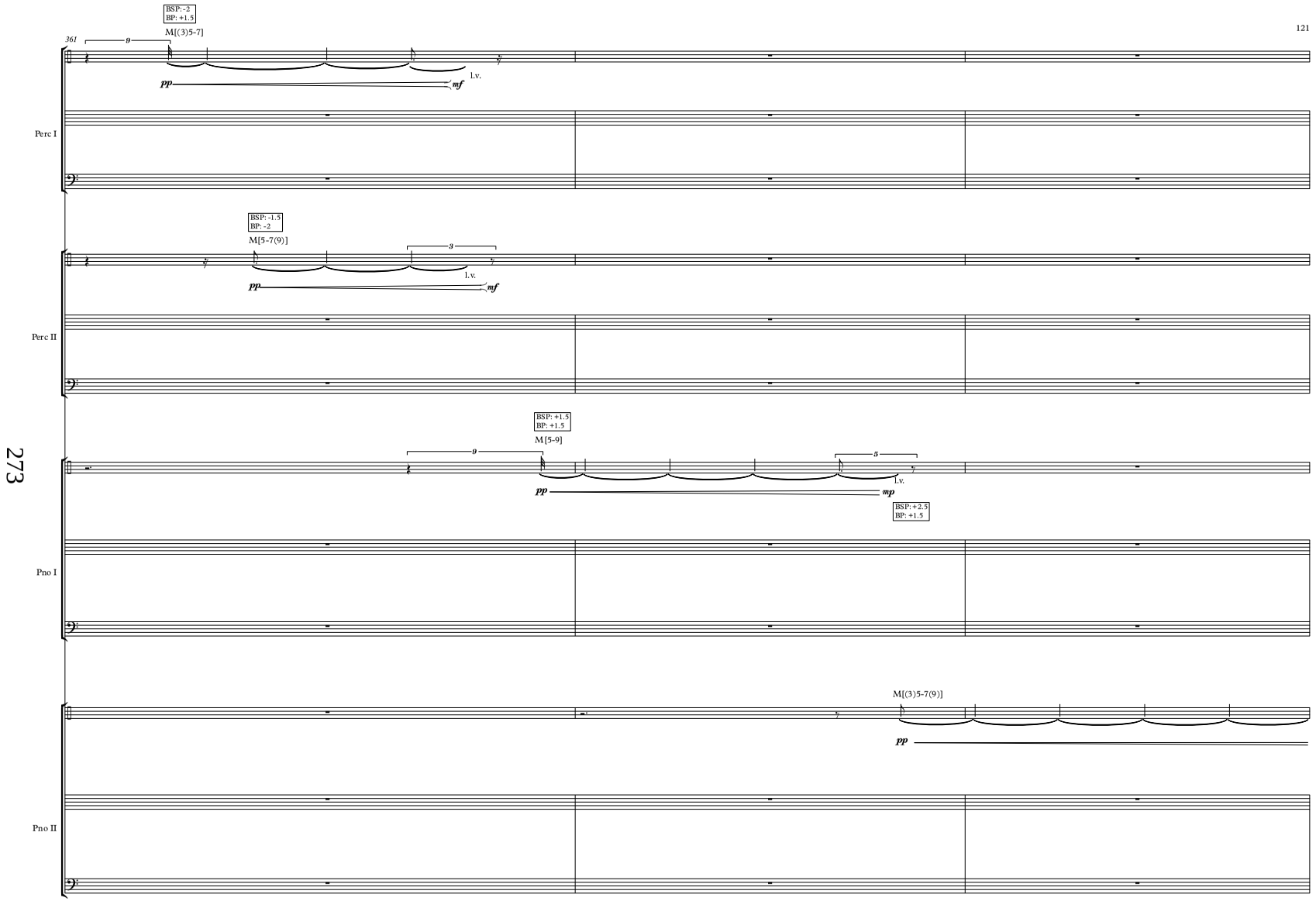

116
346
BSP: +0.5
BP: -1
M[5-7(9)]
l.v.
pp
p
BSP: -1.5
BP: -1.5
M[(5)7-9]
Perc I
BSP: -2
BP: -1
M[(3)5-7(9)]
with increasing intensity, but still at relatively low volume
mf
ppp
pp
soft, almost transparent
Perc II
Pno I
1/8
1
f
sub.
mf
Pno II
mp

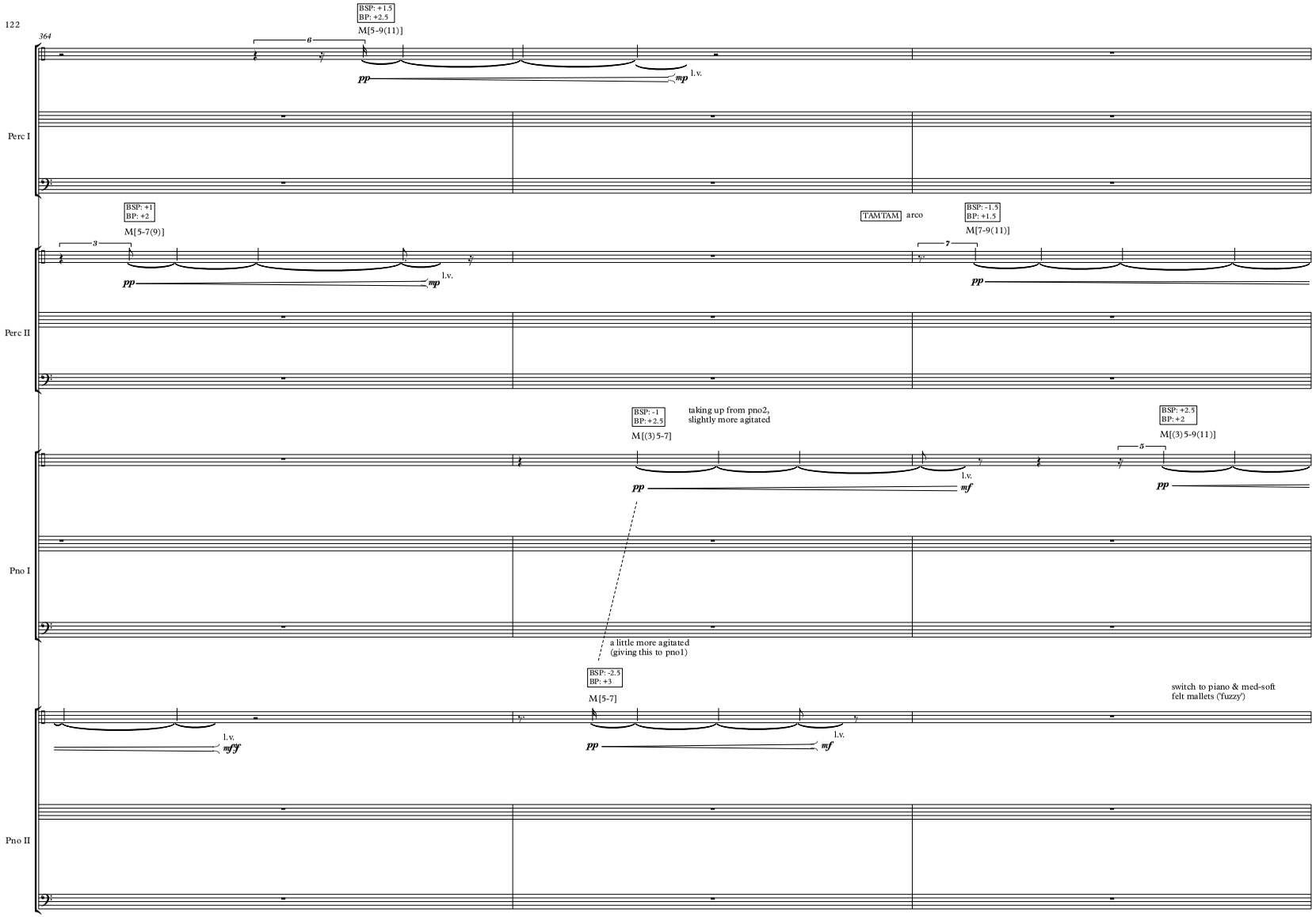

349
BSP: -1
BP: -2
M [5-9(1 1)]
mp
l.v.
f
Perc I
BSP: -2.5
BP: -2
l.v.
f
Perc II
Pno I
3
3
3
7
7
1/8
1
f
sub.mf
f
Pno II
9
3
6
6
6
6
1/8
1
f
sub.
mf
1/8
1
f
sub.mf

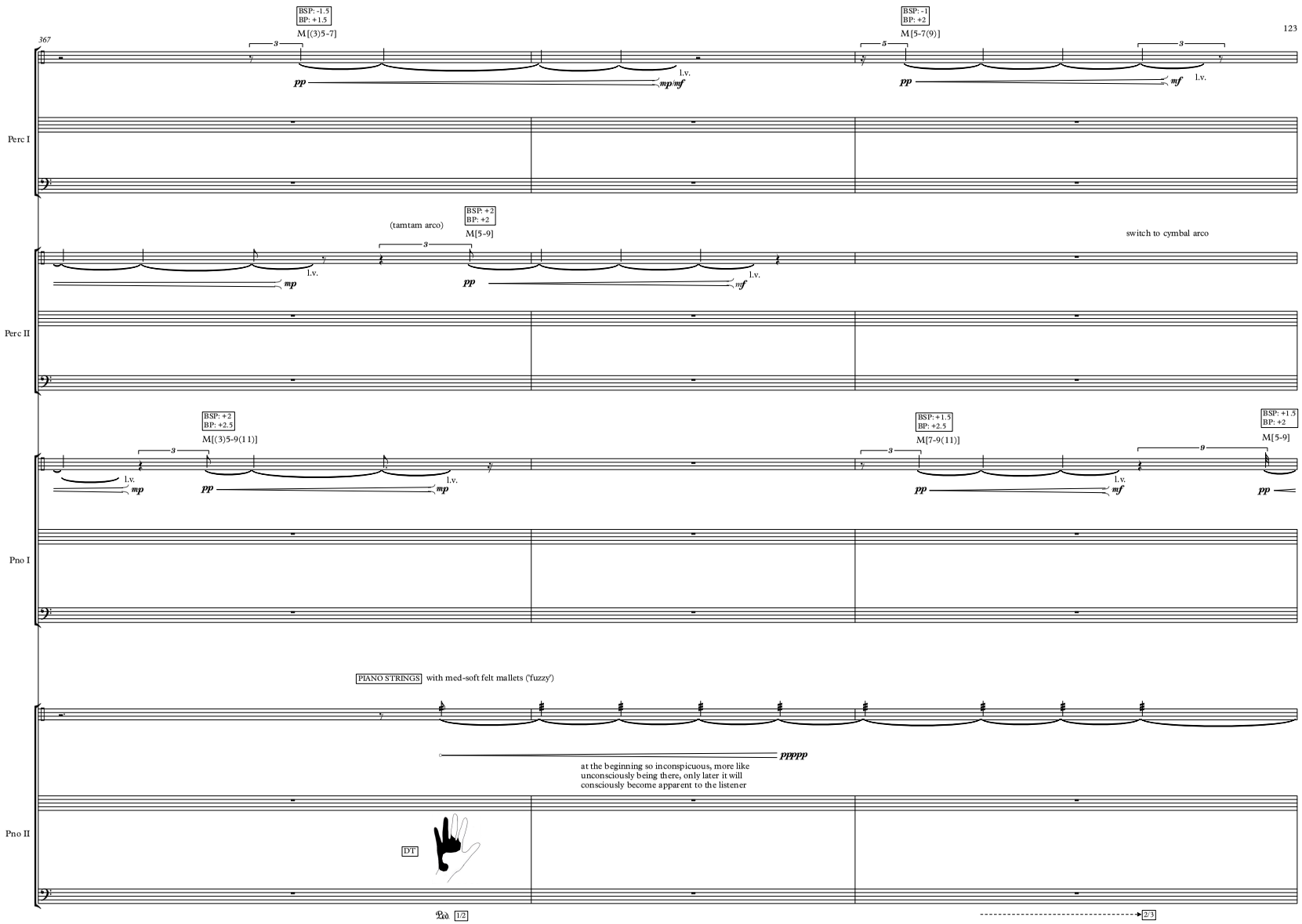

118
352
BSP: -1.5
BP: +1.5
M[7-11]
(highest tamtam)
mp
Perc I
BSP: +2
BP: +2.5
M[7-11]
at high intensity, despite relatively low volume
l.v.
mf
Perc II
mf
Pno I
switch to cymbal (with arco)
Pno II
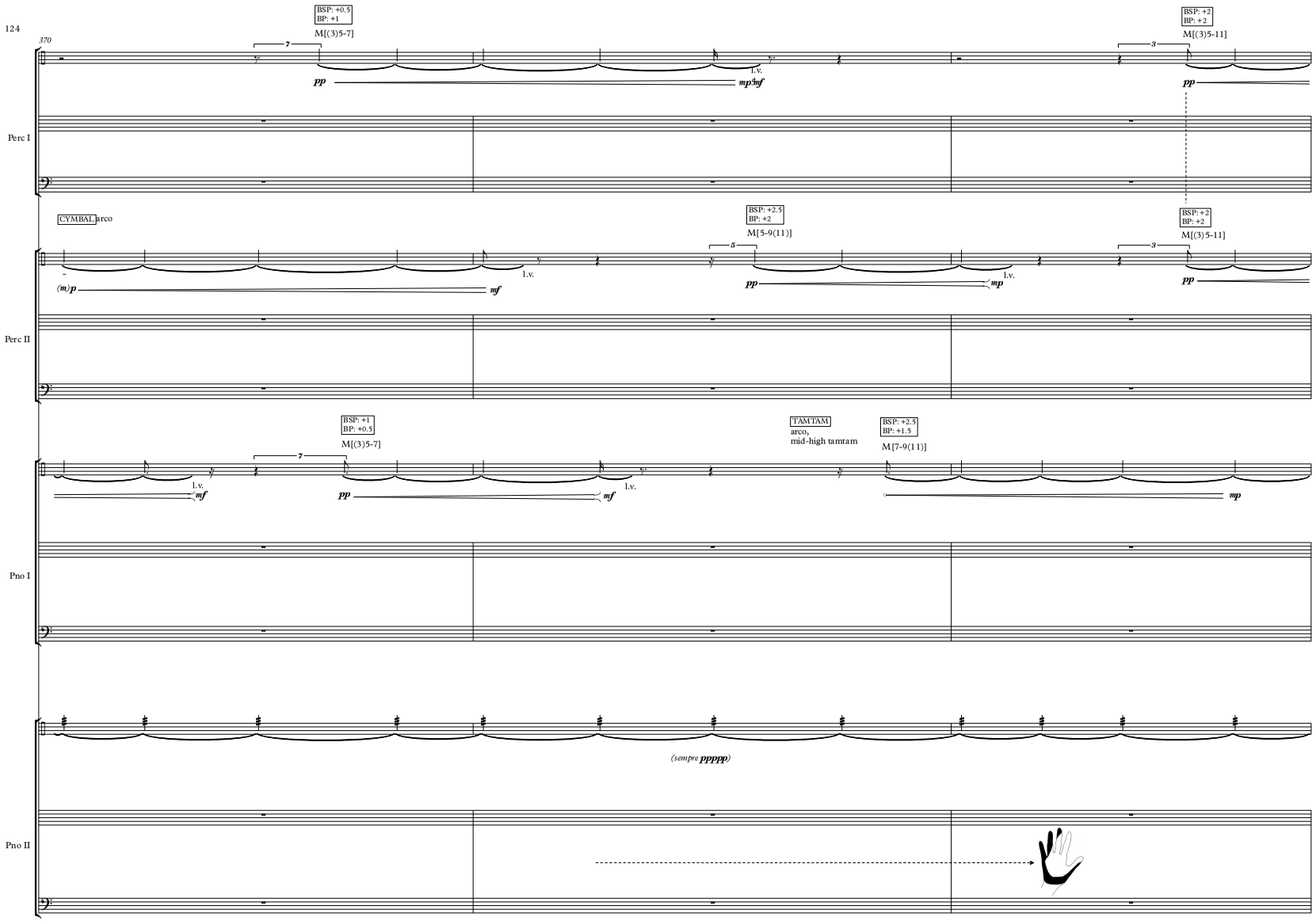

355
119
BSP: -1
BP: +1
BSP: -1.5
BP: +1.5
M[5-7(9)]
l.v.
Perc I
BSP: -2.5
BP: +2
M[5-9(11)]
tamtam (mid-high)
BSP: -2.5
BP: +2
switch to cymbal with arco
Perc II
Pno I
1/8
sub.
CYMBAL
arco
rather soft, but of a certain intensity, slow bow, with some bow pressure
BSP: +2
BP: +2
M[(3)5-7(9)]
simile
simile
Pno II

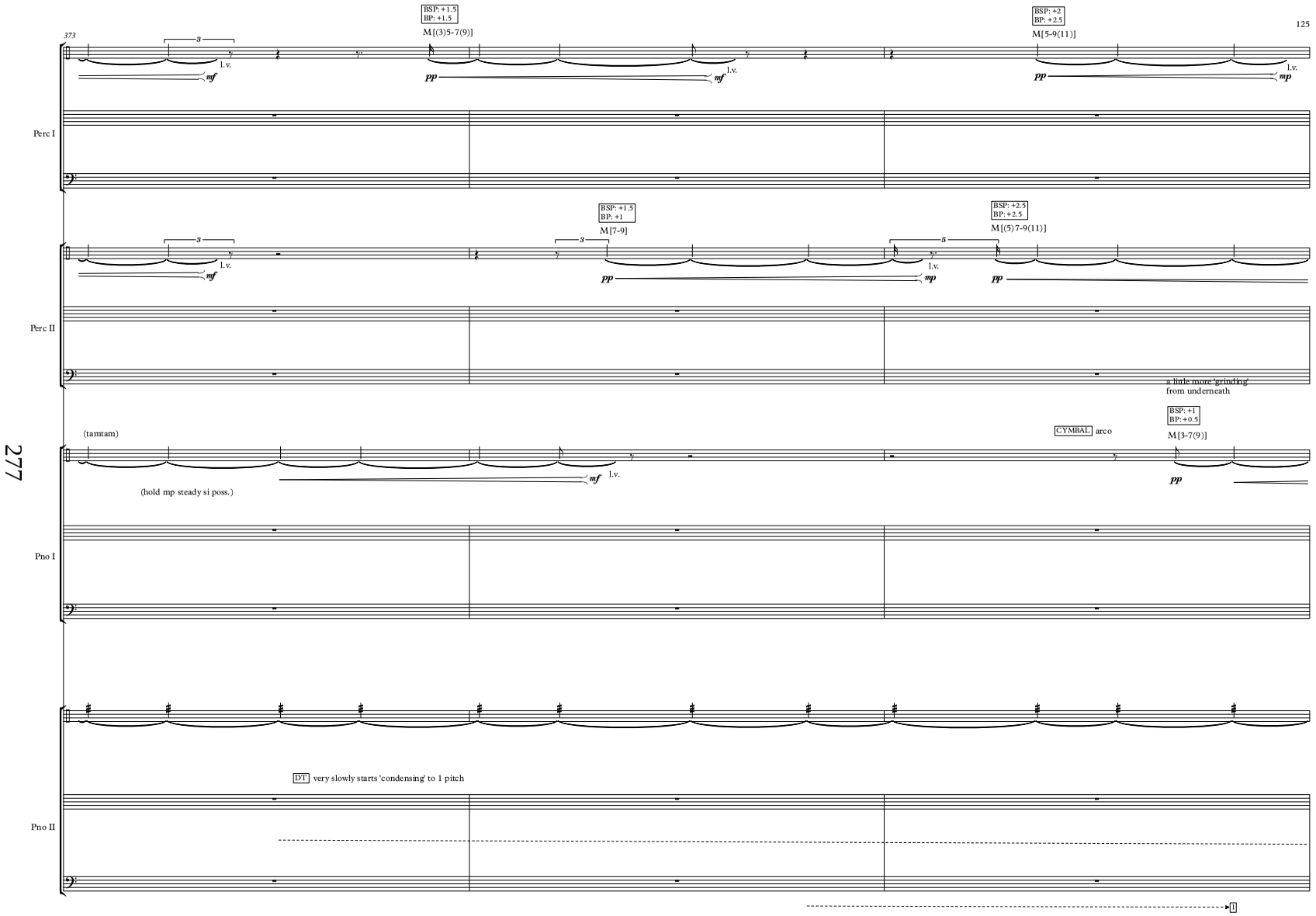

120
BSP: -1.5
BP: +1.5
M[5-7(9)]
9
1.v.
pp
mf
Perc I
(switch to cymbal)
CYMBAL
arco
BSP: -2
BP: +2.5
M[(3)5-7]
intensifying
1.v.
ppp
mp
Perc II
switch to cymbal with arco
Pno I
1.v.
1/8
1
mf
7
5
1.v.
mp
Pno II

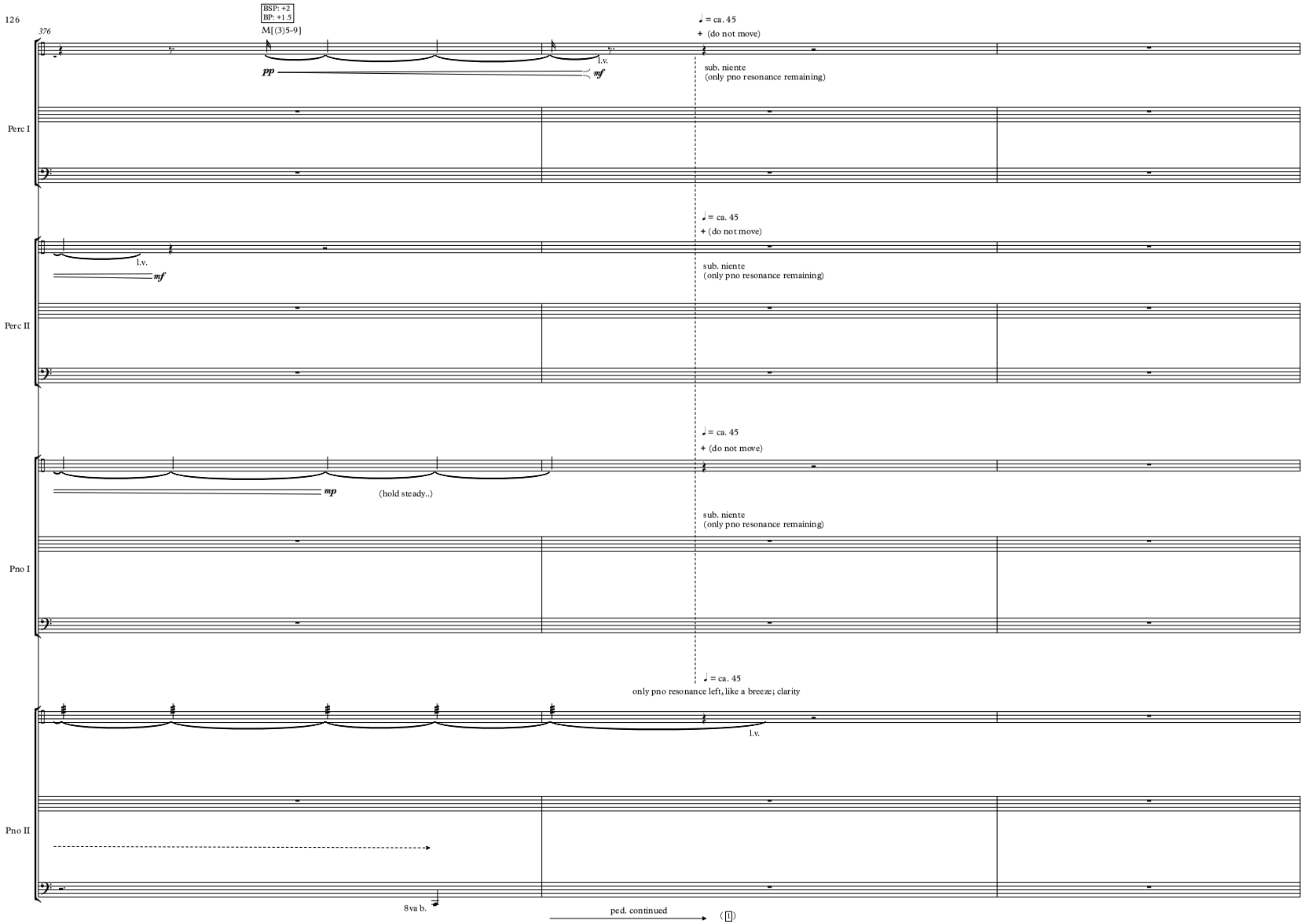

361
BSP: -2
BP: +1.5
M[(3)5-7]
l.v.
Perc I
BSP: -1.5
BP: -2
M[5-7(9)]
l.v.
Perc II
BSP: +1.5
BP: +1.5
M[5-9]
l.v.
BSP: +2.5
BP: +1.5
Pno I
M[(3)5-7(9)]
Pno II


122
364
BSP: +1.5
BP: +2.5
M[5-9(11)]
pp
mp
l.v.
Perc I
BSP: +1
BP: +2
M[5-7(9)]
pp
mp
l.v.
TAMTAM
arco
BSP: -1.5
BP: +1.5
M[7-9(11)]
pp
Perc II
BSP: -1
BP: +2.5
M[(3)5-7]
taking up from pno2,
slightly more agitated
pp
mf
l.v.
BSP: +2.5
BP: +2
M[(3)5-9(11)]
pp
Pno I
a little more agitated
(giving this to pno1)
BSP: -2.5
BP: +3
M[5-7]
switch to piano & med-soft
felt mallets ('fuzzy')
mfsfz
l.v.
pp
mf
l.v.
Pno II

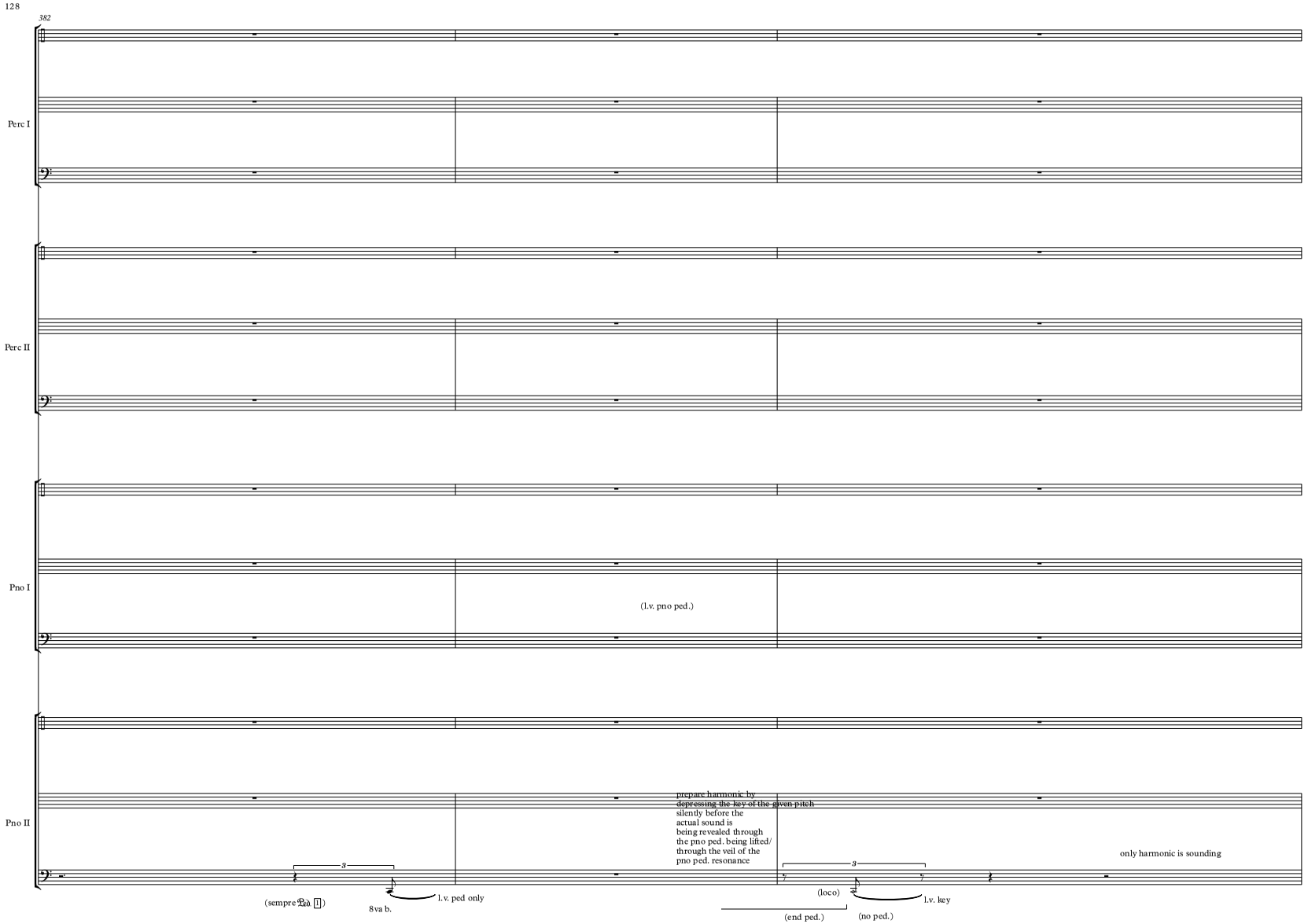

367
BSP: -1.5
BP: +1.5
M[(3)5-7]
BSP: -1
BP: +2
M[5-7(9)]
Perc I
(tamtam arco)
BSP: +2
BP: +2
M[5-9]
switch to cymbal arco
Perc II
BSP: +2
BP: +2.5
M[(3)5-9(11)]
BSP: +1.5
BP: +2.5
M[7-9(11)]
BSP: +1.5
BP: +2
M[5-9]
Pno I
PIANO STRINGS
with med-soft felt mallets ('fuzzy')
at the beginning so inconspicuous, more like unconsciously being there, only later it will consciously become apparent to the listener
DT
Pno II
1/2
2/3

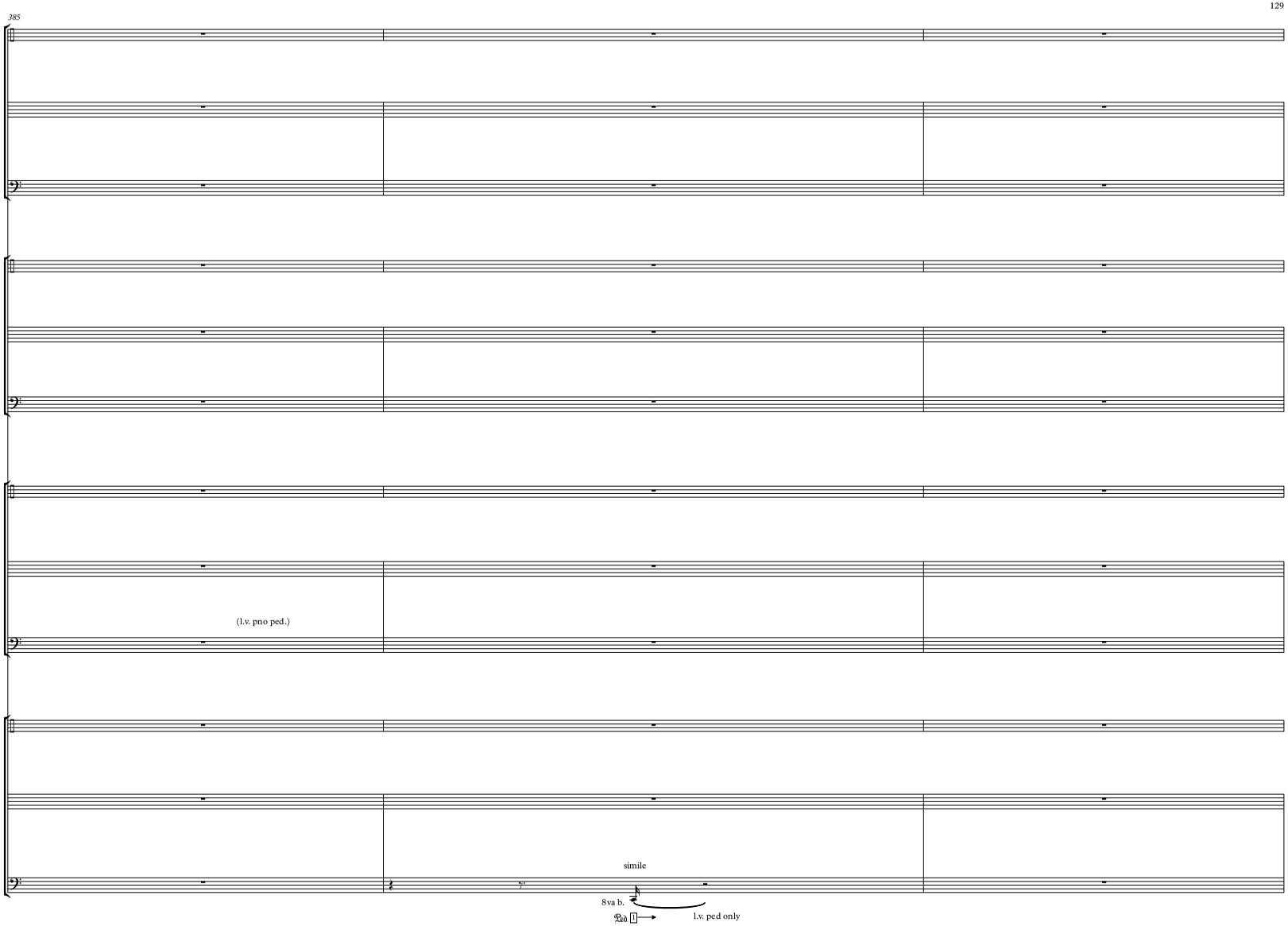

124
370
BSP: +0.5
BP: +1
M[(3)5-7]
BSP: +2
BP: +2
M[(3)5-11]
Perc I
CYMBAL arco
BSP: +2.5
BP: +2
M[5-9(11)]
BSP: +2
BP: +2
M[(3)5-11]
Perc II
BSP: +1
BP: +0.5
M[(3)5-7]
TAM-TAM
arco,
mid-high tamtam
BSP: +2.5
BP: +1.5
M[7-9(11)]
Pno I
(sempre ppppp)
Pno II


373
BSP: +1.5
BP: +1.5
M[(3)5-7(9)]
BSP: +2
BP: +2.5
M[5-9(11)]
Perc I
BSP: +1.5
BP: +1
M[7-9]
BSP: +2.5
BP: +2.5
M[(5)7-9(11)]
Perc II
a little more 'grinding' from underneath
(tamtam)
CYMBAL arco
BSP: +1
BP: +0.5
M[3-7(9)]
(hold mp steady si poss.)
Pno I
DT very slowly starts 'condensing' to 1 pitch
Pno II
1


126
376
BSP: +2
BP: +1.5
M[(3)5-9]
♩ = ca. 45
+ (do not move)
pp
mf
l.v.
sub. niente
(only pno resonance remaining)
Perc I
Perc II
mp
(hold steady..)
only pno resonance left, like a breeze; clarity
Pno I
Pno II
8va b.
ped. continued


379
(do not move)
Perc I
(do not move)
Perc II
(do not move)
Pno I
inconspicuously and very slowly move to pno,
silently depress pedal
(l.v. pno ped.)
Pno II
(l.v. pno ped.)


128
382
Perc I
Perc II
Pno I
Pno II
(l.v. pno ped.)
prepare harmonic by depressing the key of the given pitch silently before the actual sound is being revealed through the pno ped. being lifted/ through the veil of the pno ped. resonance
only harmonic is sounding
3
3
(sempre l.v.)
8va b.
l.v. ped only
(loco)
(end ped.)
(no ped.)
l.v. key


385
Perc I
Perc II
Pno I
(l.v. pno ped.)
Pno II
simile
8va b.
l.v. ped only

130

388

Perc I

Perc II

Pno I

Pno II

(sempre 8va)

8va b.

l.v. ped. only

prepare harmonic by
depressing the key of the given pitch
~~silently before the~~
actual sound is
being revealed through
the pno ped. being lifted/
through the veil of the
pno ped. resonance

(loco)

(no ped.)

l.v. key only

(end ped.)

simile

8va b.
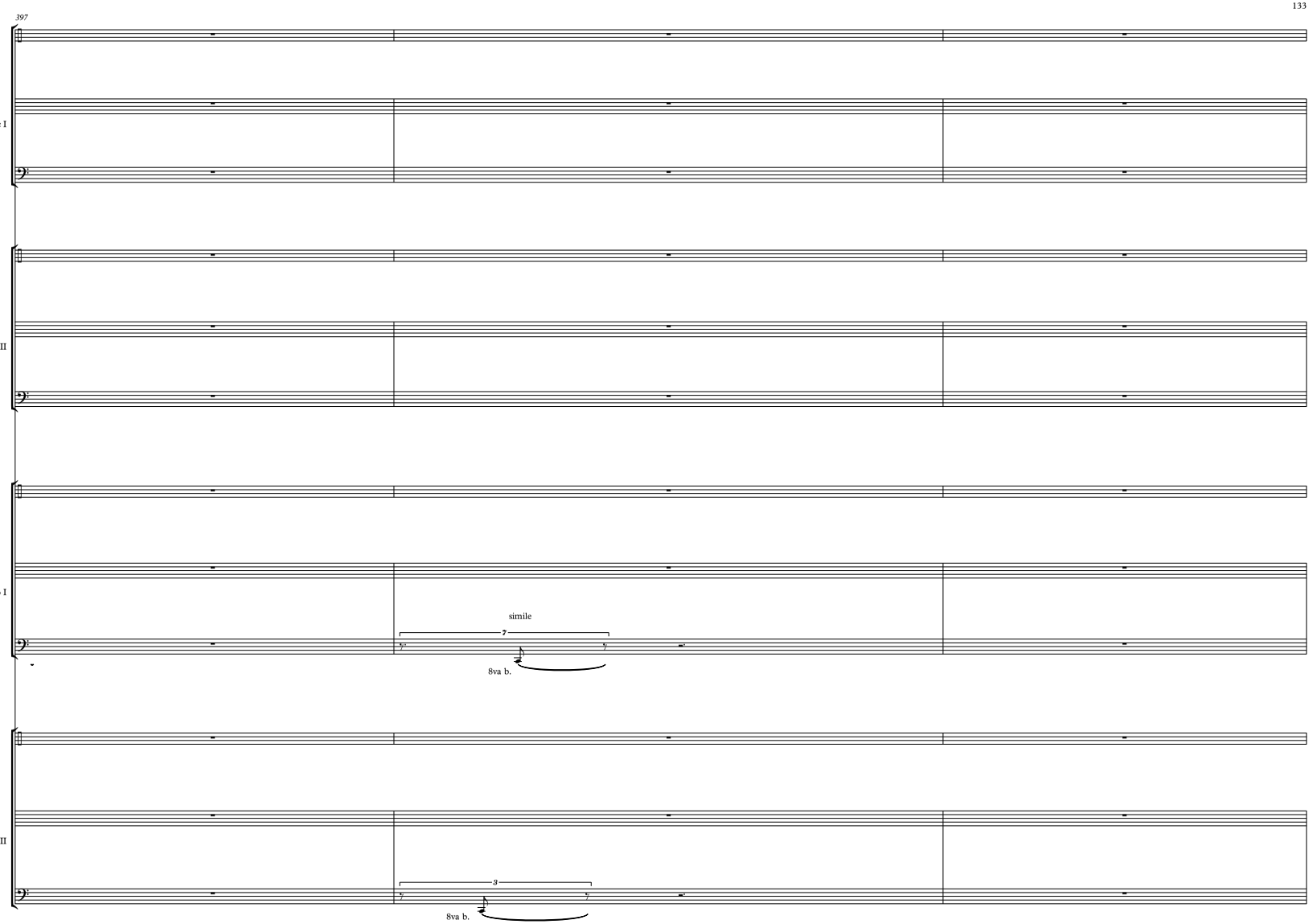
simile

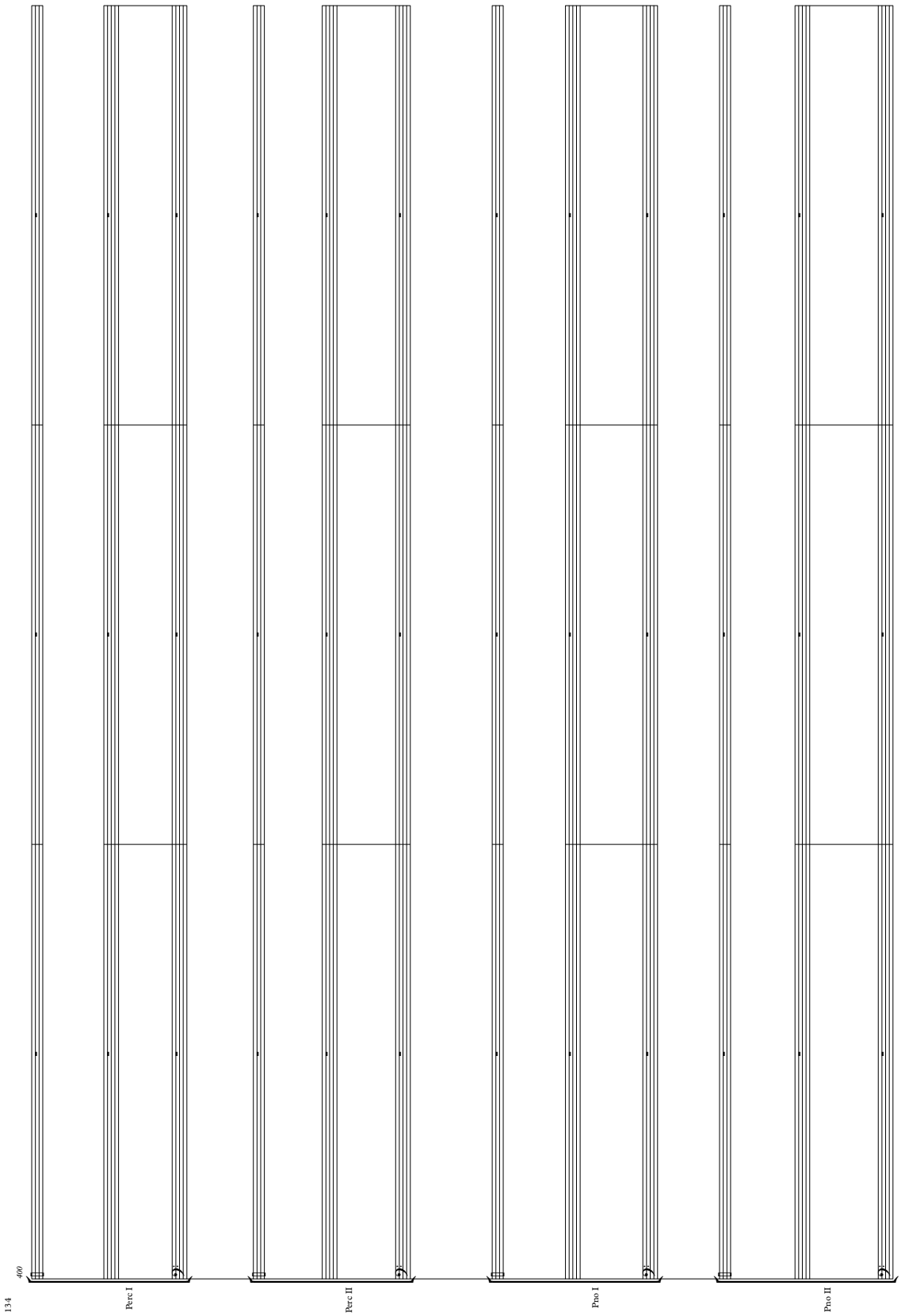
(loco)

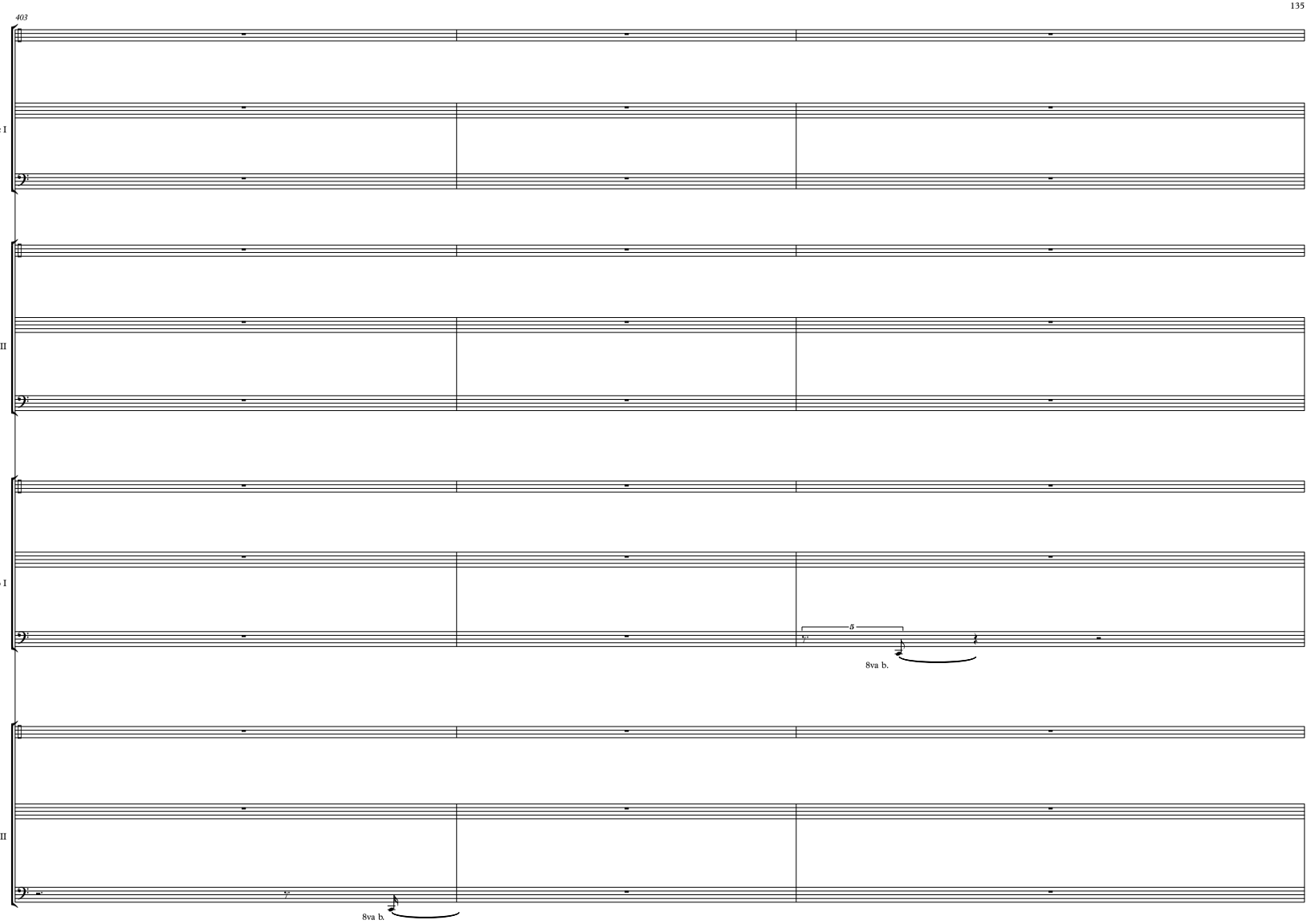
(no ped.)

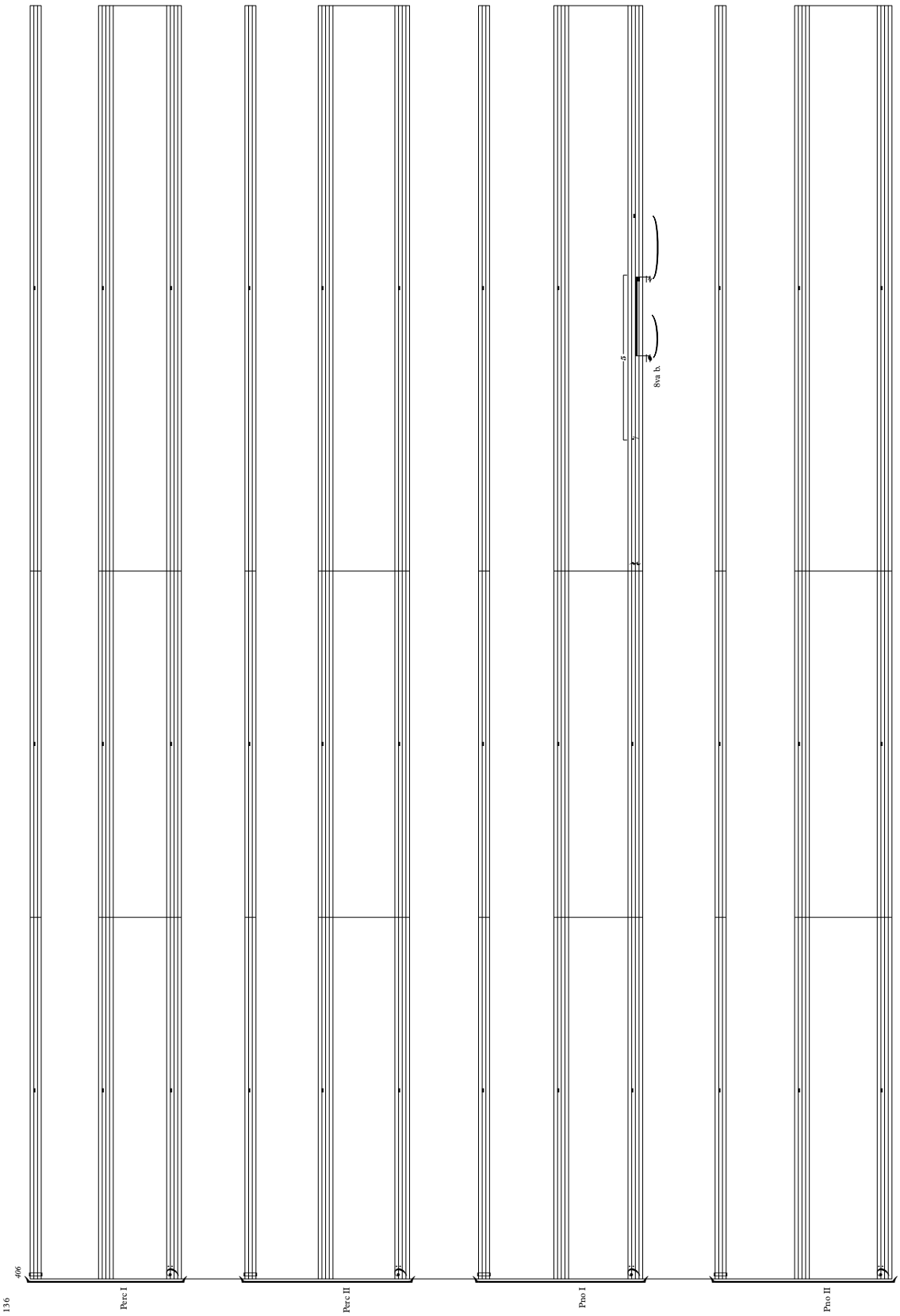

391
Perc I
Perc II
Pno I
(l.v. key only)
Pno II
(l.v. key only)


394
Perc I
Perc II
Pno I
Pno II
simile
8va b.
l.v. ped only
8va b.


397
Perc I
Perc II
Pno I
simile
7
8va b.
Pno II
3
8va b.


400
134
Perc I
Perc II
Pno I
Pno II


403
Perc I
Perc II
Pno I
Pno II
5
8va b.
8va b.

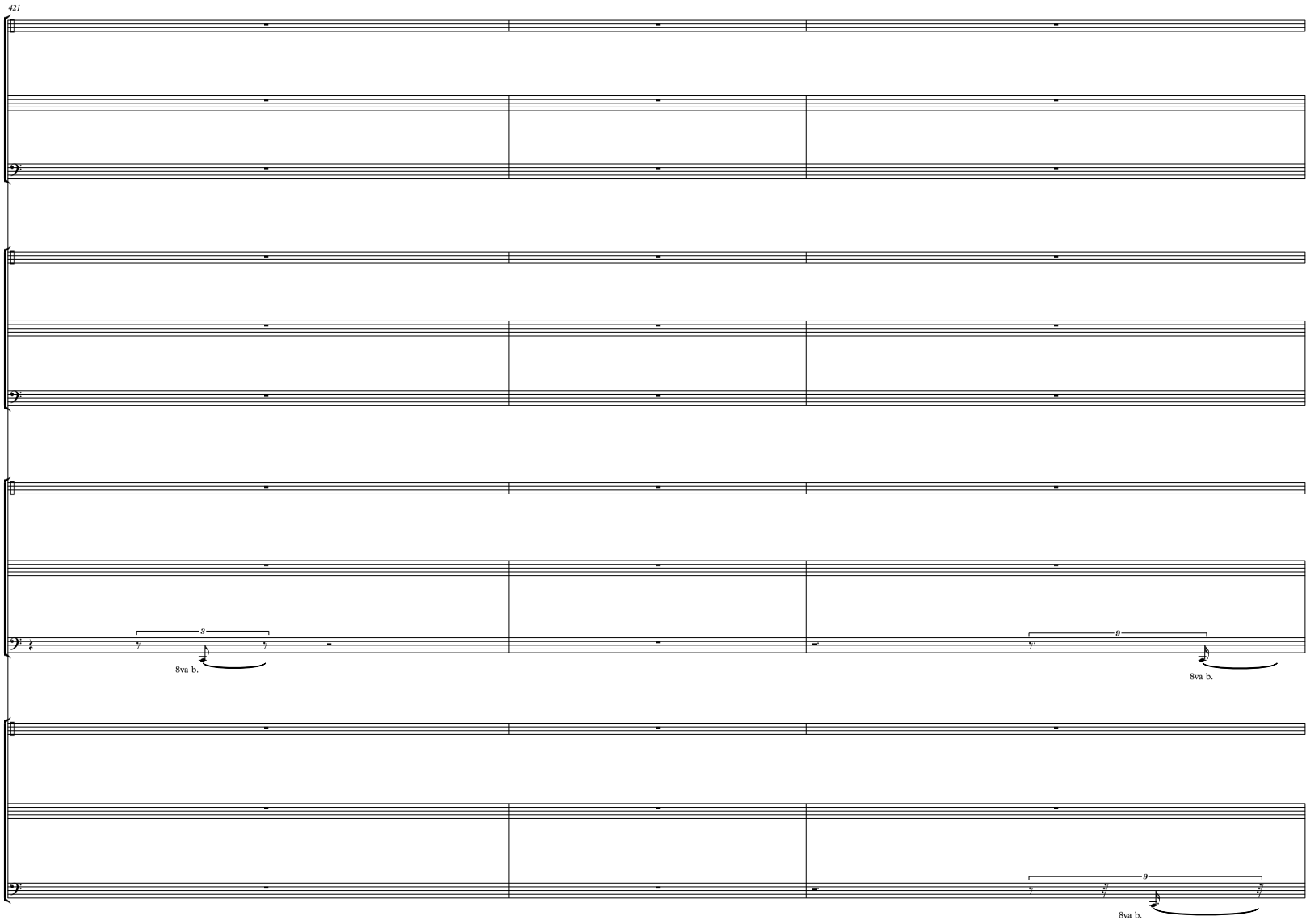

406
136
Perc I
Perc II
Pno I
Pno II
8va b.

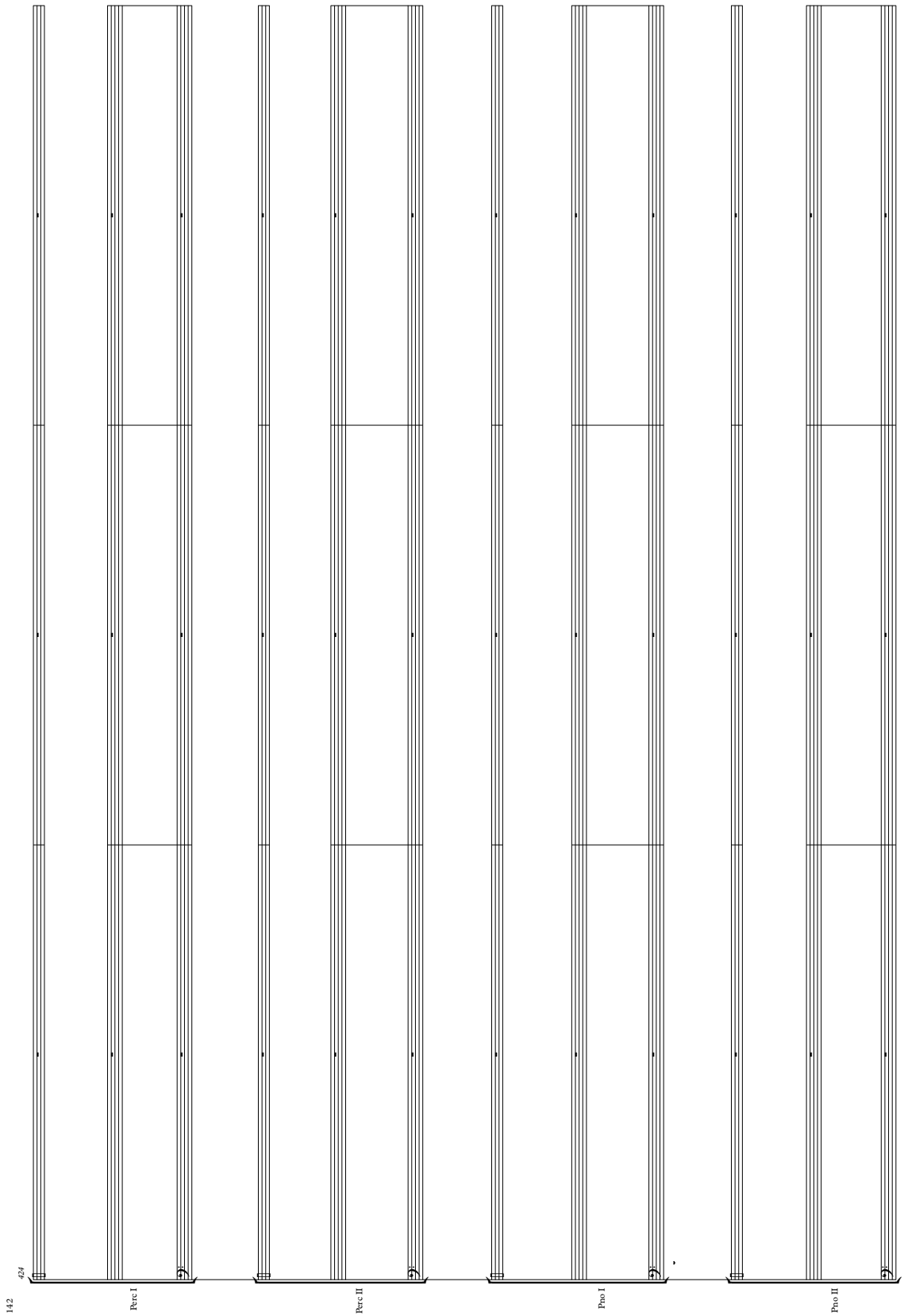

409
Perc I
Perc II
Pno I
Pno II
8va b.
8va b.

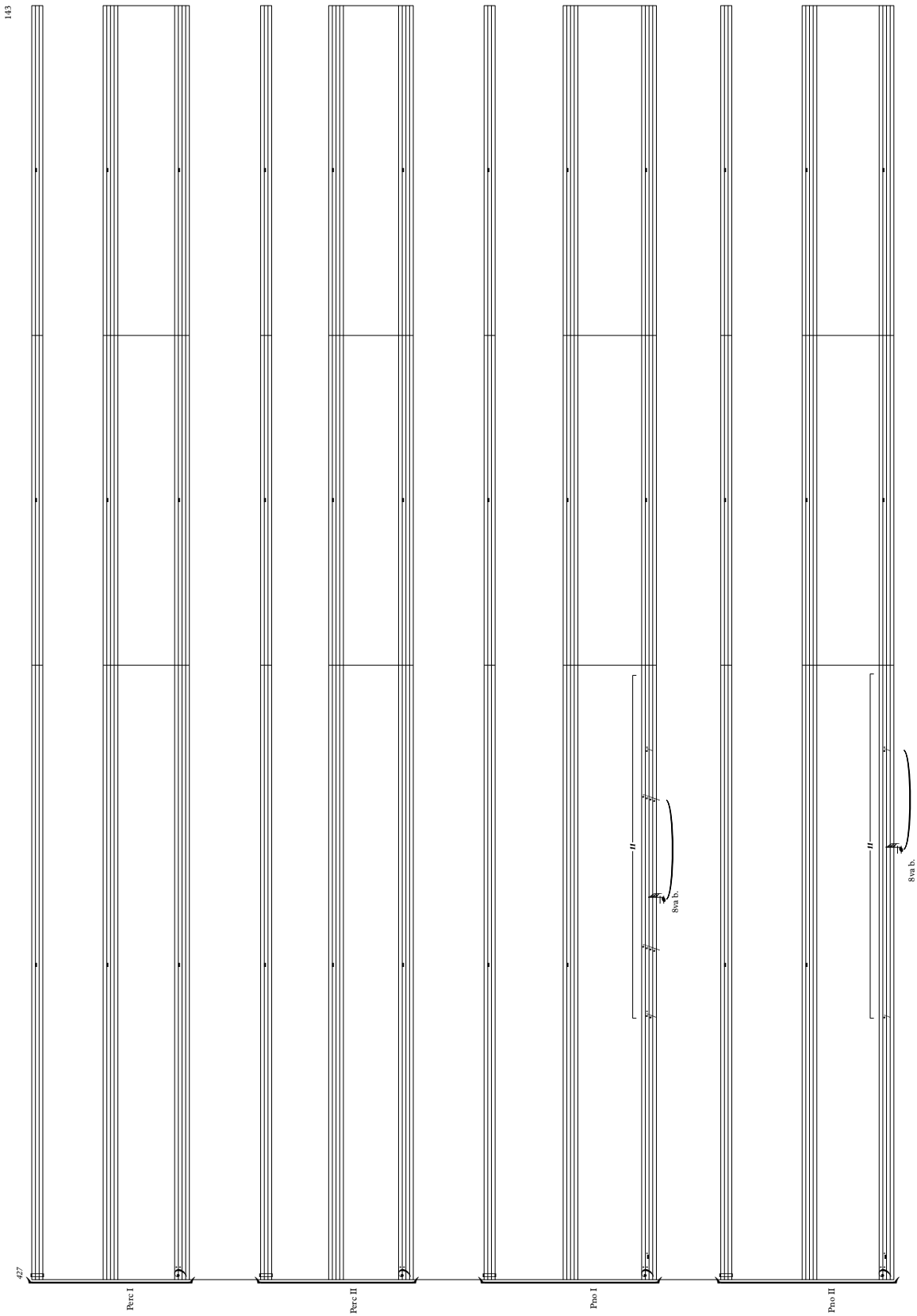

138
412
Perc I
♩ = 40
Perc II
♩ = 40
Pno I
♩ = 40
Pno II
♩ = 40

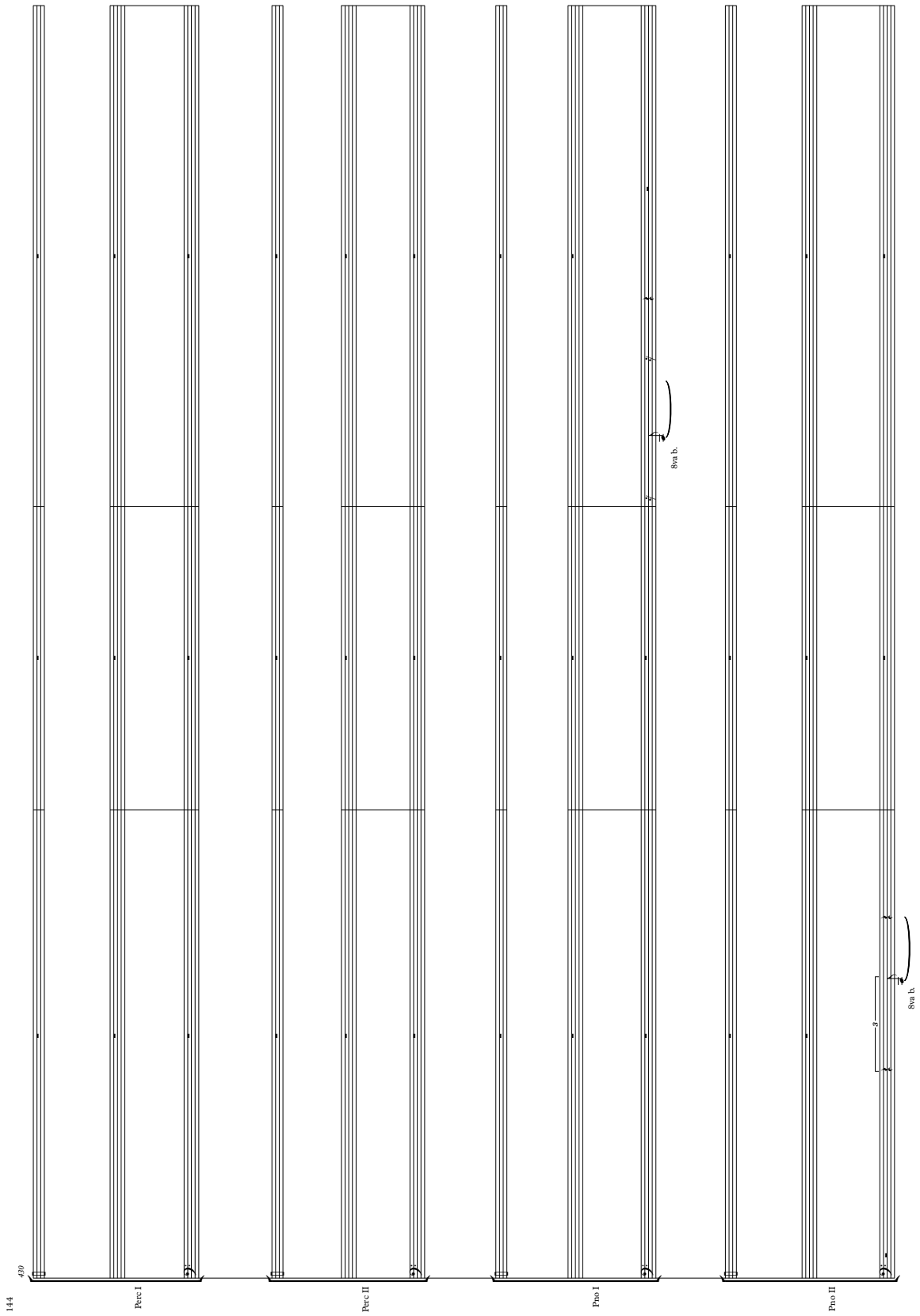

415
Perc I
Perc II
Pno I
8va b.
Pno II

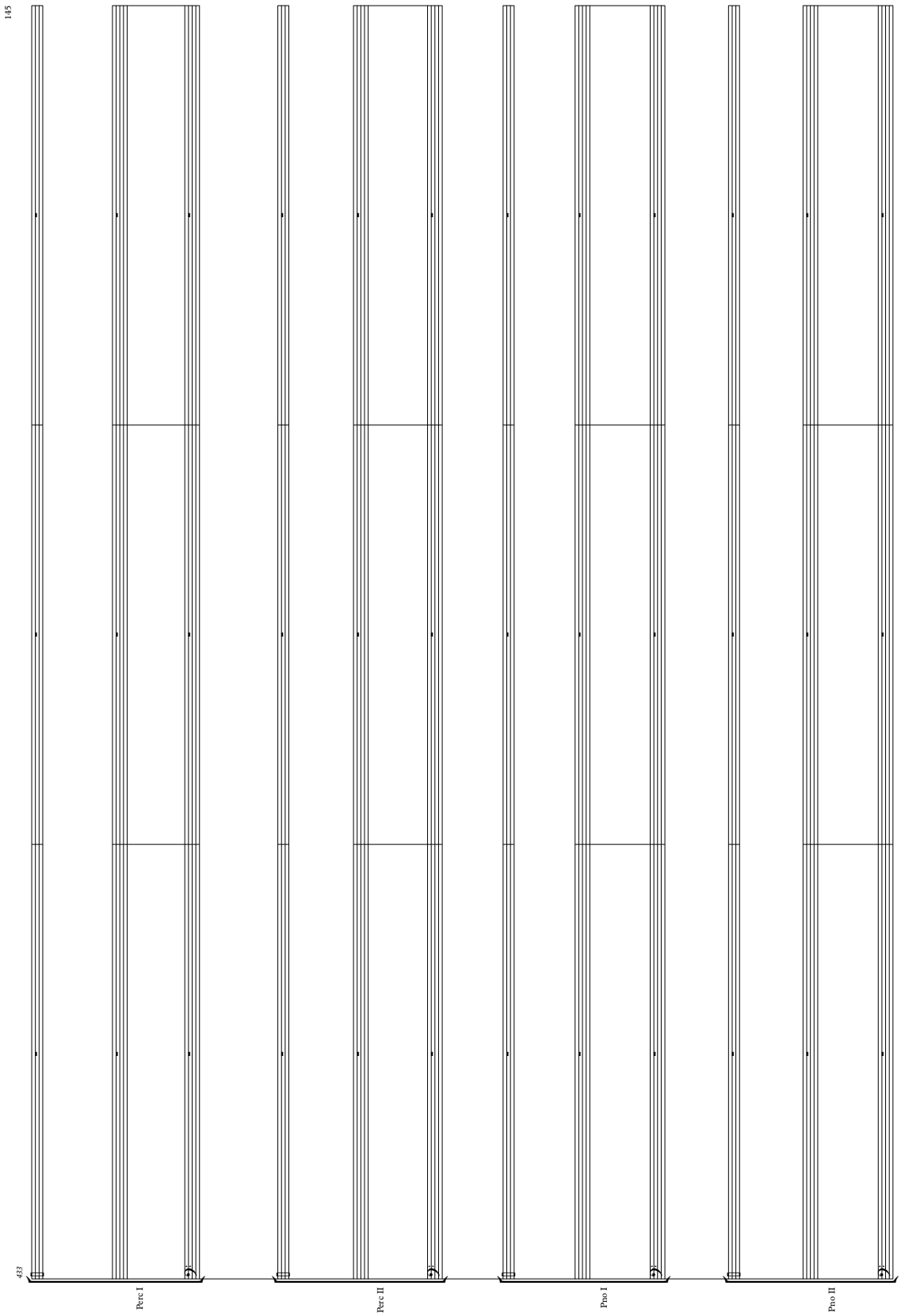

140
418
Perc I
Perc II
Pno I
Pno II
8va b.


421
Perc I
Perc II
Pno I
Pno II
8va b.
8va b.
8va b.


424
142
Perc I
Perc II
Pno I
Pno II


143
427
Perc I
Perc II
Pno I
Pno II
8va b.
8va b.


144
430
Perc I
Perc II
Pno I
Pno II
8va b.
8va b.
3


145
433
Perc I
Perc II
Pno I
Pno II

146

436

Perc I

no time

~~if you need a guideline in terms of~~
the 'length' of this 'space'/'state':
at least 8 seconds, but
better 24 seconds (but
without putting pressure
onto audience, enjoy this
state)..

('end of piece')

Perc II

no time

~~if you need a guideline in terms of~~
the 'length' of this 'space'/'state':
at least 8 seconds, but
better 24 seconds (but
without putting pressure
onto audience, enjoy this
state)..

('end of piece')

Pno I

no time

if you need a guideline in terms of
the 'length' of this 'space'/'state':
at least 8 seconds, but
better 24 seconds (but
without putting pressure
onto audience, enjoy this
state)..

('end of piece')

Pno II

no time

if you need a guideline in terms of
the 'length' of this 'space'/'state':
at least 8 seconds, but
better 24 seconds (but
without putting pressure
onto audience, enjoy this
state)..

('end of piece')

5.2. OTHERWISE II (2018) – for ensemble

Written for Ensemble NAMES.

Commissioned by Aspekte Salzburg Festival 2018, and Alexander Bauer and the NAMES Ensemble, with generous support by SKE Fonds Austria.

World premiere by NAMES Ensemble on April 29, 2018 at the Aspekte Salzburg Festival 2018, Austria.

MANUELA MEIER

otherwise II

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"OTHERWISE II" (2018)

FOR B.FL, B.CLAR, PERC, 2 VLN, VLC

Duration: approx. 10 min

GENERAL FEATURES:

SCORE in C (sounding as written)

NOTATION OF MICROTONES:

quarter tone sharp 𝄲 three quarter tone sharp ♯𝄲 quarter tone flat 𝄳 three quarter tone flat ♭𝄳

Additional arrows attached to these microtones represent cent adjustments. For multiphonic nodes the cents are not given; else follow the instructions in the score, as to how many cents to deviate from the reference pitch.

'VOCALIZATION':

The vocalization is NOT pronounced or spoken itself! It is only used as a detailed reference for the exact shaping of the sound (to be implemented using the respective playing technique).
To find the corresponding sound during practice and rehearsals, form the oral cavity as given with the respective vocalization (given in [ ]). Try to find sounds (with the oral cavity and tongue) that come closest to these vocalizations. Then find similar and clearly distinguishable sounds on your instrument (follow instructions in the score regarding the details on playing technique etc.). For woodwind and brass instruments, always play with closed lips/embochure, unless state explicitly otherwise.
Parentheses within the vocalizations [( )] signify that the vowel contained in ( ) is only apparent as a hue (or 'coloring') of the main vocalization sound, and is not as concrete as when notated without ( ).
The general pronounciation that the vocalization follows is the German pronounciation, with the exception of the following:
[z] -- as in American English prounounciation
[e] (as in [che], [ch(e)] -- Mandarin Chinese pronounciation

DEVIATION / REFERENCE PITCH:

REF: VLC [pitch indication]: +2c. reference pitch label

If the "setting" of 'reference pitch' applies for a given section (instructions given in the score), one instrument will serve as the reference (in terms of frequency) for the other. The other instrument will adjust its intonation/tuning to the reference pitch instrument.
To facilitate orientation, the reference pitch is given accordingly in the label (including accidentals, and -- if applicable -- additional microtonal deviations (in cents) from the original pitch). In the example given above, the non-reference pitch instrument will deviate by +2 cents (play 2 cents higher than the refrence pitch played by the violoncello). The deviation from the reference pitch is always given in cents (100 cents = one half tone/one semitone).
The reference pitch instrument part also contains a label which clearly specifies its role as reference pitch (keep intonation very stable during 'refrence pitch' sections, plus additional information as to which instrument is deviating from its reference pitch.

WOODWIND INSTRUMENTS:

also using CYMBAL and arco (bow) -- for specifications for type of cymbal and bow and for playing techniques, see section 'list of percussive instruments'

◇ Diamond and full noteheads indicate whether a sound is understood conceptually as being an air-based sound (diamond notehead) or pitch-based sound (full notehead), that - in the score - will serve as the foundatinal sonic
● quality that may be further altered by other sonic qualities and features.
Unless otherwise noted, diamond-shaped noteheads are conceived of as frequency-colored air sounds. Flag. are notated in the conventional way.

↑ breathe in

↓ breathe out

■ mouthpiece closed

□ mouthpiece open

SP: + 1.5
P: 0

SP: 'air speed' (speed of air flow during breathing out/in)
P: 'air pressure' (pressure of air flow during breathing out/in)

The air speed and air pressure levels are given if they deviate from the standard air speed and air pressure levels that are connected with certain playing techniques.
Both levels range from a scale of -5 (lowest, to the extent that at this point it stops/is non-existent) to +5 (maximum, e.g. the air flow would stop completely at maxium pressure/the air flow speed exceeds the speed possible for the respective performer). The smallest increment is 0.5. The level of "0", indicates the ordinario speed/pressure in relation to the given playing technique.
However, even for the highest air pressure, the harmonic aspects of the sonority should always prevail, and any 'scratching' (overly inharmonic aspects), or 'grinding' sonic artifacts should never cover the rich harmonic spectrum of the given sonority.

----→ gradual change
——→

▭ extremely flat/even dynamics at the level given at the beginning of the long square symbol (here:
p piano). Start and end in an "on/off" mode. Particularly at the ending, ensure that the sound simply stops (as does the physical movement/action that is connected to it), without any prior indication of an end of a phrase (German: "abphrasieren", (no abphrasieren!)).

↑→ sub-breathing structures (below) in the context of a larger-trajectory breathing structure (atop)
↑↑

▭ 'window' like a glimpse, or a brief window opening up, that either briefly allows a view onto a different sonic material, or allowing a different angle or viewpoint of the same, or related material.

PERCUSSION INSTRUMENTS:

(This section includes playing techniques and information for percussion instruments that are used by bass flute and bass clarinet also.)

See separate list of percussion instruments for more details on type of instruments, mallets and bows (arco) used in *otherwise II.*

l.v. laisser vibrer, let ring

\+ mute/dampen sound, using finger, hand etc. (follow instructions in the score)

arco use bow as indicated in the score, on the instrument given

↑ upbow (here: away from floor/ground)

↓ downbow (here: towards floor/ground)

BSP: + 1.5
BP: 0

BSP: bow speed
BP: air pressure

The bow speed and bow pressure levels are given if they deviate from the standard bow speed and bow pressure levels that are connected with certain playing techniques.
Both levels range from a scale of -5 (lowest, to the extent that at this point it stops/is non-existent) to +5 (maximum, e.g. the bow would stop completely at maxium pressure/the bow speed exceeds the speed possible for the respective performer). The smallest increment is 0.5. The level of "0", indicates the ordinario speed/pressure in relation to the given playing technique.
However, even for the highest bow pressure, the harmonic aspects of the sonority should always prevail, and any scratching, or 'grinding' sonic artifacts should never cover the rich harmonic spectrum of the given sonority.

M [(5)7-9(11)] MULTIPHONIC ("M"): Detailed information on the sounding result of the the multiphonic as given in the parts, with numbers representing the strongest sounding partial(s). A partial with parenthesis indicates a weak or almost inexistent sounding of a certain partial contained in the multiphonic. Listen closely to the partials within the sounding multiphonic (even within a potentially rather inharmonious spectrum, depending on the instrument) - once the specific partial is clearly sounding, focus and concentrate even more on this specific frequency.

F[(5)7-11] FOCUS: Indicates the focus within the more complex spectral shaping and aspects of a "regular" pitch (non-multiphonic); adjust the bow contact location and pressure (unless given otherwise), such that the complexity of this individual pitch's spectrum is allowed to come out. In the case of the given focus, the 7th to 11th partials are audible, and to be focused on, with the 5th partial to be slightly audible. Other partials, esp. lower ones should barely be audible.
Follow instructions in the score for brief graphic elements, for moments in which the focus label is changing within a much shorter period of time.



extremely flat/even dynamics at the level given at the beginning of the long square symbol (here: piano). Start and end in an "on/off" mode. Particularly at the ending, ensure that the sound simply stops (as does the physical movement/action that is connected to it), without any prior indication of an end of a phrase (German: "abphrasieren", (no abphrasieren!)).



Continuous sound, with audible bow direction changes ('noise' of the bow direction change) well audible 'within' the sound (notehead shape may vary)

STRING INSTRUMENTS:

For notation of microtones, see General Features section.

Diamond or full noteheads supply the performer with additional information on whether a sound is conceived of conceptually as either an air-based or pitch-based sound, that finds itself altered by other sonic qualities or features.
Unless otherwise noted, diamond-shaped noteheads are conceived of as frequency-colored air sounds -- the air sounds being produced by the bow (no use of the performer's voice at any time).
Sections marked as 'noise machine' should sound particularly regular, and with flat dynamics ("on-off" dynamics, with no 'phrasing'/shaping of the dynamics within a sound).
Flag. are notated in the conventional way.

directly on the bridge. Follow specific instructions in the score.

sound that contains a significant amount of noise, rather than 'pure' pitch. Follow the instructions in the score, as to where and how exactly to produce each of these very specific sounds.

As high as possible, unless otherwise noted, or unless with additional AWI/AWIV indication (see below).

AWI Air sound produced by bowing on the waist of the instrument adjacent to the first string (I).
AWIV is the equivalent of this for the fourth string (IV).

Producing a frequency-colored air sound, with bowing as close to bridge (very high m.s.p.) as possible on the indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.

The pitch given represents the fingerboard location/fundamental of the multiphonic to be played.

M [5-9+(13)] Detailed information on sounding result of the multiphonics as given in the parts, with numbers representing the strongest sounding partial(s). The line represents the partials most closely located in regards to the fundamental, and the box gives information about the specific focus (narrower or wider focus, with either one or two partials as the focal area) of pitches within the given multiphonic. This is achieved by listening closely to the partials within the multiphonic -- once the specific partial is clearly sounding, focus and concentrate even more on this specific frequency.
A partial with parenthesis indicates a weak or almost inexistent sounding of a certain partial contained in the multiphonic.



keep on playing the same multiphonic, unless/until instructed otherwise

F[(5)7-11] Indicates the focus within the more complex spectral shaping of a “regular” pitch (non-Multiphonic); adjust the bow contact location and pressure (unless given otherwise) such that the complexity of this individual pitch’s spectrum is allowed to come out. In the case of the given focus, the 7th to 11th partials are audible, and to be focused on, with the 5th partial to be slightly audible. Other partials, esp. lower ones should barely be audible.
Follow instructions in the score for brief graphic elements, for moments in which the focus label is changing within a much short period of time.



BSP: Bow Speed
BP: Bow Pressure

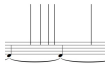
The bow speed and bow pressure levels are given if they deviate from the standard bow speed and bow pressure levels that are connected with certain playing techniques.
Both levels range from a scale of -5 (lowest, to the extent that at this point it stops/is non-existent) to +5 (maximum, e.g. the bow would stop completely at maxium pressure/the bow speed exceeds the speed possible for the respective performer). The smallest increment is 0.5. The level of "0", indicates the ordinario speed/pressure in relation to the given playing technique.
However, even for the highest bow pressure, the harmonic aspects of the sonority should always prevail, and any scratching, or 'grinding' sonic artifacts should never cover the rich harmonic spectrum of the given sonority.

m.s.t.	molto sul tast
s.t.	sul tasto
ord.	ordinario
s.p.	sul ponticello
m.s.p.	molto sul ponticello

s.p. ⟶ m.s.p. gradual change of fingerboard location

bow direction change: upbow
bow direction change: downbow

In case bow direction changes are specifically written in the score, they should be carefully followed through, as those have a direct impact on other compositional features.



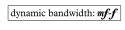
Each vertical line represents a bow direction change, through which a particular rhythm emerges. It should always sound fluid and spontaneous, and never strict or metered in any way. This feature only applies if labeled accordingly as "bow direction change".



Continuous sound, with audible bow direction changes ('noise' of the bow direction change) well audible 'within' the sound.



extremly even/flat dynamics at the level given at the beginning of the long square symbol (here: piano). Start and end in "on/off" mode. Particularly at the ending, ensure that the sound simply stops (as does the physical movement/action that is connected to it), without any prior indication of an end of a phrase (German: "abphrasieren", (no abphrasieren!)).



The dynamic bandwidth is active for all parts of the piece that are in 'relative' time, and takes place within the given bandwidth. Exceptions will be stated explicitly in the score during those sections of the piece, and will only apply to one individual sonority, after which the dynamic bandwidth applies again.

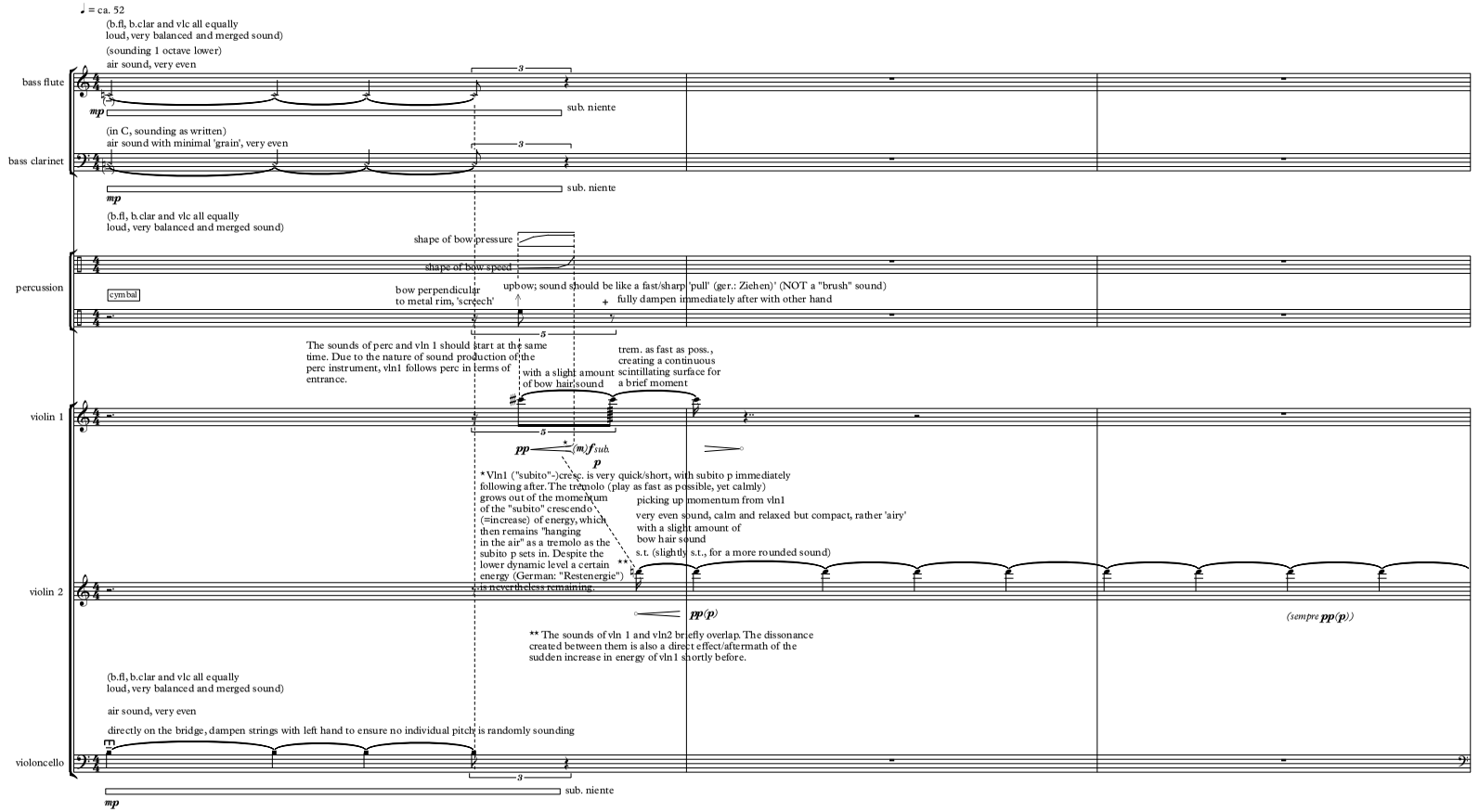
very even/flat dynamics of the sound, within which a significant amount of granular activity (oftentimes a side effect of the respective playing technique, in which certain acoustic artifacts are now being emphasized) is audible.
Follow the instructions in the score as to how exactly to produce and perform each of these very specific sonorities. Generally, the dynamic shape of these sounds are an "on/off" shape -- simply start/stop the sound, without indicating any start or end of a phrase (German: keine Abphrasierung).

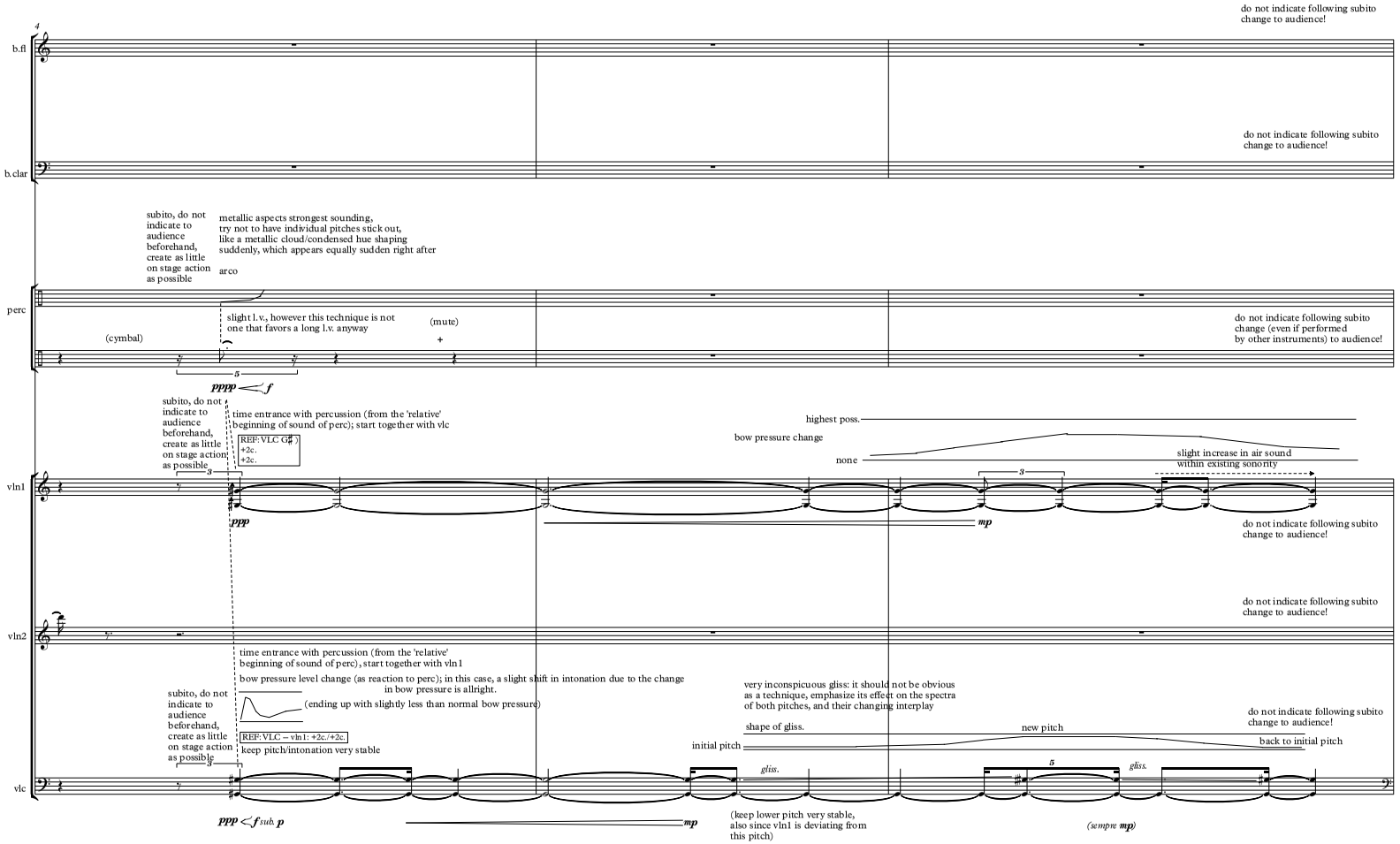
OTHERWISE II

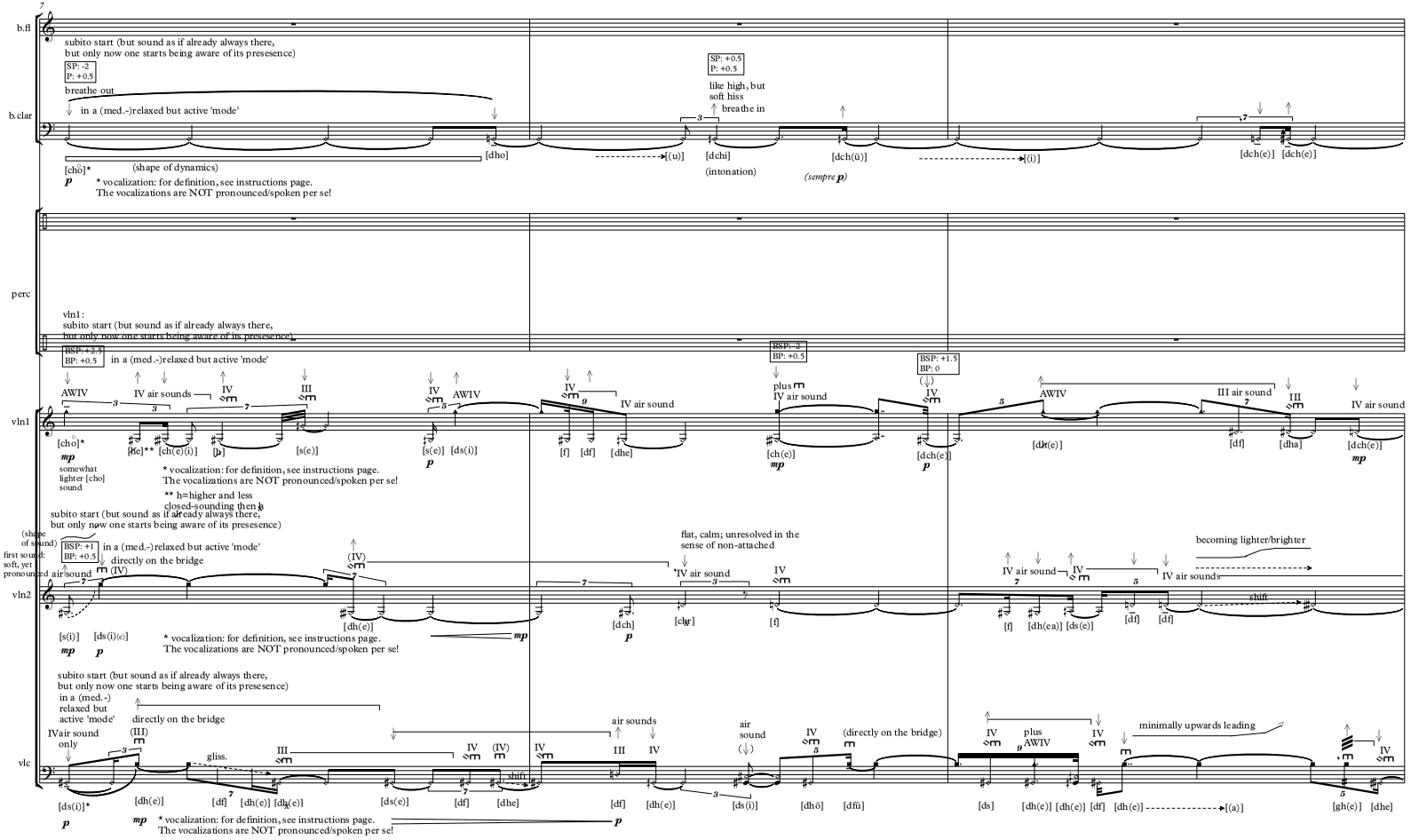
commissioned by Aspekte Festival Salzburg 2018
written for and premiered by NAMES Ensemble

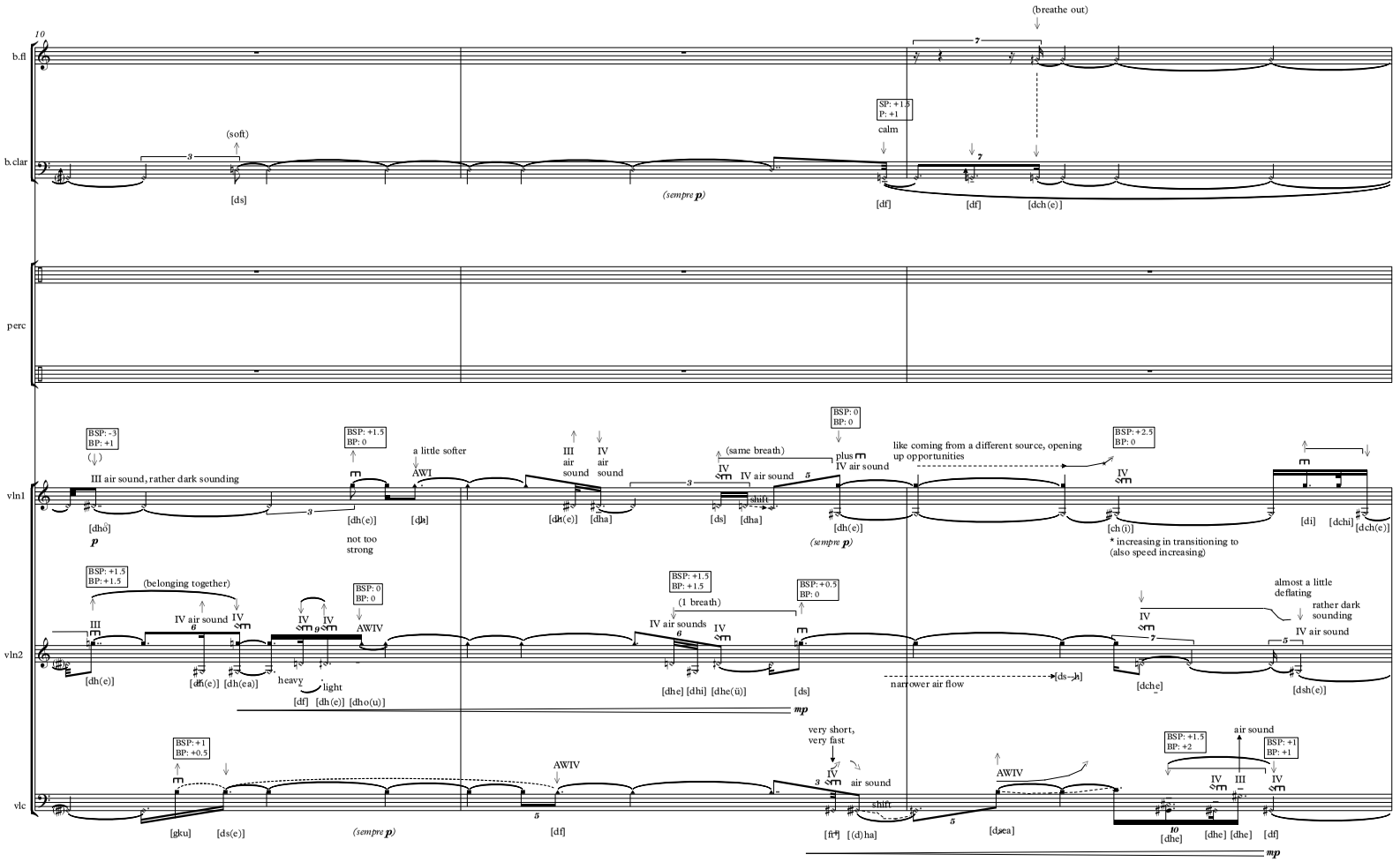
Manuela Meier, 2018

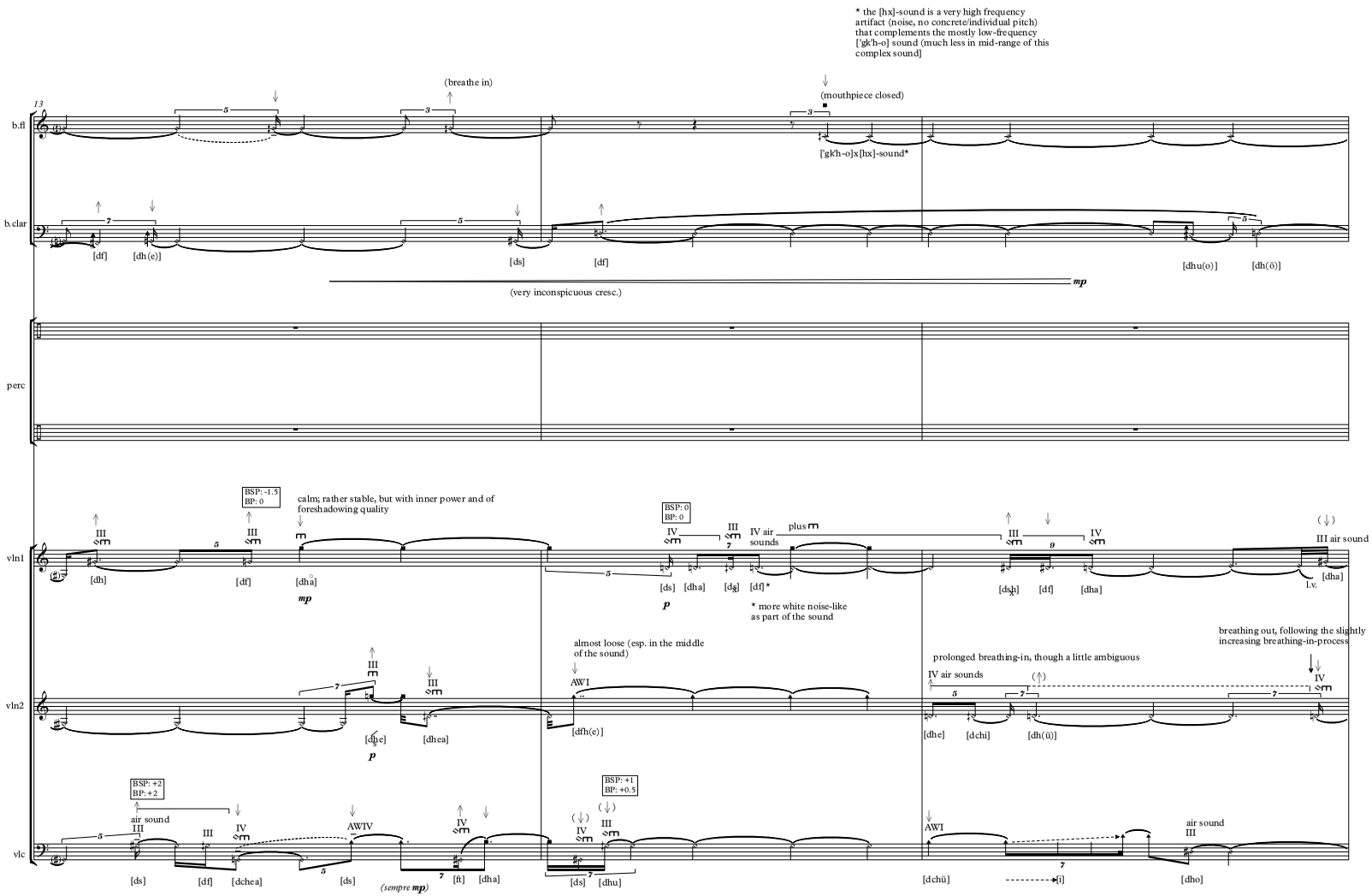
score in C

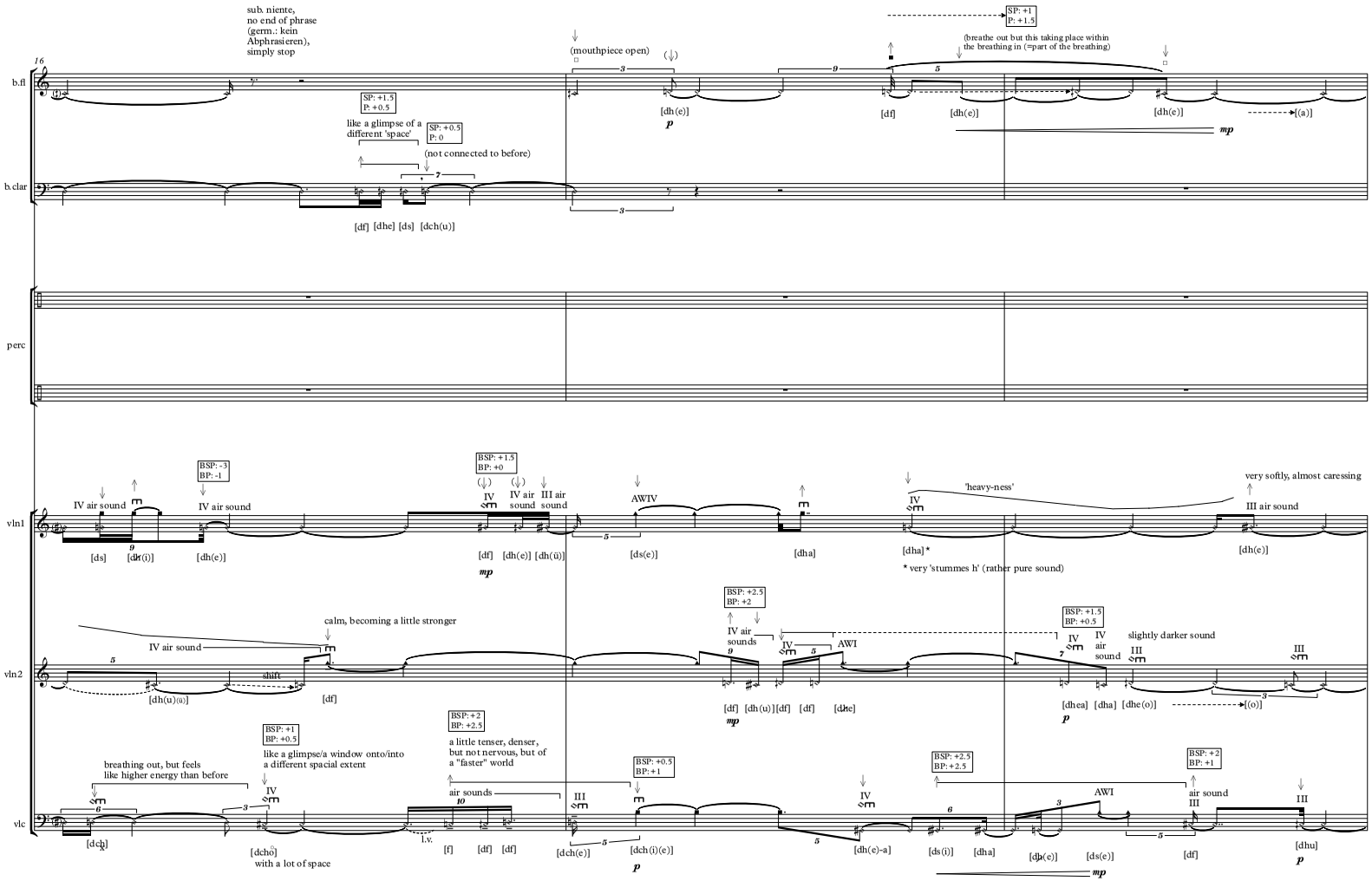


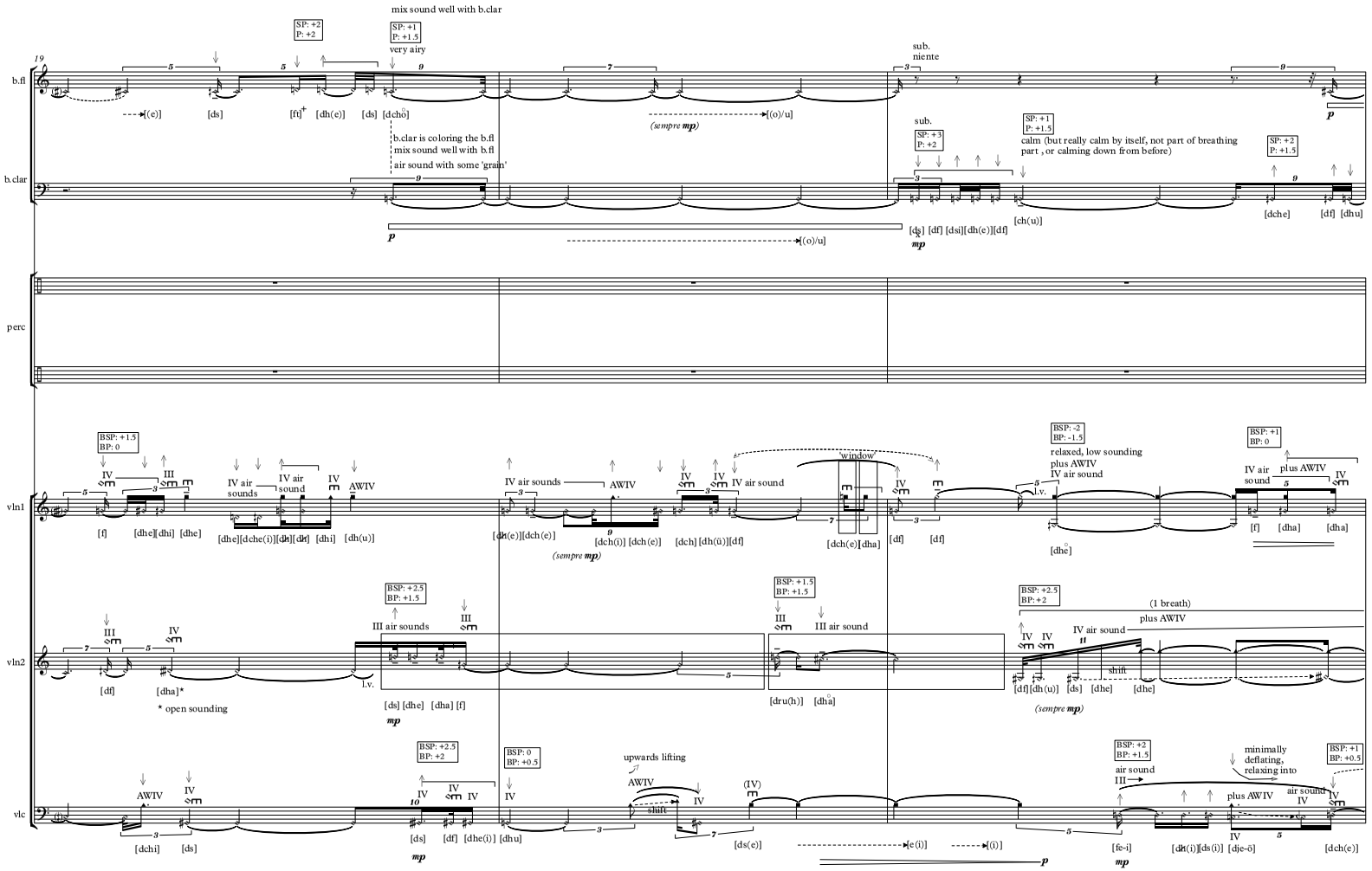

4
b.fl
b.clar
perc
vln1
vln2
vlc
do not indicate following subito change to audience!
do not indicate following subito change to audience!
subito, do not indicate to audience beforehand, create as little on stage action as possible
metallic aspects strongest sounding, try not to have individual pitches stick out, like a metallic cloud/condensed hue shaping suddenly, which appears equally sudden right after
arco
(cymbal)
slight l.v., however this technique is not one that favors a long l.v. anyway
(mute)
+
do not indicate following subito change (even if performed by other instruments) to audience!
pppp
f
subito, do not indicate to audience beforehand, create as little on stage action as possible
time entrance with percussion (from the 'relative' beginning of sound of perc); start together with vlc
REF: VLC G♯3
+2c.
+2c.
highest poss.
bow pressure change
none
slight increase in air sound within existing sonority
ppp
mp
do not indicate following subito change to audience!
do not indicate following subito change to audience!
time entrance with percussion (from the 'relative' beginning of sound of perc), start together with vln1
bow pressure level change (as reaction to perc); in this case, a slight shift in intonation due to the change in bow pressure is allright.
(ending up with slightly less than normal bow pressure)
subito, do not indicate to audience beforehand, create as little on stage action as possible
REF: VLC – vln1: +2c./+2c.
keep pitch/intonation very stable
very inconspicuous gliss: it should not be obvious as a technique, emphasize its effect on the spectra of both pitches, and their changing interplay
shape of gliss.
new pitch
initial pitch
back to initial pitch
do not indicate following subito change to audience!
gliss.
gliss.
ppp
f sub.
p
mp
(keep lower pitch very stable, also since vln1 is deviating from this pitch)
(sempre mp)

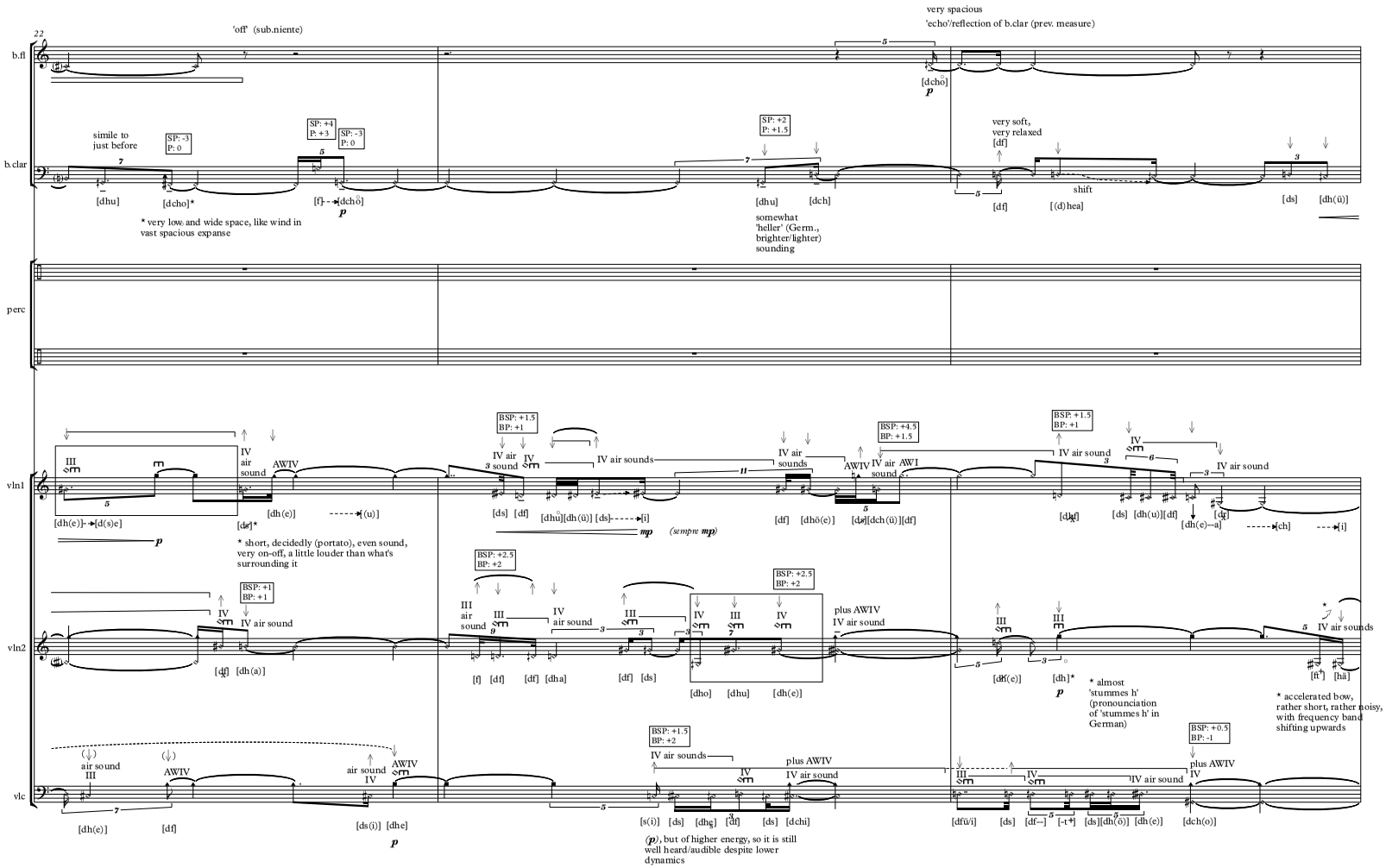

b.fl
b.clar
perc
vln1
vln2
vlc
subito start (but sound as if already always there, but only now one starts being aware of its presesence)
breathe out
in a (med.-)relaxed but active 'mode'
like high, but soft hiss
breathe in
(shape of dynamics)
(intonation)
(sempre p)
* vocalization: for definition, see instructions page. The vocalizations are NOT pronounced/spoken per se!
vln1:
somewhat lighter [cho] sound
** h=higher and less closed-sounding then h
directly on the bridge
(shape of sound)
first sound: soft, yet pronounced air sound
flat, calm; unresolved in the sense of non-attached
becoming lighter/brighter
IV air sound only
air sounds
air sound
(directly on the bridge)
plus AWIV
minimally upwards leading
gliss.
shift
IV air sound
IV air sounds
III air sound
AWIV
plus

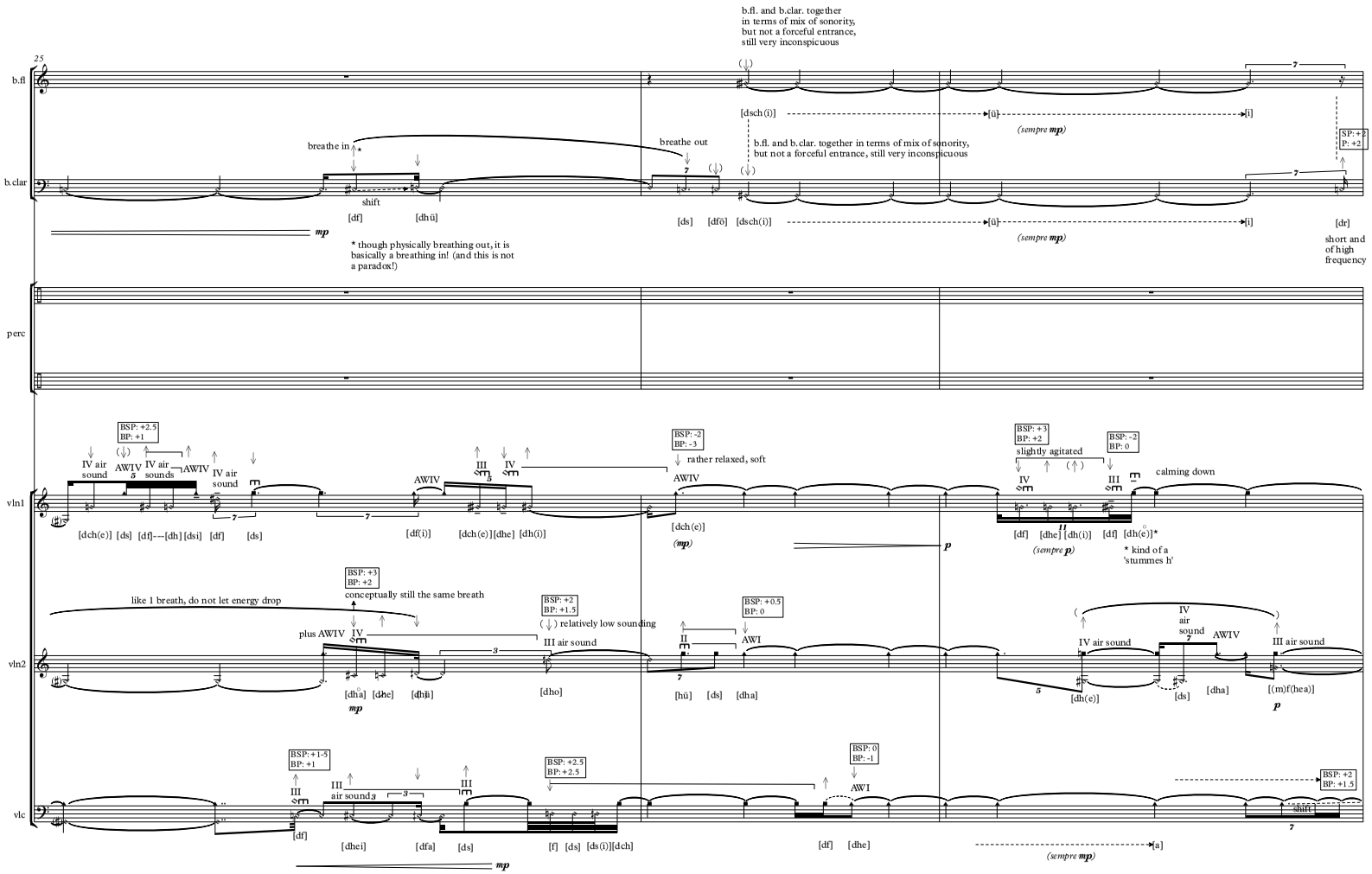

10
b.fl
b.clar
perc
vln1
vln2
vlc
(breathe out)
(soft)
calm
SP: +1.5
P: +1
[ds]
(sempre p)
[df]
[df]
[dch(e)]
BSP: -3
BP: +1
III air sound, rather dark sounding
[dhô]
p
BSP: +1.5
BP: 0
not too strong
[dh(e)]
[dh]
a little softer
AWI
III air sound
IV air sound
[dh(e)]
[dha]
(same breath)
IV air sound
[ds]
[dha]
dhH
BSP: 0
BP: 0
plus IV air sound
[dh(e)]
(sempre p)
like coming from a different source, opening up opportunities
BSP: +2.5
BP: 0
IV
[ch(i)]
* increasing in transitioning to (also speed increasing)
[di]
[dchi]
[dch(e)]
BSP: +1.5
BP: +1.5
(belonging together)
III
IV air sound
IV
[dh(e)]
[dh(e)]
[dh(ea)]
heavy
light
BSP: 0
BP: 0
IV
IV
AWIV
[df]
[dh(e)]
[dho(u)]
mp
BSP: +1.5
BP: +1.5
(1 breath)
IV air sounds
IV
[dhe]
[dhi]
[dhe(ü)]
BSP: +0.5
BP: 0
[ds]
narrower air flow
[ds–h]
almost a little deflating
rather dark sounding
IV air sound
IV
[dche]
[dsh(e)]
BSP: +1
BP: +0.5
[gku]
[ds(e)]
(sempre p)
AWIV
[df]
very short, very fast
IV
air sound
shift
[f#]
[(d)ha]
mp
AWIV
[dhea]
BSP: +1.5
BP: +2
air sound
BSP: +1
BP: +1
IV
III
IV
10
[dhe]
[dhe]
[dhe]
[df]

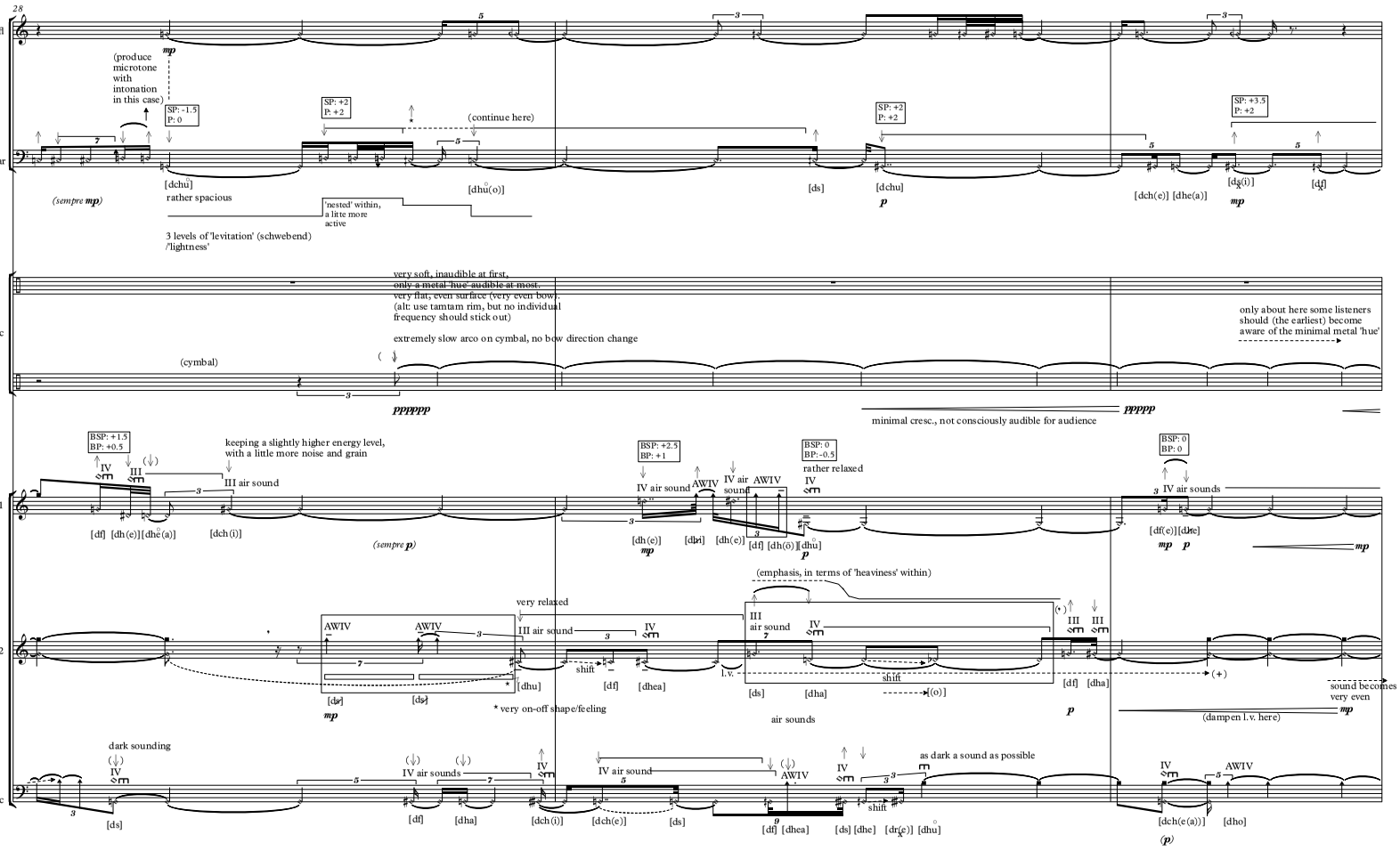

* the [hx]-sound is a very high frequency artifact (noise, no concrete/individual pitch) that complements the mostly low-frequency ['glch-o] sound (much less in mid-range of this complex sound]
(breathe in)
(mouthpiece closed)
13
b.fl
['glch-o]x[hx]-sound*
b.clar
[df]
[dh(e)]
[ds]
[df]
[dhu(o)]
[dh(ö)]
mp
(very inconspicuous cresc.)
perc
vln1
BSP: -1.5
BP: 0
calm; rather stable, but with inner power and of foreshadowing quality
[dh]
[df]
[dhä]
mp
BSP: 0
BP: 0
IV air sounds
plus
[ds]
[dha]
[dg]
[df] *
p
* more white noise-like as part of the sound
[dsh]
[df]
[dha]
l.v.
(↓)
III air sound
[dha]
vln2
almost loose (esp. in the middle of the sound)
AWI
[dfh(e)]
breathing out, following the slightly increasing breathing-in-process
prolonged breathing-in, though a little ambiguous
IV air sounds
(↑)
[dhe]
[dchi]
[dh(ü)]
[dhe]
[dhea]
p
vlc
BSP: +2
BP: +2
air sound
[ds]
[df]
[dchea]
[ds]
AWIV
[ft]
[dha]
(sempre mp)
BSP: +1
BP: +0.5
[ds]
[dhu]
AWI
[dchü]
[i]
air sound
[dho]

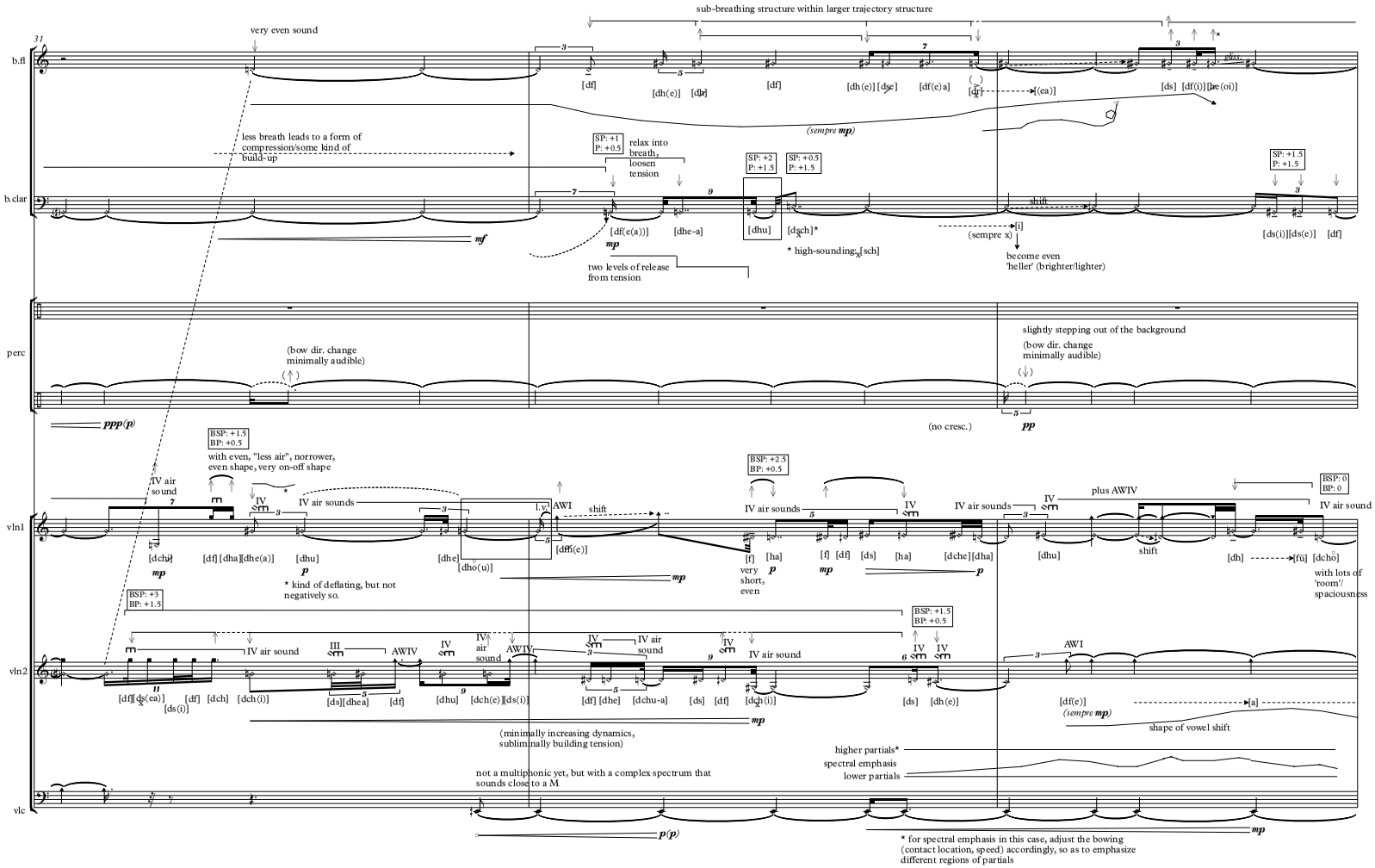

sub. niente,
no end of phrase
(germ.: kein
Abphrasieren),
simply stop
(mouthpiece open)
(breathe out but this taking place within
the breathing in (=part of the breathing)
SP: +1
P: +1.5
SP: +1.5
P: +0.5
like a glimpse of a
different 'space'
SP: +0.5
P: 0
(not connected to before)
b.fl
b.clar
perc
vln1
vln2
vlc
IV air sound
III air sound
AWIV
AWI
'heavy-ness'
very softly, almost caressing
* very 'stummes h' (rather pure sound)
calm, becoming a little stronger
shift
slightly darker sound
breathing out, but feels
like higher energy than before
like a glimpse/a window onto/into
a different spacial extent
with a lot of space
a little tenser, denser,
but not nervous, but of
a "faster" world
air sounds
l.v.
BSP: - 3
BP: -1
BSP: +1.5
BP: +0
BSP: +2.5
BP: +2
BSP: +1.5
BP: +0.5
BSP: +1
BP: +0.5
BSP: +2
BP: +2.5
BSP: +0.5
BP: +1
BSP: +2.5
BP: +2.5
BSP: +2
BP: +1

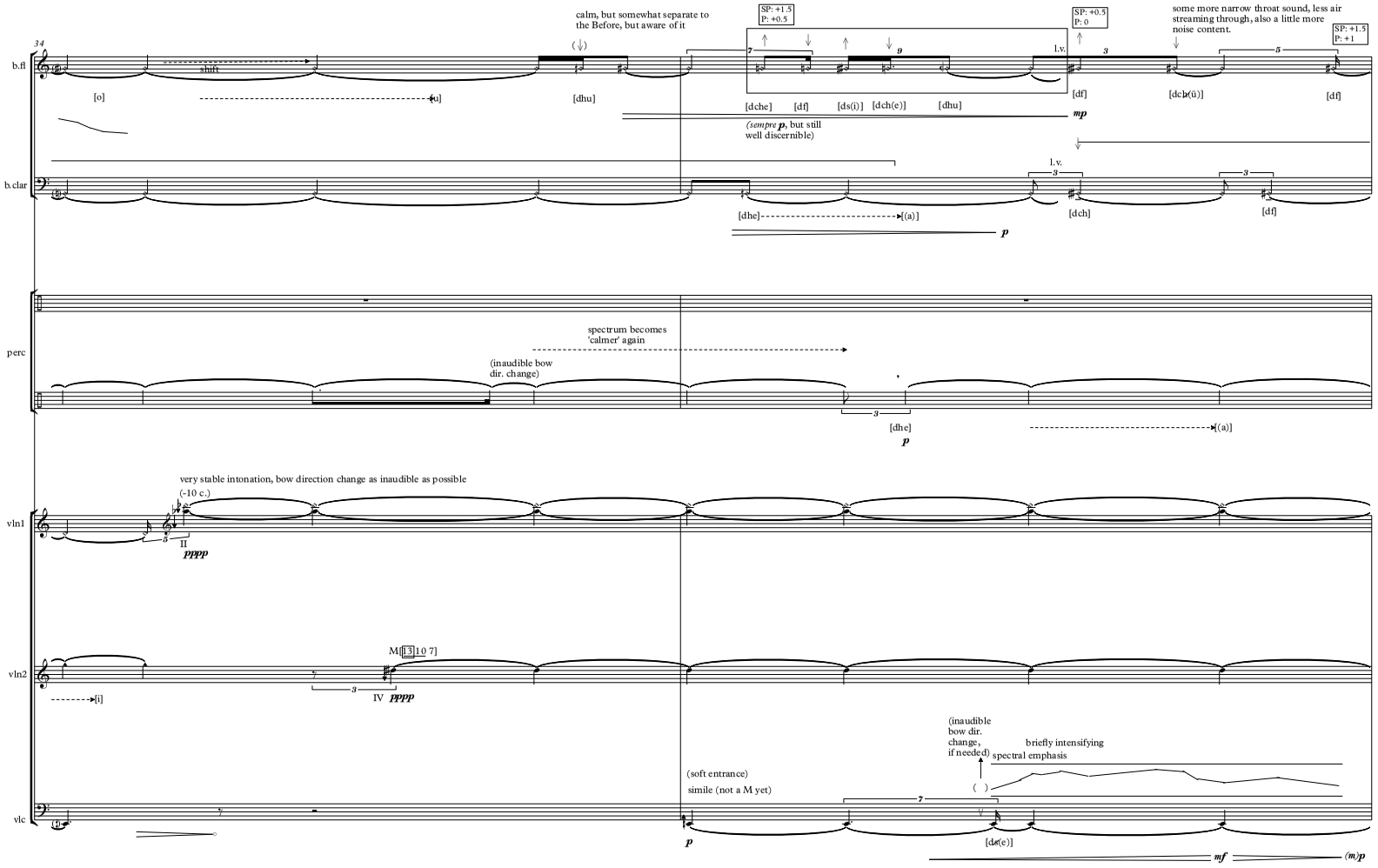

b.fl
b.clar
perc
vln1
vln2
vlc
mix sound well with b.clar
very airy
sub.
niente
b.clar is coloring the b.fl
mix sound well with b.fl
air sound with some 'grain'
calm (but really calm by itself, not part of breathing part , or calming down from before)
(sempre mp)
window
relaxed, low sounding
plus AWIV
IV air sound
III air sounds
III air sound
(1 breath)
shift
upwards lifting
minimally deflating, relaxing into air sound
* open sounding

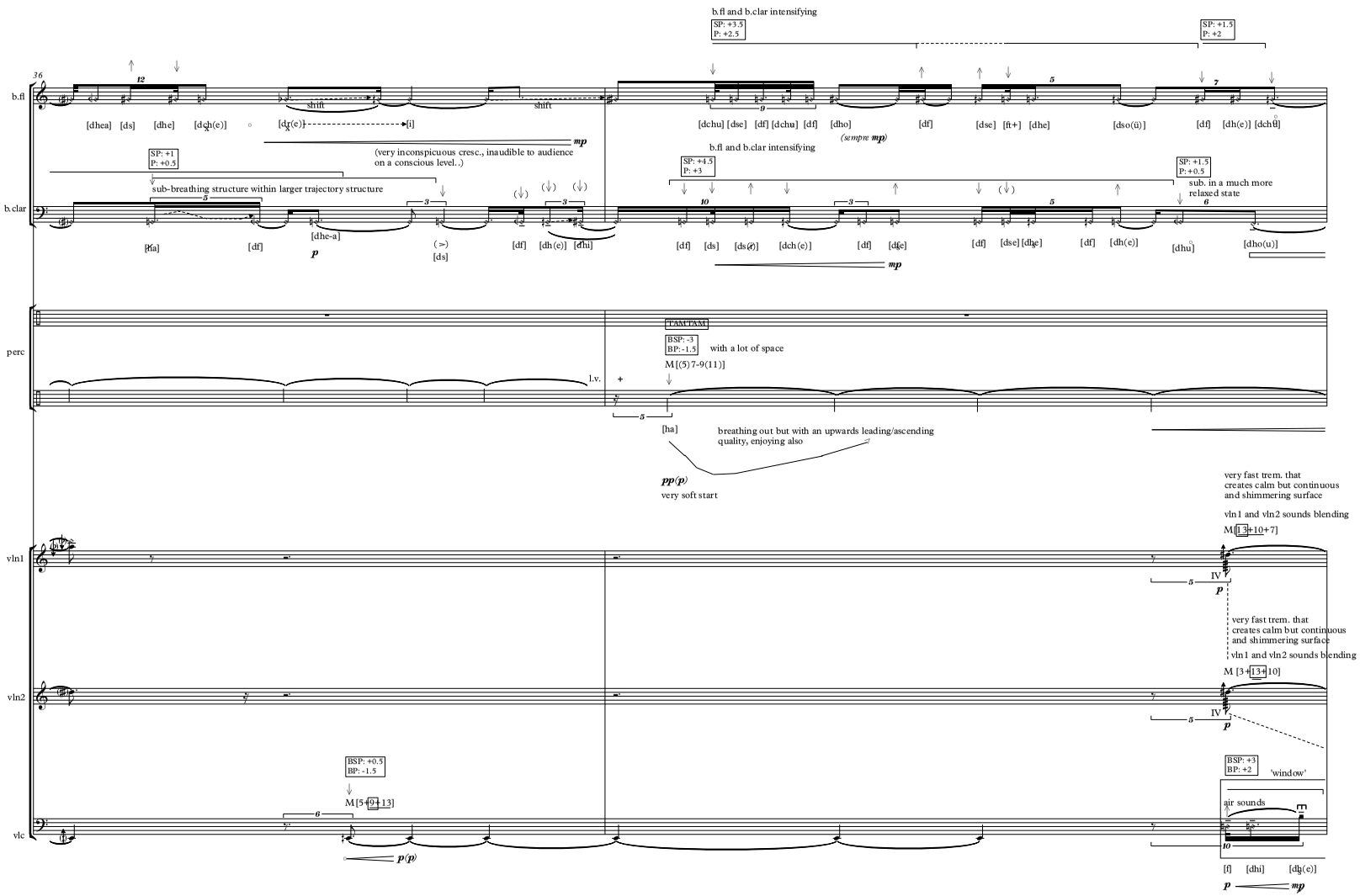

22
'off' (sub.niente)
very spacious
'echo'/reflection of b.clar (prev. measure)
b.fl
b.clar
perc
vln1
vln2
vlc
simile to just before
SP: -3 P: 0
SP: +4 P: +3
SP: -3 P: 0
SP: +2 P: +1.5
very soft, very relaxed
shift
somewhat 'heller' (Germ., brighter/lighter) sounding
* very low and wide space, like wind in vast spacious expanse
* short, decidedly (portato), even sound, very on-off, a little louder than what's surrounding it
* almost 'stummes h' (pronounciation of 'stummes h' in German)
* accelerated bow, rather short, rather noisy, with frequency band shifting upwards
⟨p⟩, but of higher energy, so it is still well heard/audible despite lower dynamics
BSP: +1.5 BP: +1
BSP: +4.5 BP: +1.5
BSP: +2.5 BP: +2
BSP: +1 BP: +1
BSP: +1.5 BP: +2
BSP: +0.5 BP: -1
plus AWIV
IV air sound
IV air sounds
air sound
AWIV
(sempre mp)

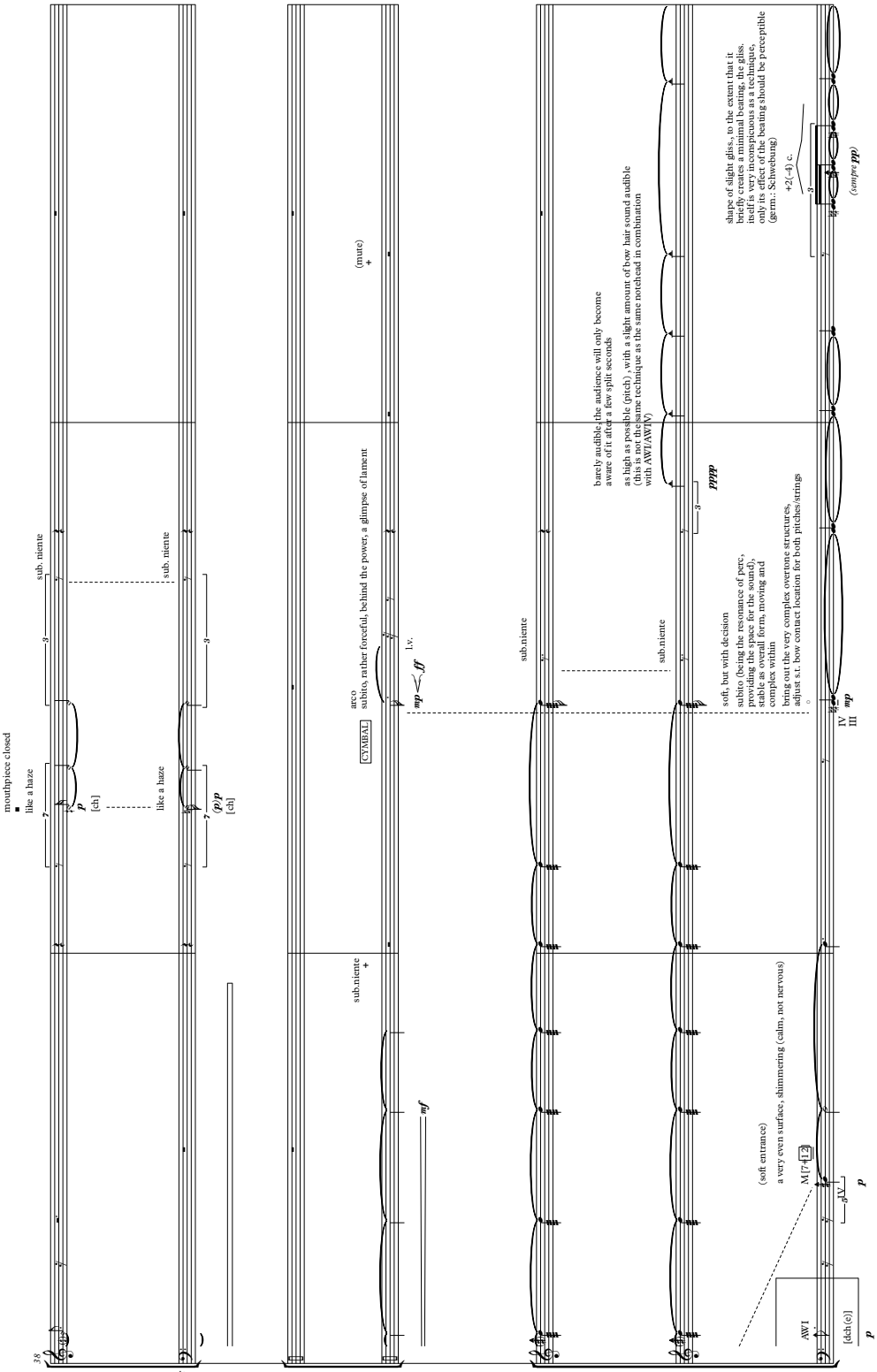

25
b.fl
b.clar
perc
vln1
vln2
vlc
b.fl. and b.clar. together in terms of mix of sonority, but not a forceful entrance, still very inconspicuous
breathe in
shift
breathe out
b.fl. and b.clar. together in terms of mix of sonority, but not a forceful entrance, still very inconspicuous
[dsch(i)]
[ū]
[i]
(sempre mp)
SP: +2
P: +2
[df]
[dhū]
[ds]
[dfō]
[dsch(i)]
[dr]
short and of high frequency
mp
* though physically breathing out, it is basically a breathing in! (and this is not a paradox!)
BSP: +2.5
BP: +1
IV air sound
AWIV
IV air sounds
AWIV
IV air sound
[dch(e)] [ds] [df]---[dh] [dsi] [df] [ds]
AWIV
III
IV
[df(i)] [dch(e)] [dhe] [dh(i)]
BSP: -2
BP: -3
rather relaxed, soft
AWIV
[dch(e)]
(mp)
p
BSP: +3
BP: +2
slightly agitated
BSP: -2
BP: 0
IV
III
calming down
[df] [dhe] [dh(i)] [df] [dh(e)]*
(sempre p)
* kind of a 'stummes h'
like 1 breath, do not let energy drop
BSP: +3
BP: +2
conceptually still the same breath
plus AWIV
IV
[dh(a)] [dhe] [dhū]
mp
BSP: +2
BP: +1.5
(↓) relatively low sounding
III air sound
[dho]
BSP: +0.5
BP: 0
II
AWI
[hū] [ds] [dha]
IV air sound
IV
air
sound
AWIV
III air sound
[dh(e)]
[ds] [dha]
[(m)f(hea)]
p
BSP: +1-5
BP: +1
III
III
air sounds
III
[df]
[dhei] [dfa] [ds]
mp
BSP: +2.5
BP: +2.5
[f] [ds] [ds(i)][dch]
BSP: 0
BP: -1
AWI
[df] [dhe]
BSP: +2
BP: +1.5
shift
(sempre mp)
[a]


28
b.fl
mp
(produce microtone with intonation in this case)
SP: -1.5
P: 0
SP: +2
P: +2
(continue here)
SP: +2
P: +2
SP: +3.5
P: +2
b.clar
[dchu]
rather spacious
(sempre mp)
'nested' within, a litte more active
3 levels of 'levitation' (schwebend) /'lightness'
[dhu(o)]
[ds]
[dchu]
p
[dch(e)] [dhe(a)]
mp
[df]
perc
very soft, inaudible at first, only a metal 'hue' audible at most, very flat, even surface (very even bow). (alt: use tamtam rim, but no individual frequency should stick out)
extremely slow arco on cymbal, no bow direction change
only about here some listeners should (the earliest) become aware of the minimal metal 'hue'
(cymbal)
pppppp
minimal cresc., not consciously audible for audience
ppppp
vln1
BSP: +1.5
BP: +0.5
keeping a slightly higher energy level, with a little more noise and grain
III air sound
[df] [dh(e)] [dhe(a)]
[dch(i)]
(sempre p)
BSP: +2.5
BP: +1
IV air sound
AWIV
IV air sound
AWIV
BSP: 0
BP: -0.5
rather relaxed
[dh(e)]
mp
[df] [dh(o)] [dhu]
p
BSP: 0
BP: 0
IV air sounds
[df(e)] [dhe]
mp p
mp
vln2
very relaxed
AWIV
AWIV
III air sound
(emphasis, in terms of 'heaviness' within)
III air sound
shift
[dhu]
[df]
[dhea]
l.v.
shift
[ds]
[dha]
[(o)]
[df]
[dha]
p
(+)
sound becomes very even
mp
(dampen l.v. here)
* very on-off shape/feeling
air sounds
vlc
dark sounding
IV
[ds]
IV air sounds
[df]
[dha]
IV
[dch(i)]
[dch(e)]
IV air sound
[ds]
AWIV
[df] [dhea]
IV
as dark a sound as possible
shift
[ds] [dhe]
[dr(e)]
[dhu]
IV
AWIV
[dch(e(a))]
[dho]
(p)
(sempre mp)

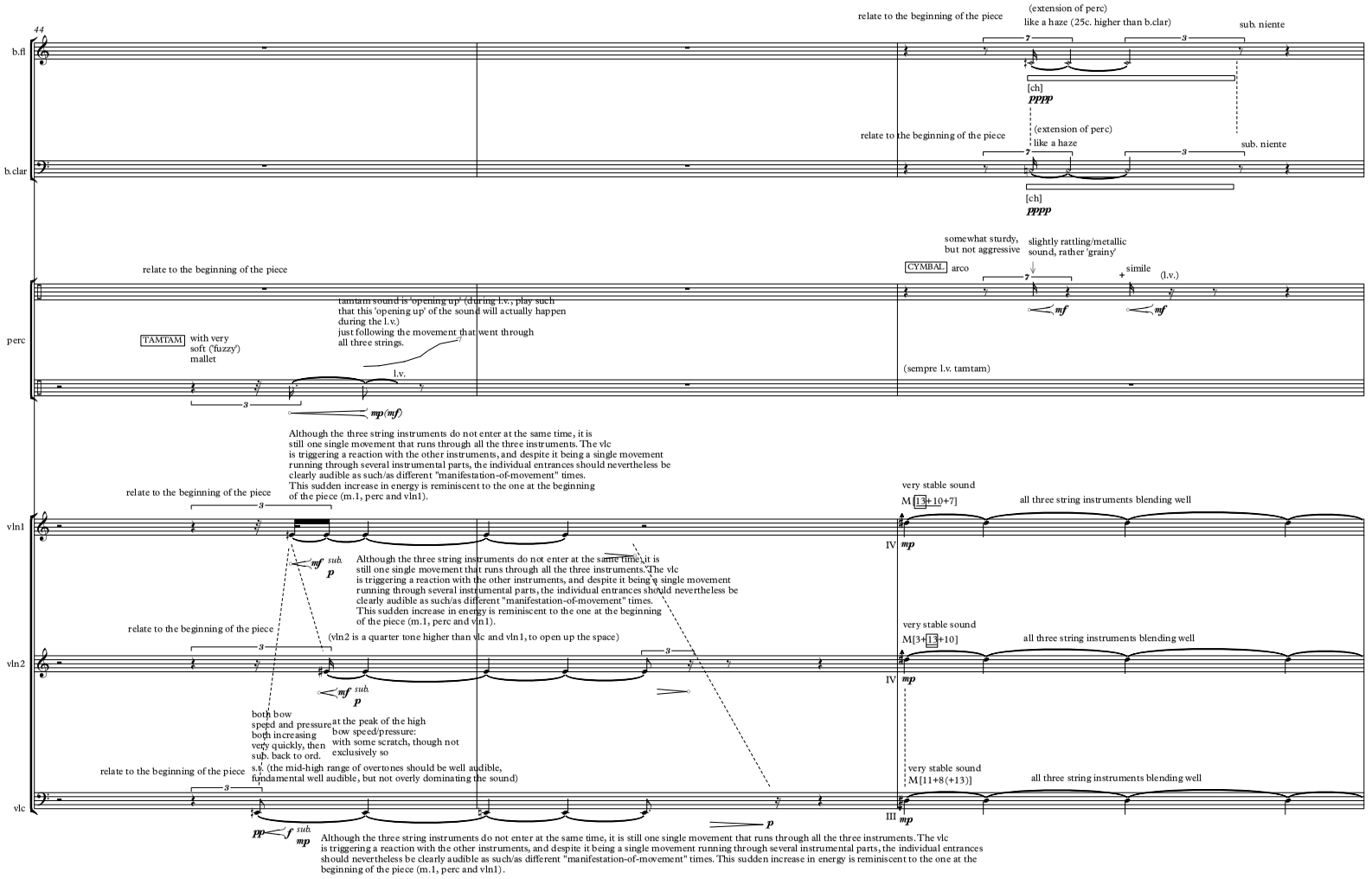

sub-breathing structure within larger trajectory structure
very even sound
b.fl
b.clar
perc
vln1
vln2
vlc
less breath leads to a form of compression/some kind of 'build-up'
relax into breath, loosen tension
two levels of release from tension
* high-sounding [sch]
shift
become even 'heller' (brighter/lighter)
slightly stepping out of the background
(bow dir. change minimally audible)
(no cresc.)
with even, "less air", norrower, even shape, very on-off shape
IV air sounds
plus AWIV
* kind of deflating, but not negatively so.
very short, even
with lots of 'room'/ spaciousness
(minimally increasing dynamics, subliminally building tension)
not a multiphonic yet, but with a complex spectrum that sounds close to a M
higher partials*
spectral emphasis
lower partials
shape of vowel shift
* for spectral emphasis in this case, adjust the bowing (contact location, speed) accordingly, so as to emphasize different regions of partials

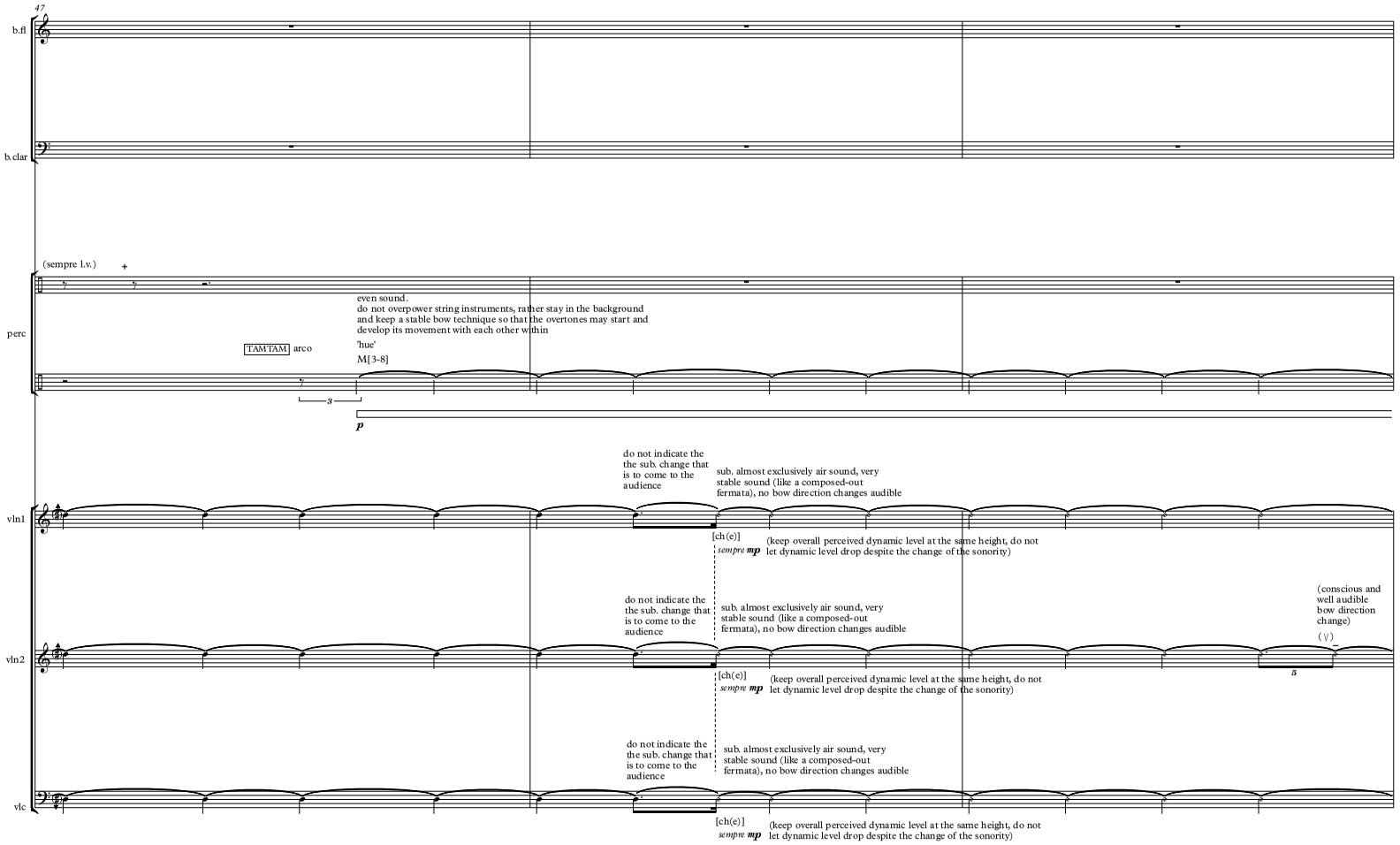

b.fl
b.clar
perc
vln1
vln2
vlc
shift
[o]
[u]
[dhu]
calm, but somewhat separate to the Before, but aware of it
SP: +1.5
P: +0.5
[dche]
[df]
[ds(i)]
[dch(e)]
[dhu]
l.v.
[df]
SP: +0.5
P: 0
some more narrow throat sound, less air streaming through, also a little more noise content.
[dcb(ü)]
SP: +1.5
P: +1
[df]
mp
(sempre p, but still well discernible)
[dhe]
[(a)]
p
[dch]
[df]
spectrum becomes 'calmer' again
(inaudible bow dir. change)
[dhe]
[(a)]
p
very stable intonation, bow direction change as inaudible as possible
(-10 c.)
II
pppp
M[3.3.10 7]
[i]
IV pppp
(soft entrance)
simile (not a M yet)
p
(inaudible bow dir. change, if needed)
briefly intensifying spectral emphasis
[dσ(e)]
mf
(m)p

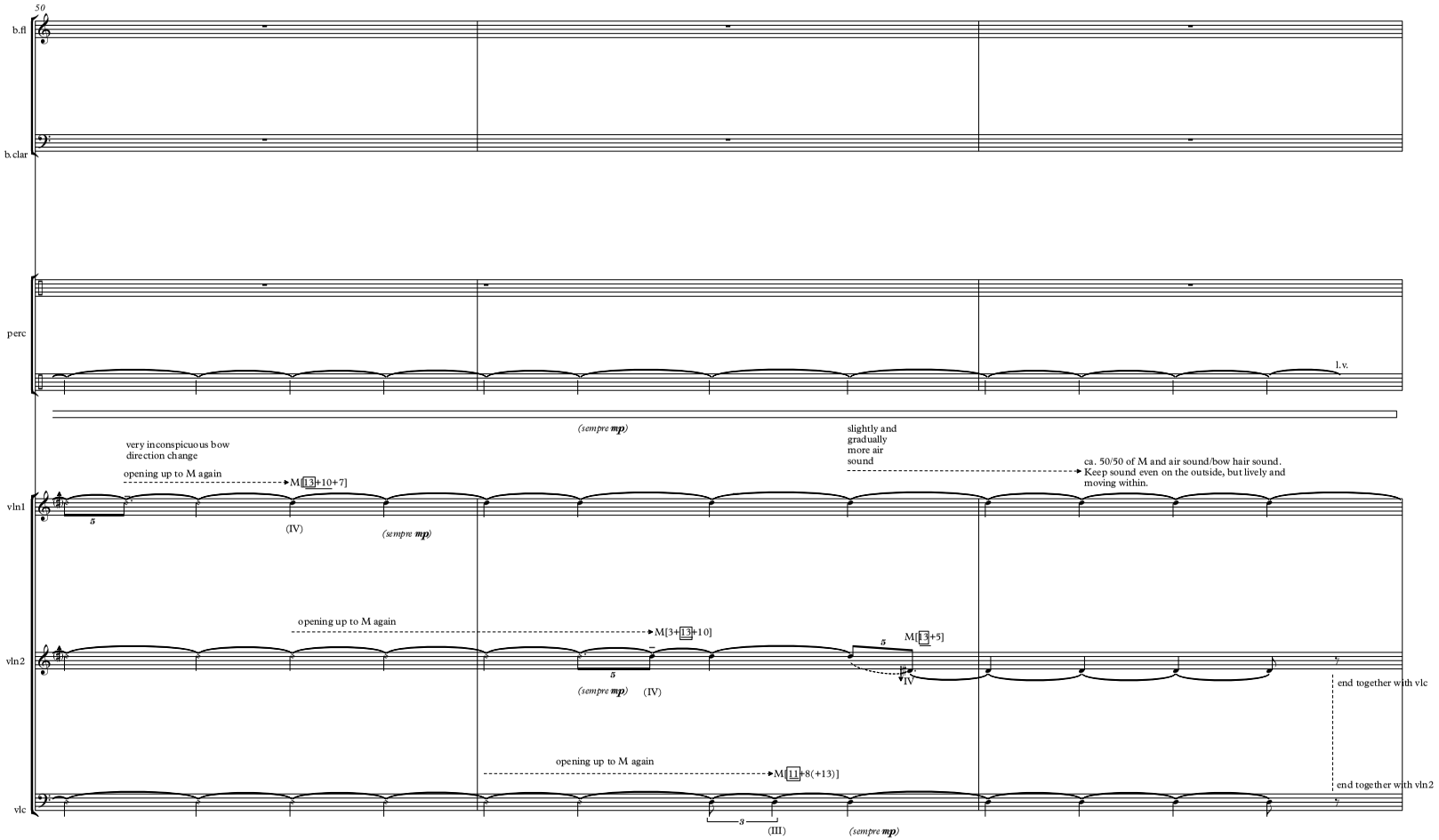

b.fl and b.clar intensifying
SP: +3.5
P: +2.5
SP: +1.5
P: +2
36
b.fl
[dhea] [ds] [dhe] [dch(e)] [dr(e)] [i] shift shift
mp
(very inconspicuous cresc., inaudible to audience on a conscious level..)
[dchu] [dse] [df] [dchu] [df] [dho] (sempre mp) [df] [dse] [ft+] [dhe] [dso(ü)] [df] [dh(e)] [dchü]
SP: +1
P: +0.5
sub-breathing structure within larger trajectory structure
b.clar
b.fl and b.clar intensifying
SP: +4.5
P: +3
SP: +1.5
P: +0.5
sub. in a much more relaxed state
[ha] [df] [dhe-a] p (>) [ds] [df] [dh(e)] [dhi] [df] [ds] [ds(é)] [dch(e)] [df] [dfe] mp [df] [dse] [dhe] [df] [dh(e)] [dhü] [dho(u)]
perc
TAM-TAM
BSP: -3
BP: -1.5
with a lot of space
M [(5) 7-9(11)]
l.v.
[ha]
breathing out but with an upwards leading/ascending quality, enjoying also
pp (p)
very soft start
very fast trem. that creates calm but continuous and shimmering surface
vln1 and vln2 sounds blending
M [13+10+7]
vln1
IV
p
very fast trem. that creates calm but continuous and shimmering surface
vln1 and vln2 sounds blending
M [3+13+10]
vln2
IV
p
BSP: +0.5
BP: -1.5
M [5-9+13]
vlc
p (p)
BSP: +3
BP: +2
'window'
air sounds
[f] [dhi] [dh(e)]
p mp

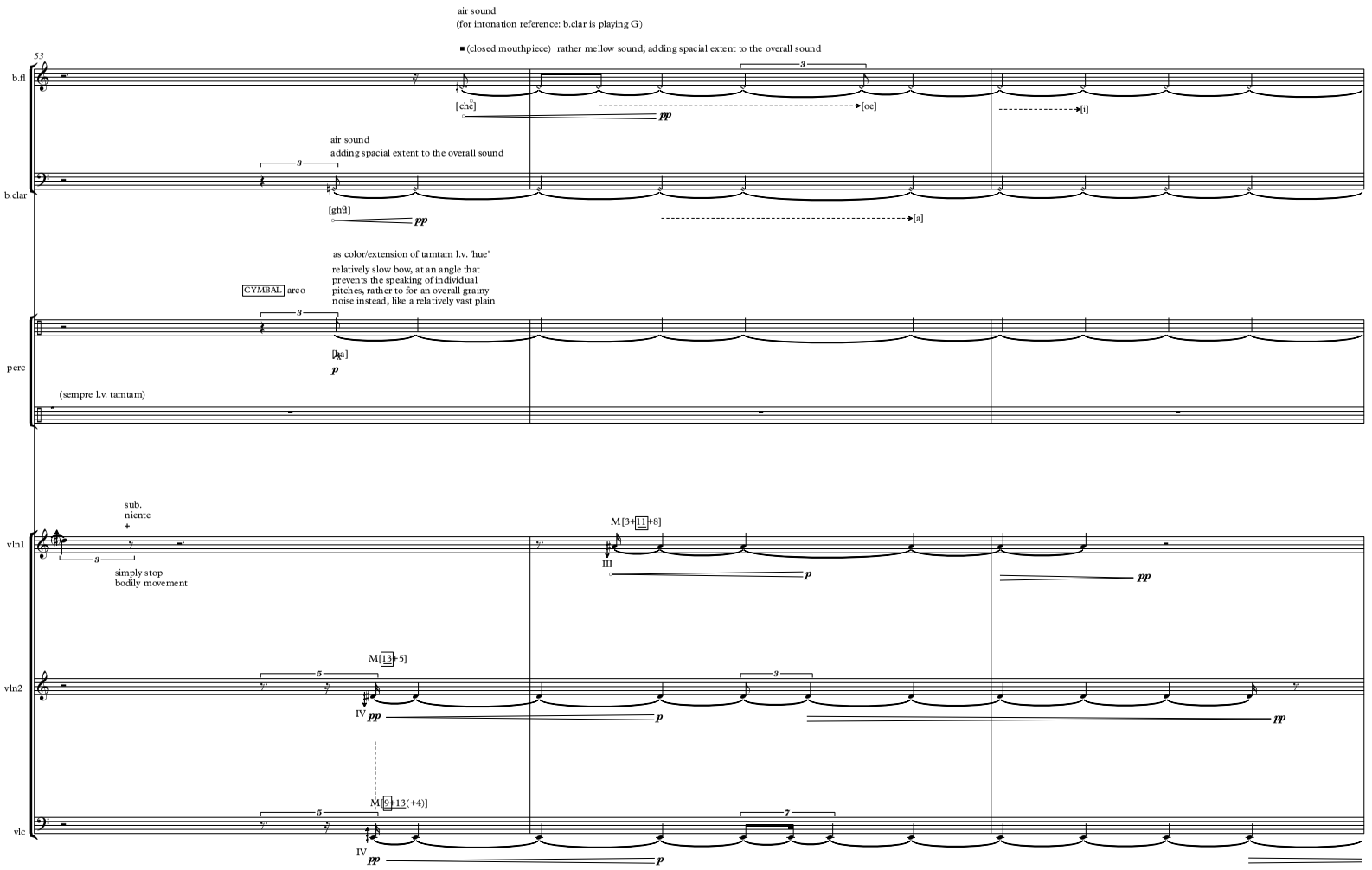

38
b.fl
b.clar
perc
vln1
vln2
vlc
mouthpiece closed
like a haze
sub. niente
[ch.]
(p)
[ch]
CYMBAL
arco
subito, rather forceful, behind the power, a glimpse of lament
l.v.
mp
ff
(mute)
sub.niente
mf
soft, but with decision
subito (being the resonance of perc,
providing the space for the sound),
stable as overall form, moving and
complex within
bring out the very complex overtone structures,
adjust s.t. bow contact location for both pitches/strings
barely audible, the audience will only become
aware of it after a few split seconds
as high as possible (pitch) , with a slight amount of bow hair sound audible
(this is not the same technique as the same notehead in combination
with AWI/AWIV)
ppppp
shape of slight gliss., to the extent that it
briefly creates a minimal beating, the gliss.
itself is very inconspicuous as a technique,
only its effect of the beating should be perceptible
(germ.: Schwebung)
+2(–4) c.
(sempre pp)
(soft entrance)
a very even surface, shimmering (calm, not nervous)
M.[7+1+2]
AV.
AWI
[dch.(e)]
III
IV
mp
p

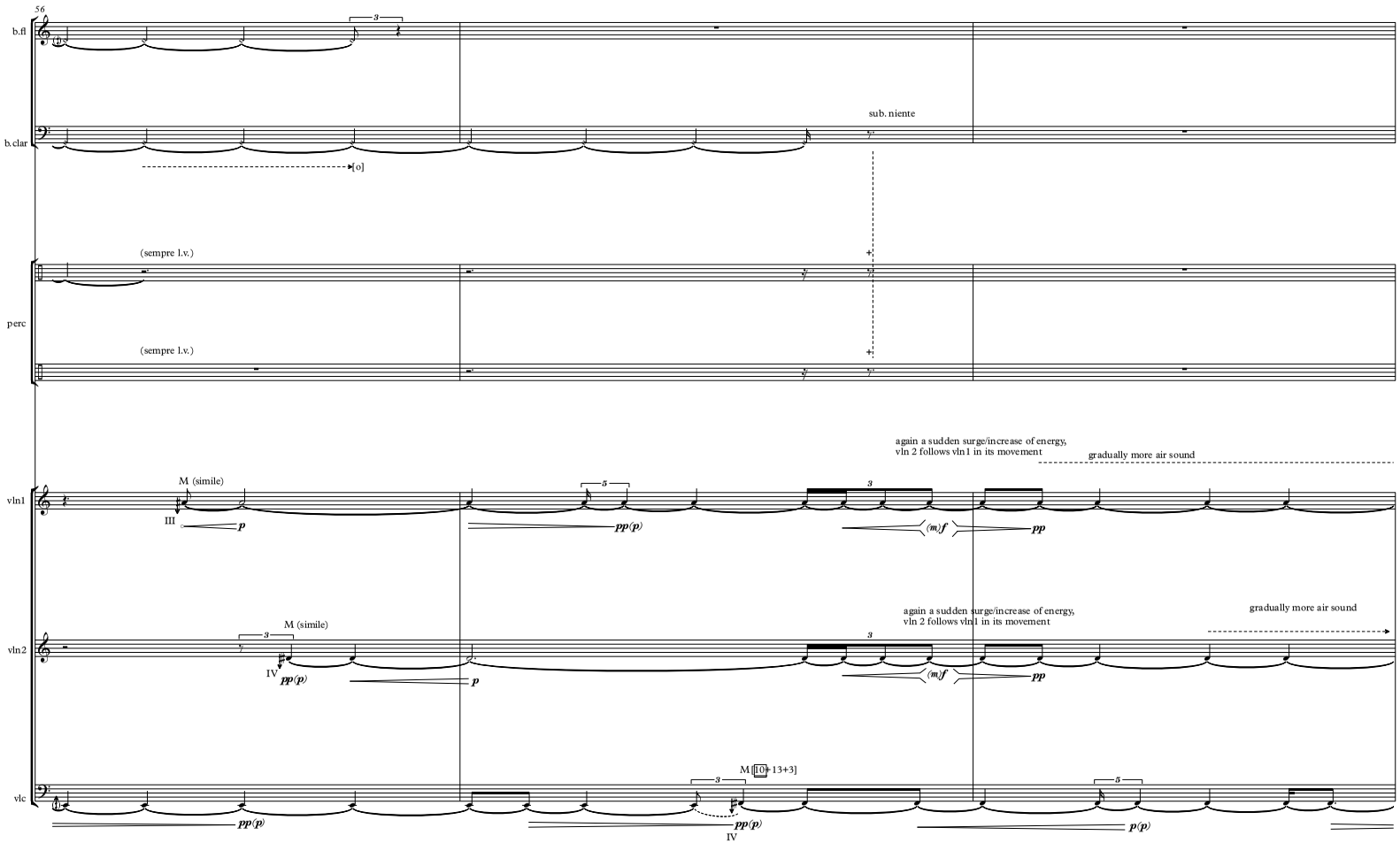

41
b.fl
b.clar
perc
vln1
vln2
vlc
sub. niente
2 sec.
(duration of this entire measure)
The overall time span between the sub. niente of vln2 and the vlc sound in the upcoming m.easure should be ca 5 seconds long.

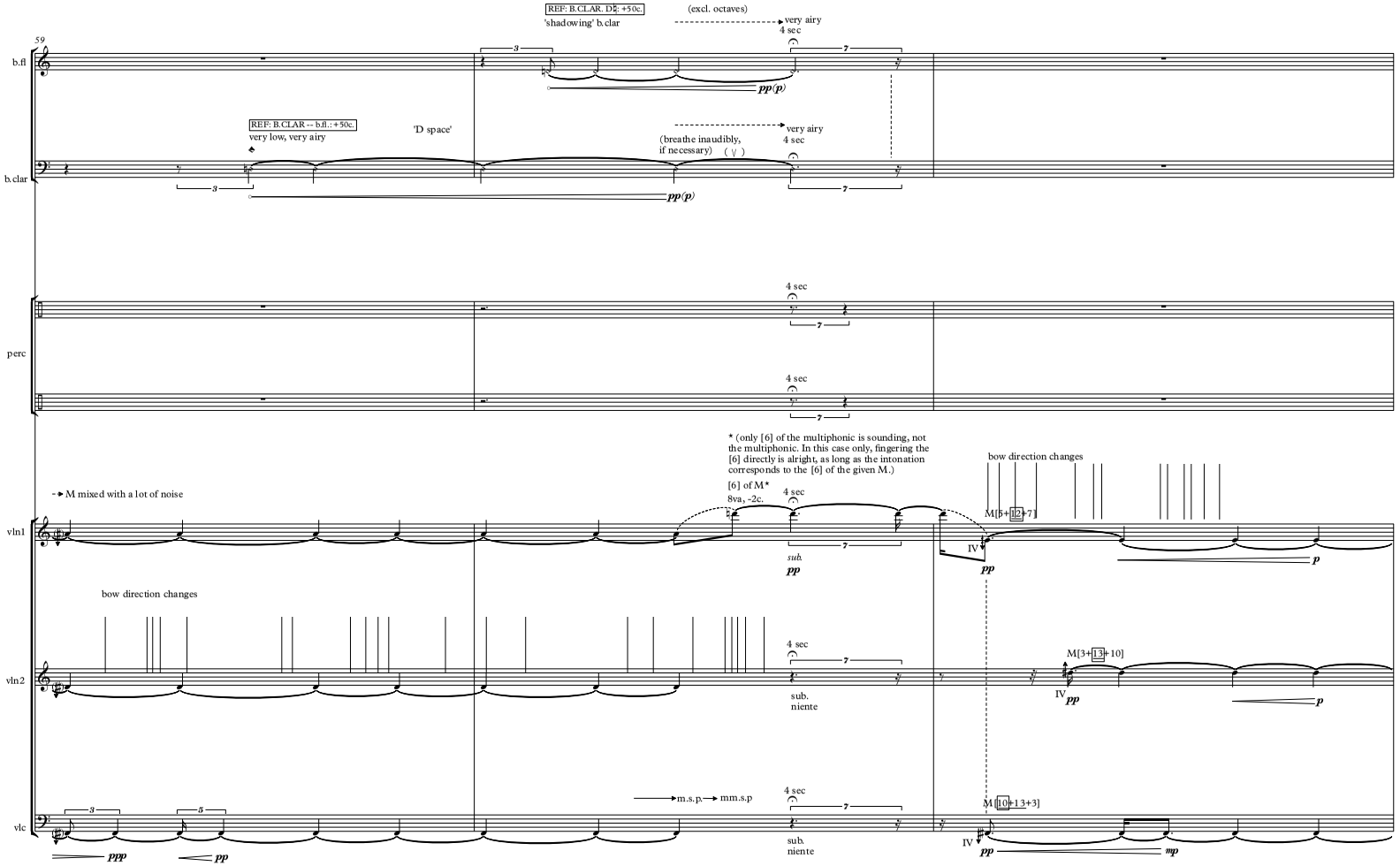

44
b.fl
b.clar
perc
vln1
vln2
vlc
relate to the beginning of the piece
(extension of perc)
like a haze (25c. higher than b.clar)
sub. niente
[ch]
pppp
relate to the beginning of the piece
(extension of perc)
like a haze
sub. niente
[ch]
pppp
somewhat sturdy, but not aggressive
slightly rattling/metallic sound, rather 'grainy'
CYMBAL
arco
simile
(l.v.)
mf
mf
relate to the beginning of the piece
TAMTAM
with very soft ('fuzzy') mallet
tamtam sound is 'opening up' (during l.v., play such that this 'opening up' of the sound will actually happen during the l.v.) just following the movement that went through all three strings.
l.v.
mp(mf)
(sempre l.v. tamtam)
Although the three string instruments do not enter at the same time, it is still one single movement that runs through all the three instruments. The vlc is triggering a reaction with the other instruments, and despite it being a single movement running through several instrumental parts, the individual entrances should nevertheless be clearly audible as such/as different "manifestation-of-movement" times. This sudden increase in energy is reminiscent to the one at the beginning of the piece (m.1, perc and vln1).
relate to the beginning of the piece
very stable sound
M[13+10+7]
all three string instruments blending well
IV
mp
mf sub. p
Although the three string instruments do not enter at the same time, it is still one single movement that runs through all the three instruments. The vlc is triggering a reaction with the other instruments, and despite it being a single movement running through several instrumental parts, the individual entrances should nevertheless be clearly audible as such/as different "manifestation-of-movement" times. This sudden increase in energy is reminiscent to the one at the beginning of the piece (m.1, perc and vln1).
relate to the beginning of the piece
(vln2 is a quarter tone higher than vlc and vln1, to open up the space)
very stable sound
M[3+13+10]
all three string instruments blending well
IV
mp
mf sub. p
both bow speed and pressure both increasing very quickly, then sub. back to ord.
at the peak of the high bow speed/pressure: with some scratch, though not exclusively so
s.v. (the mid-high range of overtones should be well audible, fundamental well audible, but not overly dominating the sound)
relate to the beginning of the piece
very stable sound
M[11+8(+13)]
all three string instruments blending well
III
mp
pp sub. mp
p
Although the three string instruments do not enter at the same time, it is still one single movement that runs through all the three instruments. The vlc is triggering a reaction with the other instruments, and despite it being a single movement running through several instrumental parts, the individual entrances should nevertheless be clearly audible as such/as different "manifestation-of-movement" times. This sudden increase in energy is reminiscent to the one at the beginning of the piece (m.1, perc and vln1).

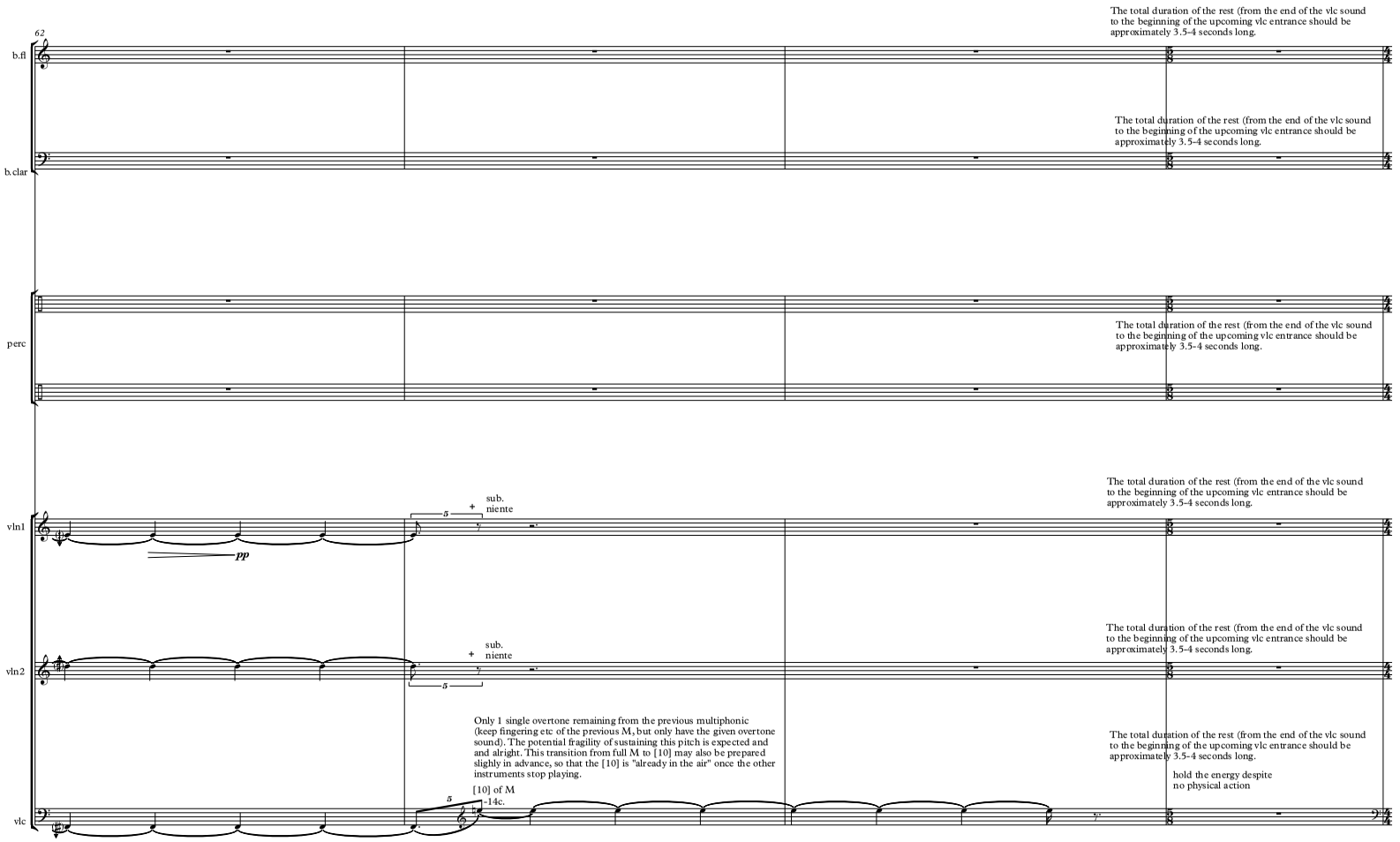

47
b.fl
b.clat
(sempre l.v.)
perc
even sound.
do not overpower string instruments, rather stay in the background
and keep a stable bow technique so that the overtones may start and
develop its movement with each other within
TAM'TAM
arco
'hue'
M[3-8]
3
p
vln1
do not indicate the
the sub. change that
is to come to the
audience
sub. almost exclusively air sound, very
stable sound (like a composed-out
fermata), no bow direction changes audible
[ch(e)]
sempre mp
(keep overall perceived dynamic level at the same height, do not
let dynamic level drop despite the change of the sonority)
vln2
do not indicate the
the sub. change that
is to come to the
audience
sub. almost exclusively air sound, very
stable sound (like a composed-out
fermata), no bow direction changes audible
(conscious and
well audible
bow direction
change)
(\/)
5
[ch(e)]
sempre mp
(keep overall perceived dynamic level at the same height, do not
let dynamic level drop despite the change of the sonority)
vlc
do not indicate the
the sub. change that
is to come to the
audience
sub. almost exclusively air sound, very
stable sound (like a composed-out
fermata), no bow direction changes audible
[ch(e)]
sempre mp
(keep overall perceived dynamic level at the same height, do not
let dynamic level drop despite the change of the sonority)

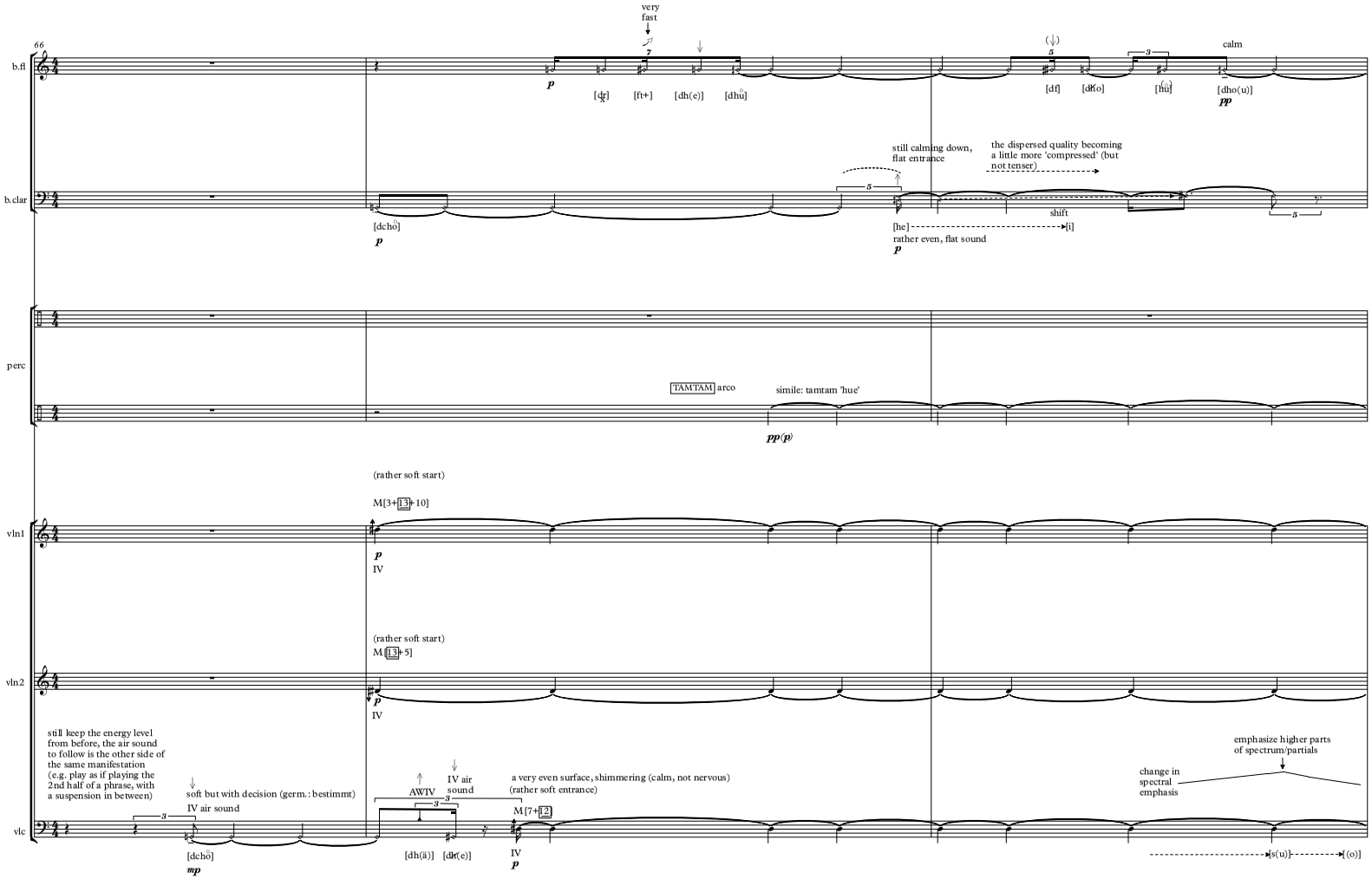

50
b.fl
b.clar
perc
l.v.
(sempre mp)
slightly and gradually more air sound
very inconspicuous bow direction change
opening up to M again
M[13+10+7]
ca. 50/50 of M and air sound/bow hair sound. Keep sound even on the outside, but lively and moving within.
vln1
(IV)
(sempre mp)
opening up to M again
M[3+13+10]
M[13+5]
vln2
(sempre mp)
(IV)
end together with vlc
opening up to M again
M[11+8(+13)]
vlc
(III)
(sempre mp)
end together with vln2

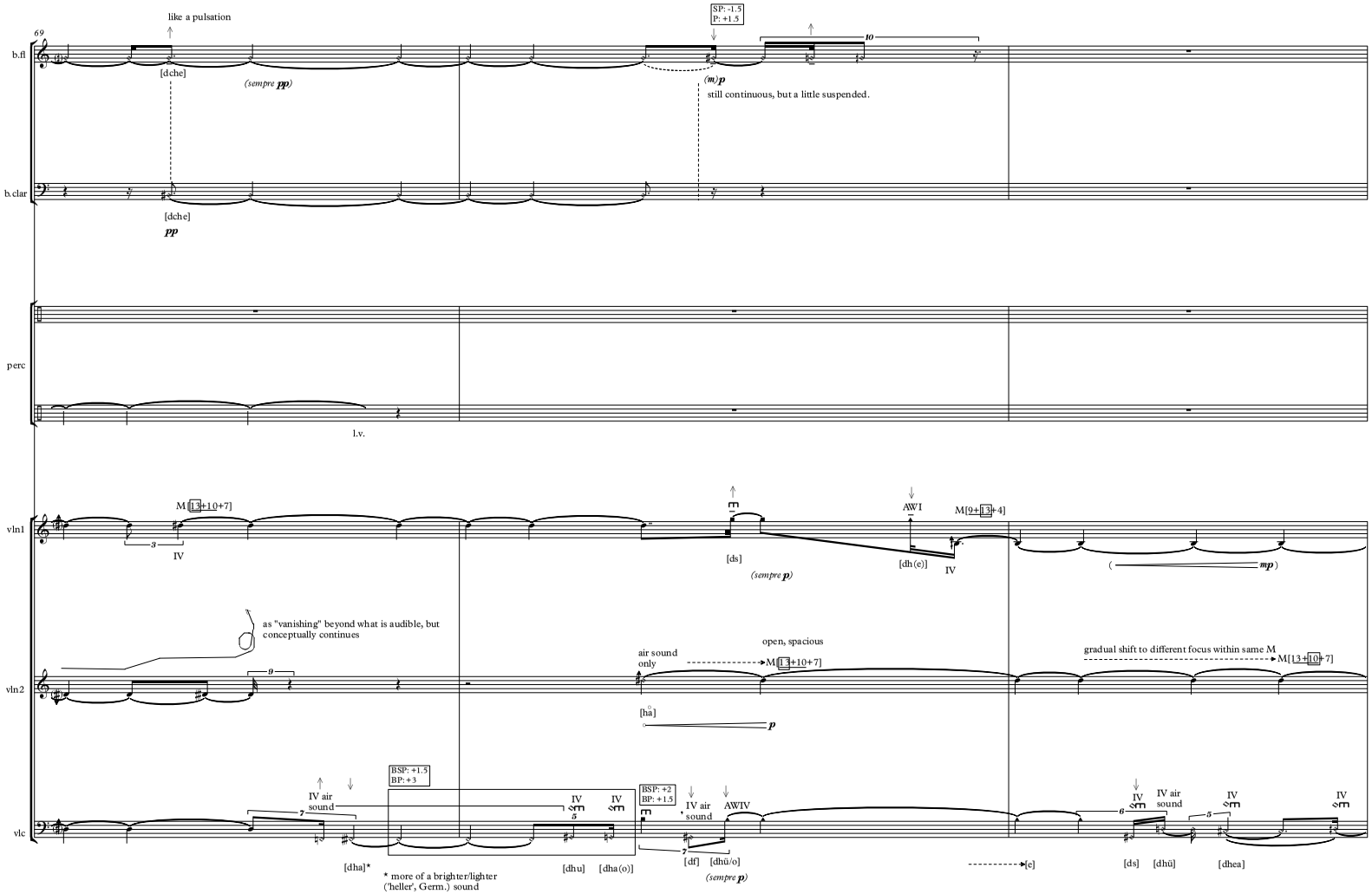

air sound
(for intonation reference: b.clar is playing G)
■ (closed mouthpiece) rather mellow sound; adding spacial extent to the overall sound
53
b.fl
[chê]
pp
[oe]
[i]
air sound
adding spacial extent to the overall sound
b.clar
[ghŭ]
pp
[a]
as color/extension of tamtam l.v. 'hue'
relatively slow bow, at an angle that prevents the speaking of individual pitches, rather to for an overall grainy noise instead, like a relatively vast plain
CYMBAL arco
perc
[ha]
p
(sempre l.v. tamtam)
sub.
niente
+
vln1
simply stop
bodily movement
M.[3+11+8]
III
p
pp
M.[13+5]
vln2
IV
pp
p
pp
M.[9+13(+4)]
vlc
IV
pp
p

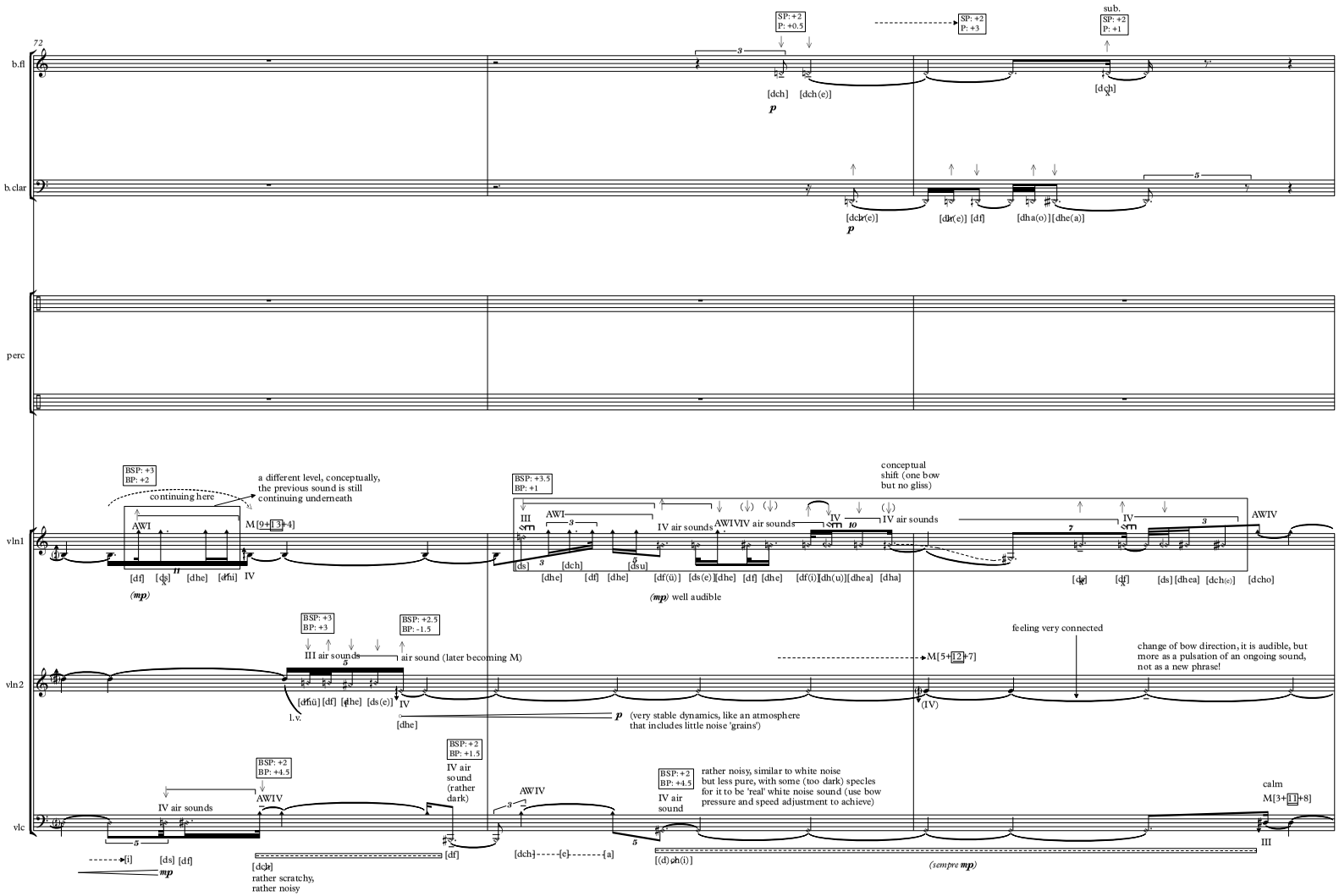

56
b.fl
b.clar
sub. niente
[o]
perc
(sempre l.v.)
(sempre l.v.)
again a sudden surge/increase of energy,
vln 2 follows vln1 in its movement
gradually more air sound
vln1
M (simile)
III
p
pp⟨p⟩
⟨m⟩f
pp
again a sudden surge/increase of energy,
vln 2 follows vln1 in its movement
gradually more air sound
vln2
M (simile)
IV
pp⟨p⟩
p
⟨m⟩f
pp
M. [10+13+3]
vlc
pp⟨p⟩
pp⟨p⟩
IV
p⟨p⟩

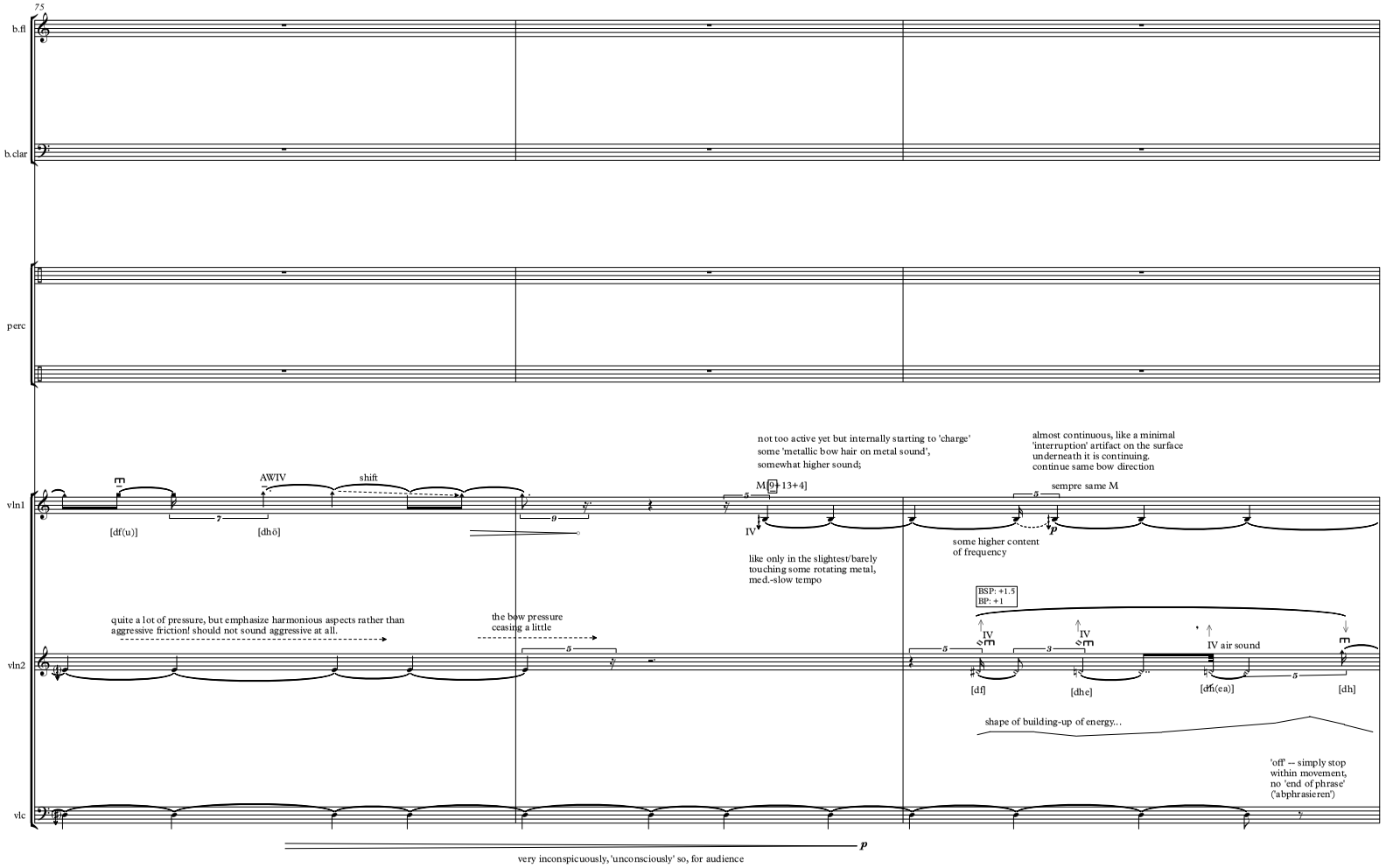

59
b.fl
b.clar
perc
vln1
vln2
vlc
REF: B.CLAR. D♯: +50c.
'shadowing' b.clar
(excl. octaves)
very airy
4 sec
pp(p)
REF: B.CLAR -- b.fl.: +50c.
very low, very airy
'D space'
(breathe inaudibly, if necessary)
4 sec
* (only [6] of the multiphonic is sounding, not the multiphonic. In this case only, fingering the [6] directly is alright, as long as the intonation corresponds to the [6] of the given M.)
bow direction changes
M mixed with a lot of noise
[6] of M*
8va, -2c.
sub. pp
M[3+12+7]
IV
pp
p
bow direction changes
sub. niente
M[3+13+10]
m.s.p. → mm.s.p
M[10+13+3]
ppp
pp
mp

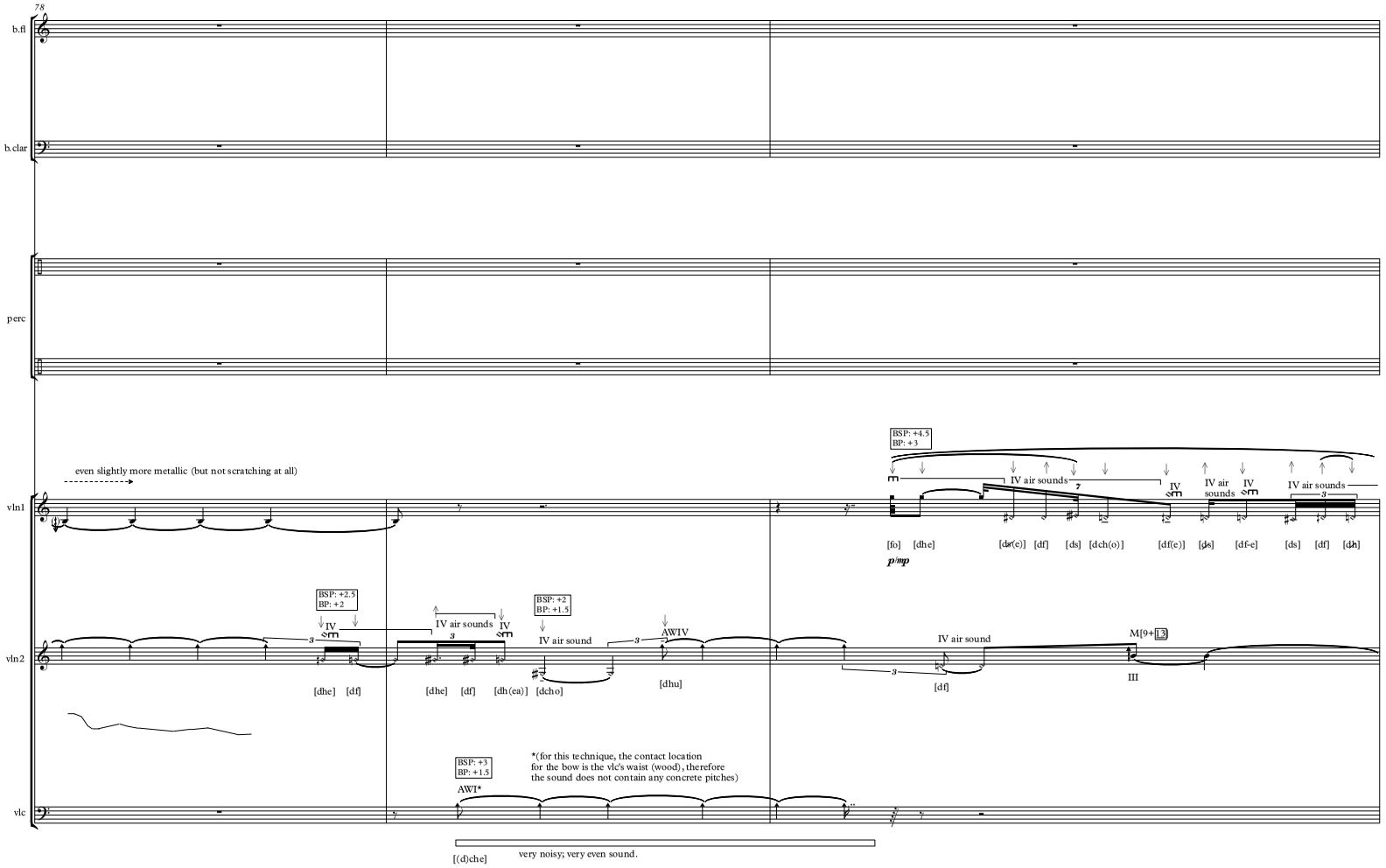

62
b.fl
b.clar
perc
vln1
vln2
vlc
pp
sub.
niente
sub.
niente
[10] of M
-14c.
Only 1 single overtone remaining from the previous multiphonic (keep fingering etc of the previous M, but only have the given overtone sound). The potential fragility of sustaining this pitch is expected and and alright. This transition from full M to [10] may also be prepared slighly in advance, so that the [10] is "already in the air" once the other instruments stop playing.
The total duration of the rest (from the end of the vlc sound to the beginning of the upcoming vlc entrance should be approximately 3.5-4 seconds long.
The total duration of the rest (from the end of the vlc sound to the beginning of the upcoming vlc entrance should be approximately 3.5-4 seconds long.
The total duration of the rest (from the end of the vlc sound to the beginning of the upcoming vlc entrance should be approximately 3.5-4 seconds long.
The total duration of the rest (from the end of the vlc sound to the beginning of the upcoming vlc entrance should be approximately 3.5-4 seconds long.
The total duration of the rest (from the end of the vlc sound to the beginning of the upcoming vlc entrance should be approximately 3.5-4 seconds long.
hold the energy despite
no physical action

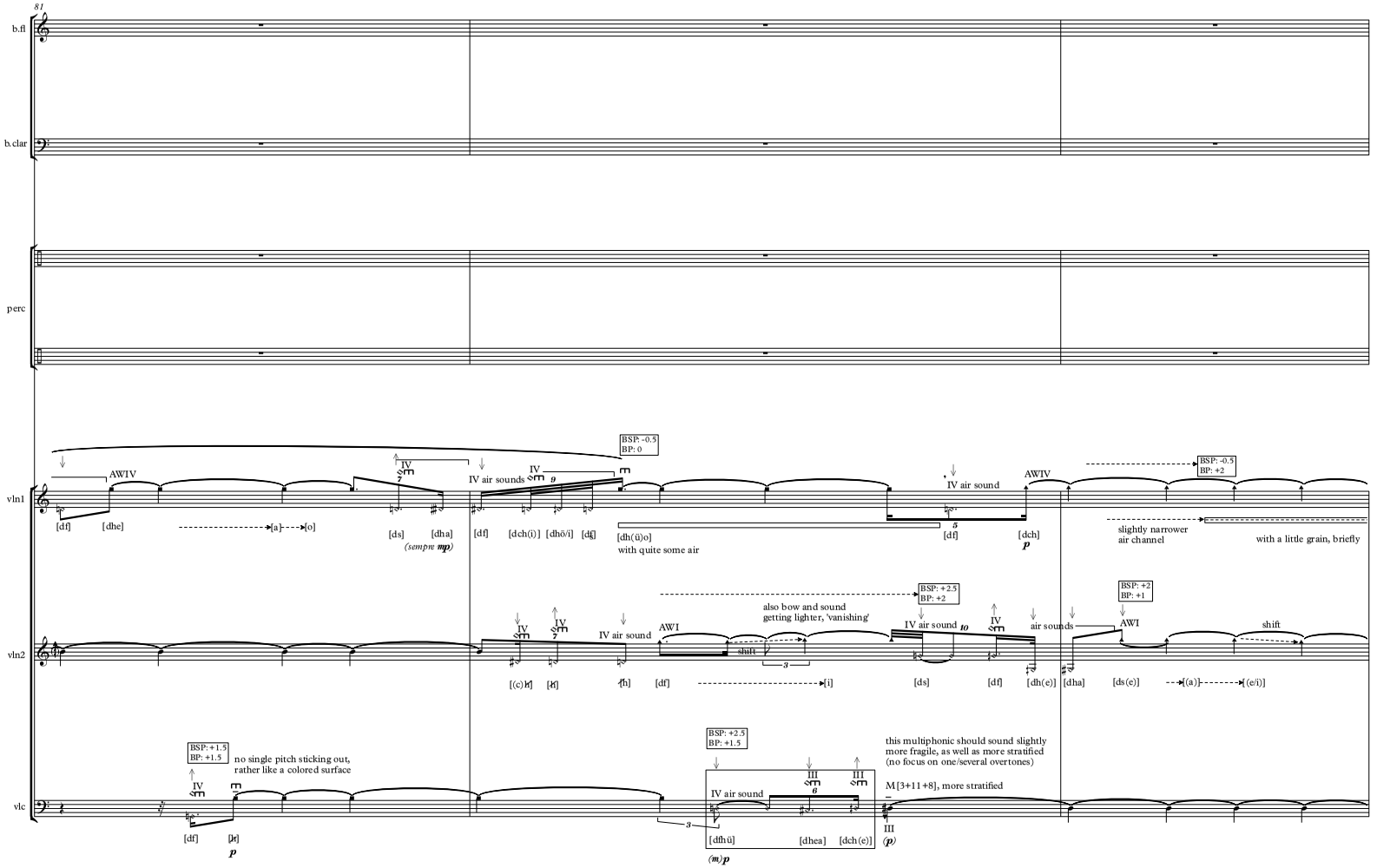

66
very fast
calm
b.fl
[dχ] [ft+] [dh(e)] [dhû]
[df] [dfo] [hû] [dho(u)]
pp
still calming down, flat entrance
the dispersed quality becoming a little more 'compressed' (but not tenser)
b.clar
[dchô]
shift
[he] [i]
rather even, flat sound
perc
TAM TAM arco
simile: tamtam 'hue'
pp (p)
(rather soft start)
M[3+13+10]
vln1
IV
(rather soft start)
M[13+5]
vln2
IV
still keep the energy level from before, the air sound to follow is the other side of the same manifestation (e.g. play as if playing the 2nd half of a phrase, with a suspension in between)
soft but with decision (germ.: bestimmt)
IV air sound
AWIV
IV air sound
a very even surface, shimmering (calm, not nervous)
(rather soft entrance)
M[7+12]
emphasize higher parts of spectrum/partials
change in spectral emphasis
vlc
[dchô]
mp
[dh(ä)] [dhr(e)]
IV
[s(u)] [(o)]

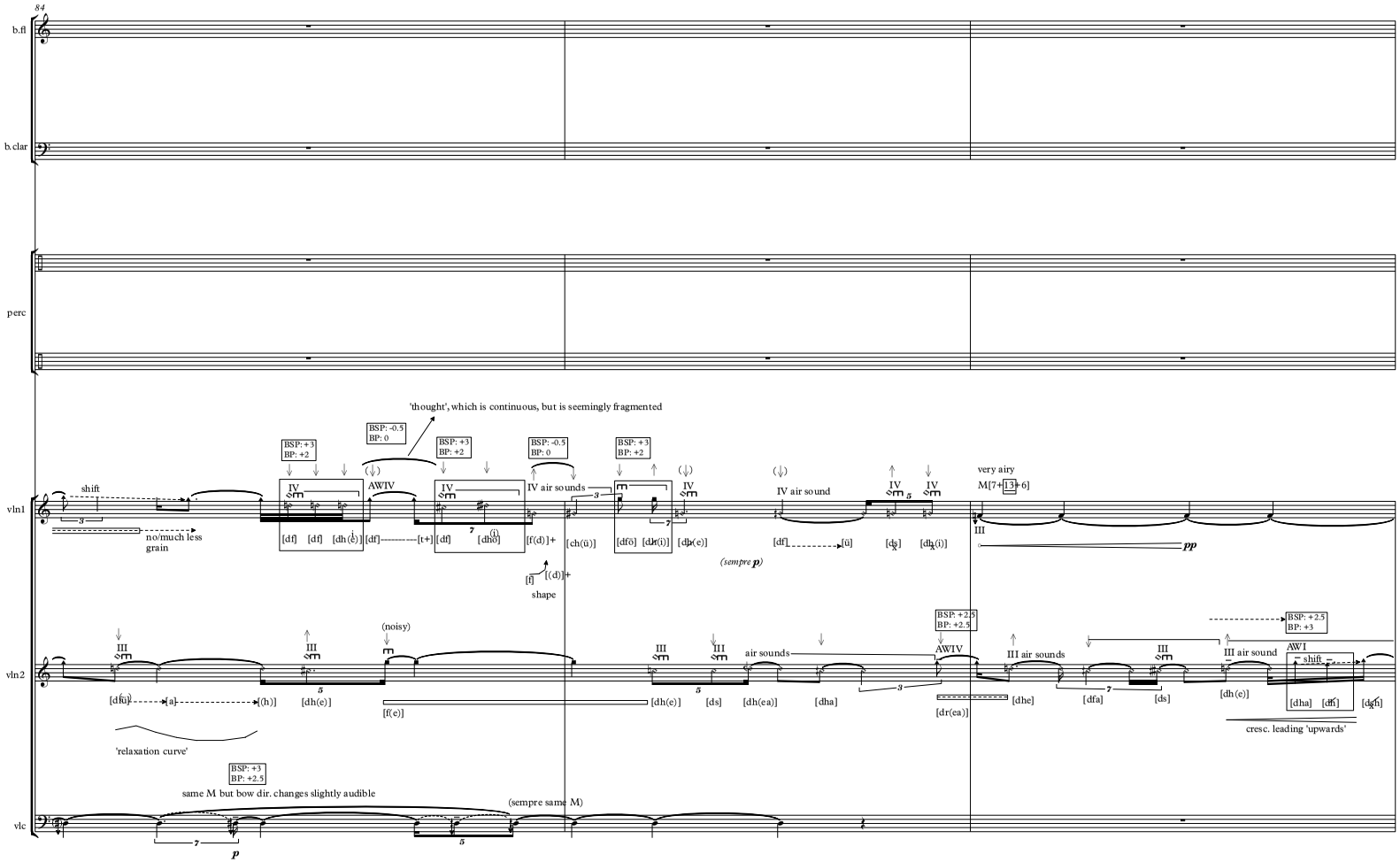

like a pulsation
SP: -1.5
P: +1.5
b.fl
[dche]
(sempre pp)
(m)p
still continuous, but a little suspended.
b.clar
[dche]
pp
perc
l.v.
vln1
M[13+10+7]
IV
[ds]
(sempre p)
AWI
M[9+13+4]
[dh(e)]
IV
(mp)
as "vanishing" beyond what is audible, but conceptually continues
vln2
air sound only
open, spacious
M[13+10+7]
gradual shift to different focus within same M
M[13+10+7]
[hä]
p
vlc
BSP: +1.5
BP: +3
IV air sound
IV
IV
BSP: +2
BP: +1.5
IV air sound
AWIV
IV
IV air sound
IV
IV
[dha]*
* more of a brighter/lighter ('heller', Germ.) sound
[dhu]
[dha(o)]
[df]
[dhü/o]
(sempre p)
[e]
[ds]
[dhü]
[dhea]

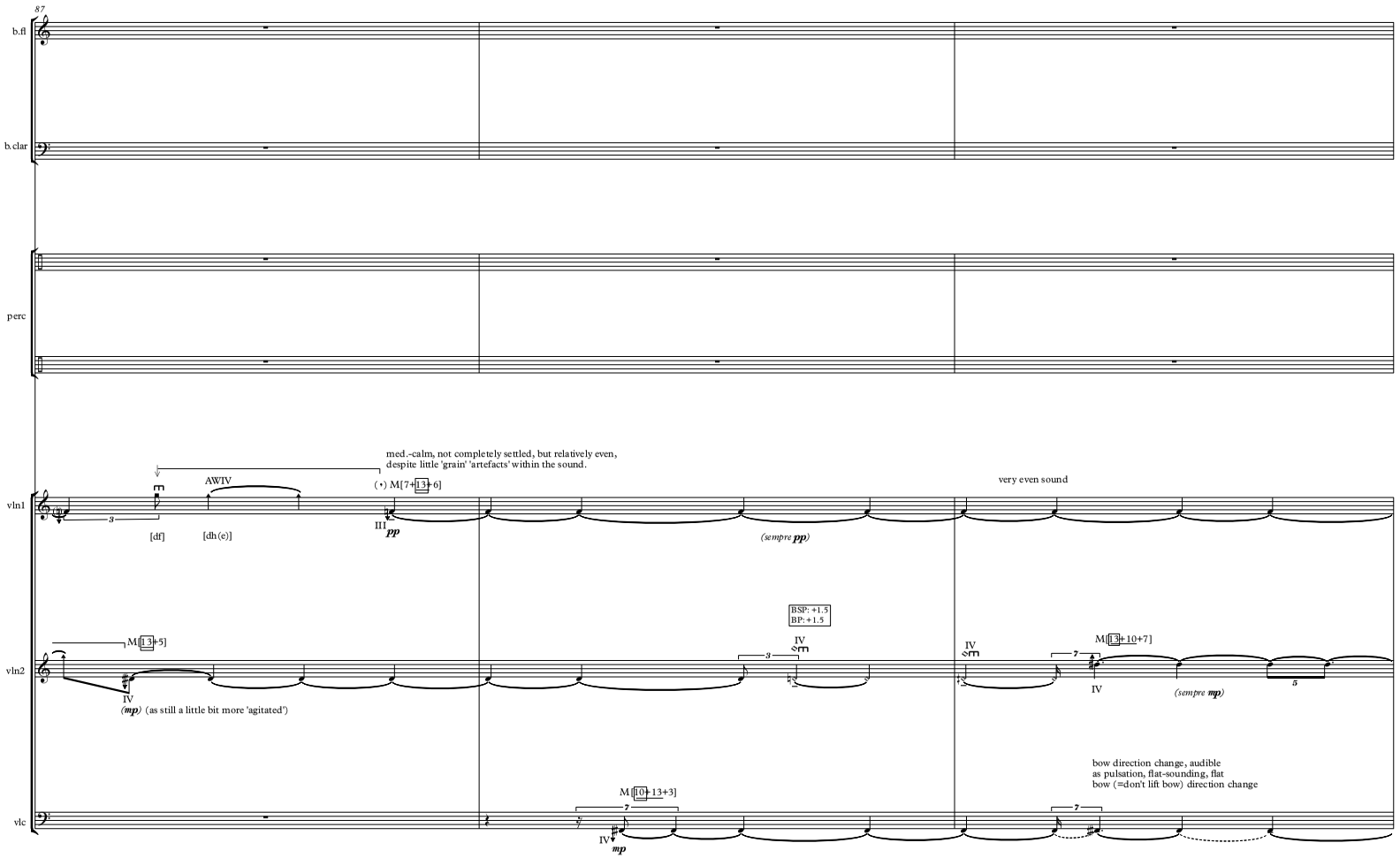

72
b.fl
b.clar
perc
vln1
vln2
vlc
SP: +2
P: +0.5
SP: +2
P: +3
sub.
SP: +2
P: +1
[dch] [dch(e)]
p
[dch(e)] [dh(e)] [df] [dha(o)] [dhe(a)]
p
BSP: +3
BP: +2
continuing here
a different level, conceptually,
the previous sound is still
continuing underneath
AWI
M[9+3+4]
[df] [ds] [dhe] [dfii] IV
(mp)
BSP: +3.5
BP: +1
III
AWI
IV air sounds
AWIV
IV air sounds
IV
IV air sounds
AWIV
conceptual
shift (one bow
but no gliss)
[ds] [dch] [ds(u)]
[dhe] [df] [dhe] [df(ü)] [ds(e)] [dhe] [df] [dhe] [df(i)] [dh(u)] [dhea] [dha]
[dch] [df] [ds] [dhea] [dch(e)] [dcho]
(mp) well audible
BSP: +3
BP: +3
BSP: +2.5
BP: -1.5
III air sounds
air sound (later becoming M)
[dfü] [df] [dhe] [ds(e)]
IV
l.v.
[dhe]
p
(very stable dynamics, like an atmosphere
that includes little noise 'grains')
M[5+12+7]
feeling very connected
change of bow direction, it is audible, but
more as a pulsation of an ongoing sound,
not as a new phrase!
(IV)
BSP: +2
BP: +4.5
IV air sounds
AWIV
BSP: +2
BP: +1.5
IV air
sound
(rather
dark)
AWIV
BSP: +2
BP: +4.5
IV air
sound
rather noisy, similar to white noise
but less pure, with some (too dark) species
for it to be 'real' white noise sound (use bow
pressure and speed adjustment to achieve)
calm
M[3+11+8]
III
[i] [ds] [df]
mp
[dch]
rather scratchy,
rather noisy
[df]
[dch] [e] [a]
[(d)ch(i)]
(sempre mp)

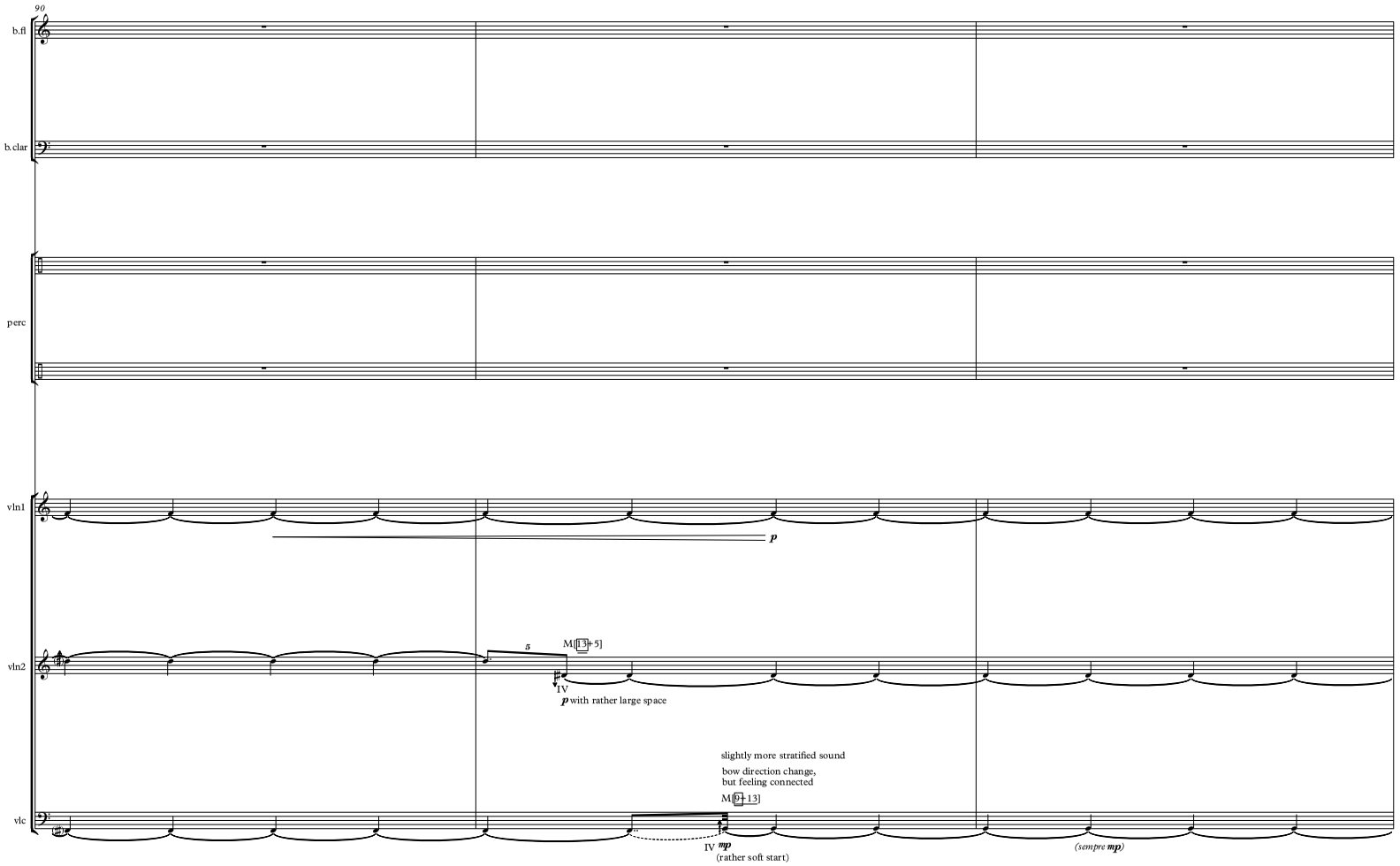

75
b.fl
b.clar
perc
vln1
vln2
vlc
AWIV
shift
[df(u)]
[dhō]
not too active yet but internally starting to 'charge'
some 'metallic bow hair on metal sound',
somewhat higher sound;
M[9+13+4]
IV
like only in the slightest/barely
touching some rotating metal,
med.-slow tempo
almost continuous, like a minimal
'interruption' artifact on the surface
underneath it is continuing.
continue same bow direction
sempre same M
some higher content
of frequency
quite a lot of pressure, but emphasize harmonious aspects rather than
aggressive friction! should not sound aggressive at all.
the bow pressure
ceasing a little
BSP: +1.5
BP: +1
IV
IV
IV air sound
[df]
[dhe]
[dh̄(ea)]
[dh]
shape of building-up of energy...
'off' – simply stop
within movement,
no 'end of phrase'
('abphrasieren')
very inconspicuously, 'unconsciously' so, for audience

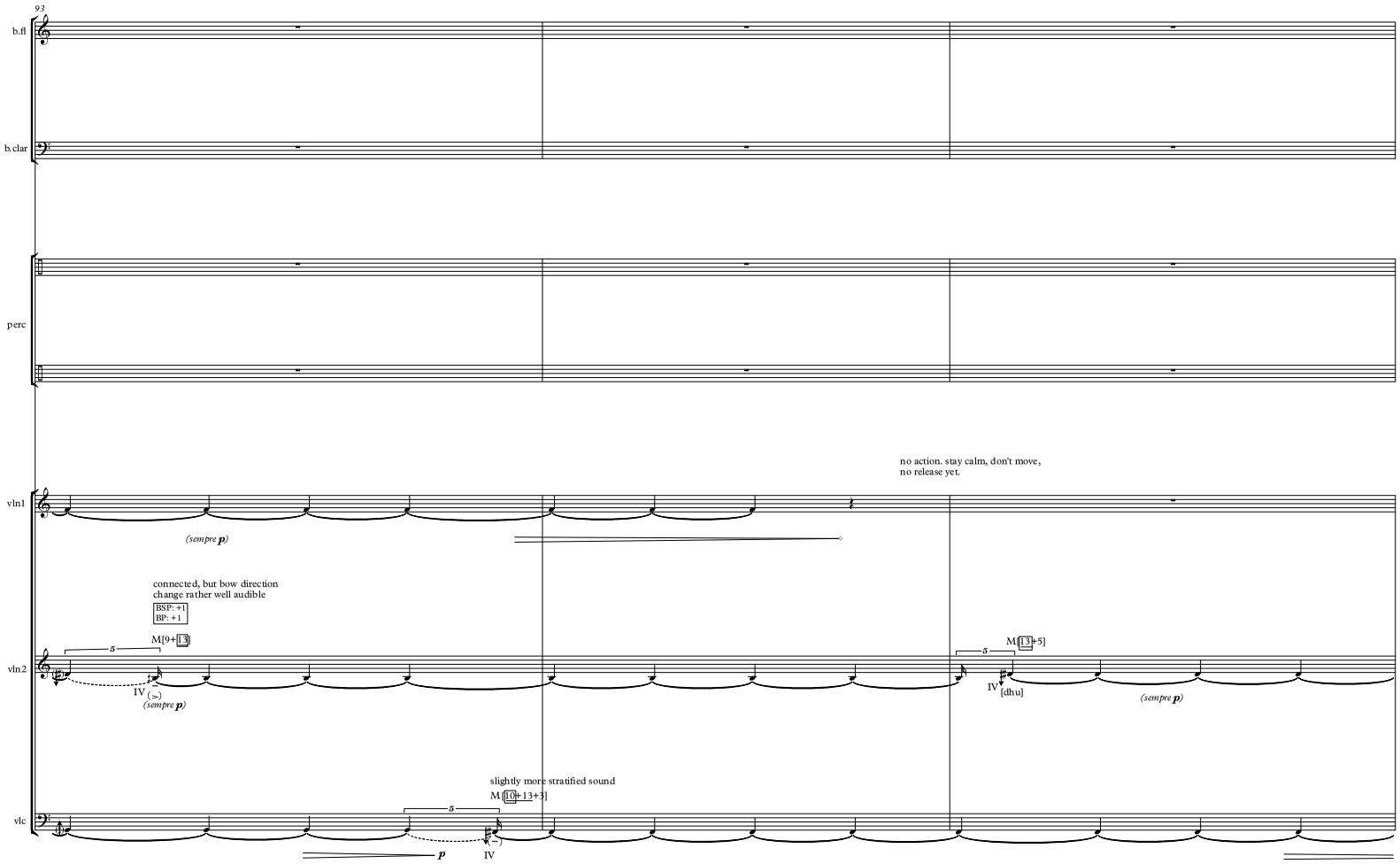

78
b.fl
b.clar
perc
vln1
vln2
vlc
even slightly more metallic (but not scratching at all)
BSP: +4.5
BP: + 3
IV air sounds
IV
IV air sounds
IV
IV air sounds
[fo] [dhe]
[dʁ(e)] [df] [ds] [dch(o)]
[df(e)] [ds] [df-e] [ds] [df] [dh]
p/mp
BSP: +2.5
BP: + 2
IV
IV air sounds
IV
BSP: +2
BP: +1.5
IV air sound
AWIV
[dhe] [df]
[dhe] [df] [dh(ea)] [dcho]
[dhu]
IV air sound
M[9+3]
[df]
III
BSP: +3
BP: +1.5
AWI*
*(for this technique, the contact location
for the bow is the vlc's waist (wood), therefore
the sound does not contain any concrete pitches)
[(d)che]
very noisy; very even sound.

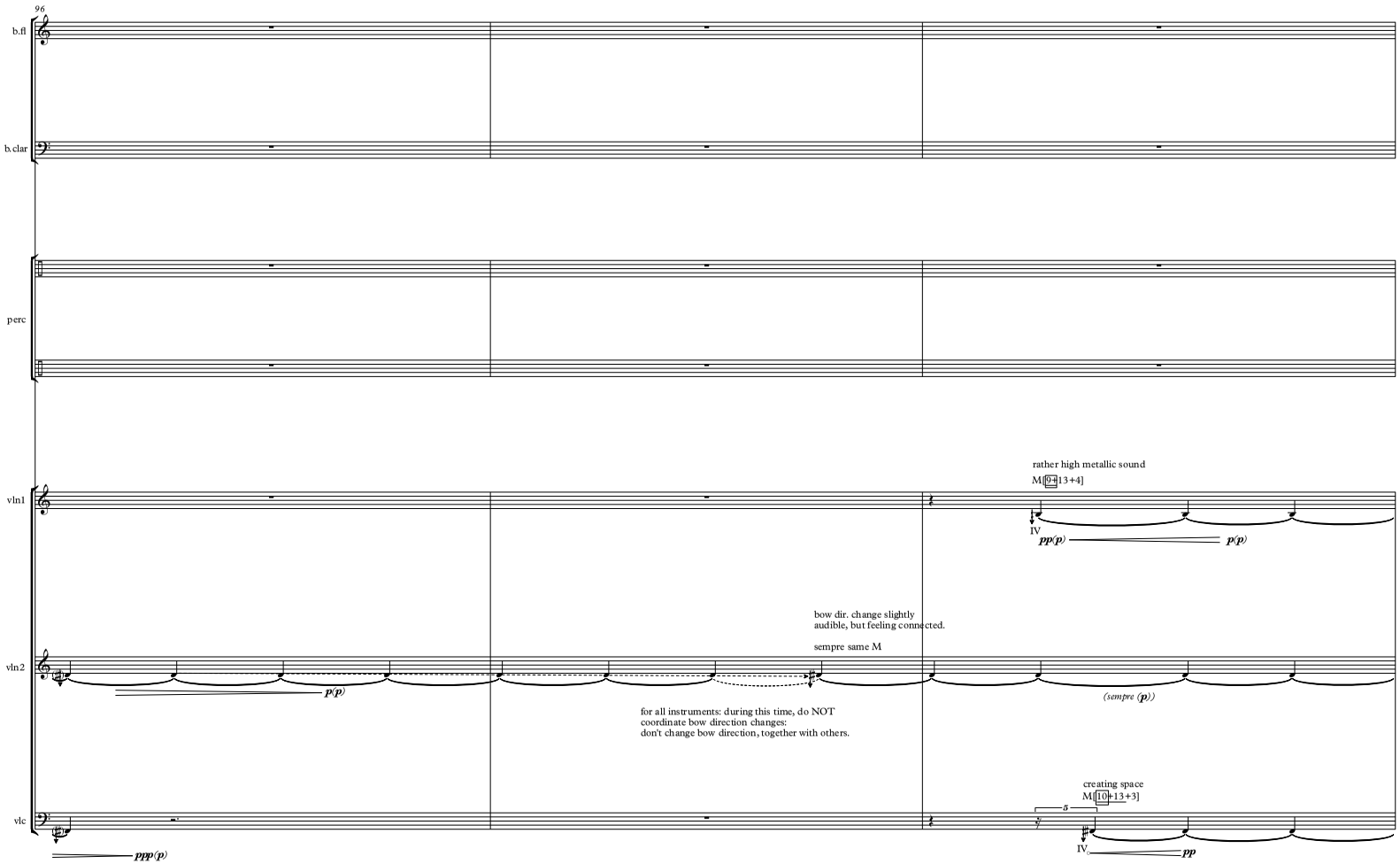

81
b.fl
b.clar
perc
vln1
vln2
vlc
AWIV
IV air sounds
IV air sound
[df] [dhe] [a] [o]
[ds] [dha]
(sempre mp)
[df] [dch(i)] [dhö/i] [dg]
BSP: -0.5
BP: 0
[dh(ü)o]
with quite some air
[df]
[dch]
p
BSP: -0.5
BP: +2
slightly narrower
air channel
with a little grain, briefly
BSP: +2.5
BP: +2
also bow and sound
getting lighter, 'vanishing'
AWI
shift
[(c)h] [h] [df] [i]
[ds] [df] [dh(e)]
BSP: +2
BP: +1
air sounds
[dha] [ds(e)] [(a)] [(e/i)]
BSP: +1.5
BP: +1.5
no single pitch sticking out,
rather like a colored surface
[df] [h]
p
BSP: +2.5
BP: +1.5
this multiphonic should sound slightly
more fragile, as well as more stratified
(no focus on one/several overtones)
M.[3+11+8], more stratified
[dfhü] [dhea] [dch(e)]
(m)p
(p)

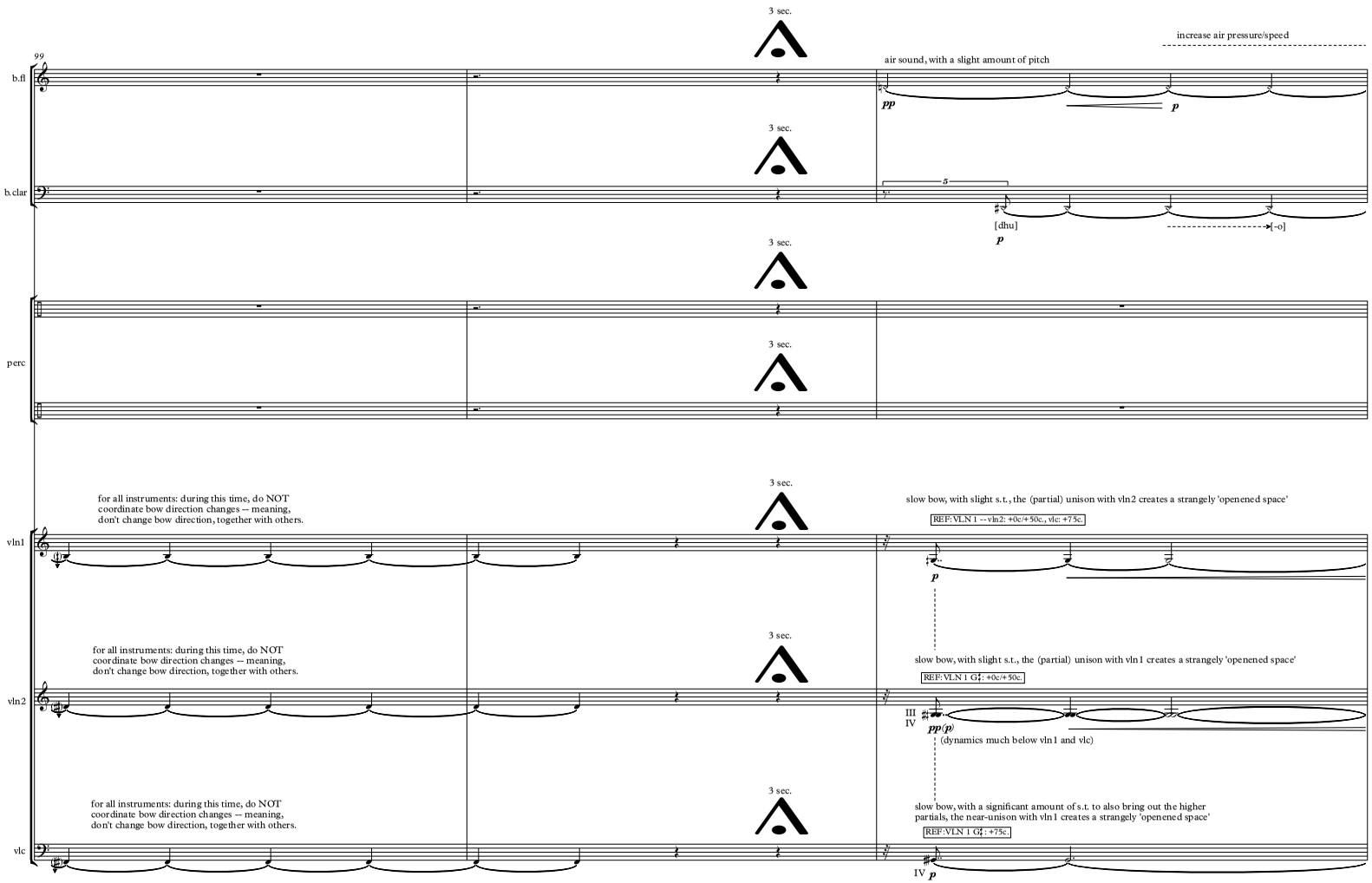

84
b.fl
b.clar
perc
vln1
vln2
vlc
'thought', which is continuous, but is seemingly fragmented
shift
no/much less grain
IV air sounds
IV air sound
very airy
M[7+13+6]
(sempre p)
shape
(noisy)
air sounds
III air sounds
III air sound
AWIV
AWI
'relaxation curve'
same M but bow dir. changes slightly audible
(sempre same M)
cresc. leading 'upwards'

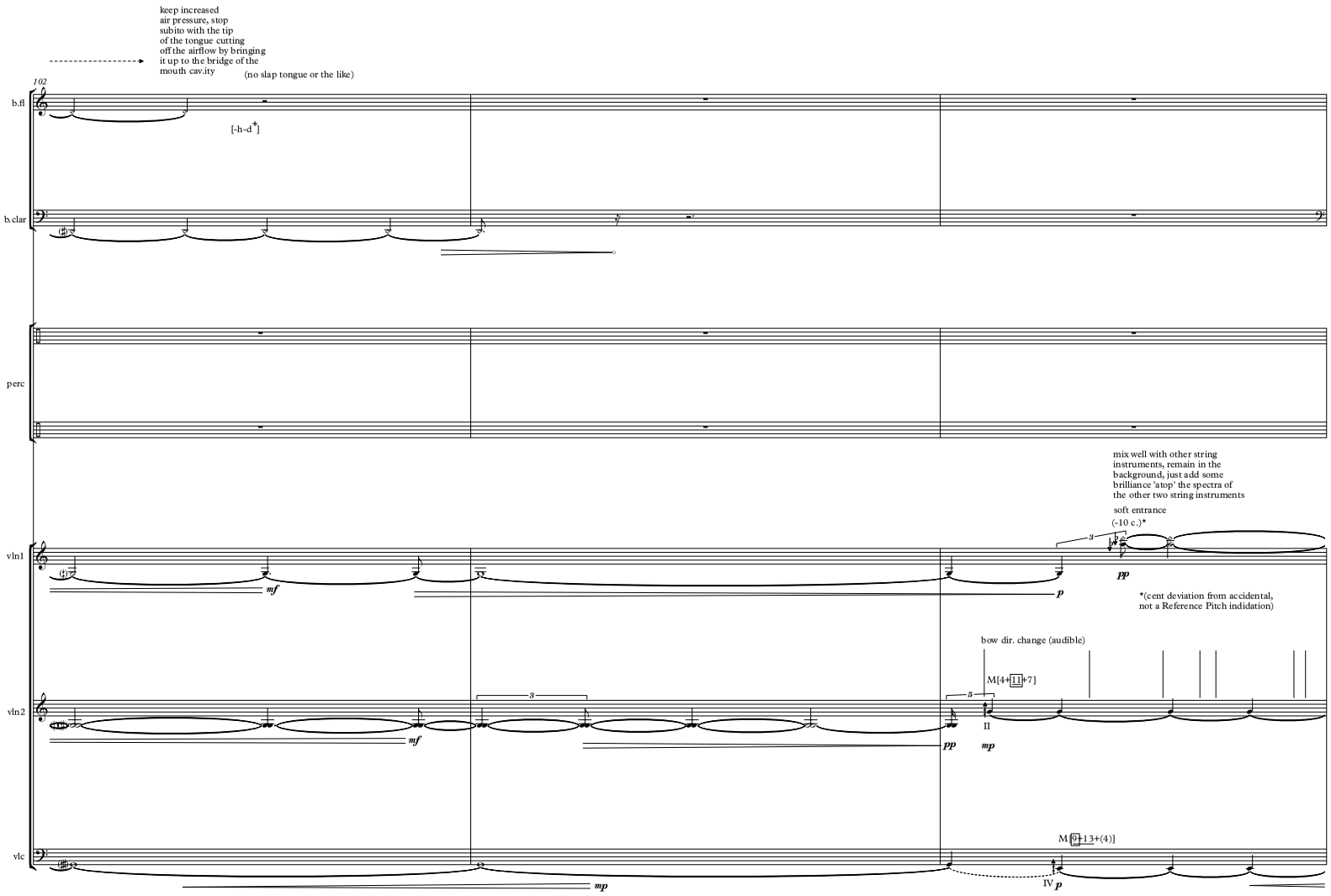

87
b.fl
b.clar
perc
vln1
vln2
vlc
med.-calm, not completely settled, but relatively even,
despite little 'grain' 'artefacts' within the sound.
AWIV
(•) M[7+13+6]
very even sound
[df]
[dh(e)]
III
pp
(sempre pp)
M[13+5]
IV
(mp) (as still a little bit more 'agitated')
BSP: +1.5
BP: +1.5
IV
IV
M[13+10+7]
IV
(sempre mp)
bow direction change, audible
as pulsation, flat-sounding, flat
bow (=don't lift bow) direction change
M[10+13+3]
IV
mp

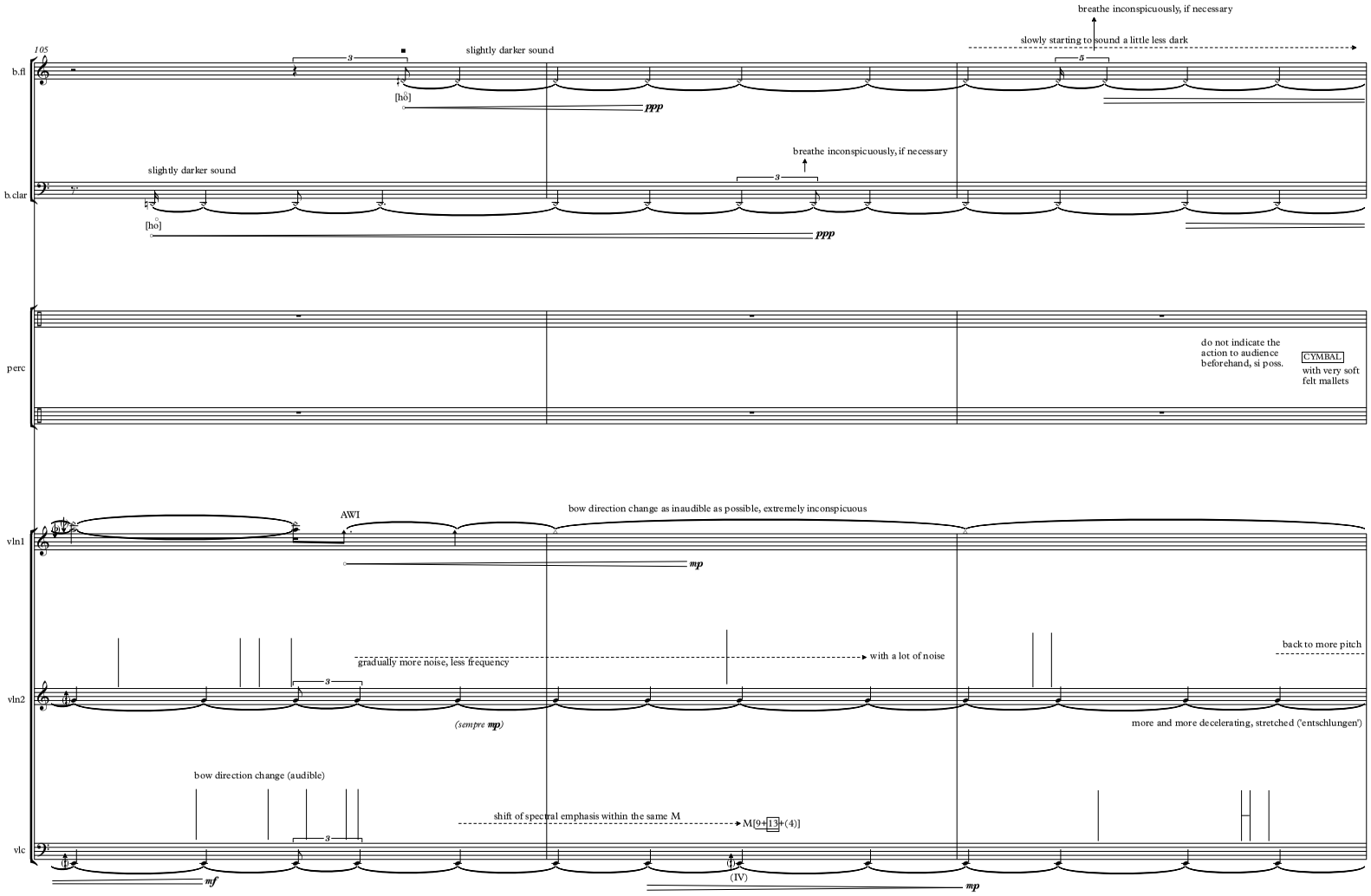

90
b.fl
b.clar
perc
vln1
p
vln2
M[13+5]
IV
p with rather large space
slightly more stratified sound
bow direction change,
but feeling connected
M[2+13]
vlc
IV mp
(rather soft start)
(sempre mp)

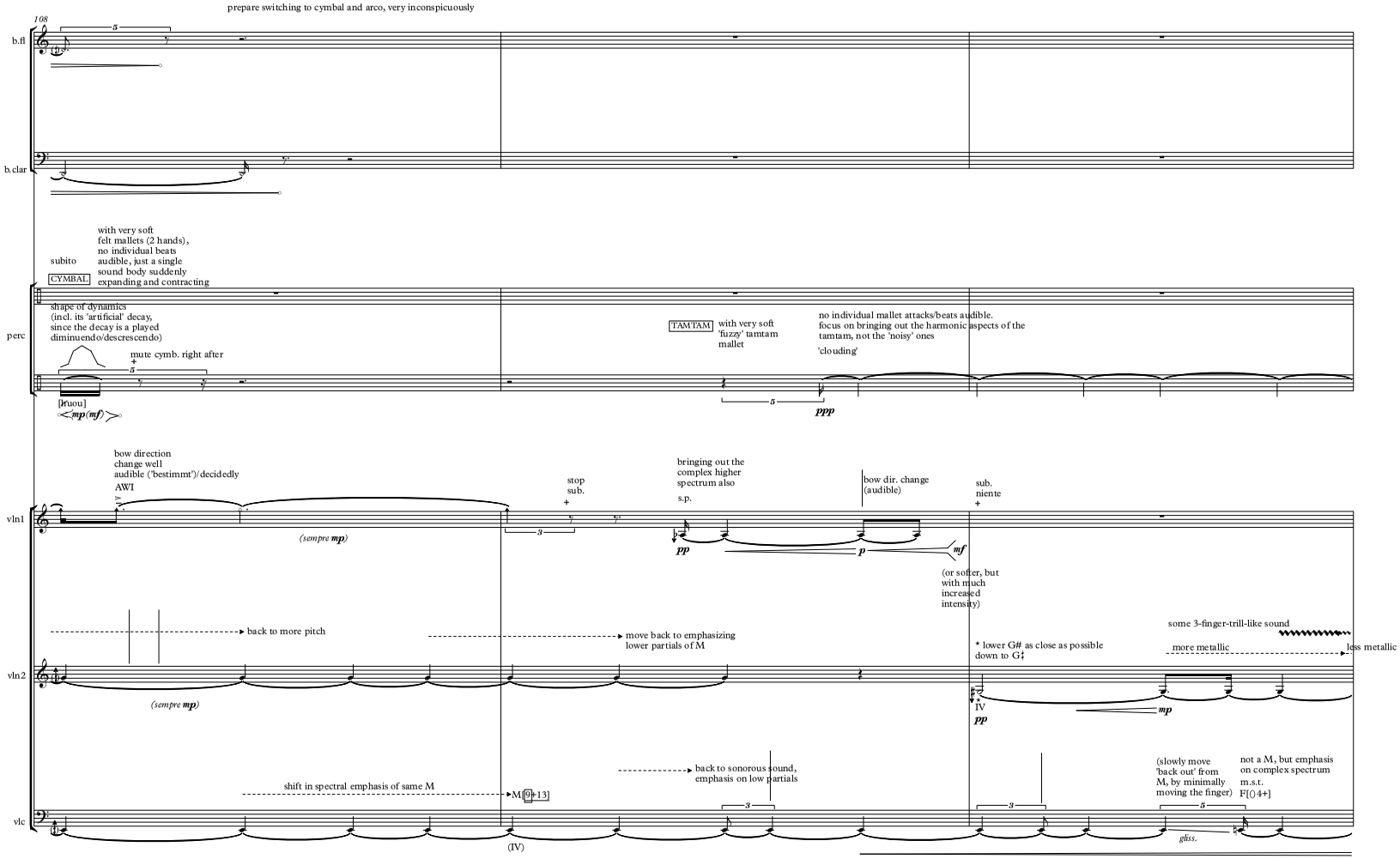

93
b.fl
b.clar
perc
vln1
vln2
vlc
no action. stay calm, don't move,
no release yet.
(sempre p)
connected, but bow direction
change rather well audible
BSP: +1
BP: +1
M[9+13]
IV
(sempre p)
M[13+5]
IV
[dhu]
(sempre p)
slightly more stratified sound
M[10+13+3]
p
IV

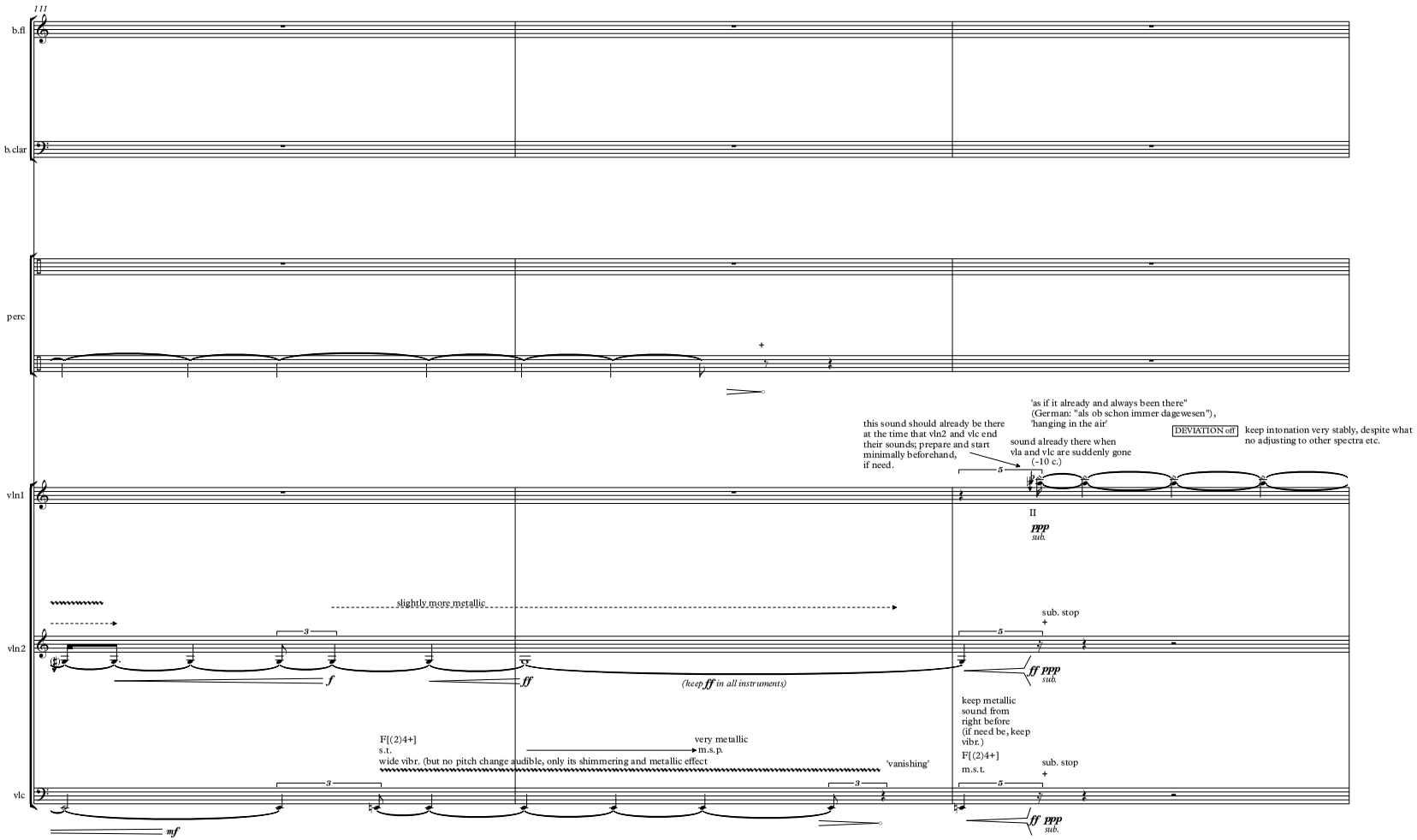

96
b.fl
b.clar
perc
vln1
vln2
vlc
rather high metallic sound
M[9+13+4]
IV
pp⟨p⟩
p⟨p⟩
bow dir. change slightly
audible, but feeling connected.
sempre same M
p⟨p⟩
(sempre ⟨p⟩)
for all instruments: during this time, do NOT
coordinate bow direction changes:
don't change bow direction, together with others.
creating space
M[10+13+3]
5
IV
ppp⟨p⟩
pp

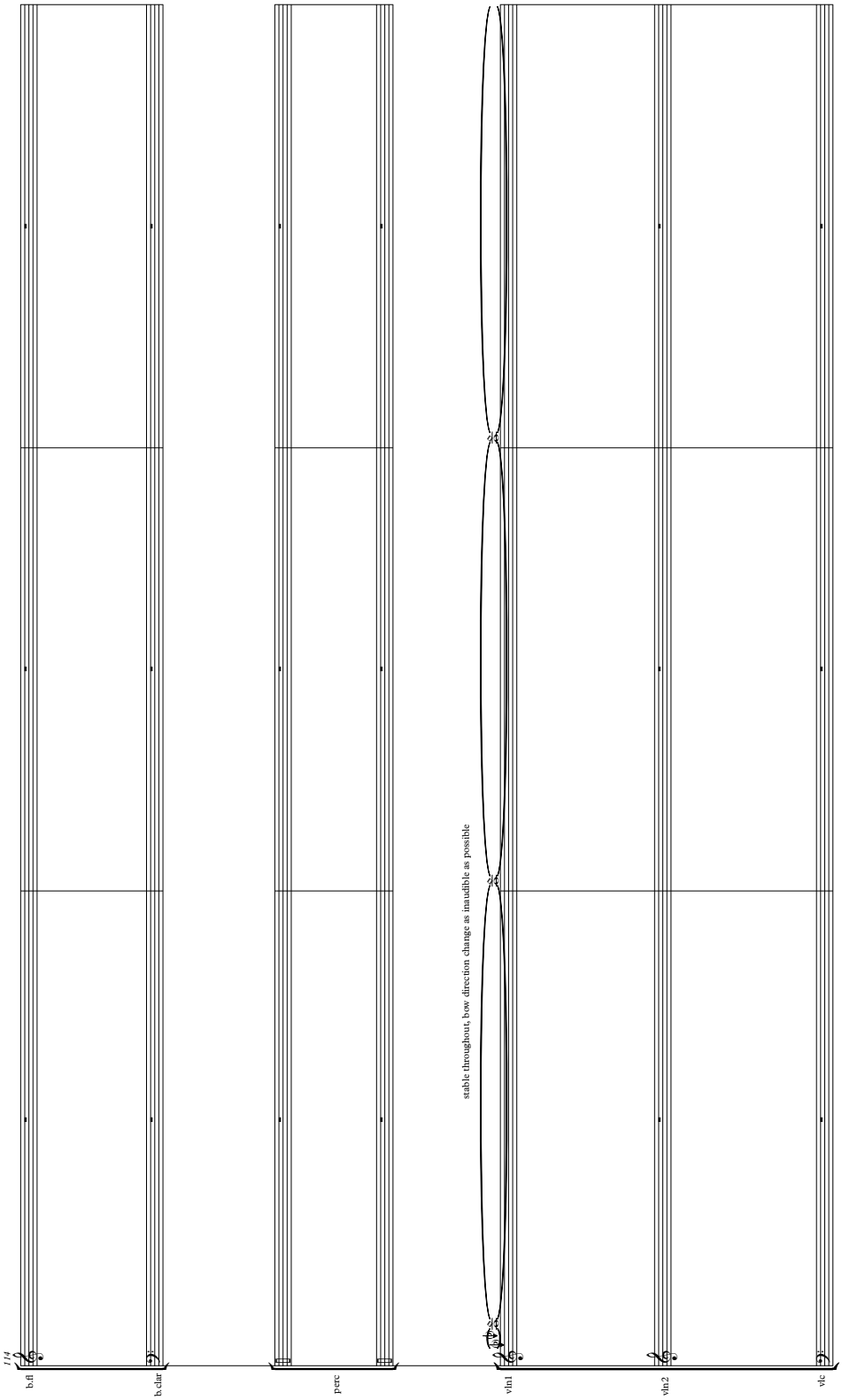

99
b.fl
b.clar
perc
vln1
vln2
vlc
3 sec.
increase air pressure/speed
air sound, with a slight amount of pitch
pp
p
5
[dhu]
[-o]
for all instruments: during this time, do NOT coordinate bow direction changes -- meaning, don't change bow direction, together with others.
slow bow, with slight s.t., the (partial) unison with vln2 creates a strangely 'openened space'
REF: VLN 1 -- vln2: +0c/+50c., vlc: +75c.
slow bow, with slight s.t., the (partial) unison with vln1 creates a strangely 'openened space'
REF: VLN 1 G♯: +0c/+50c.
III
IV
pp(p)
(dynamics much below vln1 and vlc)
slow bow, with a significant amount of s.t. to also bring out the higher partials, the near-unison with vln1 creates a strangely 'openened space'
REF: VLN 1 G♯: +75c.
IV
p

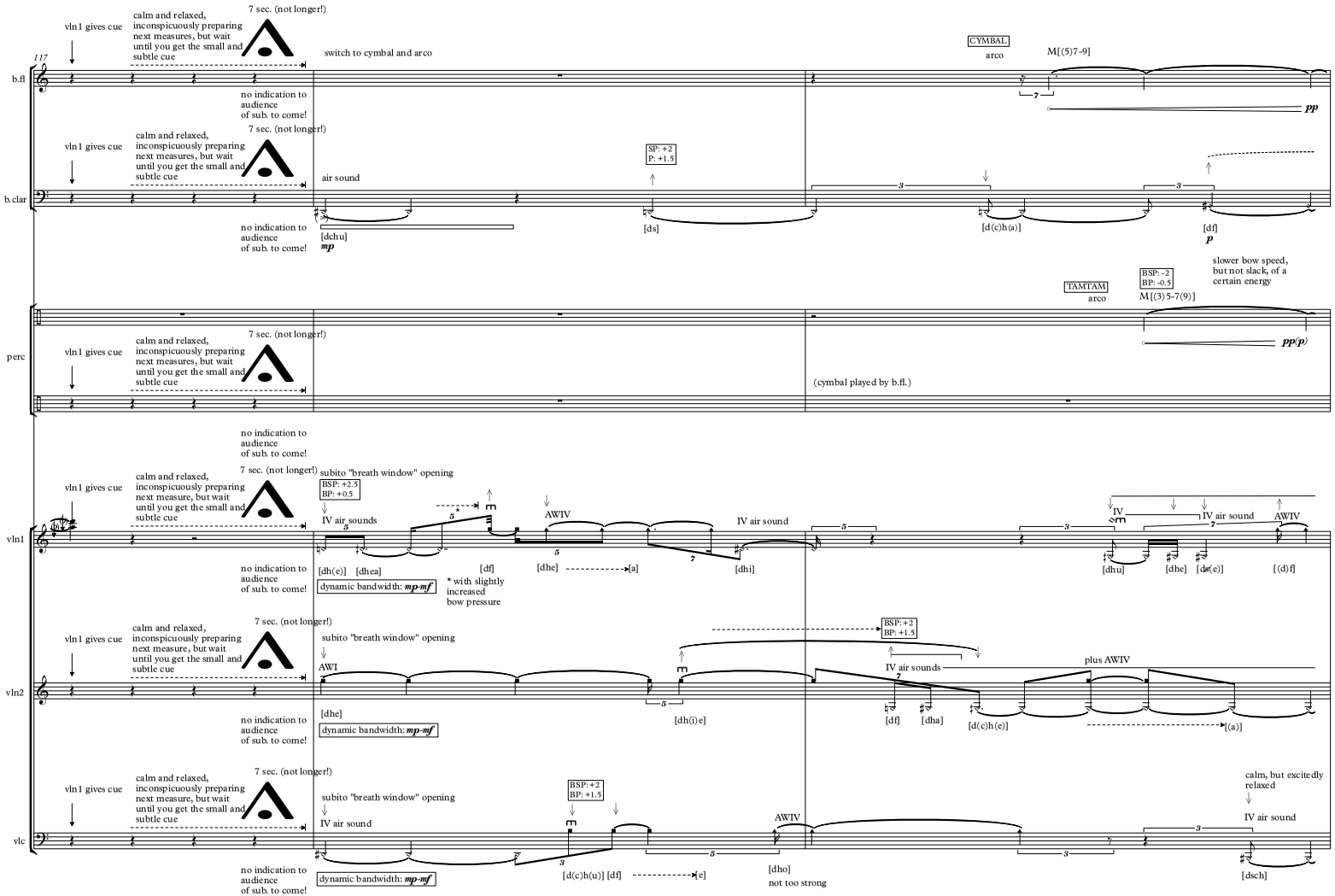

keep increased
air pressure, stop
subito with the tip
of the tongue cutting
off the airflow by bringing
it up to the bridge of the
mouth cav.ity
(no slap tongue or the like)
102
b.fl
[-h-d*]
b.clar
perc
vln1
mf
p
mix well with other string
instruments, remain in the
background, just add some
brilliance 'atop' the spectra of
the other two string instruments
soft entrance
(-10 c.)*
pp
*(cent deviation from accidental,
not a Reference Pitch indidation)
vln2
mf
pp
bow dir. change (audible)
M[4+11+7]
II
mp
vlc
mp
M[0+13+(4)]
IV p

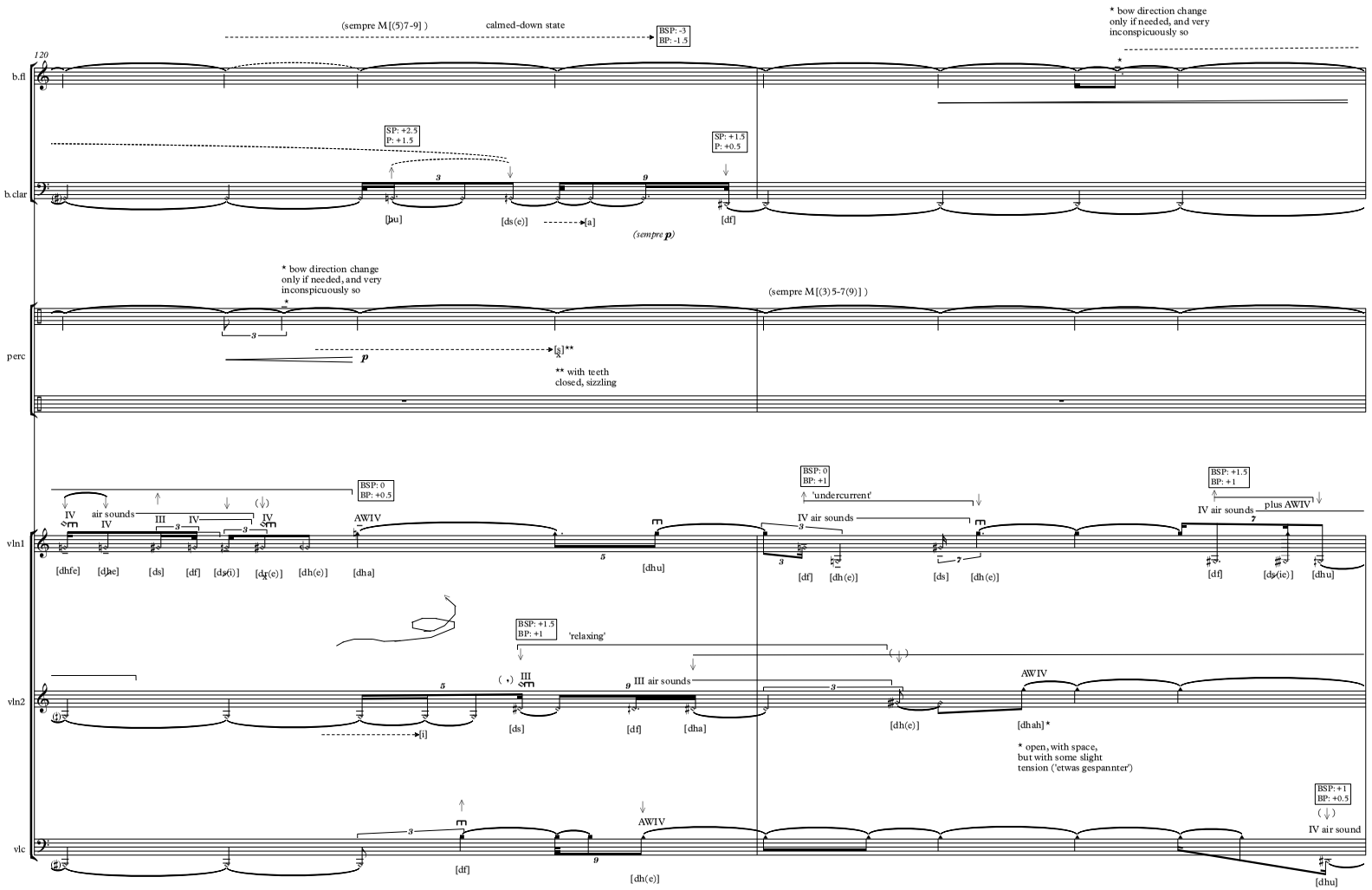

105
b.fl
slightly darker sound
[hô]
ppp
breathe inconspicuously, if necessary
slowly starting to sound a little less dark
b.clar
slightly darker sound
[hô]
ppp
breathe inconspicuously, if necessary
perc
do not indicate the action to audience beforehand, si poss.
CYMBAL
with very soft felt mallets
vln1
AWI
mp
bow direction change as inaudible as possible, extremely inconspicuous
vln2
gradually more noise, less frequency
with a lot of noise
back to more pitch
(sempre mp)
more and more decelerating, stretched ('entschlungen')
vlc
bow direction change (audible)
mf
shift of spectral emphasis within the same M
M[9+13+(4)]
(IV)
mp

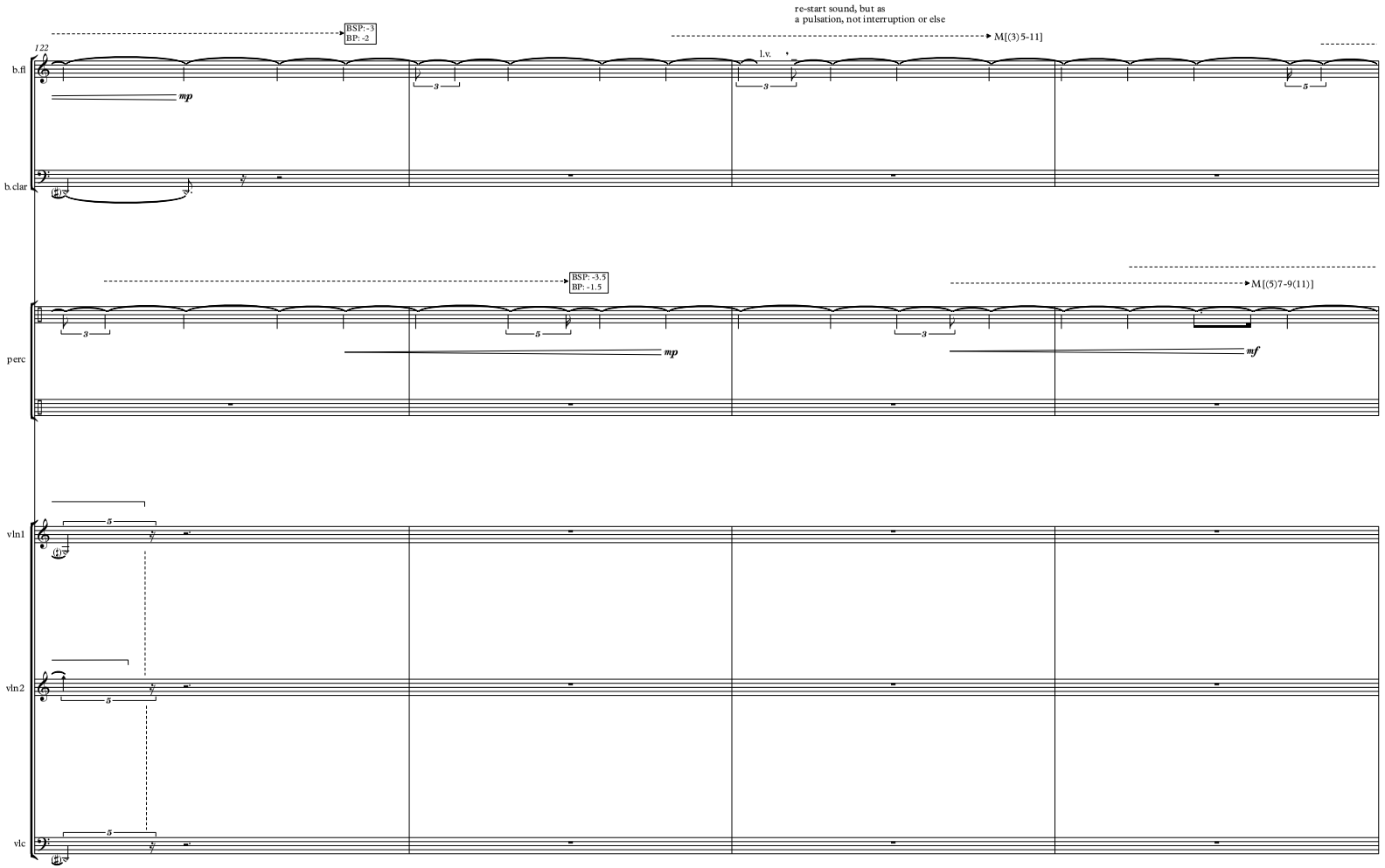

340
108
prepare switching to cymbal and arco, very inconspicuously
b.fl
b.clat
perc
subito
CYMBAL
with very soft
felt mallets (2 hands),
no individual beats
audible, just a single
sound body suddenly
expanding and contracting
shape of dynamics
(incl. its 'artificial' decay,
since the decay is a played
diminuendo/descrescendo)
mute cymb. right after
[r!uou]
mp (mf)
TAMTAM
with very soft
'fuzzy' tamtam
mallet
no individual mallet attacks/beats audible.
focus on bringing out the harmonic aspects of the
tamtam, not the 'noisy' ones
'clouding'
ppp
vln1
bow direction
change well
audible ('bestimmt')/decidedly
AWI
(sempre mp)
stop
sub.
bringing out the
complex higher
spectrum also
s.p.
pp
p
mf
bow dir. change
(audible)
sub.
niente
(or softer, but
with much
increased
intensity)
vln2
back to more pitch
move back to emphasizing
lower partials of M
(sempre mp)
* lower G♯ as close as possible
down to G♯
some 3-finger-trill-like sound
more metallic
less metallic
IV
pp
mp
vlc
shift in spectral emphasis of same M
M[0+13]
back to sonorous sound,
emphasis on low partials
(slowly move
'back out' from
M, by minimally
moving the finger)
not a M, but emphasis
on complex spectrum
m.s.t.
F[() 4+]
gliss.
(IV)

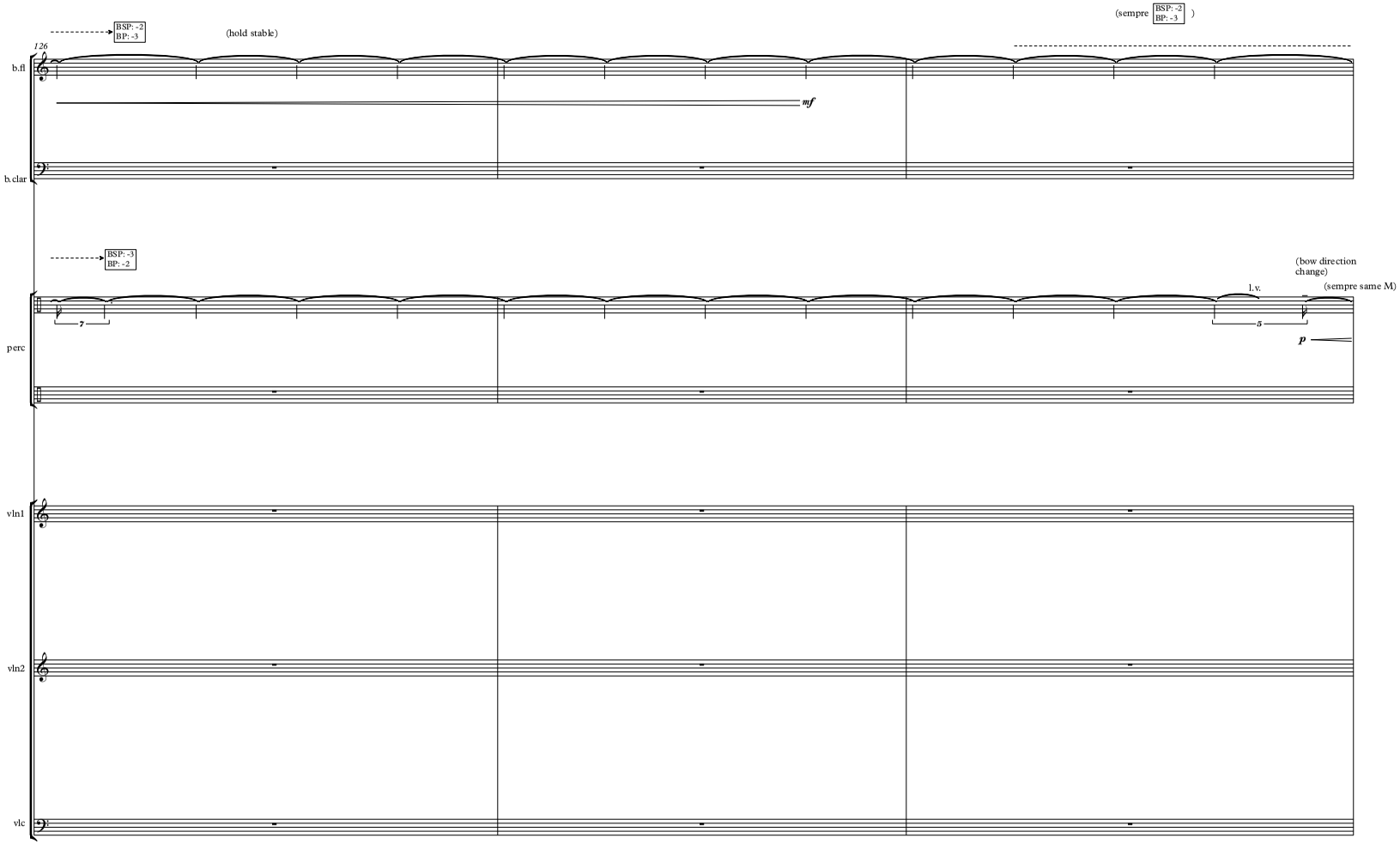

111
b.fl
b.clar
perc
vln1
vln2
vlc
'as if it already and always been there"
(German: "als ob schon immer dagewesen"),
'hanging in the air'
this sound should already be there
at the time that vln2 and vlc end
their sounds; prepare and start
minimally beforehand,
if need.
sound already there when
vla and vlc are suddenly gone
(-10 c.)
DEVIATION off
keep intonation very stably, despite what
no adjusting to other spectra etc.
II
ppp
sub.
slightly more metallic
sub. stop
ff ppp
sub.
f
ff
(keep ff in all instruments)
keep metallic
sound from
right before
(if need be, keep
vibr.)
F[(2)4+]
m.s.t.
F[(2)4+]
s.t.
wide vibr. (but no pitch change audible, only its shimmering and metallic effect
very metallic
m.s.p.
'vanishing'
sub. stop
mf

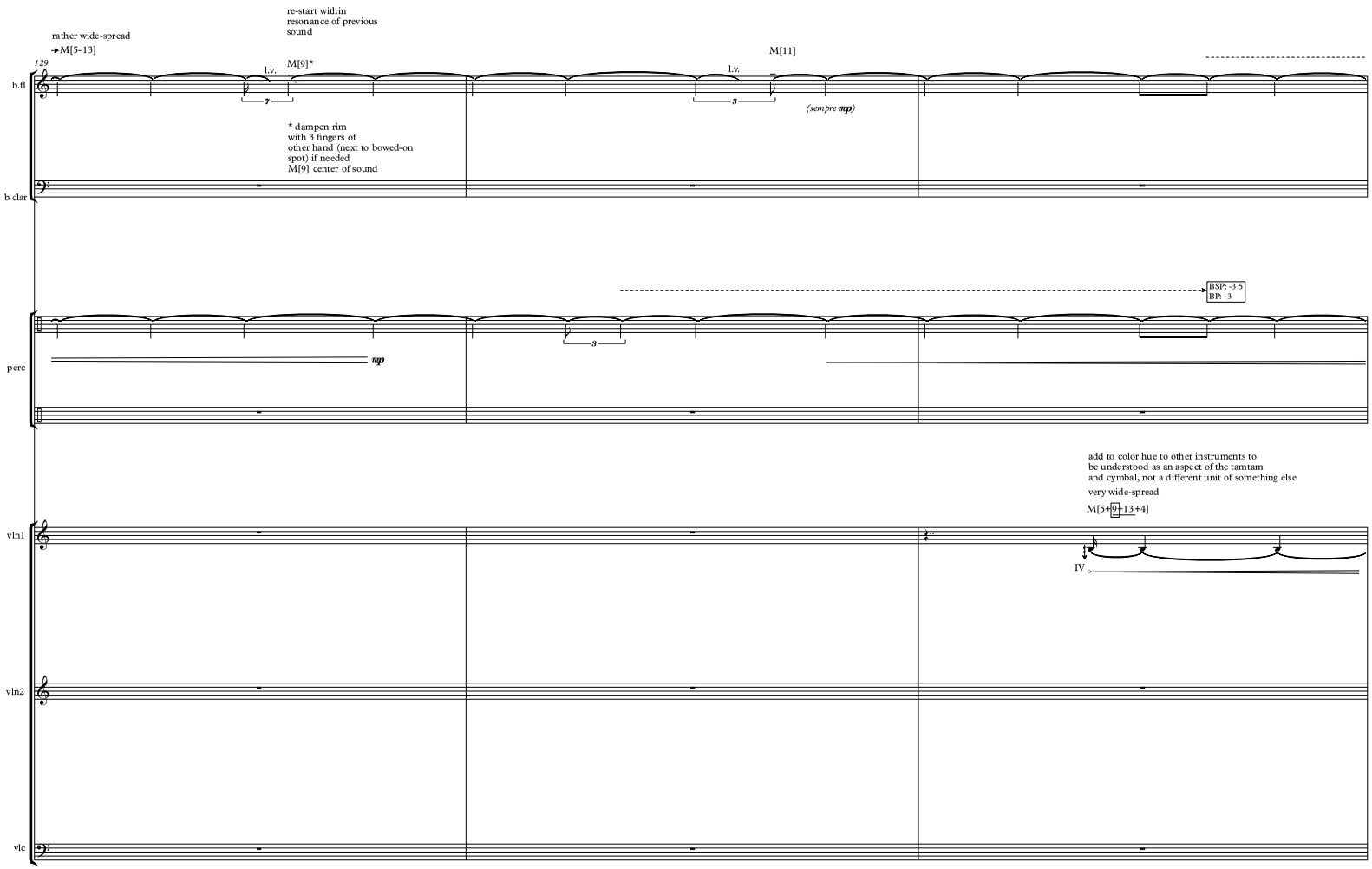

41
114
b.fl
b.clar
perc
vln1
vln2
vlc
stable throughout, bow direction change as inaudible as possible

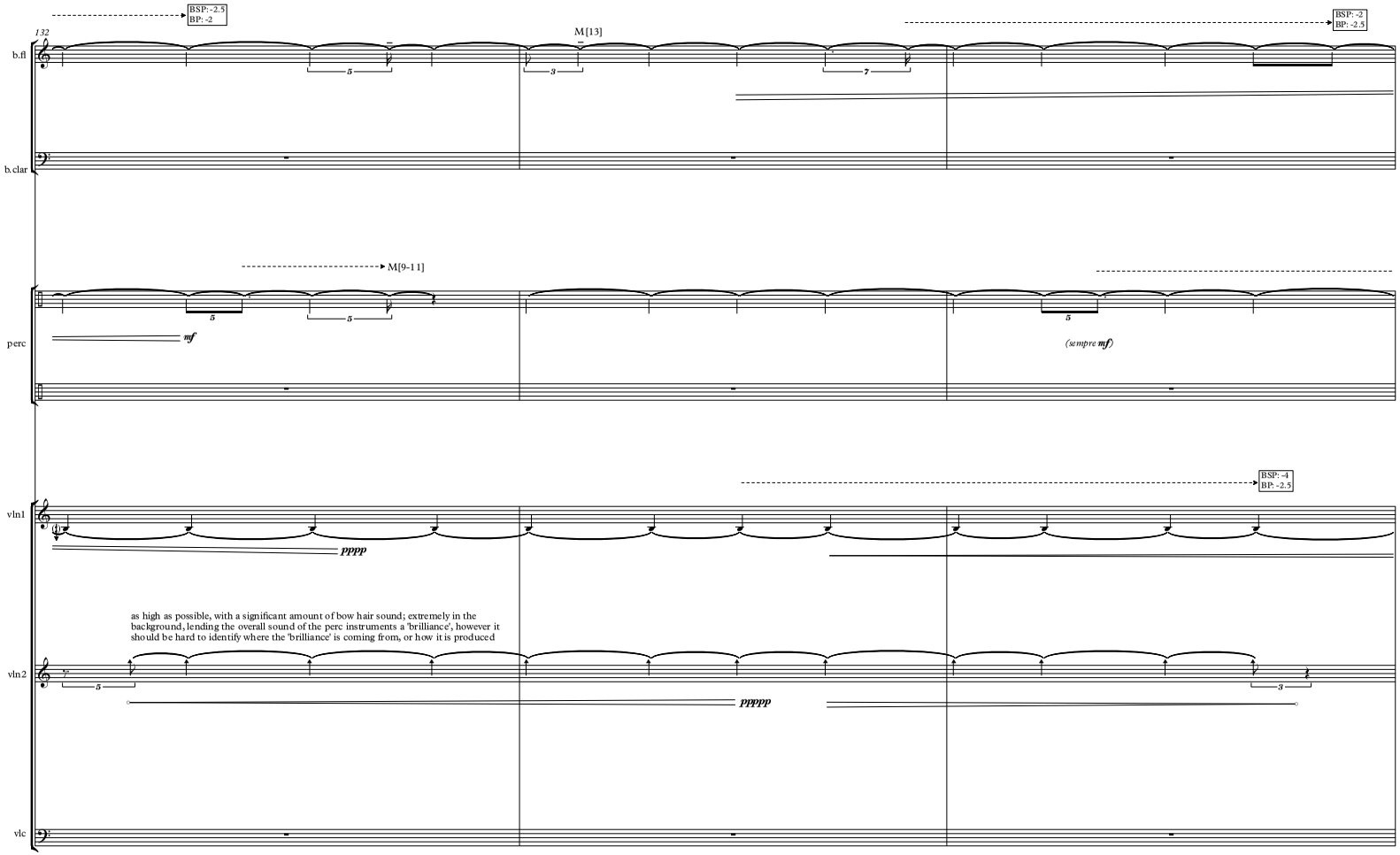

117
b.fl
b.clar
perc
vln1
vln2
vlc
vln1 gives cue
calm and relaxed, inconspicuously preparing next measures, but wait until you get the small and subtle cue
7 sec. (not longer!)
switch to cymbal and arco
CYMBAL
arco
M[(5)7-9]
pp
no indication to audience of sub. to come!
air sound
SP: +2
P: +1.5
[ds]
[d(c)h(a)]
[df]
p
[dchu]
mp
TAMTAM
BSP: -2
BP: -0.5
M[(3)5-7(9)]
slower bow speed, but not slack, of a certain energy
pp(p)
(cymbal played by b.fl.)
subito "breath window" opening
BSP: +2.5
BP: +0.5
IV air sounds
AWIV
IV air sound
[dh(e)]
[dhea]
dynamic bandwidth: mp-mf
[df]
* with slightly increased bow pressure
[dhe]
[a]
[dhi]
[dhu]
[dhe]
[d#(e)]
[(d)f]
AWI
[dhe]
[dh(i)e]
BSP: +2
BP: +1.5
IV air sounds
plus AWIV
[df]
[dha]
[d(c)h(e)]
[(a)]
[d(c)h(u)] [df]
[e]
[dho]
not too strong
calm, but excitedly relaxed
[dsch]


(sempre M[(5)7-9])
calmed-down state
BSP: -3
BP: -1.5
* bow direction change only if needed, and very inconspicuously so
120
b.fl
b.clar
SP: +2.5
P: +1.5
SP: +1.5
P: +0.5
[ɲu]
[ds(e)]
[a]
[df]
(sempre p)
perc
* bow direction change only if needed, and very inconspicuously so
(sempre M[(3)5-7(9)])
[s]**
** with teeth closed, sizzling
vln1
BSP: 0
BP: +0.5
IV
air sounds
III
IV
AWIV
[dhfe]
[dʲhe]
[ds]
[df]
[dsʲ(i)]
[dx(e)]
[dh(e)]
[dha]
[dhu]
BSP: 0
BP: +1
'undercurrent'
IV air sounds
[df]
[dh(e)]
[ds]
[dh(e)]
BSP: +1.5
BP: +1
IV air sounds
plus AWIV
[df]
[dsʲ(ie)]
[dhu]
vln2
BSP: +1.5
BP: +1
'relaxing'
III
III air sounds
[i]
[ds]
[df]
[dha]
AWIV
[dh(e)]
[dhah]*
* open, with space, but with some slight tension ('etwas gespannter')
vlc
[df]
AWIV
[dh(e)]
BSP: +1
BP: +0.5
IV air sound
[dhu]


BSP: -3
BP: -2
re-start sound, but as
a pulsation, not interruption or else
M[(3) 5-11]
l.v.
b.fl
b.clat
BSP: -3.5
BP: -1.5
M[(5)7-9(11)]
perc
vln1
vln2
vlc

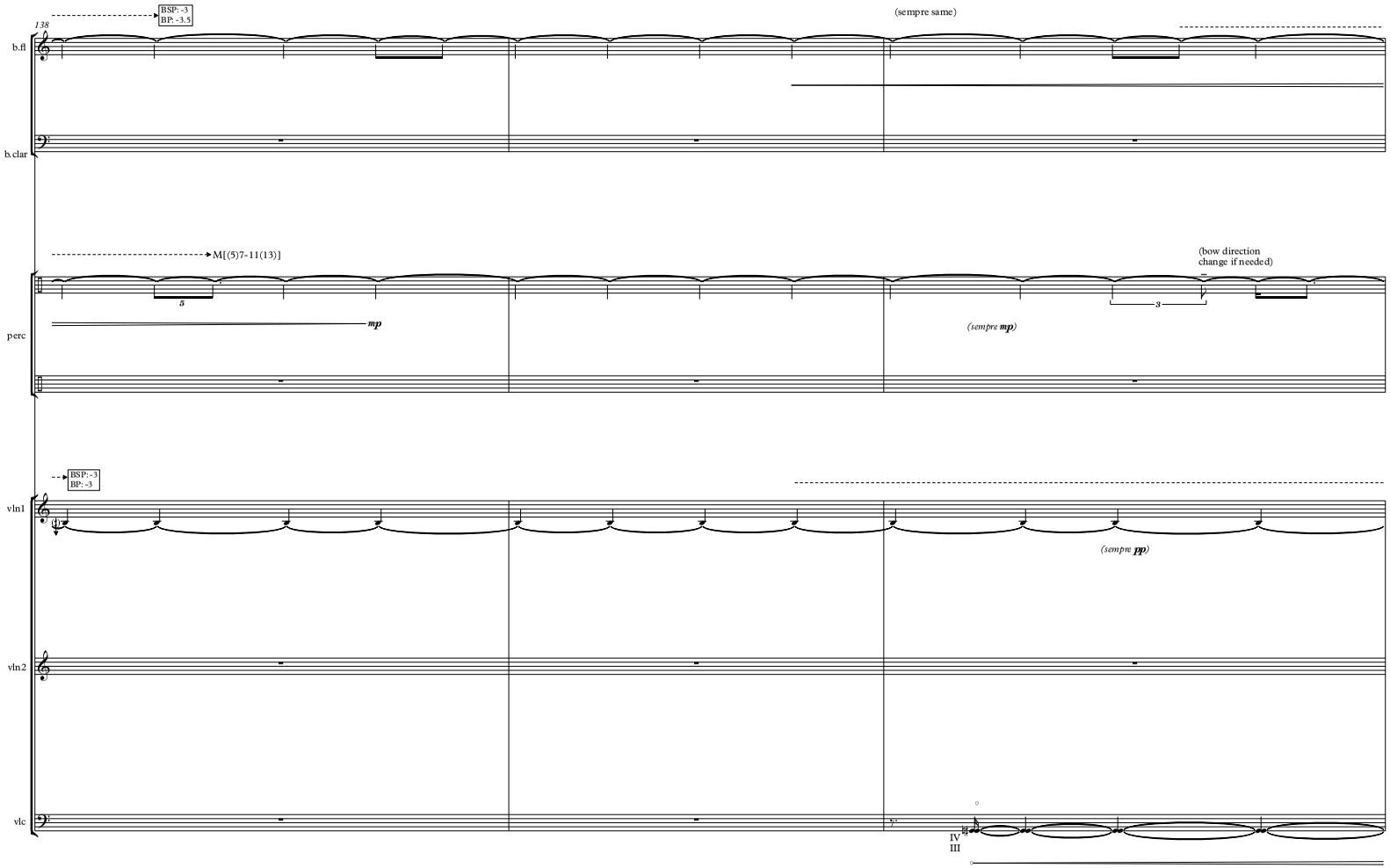

346
126
b.fl
b.clar
perc
vln1
vln2
vlc
BSP: -2
BP: -3
(hold stable)
mf
(sempre BSP: -2 BP: -3)
BSP: -3
BP: -2
7
1.v.
5
(bow direction change)
(sempre same M)
p


rather wide-spread
M[5-13]
re-start within
resonance of previous
sound
M[9]*
M[11]
l.v.
(sempre mp)
* dampen rim
with 3 fingers of
other hand (next to bowed-on
spot) if needed
M[9] center of sound
b.fl
b.clar
perc
mp
BSP: -3.5
BP: -3
add to color hue to other instruments to
be understood as an aspect of the tamtam
and cymbal, not a different unit of something else
very wide-spread
M[5+9+13+4]
IV
vln1
vln2
vlc

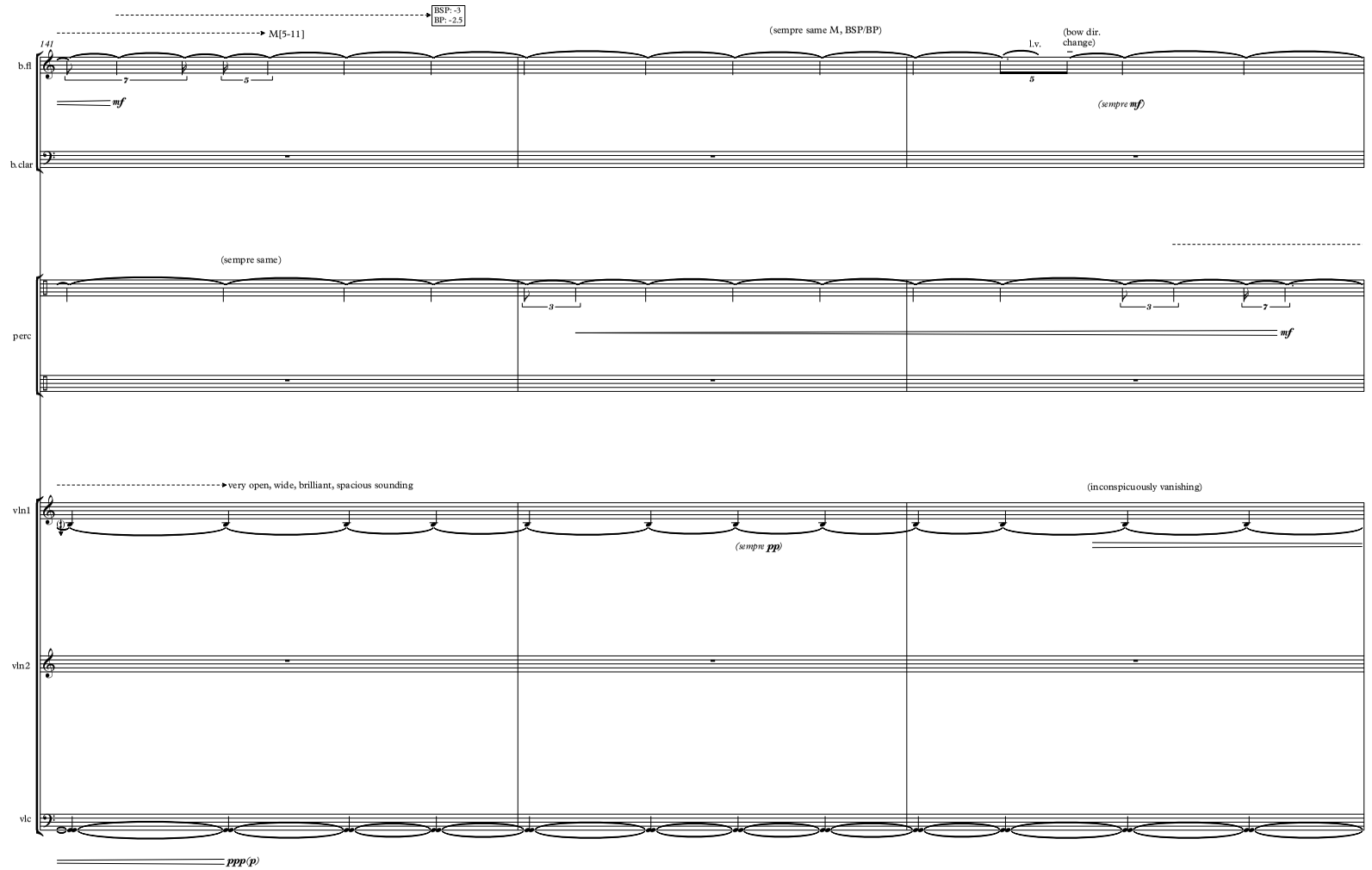

BSP: -2.5
BP: -2
132
M.[13]
BSP: -2
BP: -2.5
b.fl
b.clar
M.[9-11]
perc
mf
(sempre mf)
BSP: -4
BP: -2.5
vln1
pppp
as high as possible, with a significant amount of bow hair sound; extremely in the background, lending the overall sound of the perc instruments a 'brilliance', however it should be hard to identify where the 'brilliance' is coming from, or how it is produced
vln2
ppppp
vlc

348

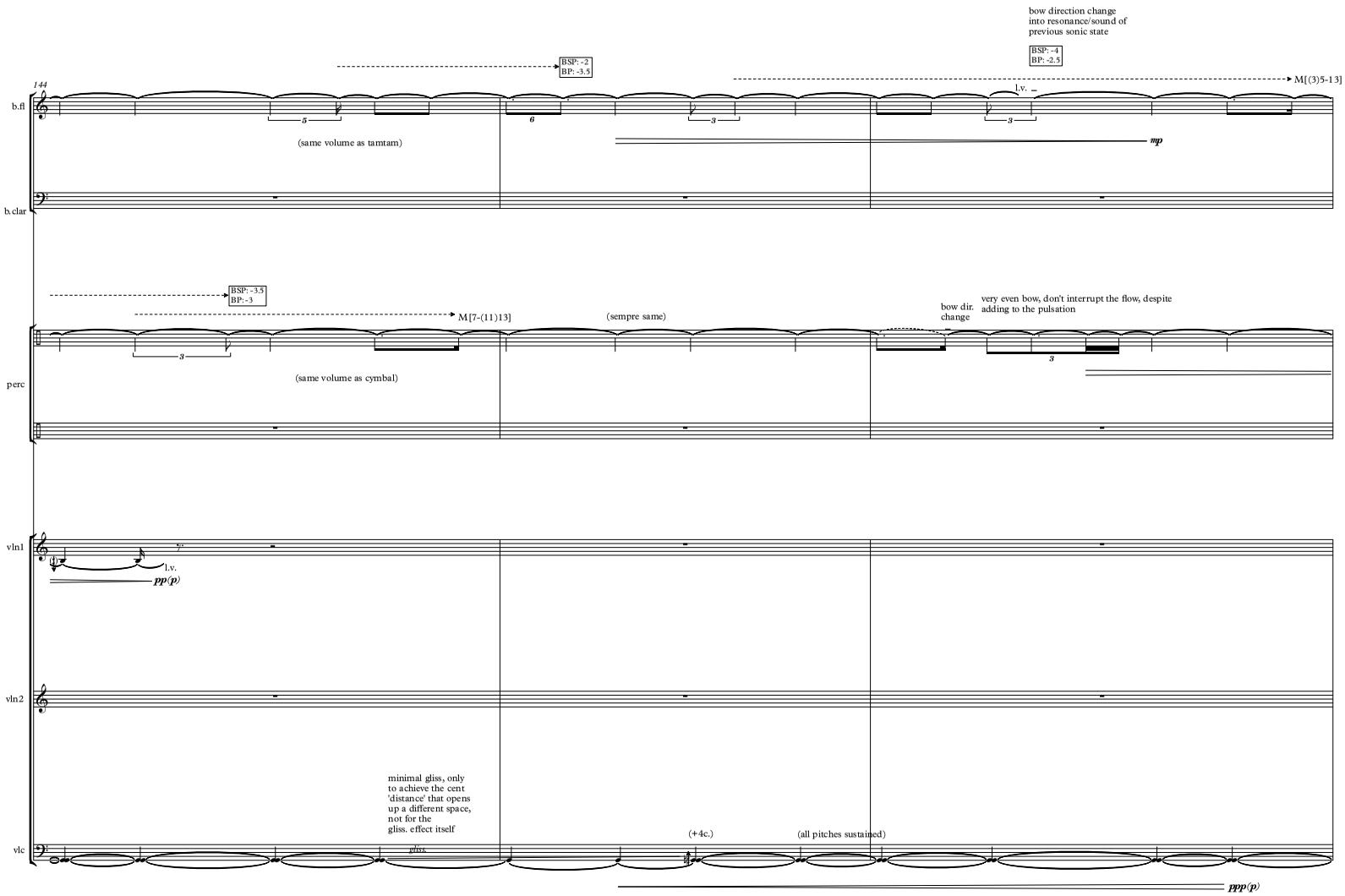

135
(bow dir. change)
M[11]
b.fl
mp
(sempre mp)
b.clar
BSP: -4
BP: -3.5
perc
(sempre same M)
BSP: -2.5
BP: -1
vln1
pp
(sempre pp)
vln2
vlc

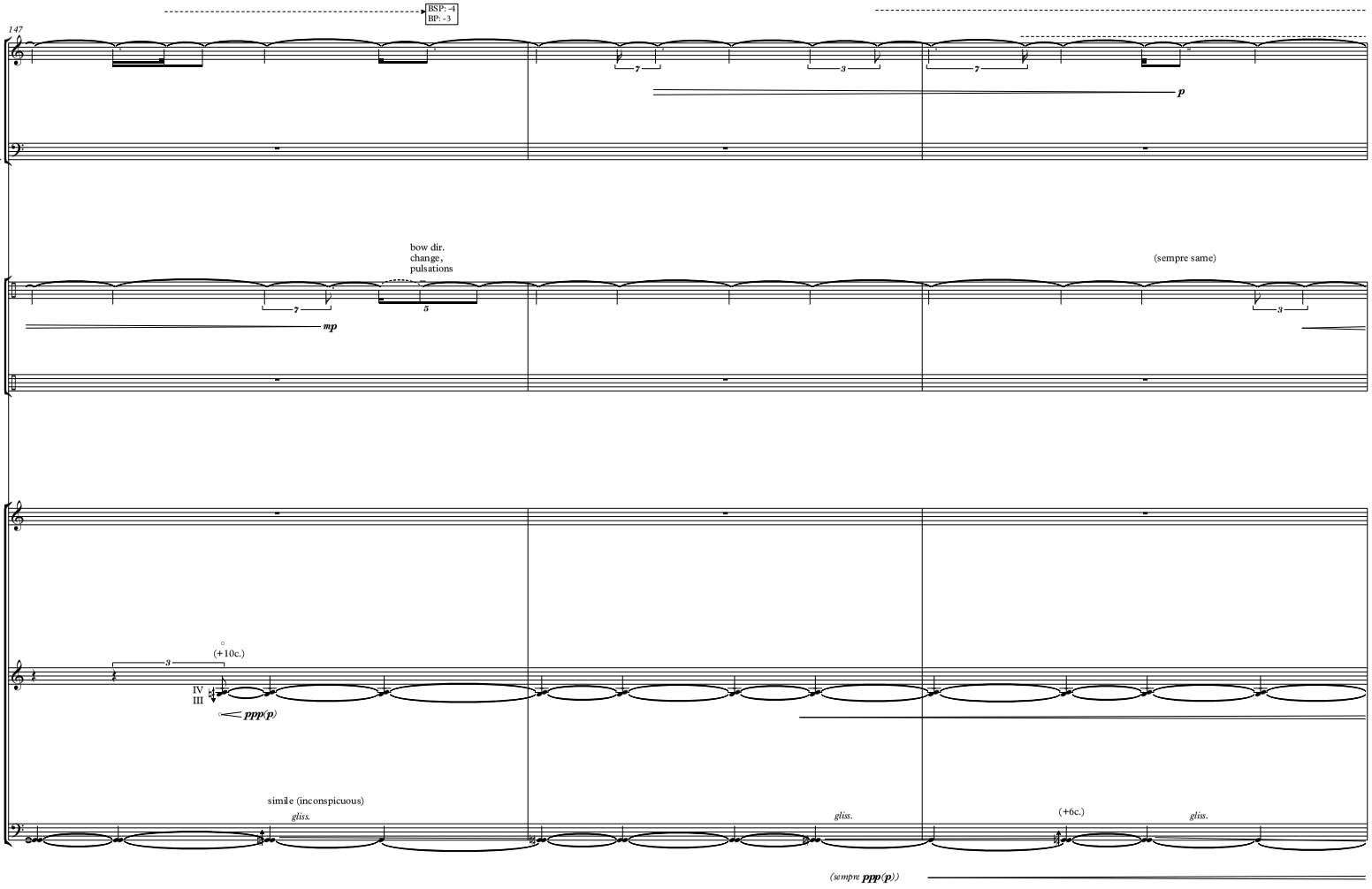

138
BSP: -3
BP: -3.5
(sempre same)
b.fl
b.clar
M[(5)7-11(13)]
(bow direction
change if needed)
perc
mp
(sempre mp)
BSP: -3
BP: -3
vln1
(sempre pp)
vln2
vlc
IV
III

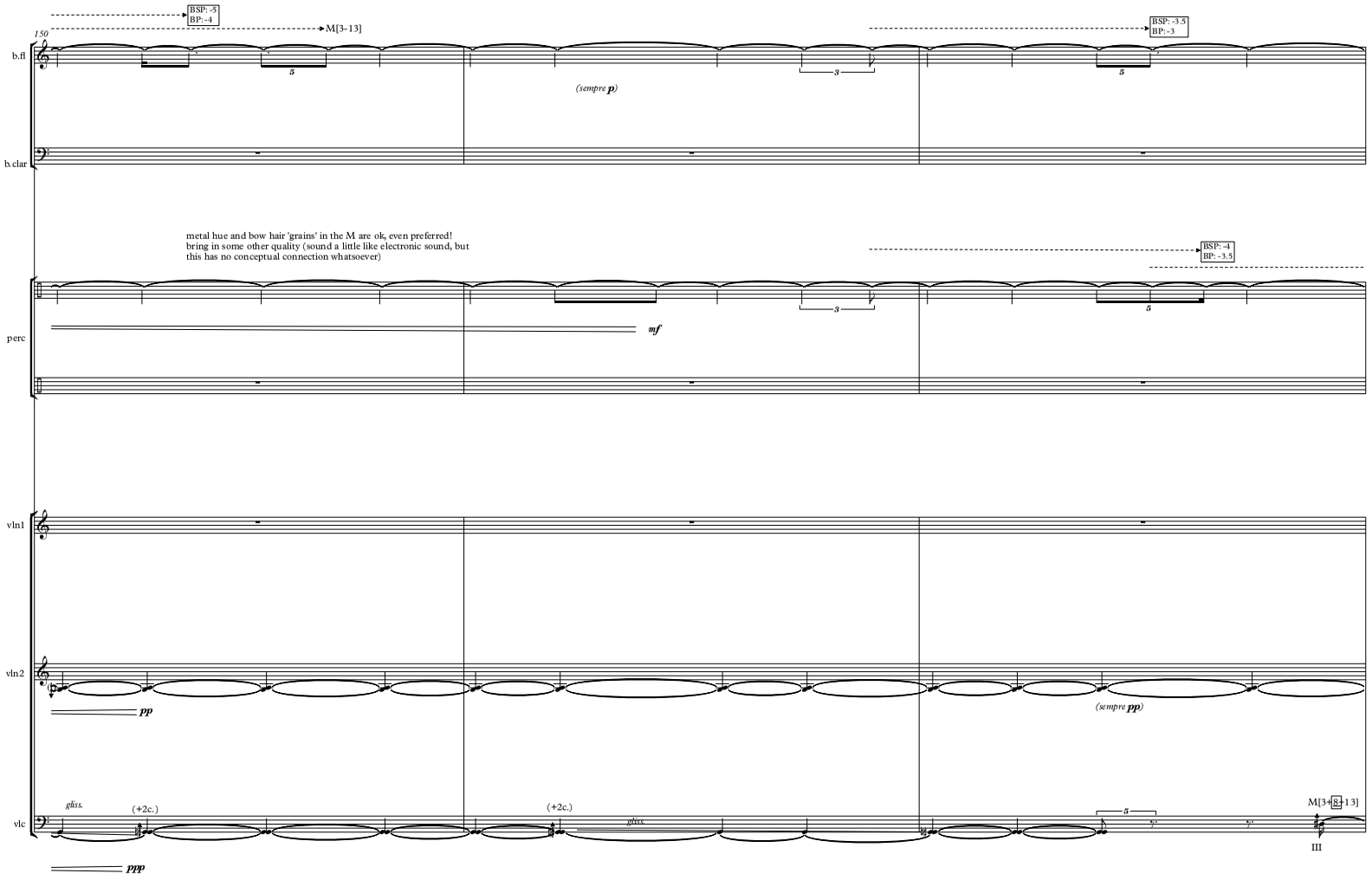
350

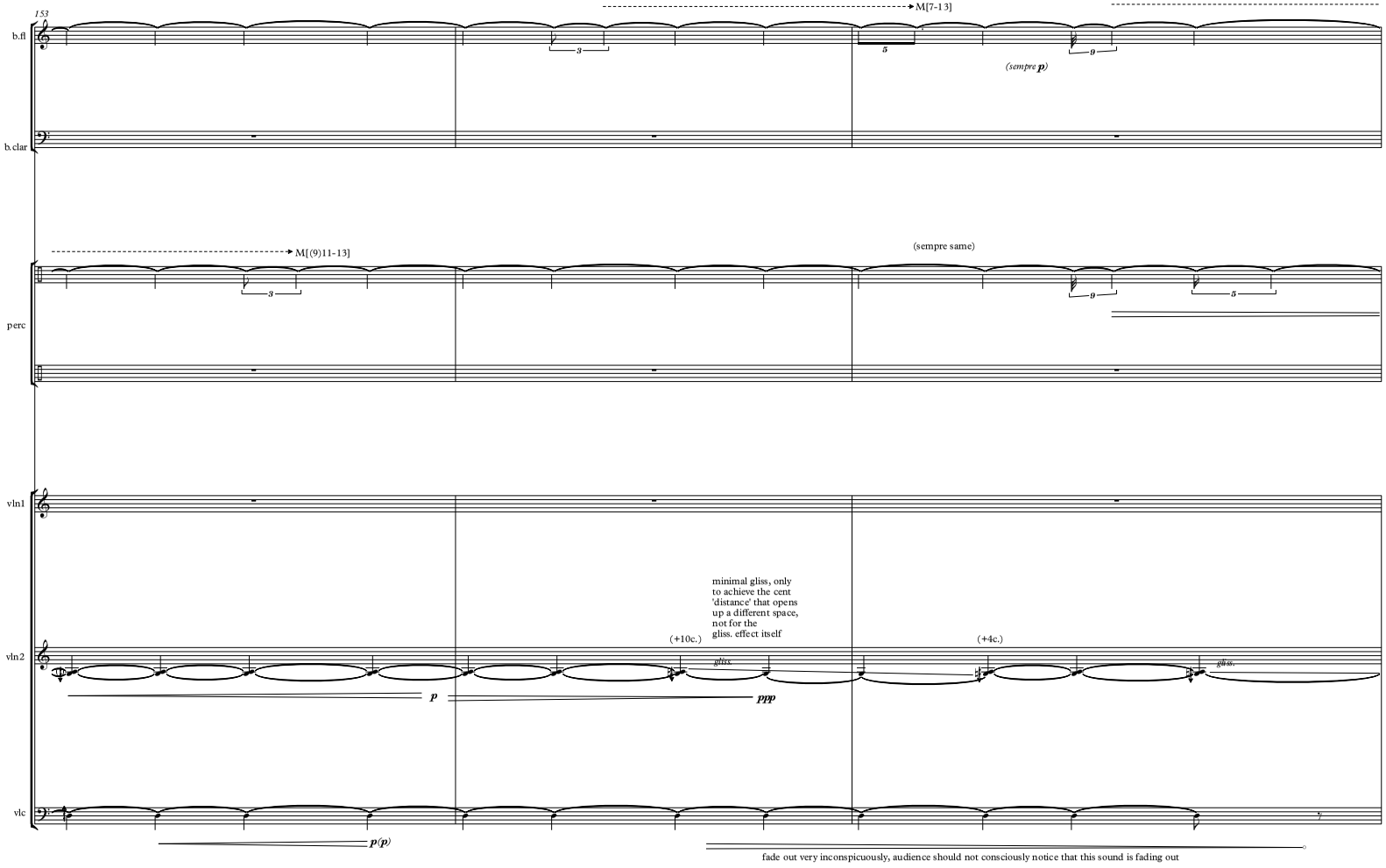

BSP: -3
BP: -2.5
M[5-11]
141
(sempre same M, BSP/BP)
l.v.
(bow dir. change)
b.fl
mf
(sempre mf)
b.clar
(sempre same)
perc
mf
very open, wide, brilliant, spacious sounding
(inconspicuously vanishing)
vln1
(sempre pp)
vln2
vlc
ppp (p)

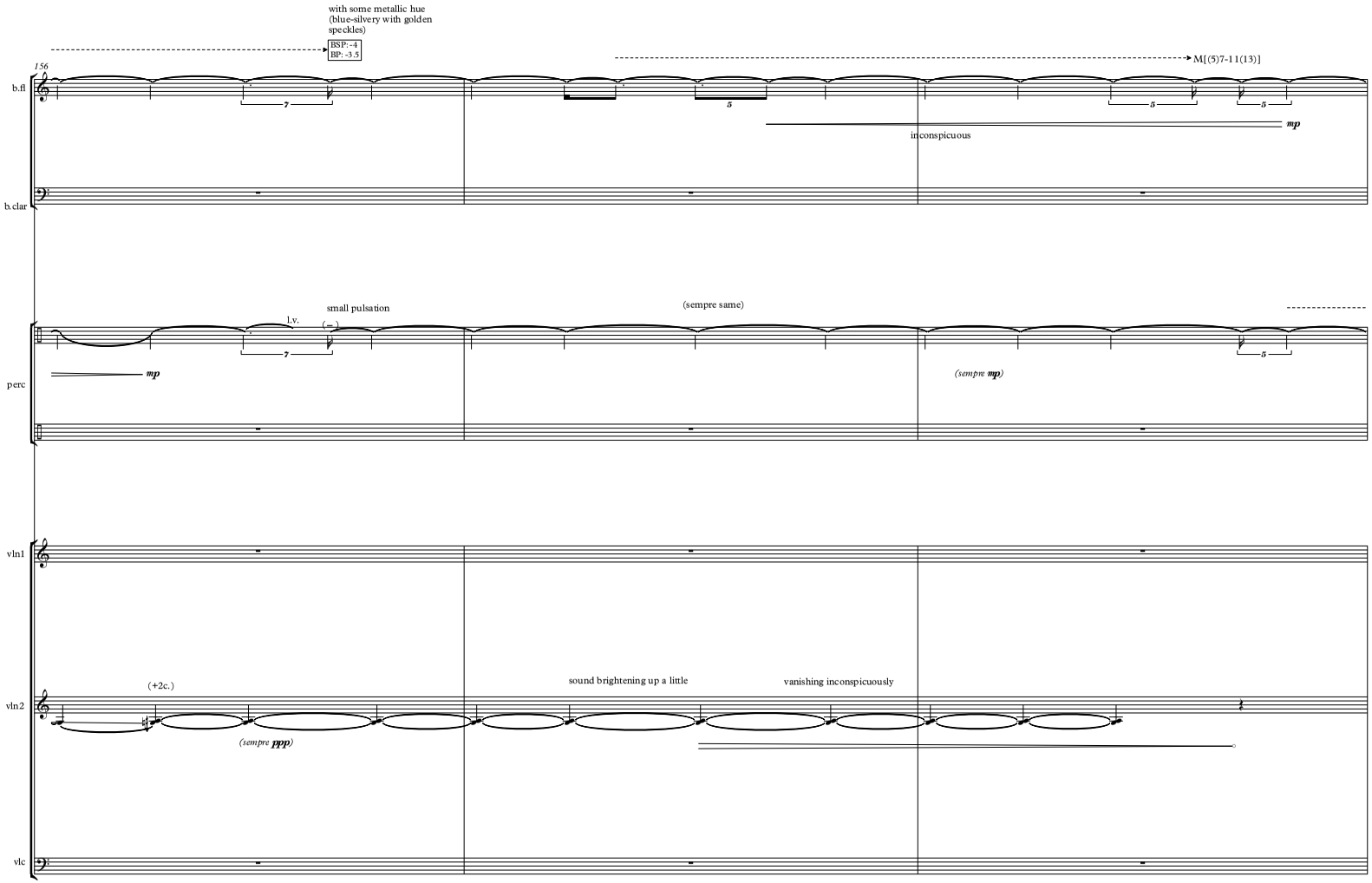
352

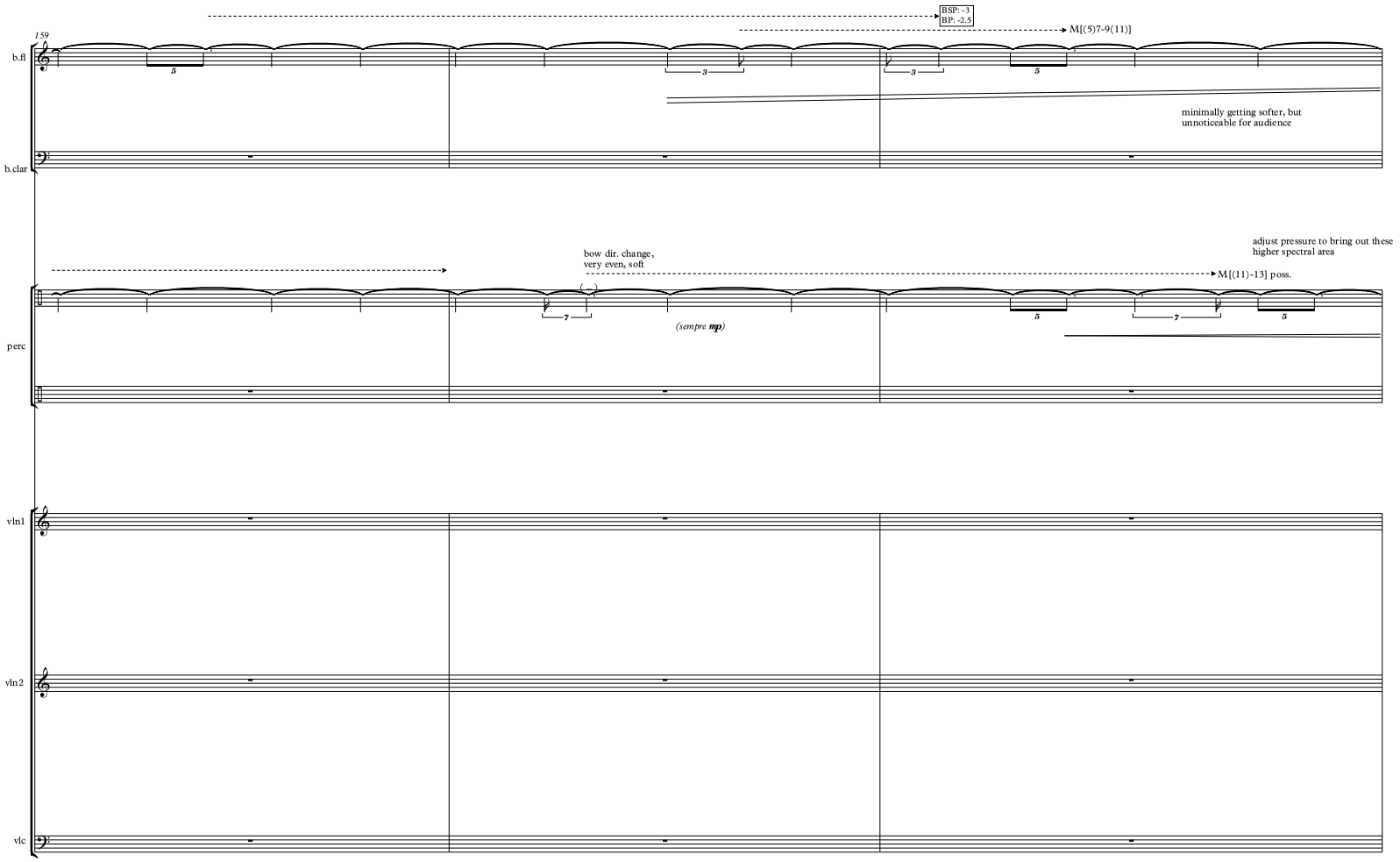

144
b.fl
b.clar
perc
vln1
vln2
vlc
BSP: -2
BP: -3.5
BSP: -4
BP: -2.5
M[(3)5-13]
l.v.
(same volume as tamtam)
mp
BSP: -3.5
BP: -3
M[7-(11)13]
(sempre same)
bow dir. change
very even bow, don't interrupt the flow, despite adding to the pulsation
(same volume as cymbal)
l.v.
pp⟨p⟩
minimal gliss, only to achieve the cent 'distance' that opens up a different space, not for the gliss. effect itself
gliss.
(+4c.)
(all pitches sustained)
ppp⟨p⟩

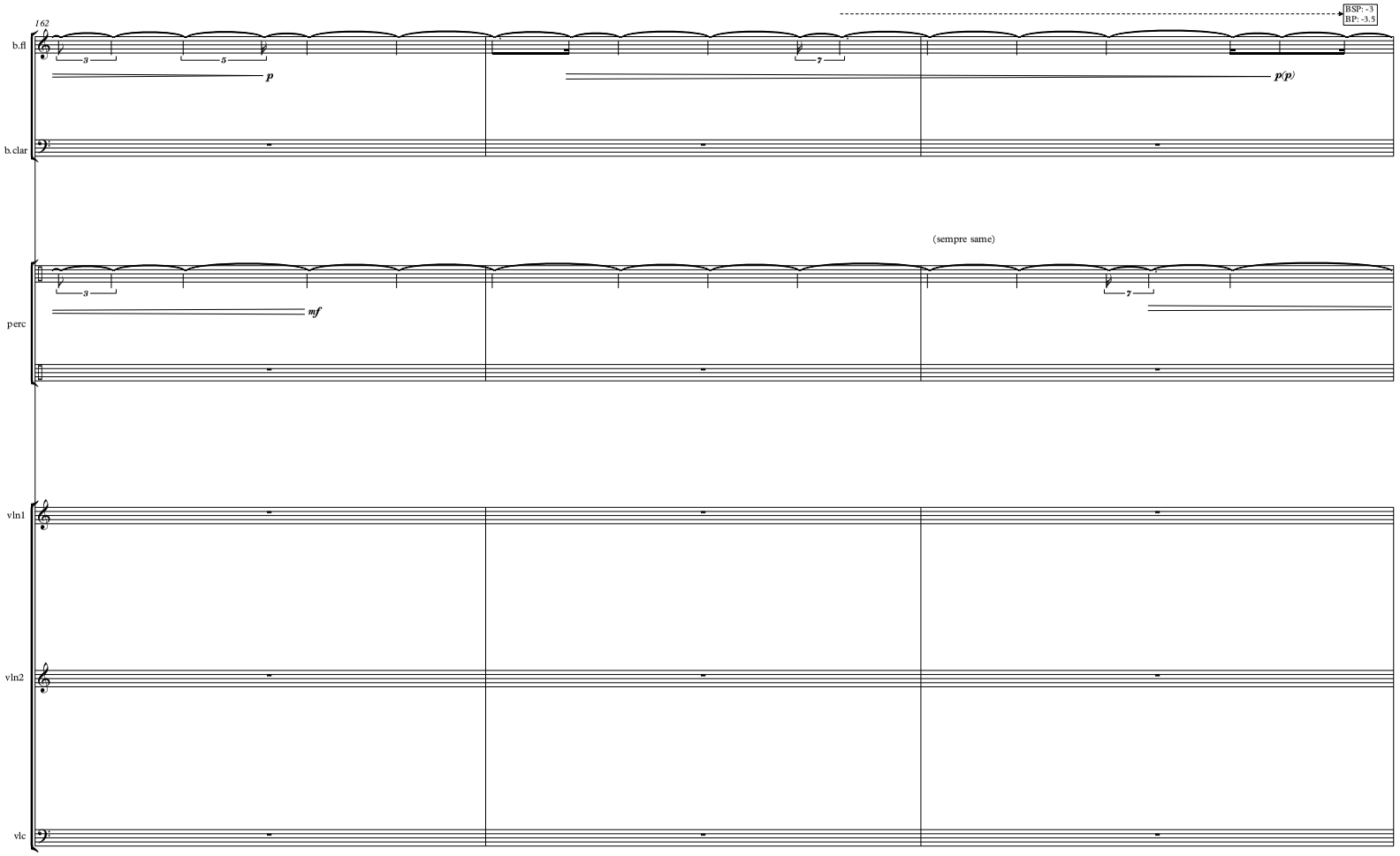

147
BSP: -4
BP: - 3
b.fl
b.clar
p
perc
bow dir.
change,
pulsations
mp
(sempre same)
vln1
vln2
(+10c.)
IV
III
ppp(p)
simile (inconspicuous)
gliss.
gliss.
(+6c.)
gliss.
(sempre ppp(p))

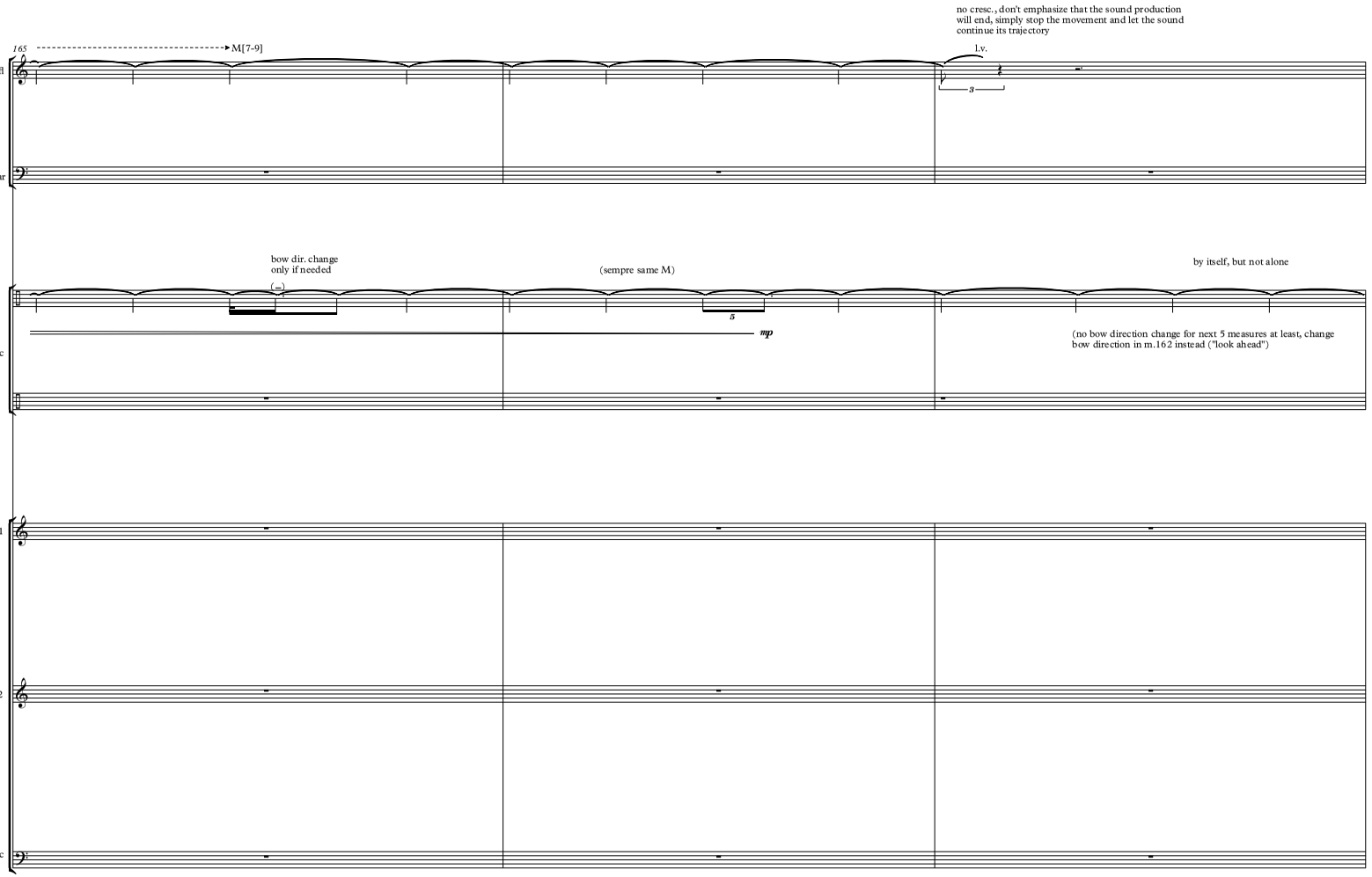

354
150
b.fl
b.clar
perc
vln1
vln2
vlc
BSP: -5
BP: -4
M[3-13]
BSP: -3.5
BP: -3
(sempre p)
metal hue and bow hair 'grains' in the M are ok, even preferred!
bring in some other quality (sound a little like electronic sound, but
this has no conceptual connection whatsoever)
BSP: -4
BP: -3.5
mf
pp
(sempre pp)
gliss.
(+2c.)
(+2c.)
gliss.
M[3+8-13]
III
ppp


153
b.fl
b.clar
perc
vln1
vln2
vlc
M[7-13]
(sempre p)
M[(9)11-13]
(sempre same)
minimal gliss, only
to achieve the cent
'distance' that opens
up a different space,
not for the
gliss. effect itself
(+10c.)
(+4c.)
gliss.
p
ppp
p(p)
fade out very inconspicuously, audience should not consciously notice that this sound is fading out

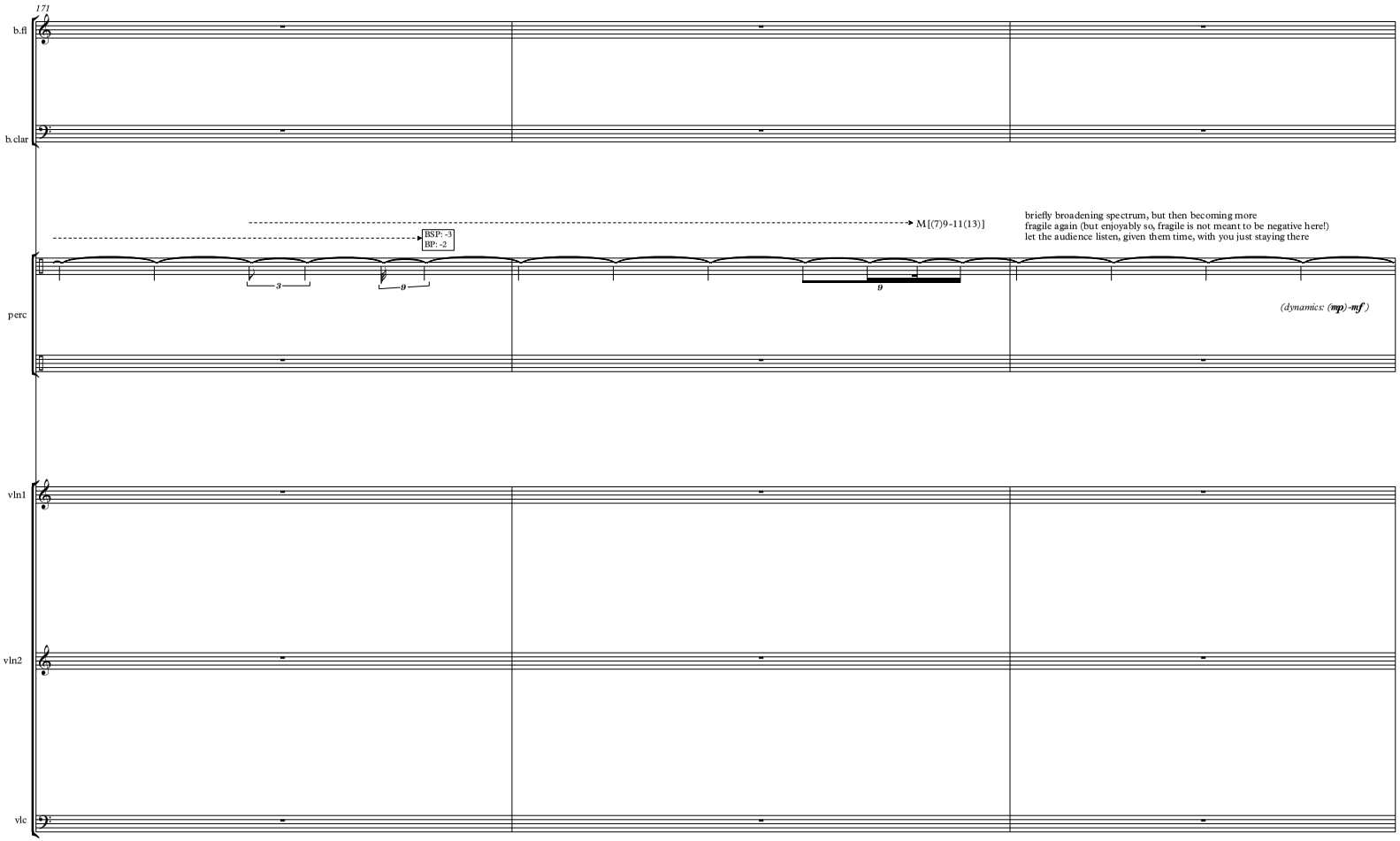

with some metallic hue
(blue-silvery with golden
speckles)
BSP: -4
BP: -3.5
156
M[(5)7-11(13)]
b.fl
b.clar
inconspicuous
mp
small pulsation
l.v.
(sempre same)
perc
mp
(sempre mp)
vln1
vln2
(+2c.)
sound brightening up a little
vanishing inconspicuously
(sempre ppp)
vlc

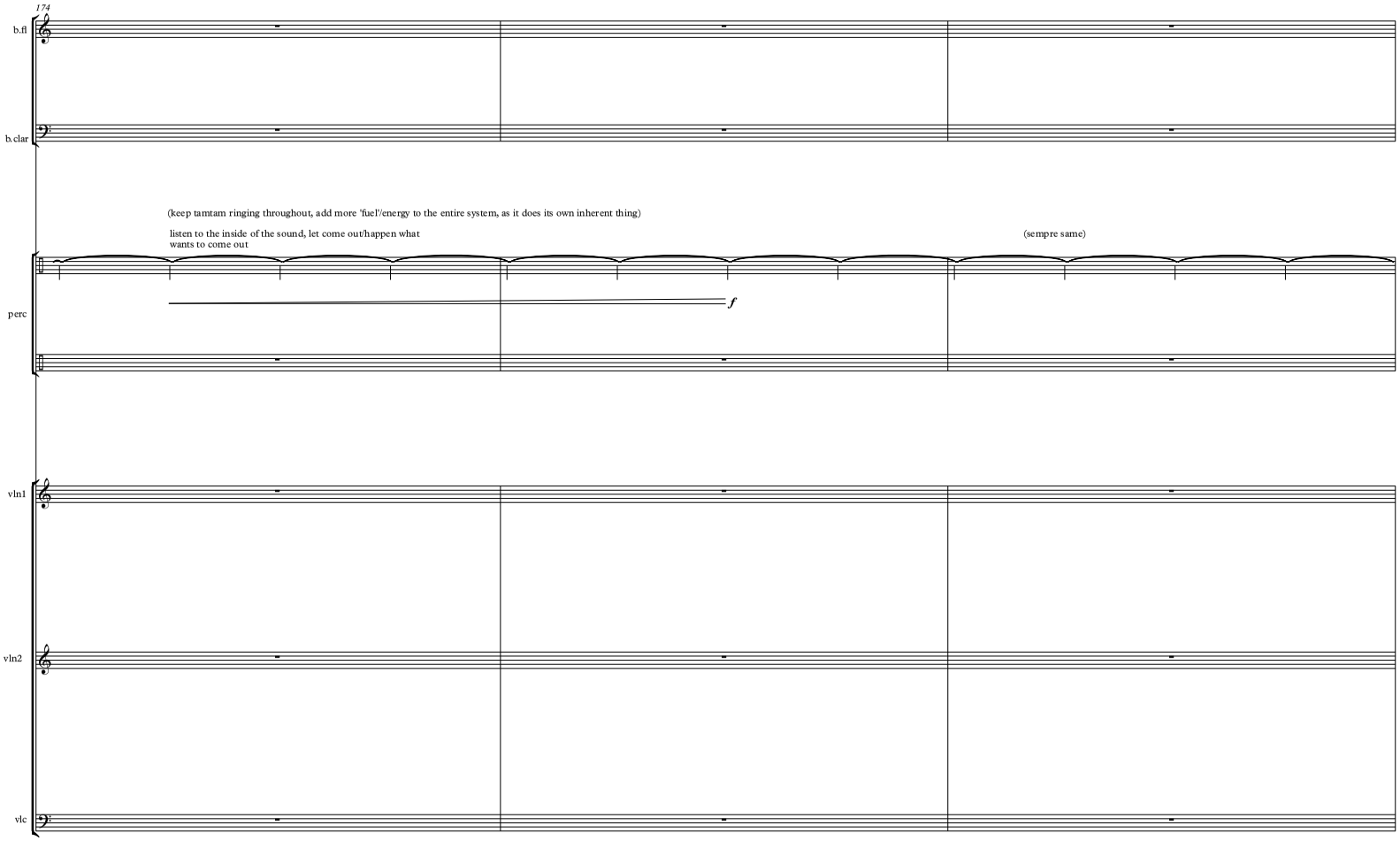

159
b.fl
b.clat
perc
vln1
vln2
vlc
BSP: -3
BP: -2.5
M[(5)7-9(11)]
minimally getting softer, but
unnoticeable for audience
bow dir. change,
very even, soft
(sempre mp)
adjust pressure to bring out these
higher spectral area
M[(11)-13] poss.

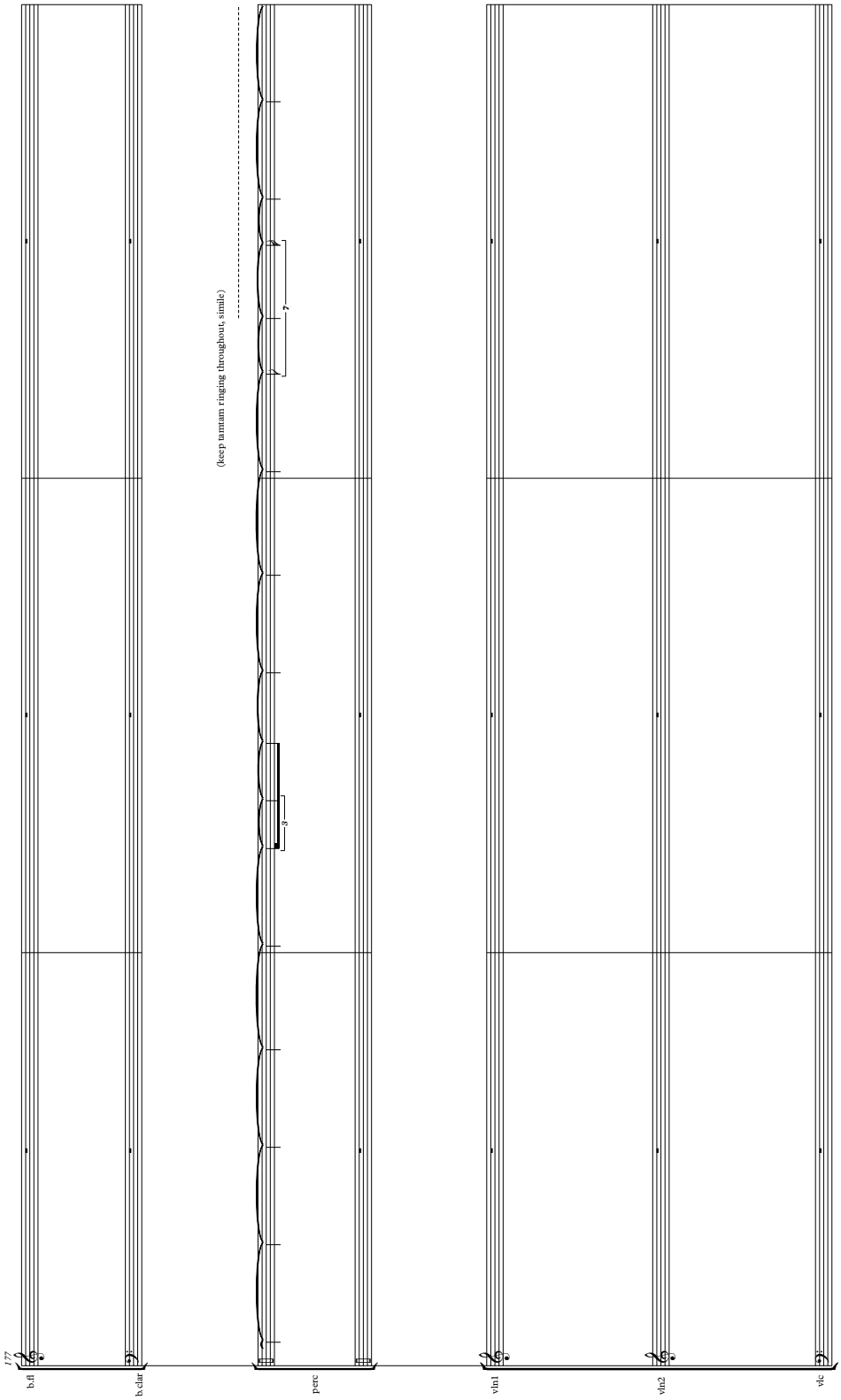

162
b.fl
b.clar
perc
vln1
vln2
vlc
3
5
7
p
p(p)
BSP: -3
BP: -3.5
(sempre same)
3
7
mf


no cresc., don't emphasize that the sound production will end, simply stop the movement and let the sound continue its trajectory
165
M[7-9]
l.v.
b.fl
b.clar
bow dir. change only if needed
(sempre same M)
by itself, but not alone
mp
perc
(no bow direction change for next 5 measures at least, change bow direction in m.162 instead ("look ahead")
vln1
vln2
vlc

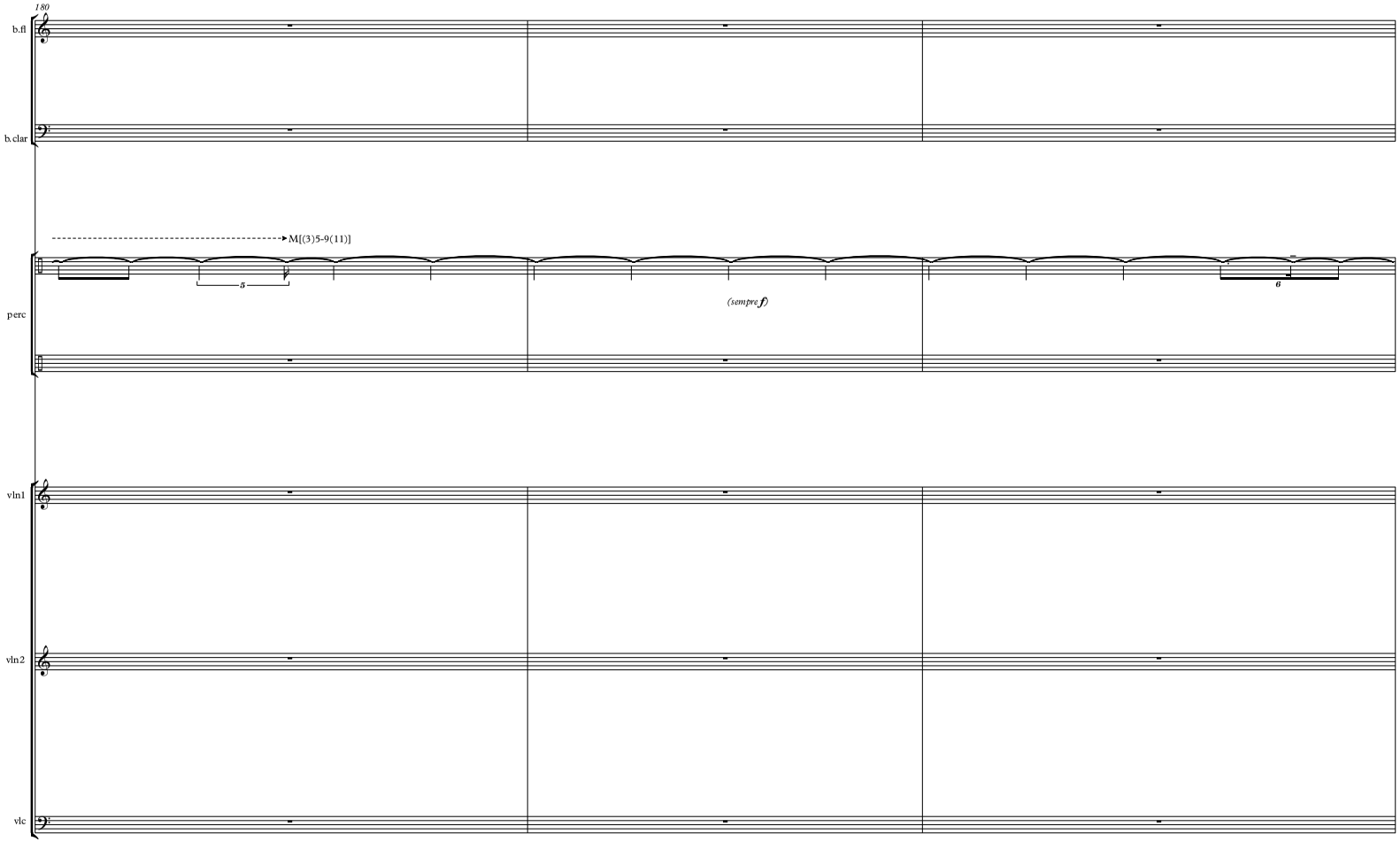

168
b.fl
b.clar
perc
mp(mf)
5
vln1
vln2
vlc


171
b.fl
b.clar
M[(7)9-11(13)]
BSP: -3
BP: -2
briefly broadening spectrum, but then becoming more
fragile again (but enjoyably so, fragile is not meant to be negative here!)
let the audience listen, given them time, with you just staying there
perc
(dynamics: (mp)-mf)
vln1
vln2
vlc


174
b.fl
b.clar
(keep tamtam ringing throughout, add more 'fuel'/energy to the entire system, as it does its own inherent thing)
listen to the inside of the sound, let come out/happen what wants to come out
(sempre same)
perc
f
vln1
vln2
vlc


177
b.fl
b.clar
(keep tamtam ringing throughout, simile)
perc
vln1
vln2
vlc

62



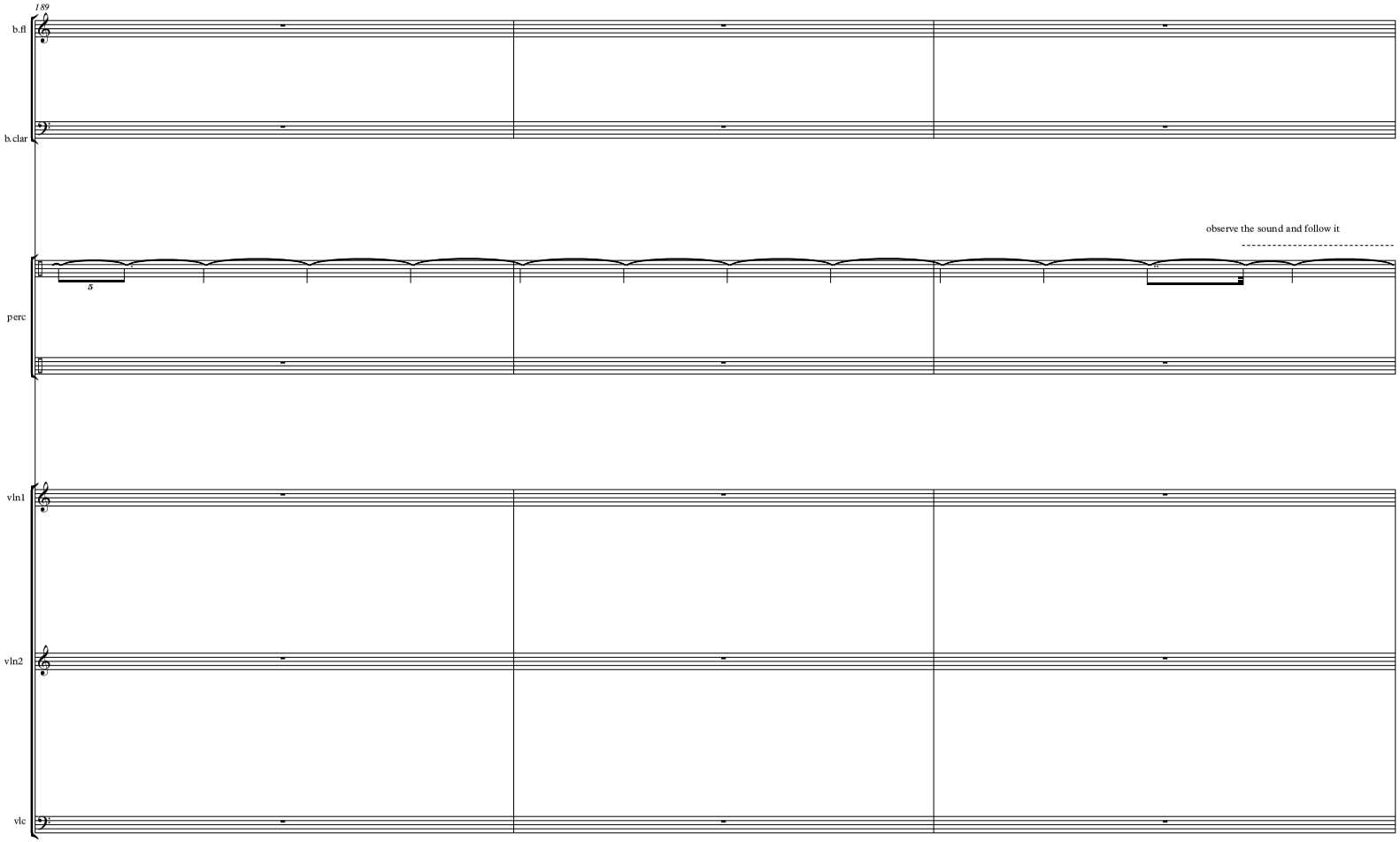
364

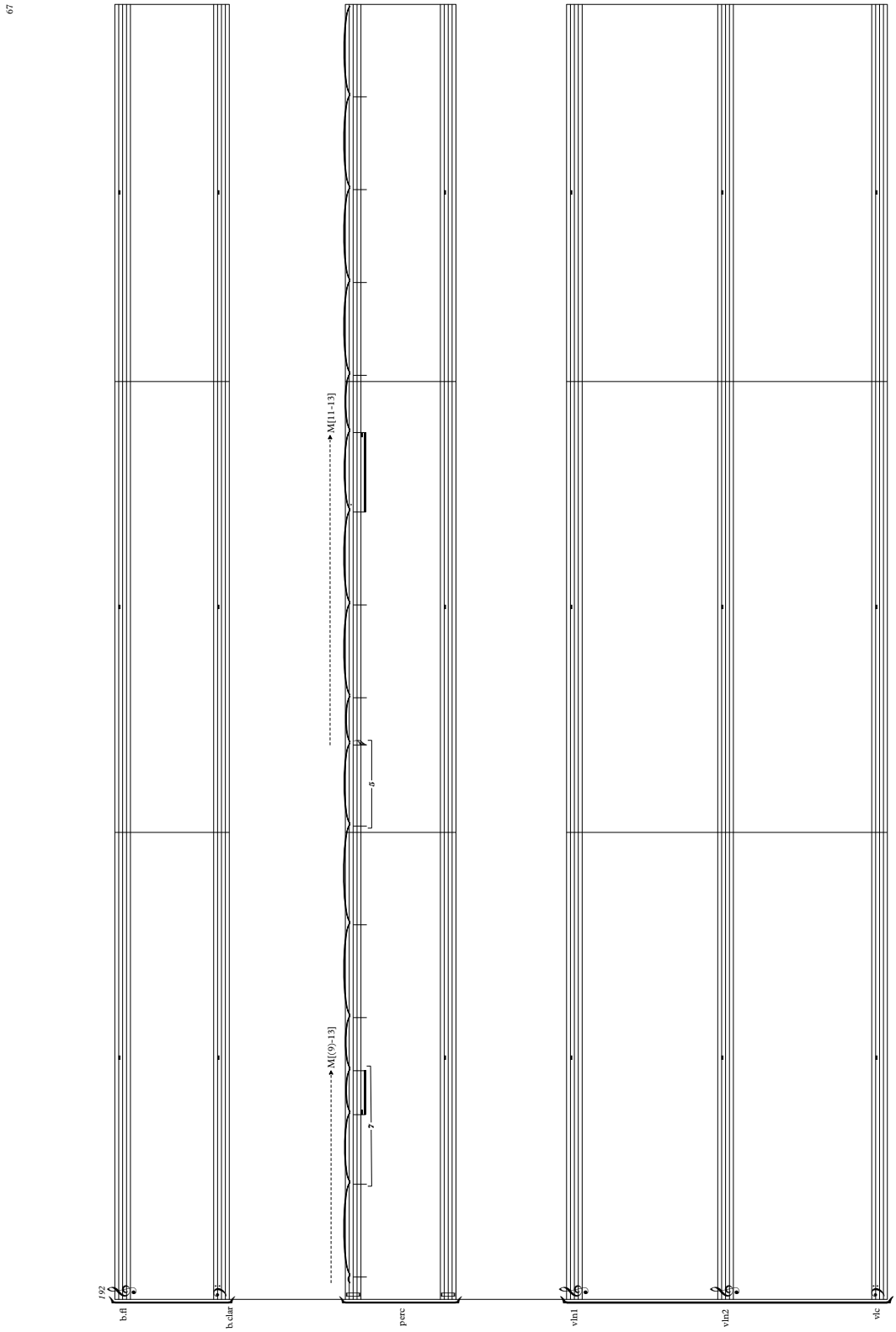

183
b.fl
b.clar
M[(5)9(-11)]
6
(sempre f)
3
perc
vln1
vln2
vlc

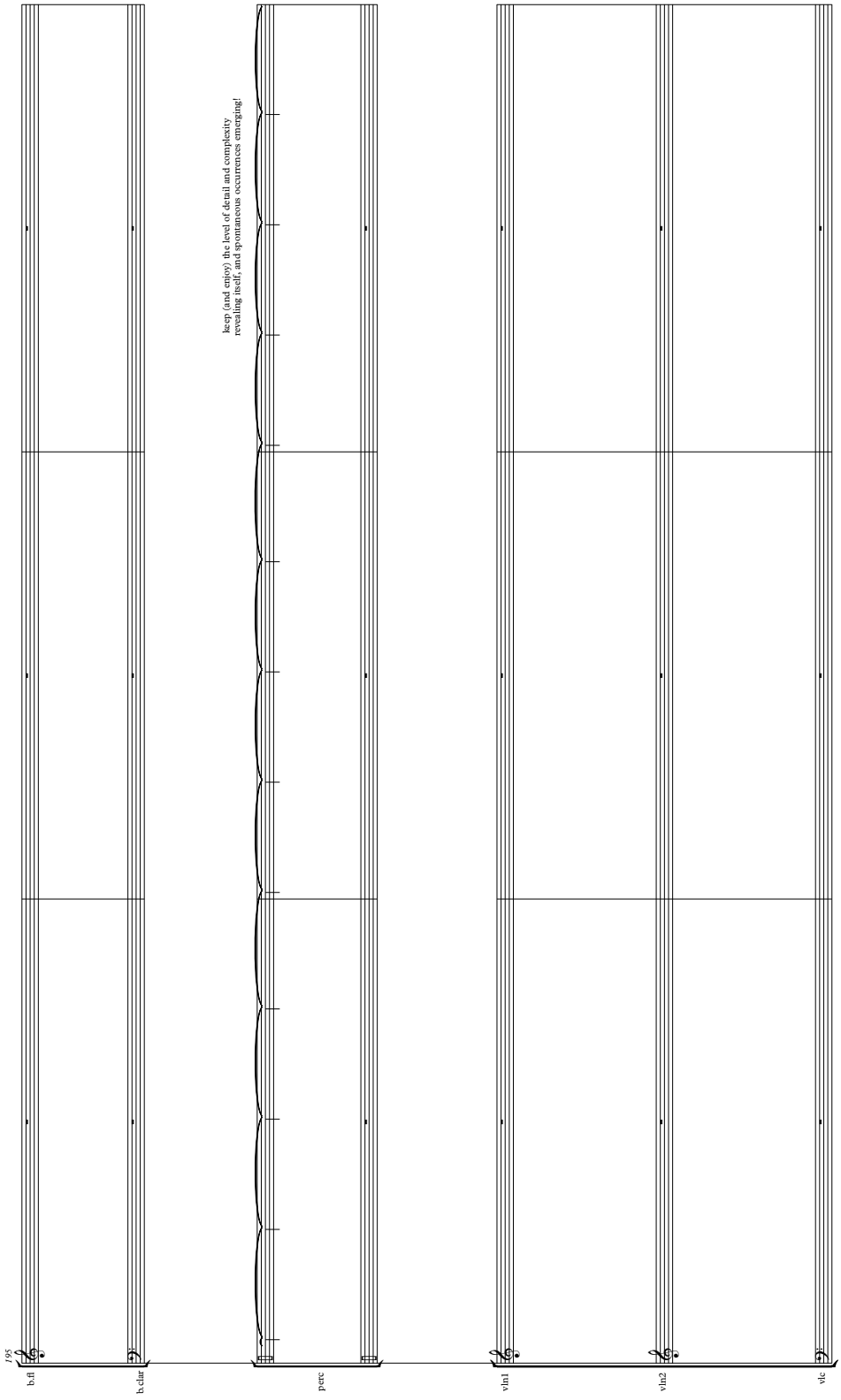


366

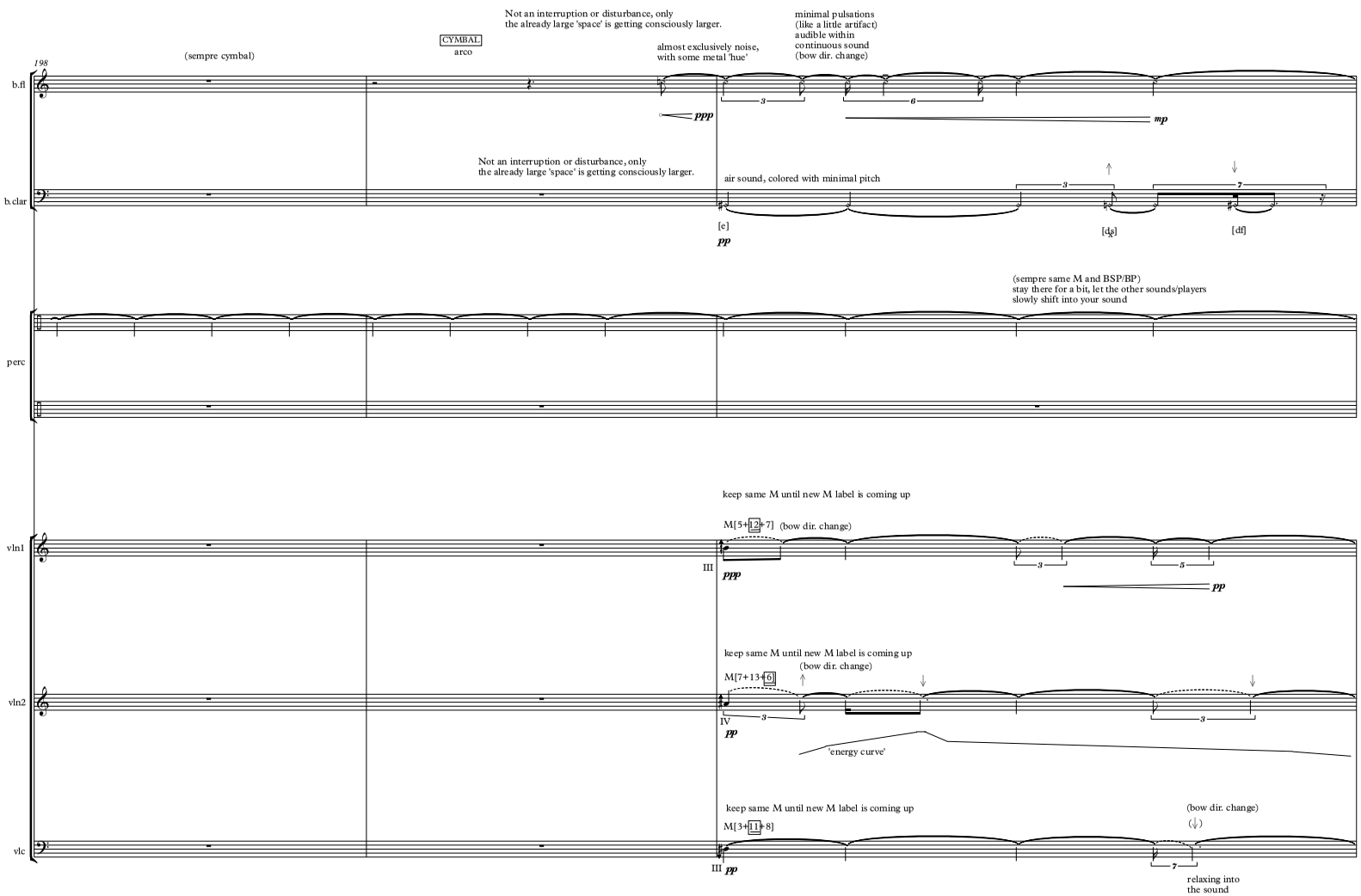
66


189
b.fl
b.clar
observe the sound and follow it
perc
vln1
vln2
vlc

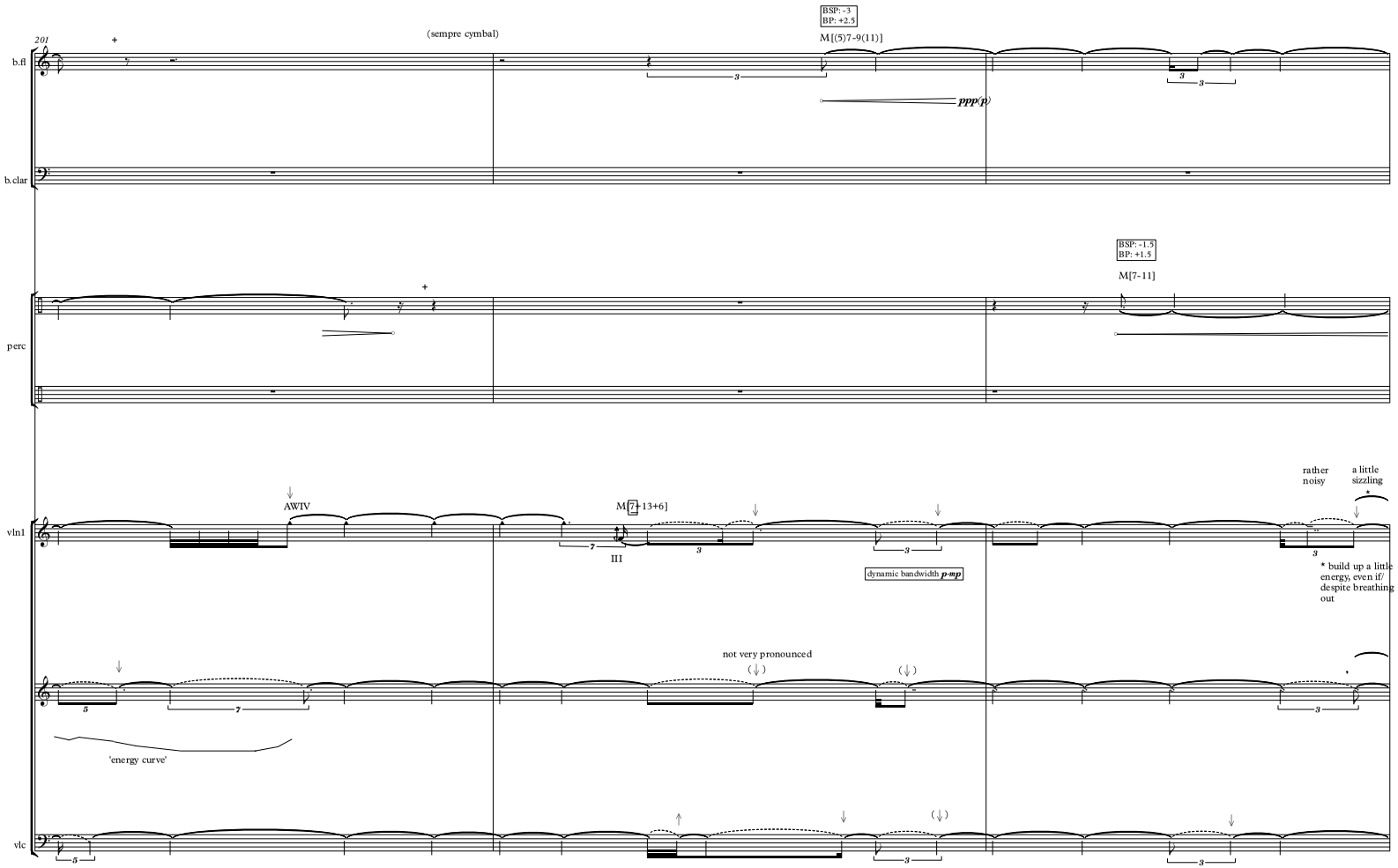

67
192
b.fl
b.clar
M[(9)-13]
M[11-13]
8
perc
vln1
vln2
vlc

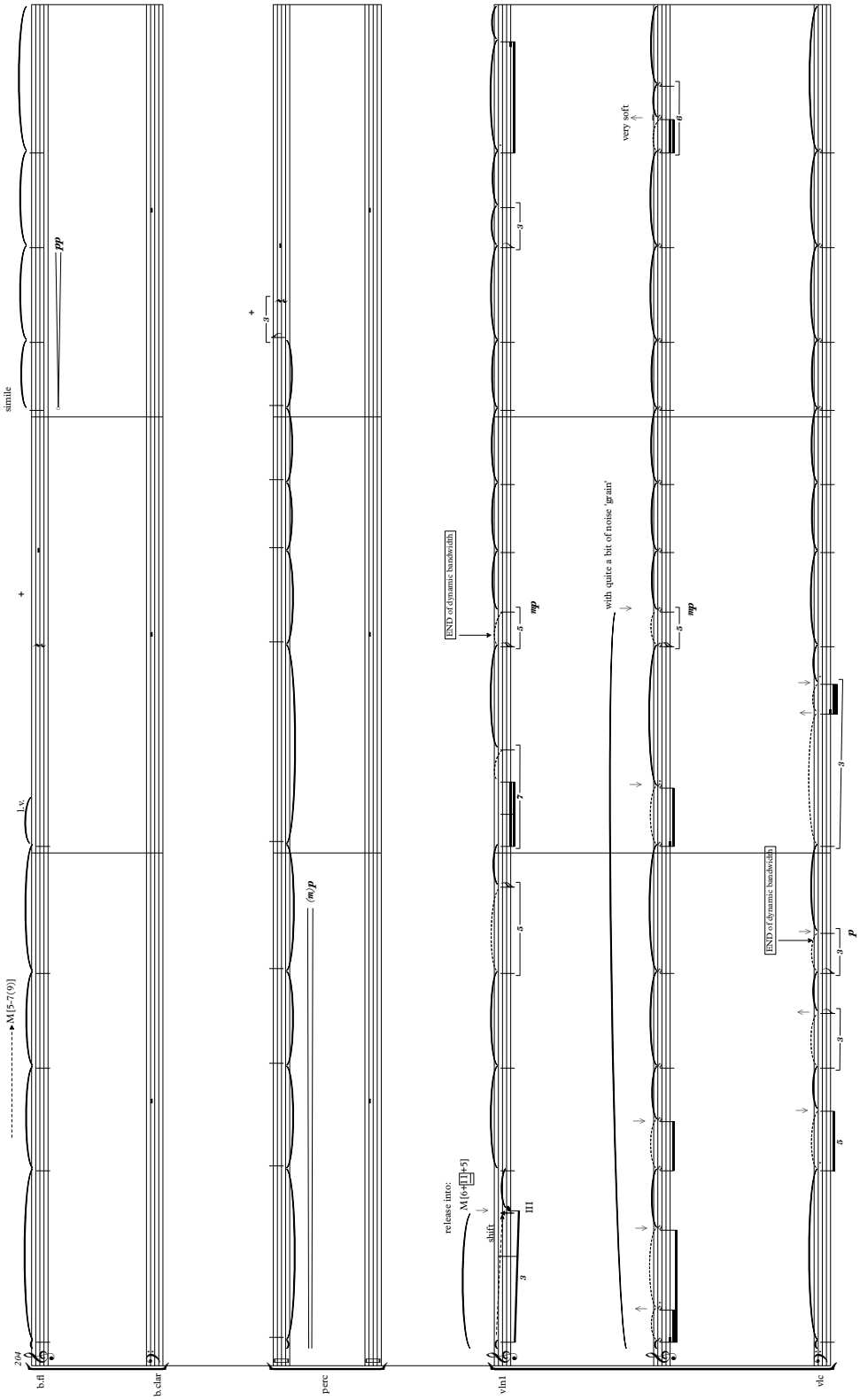

195
b.fl
b.clar
keep (and enjoy) the level of detail and complexity
revealing itself, and spontaneous occurrences emerging!
perc
vln1
vln2
vlc

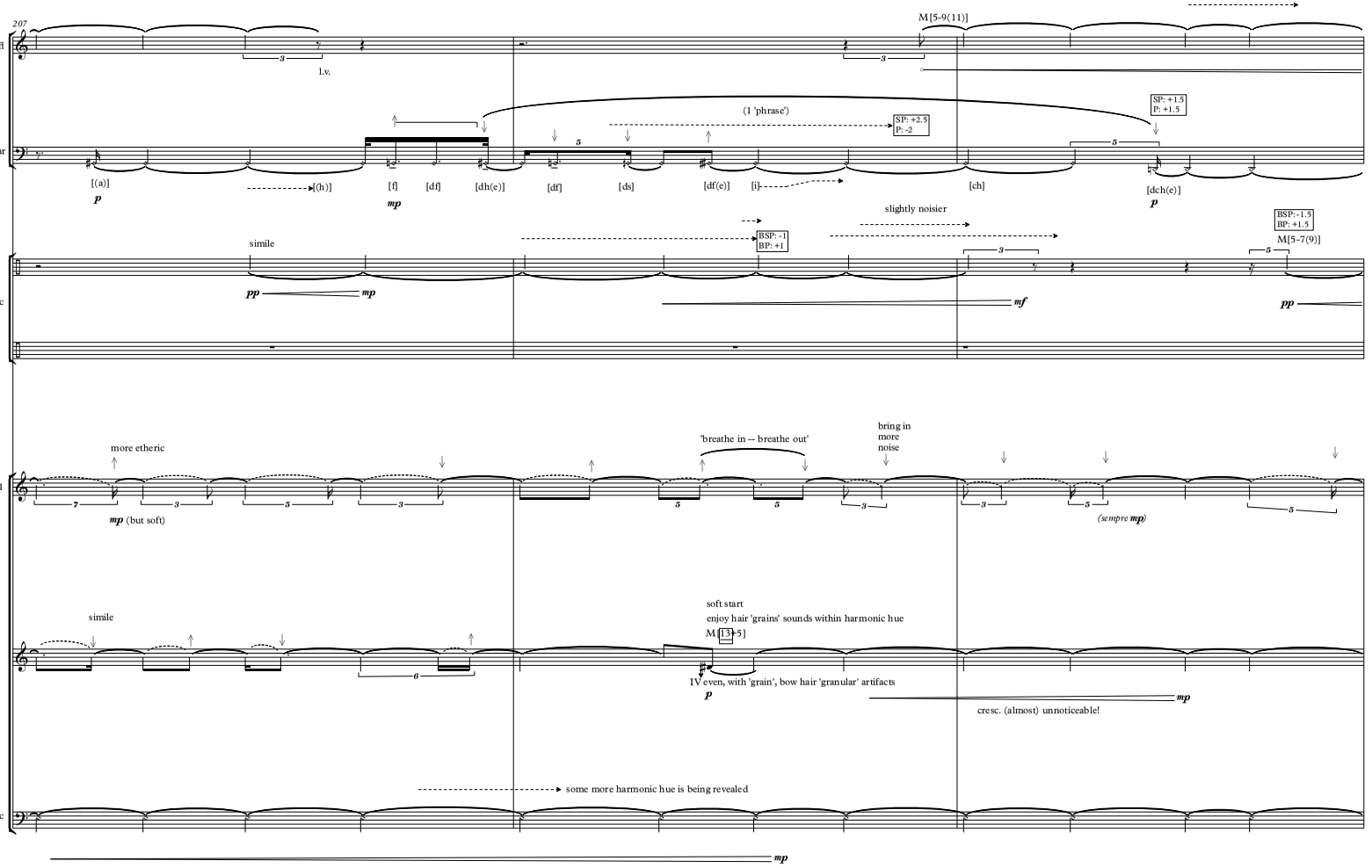
68
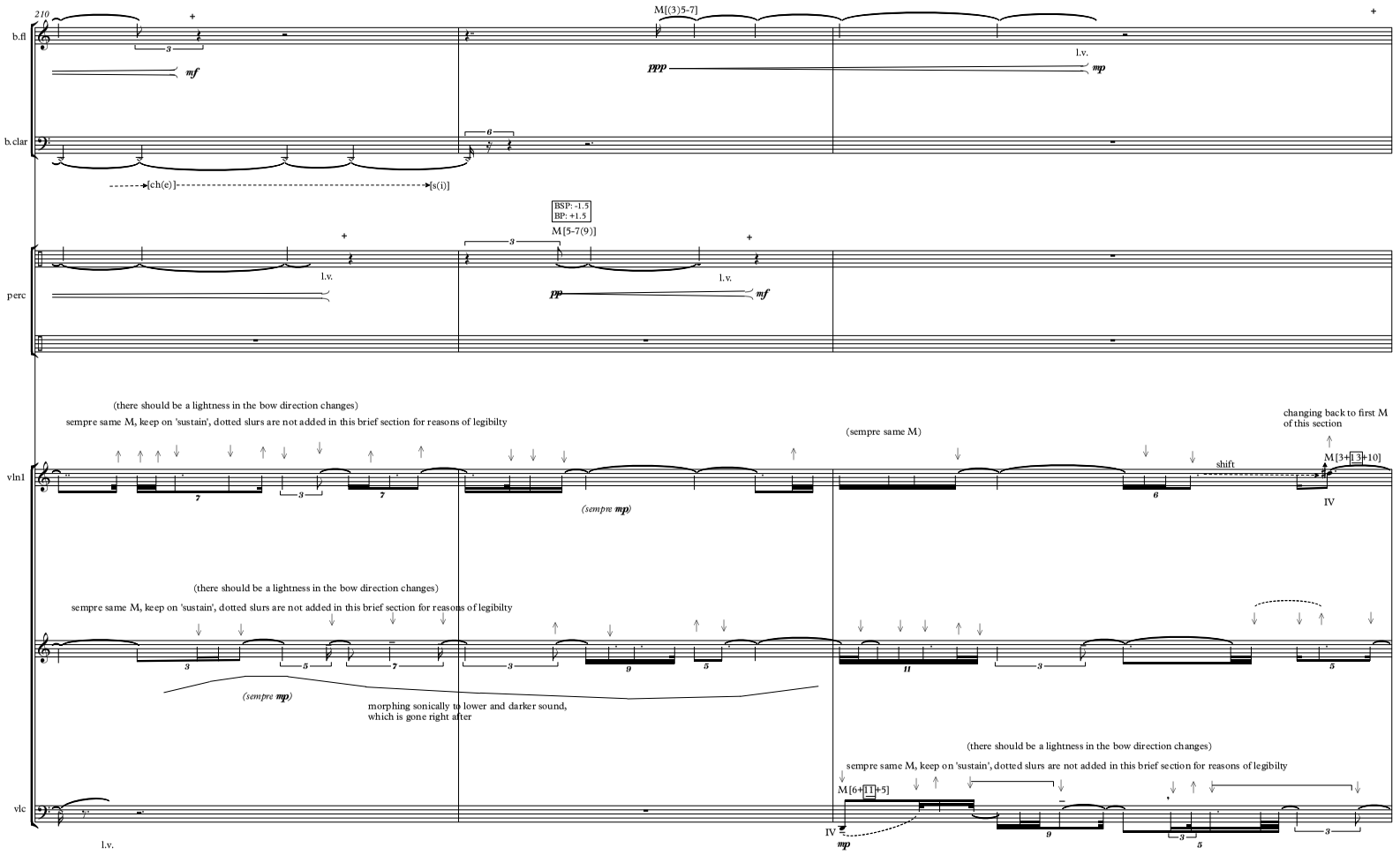

198
b.fl
(sempre cymbal)
CYMBAL
arco
Not an interruption or disturbance, only
the already large 'space' is getting consciously larger.
almost exclusively noise,
with some metal 'hue'
minimal pulsations
(like a little artifact)
audible within
continuous sound
(bow dir. change)
ppp
mp
b.clar
Not an interruption or disturbance, only
the already large 'space' is getting consciously larger.
air sound, colored with minimal pitch
[e]
pp
[df]
perc
(sempre same M and BSP/BP)
stay there for a bit, let the other sounds/players
slowly shift into your sound
vln1
keep same M until new M label is coming up
M[5+2+7]
(bow dir. change)
III
ppp
pp
vln2
keep same M until new M label is coming up
M[7+13+6]
(bow dir. change)
IV
pp
'energy curve'
vlc
keep same M until new M label is coming up
M[3+11+8]
(bow dir. change)
III
pp
relaxing into
the sound

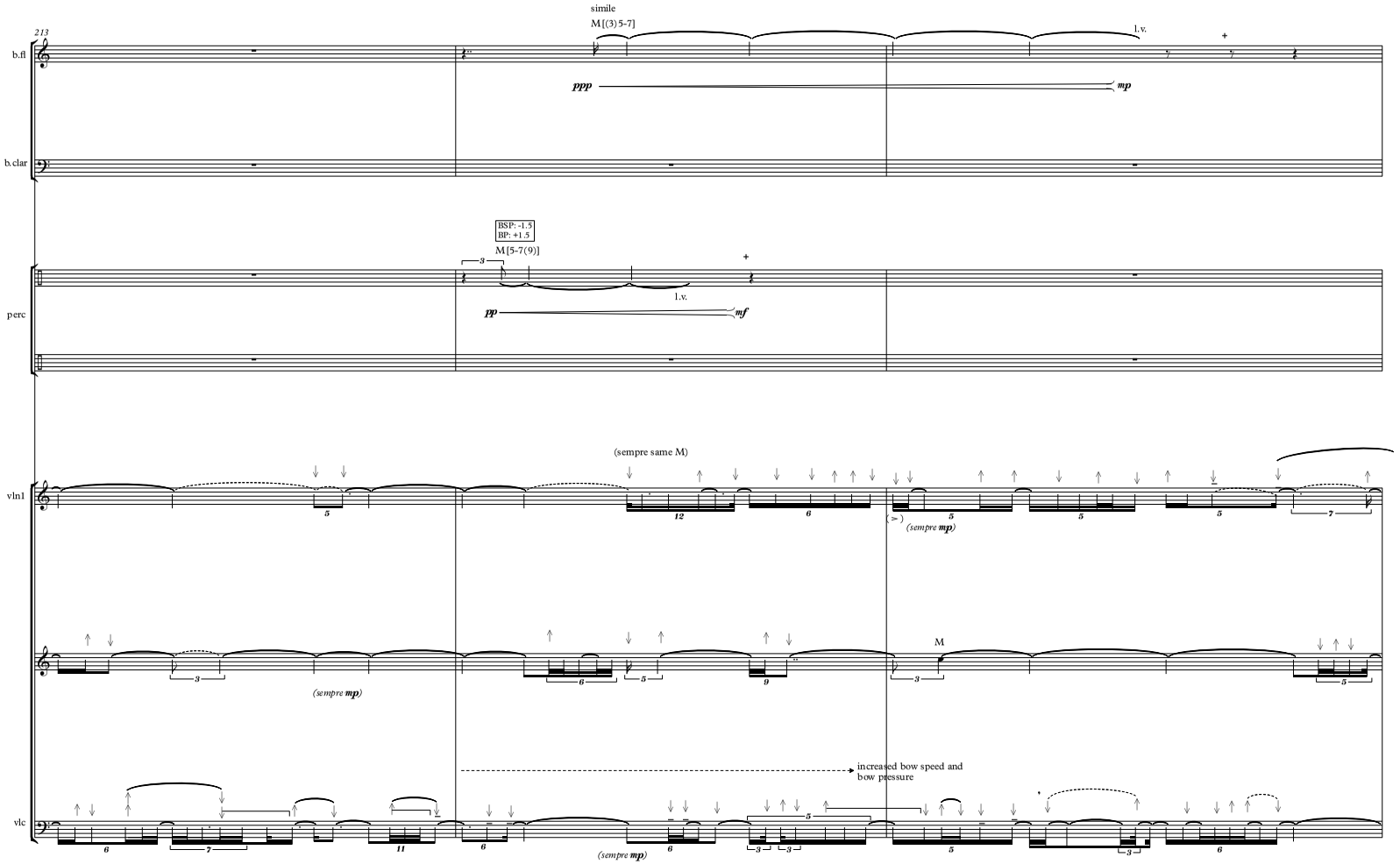
370
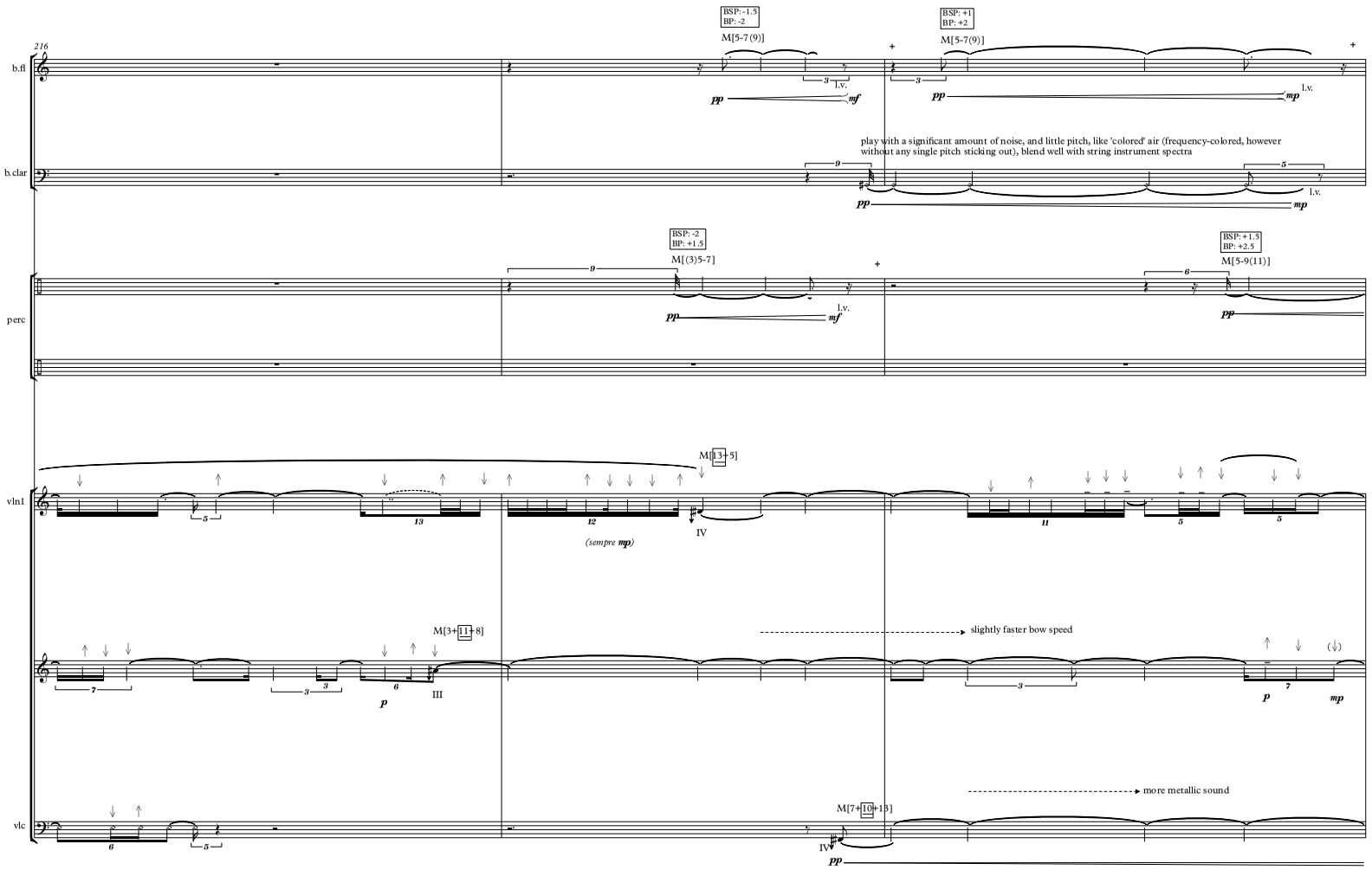

201
(sempre cymbal)
BSP: -3
BP: +2.5
M[(5)7-9(11)]
ppp(p)
b.fl
b.clar
BSP: -1.5
BP: +1.5
M[7-11]
perc
rather noisy
a little sizzling
AWIV
M[7+13+6]
III
dynamic bandwidth p-mp
* build up a little energy, even if/ despite breathing out
vln1
not very pronounced
'energy curve'
vlc

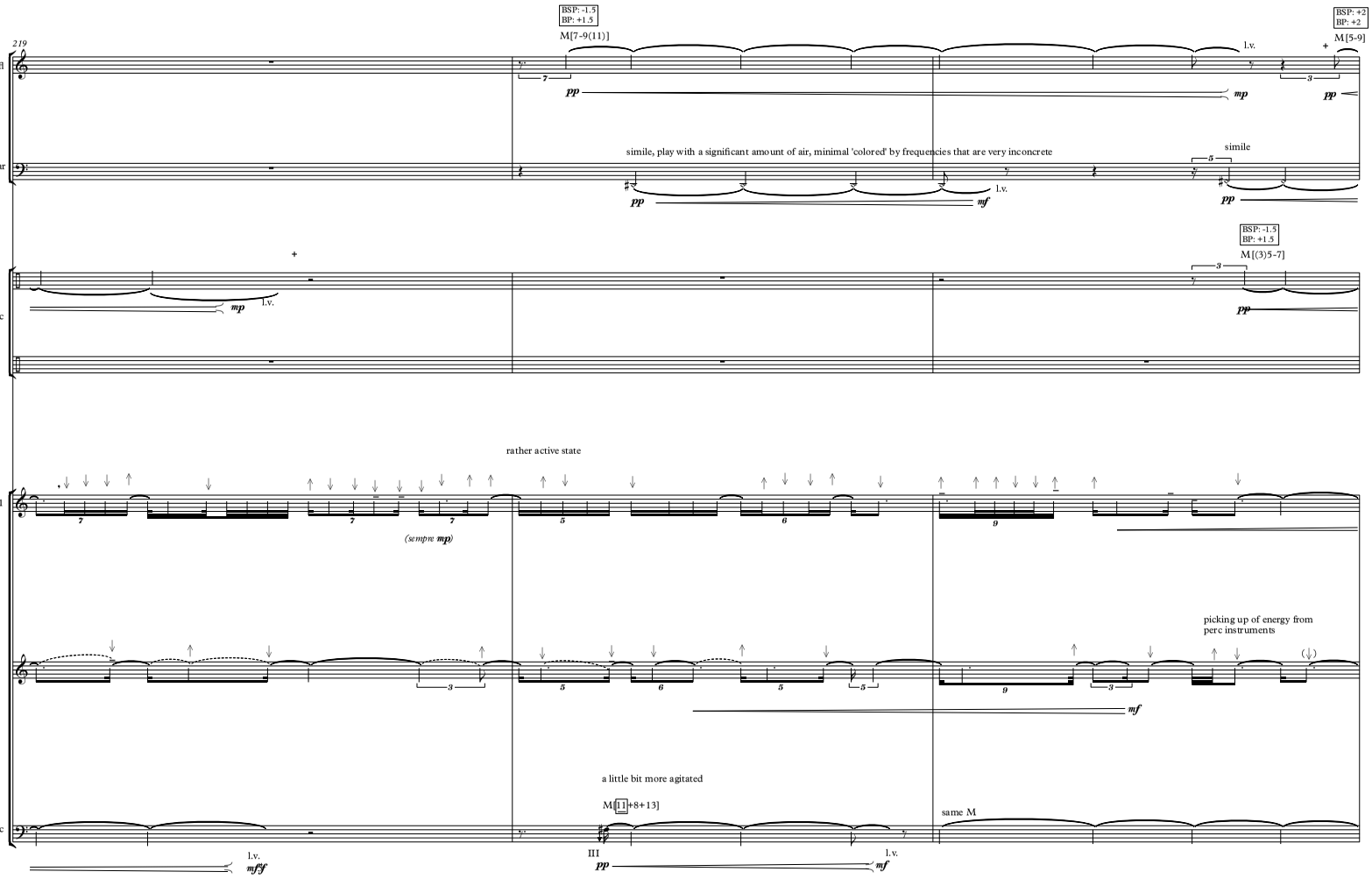

71
b.fl
b.clar
perc
vln1
vlc
2/64
M.[5-7(9)]
l.v.
simile
pp
+
3
f
(m)p
END of dynamic bandwidth
release into:
M.[6+□]+5]
shift
III
mp
with quite a bit of noise 'grain'
very soft
p

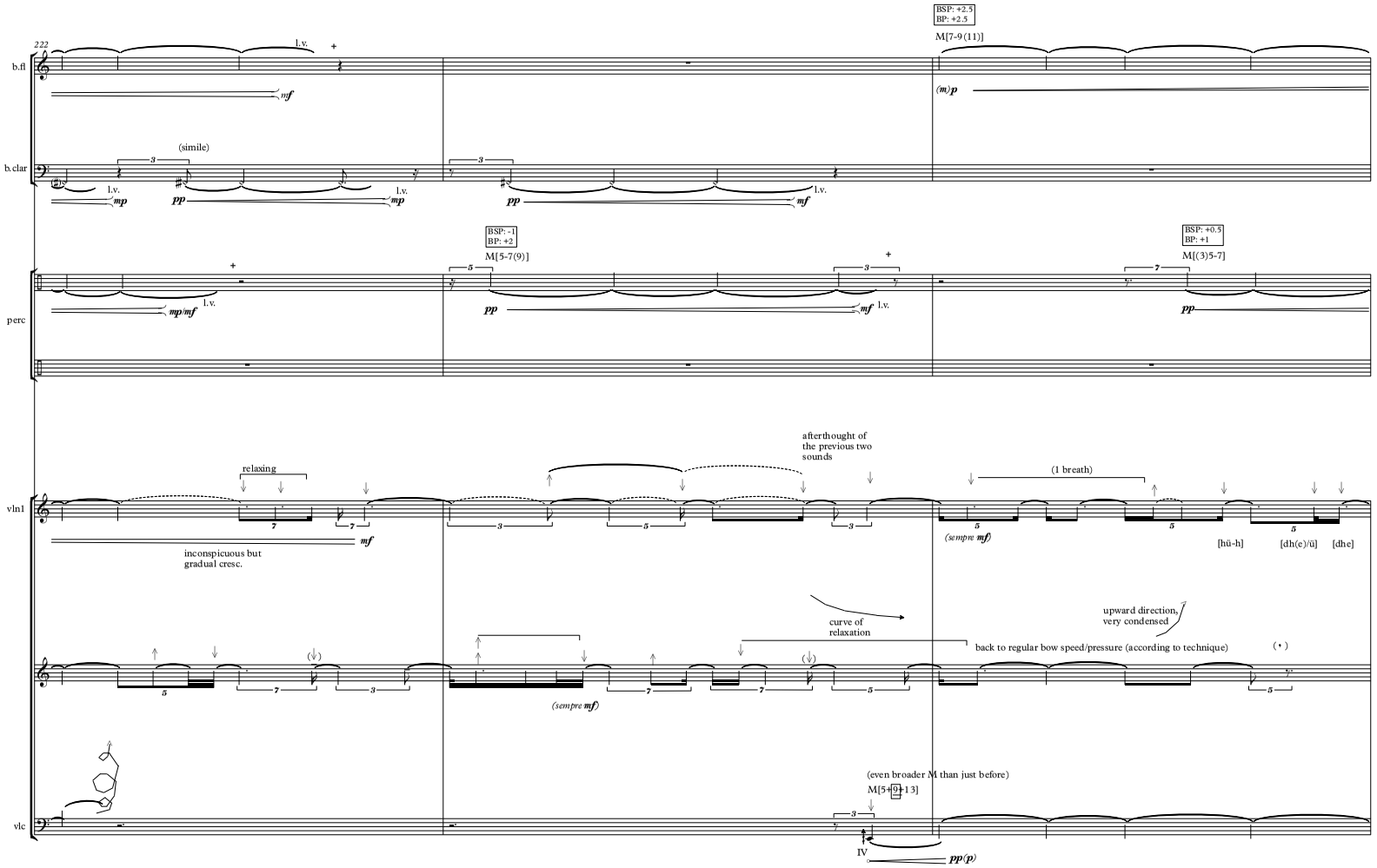

207
b.fl
l.v.
M[5-9(11)]
b.clar
(1 'phrase')
SP: +2.5
P: -2
SP: +1.5
P: +1.5
[(a)]
[(h)]
[f]
[df]
[dh(e)]
[df]
[ds]
[df(e)]
[i]
[ch]
[dch(e)]
perc
simile
BSP: -1
BP: +1
slightly noisier
BSP: -1.5
BP: +1.5
M[5-7(9)]
vln1
more etheric
'breathe in -- breathe out'
bring in
more
noise
(but soft)
(sempre mp)
simile
soft start
enjoy hair 'grains' sounds within harmonic hue
M[13-5]
IV even, with 'grain', bow hair 'granular' artifacts
cresc. (almost) unnoticeable!
vlc
some more harmonic hue is being revealed


210
M[(3)5-7]
b.fl
mf
ppp
l.v.
mp
b.clar
[ch(e)]
[s(i)]
BSP: -1.5
BP: +1.5
M[5-7(9)]
perc
l.v.
pp
mf
(there should be a lightness in the bow direction changes)
sempre same M, keep on 'sustain', dotted slurs are not added in this brief section for reasons of legibilty
(sempre M)
changing back to first M of this section
M[3+13+10]
shift
IV
vln1
(sempre mp)
(there should be a lightness in the bow direction changes)
sempre same M, keep on 'sustain', dotted slurs are not added in this brief section for reasons of legibilty
(sempre mp)
morphing sonically to lower and darker sound, which is gone right after
(there should be a lightness in the bow direction changes)
sempre same M, keep on 'sustain', dotted slurs are not added in this brief section for reasons of legibilty
M[6+11+5]
vlc
l.v.
IV
mp

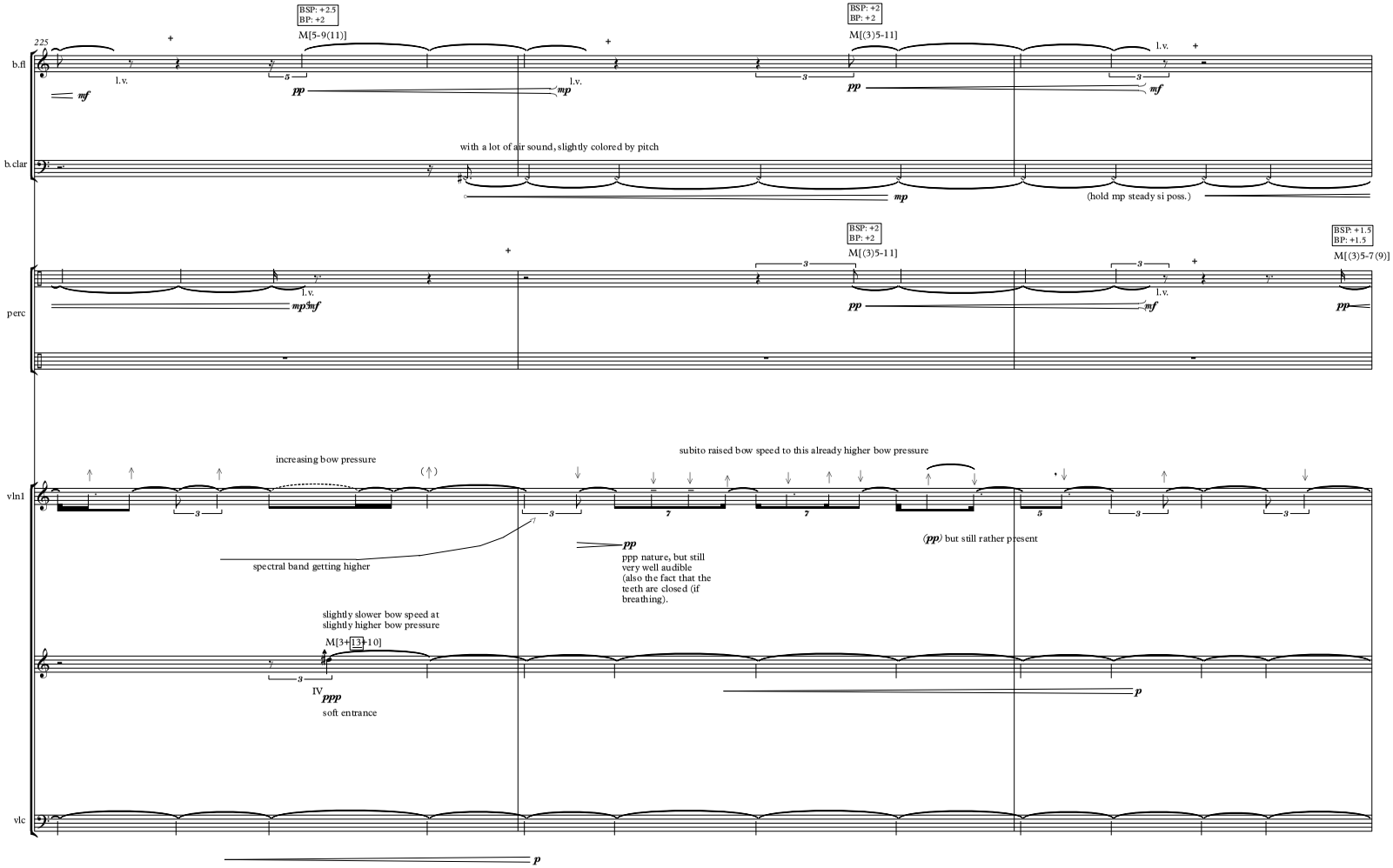

213
simile
M [(3) 5-7]
l.v.
b.fl
ppp
mp
b.clar
BSP: -1.5
BP: +1.5
M [5-7 (9)]
perc
l.v.
pp
mf
(sempre same M)
vln1
(sempre mp)
M
(sempre mp)
increased bow speed and
bow pressure
vlc
(sempre mp)

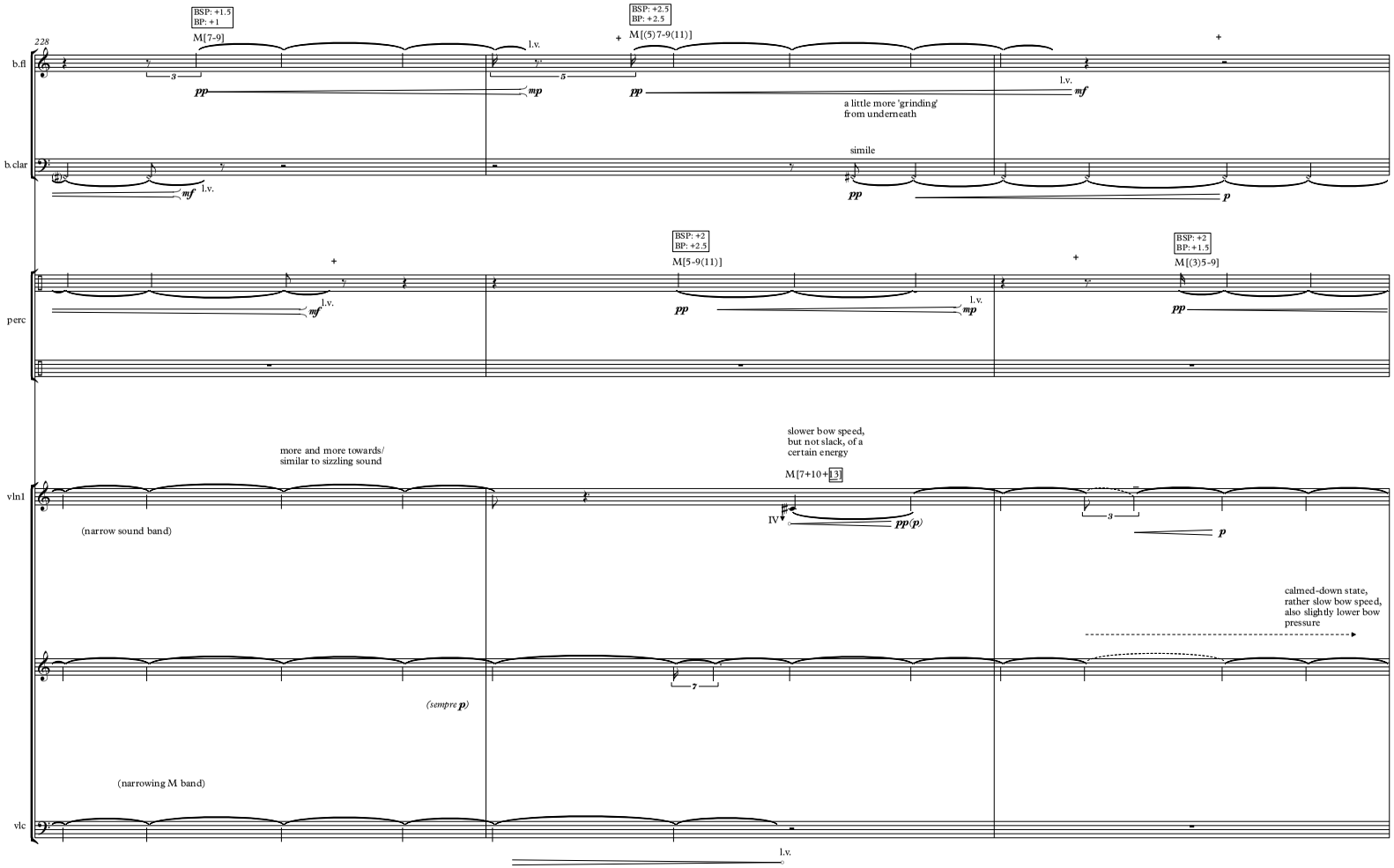

216
b.fl
b.clar
perc
vln1
vlc
BSP: -1.5
BP: -2
M[5-7 (9)]
BSP: +1
BP: +2
M[5-7 (9)]
l.v.
pp
mf
mp
play with a significant amount of noise, and little pitch, like 'colored' air (frequency-colored, however without any single pitch sticking out), blend well with string instrument spectra
BSP: -2
BP: +1.5
M[(3)5-7]
BSP: +1.5
BP: +2.5
M[5-9(11)]
M[13-5]
IV
(sempre mp)
M[3+11-8]
III
slightly faster bow speed
more metallic sound
M[7+10+13]
IV

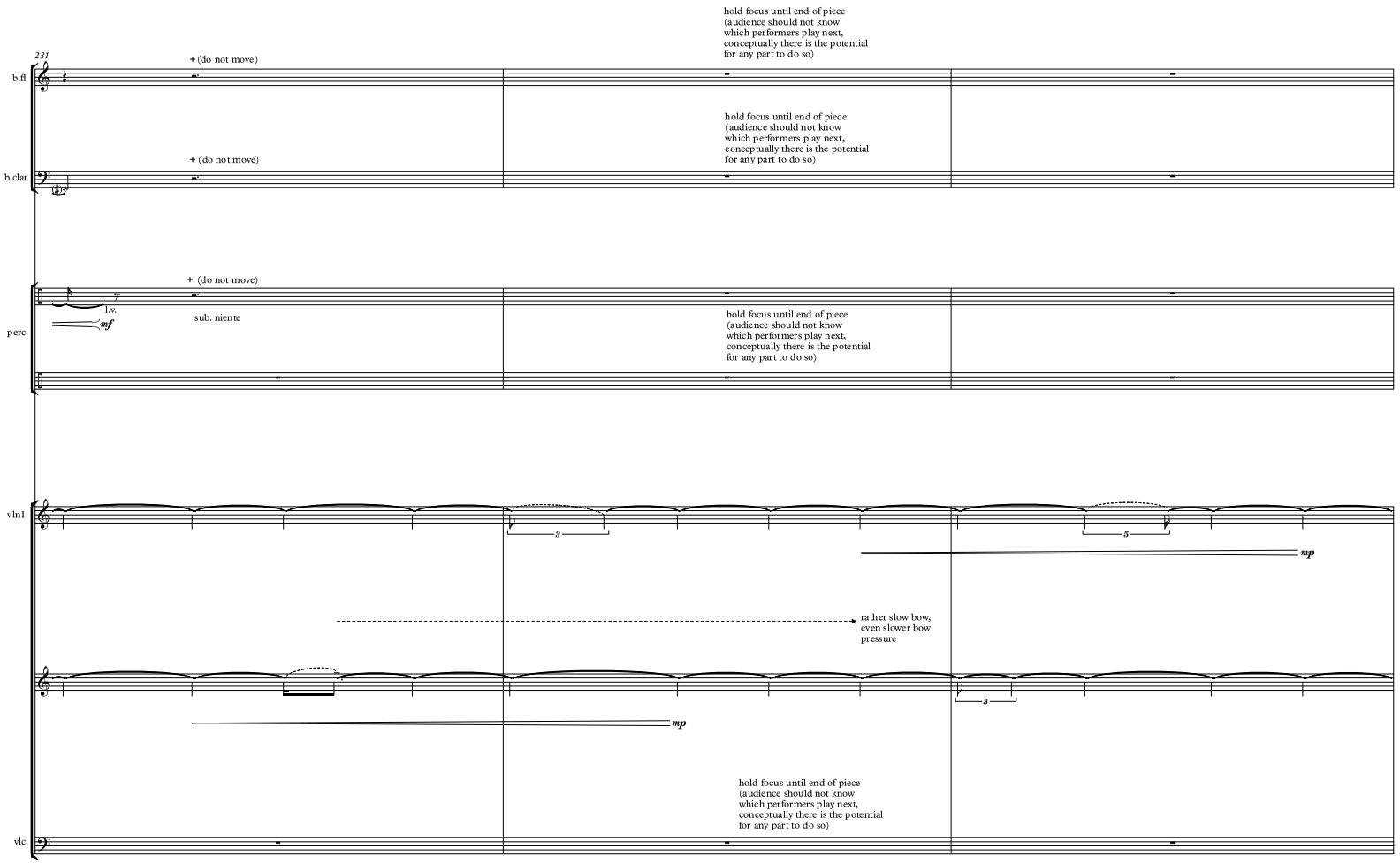

219
b.fl
b.clar
perc
vln1
vlc
BSP: -1.5
BP: +1.5
M[7-9(11)]
BSP: +2
BP: +2
M[5-9]
l.v.
pp
mp
mf
simile, play with a significant amount of air, minimal 'colored' by frequencies that are very inconcrete
simile
BSP: -1.5
BP: +1.5
M[(3)5-7]
rather active state
(sempre mp)
picking up of energy from perc instruments
a little bit more agitated
M[11+8+13]
III
same M
mfsf

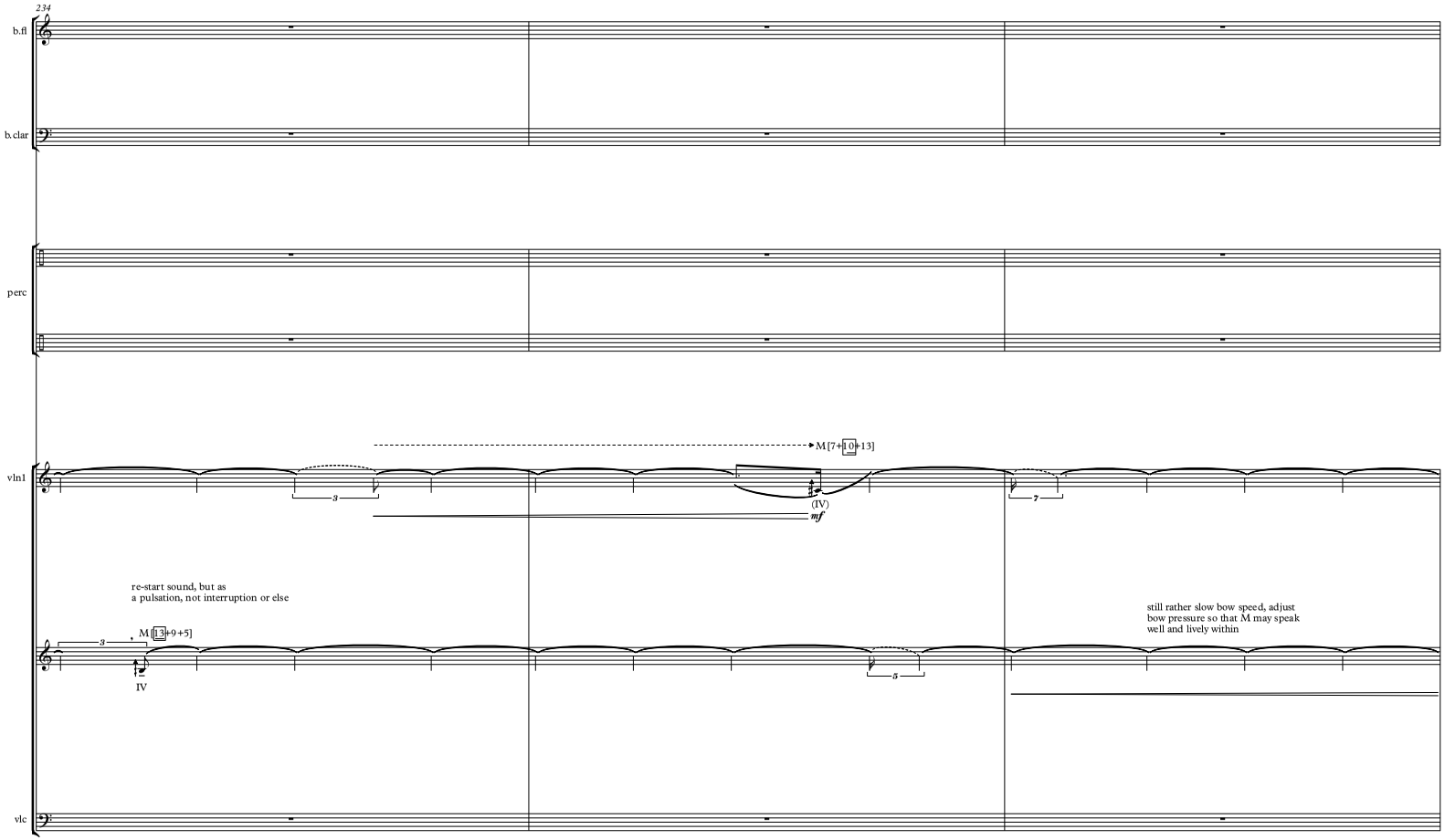

222
l.v.
b.fl
mf
BSP: +2.5
BP: +2.5
M[7-9 (11)]
(m)p
b.clar
(simile)
l.v.
mp
pp
mp
pp
mf
BSP: -1
BP: +2
M[5-7(9)]
BSP: +0.5
BP: +1
M[(3)5-7]
perc
mp/mf
vln1
relaxing
inconspicuous but
gradual cresc.
mf
afterthought of
the previous two
sounds
(1 breath)
(sempre mf)
[hû-h]
[dh(e)/û]
[dhe]
curve of
relaxation
upward direction,
very condensed
back to regular bow speed/pressure (according to technique)
(sempre mf)
vlc
(even broader M than just before)
M[5+9+13]
IV
pp(p)

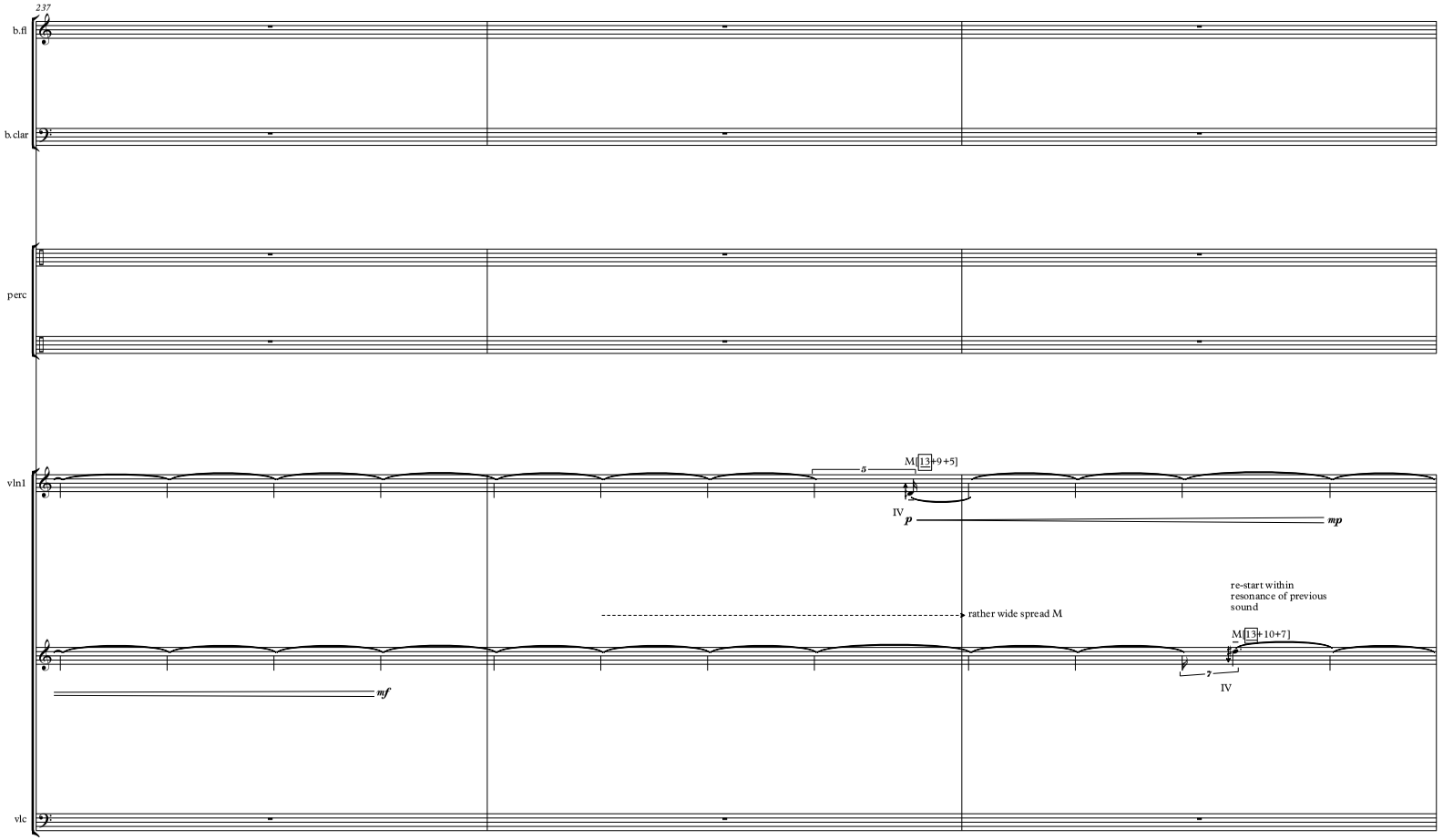
378

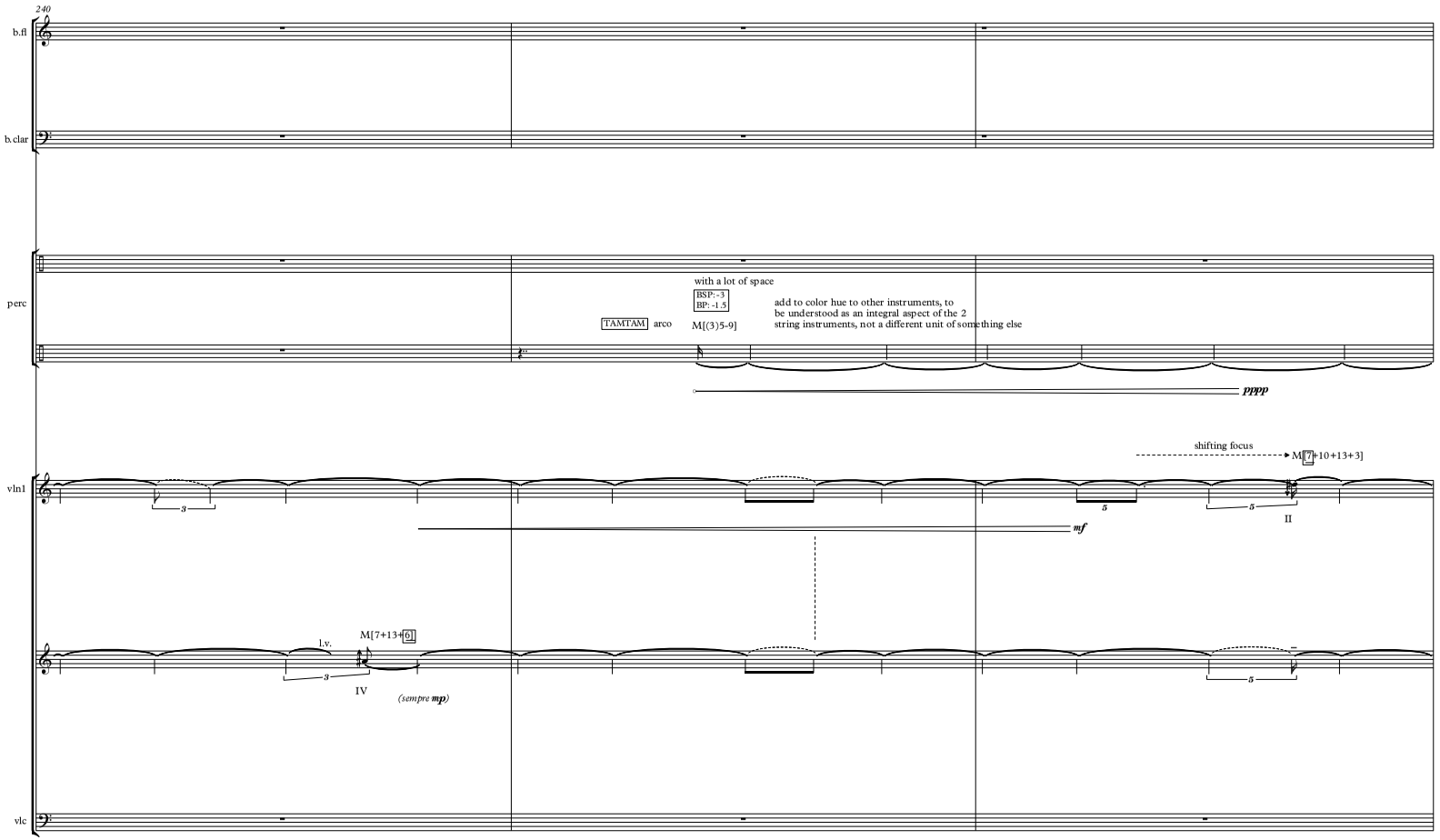

225
b.fl
b.clar
perc
vln1
vlc
BSP: +2.5
BP: +2
M[5-9(11)]
BSP: +2
BP: +2
M[(3)5-11]
BSP: +2
BP: +2
M[(3)5-11]
BSP: +1.5
BP: +1.5
M[(3)5-7(9)]
l.v.
mf
pp
mp
mp sub mf
with a lot of air sound, slightly colored by pitch
(hold mp steady si poss.)
increasing bow pressure
spectral band getting higher
subito raised bow speed to this already higher bow pressure
pp
ppp nature, but still
very well audible
(also the fact that the
teeth are closed (if
breathing).
(pp) but still rather present
slightly slower bow speed at
slightly higher bow pressure
M[3+13+10]
IV
ppp
soft entrance
p

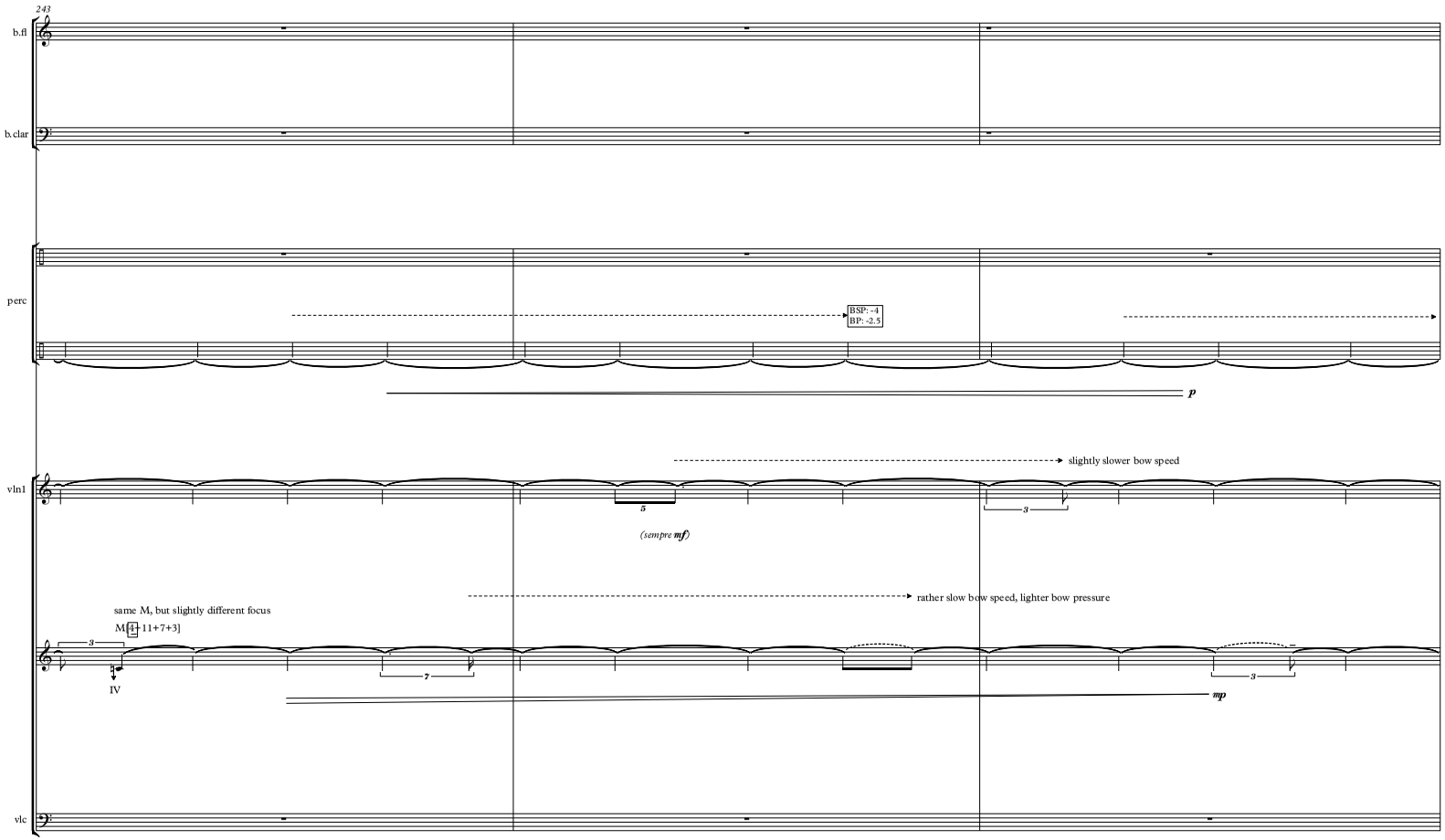

228
b.fl
b.clar
perc
vln1
vlc
BSP: +1.5
BP: +1
M[7-9]
BSP: +2.5
BP: +2.5
M[(5)7-9(11)]
BSP: +2
BP: +2.5
M[5-9(11)]
BSP: +2
BP: +1.5
M[(3)5-9]
l.v.
pp
mp
mf
p
a little more 'grinding' from underneath
simile
more and more towards/ similar to sizzling sound
slower bow speed, but not slack, of a certain energy
M[7+10+13]
IV
pp(p)
(narrow sound band)
calmed-down state, rather slow bow speed, also slightly lower bow pressure
(sempre p)
(narrowing M band)

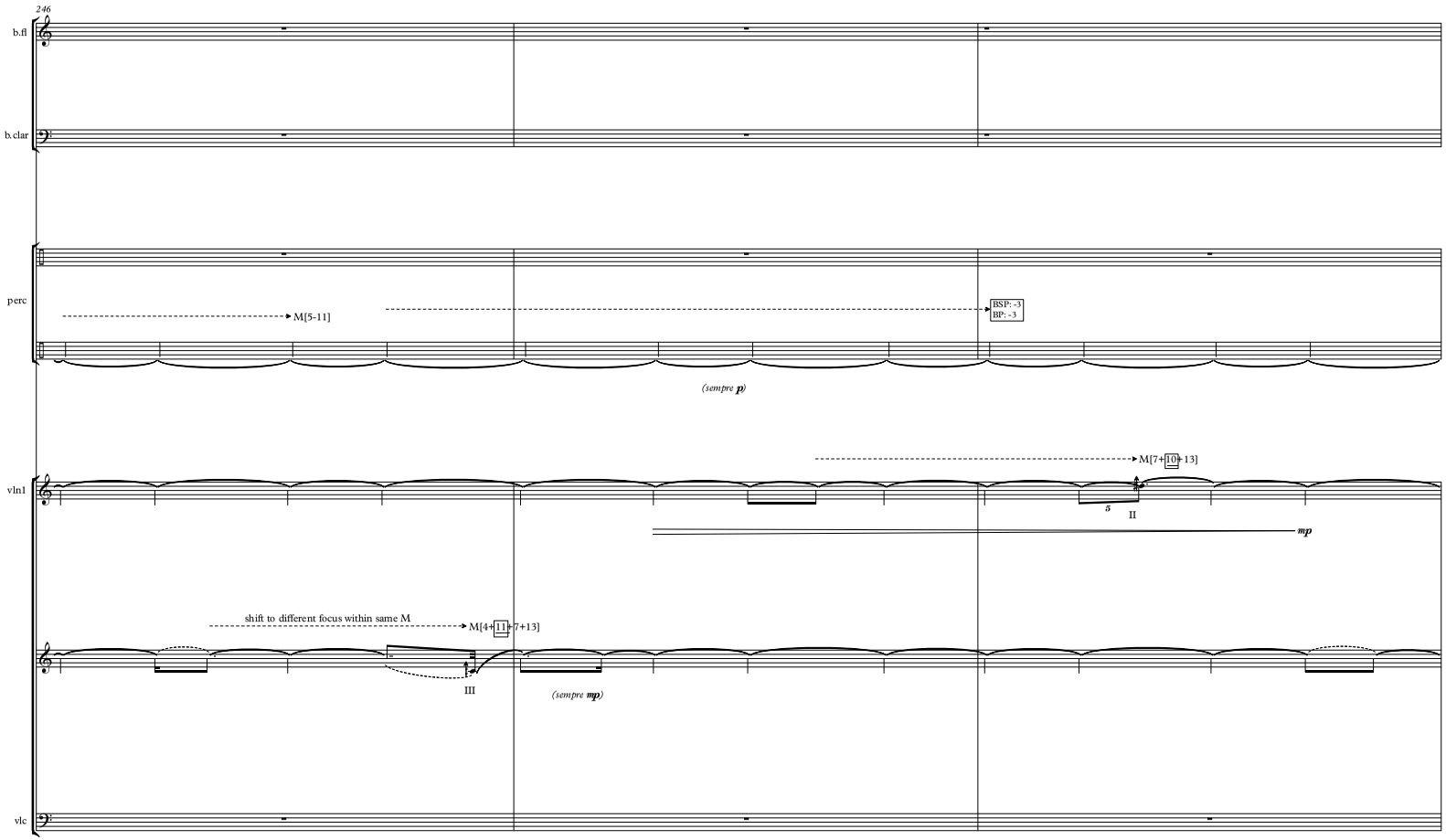

231
b.fl
b.clar
perc
vln1
vlc
+ (do not move)
+ (do not move)
+ (do not move)
l.v.
mf
sub. niente
hold focus until end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
hold focus until end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
hold focus until end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
hold focus until end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
3
5
mp
rather slow bow,
even slower bow
pressure
3
mp

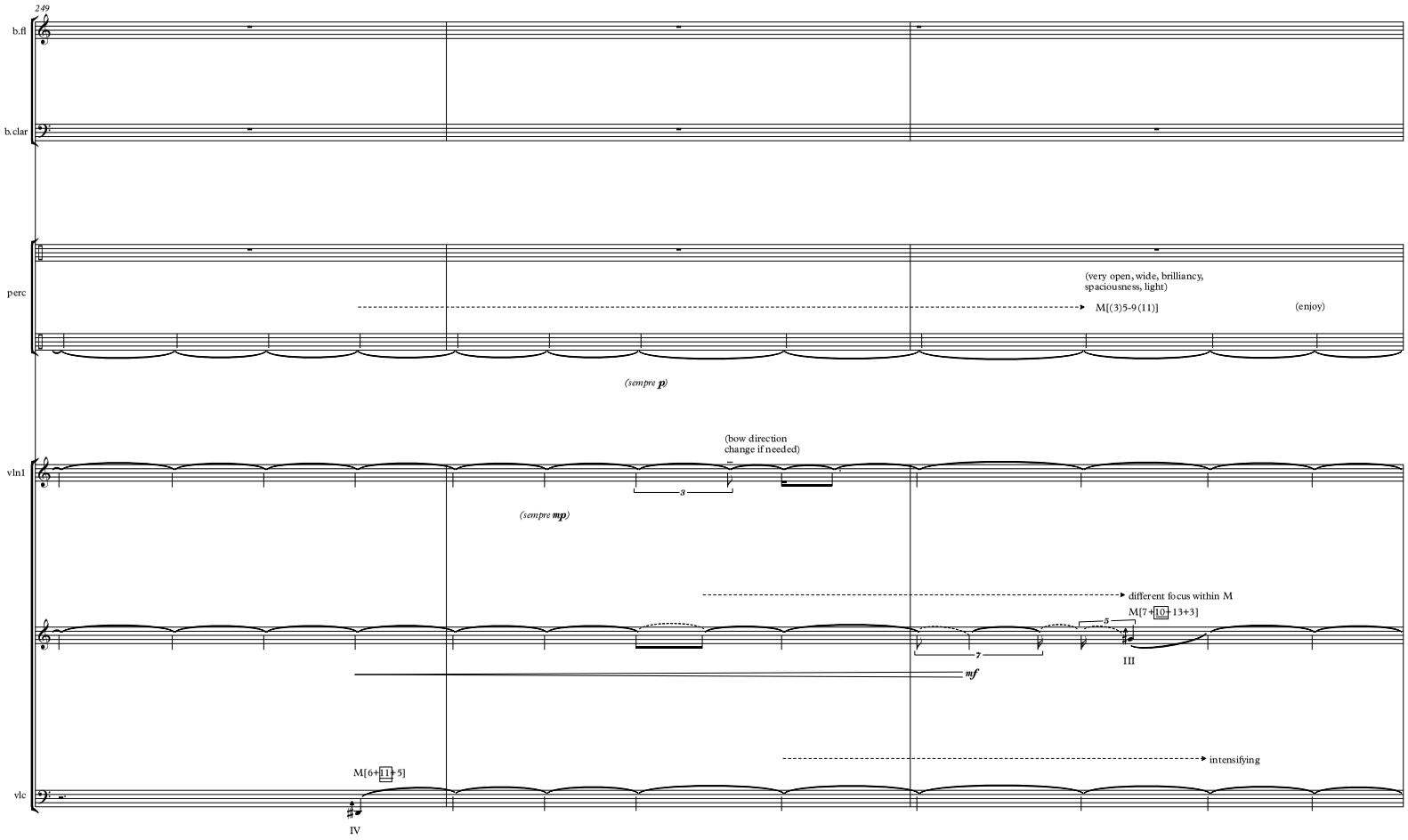

234
b.fl
b.clar
perc
vln1
vlc
M[7+10+13]
(IV)
mf
re-start sound, but as
a pulsation, not interruption or else
M[13+9+5]
IV
still rather slow bow speed, adjust
bow pressure so that M may speak
well and lively within

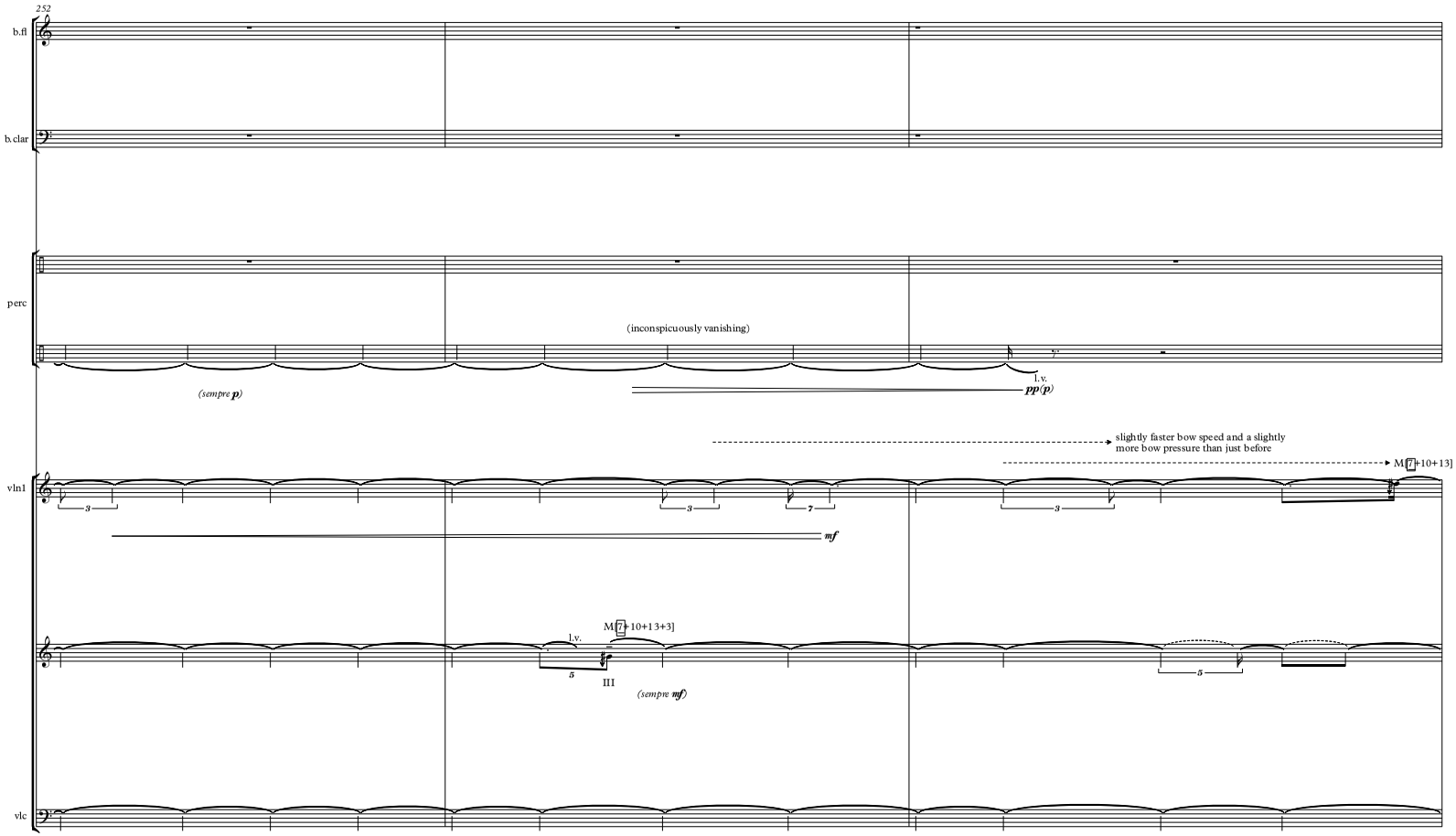

237
b.fl
b.clar
perc
vln1
vlc
5
M[13+9+5]
IV
p
mp
rather wide spread M
re-start within
resonance of previous
sound
M[13+10+7]
7
IV
mf

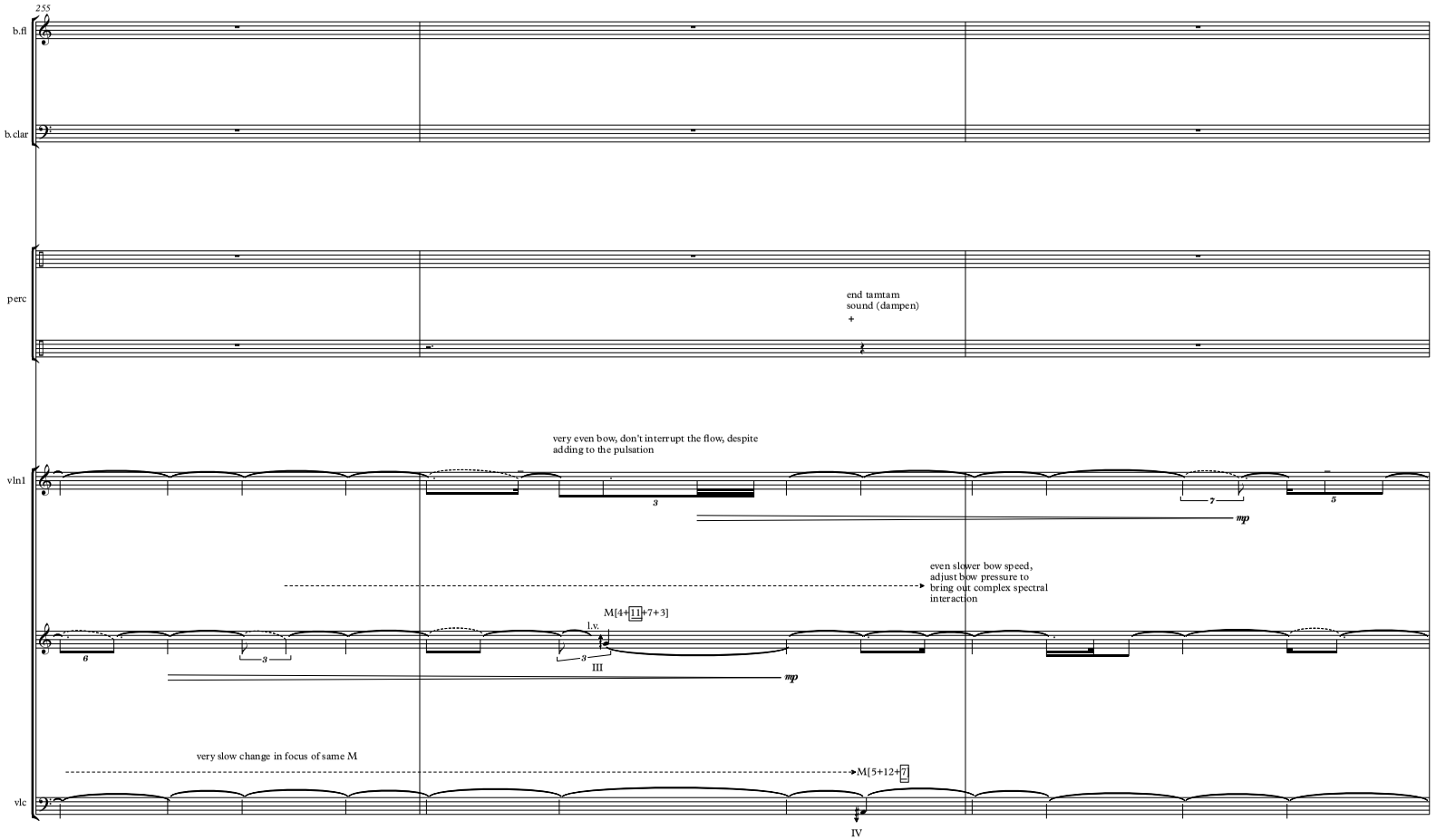

240
b.fl
b.clar
perc
with a lot of space
BSP: -3
BP: -1.5
TAMTAM
arco
M[(3)5-9]
add to color hue to other instruments, to
be understood as an integral aspect of the 2
string instruments, not a different unit of something else
pppp
shifting focus
M[7+10+13+3]
vln1
mf
II
M[7+13+6]
l.v.
IV
(sempre mp)
vlc

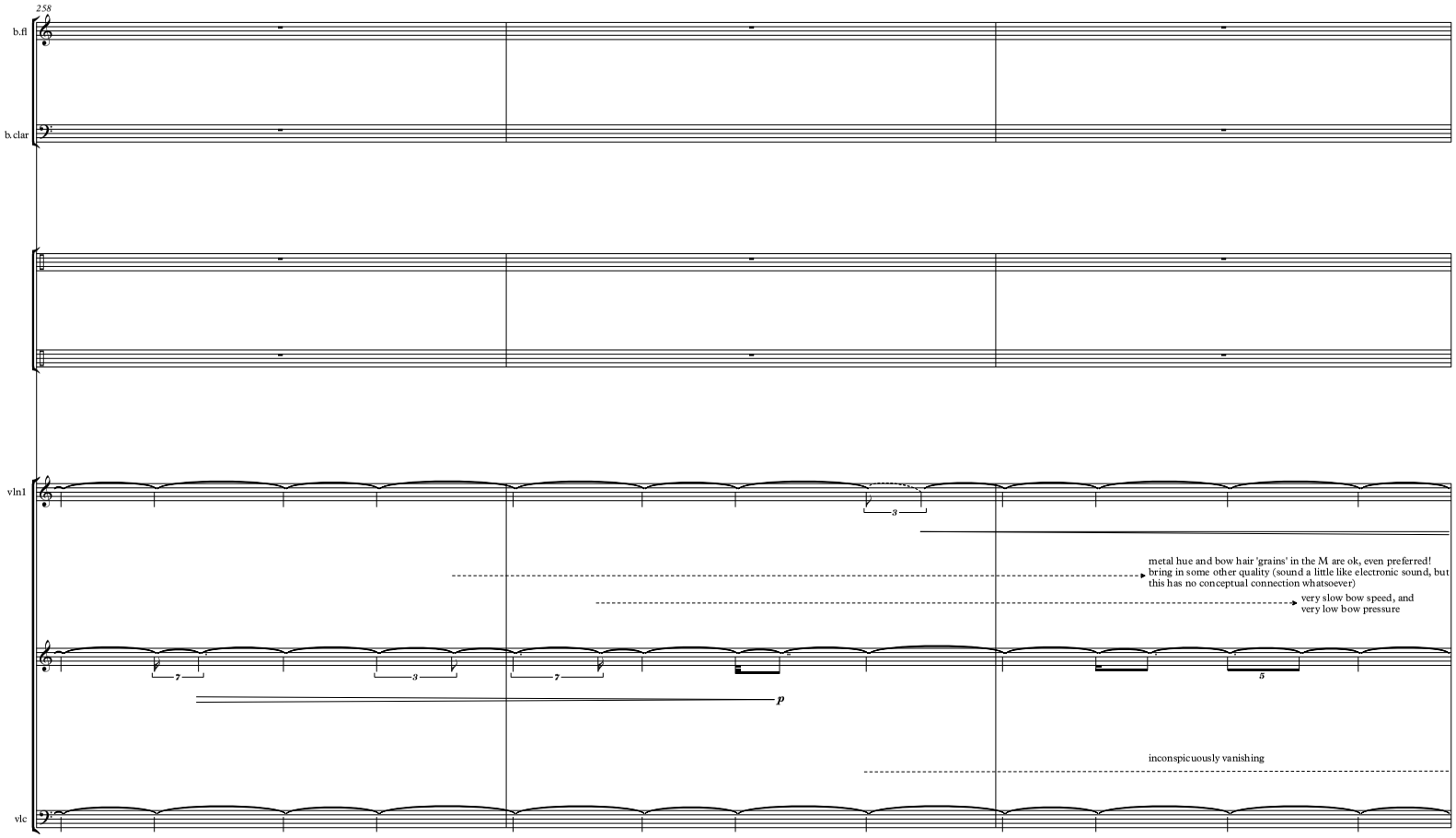

243
b.fl
b.clar
perc
BSP: -4
BP: -2.5
p
vln1
slightly slower bow speed
5
(sempre mf)
3
rather slow bow speed, lighter bow pressure
same M, but slightly different focus
M[4+11+7+3]
3
IV
7
3
mp
vlc

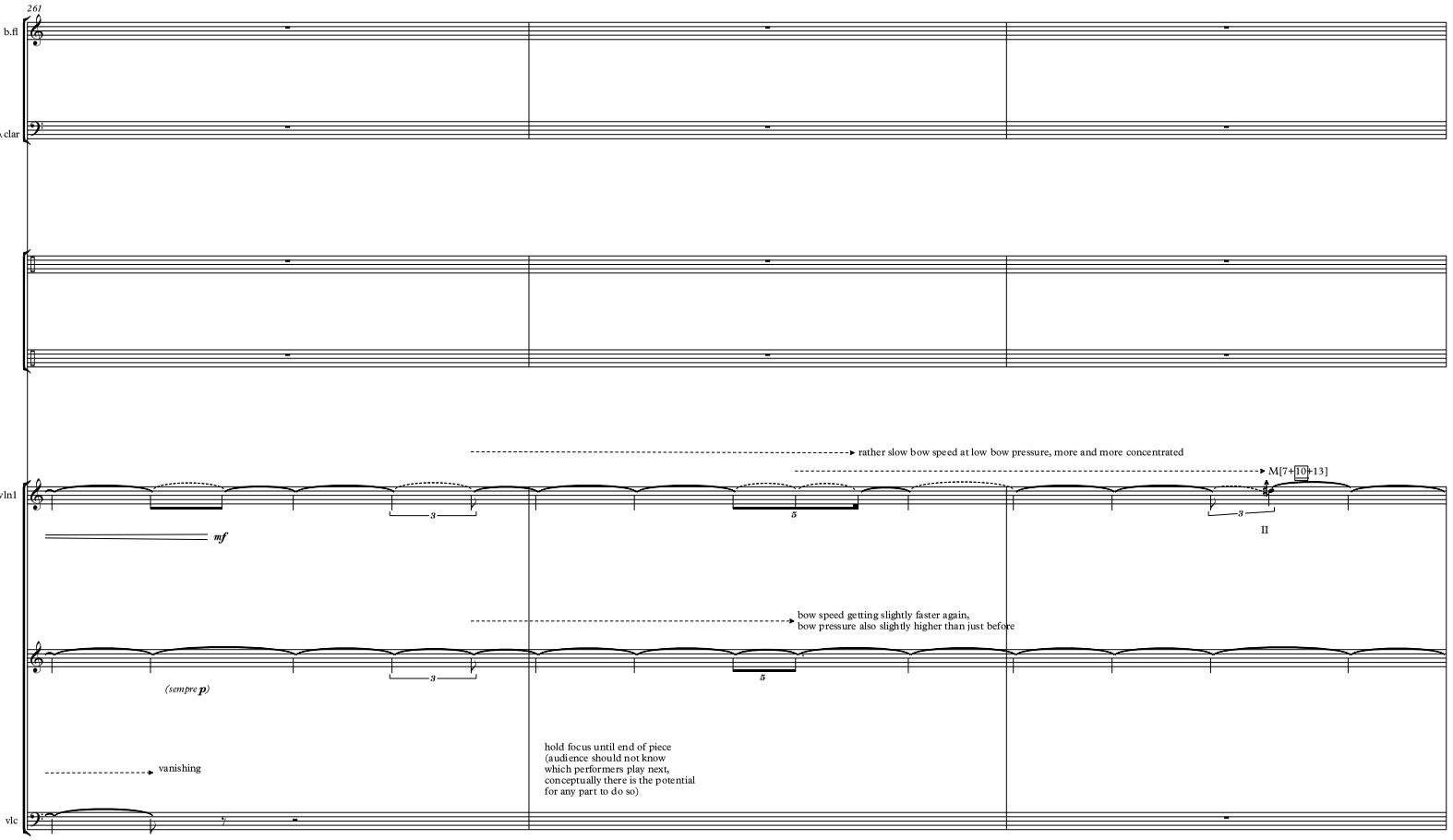

246
b.fl
b.clar
perc
M[5-11]
BSP: -3
BP: -3
(sempre p)
vln1
M[7+10+13]
II
mp
shift to different focus within same M
M[4+11+7+13]
III
(sempre mp)
vlc

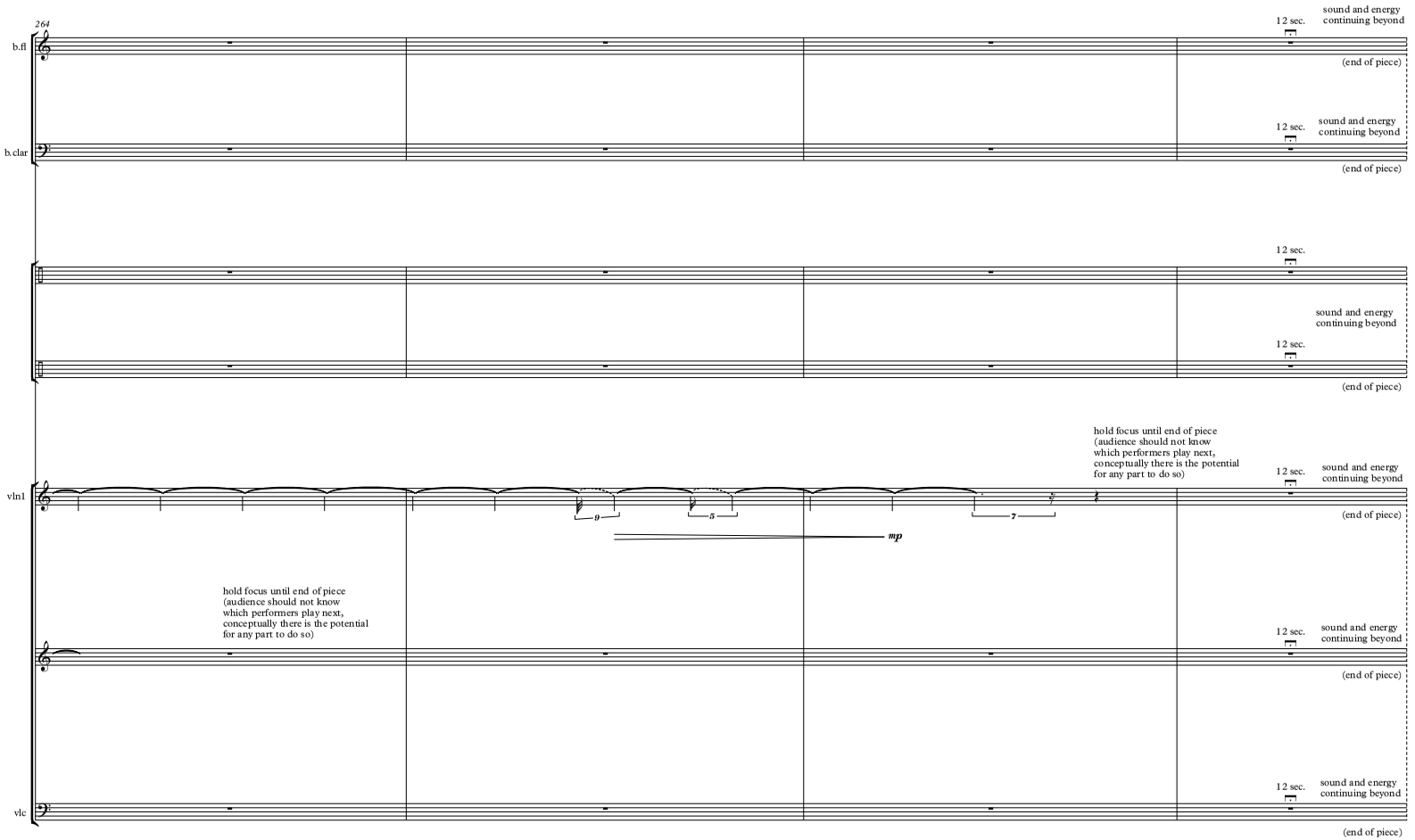

249
b.fl
b.clar
perc
(very open, wide, brilliancy,
spaciousness, light)
M[(3)5-9(11)]
(enjoy)
(sempre p)
vln1
(bow direction
change if needed)
3
(sempre mp)
different focus within M
M[7+10+13+3]
5
7
III
mf
intensifying
M[6+11+5]
vlc
IV


252
b.fl
b.clar
perc
(inconspicuously vanishing)
l.v.
(sempre p)
pp (p)
slightly faster bow speed and a slightly more bow pressure than just before
M[7+10+13]
vln1
mf
M[7+10+13+3]
l.v.
III
(sempre mf)
vlc


255
b.fl
b.clar
perc
end tamtam
sound (dampen)
vln1
very even bow, don't interrupt the flow, despite
adding to the pulsation
mp
even slower bow speed,
adjust bow pressure to
bring out complex spectral
interaction
M[4+11+7+3]
l.v.
III
mp
very slow change in focus of same M
M[5+12+7]
vlc
IV


258
b.fl
b.clar
vln1
vlc
metal hue and bow hair 'grains' in the M are ok, even preferred!
bring in some other quality (sound a little like electronic sound, but
this has no conceptual connection whatsoever)
very slow bow speed, and
very low bow pressure
inconspicuously vanishing
p


261
b.fl
b.clar
vln1
rather slow bow speed at low bow pressure, more and more concentrated
M[7+10+13]
mf
II
bow speed getting slightly faster again,
bow pressure also slightly higher than just before
(sempre p)
hold focus until end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
vanishing
vlc


264
b.fl
b.clar
vln1
vlc
12 sec.
sound and energy
continuing beyond
(end of piece)
hold focus until end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
mp

5.3. OTHERWISE III (2018) – for string octet

Written for the JACK Quartet and Mivos Quartet (JACK Quartet: Christopher Otto, Austin Wulliman, John Pickford Richards, Jay Campbell; Mivos Quartet: Olivia De Prato, Lauren Cauley Kalal, Victor Lowrie Tafoya, Mariel Roberts).

World premiere by the JACK and Mivos Quartets on May 19, 2018 at John Knowles Paine Concert Hall, Harvard University Music Department.

MANUELA MEIER

otherwise III

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"OTHERWISE III" (2018)

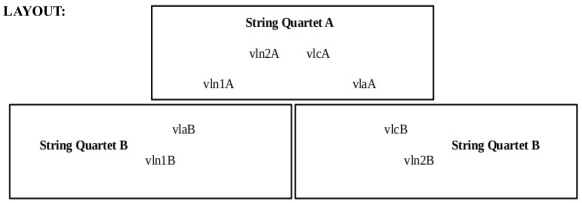
FOR STRING OCTET

Duration: approx. 12 min

GENERAL CONCEPTUAL FEATURES:

The string octet is made up of two full sets of string quartets (2 vln, vla, vlc each). String Quartet B is understood to be the sonic extension of String Quartet A. Therefore the sounds and volume of String Quartet B (which oftentimes contains much more concrete sounds than the parts of String Quartet A) should be carefully adjusted, in order to indistinguishably mesh and grow together with the sound world of String Quartet A. Regardless of this adjustment on the side of the String Quartet B, both String Quartets are considered to be equally important for the piece, as their parts intertwine to an extent where they become one single huge sounding and resonating body of sound, or 'sonic extent'.

STAGE LAYOUT:



GENERAL FEATURES:

Notation of microtones:

quarter tone sharp ♯↓ three quarter tone sharp ♯ quarter tone flat ♭↓ three quarter tone flat ♭

Additional arrows attached to these microtones represent cent adjustments. For multiphonic nodes the cents are not given; else follow the instructions in the score, as to how many cents to deviate from the reference pitch.

Multiphonics:



The pitch given represents the fingerboard location/fundamental of the multiphonic to be played.

M [5+12+(7)] Detailed information on sounding result of the multiphonics as given in the parts, with numbers representing the strongest sounding partial(s). The line represents the partials most closely located in regards to the fundamental, and the box gives information about the specific focus (narrower or wider focus, with either one or two partials as the focal area) of pitches within the given multiphonic. This is achieved by listening closely to the partials within the multiphonic – once the specific partial is clearly sounding, focus and concentrate even more on this specific frequency.
A partial with parenthesis indicates a weak or almost inexistent sounding of a certain partial contained in the multiphonic.



keep on playing the same multiphonic, unless/until instructed otherwise

Focus:

F[(5)7-11] Indicates the focus within the more complex spectral shaping of a "regular" pitch (non-Multiphonic); adjust the bow contact location and pressure (unless given otherwise), such that the complexity of this individual pitch's spectrum is allowed to come out. In the case of the given focus, the 7th to 11th partials are audible, and to be focused on, with the 5th partial to be slightly audible. Other partials, esp. lower ones should barely be audible.
Follow instructions in the score for brief graphic elements, for moments in which the focus label is changing within a much shorter period of time.

Bow-related notation:



BSP: Bow Speed
BP: Bow Pressure

The bow speed and bow pressure levels are given if they deviate from the standard bow speed and bow pressure levels that are connected with certain playing techniques.
Both levels range from a scale of -5 (lowest, to the extent that at this point it stops/is non-existent) to +5 (maximum, e.g. the bow would stop completely at maxium pressure/the bow speed exceeds the speed possible for the respective performer). The smallest increment is 0.5. The level of "0", indicates the ordinario speed/pressure in relation to the given playing technique.
However, even for the highest bow pressure, the harmonic aspects of the sonority should always prevail, and any scratching, or 'grinding' sonic artifacts should never cover the rich harmonic spectrum of the given sonority.

Strong bow pressure, with a fair amount of scratching, but never completely covering the spectrum of the base sonority; subito unless noted otherwise.



Very fast and regular tremolo, very narrow and dense. The intensity level is significantly increased, however it should never give an impression of nervosity.



Continuous sound, with audible bow direction changes ('noise' of the bow direction change) well audible 'within' the sound.

Bow contact locations:

m.s.t. molto sul tast
s.t. sul tasto
ord. ordinario
s.p. sul ponticello
m.s.p. molto sul ponticello

s.p. ⟶ m.s.p. gradual change of fingerboard location

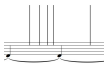
Bow direction change:

In case bow direction changes are specifically written in the score, they should be carefully followed through, as those have a direct impact on other compositional features.

↑ bow direction change: upbow

↓ bow direction change: downbow

Rhythmic features:

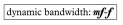


Each vertical line represents a bow direction change, through which a particular rhythm emerges. It should always sound fluid and spontaneous, and never strict or metered in any way. This feature only applies if labeled accordingly as "bow direction change".

Dynamics:



extremly even/flat dynamics at the level given at the beginning of the long square symbol (here: piano). Start and end in "on/off" mode. Particularly at the ending, ensure that the sound simply stops (as does the physical movement/action that is connected to it), without any prior indication of an end of a phrase (German: "abphrasieren", (no abphrasieren!)).



The dynamic bandwidth is active for all parts of the piece that are in 'relative' time, and takes place within the given bandwidth. Exceptions will be stated explicitly in the score during those sections of the piece, and will only apply to one individual sonority, after which the dynamic bandwidth applies again.

Notational features that further shape an underlying sonority:

Diamond or full noteheads supply the performer with additional information on whether a sound is conceived of conceptually as either an air-based or pitch-based sound, that finds itself altered by other sonic qualities or features.
Unless otherwise noted, diamond-shaped noteheads are conceived of as frequency-colored air sounds -- the air sounds being produced by the bow (no use of the performer's voice at any time).
Sections marked as 'noise machine' should sound particularly regular, and with flat dynamics ("on-off" dynamics, with no 'phrasing'/shaping of the dynamics within a sound).
Flag. are notated in the conventional way.



directly on the bridge. Follow specific instructions in the score.

sound that contains a significant amount of noise, rather than 'pure' pitch. Follow the instructions in the score, as to where and how exactly to produce each of these very specific sounds.

As high as possible, unless otherwise noted, or unless with additional AWI/AWIV indication (see below).



Air sound produced by bowing on the waist of the instrument adjacent to the first string (I).
AWIV is the equivalent of this for the fourth string (IV).

Producing a frequency-colored air sound, with bowing as close to bridge (very high m.s.p.) as possible on the indicated string. Mute that string at the given pitch to achieve the correct air sound 'color'.

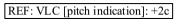
[ho]
[cho]
[f]
[s]

'Vocalization': This serves as a reference for the specific coloring of the base sonority, but the vocalization is never spoken itself/pronounced using the performer's voice. Try to imitate this sound as closely as possible on the instrument only (e.g. by adjusting the bow speed, or as indicated in the score). Generally, the vocalizations are pronounced similar to the German pronounciation, unless indicated otherwise (e.g. English, Mandarin Chinese).
Combinations of various sonic features may result in the following description in the score, as given below.



Other features:

very even/flat dynamics of the sound, within which a significant amount of granular activity (oftentimes a side effect of the respective playing technique, in which certain acoustic artifacts are now being emphasized) is audible.
Follow the instructions in the score as to how exactly to produce and perform each of these very specific sonorities. Generally, the dynamic shape of these sounds are an "on/off" shape -- simply start/stop the sound, without indicating any start or end of a phrase (German: keine Abphrasierung).



reference pitch label

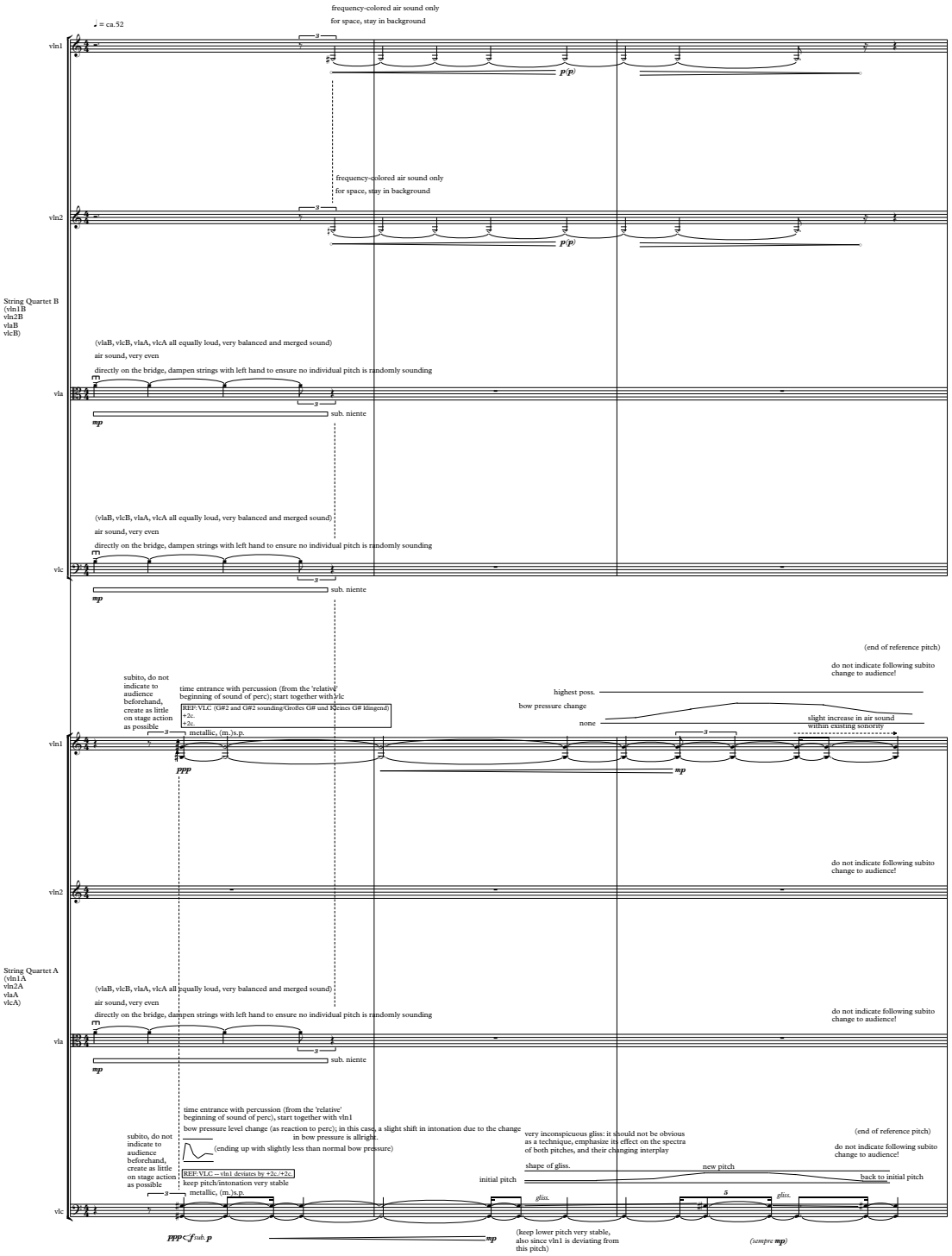
If the "setting" of 'reference pitch' applies for a given section (instructions given in the score), one instrument will serve as the reference (in terms of frequency) for the other. The other instrument will adjust its intonation/tuning to the reference pitch instrument.
To facilitate orientation, the reference pitch is given accordingly in the label (including accidentals, and -- if applicable -- additional microtonal deviations (in cents) from the original pitch). In the example given above, the non-reference pitch instrument will deviate by +2 cents (play 2 cents higher than the refrence pitch played by the violoncello). The deviation from the reference pitch is always given in cents (100 cents = one half tone/one semitone).
The reference pitch instrument part also contains a label which clearly specifies its role as reference pitch (keep intonation very stable during 'refrence pitch' sections, plus additional information as to which instrument is deviating from its reference pitch.

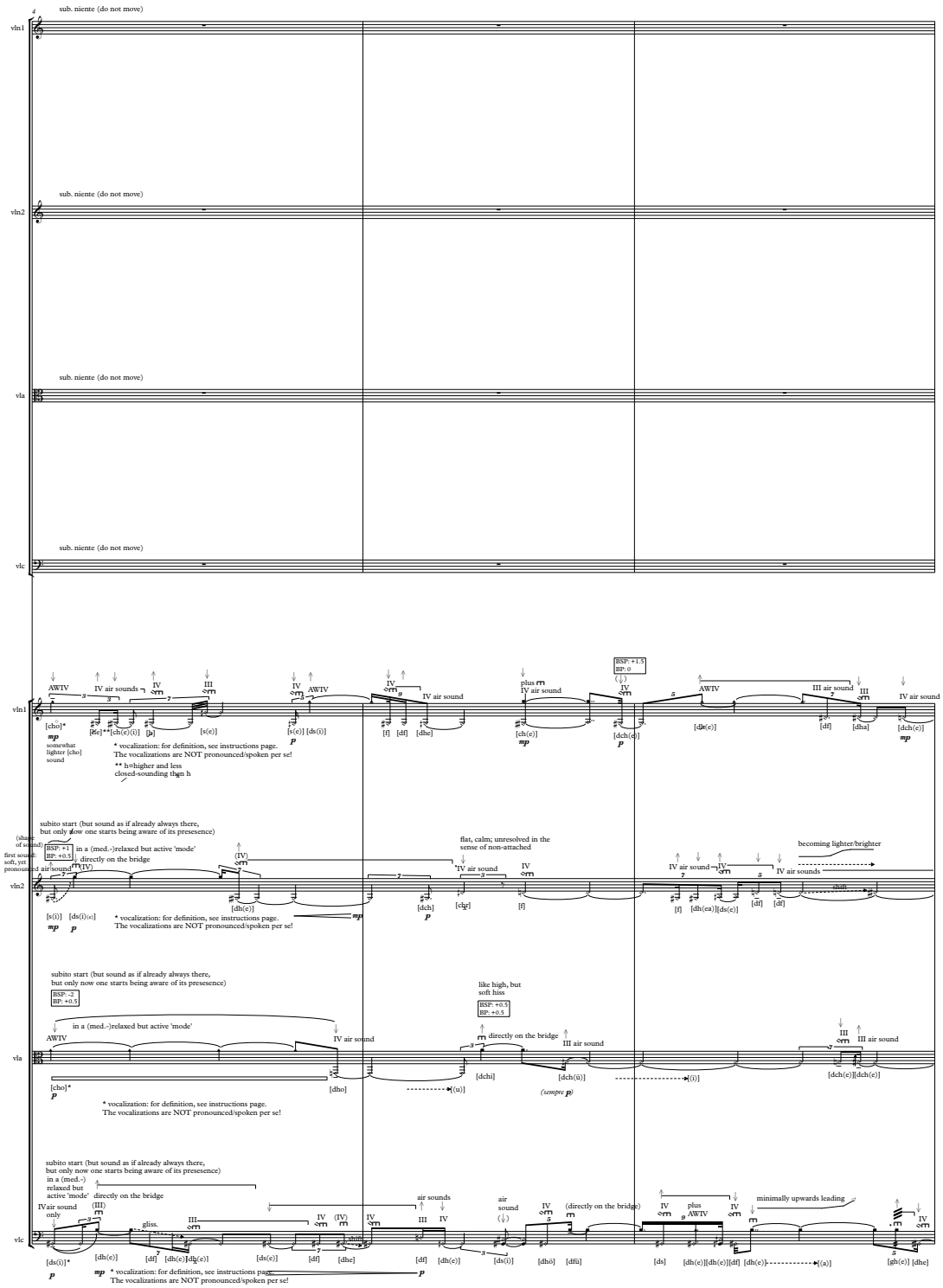
OTHERWISE III

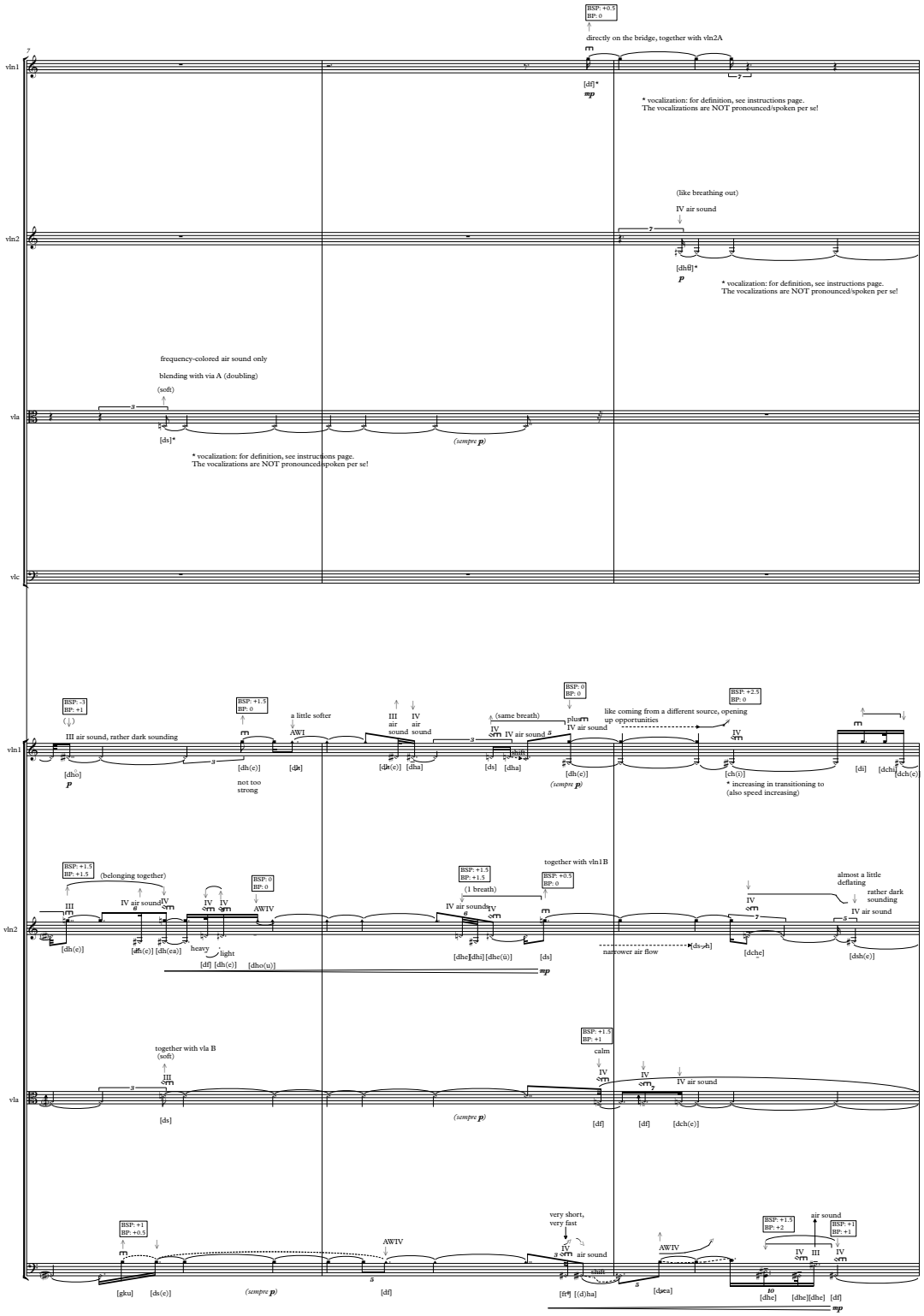
for String Octet

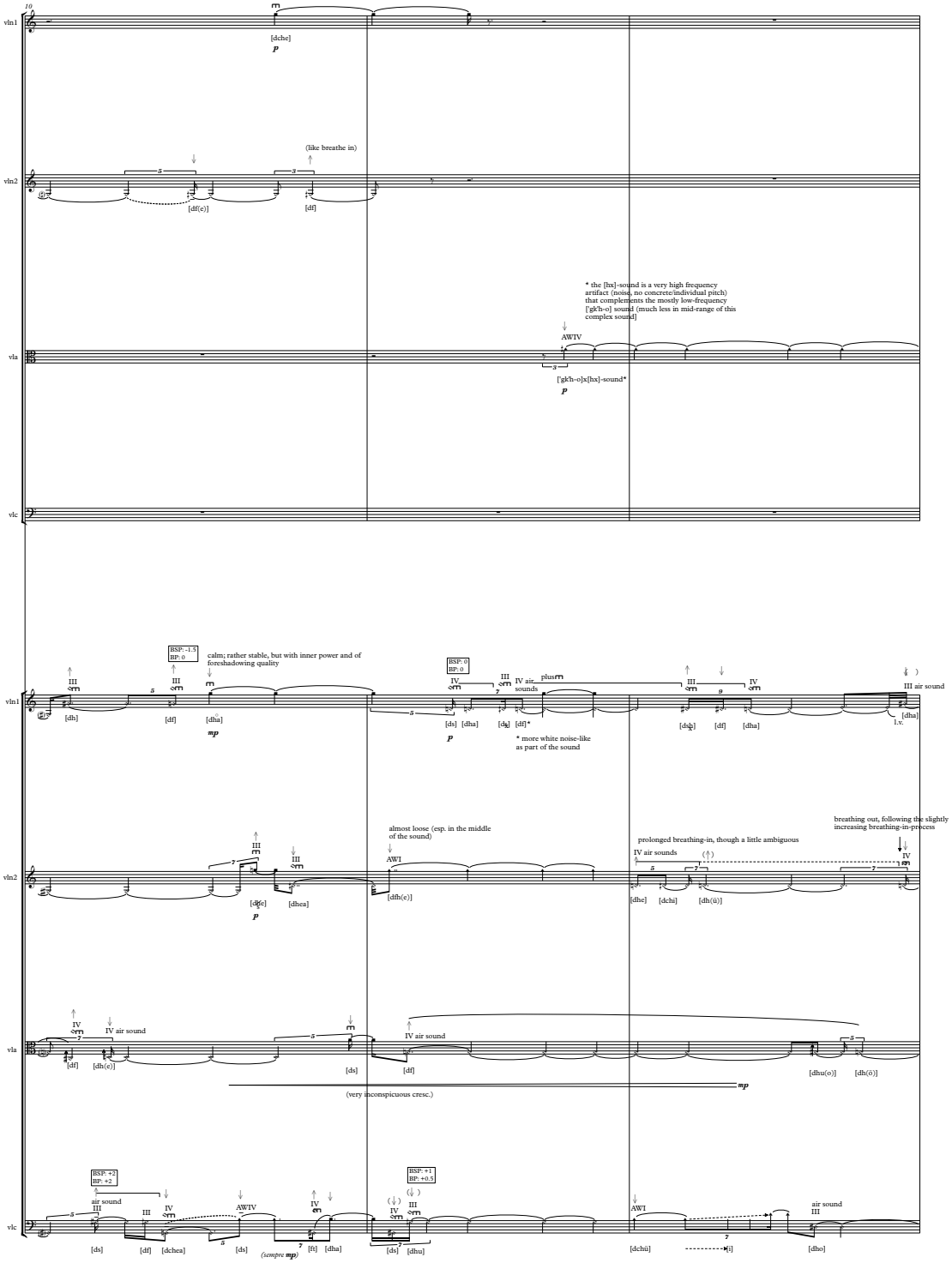
written for JACK Quartet and Mivos Quartet

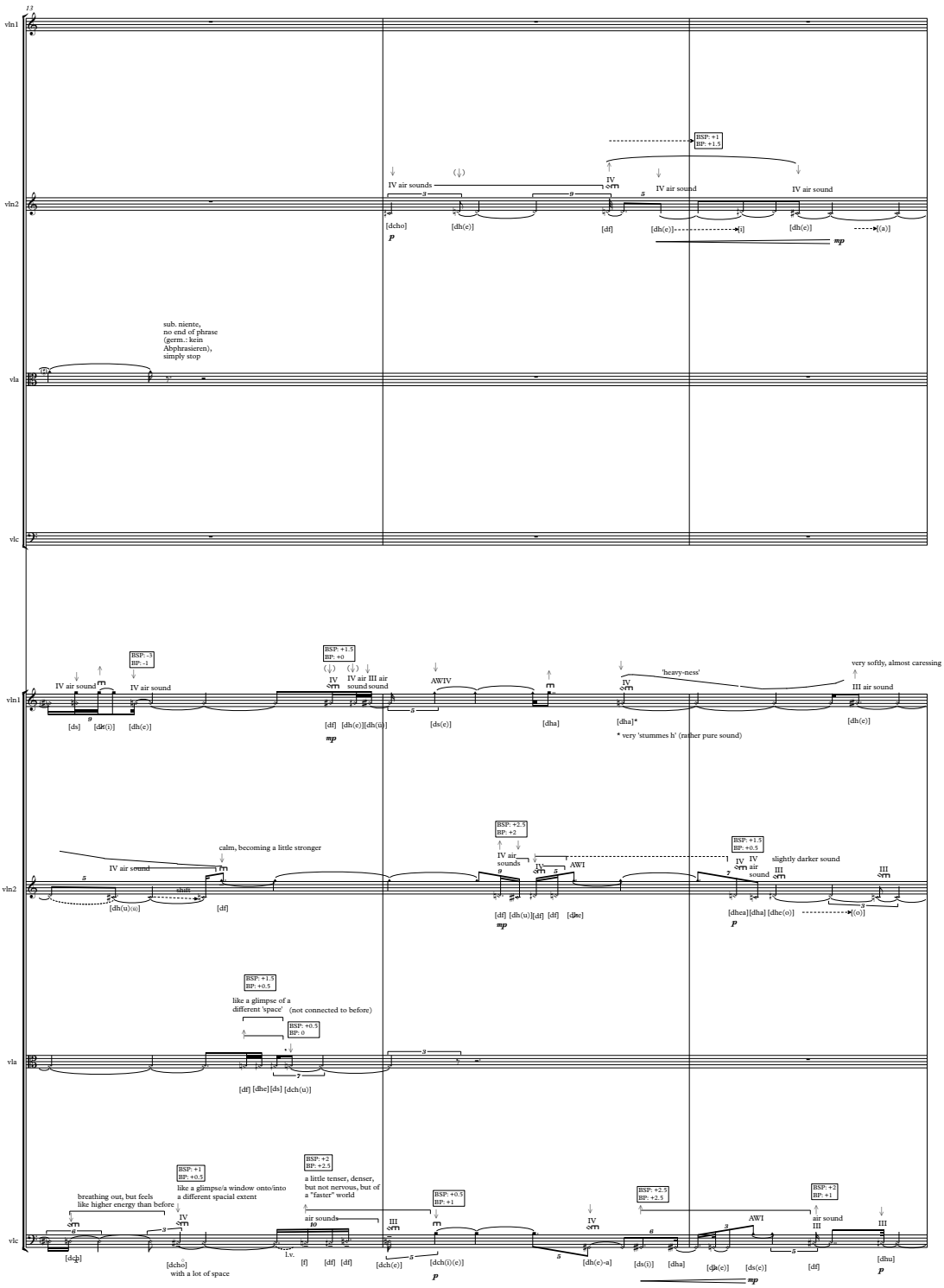
Manuela Meier, 2018

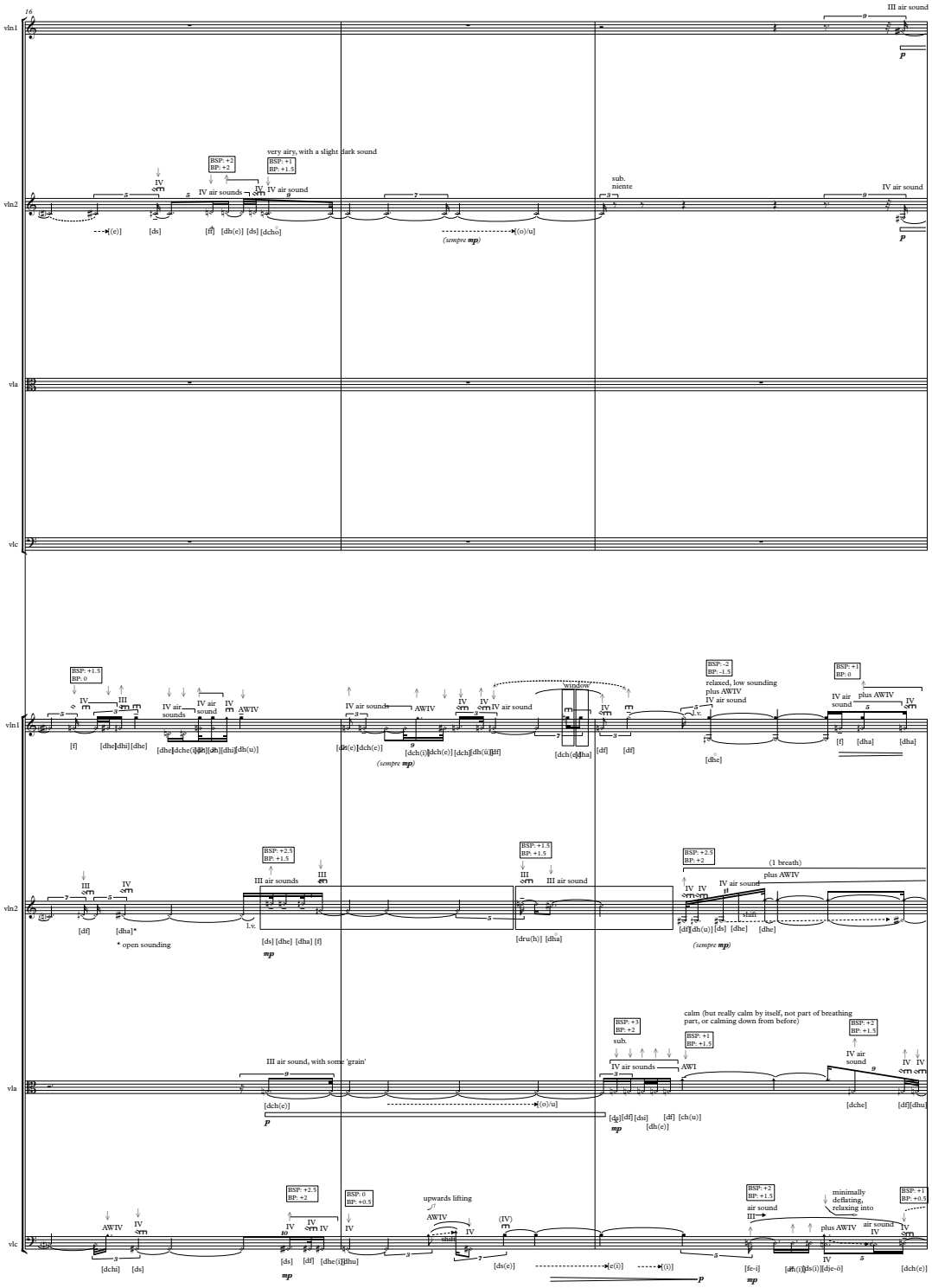


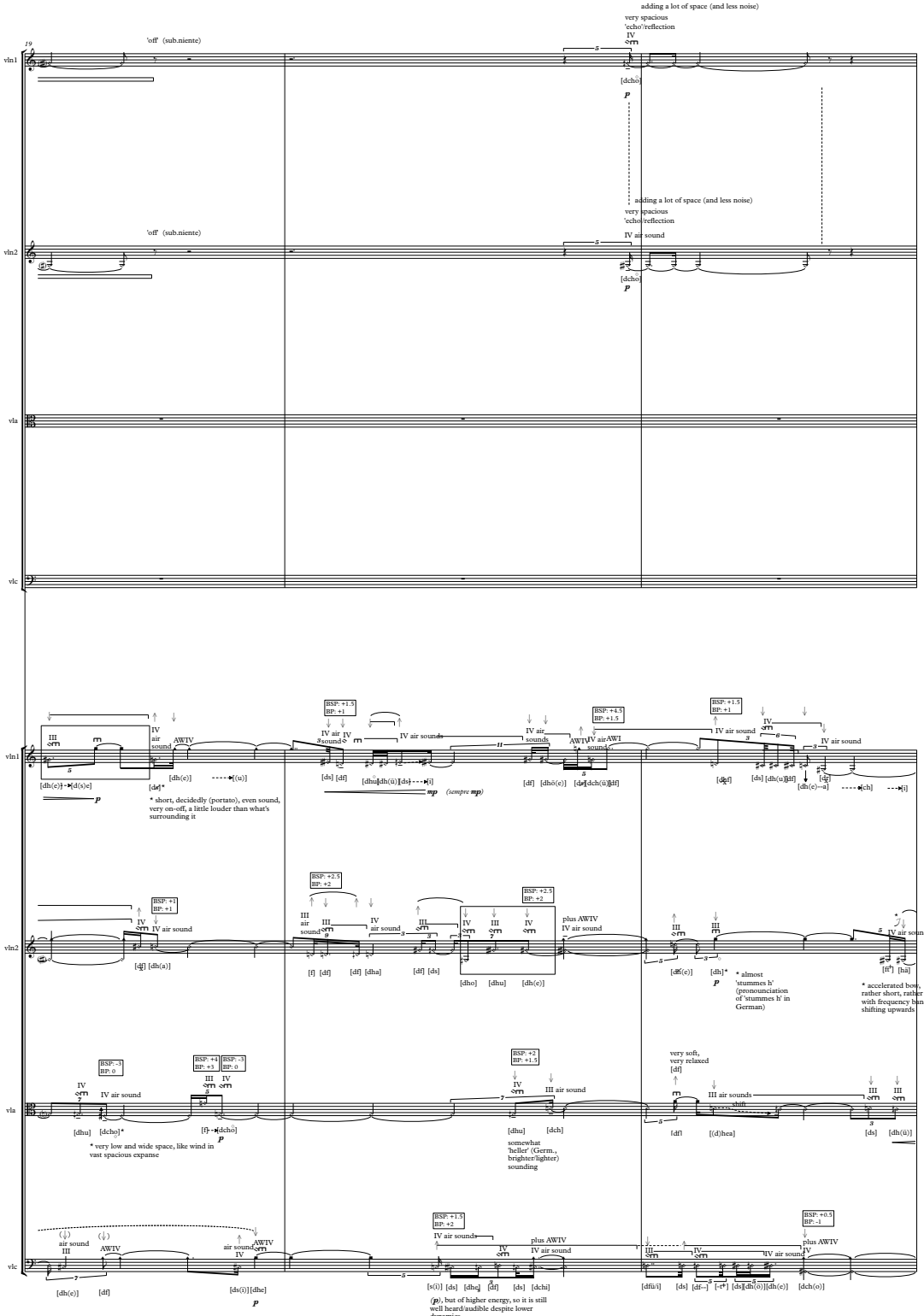

vln1
vln2
vla
vlc
sub. niente (do not move)
AWIV
IV air sounds
IV air sound
III air sound
plus IV air sound
BSP: +1.5
BP: 0
[cho]*
somewhat lighter [cho] sound
* vocalization: for definition, see instructions page.
The vocalizations are NOT pronounced/spoken per se!
** h=higher and less closed-sounding than h
subito start (but sound as if already always there, but only now one starts being aware of its presesence)
(shape of sound)
first sound: soft, yet pronounced air'sound
BSP: +1
BP: +0.5
in a (med.->)relaxed but active 'mode'
directly on the bridge
flat, calm; unresolved in the sense of non-attached
becoming lighter/brighter
BSP: -2
BP: +0.5
like high, but soft hiss
(sempre p)
air sounds
air sound only
gliss.
minimally upwards leading

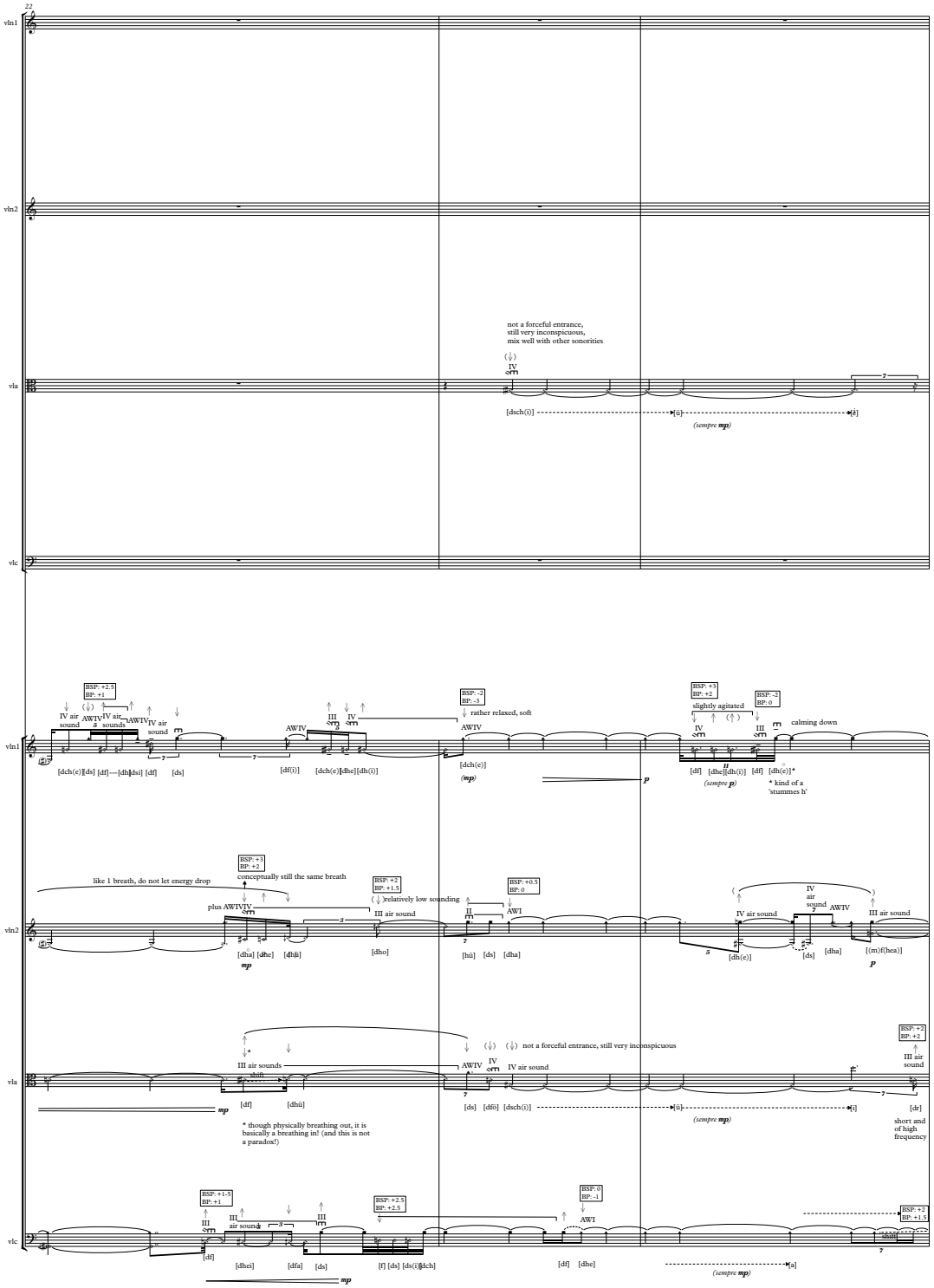

vln1
vln2
vla
vlc
BSP: +0.5
BP: 0
directly on the bridge, together with vln2A
[df]*
mp
* vocalization: for definition, see instructions page.
The vocalizations are NOT pronounced/spoken per se!
(like breathing out)
IV air sound
[dhđ]*
p
* vocalization: for definition, see instructions page.
The vocalizations are NOT pronounced/spoken per se!
frequency-colored air sound only
blending with via A (doubling)
(soft)
[ds]*
(sempre p)
* vocalization: for definition, see instructions page.
The vocalizations are NOT pronounced/spoken per se!
BSP: -3
BP: +1
III air sound, rather dark sounding
[dhù]
p
BSP: +1.5
BP: 0
a little softer
AWI
[dh(e)]
not too strong
[dh]
III air sound
IV air sound
[dh(e)] [dha]
(same breath)
IV air sound
[ds] [dha]
BSP: 0
BP: 0
plus
IV air sound
[dh(e)]
(sempre p)
like coming from a different source, opening up opportunities
BSP: +2.5
BP: 0
IV
[ch(i)]
* increasing in transitioning to (also speed increasing)
[di] [dchi] [dch(e)]
BSP: +1.5
BP: +1.5
(belonging together)
III
IV air sound
[dh(e)]
[dh(e)] [dh(ea)]
heavy
light
BSP: 0
BP: 0
AWIV
[df] [dh(e)] [dho(u)]
BSP: +1.5
BP: +1.5
(1 breath)
IV air sound
[dhe][dhi] [dhe(ü)]
[ds]
mp
together with vln1 B
BSP: +0.5
BP: 0
narrower air flow
[ds>dh]
[dche]
almost a little deflating
rather dark sounding
IV air sound
[dsh(e)]
together with vla B
(soft)
III
[ds]
(sempre p)
BSP: +1.5
BP: +1
calm
IV
[df]
IV
IV air sound
[df] [dch(e)]
BSP: +1
BP: +0.5
[gku] [ds(e)]
(sempre p)
AWIV
[df]
very short, very fast
IV
air sound
[fr¶] (d)ha]
AWIV
[dbca]
BSP: +1.5
BP: +2
air sound
BSP: +1
BP: +1
IV III IV
to
[dhe] [dhe][dhe] [df]
mp

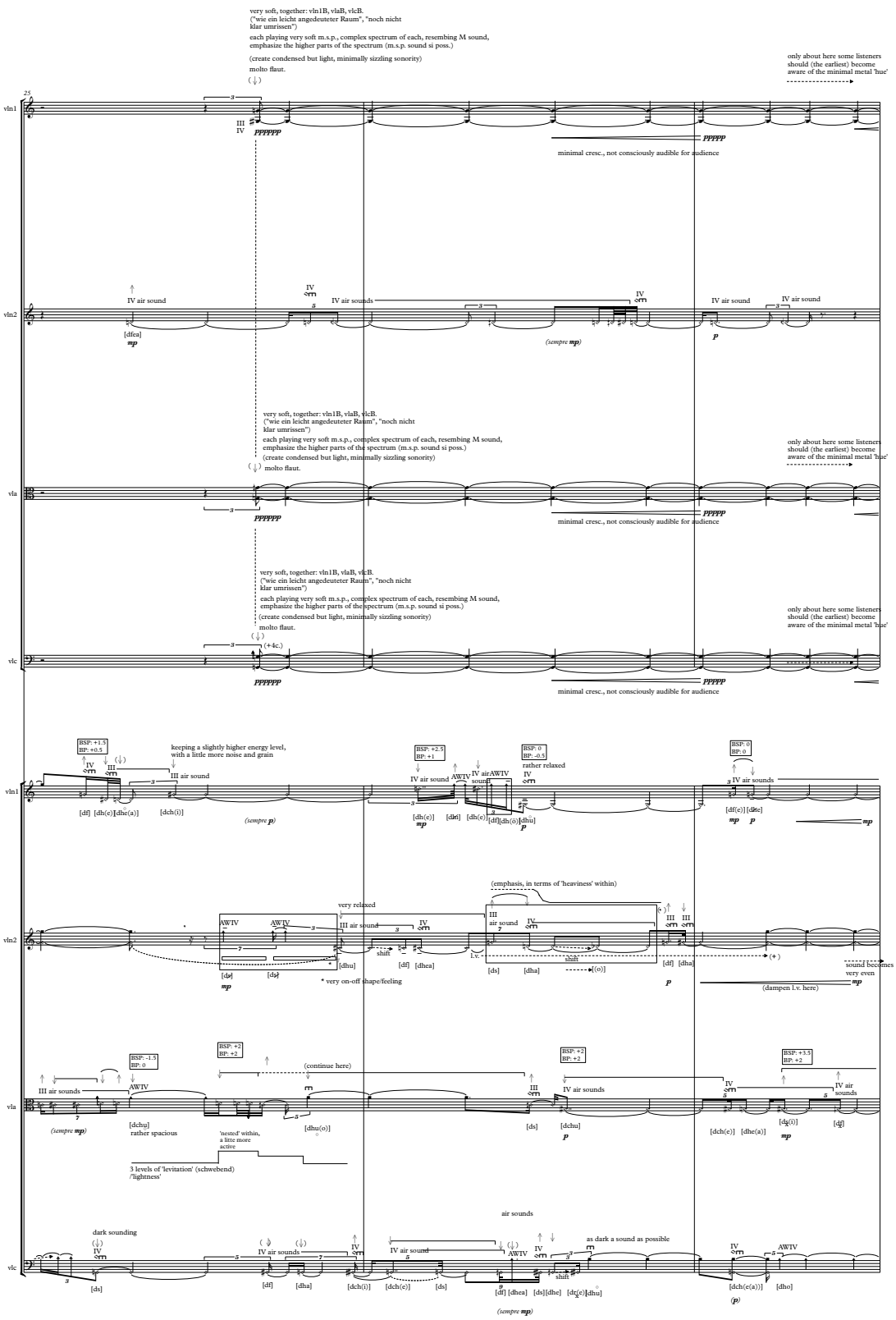

vln1
vln2
vla
vlc
[dche]
p
(like breathe in)
[df(e)]
[df]
* the [hx]-sound is a very high frequency artifact (noise, no concrete/individual pitch) that complements the mostly low-frequency ['gk'h-o] sound (much less in mid-range of this complex sound]
AWIV
['gk'h-o]x[hx]-sound*
p
BSP: -1.5
BP: 0
calm; rather stable, but with inner power and of foreshadowing quality
[dh]
[df]
[dha]
mp
BSP: 0
BP: 0
IV air sounds
plus
[ds]
[dha]
[dh]
[df]*
p
* more white noise-like as part of the sound
[dsh]
[df]
[dha]
l.v.
III air sound
almost loose (esp. in the middle of the sound)
AWI
[dh(e)]
[dhe]
[dhea]
prolonged breathing-in, though a little ambiguous
IV air sounds
[dhe]
[dchi]
[dh(ü)]
breathing out, following the slightly increasing breathing-in-process
IV air sound
[df]
[dh(e)]
[ds]
[df]
[dhu(o)]
[dh(ö)]
(very inconspicuous cresc.)
mp
BSP: +2
BP: +2
air sound
[ds]
[df]
[dchea]
AWIV
[ds]
(sempre mp)
[ft]
[dha]
BSP: +1
BP: +0.5
[ds]
[dhu]
AWI
[dchü]
[i]
air sound
[dho]

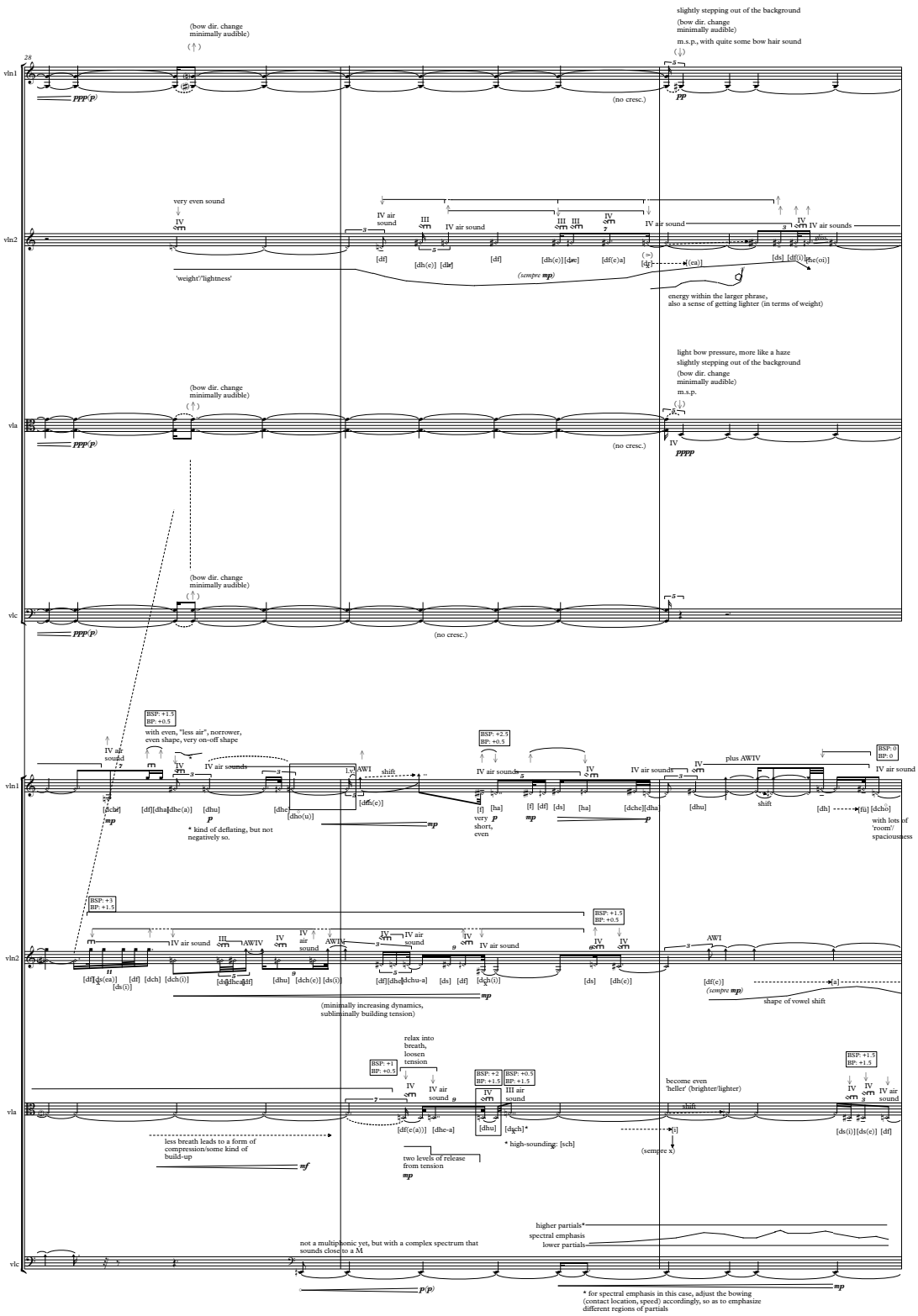

vln1
vln2
vla
vlc
IV air sounds
IV air sound
IV air sound
[dcho]
[dh(e)]
[df]
[dh(e)]
[i]
[dh(e)]
[(a)]
BSP: +1
BP: +1.5
sub. niente,
no end of phrase
(germ.: kein
Abphrasieren),
simply stop
IV air sound
IV air sound
[ds]
[dh(i)]
[dh(e)]
BSP: -3
BP: -1
IV
IV air
sound
III air
sound
[df]
[dh(e)][dh(ü)]
BSP: +1.5
BP: +0
AWIV
[ds(e)]
[dha]
IV
'heavy-ness'
[dha]*
* very 'stummes h' (rather pure sound)
very softly, almost caressing
III air sound
[dh(e)]
IV air sound
calm, becoming a little stronger
shift
[dh(u)/ü]
[df]
IV air
sounds
IV
AWI
[df] [dh(u)][df] [df] [dhe]
BSP: +2.5
BP: +2
IV
IV
air
sound
III
slightly darker sound
BSP: +1.5
BP: +0.5
III
[dhea][dha] [dhe(o)]
[(o)]
like a glimpse of a
different 'space'
(not connected to before)
BSP: +1.5
BP: +0.5
BSP: +0.5
BP: 0
[df] [dhe] [ds] [dch/u]
breathing out, but feels
like higher energy than before
IV
BSP: +1
BP: +0.5
like a glimpse/a window onto/into
a different spacial extent
BSP: +2
BP: +2.5
a little tenser, denser,
but not nervous, but of
a "faster" world
air sounds
III
BSP: +0.5
BP: +1
IV
BSP: +2.5
BP: +2.5
AWI
BSP: +2
BP: +1
air sound
III
III
[dch]
[dch]
with a lot of space
l.v.
[f] [df] [df]
[dch(e)]
[dch(i)(e)]
[dh(e)-a]
[ds(i)]
[dha]
[dh(e)]
[ds(e)]
[df]
[dhu]

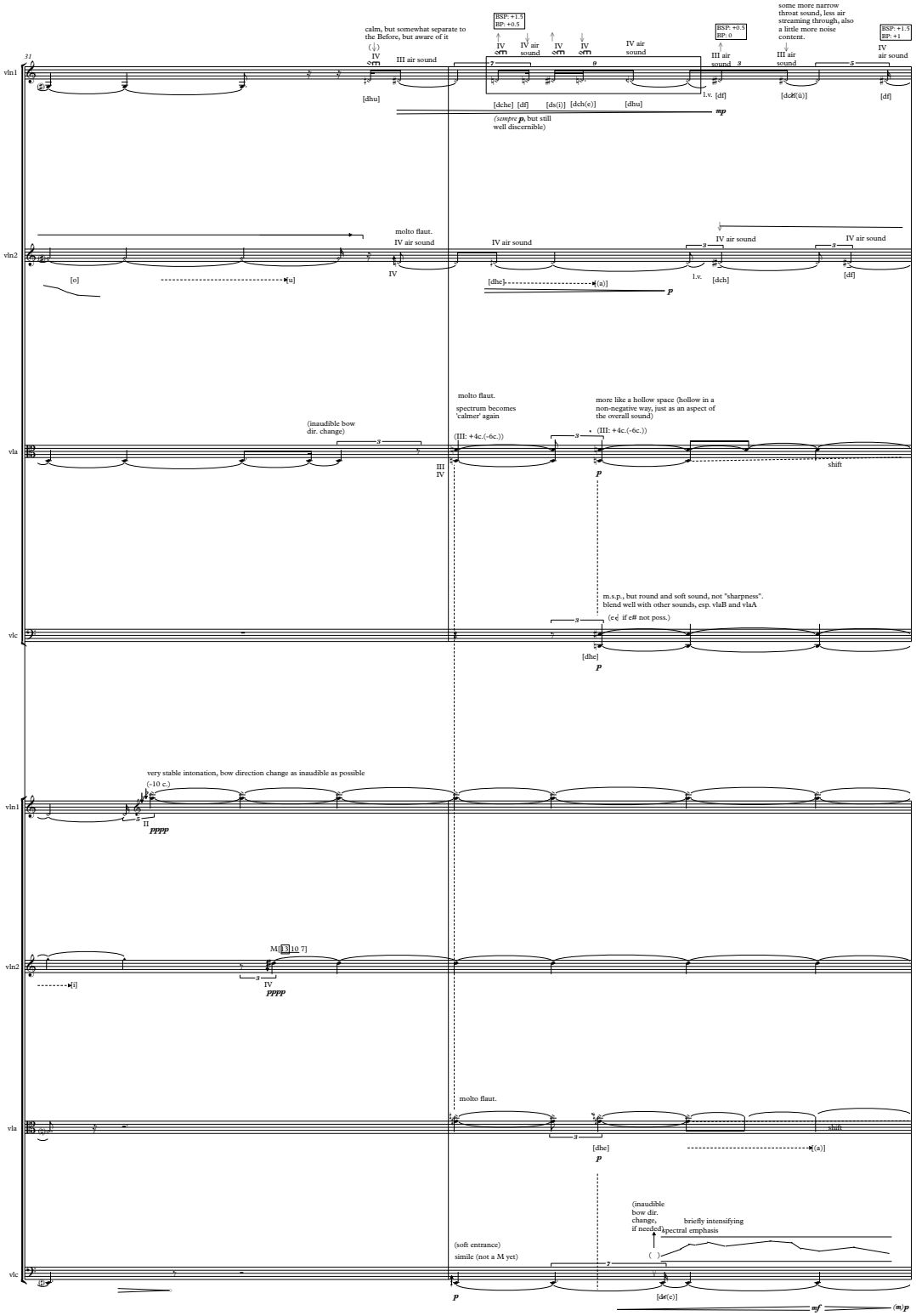

16
vln1
vln2
vla
vlc
III air sound
very airy, with a slight dark sound
BSP: +2
BP: +2
BSP: +1
BP: +1.5
IV air sounds
IV air sound
sub.
niente
IV air sound
(sempre mp)
BSP: +1.5
BP: 0
IV air sounds
AWIV
window
BSP: -2
BP: -1.5
relaxed, low sounding
plus AWIV
IV air sound
BSP: +1
BP: 0
plus AWIV
BSP: +2.5
BP: +1.5
III air sounds
BSP: +1.5
BP: +1.5
III air sound
BSP: +2.5
BP: +2
(1 breath)
plus AWIV
IV air sound
shift
* open sounding
l.v.
III air sounds, with some 'grain'
calm (but really calm by itself, not part of breathing
part, or calming down from before)
BSP: +1
BP: +2
sub.
BSP: +1
BP: +1.5
IV air sounds
AWI
BSP: +2
BP: +1.5
IV air
sound
BSP: +2.5
BP: +2
BSP: 0
BP: +0.5
upwards lifting
AWIV
shift
BSP: +2
BP: +1.5
air sound
III
minimally
deflating,
relaxing into
BSP: +1
BP: +0.5
plus AWIV
air sound

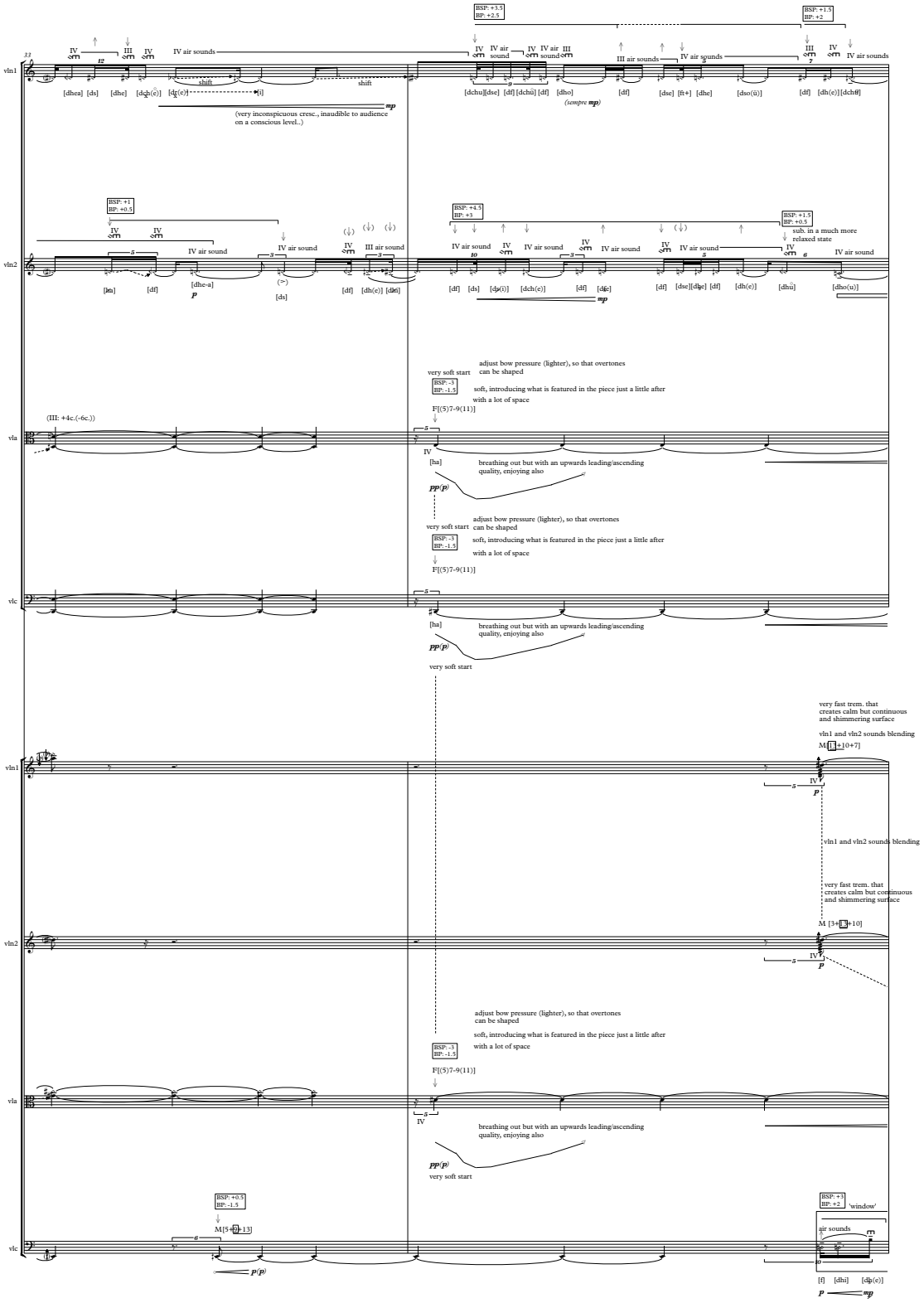

19
vln1
vln2
vla
vlc
'off' (sub.niente)
adding a lot of space (and less noise)
very spacious
'echo'/reflection
IV air sound
[dchô]
p
* short, decidedly (portato), even sound, very on-off, a little louder than what's surrounding it
* very low and wide space, like wind in vast spacious expanse
somewhat 'heller' (Germ., brighter/lighter) sounding
(p), but of higher energy, so it is still well heard/audible despite lower dynamics
* almost 'stummes h' (pronounciation of 'stummes h' in German)
* accelerated bow, rather short, rather noisy, with frequency band shifting upwards
very soft, very relaxed
plus AWIV
IV air sounds
III air sounds
shift
mp
(sempre mp)


22
vln1
vln2
vla
vlc
not a forceful entrance,
still very inconspicuous,
mix well with other sonorities
[dsch(i)]
[ü]
[ë]
(sempre mp)
rather relaxed, soft
slightly agitated
calming down
* kind of a
'stummes h'
like 1 breath, do not let energy drop
conceptually still the same breath
relatively low sounding
plus AWIVIV
III air sound
IV air sound
AWIV
AWI
not a forceful entrance, still very inconspicuous
III air sounds
shift
* though physically breathing out, it is
basically a breathing in! (and this is not
a paradox!)
short and
of high
frequency
(sempre mp)
mp
p

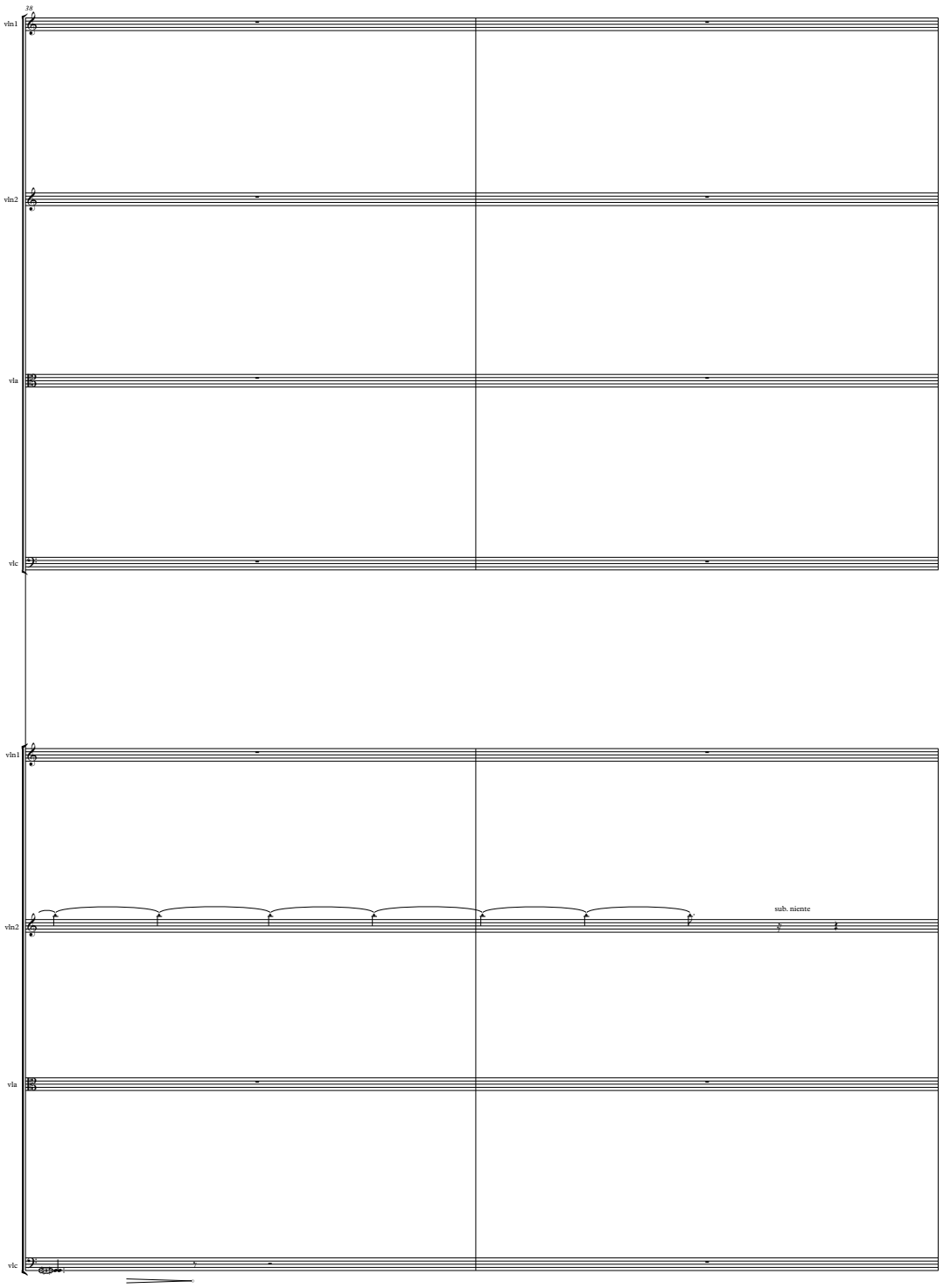

25
vln1
vln2
vla
vlc
very soft, together: vln1B, vlaB, vlcB.
("wie ein leicht angedeuteter Raum", "noch nicht klar umrissen")
each playing very soft m.s.p., complex spectrum of each, resembling M sound, emphasize the higher parts of the spectrum (m.s.p. sound si poss.)
(create condensed but light, minimally sizzling sonority)
molto flaut.
only about here some listeners should (the earliest) become aware of the minimal metal 'hue'
minimal cresc., not consciously audible for audience
IV air sound
IV air sounds
(sempre mp)
keeping a slightly higher energy level, with a little more noise and grain
III air sound
rather relaxed
very relaxed
(emphasis, in terms of 'heaviness' within)
sound becomes very even
(dampen l.v. here)
* very on-off shape/feeling
(continue here)
rather spacious
'nested' within, a litte more active
3 levels of 'levitation' (schwebend) /'lightness'
air sounds
dark sounding
as dark a sound as possible

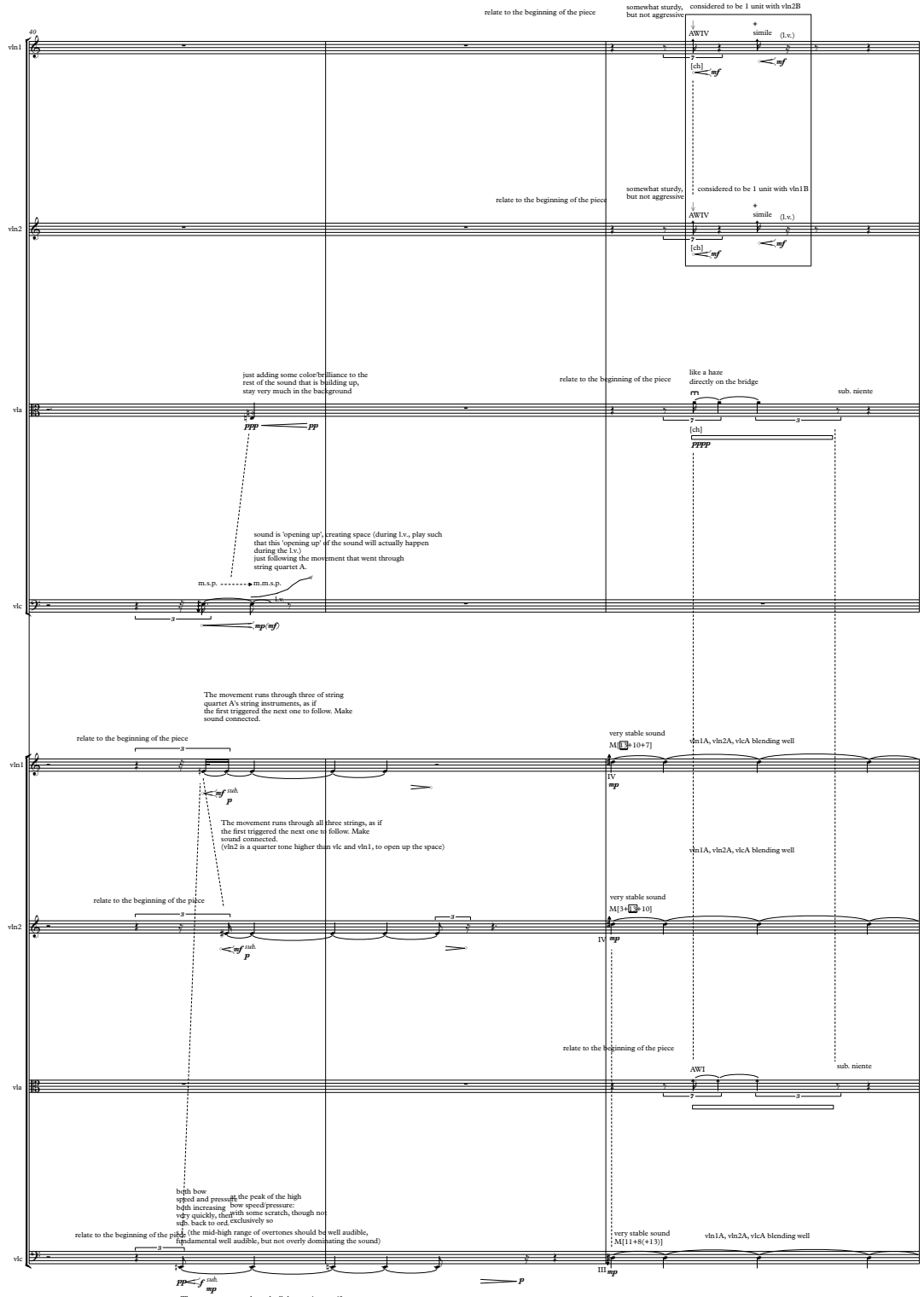

28
vln1
vln2
vla
vlc
(bow dir. change minimally audible)
slightly stepping out of the background
(bow dir. change minimally audible)
m.s.p., with quite some bow hair sound
ppp(p)
pp
(no cresc.)
very even sound
IV air sound
IV air sounds
'weight'/'lightness'
(sempre mp)
energy within the larger phrase, also a sense of getting lighter (in terms of weight)
light bow pressure, more like a haze
slightly stepping out of the background
(bow dir. change minimally audible)
m.s.p.
pppp
(no cresc.)
BSP: +1.5 BP: +0.5
with even, "less air", norrower, even shape, very on-off shape
* kind of deflating, but not negatively so.
BSP: +2.5 BP: +0.5
very short, even
plus AWIV
BSP: 0 BP: 0
with lots of 'room'/ spaciousness
BSP: +3 BP: +1.5
BSP: +1.5 BP: +0.5
AWI
(minimally increasing dynamics, subliminally building tension)
shape of vowel shift
relax into breath, loosen tension
BSP: +1 BP: +0.5
BSP: +2 BP: +1.5
BSP: +0.5 BP: +1.5
III air sound
BSP: +1.5 BP: +1.5
become even 'heller' (brighter/lighter)
shift
* high-sounding: [sch]
(sempre x)
less breath leads to a form of compression/some kind of build-up
mf
two levels of release from tension
mp
higher partials*
spectral emphasis
lower partials
not a multiphonic yet, but with a complex spectrum that sounds close to a M
* for spectral emphasis in this case, adjust the bowing (contact location, speed) accordingly, so as to emphasize different regions of partials

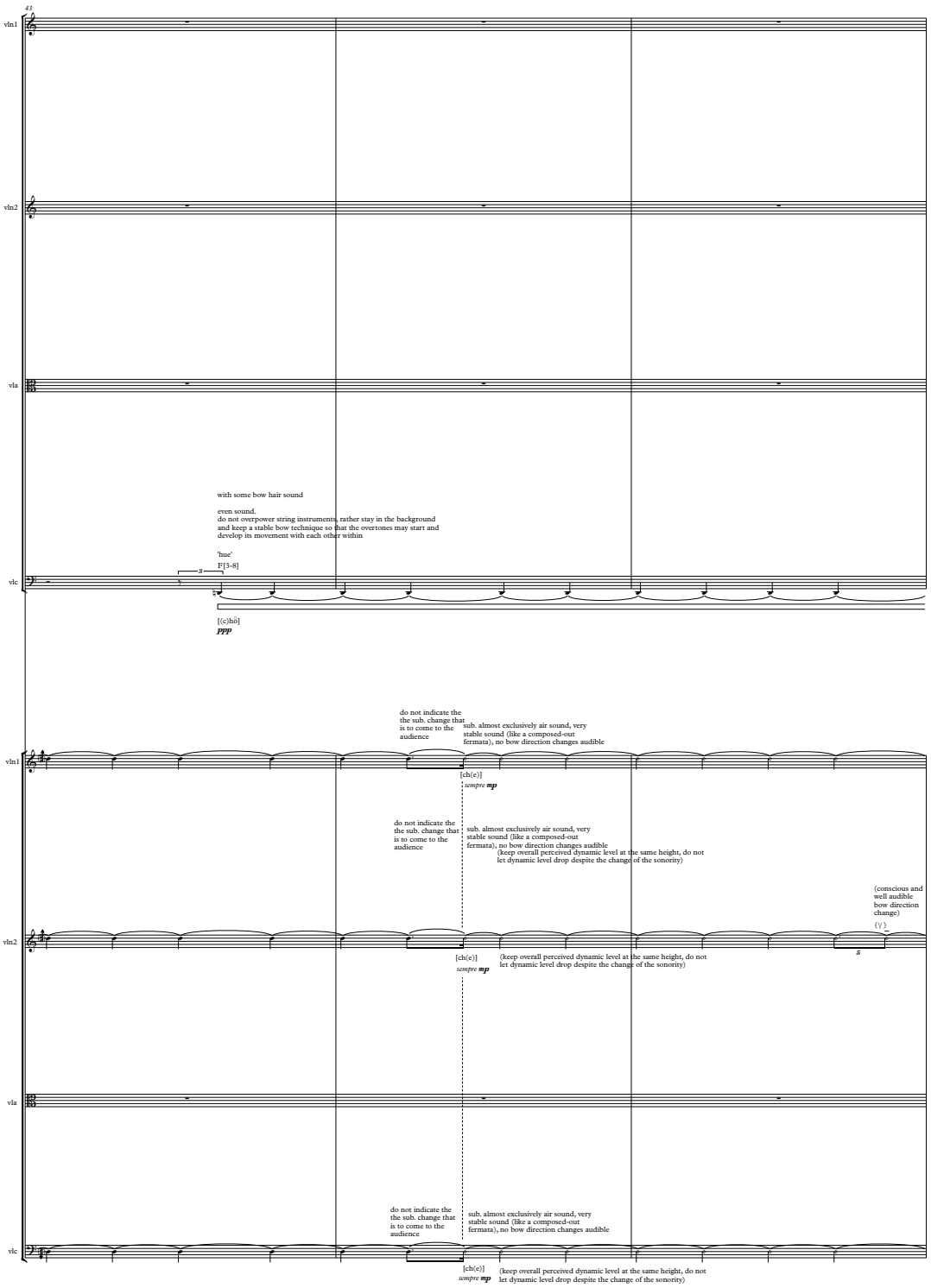

31
vln1
vln2
vla
vlc
calm, but somewhat separate to the Before, but aware of it
III air sound
IV
[dhu]
BSP: +1.5
BP: +0.5
IV air sound
[dche] [df] [ds(i)] [dch(e)] [dhu]
(sempre p, but still well discernible)
mp
l.v. [df]
BSP: +0.5
BP: 0
III air sound
some more narrow throat sound, less air streaming through, also a little more noise content.
[dch(ü)]
BSP: +1.5
BP: +1
IV air sound
[df]
molto flaut.
IV air sound
[o]
[u]
[dhe]
[(a)]
p
l.v. [dch]
[df]
(inaudible bow dir. change)
(III: +4c.(-6c.))
III
IV
molto flaut.
spectrum becomes 'calmer' again
more like a hollow space (hollow in a non-negative way, just as an aspect of the overall sound)
shift
m.s.p., but round and soft sound, not "sharpness". blend well with other sounds, esp. vlaB and vlaA
(e𝅘𝅥 if e# not poss.)
very stable intonation, bow direction change as inaudible as possible
(-10 c.)
II
pppp
M[3 10 7]
[i]
molto flaut.
(inaudible bow dir. change, if needed)
briefly intensifying spectral emphasis
(soft entrance)
simile (not a M yet)
[dé(e)]
mf
(m)p

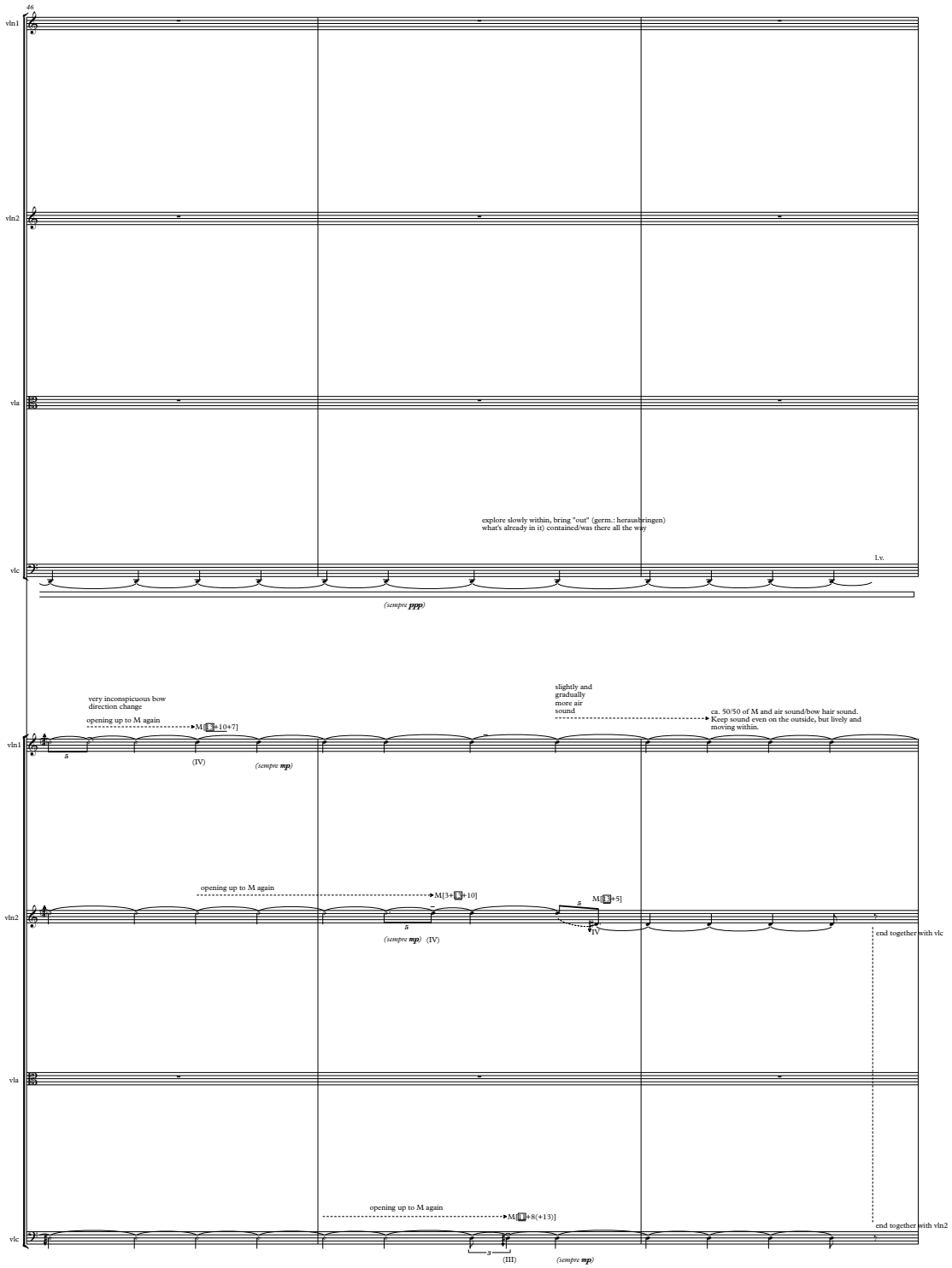

vln1
vln2
vla
vlc
IV air sounds
III air sounds
shift
(very inconspicuous cresc., inaudible to audience on a conscious level..)
(sempre mp)
sub. in a much more relaxed state
IV air sound
very soft start
adjust bow pressure (lighter), so that overtones can be shaped
soft, introducing what is featured in the piece just a little after
with a lot of space
F!(5)7-9(11)]
breathing out but with an upwards leading/ascending quality, enjoying also
very fast trem. that creates calm but continuous and shimmering surface
vln1 and vln2 sounds blending
'window'
air sounds

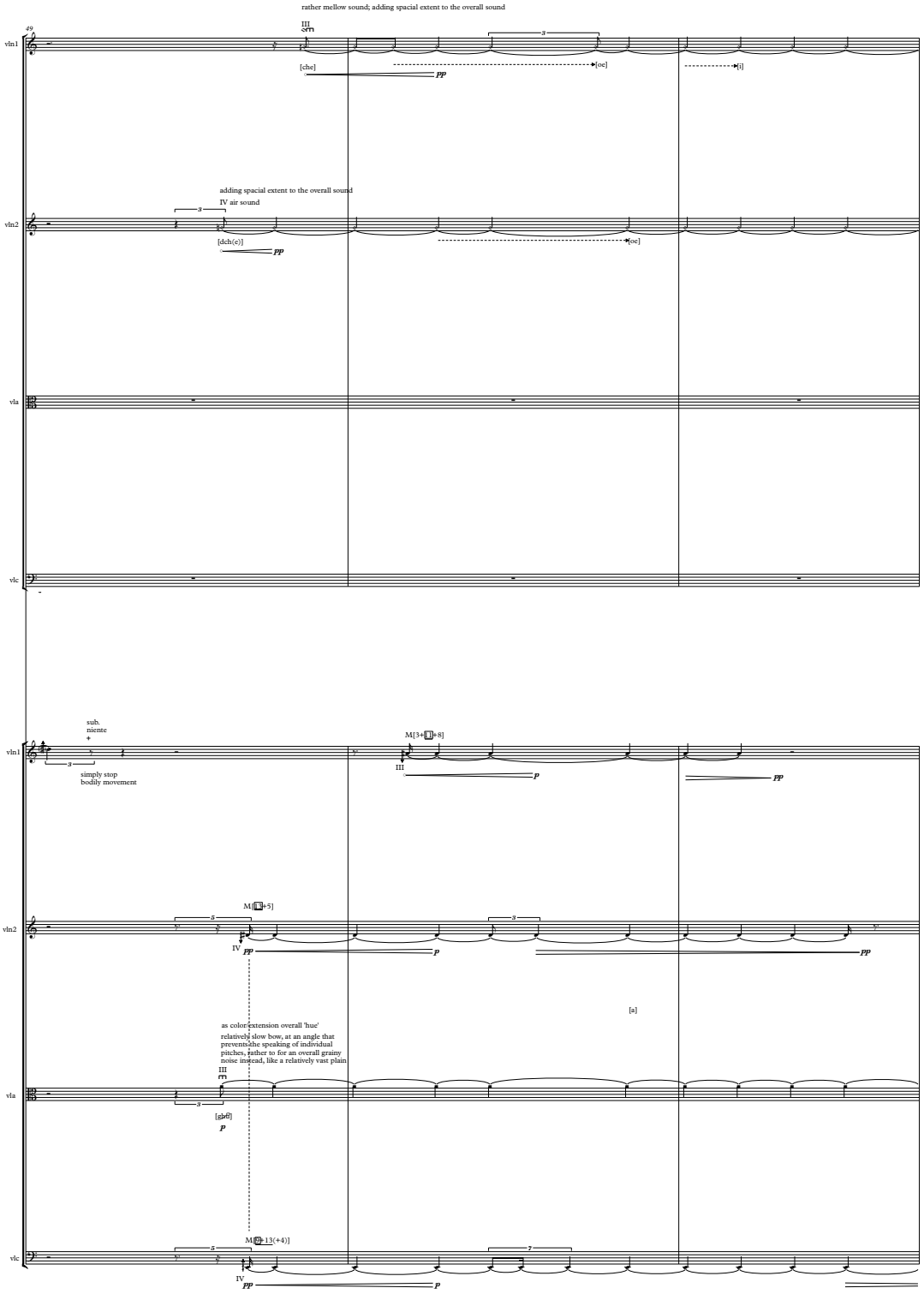

like a haze
(with minimal pitch)
sub. niente
[ch]
vln1
vln2
sub.niente
subito, rather forceful, behind the power, a glimpse of lament
s.p.
vla
vlc
barely audible, the audience will only become
aware of it after a few split seconds once all the other instruments/sounds are gone in m.38
as high as possible (pitch), with a slight amount of bow hair sound audible
(this is not the same technique as the same notehead in combination
with AWI/AWIV)
(no reference pitch/instrument here, intonation
may therefore deviate from vlcII)
(soft entrance)
a very even surface, shimmering (calm, not nervous)
soft, but with decision
subito (being the resonance of perc,
providing the space for the sound),
stable as overall form, moving and
complex within
bring out the very complex overtone structures,
adjust s.t. bow contact location for both pitches/strings
shape of slight gliss., to the extent that it
briefly creates a minimal beating, the gliss.
itself is very inconspicuous as a technique,
only its effect of the beating should be perceptible
(germ.: Schwebung)
AWI
[dch(c)]

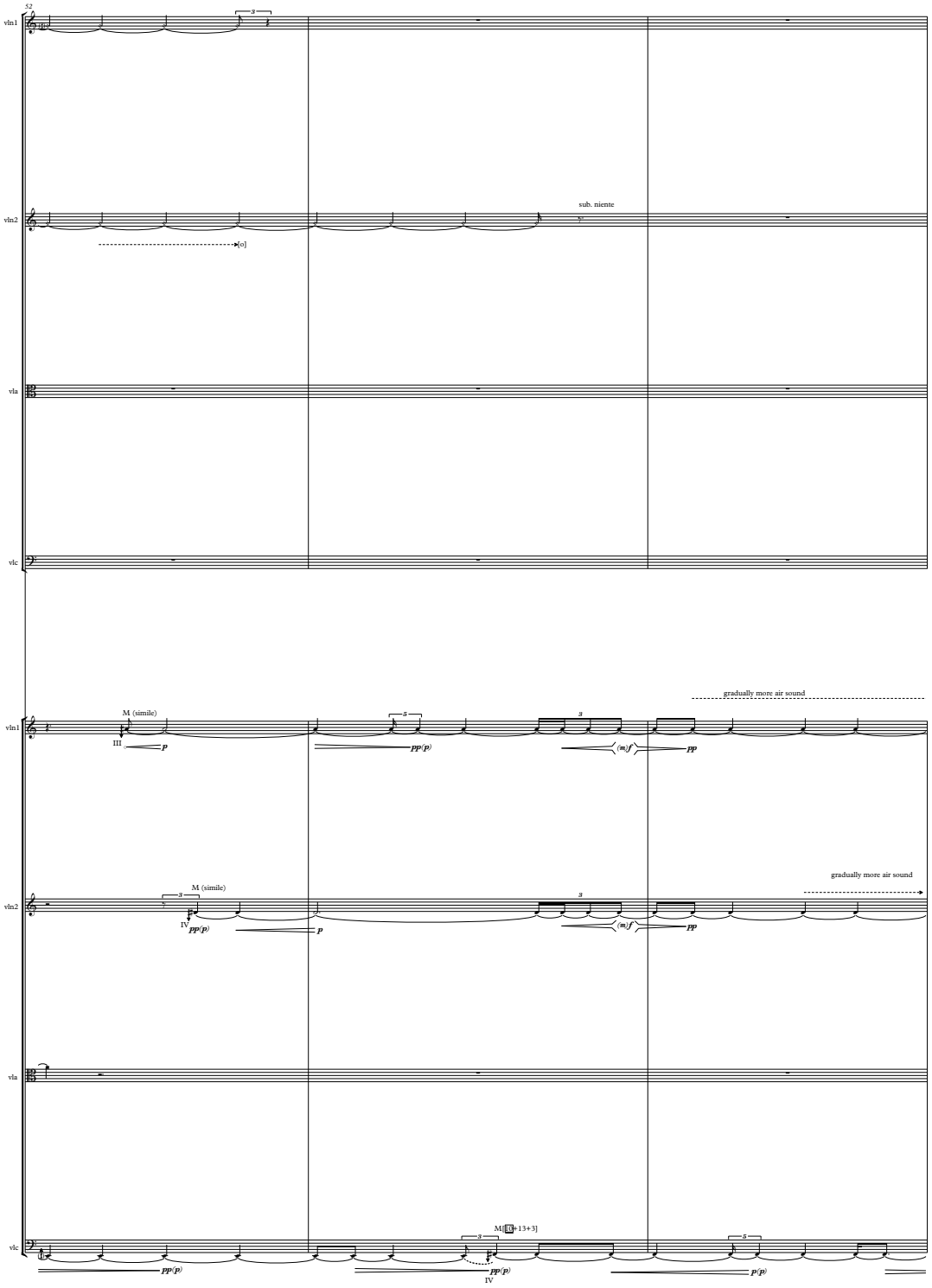

38
vln1
vln2
vla
vlc
vln1
vln2
sub. niente
vla
vlc

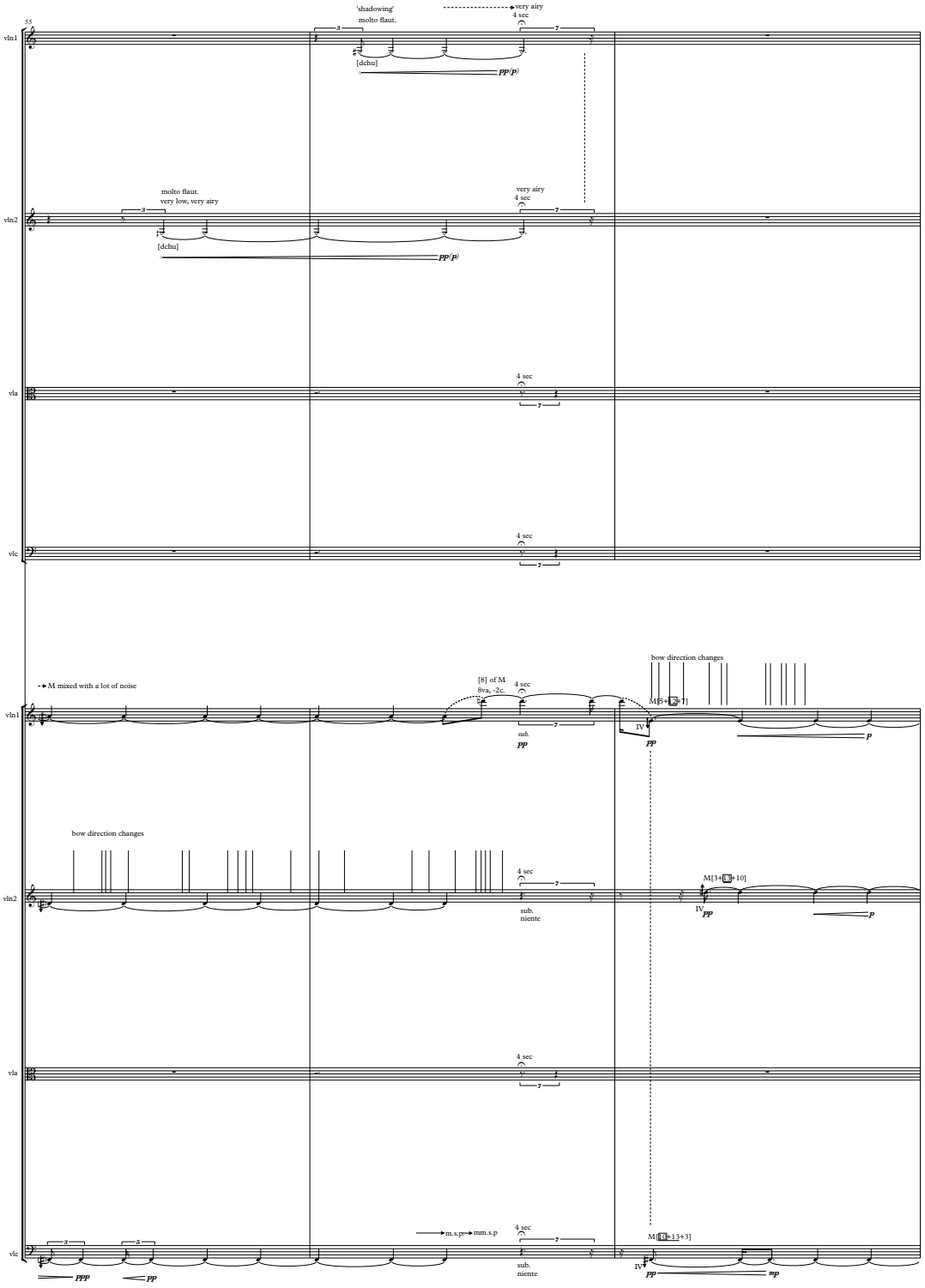

40
vln1
vln2
vla
vlc
relate to the beginning of the piece
somewhat sturdy, but not aggressive
considered to be 1 unit with vln2B
AWIV
simile
(l.v.)
[ch]
mf
considered to be 1 unit with vln1B
just adding some color/brilliance to the rest of the sound that is building up, stay very much in the background
like a haze directly on the bridge
sub. niente
ppp
pp
pppp
sound is 'opening up', creating space (during l.v., play such that this 'opening up' of the sound will actually happen during the l.v.) just following the movement that went through string quartet A.
m.s.p.
m.m.s.p.
l.v.
mp/mf
The movement runs through three of string quartet A's string instruments, as if the first triggered the next one to follow. Make sound connected.
very stable sound
M[3+10+7]
vln1A, vln2A, vlcA blending well
IV
mp
suh.
p
The movement runs through all three strings, as if the first triggered the next one to follow. Make sound connected.
(vln2 is a quarter tone higher than vlc and vln1, to open up the space)
M[3+10]
AWI
both bow speed and pressure both increasing very quickly, then sub. back to ord.
at the peak of the high bow speed/pressure: with some scratch, though not exclusively so
(the mid-high range of overtones should be well audible, fundamental well audible, but not overly dominating the sound)
M[11+8(+13)]
III
f
The movement runs through all three strings, as if the first triggered the next one to follow. Make sound connected.

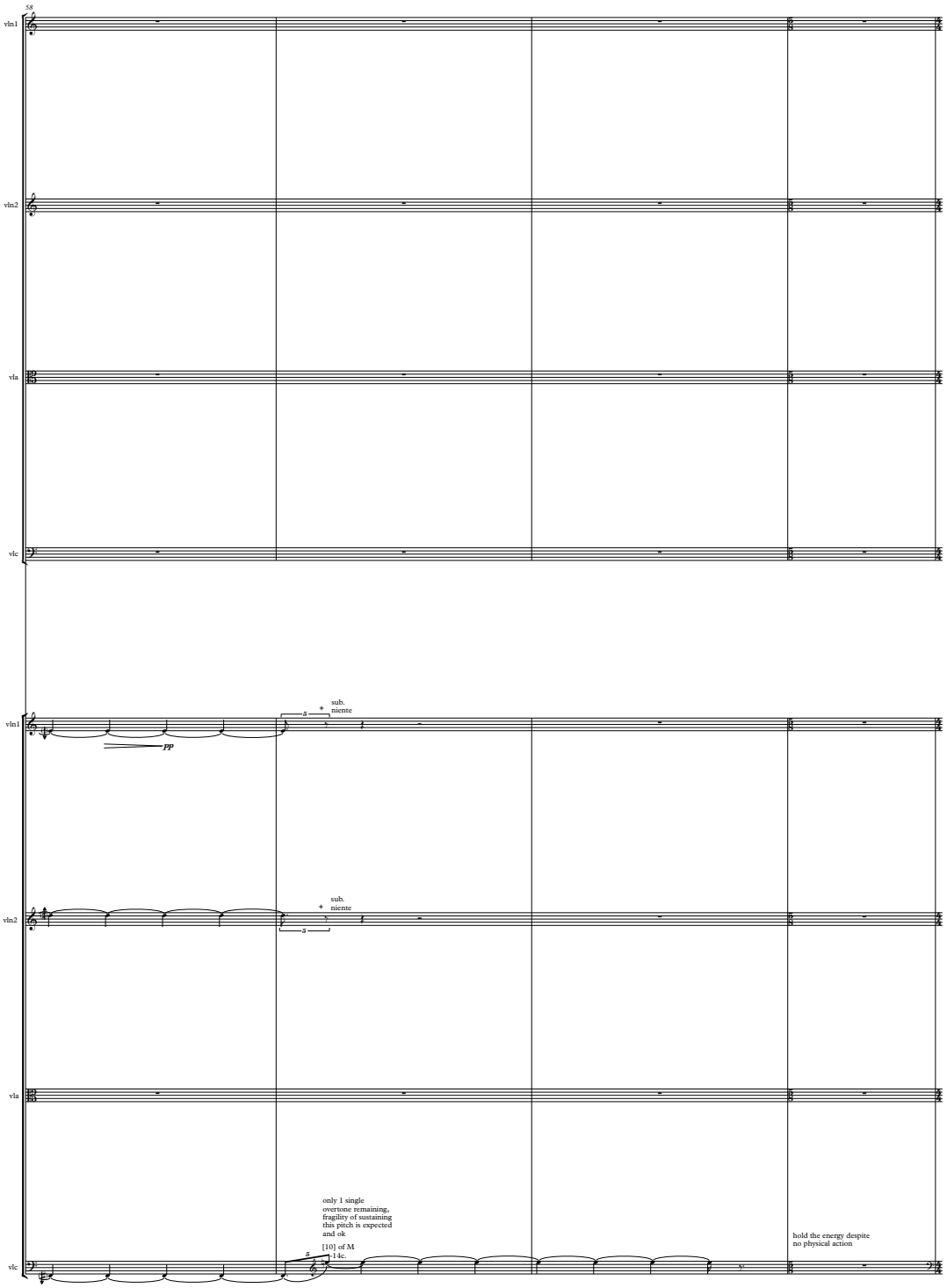

vln1
vln2
vla
vlc
with some bow hair sound
even sound.
do not overpower string instruments, rather stay in the background
and keep a stable bow technique so that the overtones may start and
develop its movement with each other within
'hue'
F[3-8]
[(c)hô]
ppp
do not indicate the
the sub. change that
is to come to the
audience
sub. almost exclusively air sound, very
stable sound (like a composed-out
fermata), no bow direction changes audible
[ch(e)]
sempre mp
(keep overall perceived dynamic level at the same height, do not
let dynamic level drop despite the change of the sonority)
(conscious and
well audible
bow direction
change)

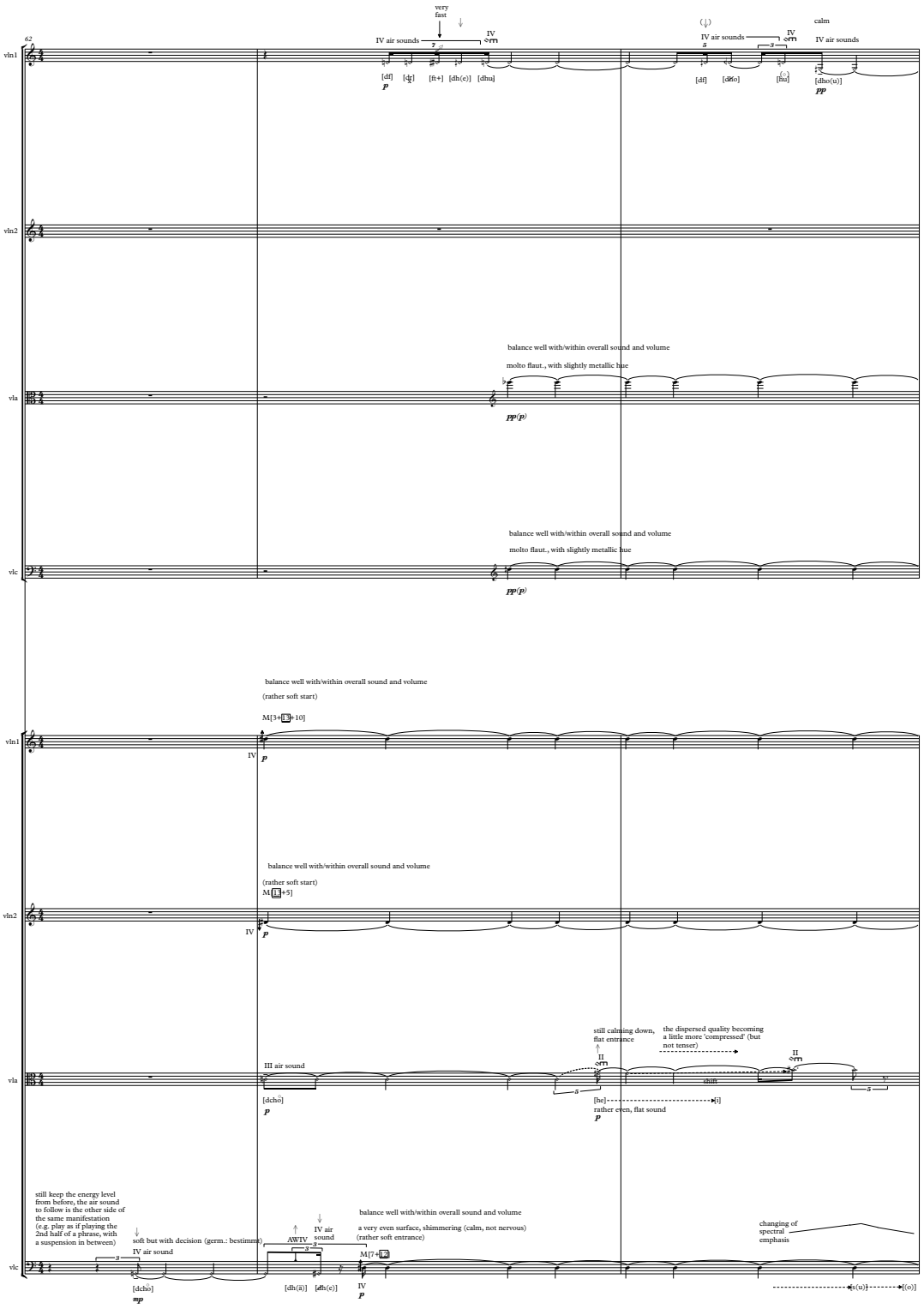

46
vln1
vln2
vla
vlc
explore slowly within, bring "out" (germ.: herausbringen)
what's already in it) contained/was there all the way
l.v.
(sempre ppp)
very inconspicuous bow
direction change
opening up to M again
M[3+10+7]
(IV)
(sempre mp)
slightly and
gradually
more air
sound
ca. 50/50 of M and air sound/bow hair sound.
Keep sound even on the outside, but lively and
moving within.
opening up to M again
M[3+10]
(sempre mp)
(IV)
M[3+5]
(IV)
end together with vlc
opening up to M again
M[0+8(+13)]
(III)
(sempre mp)
end together with vln2

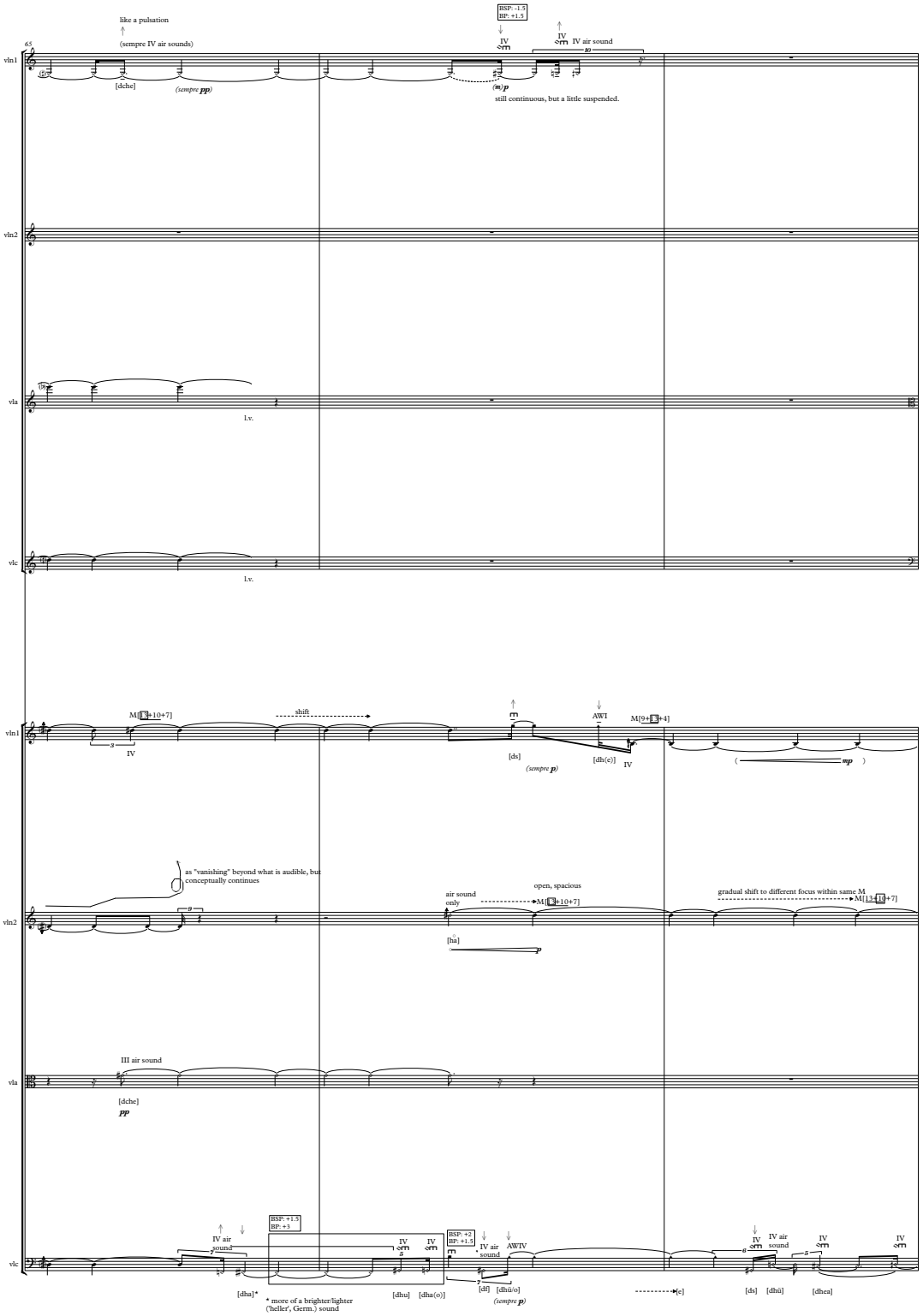

rather mellow sound; adding spacial extent to the overall sound
49
vln1
III
ord
[che]
pp
[oe]
[i]
adding spacial extent to the overall sound
IV air sound
vln2
[dch(e)]
pp
[oe]
vla
vlc
sub.
niente
simply stop
bodily movement
M[3+
+8]
III
p
pp
M[
+5]
IV
pp
p
pp
[a]
as color extension overall 'hue'
relatively slow bow, at an angle that
prevents the speaking of individual
pitches, rather to for an overall grainy
noise instead, like a relatively vast plain
III
ord
[gb
]
p
M[
+13(+4)]
IV
pp
p

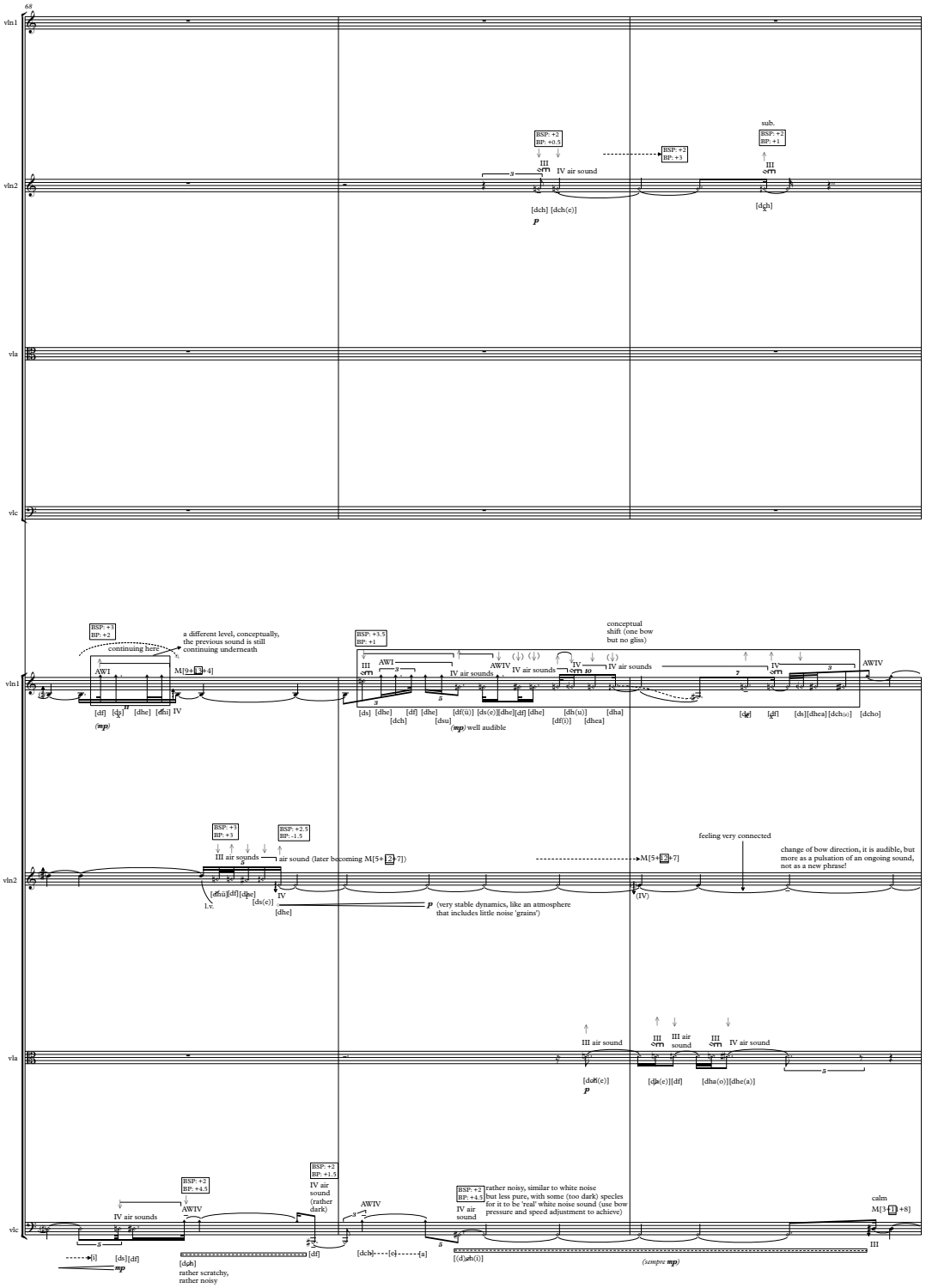

52
vln1
vln2
vla
vlc
sub. niente
[o]
M (simile)
III
p
pp(p)
(m)f
pp
gradually more air sound
M (simile)
IV
pp(p)
p
(m)f
pp
gradually more air sound
M[1+13+3]
pp(p)
IV
pp(p)
p(p)

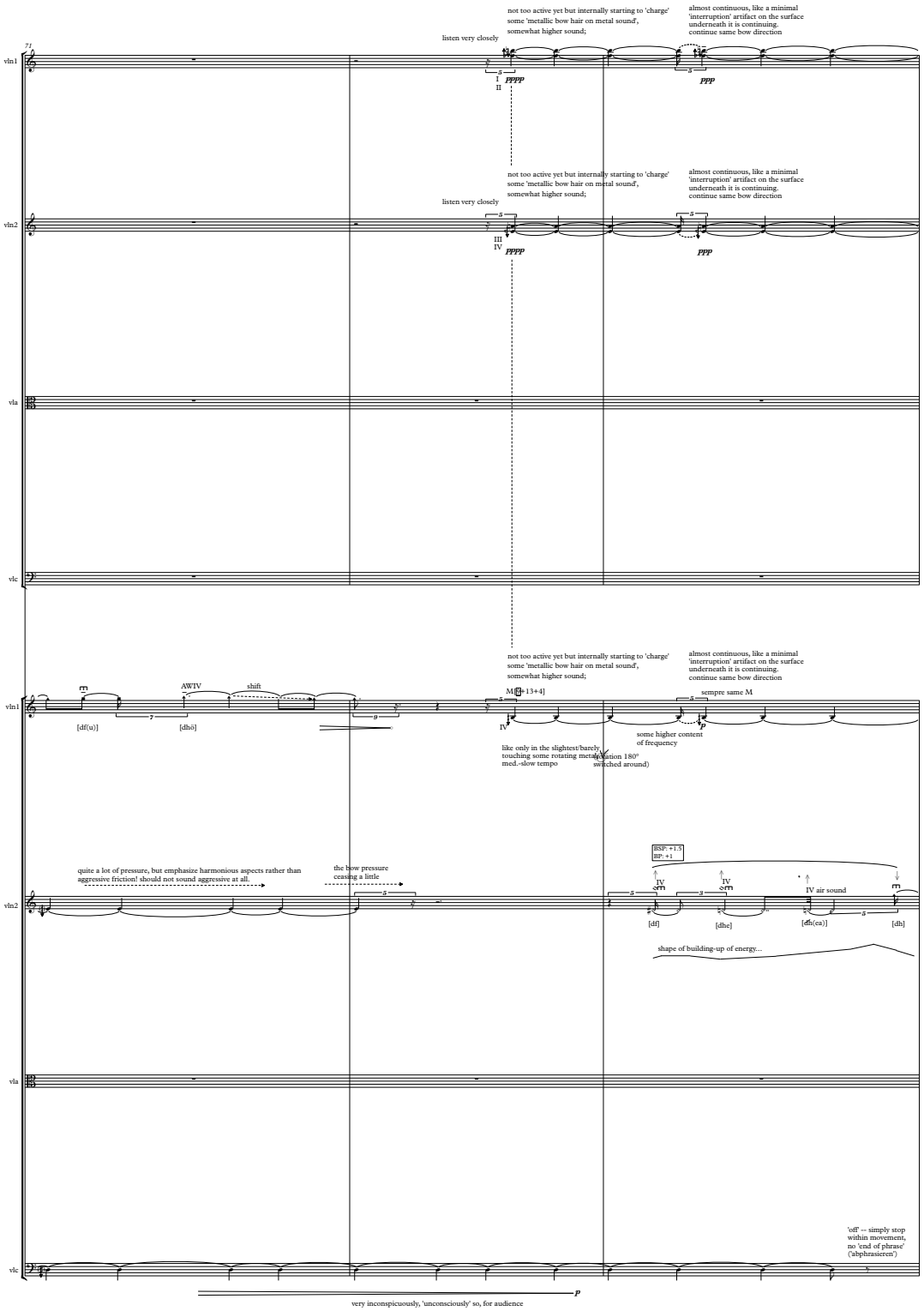

55
vln1
vln2
vla
vlc
'shadowing'
molto flaut.
very airy
4 sec
[dchu]
pp/(p)
molto flaut.
very low, very airy
very airy
4 sec
[dchu]
pp/(p)
4 sec
4 sec
M mixed with a lot of noise
[8] of M
8va, -2c.
4 sec
sub.
pp
bow direction changes
M[5+12+7]
IV
pp
p
bow direction changes
4 sec
sub.
niente
M[3+13+10]
IV
pp
p
4 sec
4 sec
m.s.p.
mm.s.p
4 sec
sub.
niente
M[13+13+3]
IV
pp
mp
ppp
pp

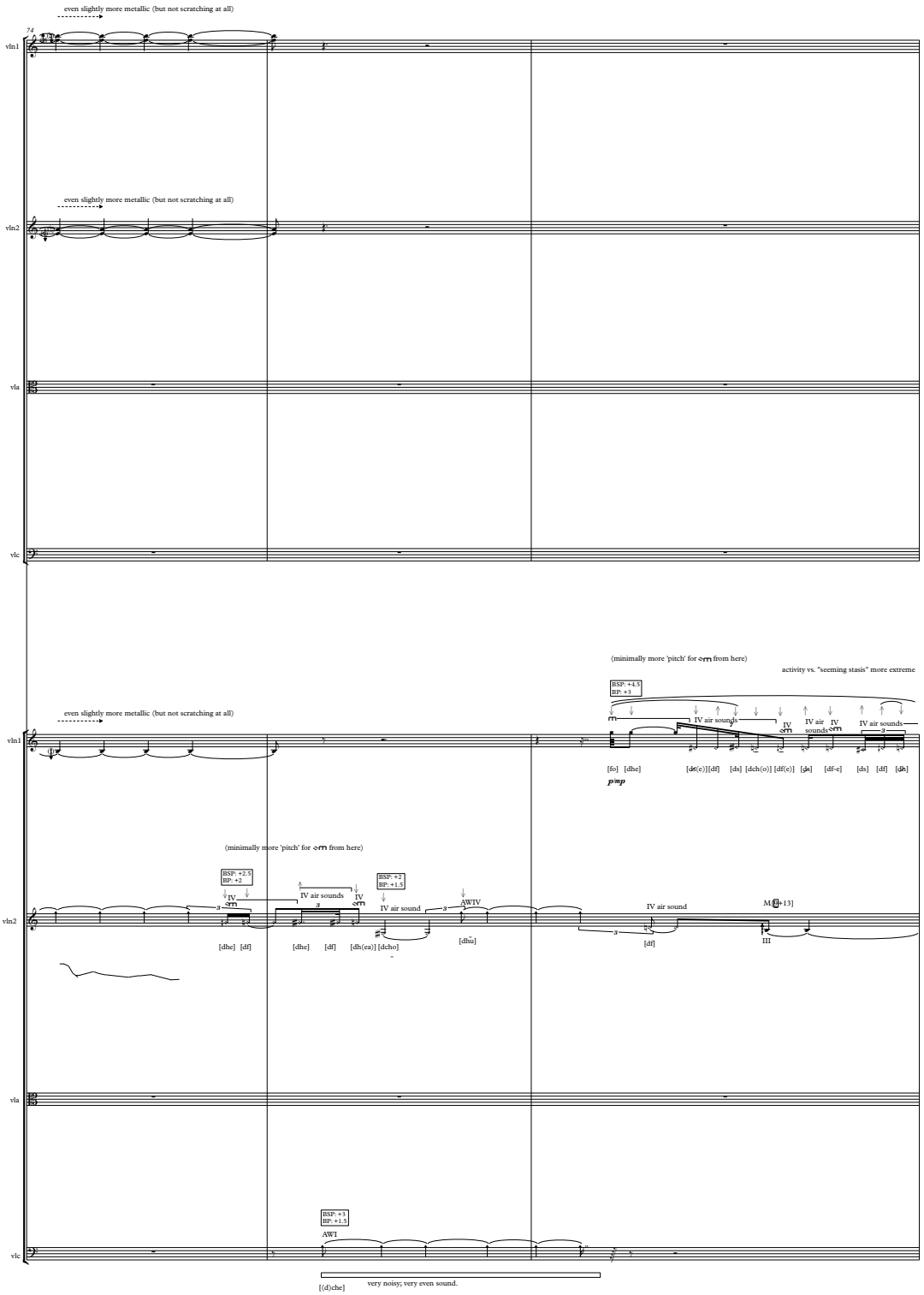

58
vln1
vln2
vla
vlc
sub.
niente
pp
sub.
niente
only 1 single
overtone remaining,
fragility of sustaining
this pitch is expected
and ok
[10] of M
14c.
hold the energy despite
no physical action

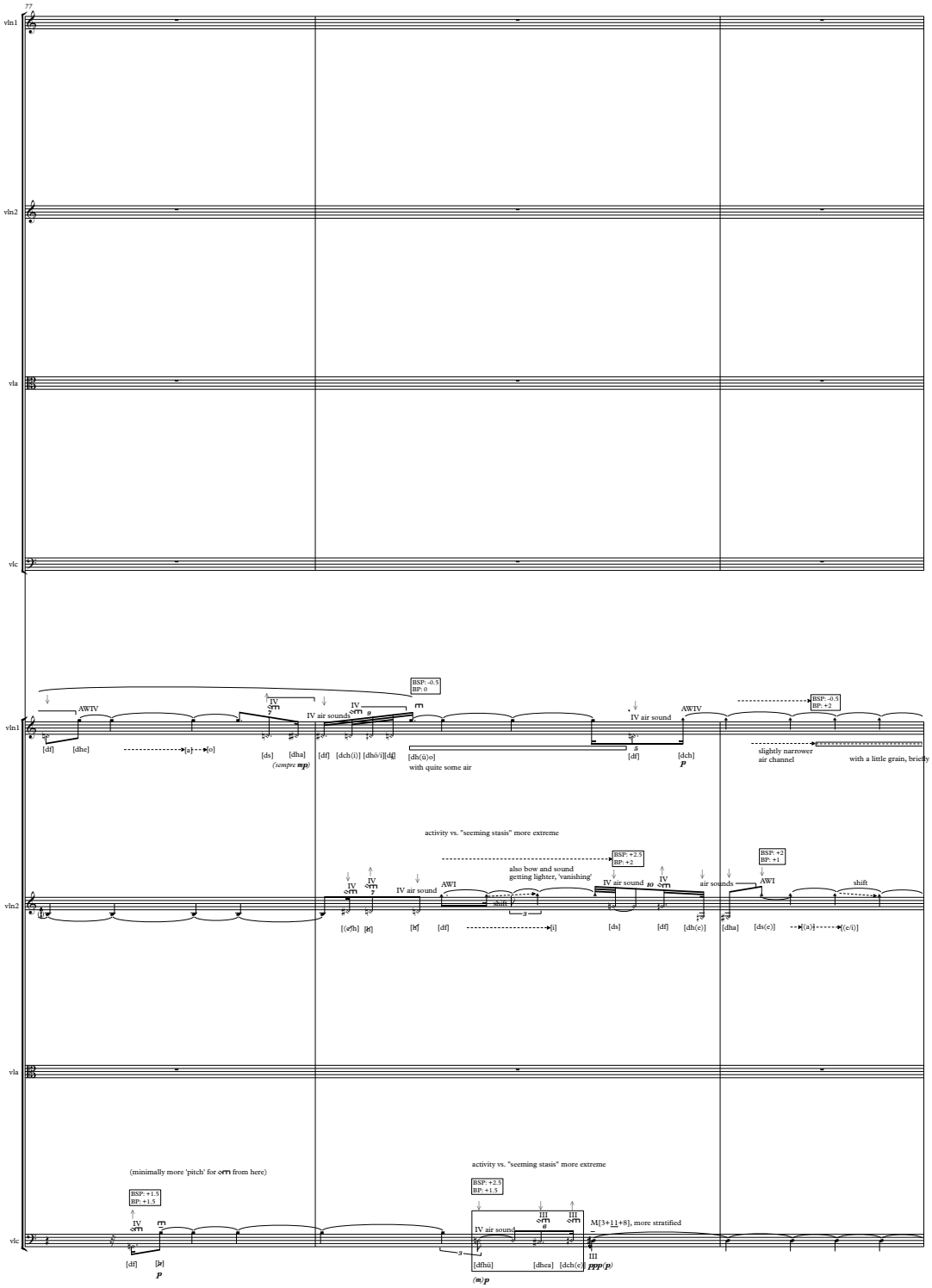

62
vln1
very fast
IV air sounds
IV
[df] [dr] [ft+] [dh(e)] [dhu]
p
IV air sounds
IV
calm
IV air sounds
[df] [dr̃o] [ĥu] [dho(u)]
pp
vln2
balance well with/within overall sound and volume
molto flaut., with slightly metallic hue
vla
pp(p)
balance well with/within overall sound and volume
molto flaut., with slightly metallic hue
vlc
pp(p)
balance well with/within overall sound and volume
(rather soft start)
M[3+3+10]
vln1
IV
p
balance well with/within overall sound and volume
(rather soft start)
M[1+5]
vln2
IV
p
still calming down, flat entrance
the dispersed quality becoming a little more 'compressed' (but not tenser)
II
III air sound
II
vla
[dchô]
p
[he]
rather even, flat sound
p
[i]
still keep the energy level from before, the air sound to follow is the other side of the same manifestation (e.g. play as if playing the 2nd half of a phrase, with a suspension in between)
soft but with decision (germ.: bestimmt)
IV air sound
AWIV
IV air sound
balance well with/within overall sound and volume
a very even surface, shimmering (calm, not nervous)
(rather soft entrance)
changing of spectral emphasis
M[7+2]
vlc
[dchô]
mp
[dh(ā)] [dh(e)]
IV
p
[s(u)] [(o)]

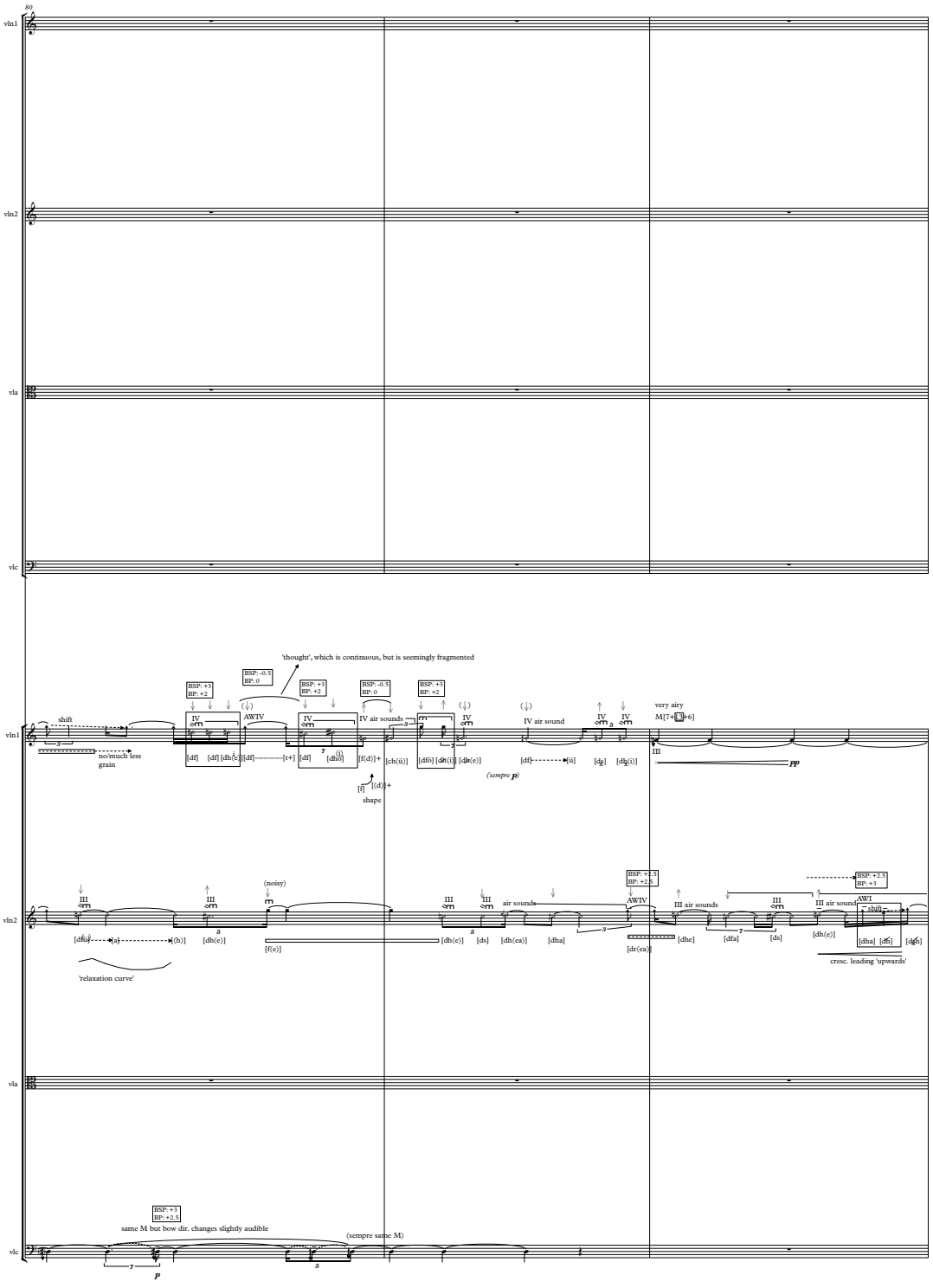

like a pulsation
(sempre IV air sounds)
BSP: -1.5
BP: +1.5
IV air sound
65
vln1
[dche]
(sempre pp)
(n) p
still continuous, but a little suspended.
vln2
vla
l.v.
vlc
l.v.
M[9+3+10+7]
shift
AWI
M[9+3+4]
[ds]
(sempre p)
[dh(e)]
mp
as "vanishing" beyond what is audible, but conceptually continues
air sound only
open, spacious
M[9+3+10+7]
gradual shift to different focus within same M.
M[13+10+7]
[ha]
III air sound
[dche]
pp
BSP: +1.5
BP: +3
IV air sound
BSP: +2
BP: +1.5
AWIV
[dha]*
* more of a brighter/lighter ('heller', Germ.) sound
[dhu]
[dha(o)]
[dī]
[dhū/o]
(sempre p)
[e]
[ds]
[dhū]
[dhea]

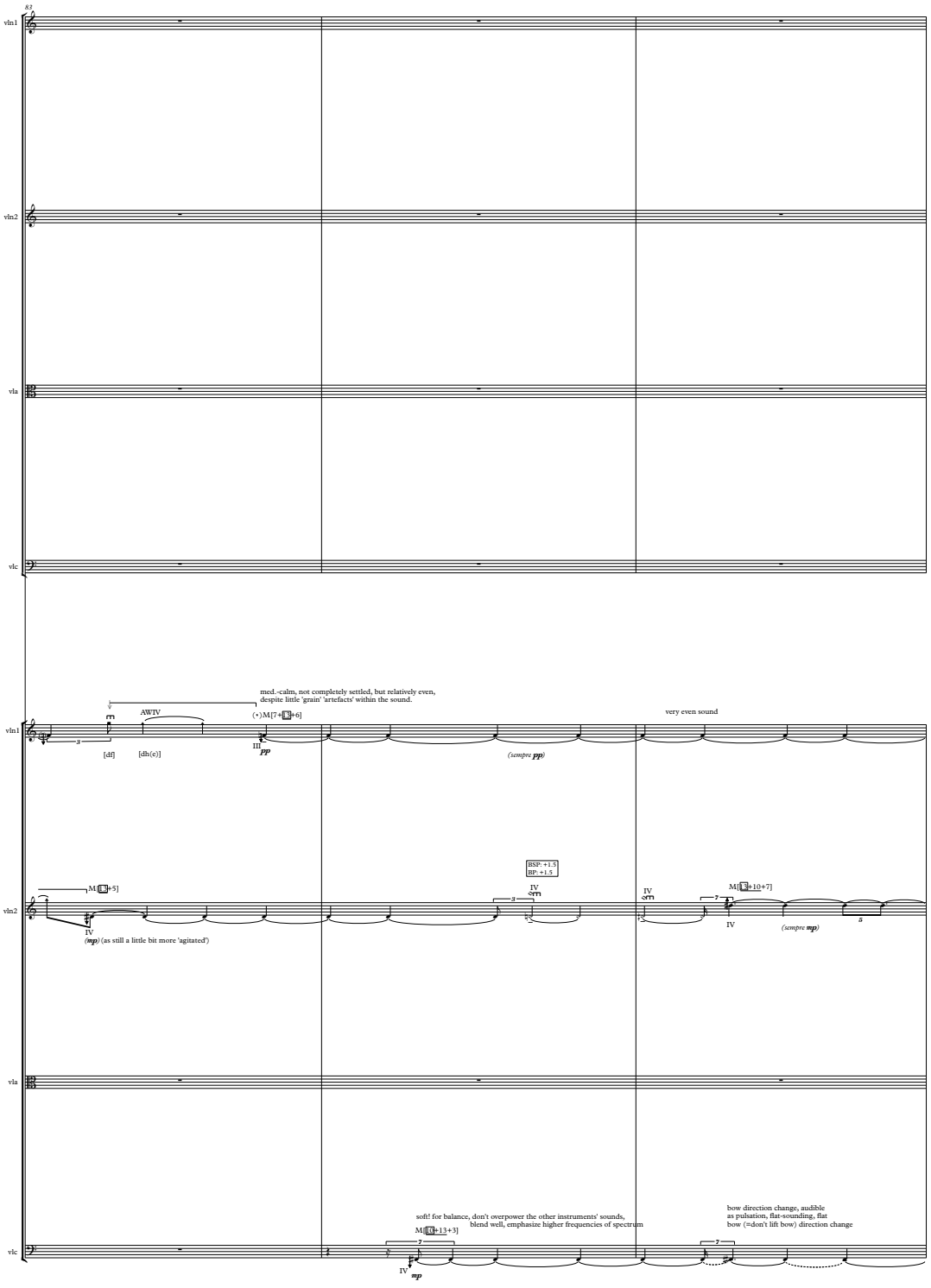

68
vln1
vln2
vla
vlc
BSP: +2
BP: +0.5
III
IV air sound
[dch] [dch(e)]
p
BSP: +2
BP: +3
sub.
BSP: +2
BP: +1
III
[dch]
BSP: +3
BP: +2
continuing here
a different level, conceptually, the previous sound is still continuing underneath
AWI
M[9+3+4]
[df] [dch] [dhe] [dhu] IV
(mp)
BSP: +3.5
BP: +1
conceptual shift (one bow but no gliss)
AWI
AWIV
IV air sounds
IV air sounds
[ds] [dhe] [df] [dhe] [df(ü)] [ds(e)][dhe][df] [dhe] [dh(u)] [dha]
[dch] [dsu] [df(ö)] [dhea]
(mp) well audible
[dch] [df] [ds][dhea] [dch(ö)] [dcho]
BSP: +3
BP: +3
BSP: +2.5
BP: -1.5
III air sounds
air sound (later becoming M[5+2+7])
M[5+3+7]
feeling very connected
change of bow direction, it is audible, but more as a pulsation of an ongoing sound, not as a new phrase!
[dhü][df][dhe]
l.v.
IV
[ds(e)]
[dhe]
p
(very stable dynamics, like an atmosphere that includes little noise 'grains')
(IV)
III air sound
III air sound
III IV air sound
[doʀ(e)]
p
[dʃa(e)][df]
[dha(o)][dhe(a)]
BSP: +2
BP: +4.5
AWIV
IV air sounds
BSP: +2
BP: +1.5
IV air sound (rather dark)
AWIV
BSP: +2
BP: +4.5
IV air sound
rather noisy, similar to white noise but less pure, with some (too dark) specles for it to be 'real' white noise sound (use bow pressure and speed adjustment to achieve)
calm
M[3+1+8]
III
[i] [ds][df]
mp
[dch]
rather scratchy, rather noisy
[df]
[dch]---[e]---[a]
[(d)eh(i)]
(sempre mp)

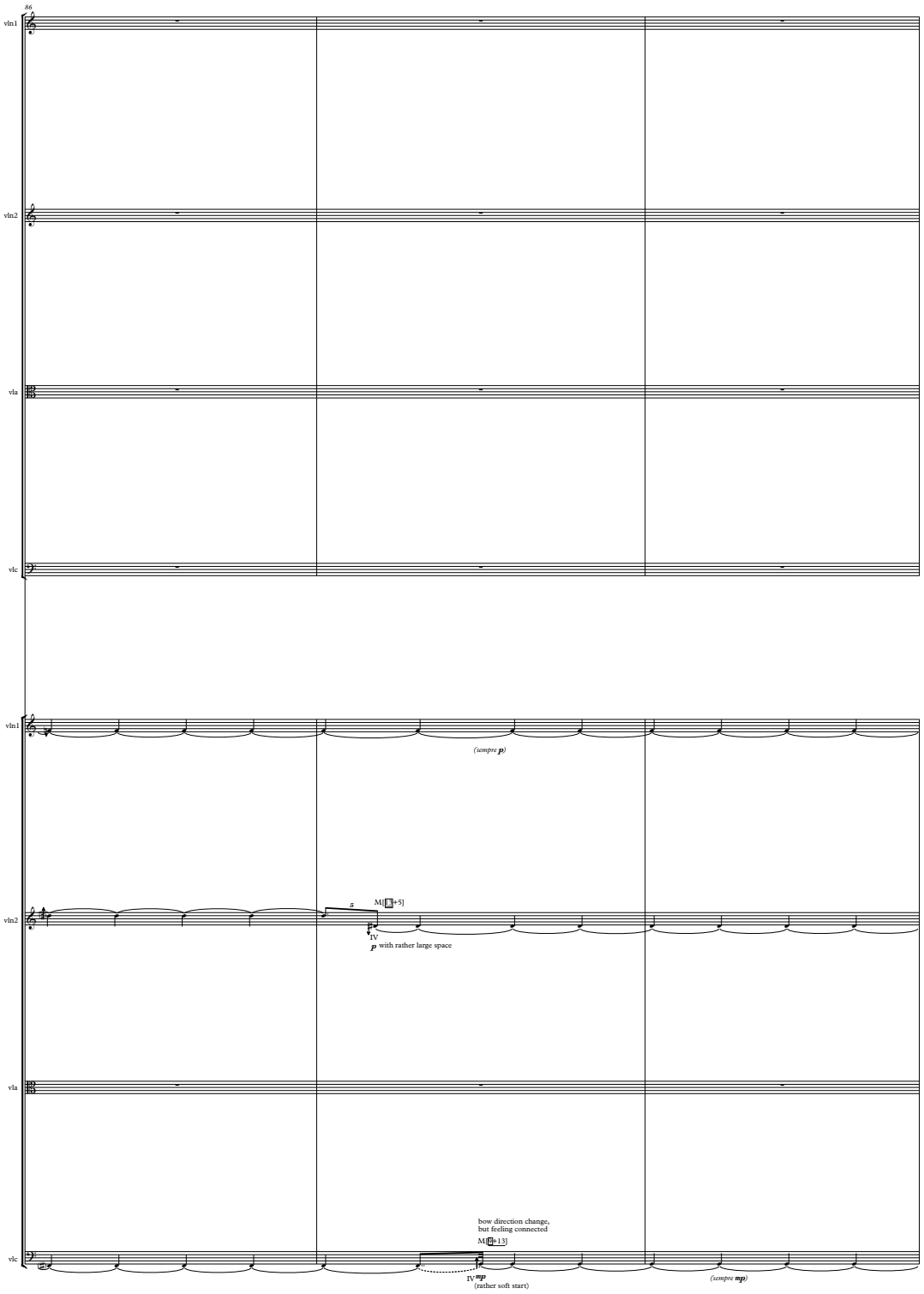

vln1
vln2
vla
vlc
listen very closely
not too active yet but internally starting to 'charge'
some 'metallic bow hair on metal sound',
somewhat higher sound;
almost continuous, like a minimal
'interruption' artifact on the surface
underneath it is continuing.
continue same bow direction
I
II
III
IV
PPPP
PPP
AWIV
shift
[df(ɑ)]
[dhô]
M[3+13+4]
sempre same M
some higher content
of frequency
like only in the slightest/barely
touching some rotating metal
med.-slow tempo
rotation 180°
switched around)
BSP: +1.5
BP: +1
IV air sound
[df]
[dhe]
[dh(ea)]
[dh]
quite a lot of pressure, but emphasize harmonious aspects rather than
aggressive friction! should not sound aggressive at all.
the bow pressure
ceasing a little
shape of building-up of energy...
'off' -- simply stop
within movement,
no 'end of phrase'
('abphrasieren')
very inconspicuously, 'unconsciously' so, for audience

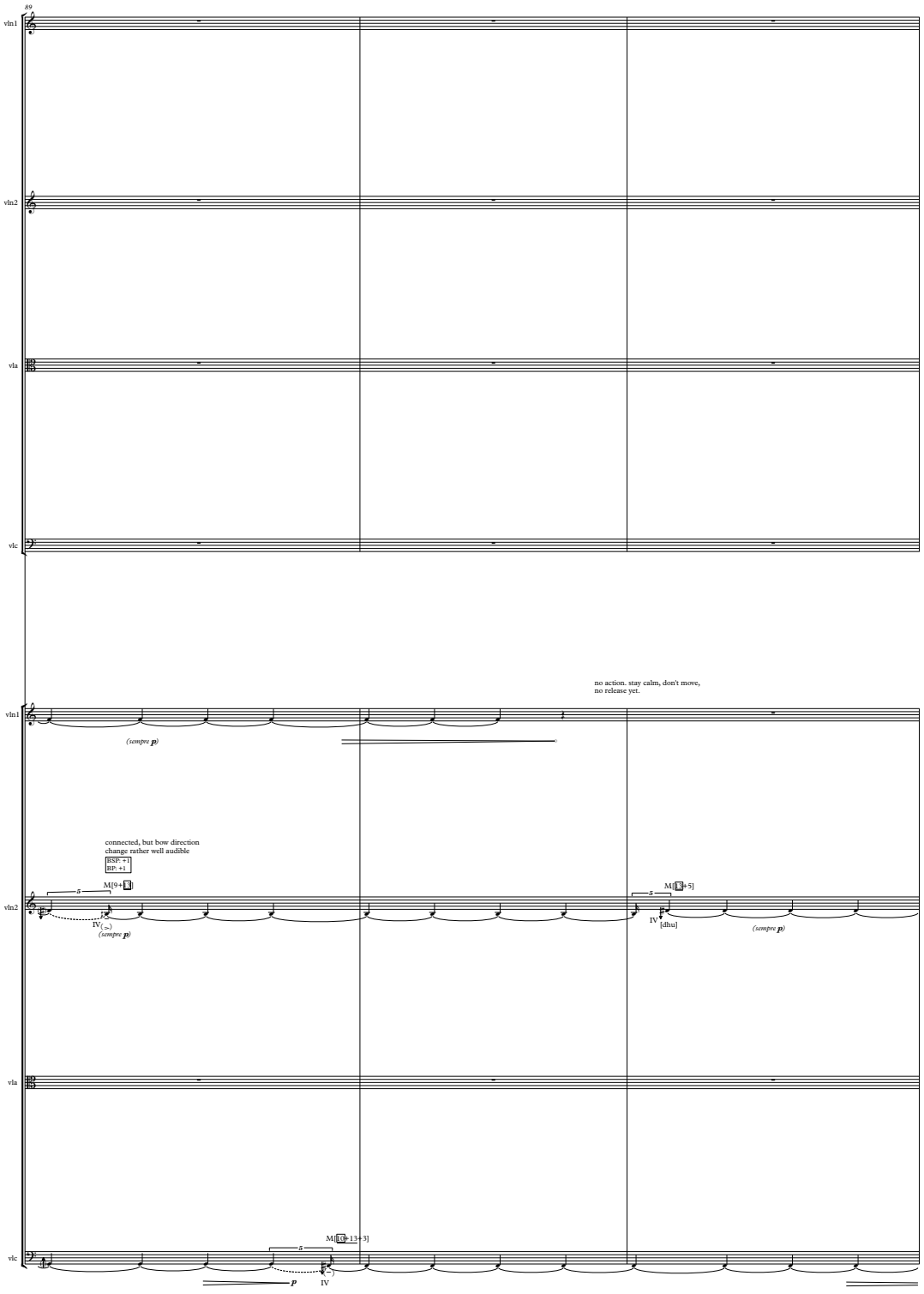

even slightly more metallic (but not scratching at all)
vln1
vln2
vla
vlc
(minimally more 'pitch' for from here)
activity vs. "seeming stasis" more extreme
BSP: +4.5
BP: +3
IV air sounds
IV air sounds
[fo] [dhe]
[dh(e)][df] [ds] [dch(o)] [df(e)] [de] [df-e] [ds] [df] [dh]
p/mp
BSP: +2.5
BP: +2
IV
IV air sounds
IV
BSP: +2
BP: +1.5
IV air sound
AWIV
IV air sound
M[3+13]
[dhe] [df]
[dhe] [df] [dh(ea)] [dcho]
[dhü]
[df]
III
BSP: +3
BP: +1.5
AWI
[(d)che]
very noisy; very even sound.

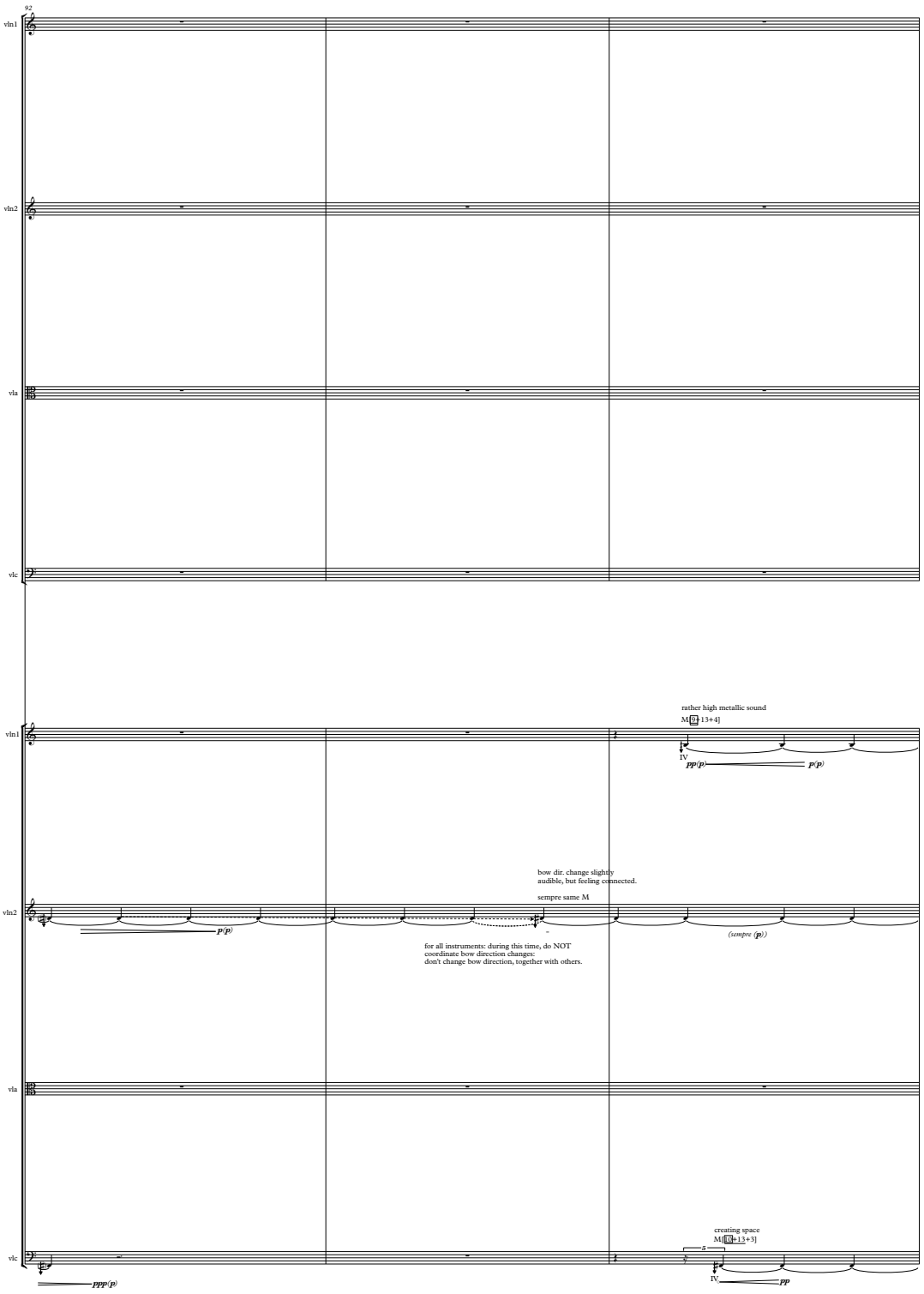

77
vln1
vln2
vla
vlc
AWIV
IV air sounds
IV air sound
BSP: -0.5
BP: 0
BSP: -0.5
BP: +2
[df] [dhe] [a] [o]
[ds] [dha] [df] [dch(i)] [dhü/i] [dg]
(sempre mp)
[dh(ü)o]
with quite some air
[df] [dch]
p
slightly narrower
air channel
with a little grain, briefly
activity vs. "seeming stasis" more extreme
BSP: +2.5
BP: +2
BSP: +2
BP: +1
also bow and sound
getting lighter, 'vanishing'
IV air sound
AWI
air sounds
shift
[(ø)h] [g] [h] [df] [i] [ds] [df] [dh(e)] [dha] [ds(e)] [(a)] [(e/i)]
(minimally more 'pitch' for IV from here)
BSP: +1.5
BP: +1.5
activity vs. "seeming stasis" more extreme
BSP: +2.5
BP: +1.5
III
M[3+1|1+8], more stratified
IV air sound
[df] [k]
p
[dhü] [dhea] [dch(e)]
ppp(p)
(m)p

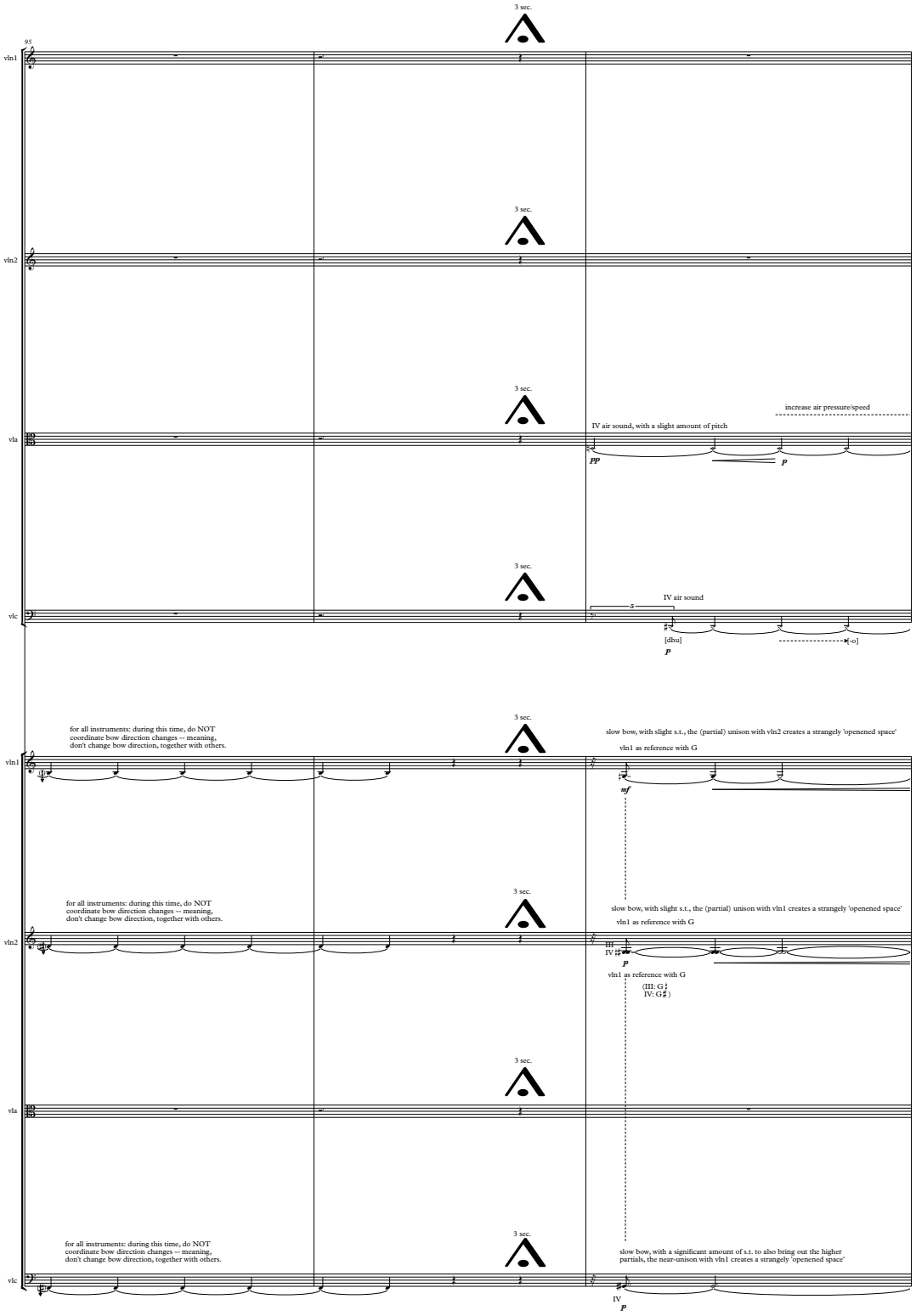

80
vln1
vln2
vla
vlc
'thought', which is continuous, but is seemingly fragmented
BSP: +3
BP: +2
BSP: -0.5
BP: 0
BSP: +3
BP: +2
BSP: -0.5
BP: 0
BSP: +3
BP: +2
shift
no/much less
grain
AWIV
IV air sounds
IV air sound
very airy
M[7+3+6]
(sempre p)
shape
BSP: +2.5
BP: +2.8
BSP: +2.5
BP: +3
(noisy)
air sounds
III air sounds
III air sound
AWI
shift
'relaxation curve'
cresc. leading 'upwards'
BSP: +3
BP: +2.5
same M but bow dir. changes slightly audible
(sempre same M)

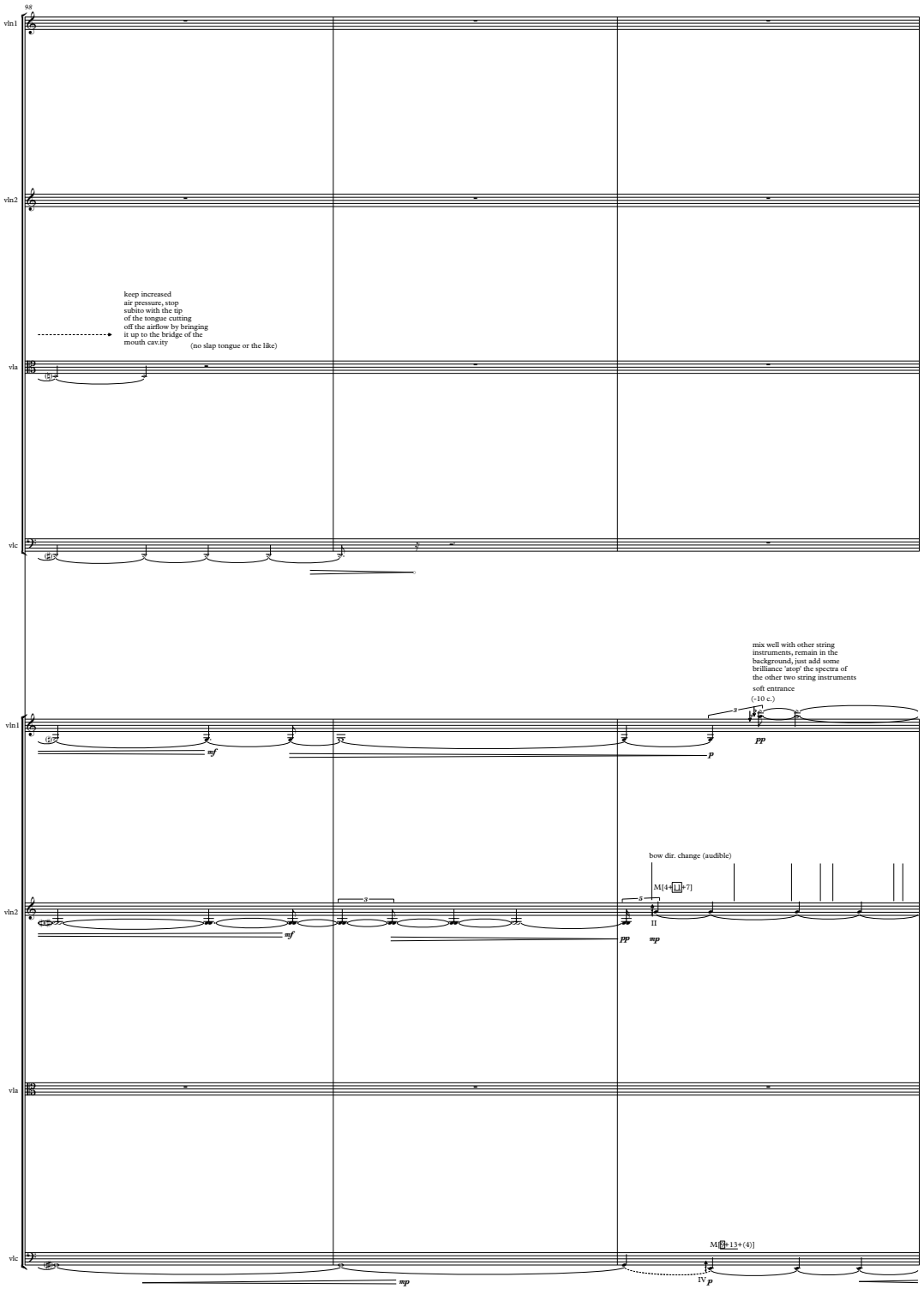

vln1
vln2
vla
vlc
med.-calm, not completely settled, but relatively even, despite little 'grain' 'artefacts' within the sound.
AWIV
(+)M[7+13+6]
very even sound
[dl]
[dh(e)]
III
pp
(sempre pp)
M[13+5]
IV
(mp) (as still a little bit more 'agitated')
BSP: +1.5
BP: +1.5
IV
M[13+10+7]
IV
(sempre mp)
soft! for balance, don't overpower the other instruments' sounds, blend well, emphasize higher frequencies of spectrum
M[16+13+3]
IV
mp
bow direction change, audible as pulsation, flat-sounding, flat bow (=don't lift bow) direction change

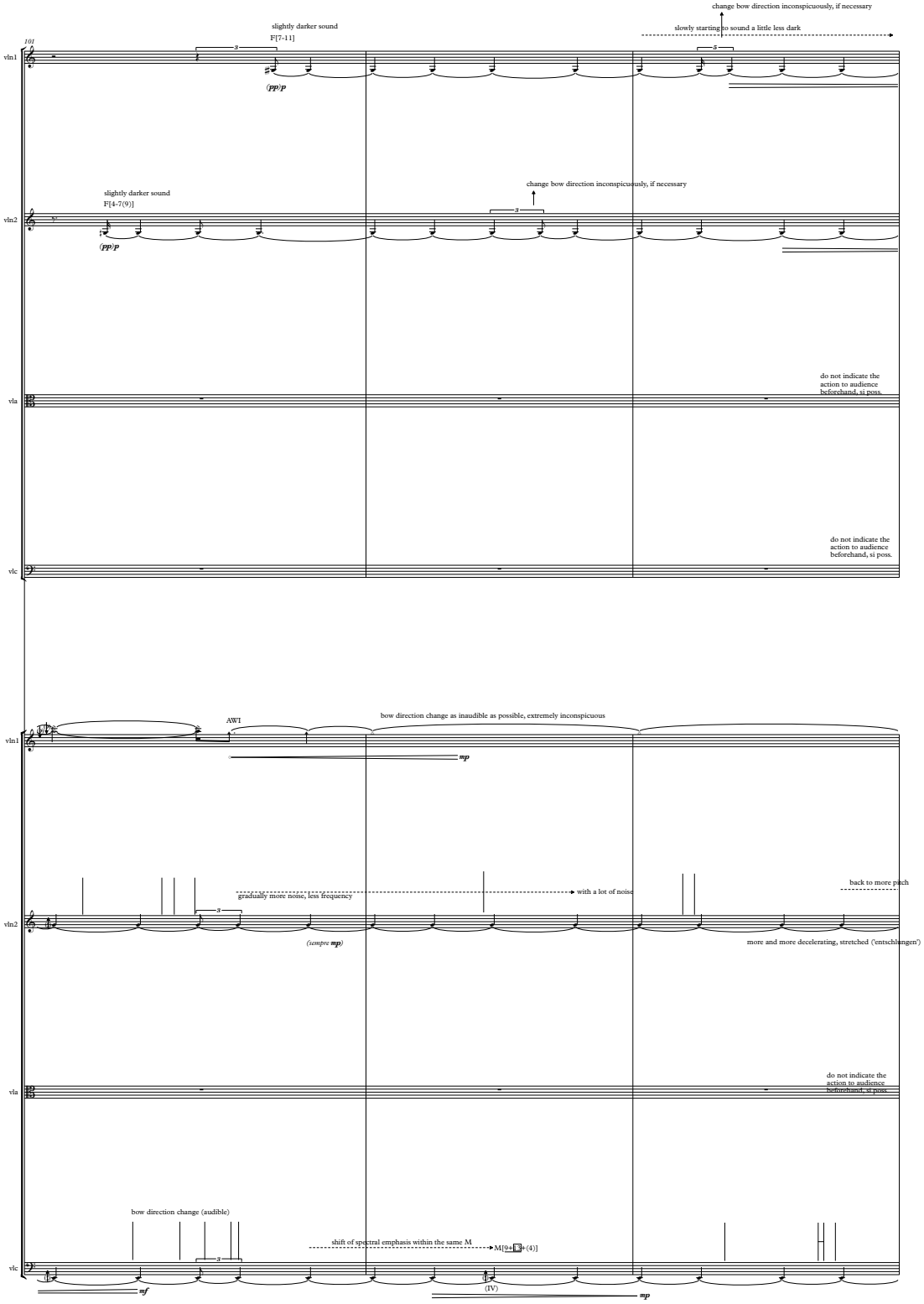

86
vln1
vln2
vla
vlc
(sempre p)
M[3+5]
IV
p with rather large space
bow direction change,
but feeling connected
M[2+13]
IV mp
(rather soft start)
(sempre mp)

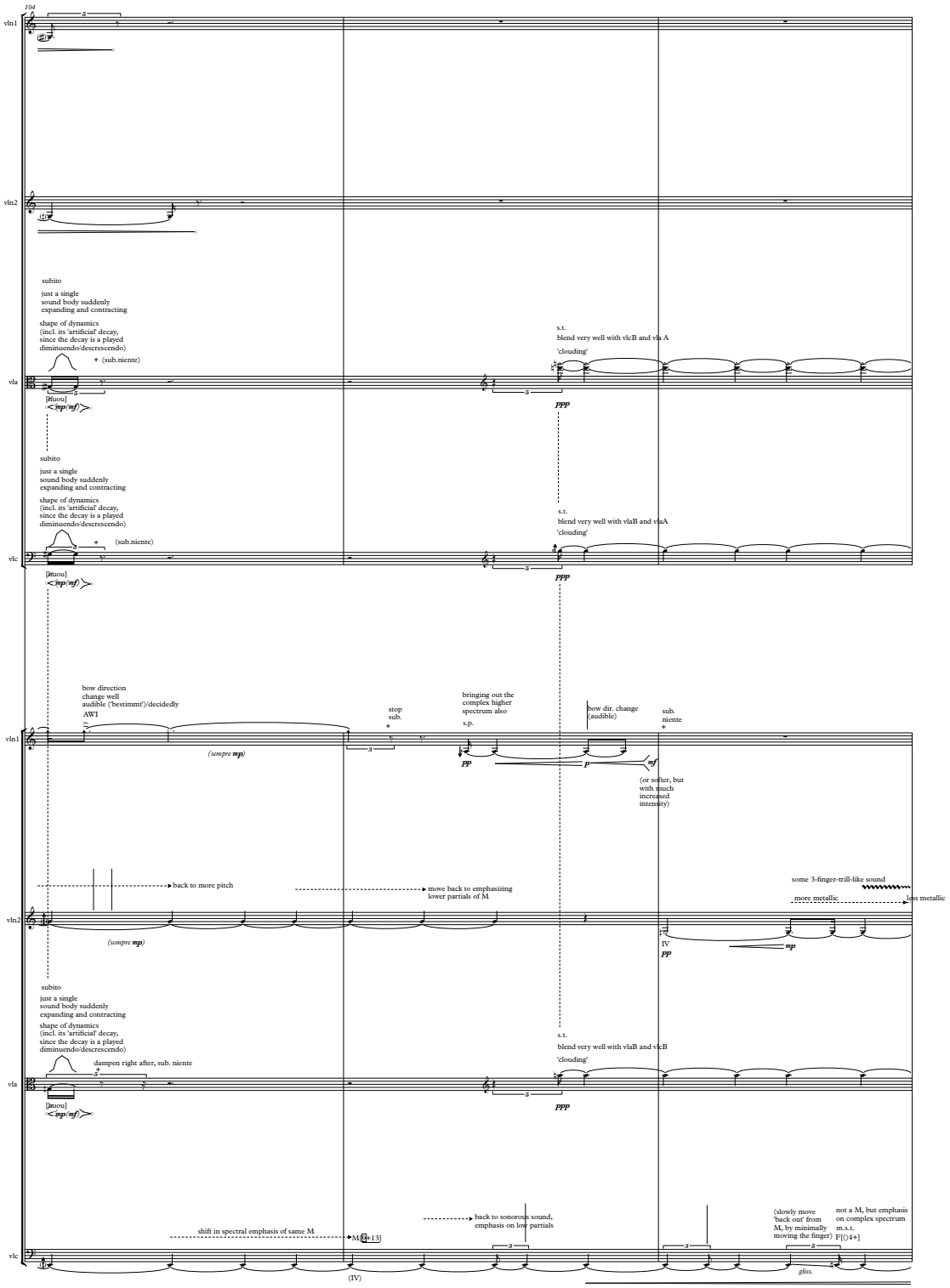

89
vln1
vln2
vla
vlc
no action. stay calm, don't move,
no release yet.
(sempre p)
connected, but bow direction
change rather well audible
BSP: +1
BP: +1
M[9+3]
IV(>)
(sempre p)
M[13+5]
IV
[dhu]
(sempre p)
M[10+13+3]
p
IV

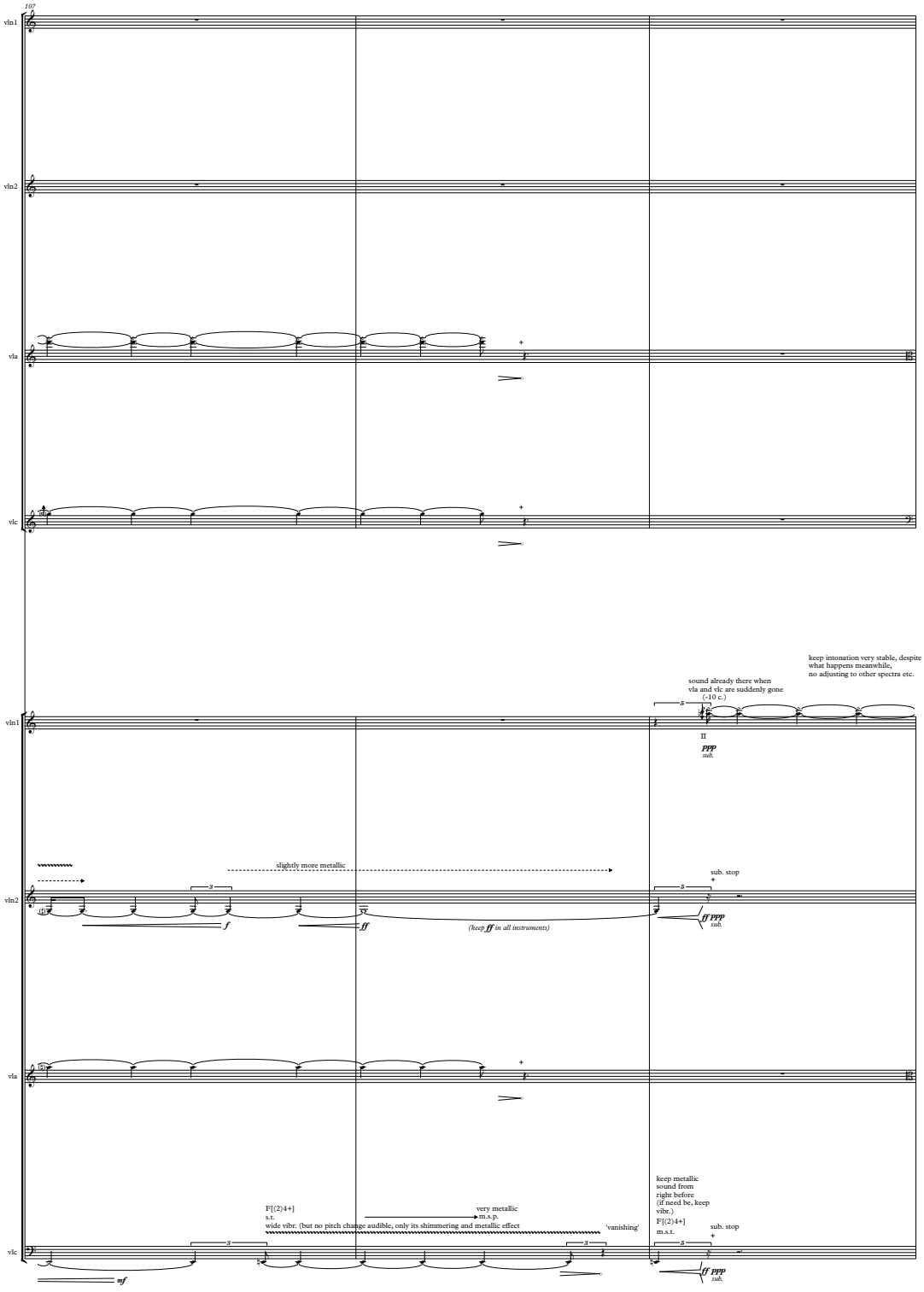

92
vln1
vln2
vla
vlc
rather high metallic sound
M[92+13+4]
IV
pp(p)
p(p)
bow dir. change slightly
audible, but feeling connected.
sempre same M
p(p)
(sempre (p))
for all instruments: during this time, do NOT
coordinate bow direction changes:
don't change bow direction, together with others.
creating space
M[93+13+3]
5
IV
ppp(p)
pp


95
vln1
vln2
vla
vlc
3 sec.
increase air pressure/speed
IV air sound, with a slight amount of pitch
pp
p
IV air sound
[dhu]
[-o]
for all instruments: during this time, do NOT coordinate bow direction changes -- meaning, don't change bow direction, together with others.
slow bow, with slight s.t., the (partial) unison with vln2 creates a strangely 'openened space'
vln1 as reference with G
mf
slow bow, with slight s.t., the (partial) unison with vln1 creates a strangely 'openened space'
III
IV
vln1 as reference with G
(III: G
IV: G♯)
slow bow, with a significant amount of s.t. to also bring out the higher partials, the near-unison with vln1 creates a strangely 'openened space'
IV

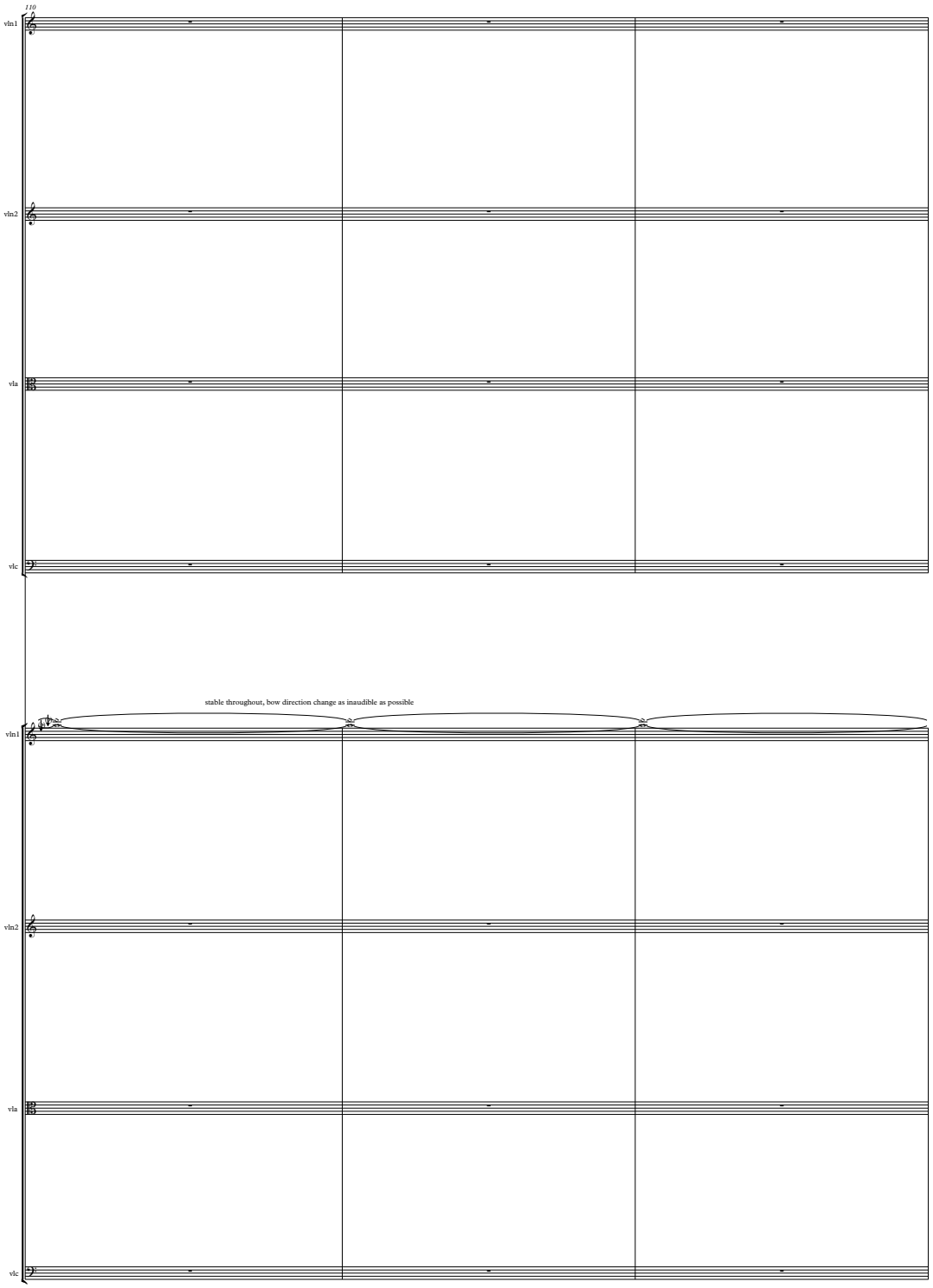

98
vln1
vln2
keep increased
air pressure, stop
subito with the tip
of the tongue cutting
off the airflow by bringing
it up to the bridge of the
mouth cavity
(no slap tongue or the like)
vla
vlc
mix well with other string
instruments, remain in the
background, just add some
brilliance 'atop' the spectra of
the other two string instruments
soft entrance
(-10 c.)
mf
p
pp
bow dir. change (audible)
M[4+1+7]
II
mp
M[3+13+(4)]
IV

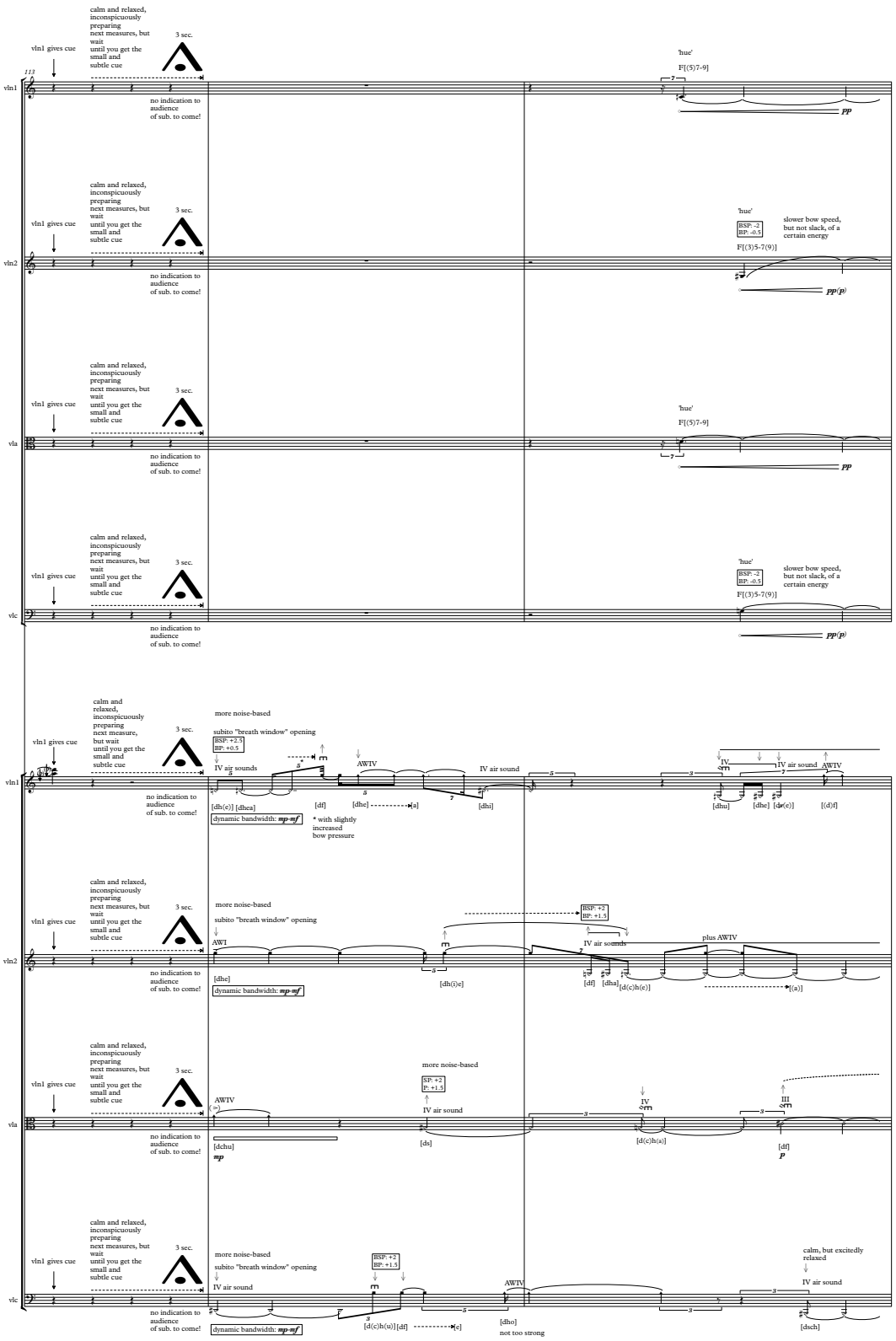

101
vln1
vln2
vla
vlc
slightly darker sound
F[7-11]
(pp)p
change bow direction inconspicuously, if necessary
slowly starting to sound a little less dark
slightly darker sound
F[4-7(9)]
(pp)p
change bow direction inconspicuously, if necessary
do not indicate the action to audience beforehand, si poss.
do not indicate the action to audience beforehand, si poss.
AW1
bow direction change as inaudible as possible, extremely inconspicuous
mp
gradually more noise, less frequency
with a lot of noise
back to more pitch
(sempre mp)
more and more decelerating, stretched ('entschlungen')
do not indicate the action to audience beforehand, si poss.
bow direction change (audible)
shift of spectral emphasis within the same M
M[9+1+(4)]
(IV)
mf
mp

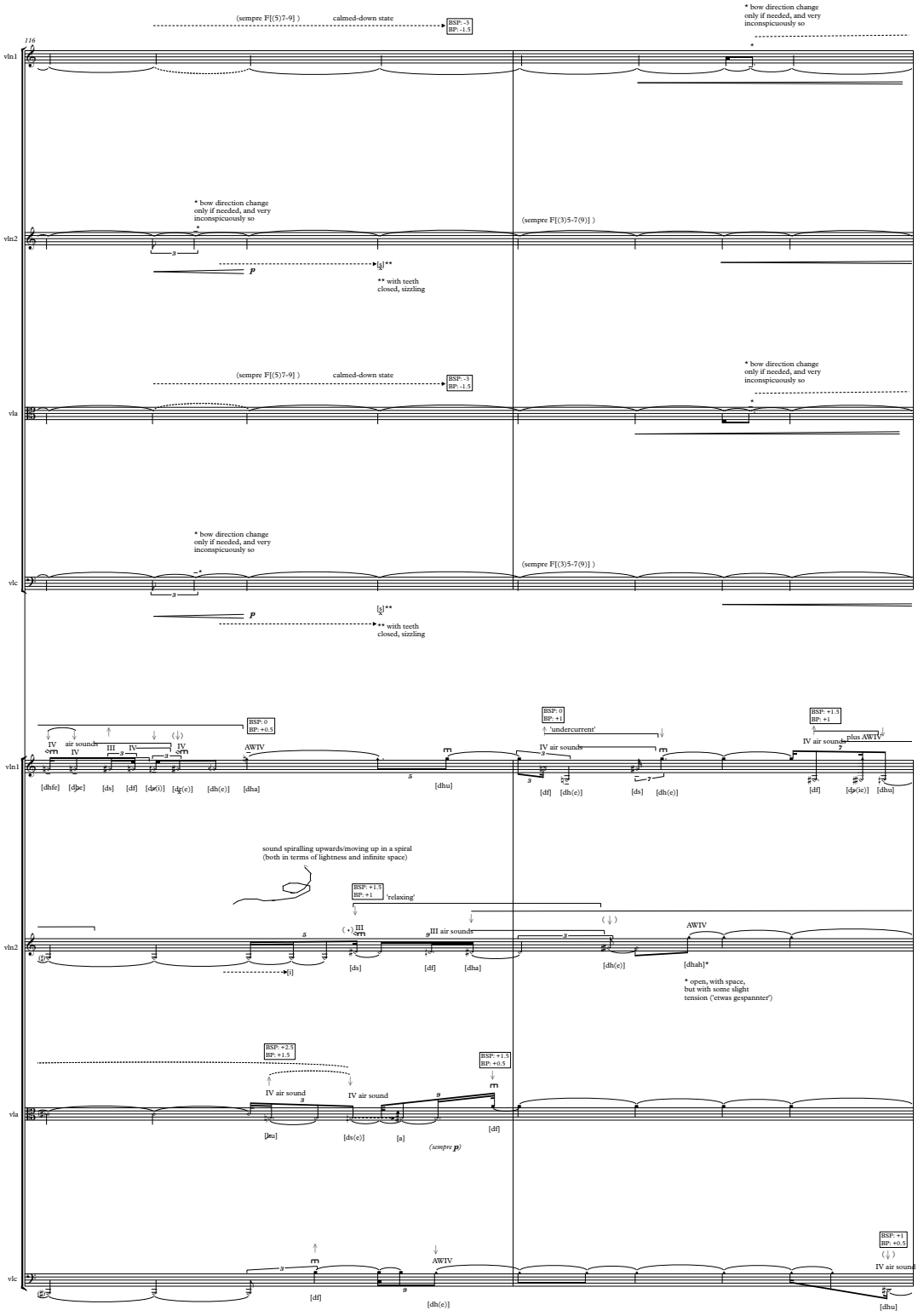

104
vln1
vln2
vla
vlc
subito
just a single
sound body suddenly
expanding and contracting
shape of dynamics
(incl. its 'artificial' decay,
since the decay is a played
diminuendo/descrescendo)
(sub.niente)
[ttuou]
s.t.
blend very well with vlcB and vlaA
'clouding'
ppp
bow direction
change well
audible ('bestimmt')/decidedly
AWI
(sempre mp)
stop
sub.
bringing out the
complex higher
spectrum also
s.p.
pp
bow dir. change
(audible)
sub.
niente
p
mf
(or softer, but
with much
increased
intensity)
back to more pitch
move back to emphasizing
lower partials of M
some 3-finger-trill-like sound
more metallic
less metallic
IV
mp
dampen right after, sub. niente
shift in spectral emphasis of same M
M[3+13]
back to sonorous sound,
emphasis on low partials
(slowly move
'back out' from
M, by minimally
moving the finger)
not a M, but emphasis
on complex spectrum
m.s.t.
F[()4+]
gliss.
(IV)


107
vln1
vln2
vla
vlc
sul tasto
keep intonation very stable, despite what happens meanwhile, no adjusting to other spectra etc.
sound already there when vla and vlc are suddenly gone (-10 c.)
II
ppp
subt.
slightly more metallic
sub. stop
f
ff
(keep ff in all instruments)
ff ppp
subt.
F[(2)4+]
s.t.
wide vibr. (but no pitch change audible, only its shimmering and metallic effect
very metallic
m.s.p.
'vanishing'
keep metallic sound from right before (if need be, keep vibr.)
F[(2)4+]
m.s.t.
sub. stop
mf

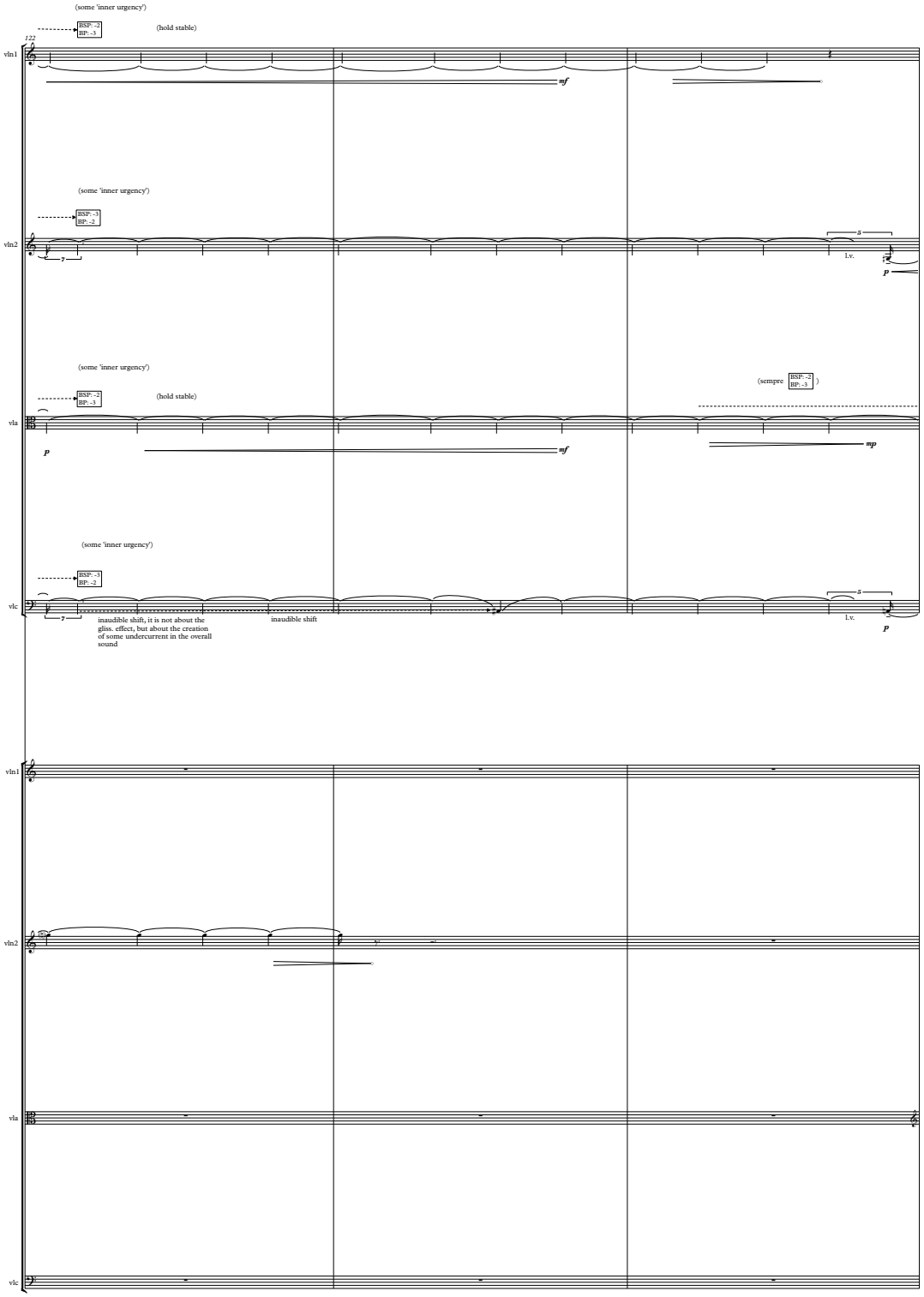
40

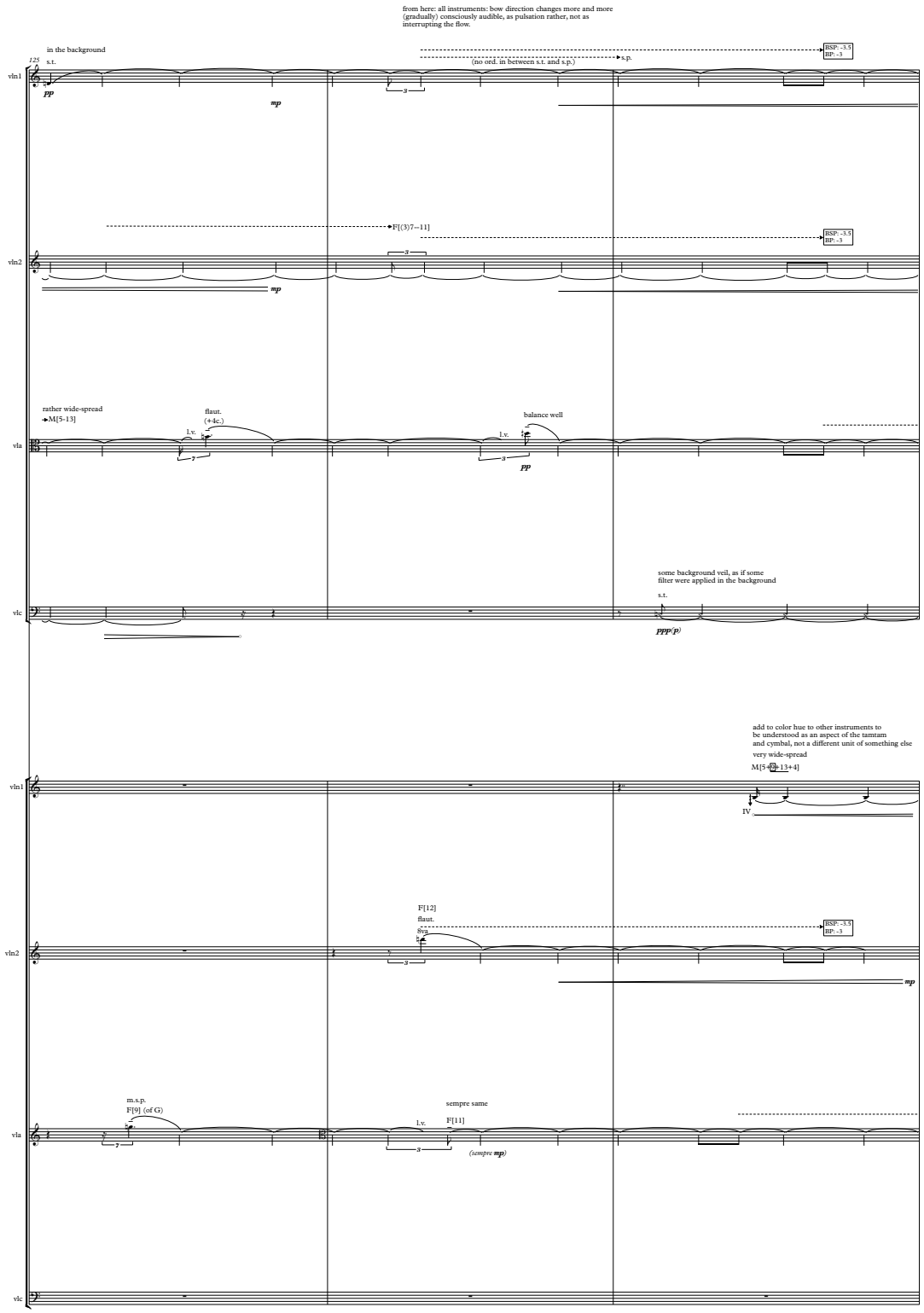

110
vln1
vln2
vla
vlc
stable throughout, bow direction change as inaudible as possible
vln1
vln2
vla
vlc

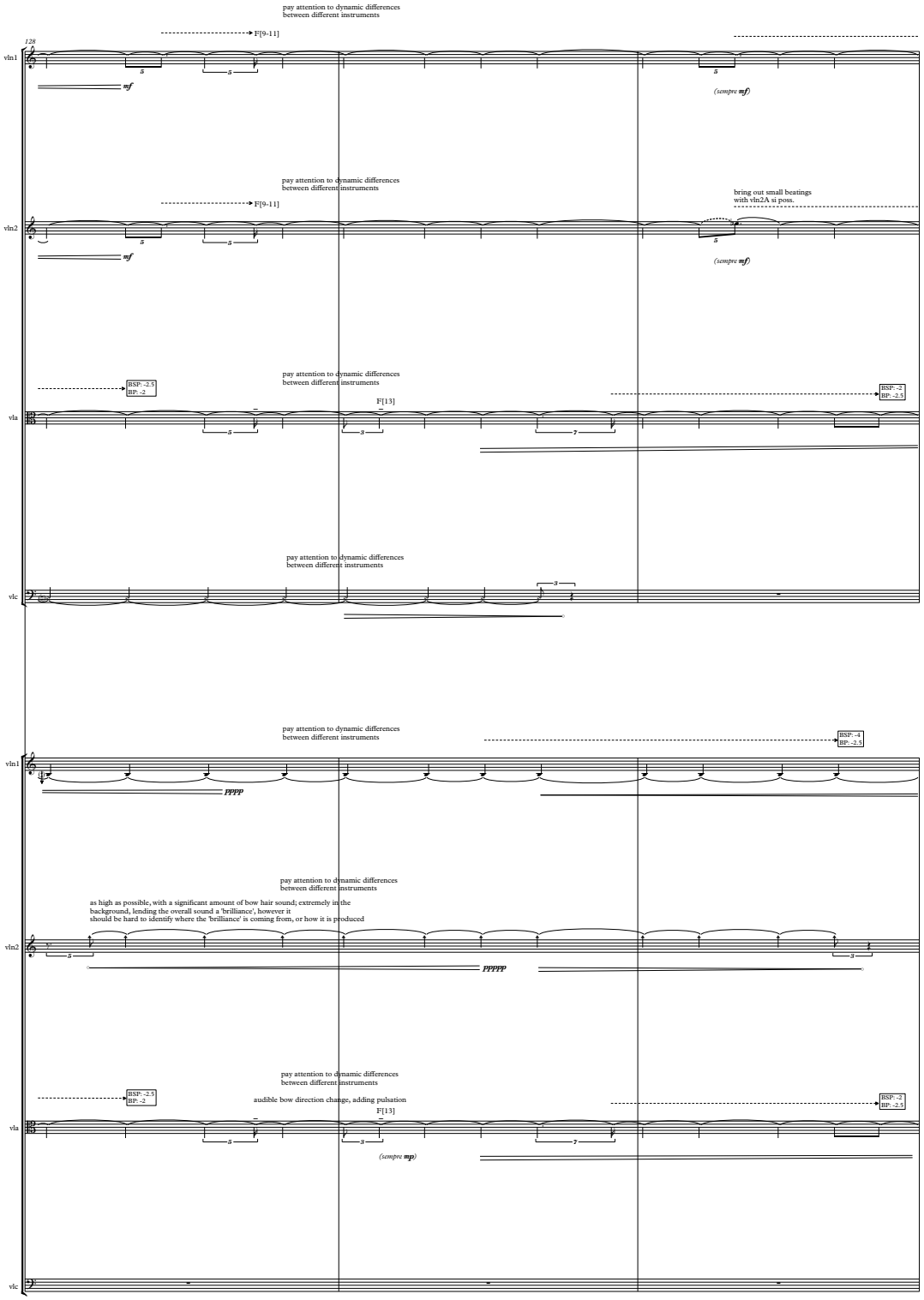

vln1
vln2
vla
vlc
vln1 gives cue
3 sec.
calm and relaxed, inconspicuously preparing next measures, but wait until you get the small and subtle cue
no indication to audience of sub. to come!
'hue'
F[(5)7-9]
PP
slower bow speed, but not slack, of a certain energy
F[(3)5-7(9)]
pp-(p)
more noise-based
subito "breath window" opening
BSP: +2.5
BP: +0.5
IV air sounds
AWIV
IV air sound
[dh(e)] [dhea]
dynamic bandwidth: mp-mf
[df]
[dhe]
[a]
[dhi]
* with slightly increased bow pressure
[dhu]
[d♯(e)]
[(d)f]
BSP: +2
BP: +1.5
AWI
plus AWIV
[dh(i)e]
[df]
[dha]
[d(c)h(e)]
[(a)]
SP: +2
P: +1.5
[dchu]
mp
[ds]
[d(c)h(a)]
III
p
[d(c)h(u)]
[dho]
not too strong
calm, but excitedly relaxed
[dsch]

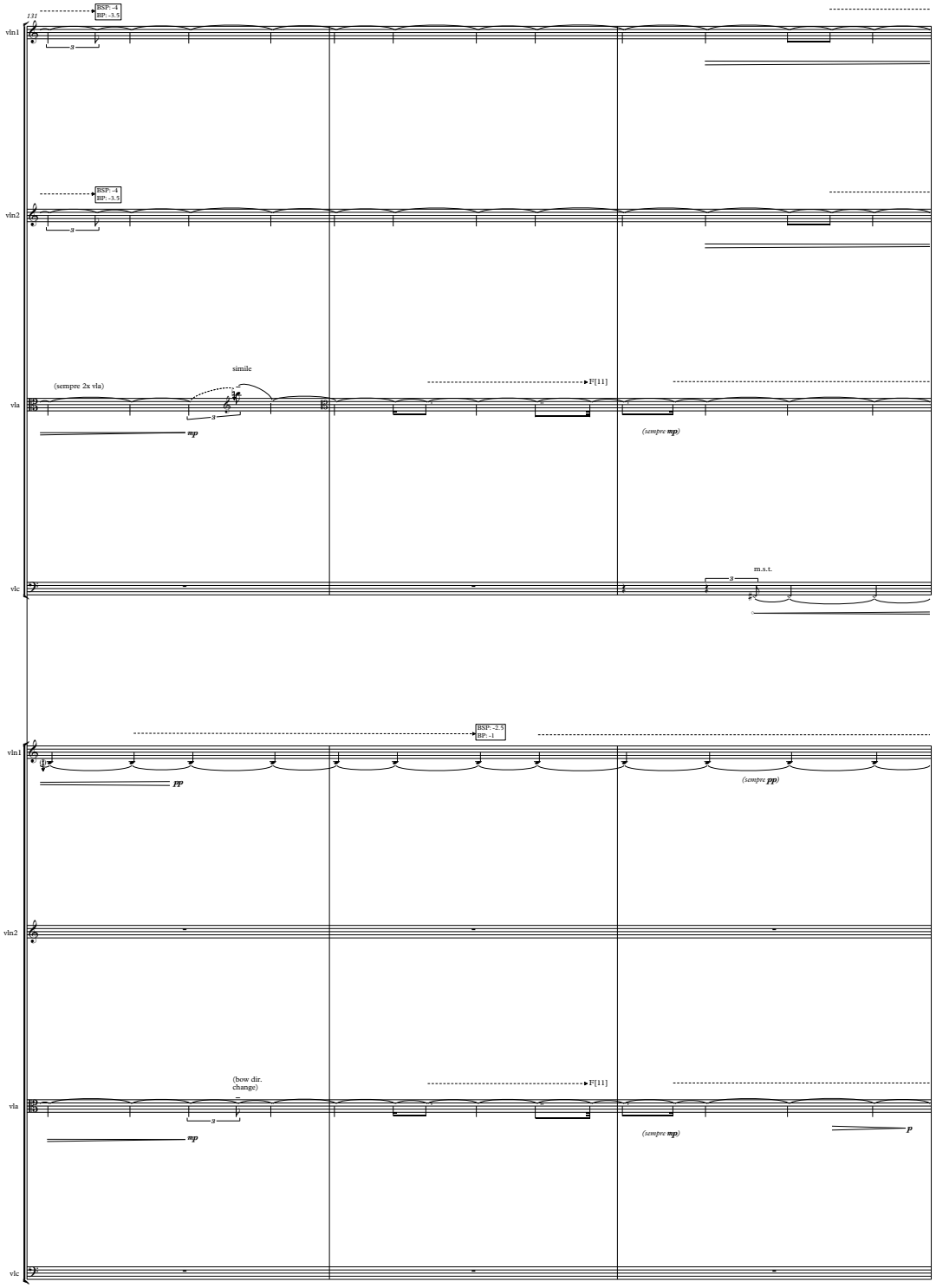

116
vln1
vln2
vla
vlc
(sempre F/(5)7-9])
calmed-down state
BSP: -3
BP: -1.5
* bow direction change only if needed, and very inconspicuously so
(sempre F/(3)5-7(9)])
** with teeth closed, sizzling
BSP: 0
BP: +0.5
BSP: 0
BP: +1
BSP: +1.5
BP: +1
'undercurrent'
IV air sounds
plus AWIV
sound spiralling upwards/moving up in a spiral
(both in terms of lightness and infinite space)
'relaxing'
III air sounds
AWIV
* open, with space,
but with some slight
tension ('etwas gespannter')
BSP: +2.5
BP: +1.5
BSP: +1.5
BP: +0.5
IV air sound
(sempre p)
BSP: +1
BP: +0.5

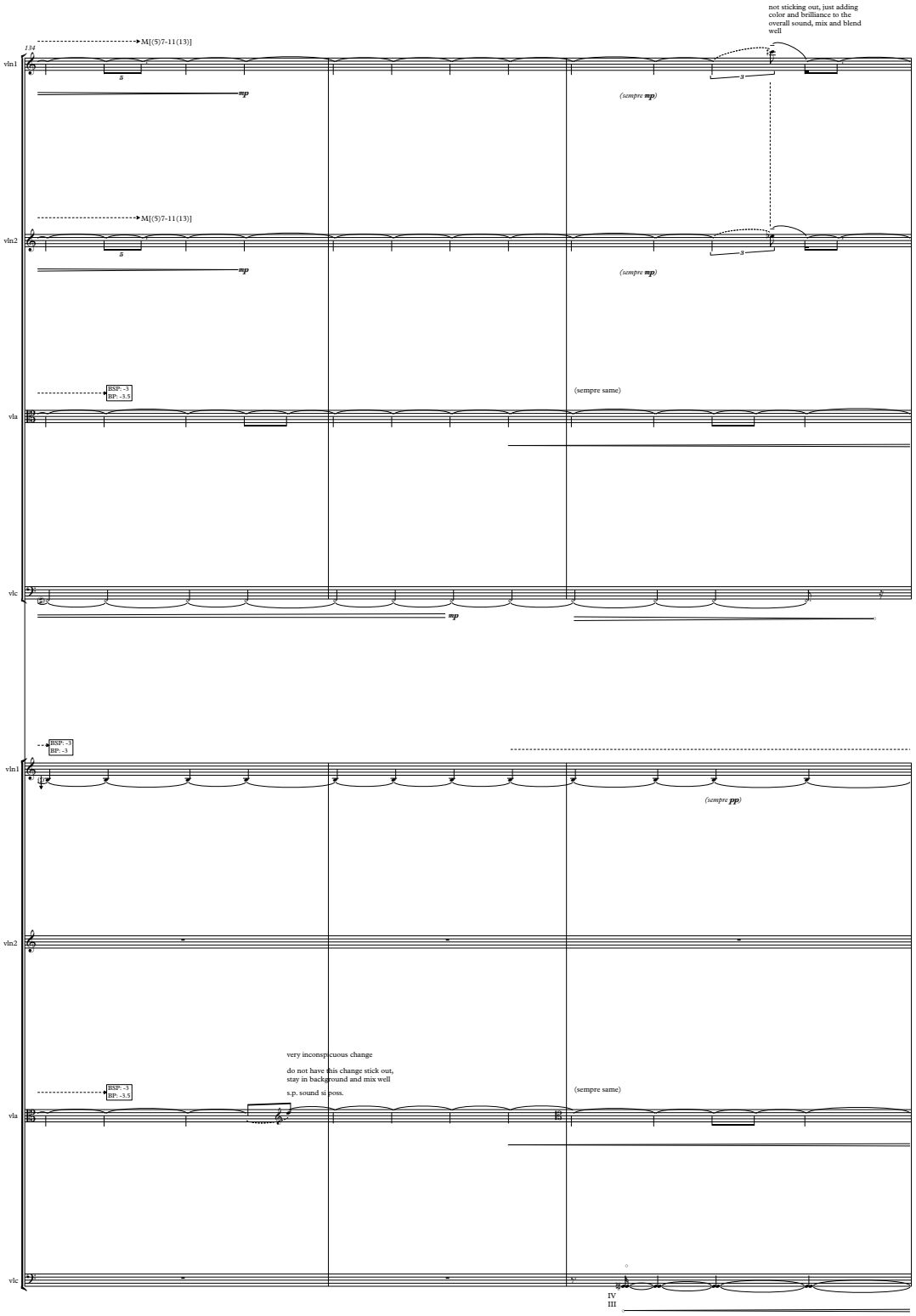

inconspicuous switch in pitch,
sounds more like a spectral shift
in connection with pitch before
BSP: -3.5
BP: -1.5
F[(5)7-9(11)]
118
vln1
p
mp
mf
BSP: -3
BP: -2
re-start sound, but as
a pulsation, not interruption or else
F[(3)5-11]
vln2
mp
l.v.
vla
(p)
vlc
incoonspicuously joins vlcB and vln2B

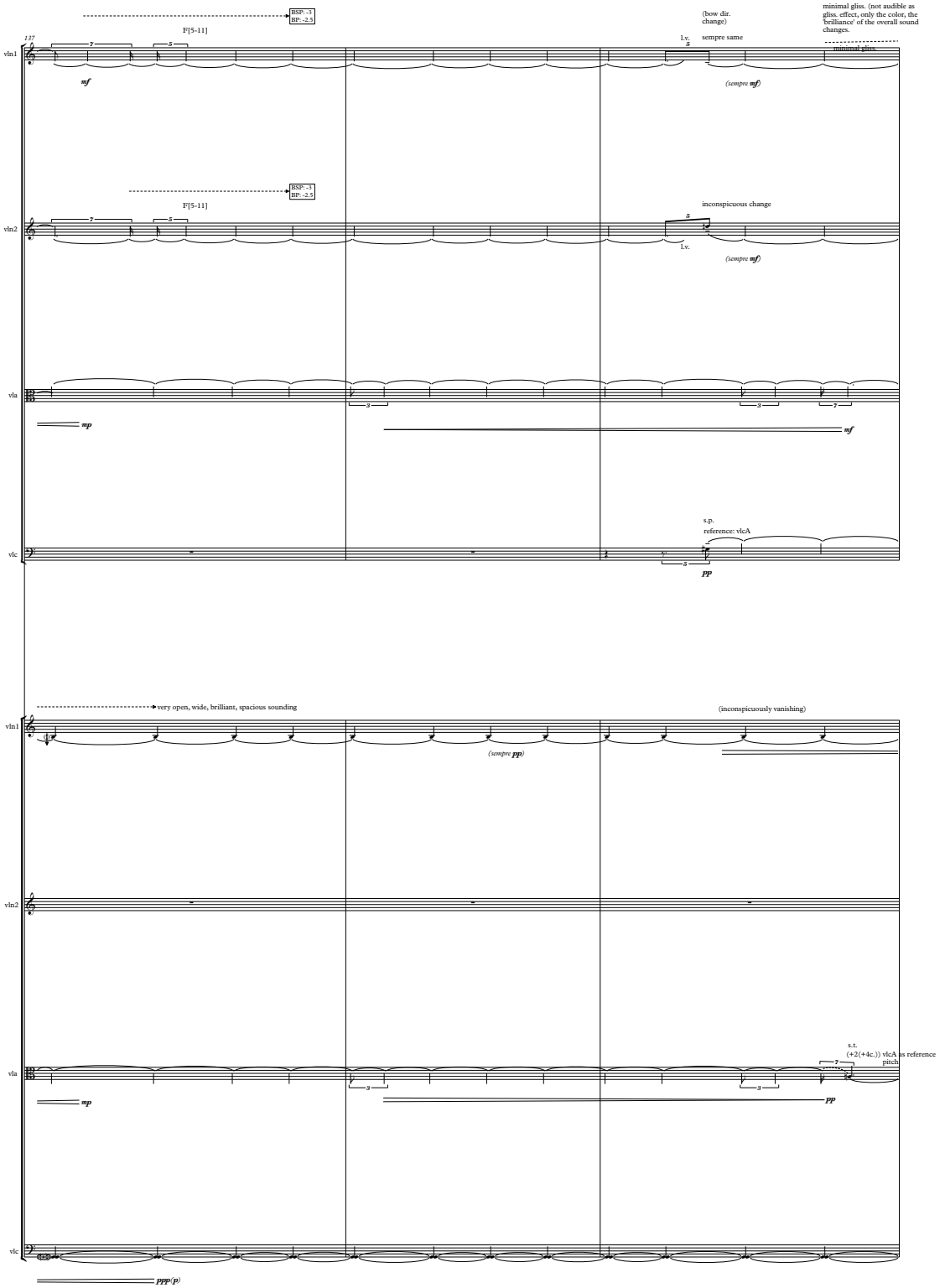

(some 'inner urgency')
BSP: -2
BP: -3
(hold stable)
122
vln1
mf
(some 'inner urgency')
BSP: -3
BP: -2
vln2
l.v.
p
(some 'inner urgency')
BSP: -2
BP: -3
(hold stable)
(sempre BSP: -2 BP: -3)
vla
p
mf
mp
(some 'inner urgency')
BSP: -3
BP: -2
vlc
inaudible shift, it is not about the gliss. effect, but about the creation of some undercurrent in the overall sound
inaudible shift
l.v.
p
vln1
vln2
vla
vlc

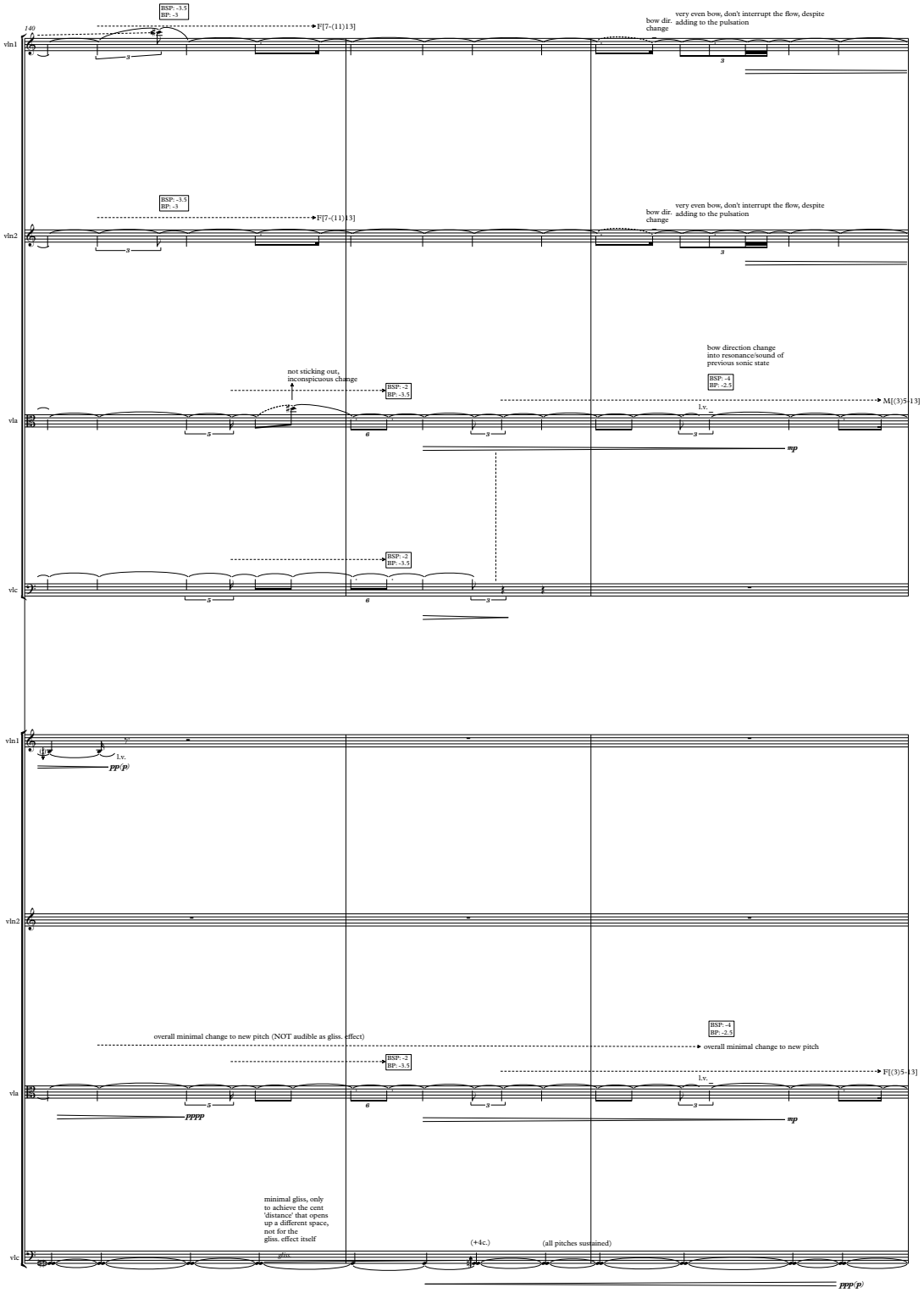

from here: all instruments: bow direction changes more and more (gradually) consciously audible, as pulsation rather, not as interrupting the flow.
in the background
s.t.
(no ord. in between s.t. and s.p.)
s.p.
BSP: -3.5
BP: -3
vln1
vln2
vla
vlc
F[(3)7–11]
rather wide-spread
M[5-13]
flaut.
(+4c.)
l.v.
balance well
some background veil, as if some filter were applied in the background
add to color hue to other instruments to be understood as an aspect of the tamtam and cymbal, not a different unit of something else
very wide-spread
M[5+13+4]
F[12]
8va
m.s.p.
F[9] (of G)
sempre same
F[11]
(sempre mp)

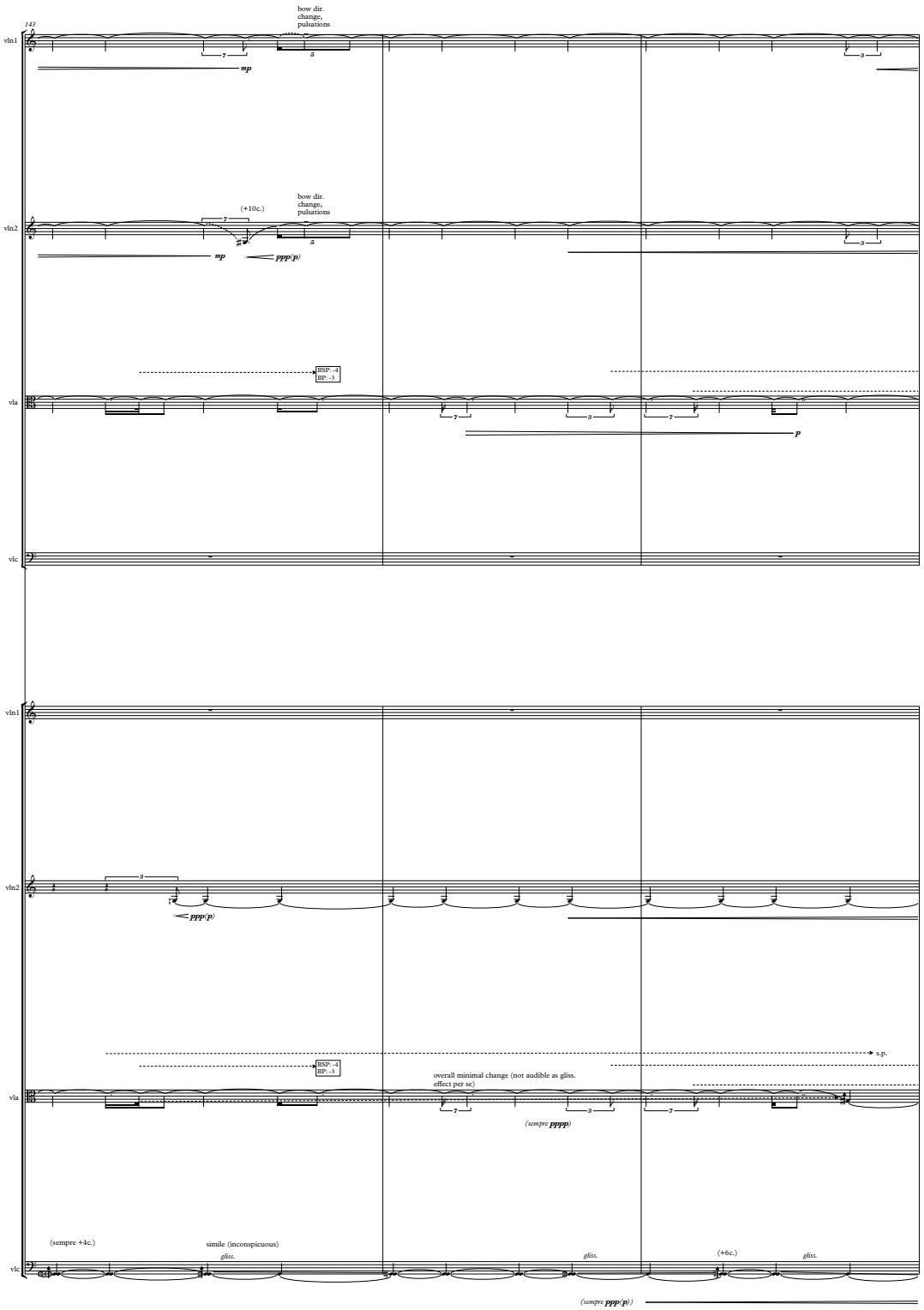

pay attention to dynamic differences between different instruments
F[9-11]
128
vln1
mf
(sempre mf)
pay attention to dynamic differences between different instruments
F[9-11]
bring out small beatings with vln2A si poss.
vln2
mf
(sempre mf)
pay attention to dynamic differences between different instruments
BSP: -2.5
BP: -2
F[13]
BSP: -2
BP: -2.5
vla
pay attention to dynamic differences between different instruments
vlc
pay attention to dynamic differences between different instruments
BSP: -4
BP: -2.5
vln1
pppp
pay attention to dynamic differences between different instruments
as high as possible, with a significant amount of bow hair sound; extremely in the background, lending the overall sound a 'brilliance', however it should be hard to identify where the 'brilliance' is coming from, or how it is produced
vln2
ppppp
pay attention to dynamic differences between different instruments
BSP: -2.5
BP: -2
audible bow direction change, adding pulsation
F[13]
BSP: -2
BP: -2.5
(sempre mp)
vla
vlc


131
BSP: -4
BP: -3.5
vln1
vln2
simile
(sempre 2x vla)
F[11]
vla
mp
(sempre mp)
m.s.t.
vlc
BSP: -2.5
BP: -1
pp
(sempre pp)
(bow dir. change)
P


not sticking out, just adding color and brilliance to the overall sound, mix and blend well
134
M[(5)7-11(13)]
vln1
mp
(sempre mp)
M[(5)7-11(13)]
vln2
mp
(sempre mp)
BSP: -3
BP: -3.5
vla
(sempre same)
vlc
mp
BSP: -3
BP: -3
vln1
(sempre pp)
vln2
very inconspicuous change
do not have this change stick out, stay in background and mix well
s.p. sound si poss.
BSP: -3
BP: -3.5
vla
(sempre same)
vlc
IV
III

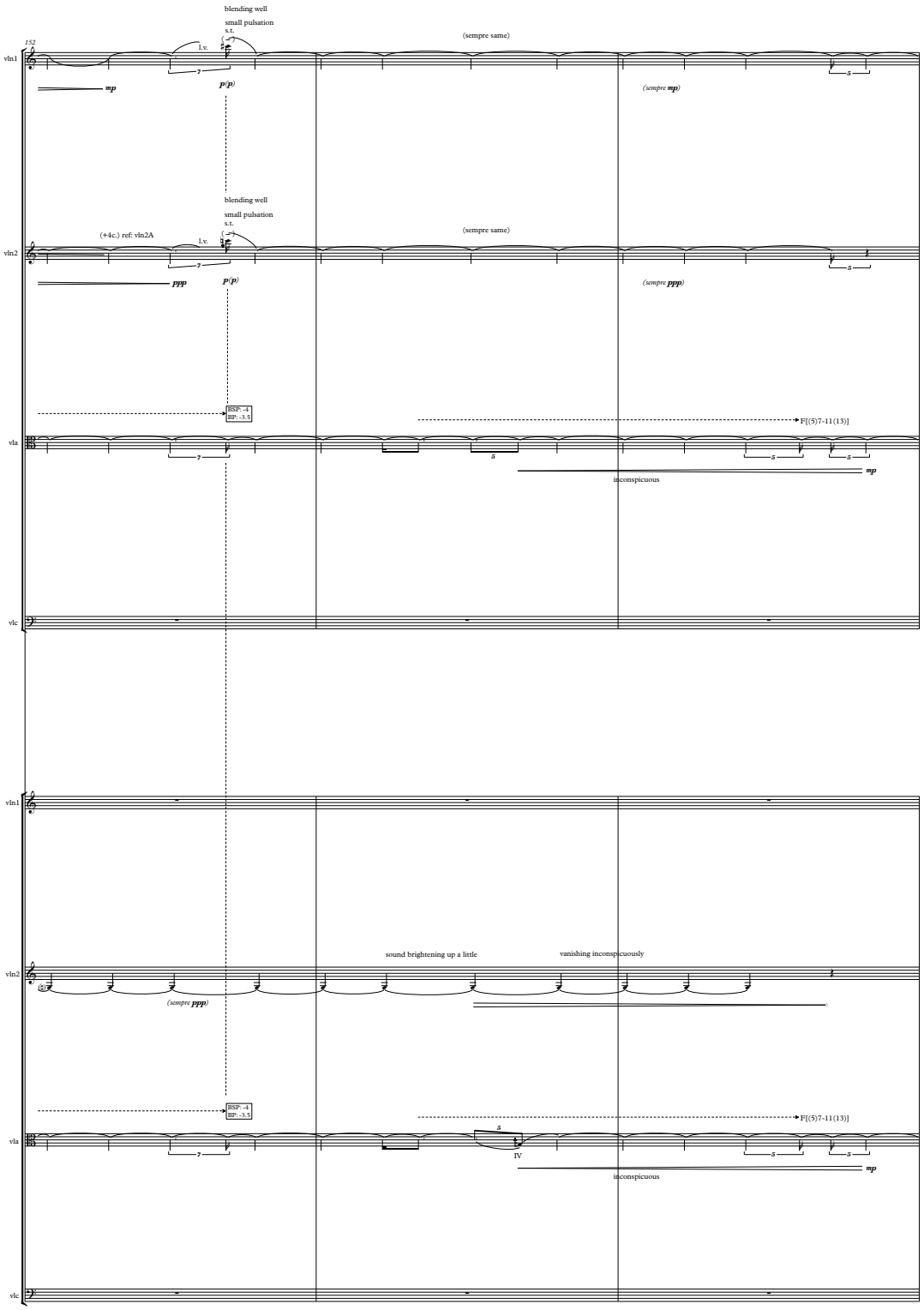

137
vln1
vln2
vla
vlc
BSP: -3
BP: -2.5
F[5-11]
mf
(bow dir. change)
l.v.
sempre same
(sempre mf)
minimal gliss. (not audible as gliss. effect, only the color, the 'brilliance' of the overall sound changes.
minimal gliss.
inconspicuous change
mp
s.p.
reference: vlcA
pp
very open, wide, brilliant, spacious sounding
(inconspicuously vanishing)
(sempre pp)
s.t.
(+2(+4c.)) vlcA as reference pitch
ppp(p)

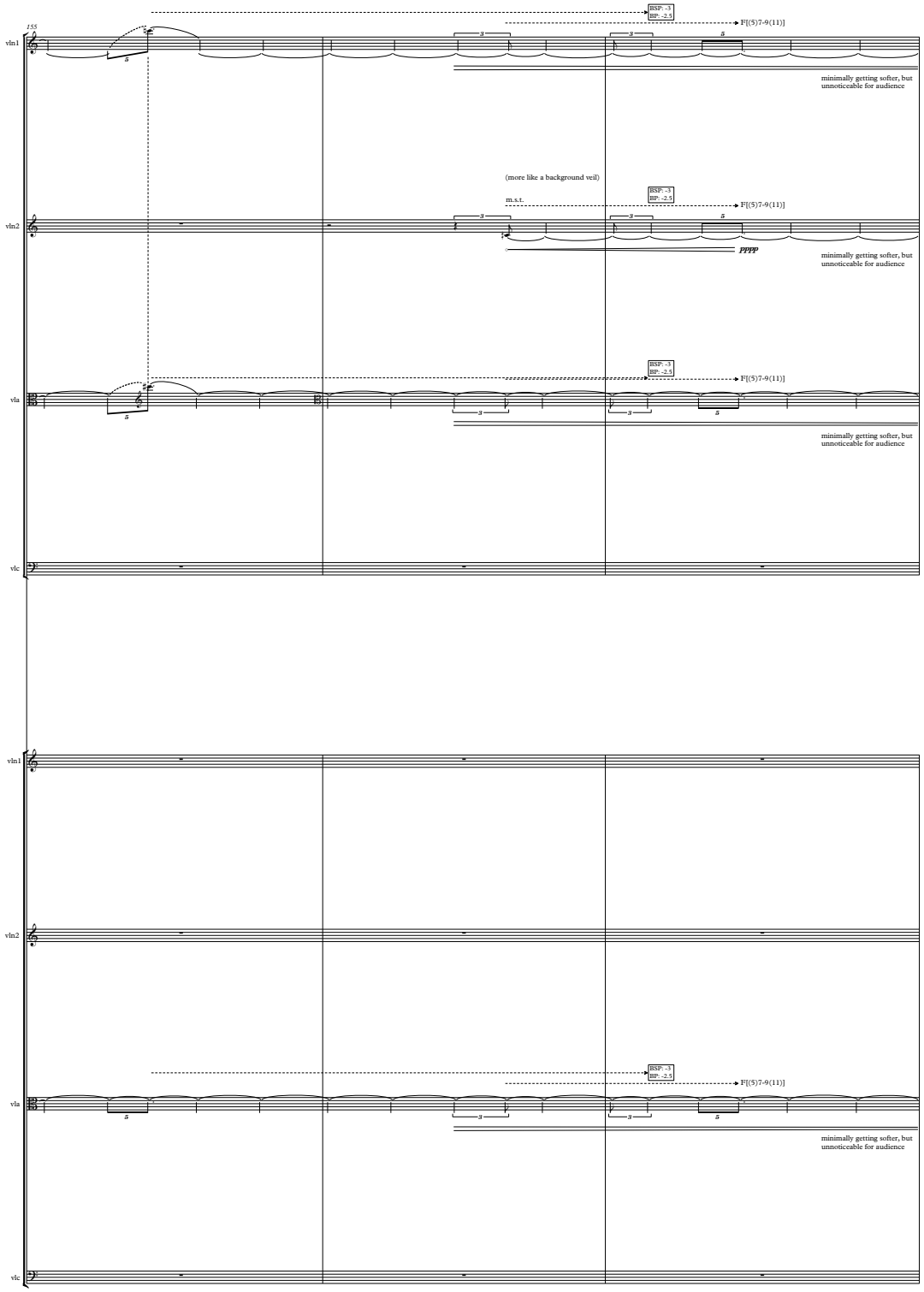

140
vln1
vln2
vla
vlc
RSP: -3.5
BP: -3
F[7-(11)13]
bow dir. change
very even bow, don't interrupt the flow, despite adding to the pulsation
not sticking out, inconspicuous change
RSP: -2
BP: -3.5
bow direction change into resonance/sound of previous sonic state
RSP: -4
BP: -2.5
M[(3)5-13]
l.v.
mp
pp(p)
overall minimal change to new pitch (NOT audible as gliss. effect)
overall minimal change to new pitch
F[(3)5-13]
pppp
minimal gliss, only to achieve the cent 'distance' that opens up a different space, not for the gliss. effect itself
gliss.
(+4c.)
(all pitches sustained)
ppp(p)

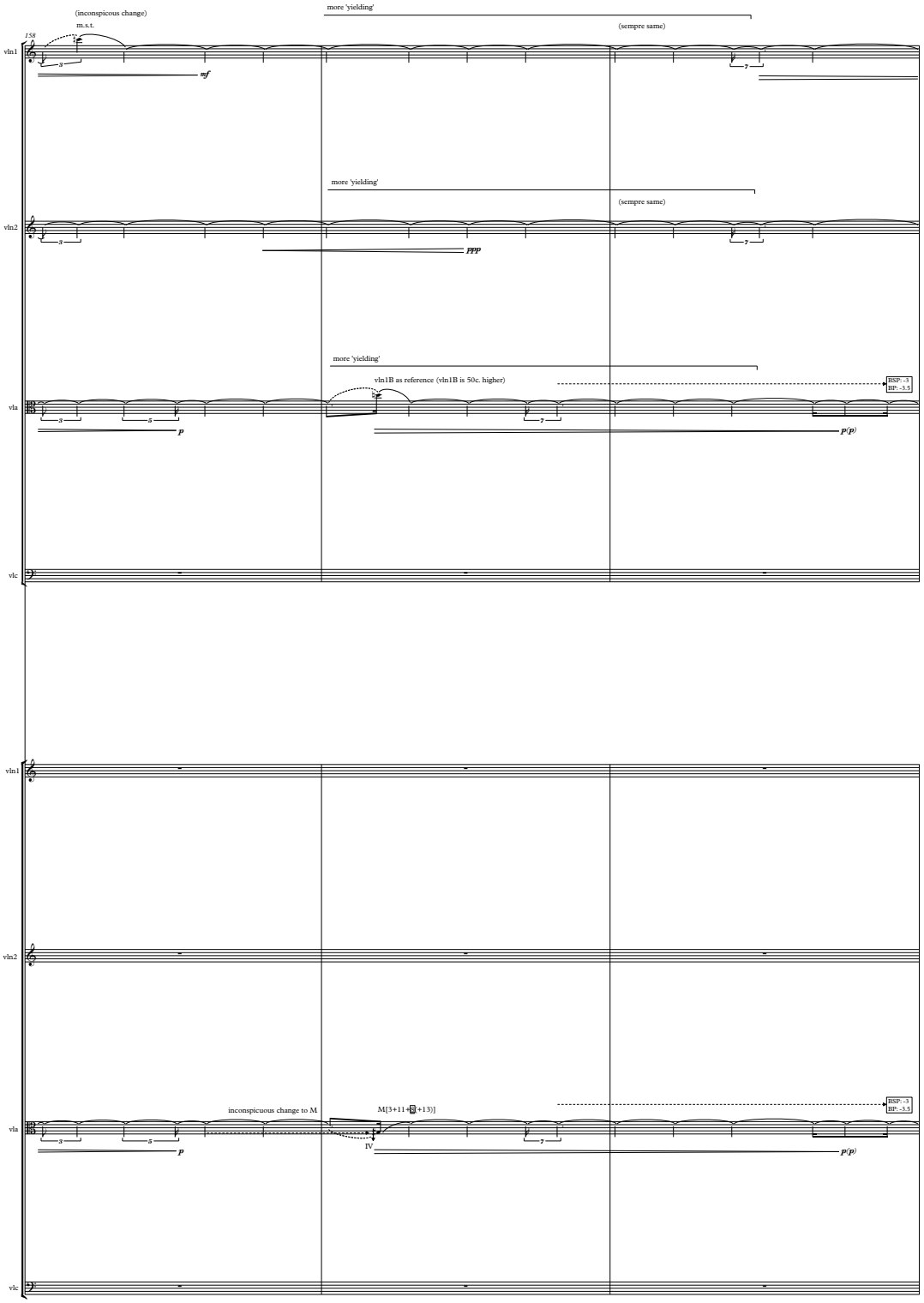

143
vln1
vln2
vla
vlc
bow dir. changs, pulsations
(+10c.)
mp
ppp(p)
BSP: -4
BP: -3
p
s.p.
overall minimal change (not audible as gliss.
effect per se)
(sempre pppp)
(sempre +4c.)
simile (inconspicuous)
gliss.
(+6c.)
(sempre ppp(p))

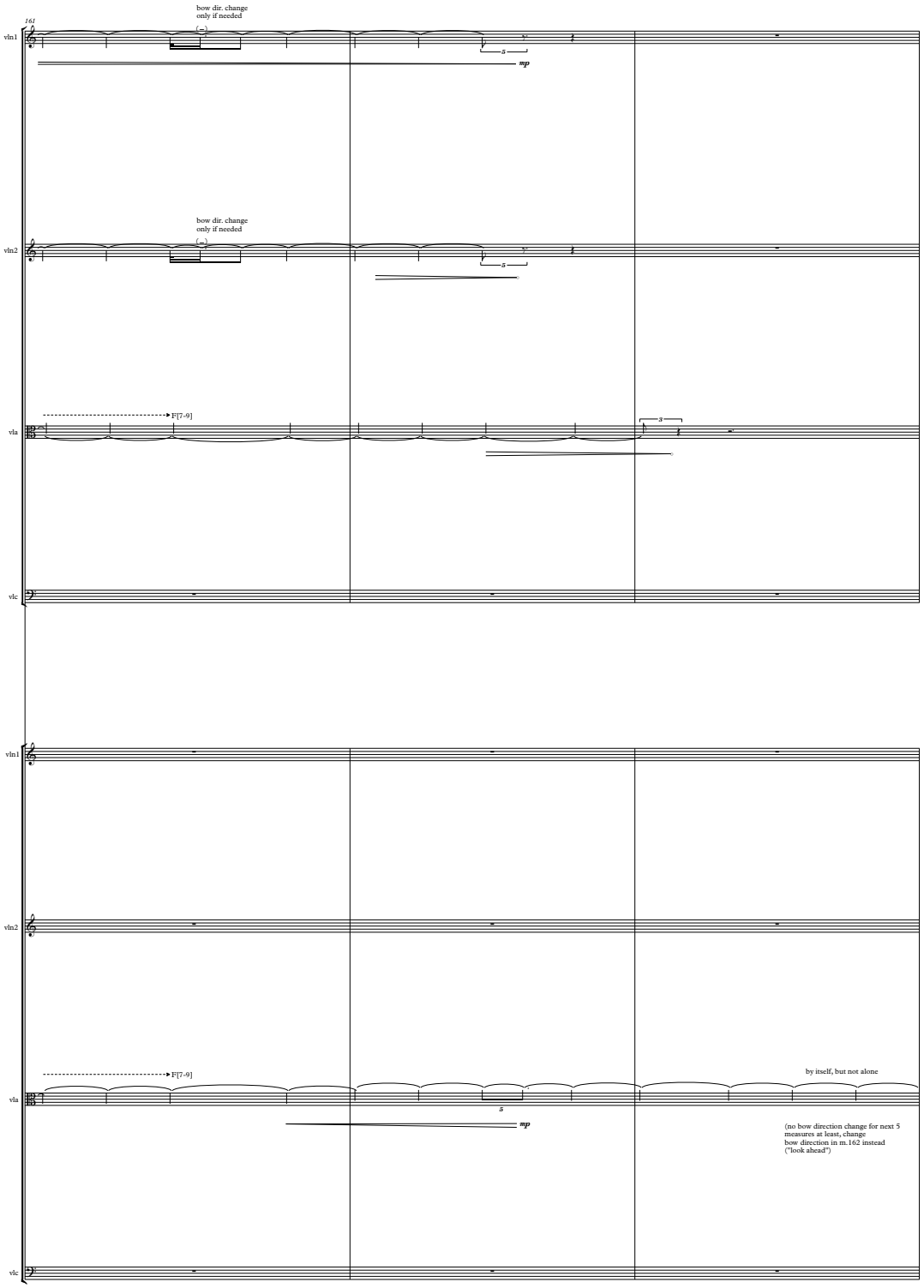

metal hue and bow hair 'grain' sounds are ok, even preferred!
bring in some other quality (sound a little like electronic sound, but
this has no conceptual connection whatsoever)
146
vln1
mf
(but try not to cover pno I (and pno II)
BSP: -4
BP: -3.5
vln2
pp
(sempre pp)
BSP: -5
BP: -4
F[3-13]
vla
(sempre p)
BSP: -3.5
BP: -3
vlc
very slow gliss., at the brink of being unnoticeable
gliss.
(sempre pp)
(sempre gliss.)
(sempre 2x vla)
gliss.
(+2c.)
M[3+11+3+13]
III
PPP


140
F[(9)11-13]
(sempre same)
vln1
minimal gliss, only to achieve the cent 'distance' that opens up a different space, not for the gliss. effect itself
F[(9)11-13]
(sempre same)
(+ (10c.) reference: vln2A
vln2
gliss.
F[7-13]
vla
(sempre p)
vlc
vln1
vln2
gliss.
p
PPP
F[7-13]
vla
(sempre p)
vlc
P(p)
fade out very inconspicuously, audience should not consciously notice that this sound is fading out

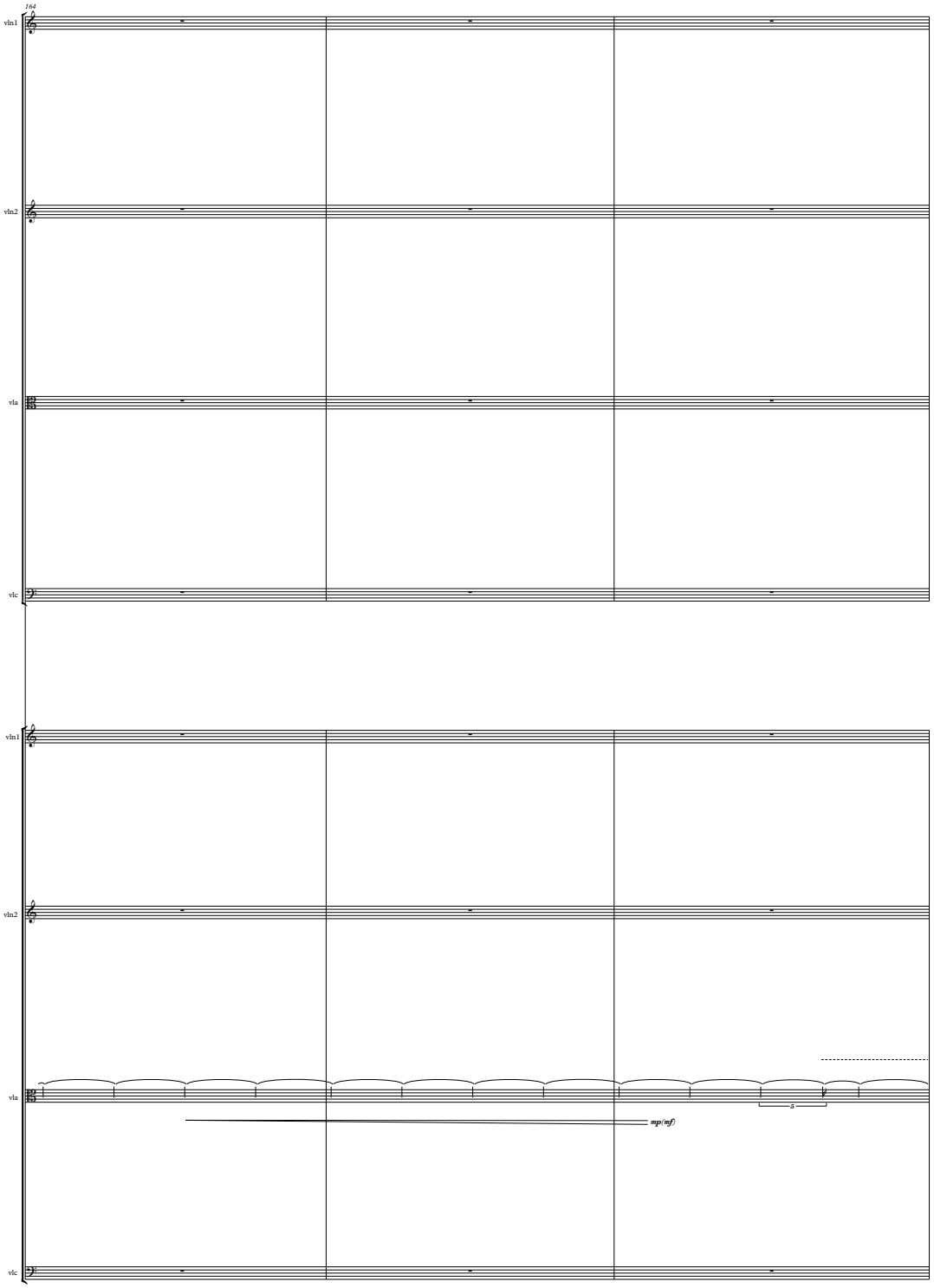

152
vln1
vln2
vla
vlc
blending well
small pulsation
s.t.
l.v.
(sempre same)
mp
p(p)
(sempre mp)
(+4c.) ref: vln2A
ppp
(sempre ppp)
BSP: -4
BP: -3.5
F(5)7-11(13)]
inconspicuous
sound brightening up a little
vanishing inconspicuously
IV

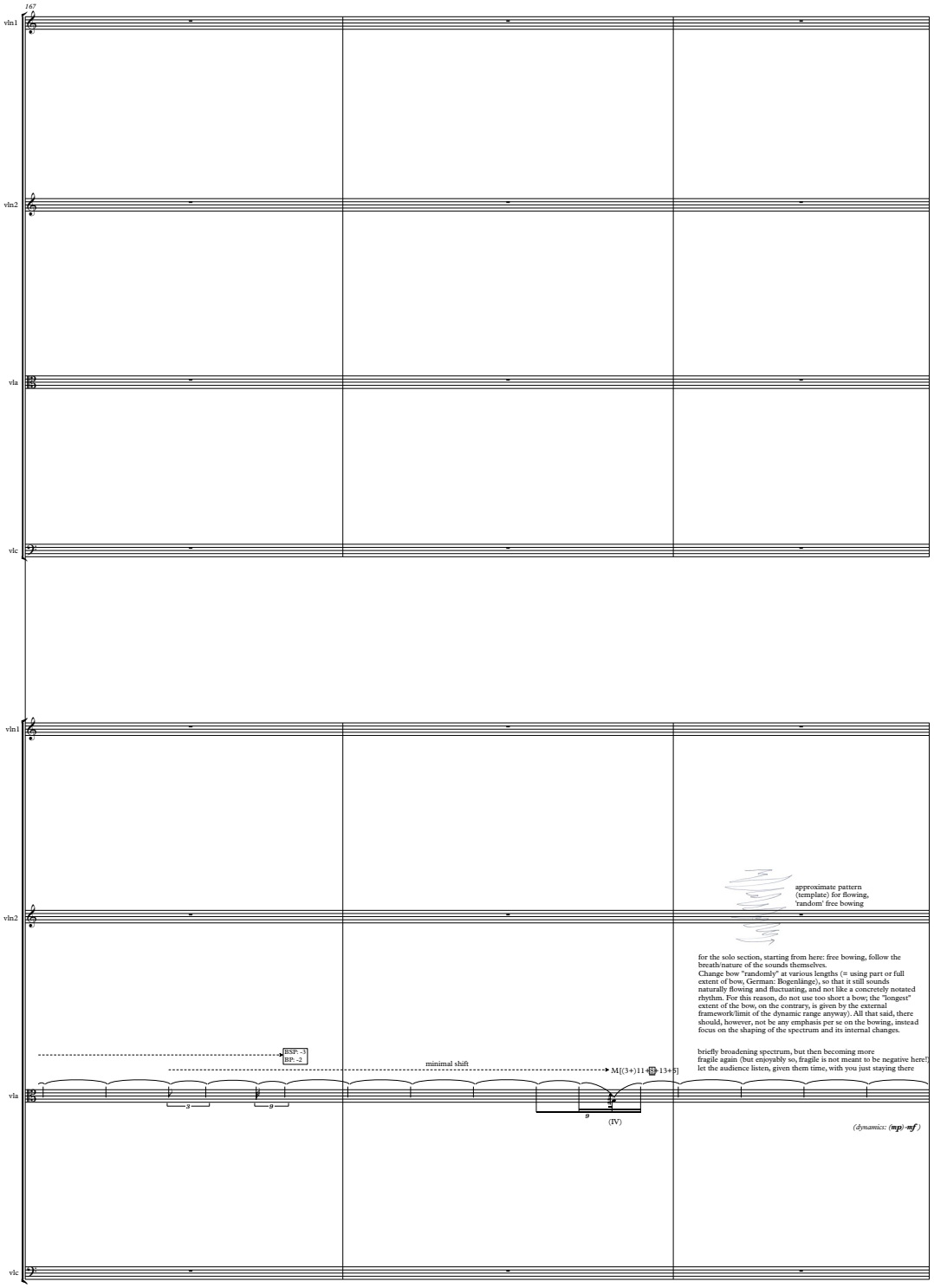

155
vln1
vln2
vla
vlc
BSP: -3
BP: -2.5
F[(5)7-9(11)]
minimally getting softer, but unnoticeable for audience
(more like a background veil)
m.s.t.
pppp

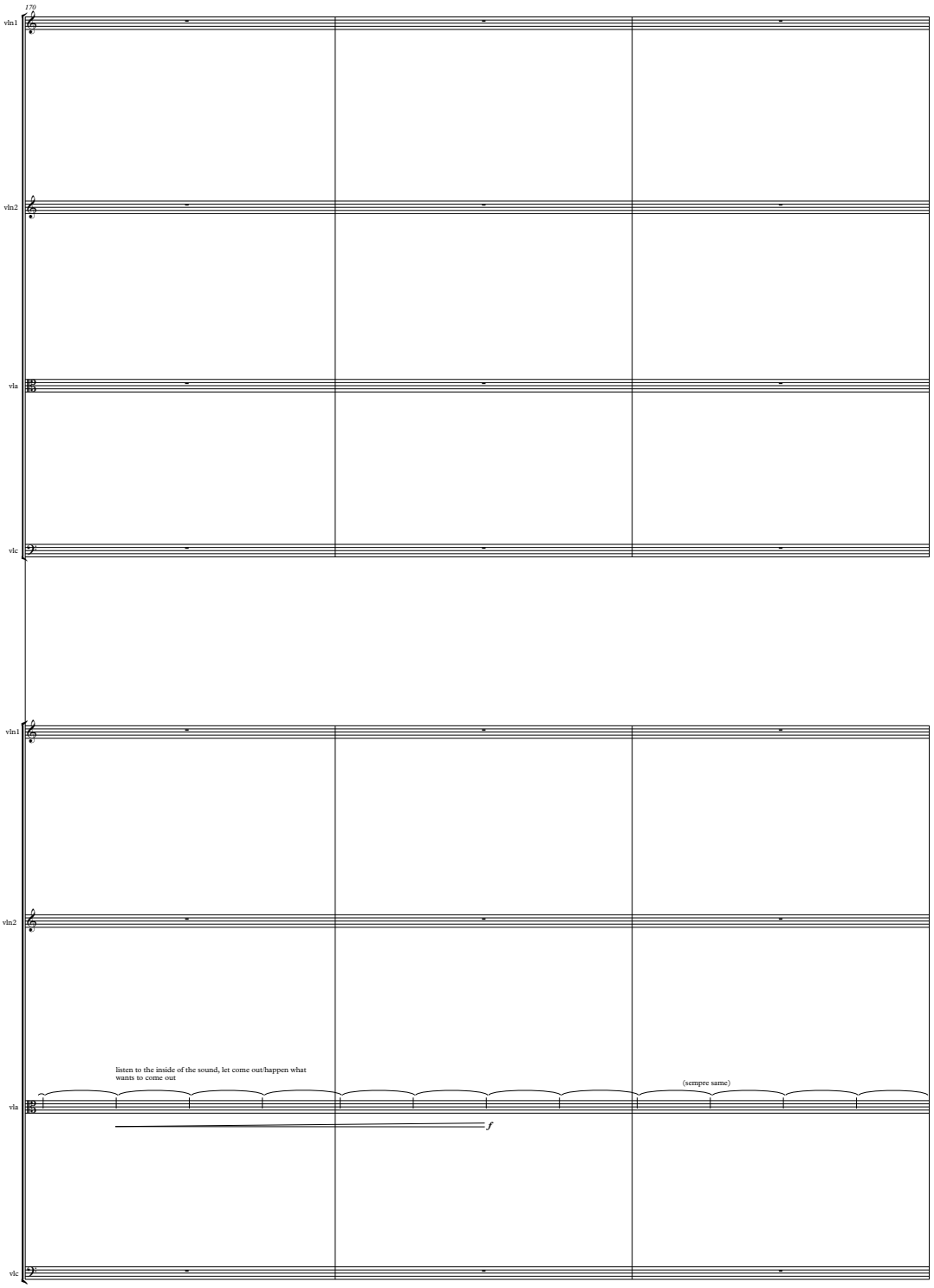

158
(inconspicous change)
m.s.t.
more 'yielding'
(sempre same)
vln1
mf
vln2
more 'yielding'
(sempre same)
ppp
more 'yielding'
vln1B as reference (vln1B is 50c. higher)
BSP: -3
BP: -3.5
vla
p
p(p)
vlc
vln1
vln2
inconspicuous change to M
M[3+11+13)]
BSP: -3
BP: -3.5
vla
p
IV
p(p)
vlc

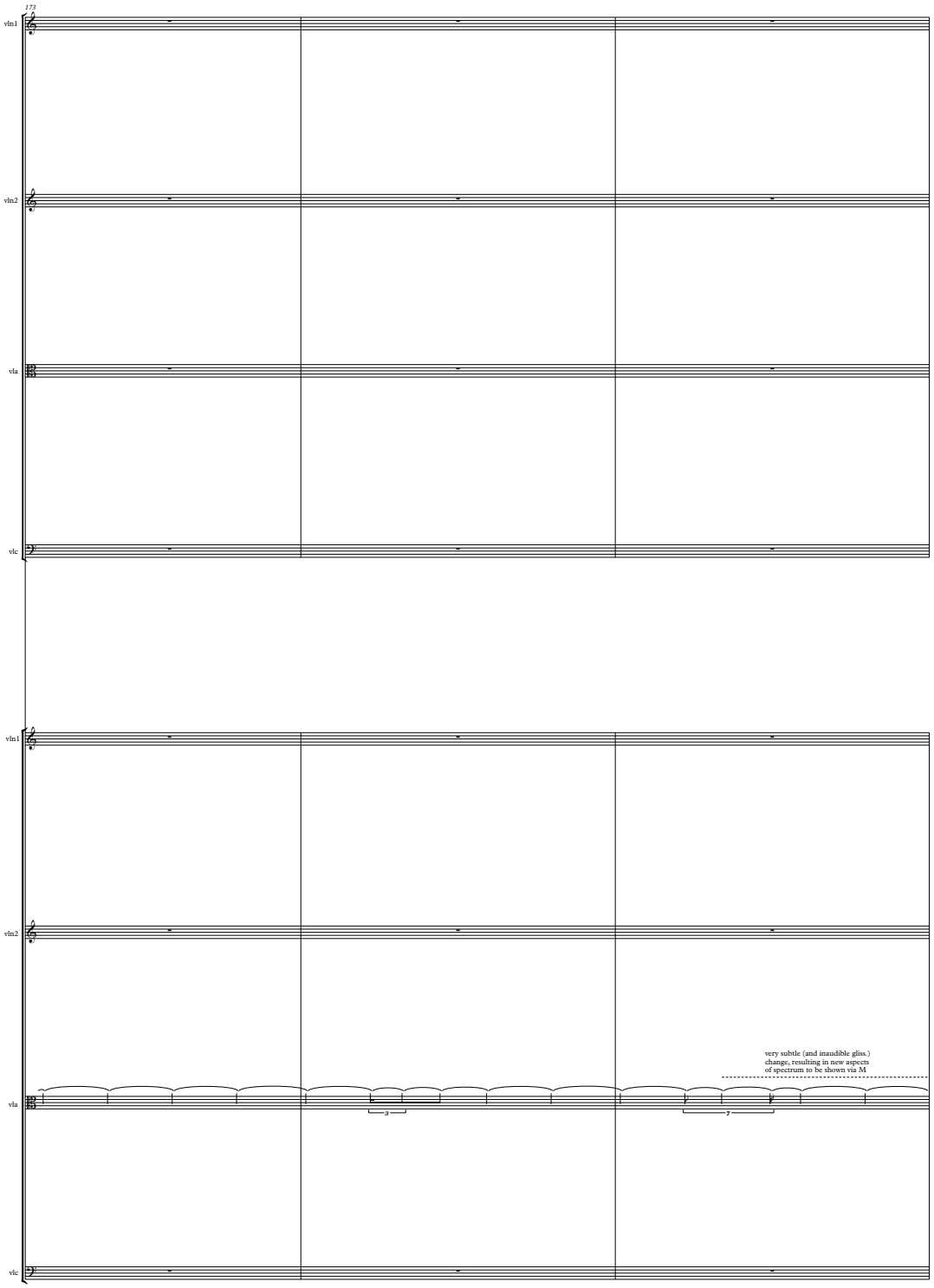

161
bow dir. change
only if needed
vln1
mp
bow dir. change
only if needed
vln2
F[7-9]
vla
vlc
vln1
vln2
F[7-9]
by itself, but not alone
vla
mp
(no bow direction change for next 5
measures at least, change
bow direction in m.162 instead
("look ahead")
vlc

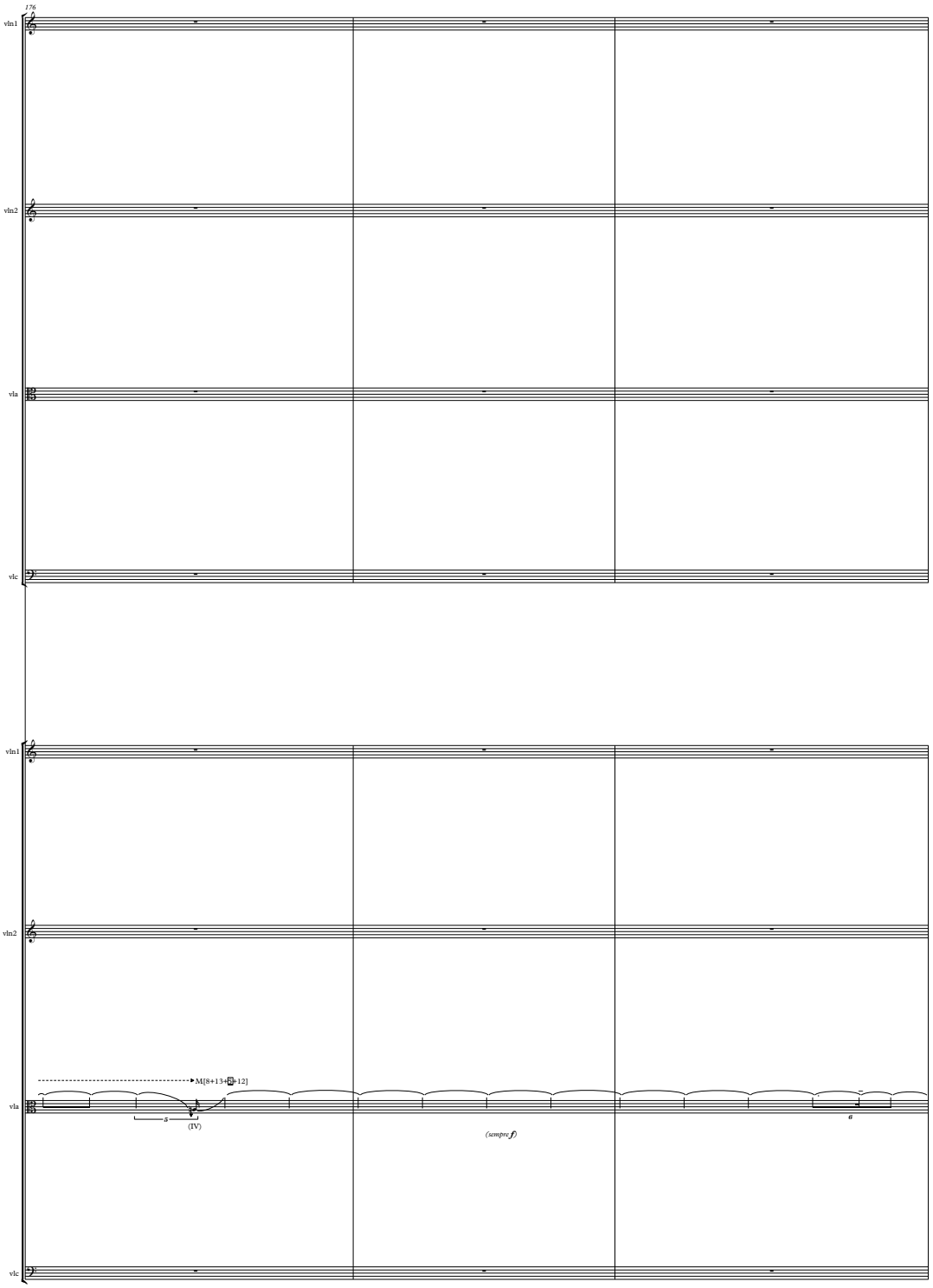
58

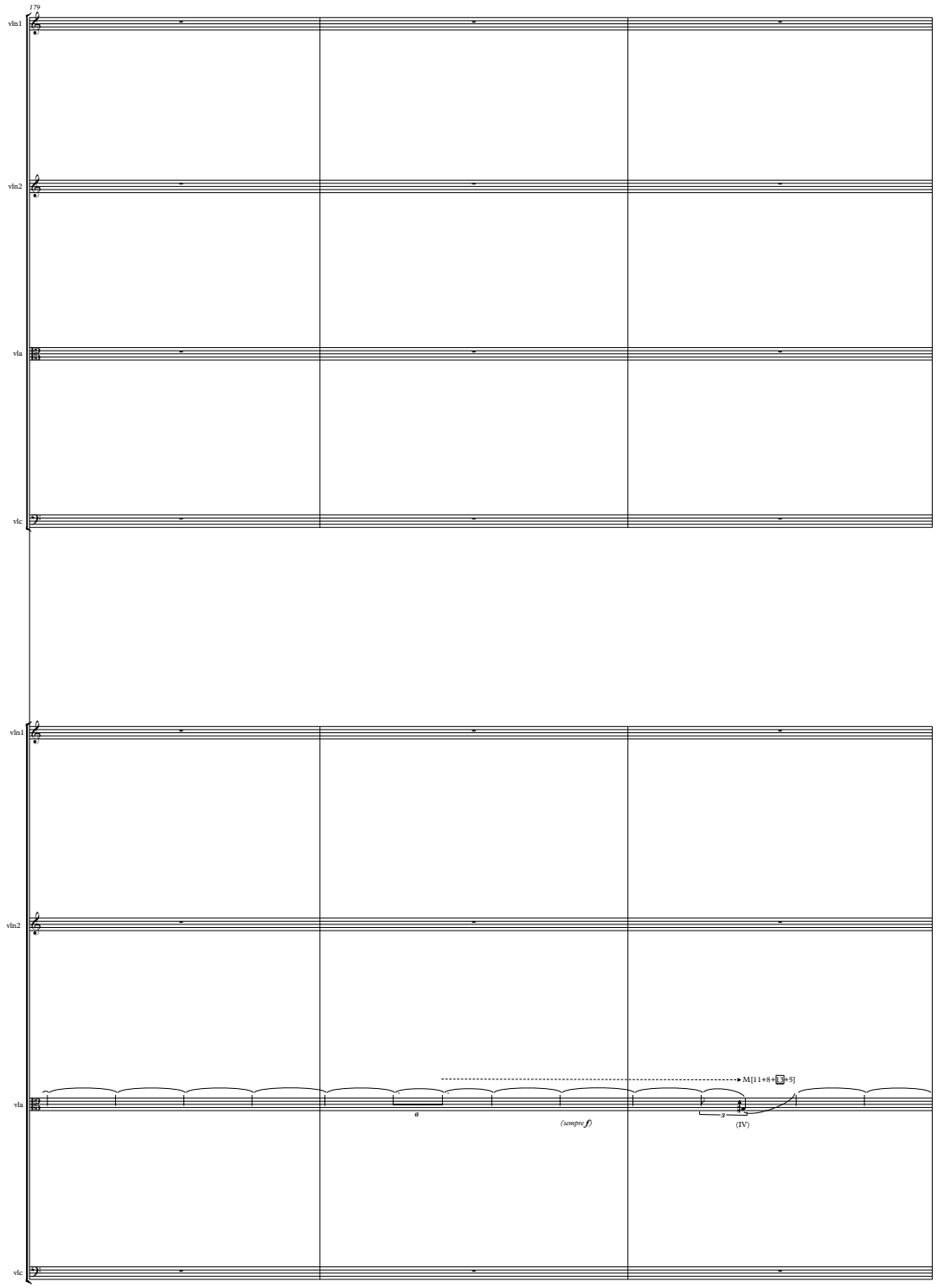



167
vln1
vln2
vla
vlc
approximate pattern
(template) for flowing,
'random' free bowing
for the solo section, starting from here: free bowing, follow the
breath/nature of the sounds themselves.
Change bow "randomly" at various lengths (= using part or full
extent of bow, German: Bogenlänge), so that it still sounds
naturally flowing and fluctuating, and not like a concretely notated
rhythm. For this reason, do not use too short a bow; the "longest"
extent of the bow, on the contrary, is given by the external
framework/limit of the dynamic range anyway). All that said, there
should, however, not be any emphasis per se on the bowing, instead
focus on the shaping of the spectrum and its internal changes.
BSP: -3
BP: -2
minimal shift
M[(3+)11+5-13+5]
briefly broadening spectrum, but then becoming more
fragile again (but enjoyably so, fragile is not meant to be negative here!)
let the audience listen, given them time, with you just staying there
(IV)
(dynamics: (mp) - mf)

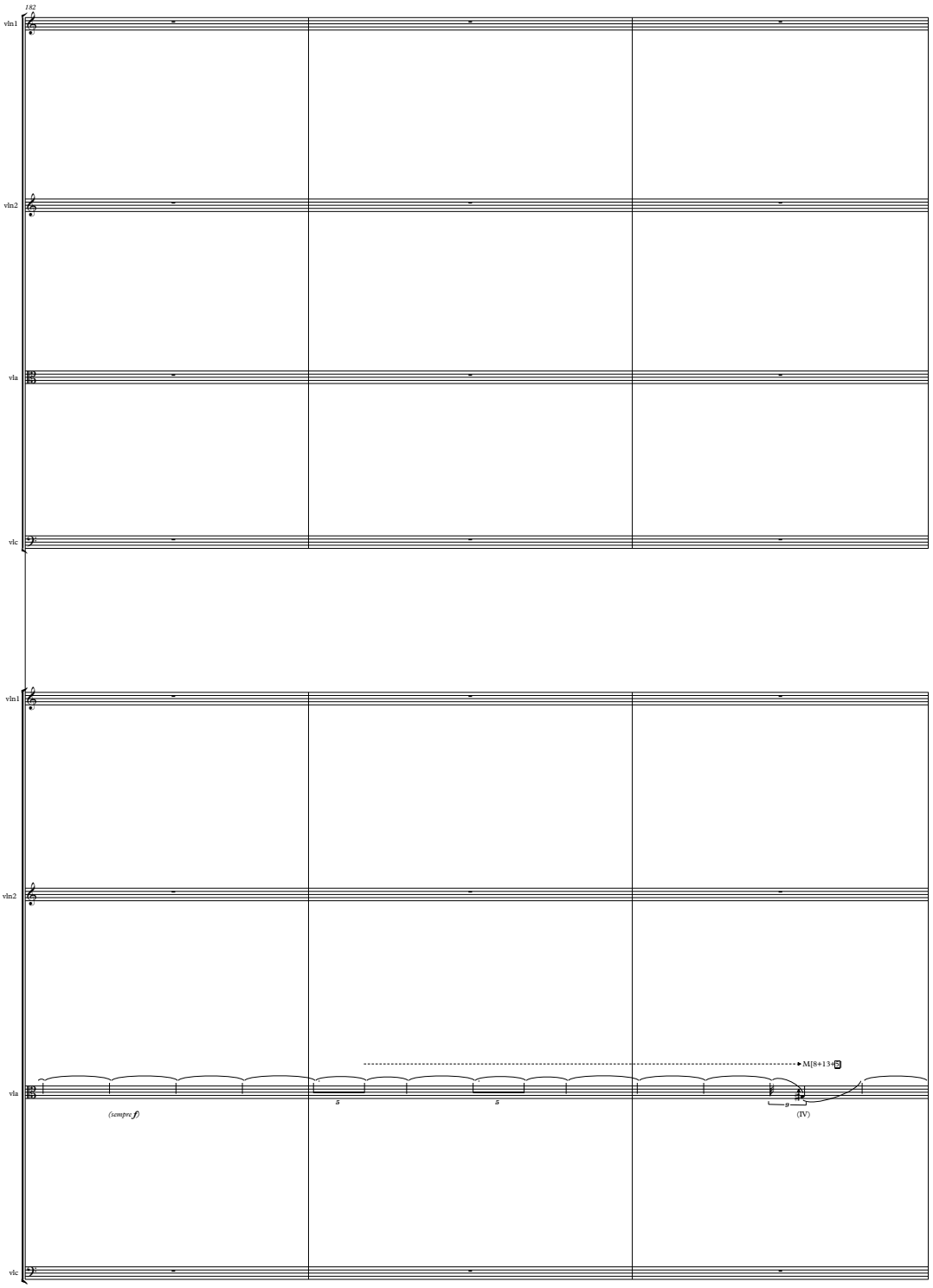

170
vln1
vln2
vla
vlc
vln1
vln2
listen to the inside of the sound, let come out/happen what wants to come out
(sempre same)
vla
f
vlc


173
vln1
vln2
vla
vlc
vln1
vln2
vla
vlc
very subtle (and inaudible gliss.)
change, resulting in new aspects
of spectrum to be shown via M

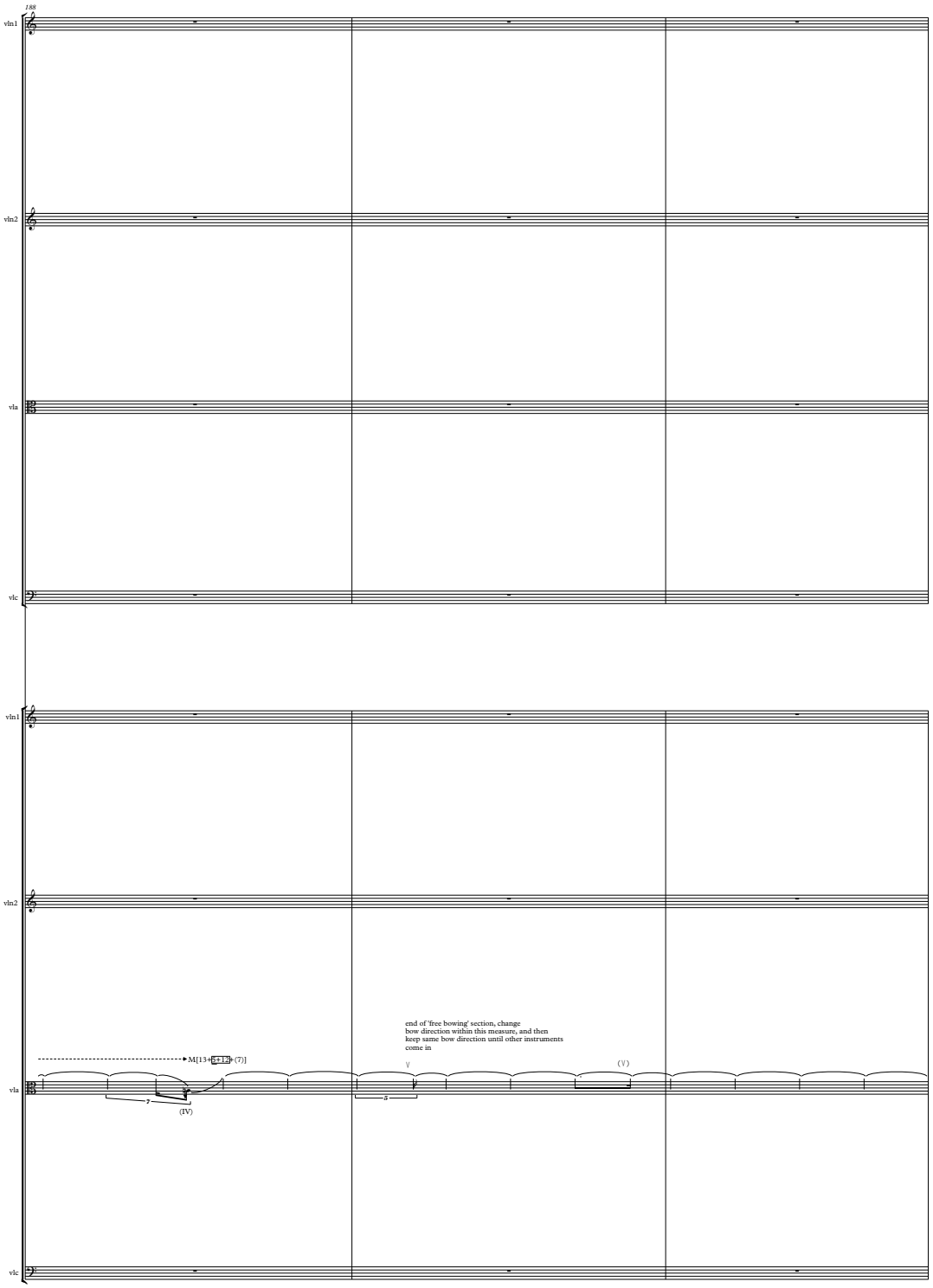

176
vln1
vln2
vla
vlc
vln1
vln2
M[8+13+12]
vla
s
(IV)
(sempre ff)
a
vlc

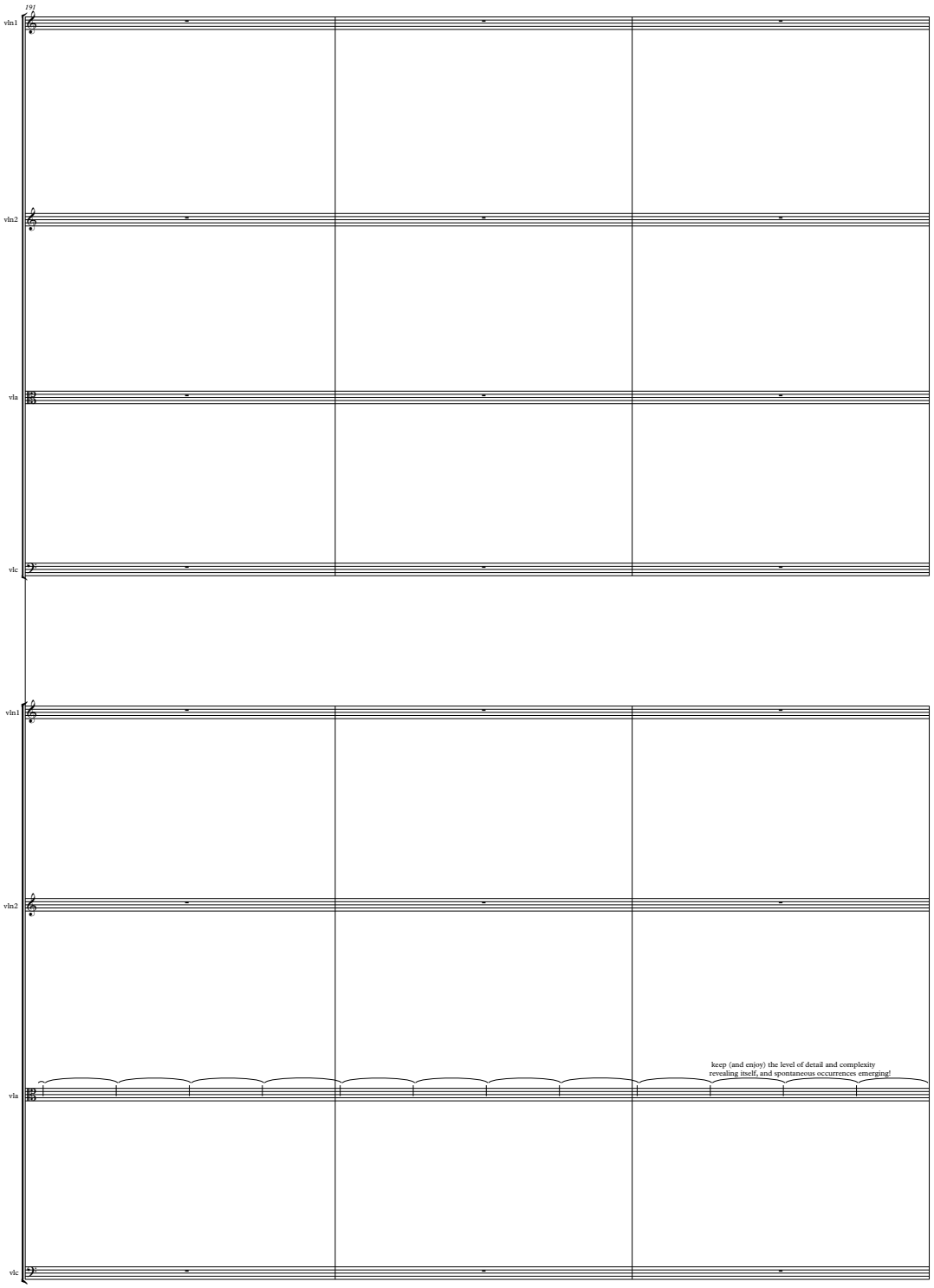

179
vln1
vln2
vla
vlc
vln1
vln2
vla
vlc
M[11+8+3+5]
a
(sempre f)
a
(IV)

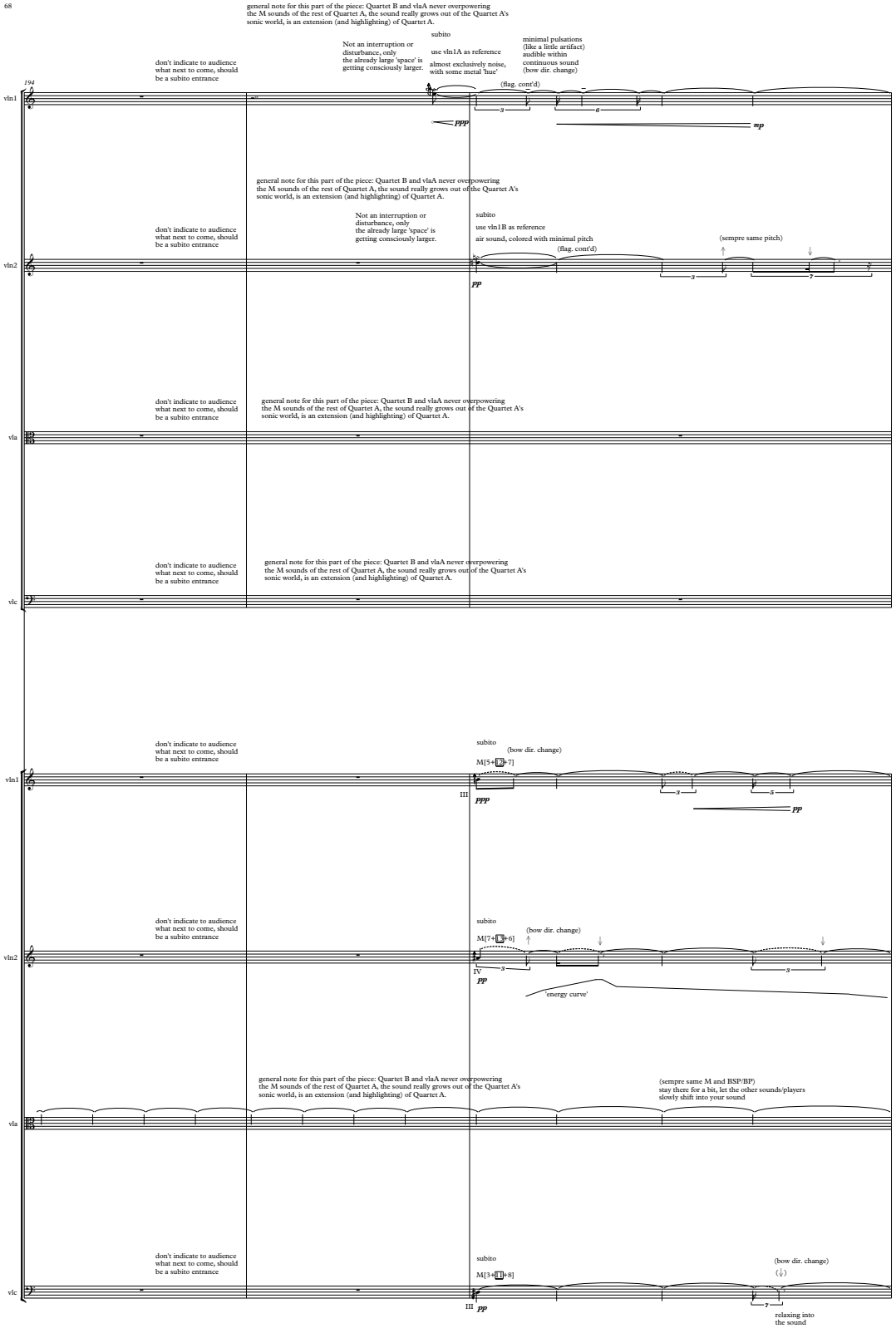
64

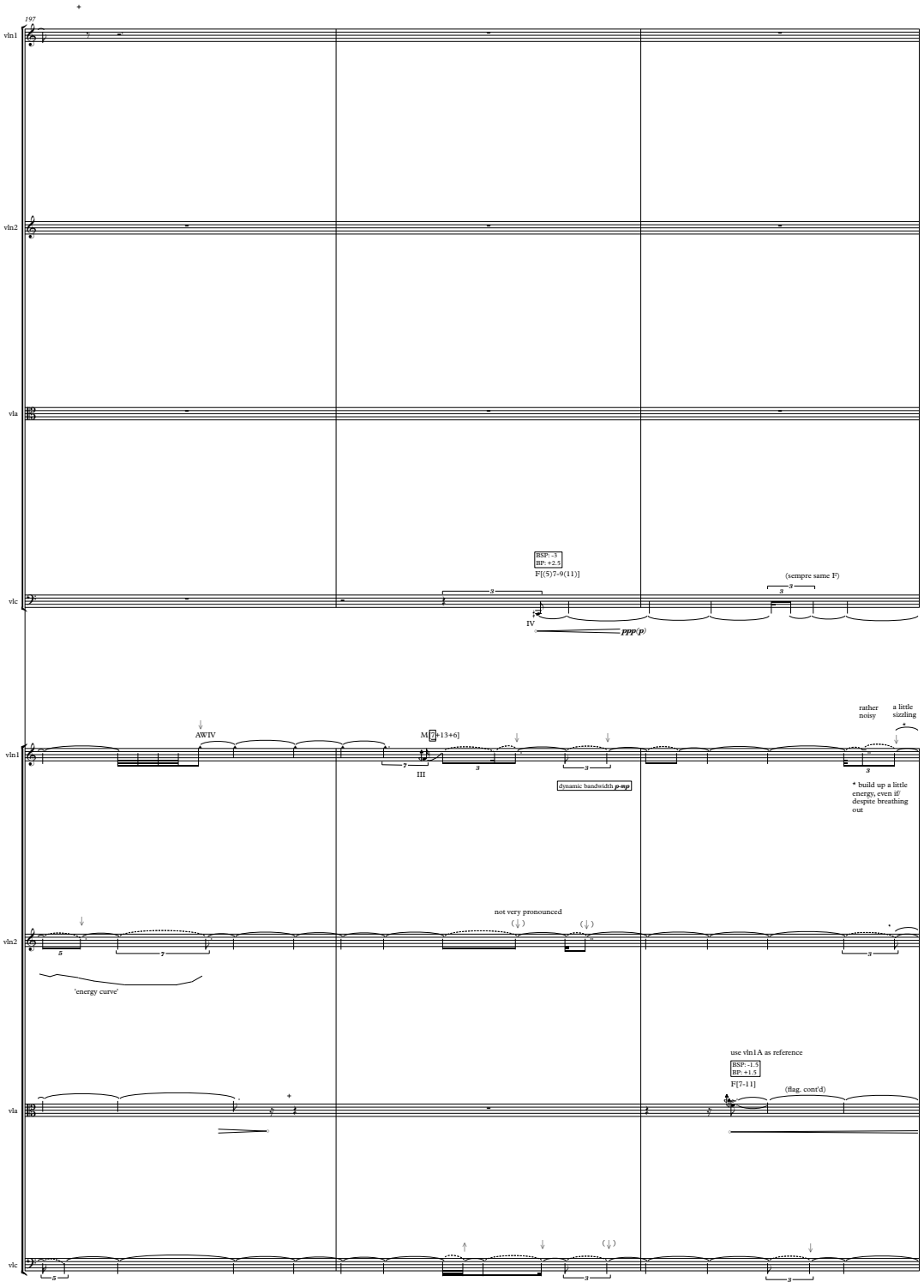


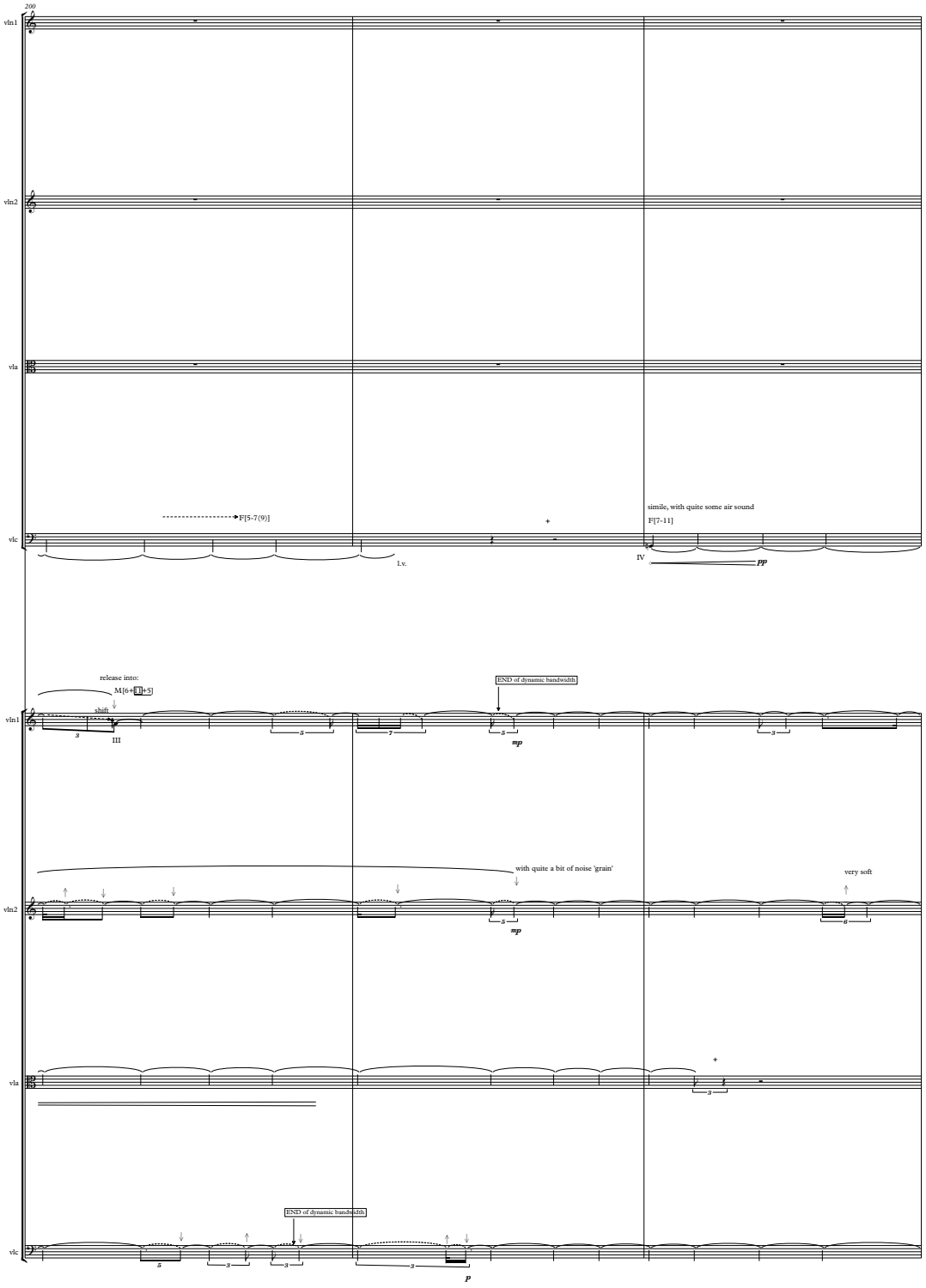

185
vln1
vln2
vla
vlc
vln1
vln2
observe the sound and follow it
vla
5
vlc

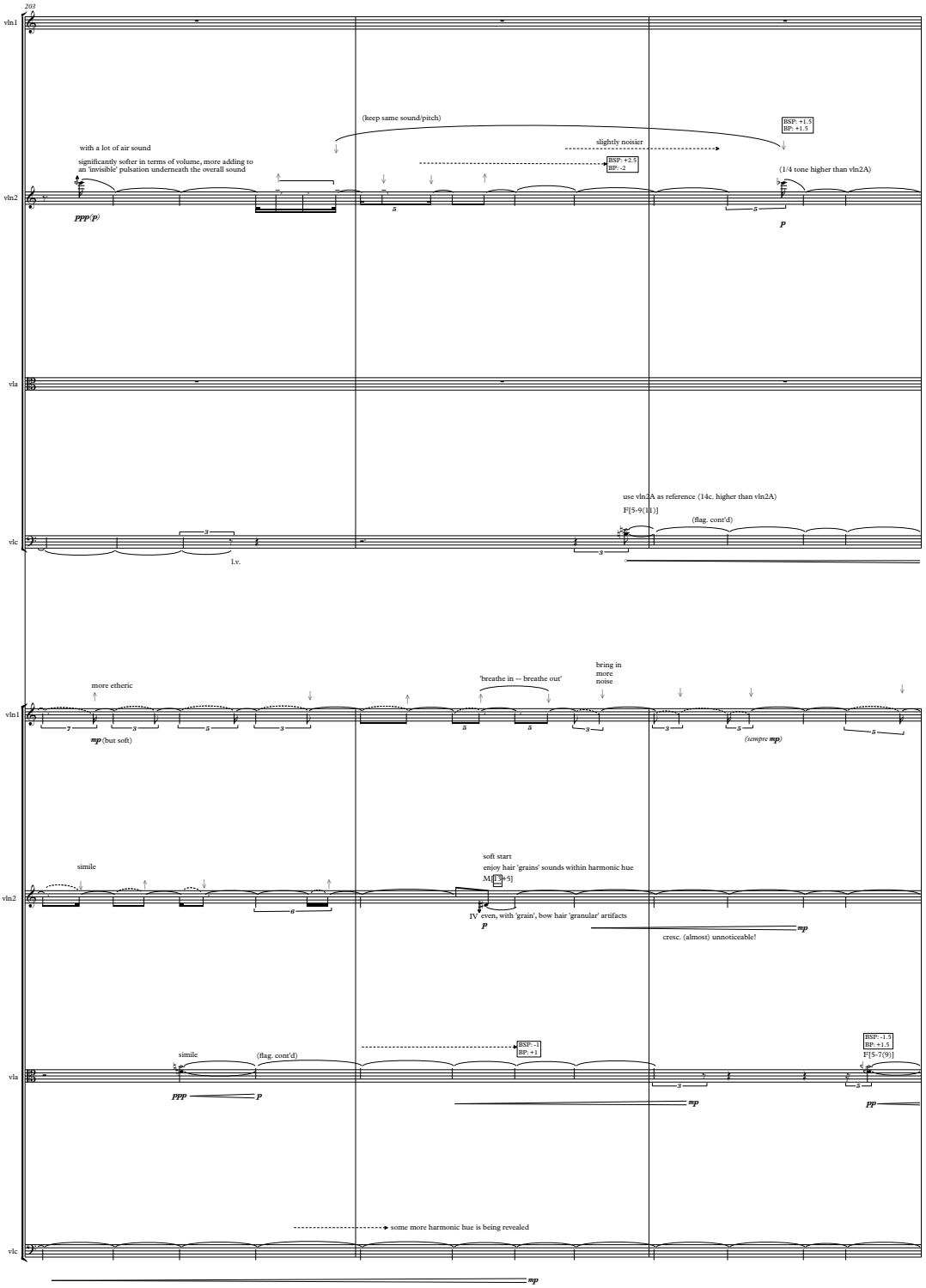

188
vln1
vln2
vla
vlc
vln1
vln2
vla
vlc
M[13+5+12+(7)]
7
(IV)
end of 'free bowing' section, change
bow direction within this measure, and then
keep same bow direction until other instruments
come in
5
(V)

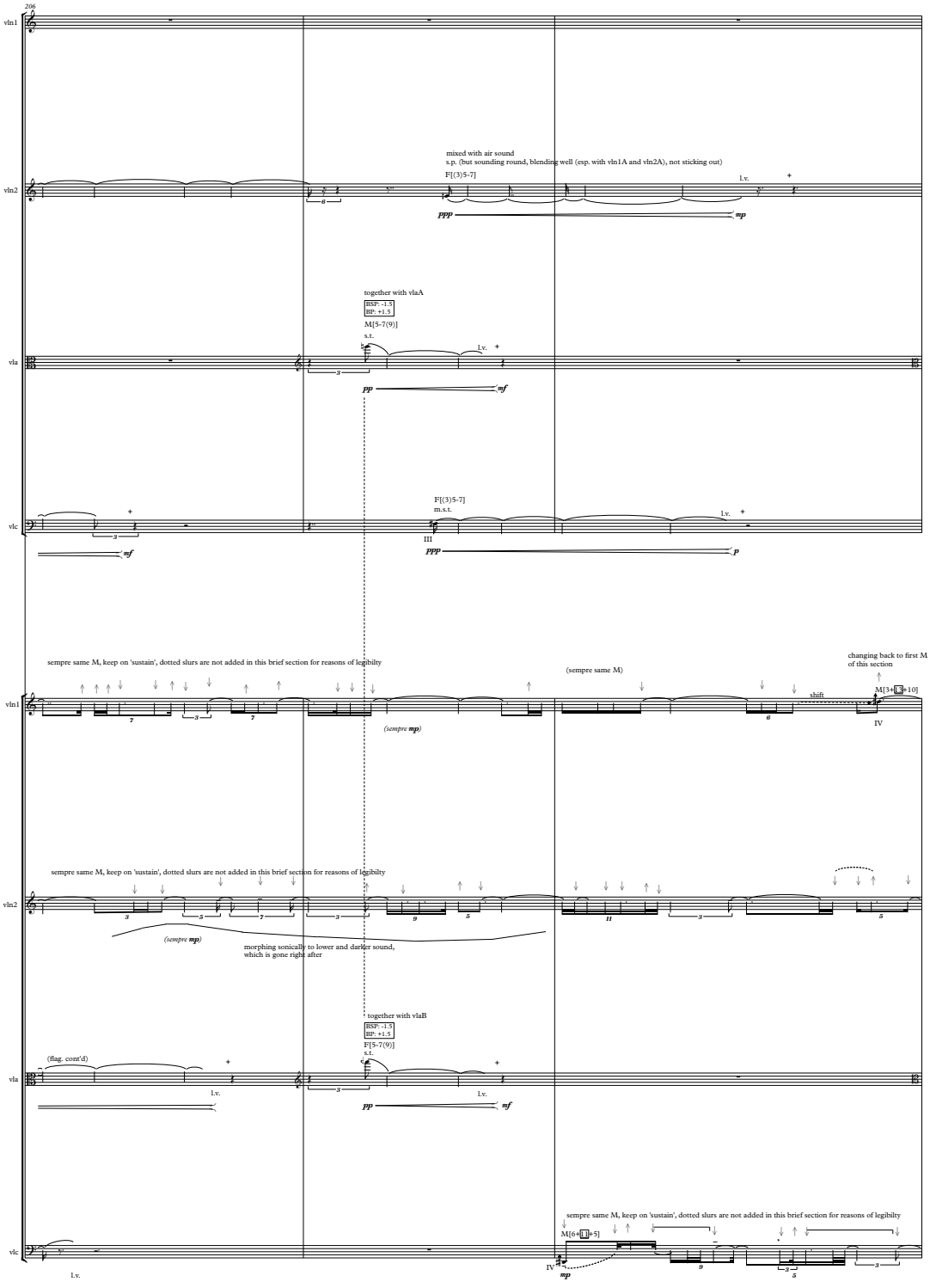

191
vln1
vln2
vla
vlc
vln1
vln2
keep (and enjoy) the level of detail and complexity
revealing itself, and spontaneous occurrences emerging!
vla
vlc

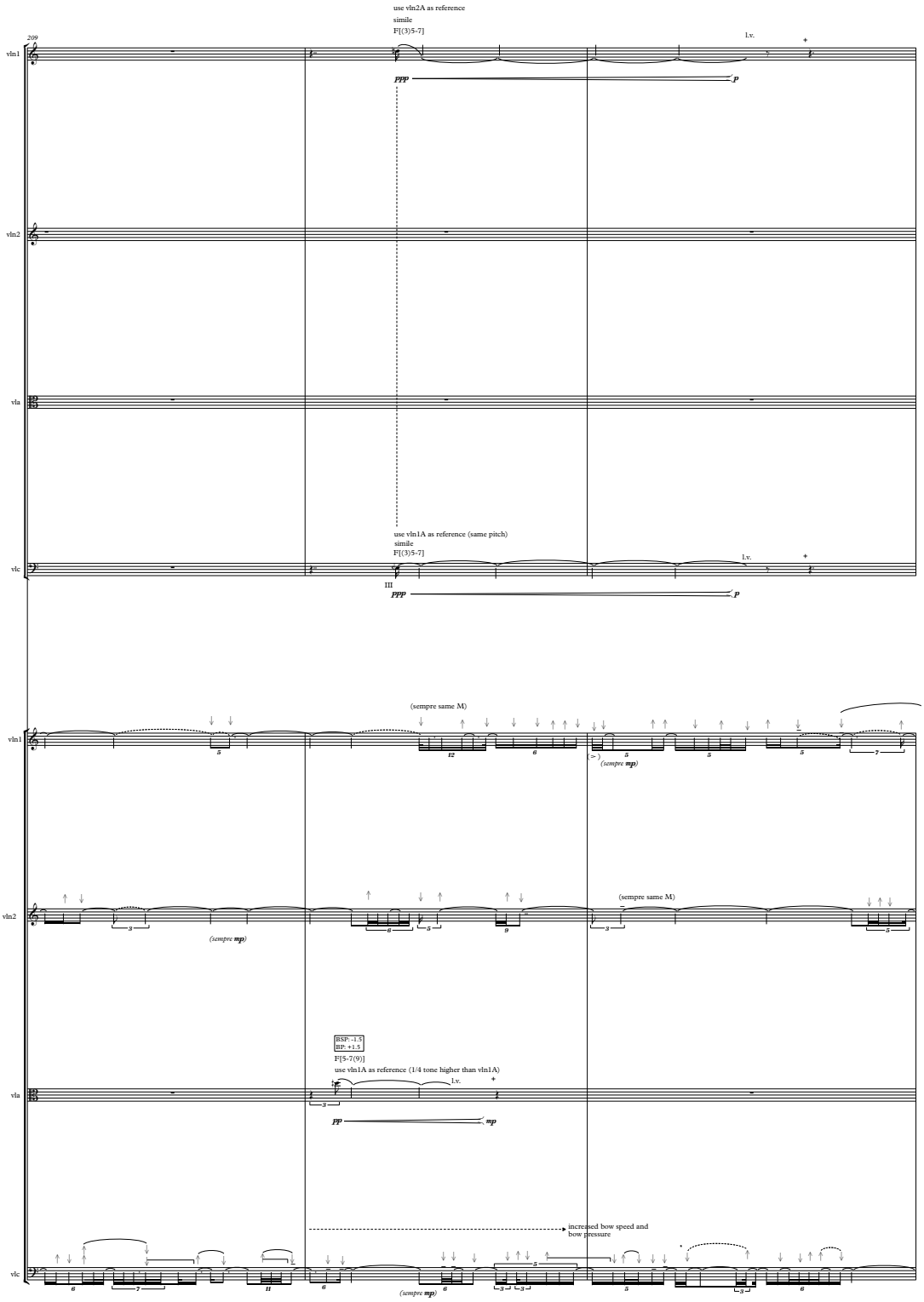

general note for this part of the piece: Quartet B and vlaA never overpowering the M sounds of the rest of Quartet A, the sound really grows out of the Quartet A's sonic world, is an extension (and highlighting) of Quartet A.
subito
Not an interruption or disturbance, only the already large 'space' is getting consciously larger.
use vln1A as reference
almost exclusively noise, with some metal 'hue'
minimal pulsations (like a little artifact) audible within continuous sound (bow dir. change)
don't indicate to audience what next to come, should be a subito entrance
184
vln1
(flag. cont'd)
ppp
mp
general note for this part of the piece: Quartet B and vlaA never overpowering the M sounds of the rest of Quartet A, the sound really grows out of the Quartet A's sonic world, is an extension (and highlighting) of Quartet A.
Not an interruption or disturbance, only the already large 'space' is getting consciously larger.
subito
use vln1B as reference
air sound, colored with minimal pitch
(flag. cont'd)
(sempre same pitch)
vln2
pp
don't indicate to audience what next to come, should be a subito entrance
general note for this part of the piece: Quartet B and vlaA never overpowering the M sounds of the rest of Quartet A, the sound really grows out of the Quartet A's sonic world, is an extension (and highlighting) of Quartet A.
vla
don't indicate to audience what next to come, should be a subito entrance
general note for this part of the piece: Quartet B and vlaA never overpowering the M sounds of the rest of Quartet A, the sound really grows out of the Quartet A's sonic world, is an extension (and highlighting) of Quartet A.
vlc
don't indicate to audience what next to come, should be a subito entrance
subito
(bow dir. change)
M[5+2+7]
vln1
III
ppp
pp
don't indicate to audience what next to come, should be a subito entrance
subito
M[7+3+6]
(bow dir. change)
vln2
IV
pp
'energy curve'
general note for this part of the piece: Quartet B and vlaA never overpowering the M sounds of the rest of Quartet A, the sound really grows out of the Quartet A's sonic world, is an extension (and highlighting) of Quartet A.
(sempre same M and BSP/BP)
stay there for a bit, let the other sounds/players slowly shift into your sound
vla
don't indicate to audience what next to come, should be a subito entrance
subito
M[3+1+8]
(bow dir. change)
vlc
III
pp
relaxing into the sound

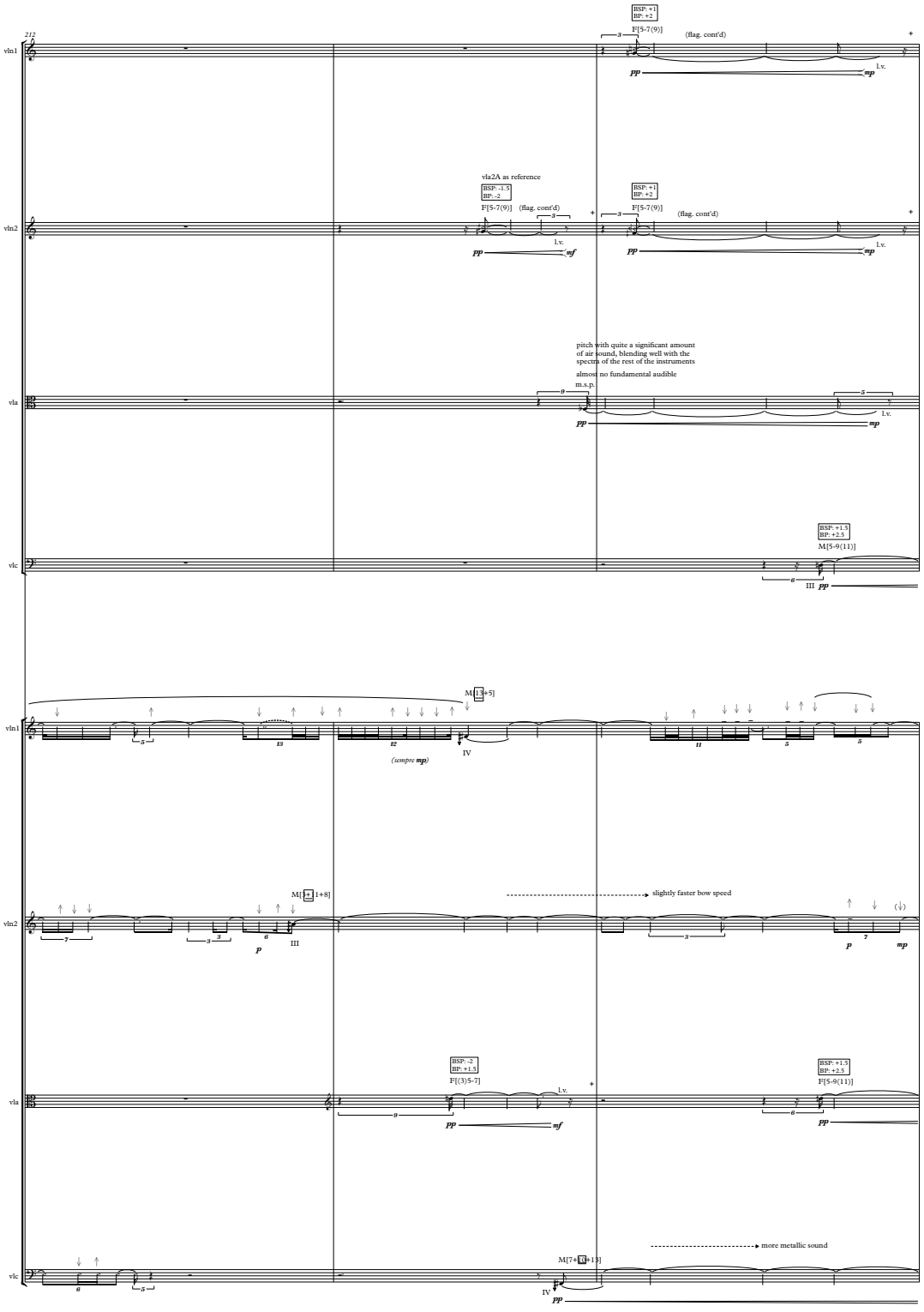

197
vln1
vln2
vla
vlc
BSP: -3
BP: +2.5
F'[(5)7-9(11)]
(sempre same F)
IV
ppp(p)
AWIV
M[2+13+6]
III
dynamic bandwidth p-sp
rather noisy
a little sizzling
* build up a little energy, even if despite breathing out
not very pronounced
'energy curve'
use vln1A as reference
BSP: -1.5
BP: +1.5
F'[7-11]
(flag. cont'd)

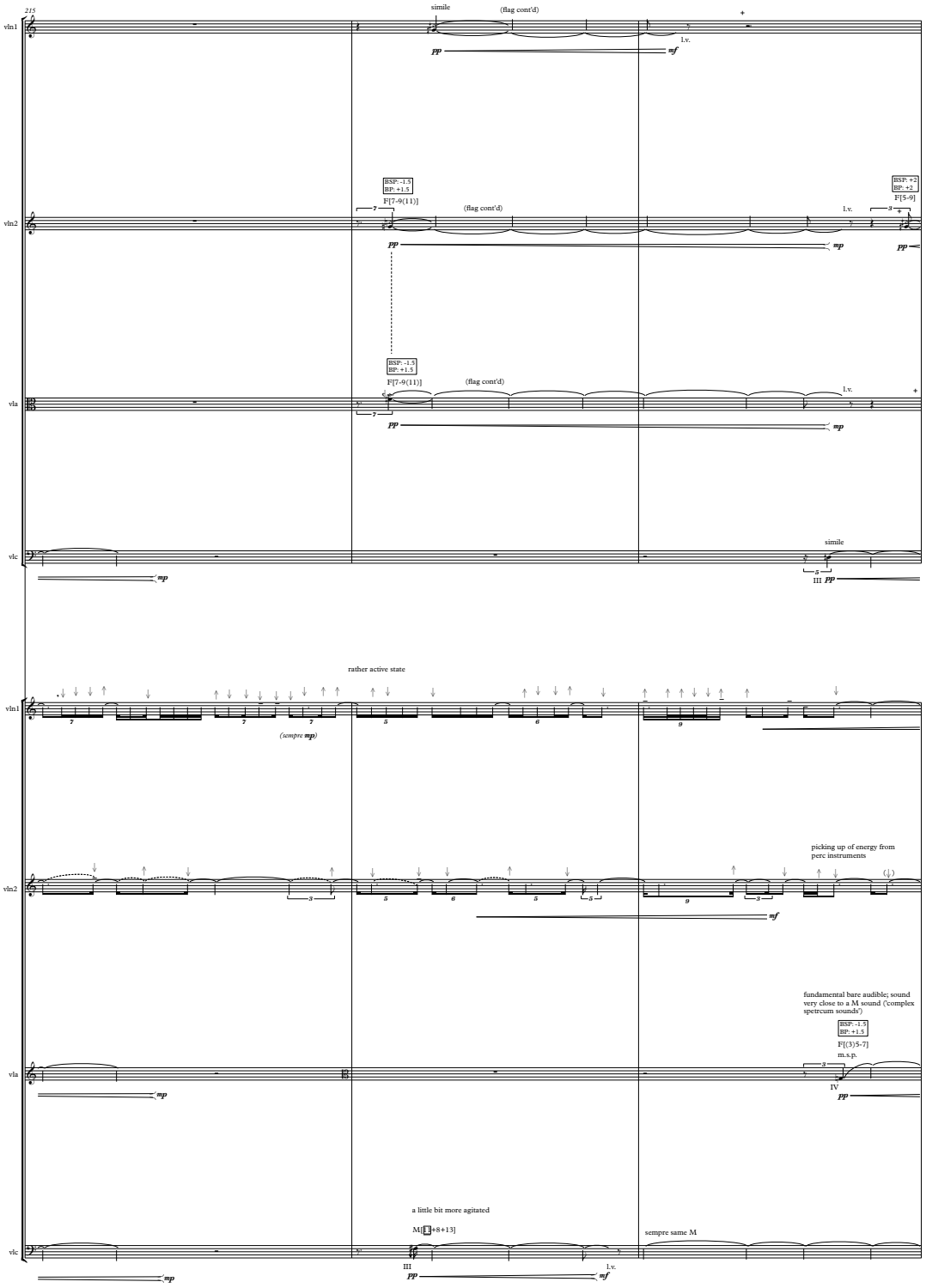

200
vln1
vln2
vla
vlc
F[5-7(9)]
l.v.
simile, with quite some air sound
F[7-11]
IV
pp
release into:
M[6+1]+5]
shift
III
END of dynamic bandwidth
mp
with quite a bit of noise 'grain'
very soft
END of dynamic bandwidth
p

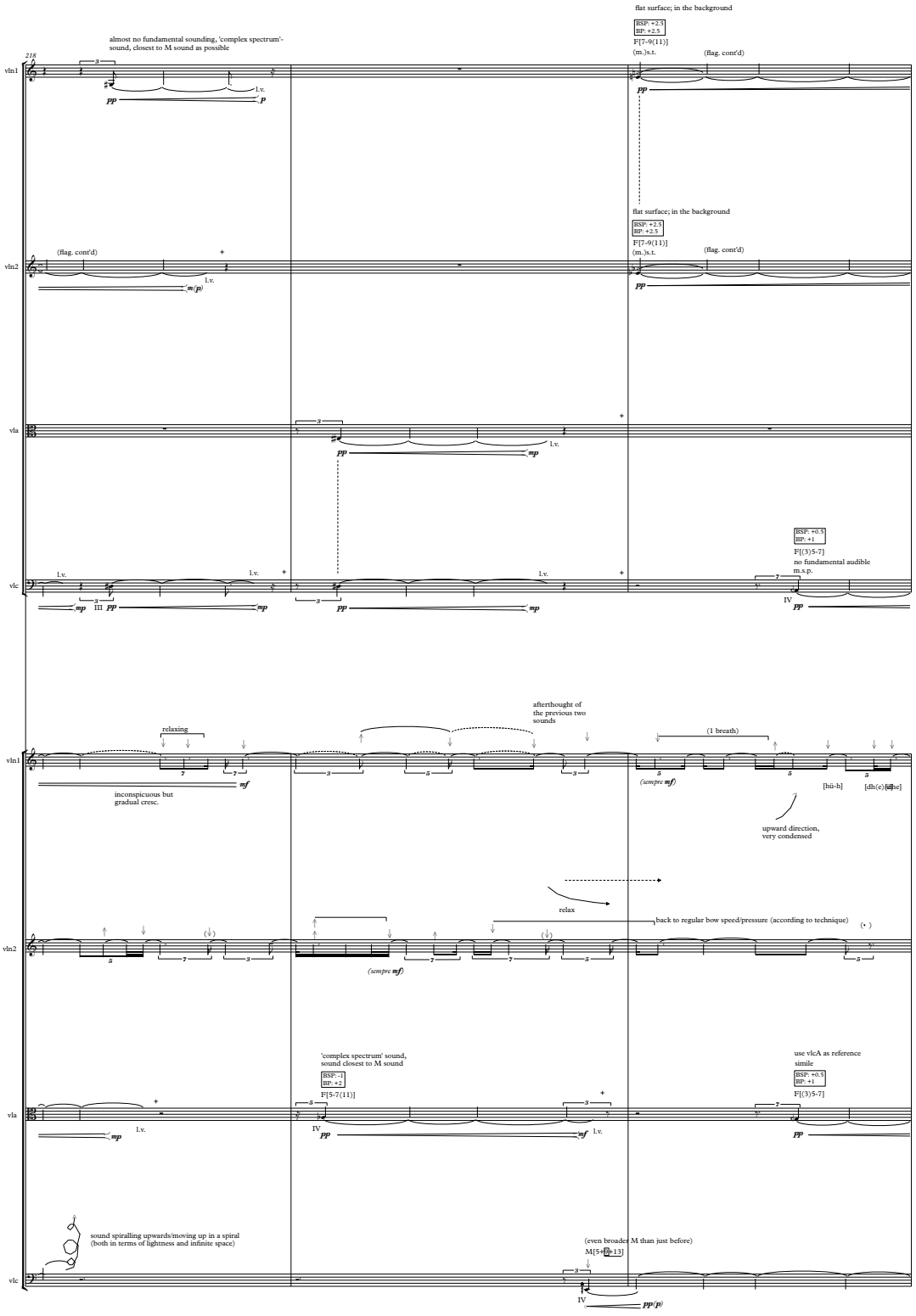

203
vln1
vln2
vla
vlc
(keep same sound/pitch)
BSP: +1.5
BP: +1.5
with a lot of air sound
slightly noisier
significantly softer in terms of volume, more adding to an 'invisible' pulsation underneath the overall sound
BSP: +2.5
BP: -2
(1/4 tone higher than vln2A)
ppp (p)
p
use vln2A as reference (14c. higher than vln2A)
F[5-9(11)]
(flag. cont'd)
l.v.
more etheric
'breathe in -- breathe out'
bring in more noise
mp (but soft)
(sempre mp)
simile
soft start
enjoy hair 'grains' sounds within harmonic hue
M[13c-5]
IV even, with 'grain', bow hair 'granular' artifacts
p
mp
cresc. (almost) unnoticeable!
simile
(flag. cont'd)
BSP: -1
BP: +1
BSP: -1.5
BP: +1.5
F[5-7(9)]
ppp
p
mp
pp
some more harmonic hue is being revealed
mp

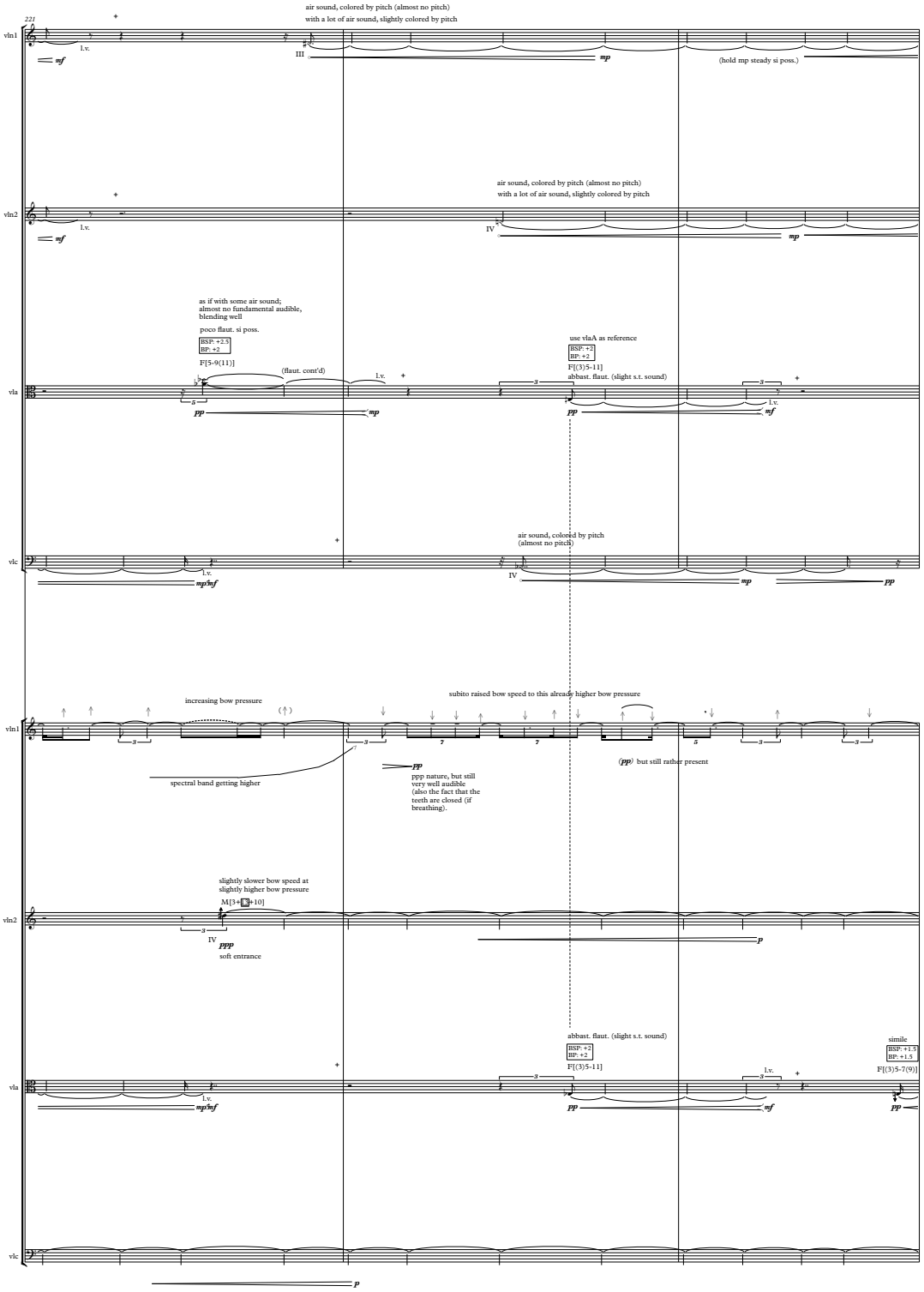

206
vln1
vln2
vla
vlc
mixed with air sound
s.p. (but sounding round, blending well (esp. with vln1A and vln2A), not sticking out)
F[(3)5-7]
l.v.
ppp
mp
together with vlaA
BSP. -1.5
BP. +1.5
M[5-7(9)]
s.t.
pp
mf
F[(3)5-7]
m.s.t.
III
p
sempre same M, keep on 'sustain', dotted slurs are not added in this brief section for reasons of legibilty
(sempre M)
changing back to first M of this section
shift
M[3+□+10]
IV
(sempre mp)
morphing sonically to lower and darker sound, which is gone right after
together with vlaB
(flag. cont'd)
M[6+□+5]
l.v.

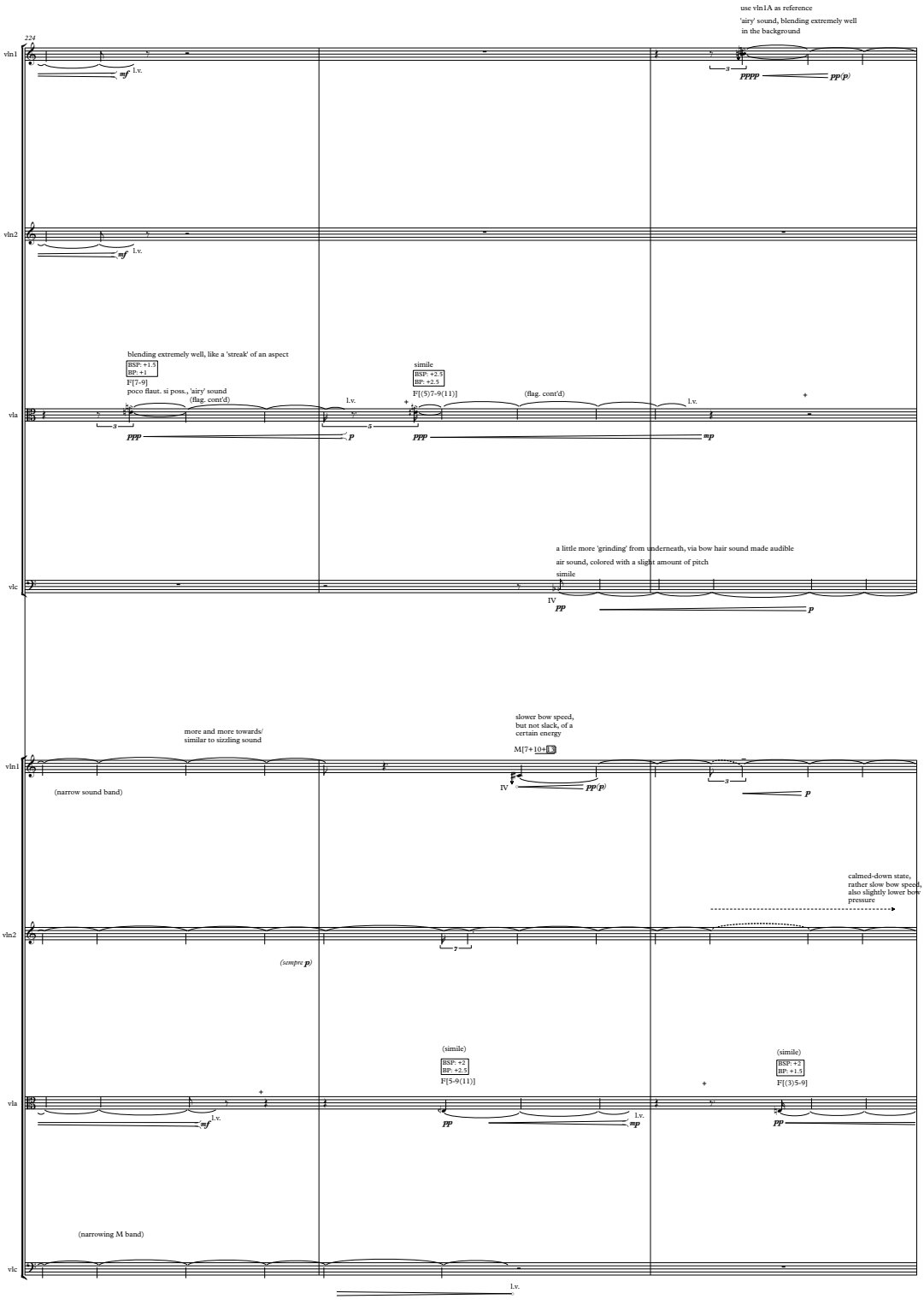

use vln2A as reference
simile
F[(3)5-7]
209
vln1
l.v.
ppp
p
vln2
vla
use vln1A as reference (same pitch)
simile
F[(3)5-7]
vlc
l.v.
III
ppp
p
(sempre same M)
vln1
(sempre mp)
vln2
(sempre same M)
(sempre mp)
BSP: -1.5
BP: +1.5
F[5-7(9)]
use vln1A as reference (1/4 tone higher than vln1A)
vla
l.v.
pp
mp
increased bow speed and
bow pressure
vlc
(sempre mp)

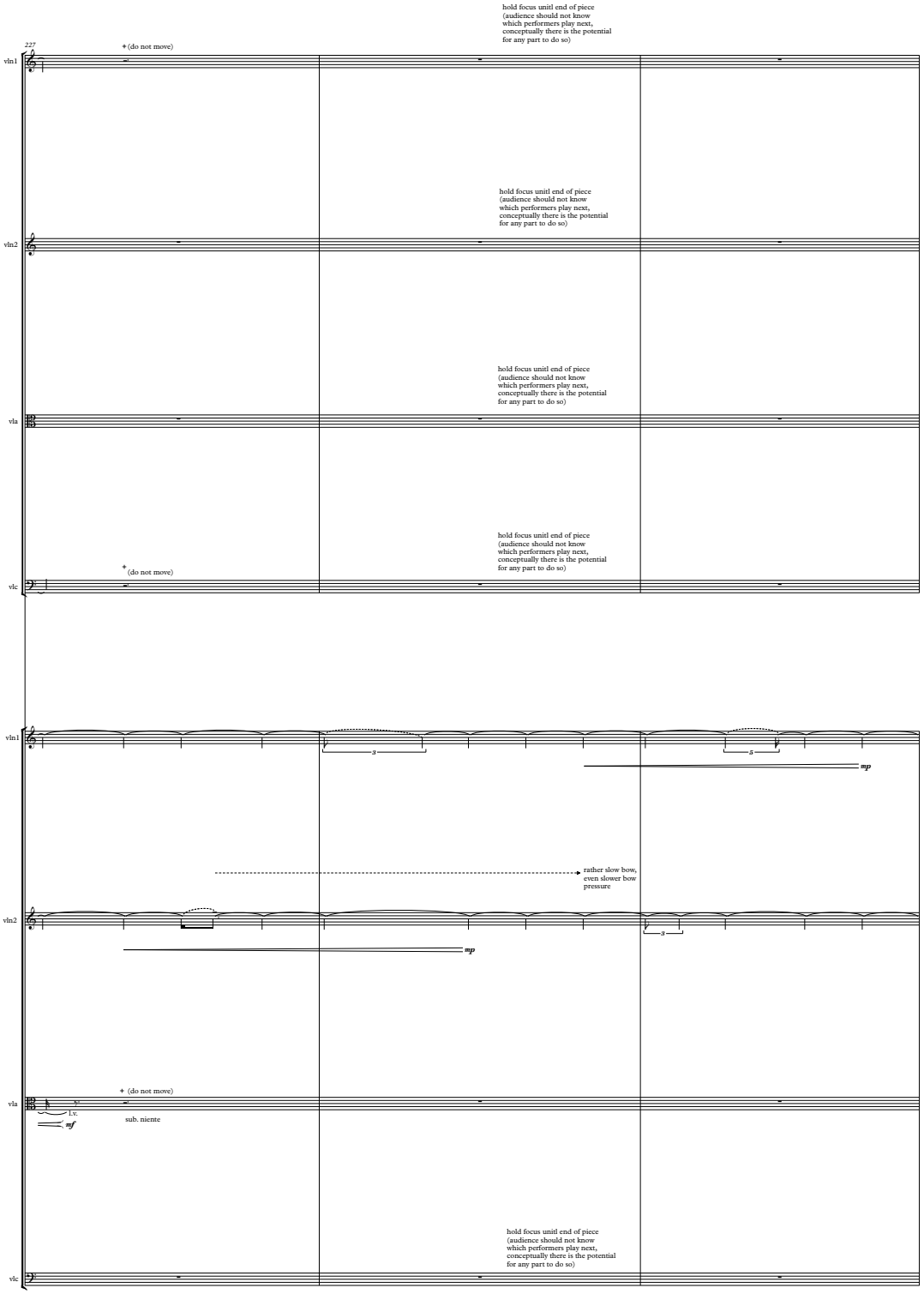

212
vln1
vln2
vla
vlc
BSP: +1
BP: +2
F[5-7(9)]
(flag. cont'd)
l.v.
pp
mp
vla2A as reference
BSP: -1.5
BP: -2
mf
pitch with quite a significant amount
of air sound, blending well with the
spectra of the rest of the instruments
almost no fundamental audible
m.s.p.
BSP: +1.5
BP: +2.5
M[5-9-(11)]
III
M[13+5]
(sempre mp)
IV
M[1+1+8]
p
slightly faster bow speed
mp
BSP: -2
BP: +1.5
F[(3)5-7]
F[5-9-(11)]
more metallic sound
M[7+10+13]

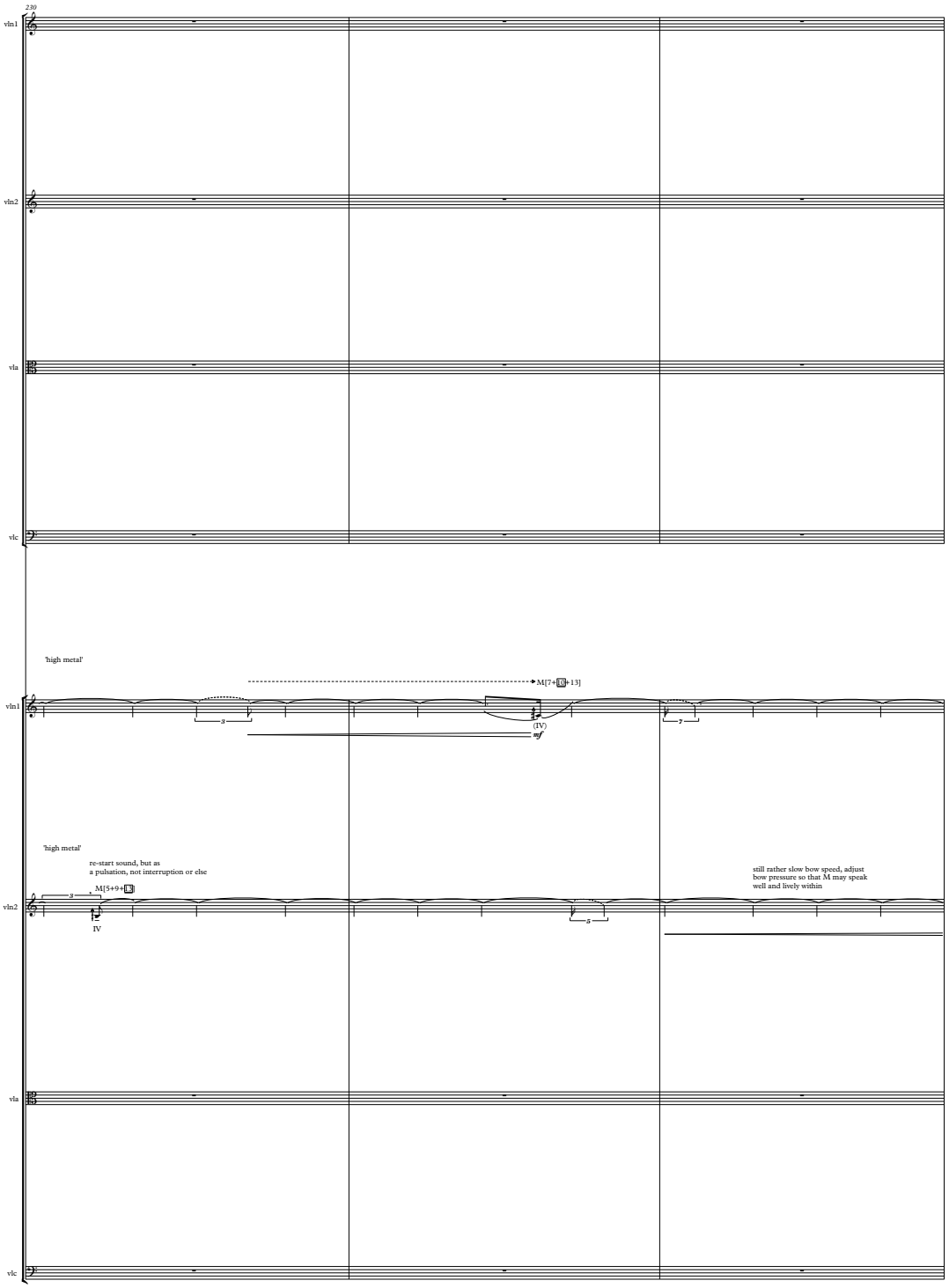

215
vln1
vln2
vla
vlc
simile
(flag cont'd)
l.v.
pp
mf
BSP: -1.5
BP: +1.5
F[7-9(11)]
BSP: +2
BP: +2
F[5-9]
mp
III
rather active state
(sempre mp)
picking up of energy from perc instruments
fundamental bare audible; sound very close to a M sound ('complex spetrcum sounds')
F[(3)5-7]
m.s.p.
IV
a little bit more agitated
M[ ]+8+13]
sempre same M

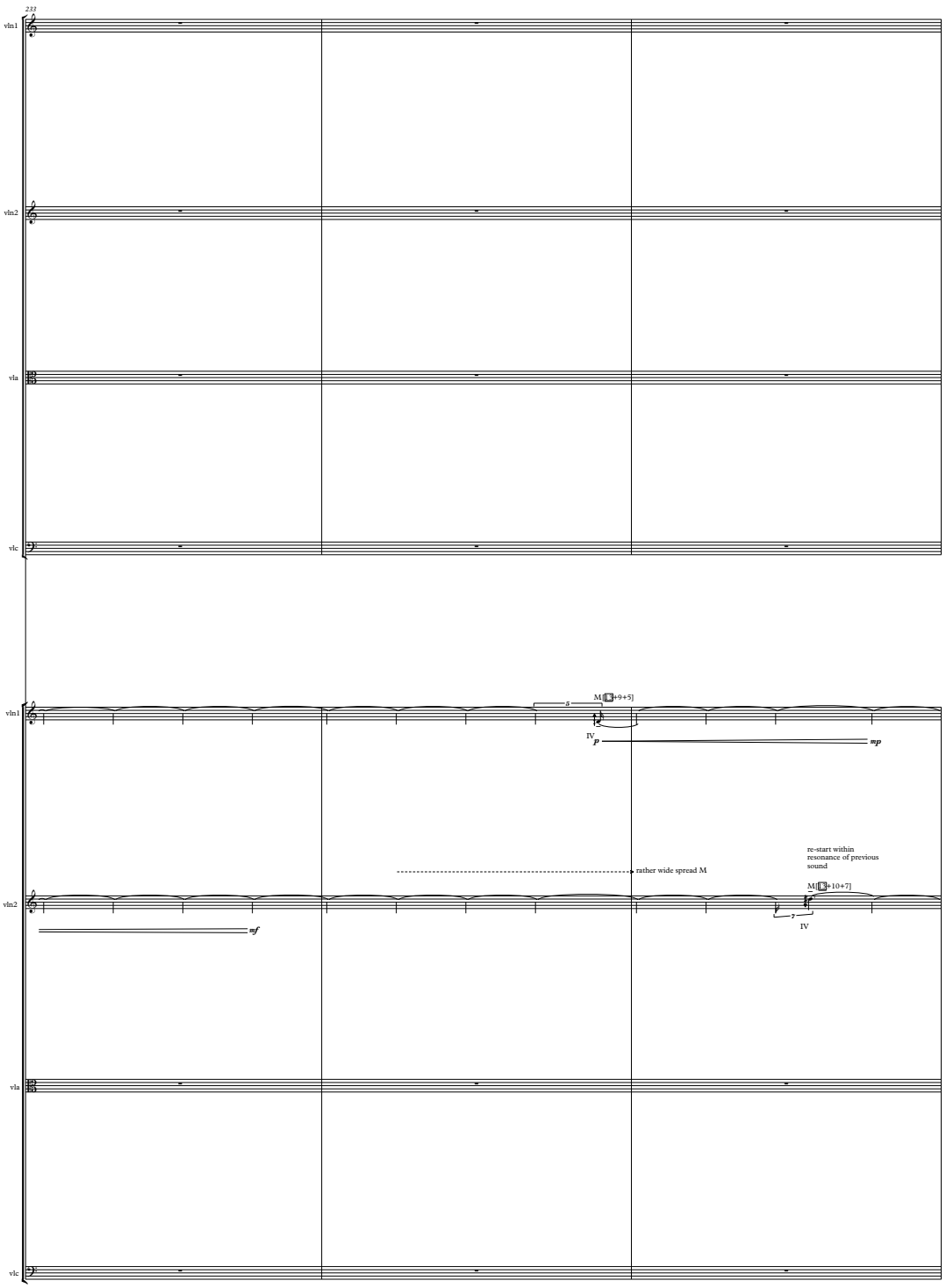

218
vln1
vln2
vla
vlc
almost no fundamental sounding, 'complex spectrum'-sound, closest to M sound as possible
flat surface; in the background
BSP: +2.5
BP: +2.5
F[7-9(11)]
(m.)s.t.
(flag. cont'd)
l.v.
pp
p
m(p)
mp
III
IV
BSP: +0.5
BP: +1
F[(3)5-7]
no fundamental audible m.s.p.
relaxing
inconspicuous but gradual cresc.
mf
afterthought of the previous two sounds
(1 breath)
(sempre mf)
[hüi-h]
[dh(e)ə]
upward direction, very condensed
relax
back to regular bow speed/pressure (according to technique)
'complex spectrum' sound, sound closest to M sound
BSP: -1
BP: +2
F[5-7(11)]
use vlcA as reference
simile
sound spiralling upwards/moving up in a spiral (both in terms of lightness and infinite space)
(even broader M than just before)
M[5+0+13]

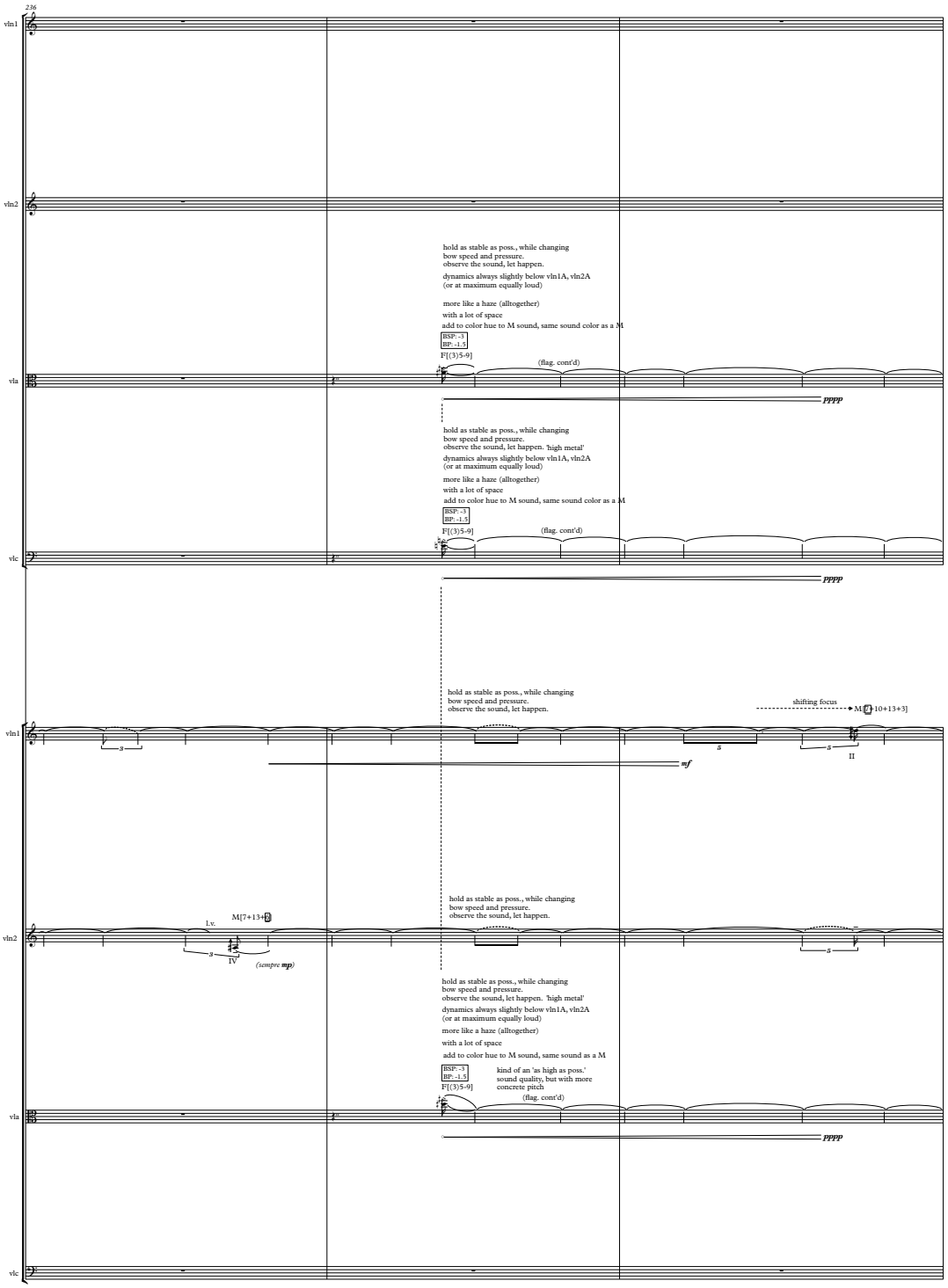

221
vln1
vln2
vla
vlc
air sound, colored by pitch (almost no pitch)
with a lot of air sound, slightly colored by pitch
l.v.
mf
III
mp
(hold mp steady si poss.)
IV
as if with some air sound;
almost no fundamental audible,
blending well
poco flaut. si poss.
BSP: +2.5
BP: +2
F[5-9(11)]
(flaut. cont'd)
pp
use vlaA as reference
BSP: +2
BP: +2
F[(3)5-11]
abbast. flaut. (slight s.t. sound)
air sound, colored by pitch
(almost no pitch)
mp/mf
increasing bow pressure
subito raised bow speed to this already higher bow pressure
spectral band getting higher
ppp nature, but still
very well audible
(also the fact that the
teeth are closed (if
breathing).
(pp) but still rather present
slightly slower bow speed at
slightly higher bow pressure
M[3+3+10]
ppp
soft entrance
p
simile
BSP: +1.5
BP: +1.5
F[(3)5-7(9)]

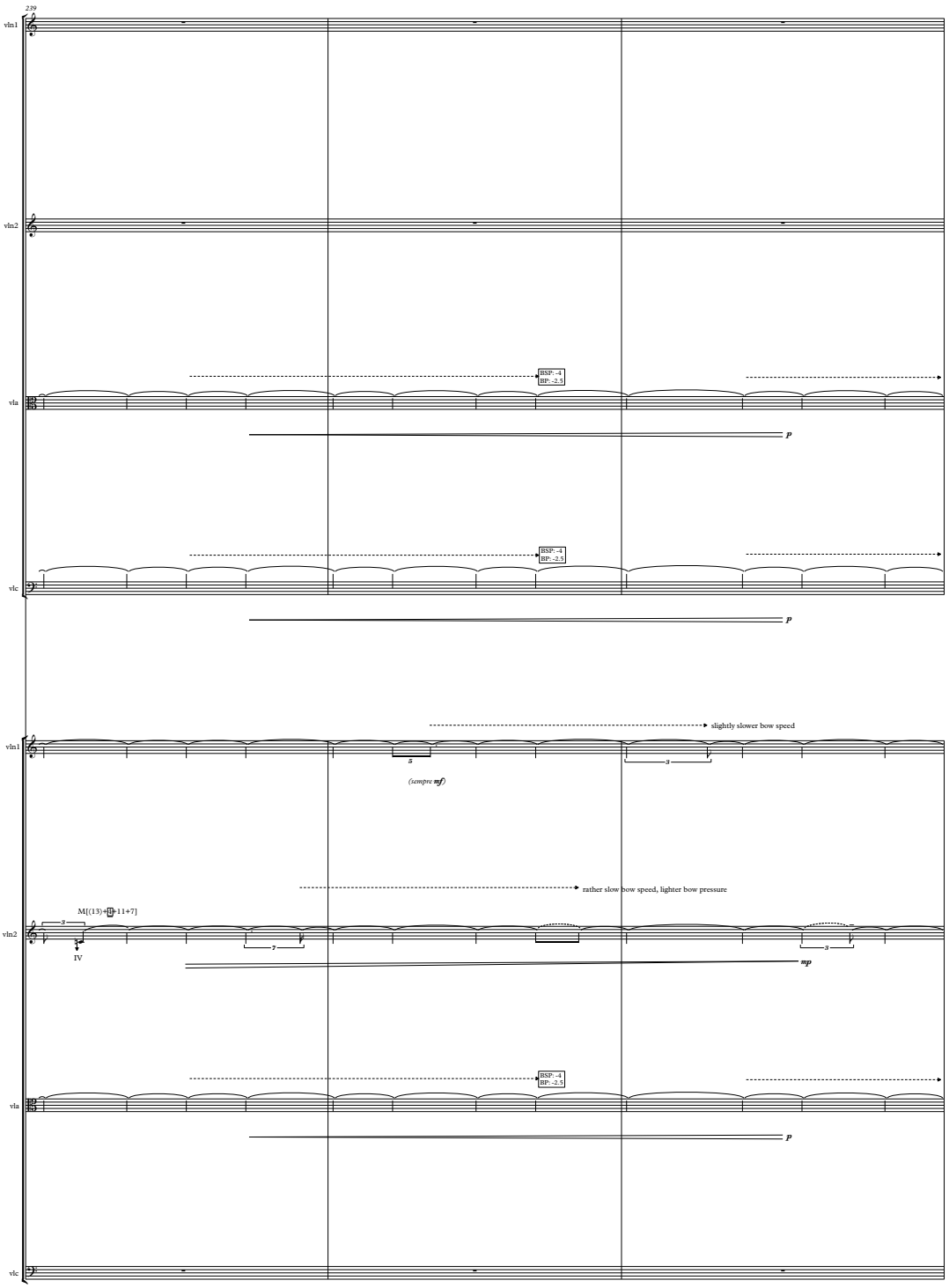

224
vln1
vln2
vla
vlc
use vln1A as reference
'airy' sound, blending extremely well
in the background
blending extremely well, like a 'streak' of an aspect
BSP: +1.5
BP: +1
F[7-9]
poco flaut. si poss., 'airy' sound
(flag. cont'd)
simile
BSP: +2.5
BP: +2.5
F[(5)7-9(11)]
a little more 'grinding' from underneath, via bow hair sound made audible
air sound, colored with a slight amount of pitch
simile
more and more towards/
similar to sizzling sound
slower bow speed,
but not slack, of a
certain energy
(narrow sound band)
calmed-down state,
rather slow bow speed,
also slightly lower bow
pressure
(sempre p)
(simile)
BSP: +2
BP: +2.5
F[5-9(11)]
(simile)
BSP: +2
BP: +1.5
F[(3)5-9]
(narrowing M band)
l.v.

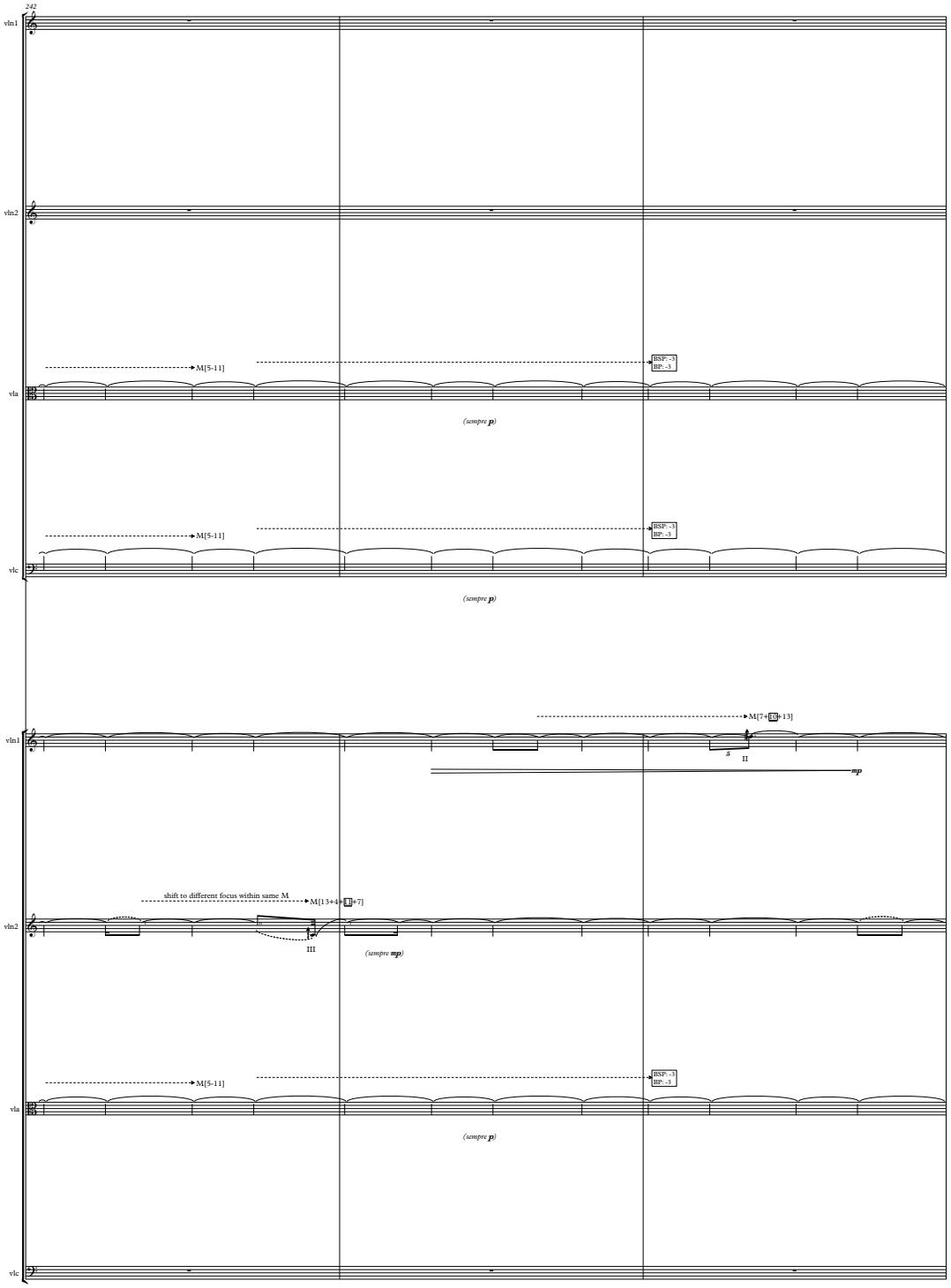

227
vln1
vln2
vla
vlc
(do not move)
hold focus unitl end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)
mp
rather slow bow,
even slower bow
pressure
l.v.
mf
sub. niente

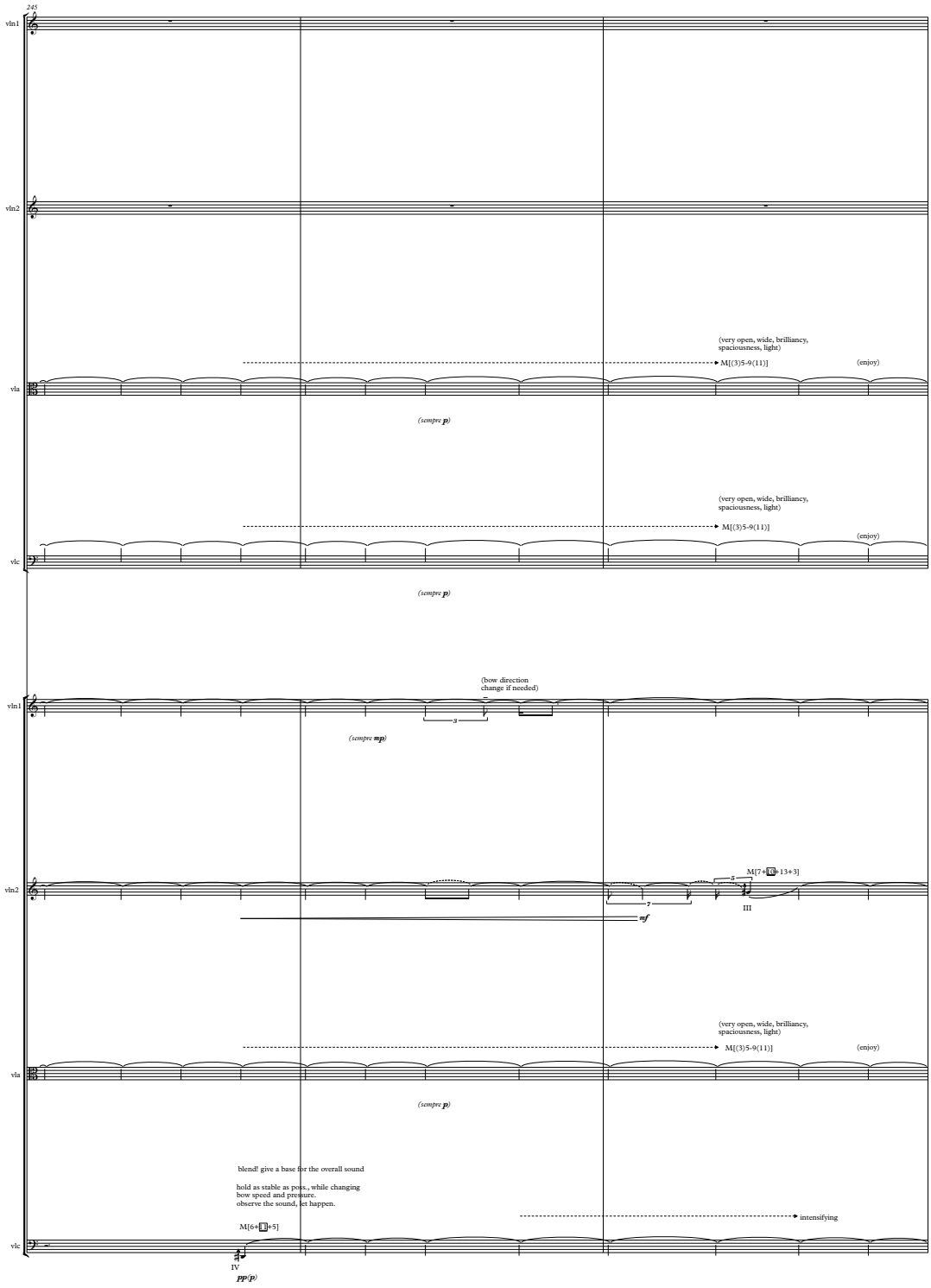

230
vln1
vln2
vla
vlc
'high metal'
M[7+10+13]
(IV)
mf
'high metal'
re-start sound, but as
a pulsation, not interruption or else
M[5+9+13]
IV
still rather slow bow speed, adjust
bow pressure so that M may speak
well and lively within

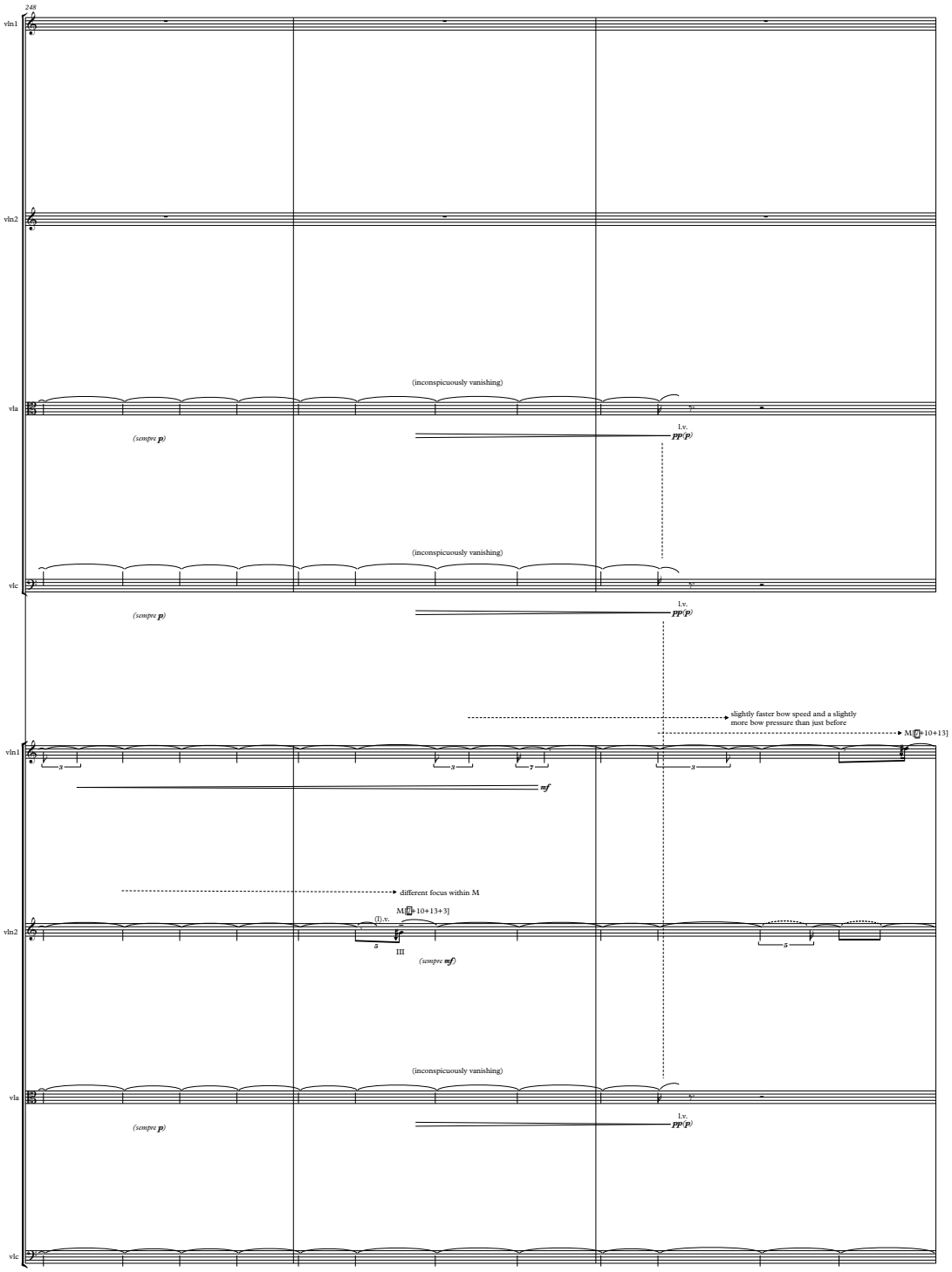

233
vln1
vln2
vla
vlc
M[3+9+5]
IV
p
mp
vln1
re-start within
resonance of previous
sound
rather wide spread M
M[3+10+7]
vln2
mf
IV
vla
vlc

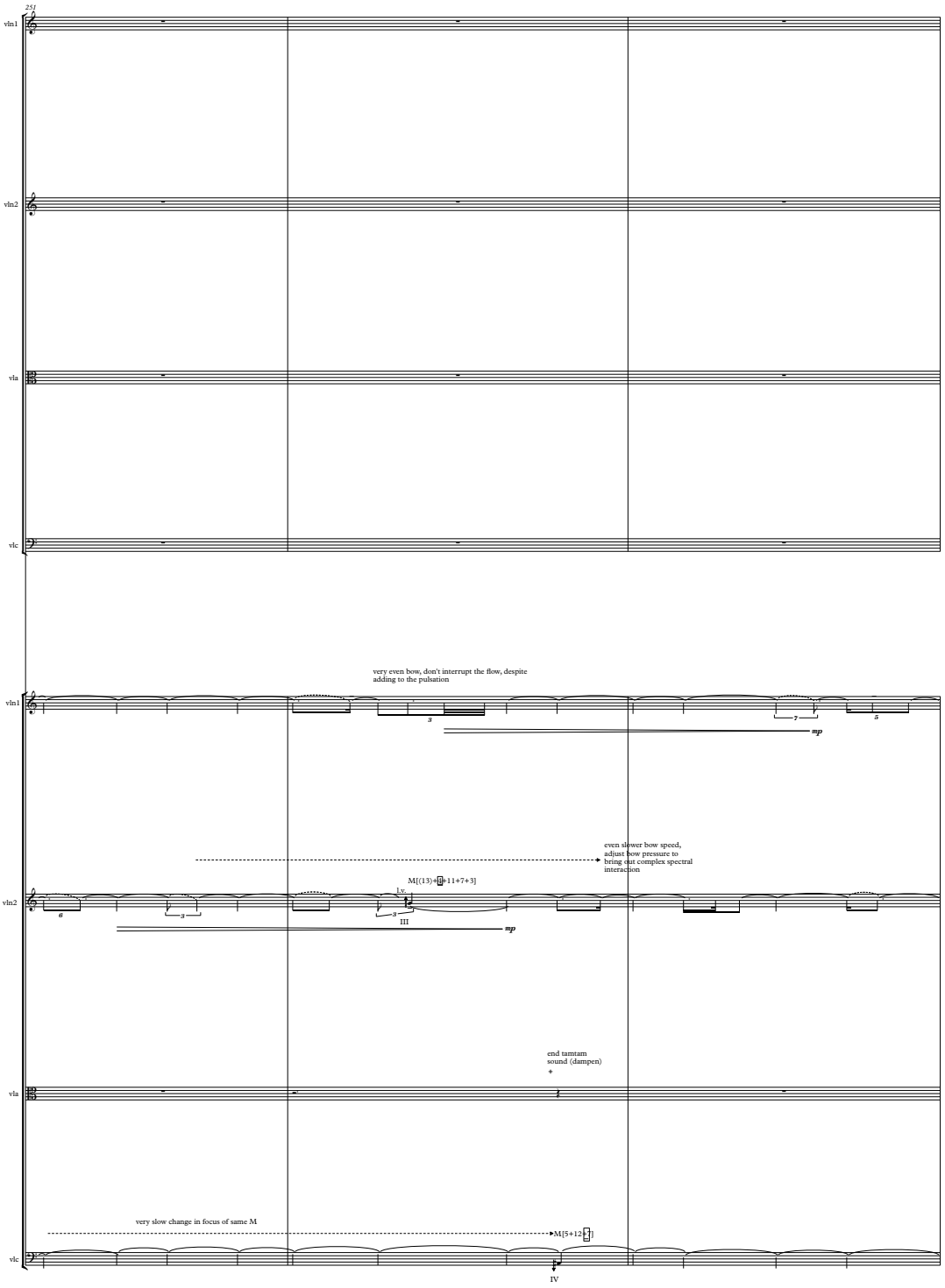

236
vln1
vln2
vla
vlc
hold as stable as poss., while changing
bow speed and pressure.
observe the sound, let happen.
dynamics always slightly below vln1A, vln2A
(or at maximum equally loud)
more like a haze (alltogether)
with a lot of space
add to color hue to M sound, same sound color as a M
BSP: -3
BP: -1.5
F[(3)5-9]
(flag. cont'd)
ffff
hold as stable as poss., while changing
bow speed and pressure.
observe the sound, let happen. 'high metal'
dynamics always slightly below vln1A, vln2A
(or at maximum equally loud)
more like a haze (alltogether)
with a lot of space
add to color hue to M sound, same sound color as a M
BSP: -3
BP: -1.5
F[(3)5-9]
(flag. cont'd)
ffff
hold as stable as poss., while changing
bow speed and pressure.
observe the sound, let happen.
shifting focus
M[7+10+13+3]
mf
II
l.v.
M[7+13+3]
IV
(sempre mp)
hold as stable as poss., while changing
bow speed and pressure.
observe the sound, let happen.
hold as stable as poss., while changing
bow speed and pressure.
observe the sound, let happen. 'high metal'
dynamics always slightly below vln1A, vln2A
(or at maximum equally loud)
more like a haze (alltogether)
with a lot of space
add to color hue to M sound, same sound as a M
BSP: -3
BP: -1.5
F[(3)5-9]
kind of an 'as high as poss.'
sound quality, but with more
concrete pitch
(flag. cont'd)
ffff

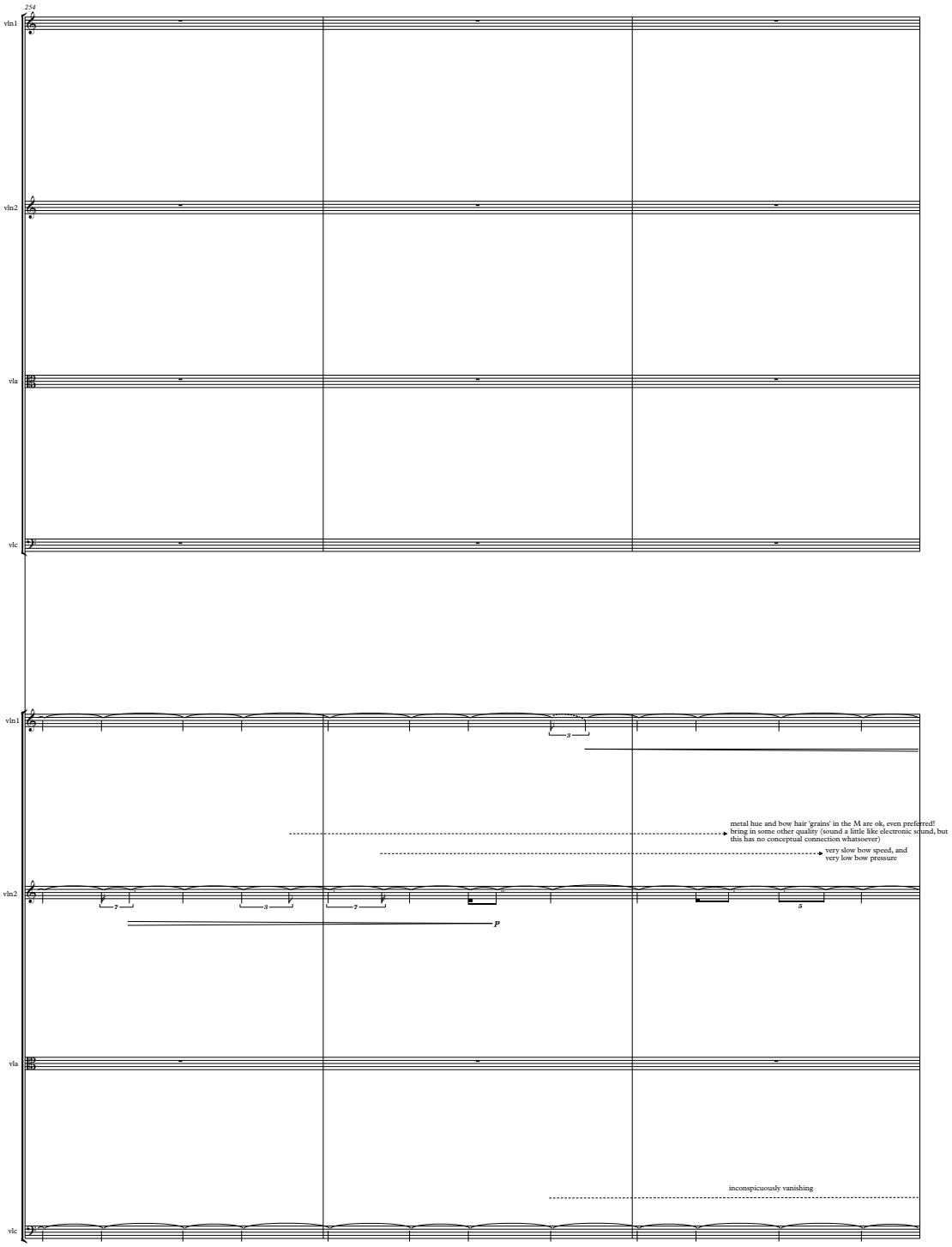

239
vln1
vln2
vla
vlc
RSP: -4
BP: -2.5
p
slightly slower bow speed
(sempre mf)
rather slow bow speed, lighter bow pressure
M[(13)+(11+7]
IV
mp


242
vln1
vln2
vla
vlc
M[5-11]
RSP: -3
RP: -3
(sempre p)
M[5-11]
RSP: -3
RP: -3
(sempre p)
M[7+10+13]
II
mp
shift to different focus within same M
M[13+4+11+7]
III
(sempre mp)
M[5-11]
RSP: -3
RP: -3
(sempre p)


245
vln1
vln2
vla
vlc
(very open, wide, brilliancy, spaciousness, light)
M[(3)5-9(11)]
(enjoy)
(sempre p)
(very open, wide, brilliancy, spaciousness, light)
M[(3)5-9(11)]
(enjoy)
(sempre p)
(bow direction change if needed)
(sempre mp)
M[7+10+13+3]
III
mf
(very open, wide, brilliancy, spaciousness, light)
M[(3)5-9(11)]
(enjoy)
(sempre p)
blend! give a base for the overall sound
hold as stable as poss., while changing bow speed and pressure.
observe the sound, let happen.
intensifying
M[6+1+5]
IV
pp/(p)

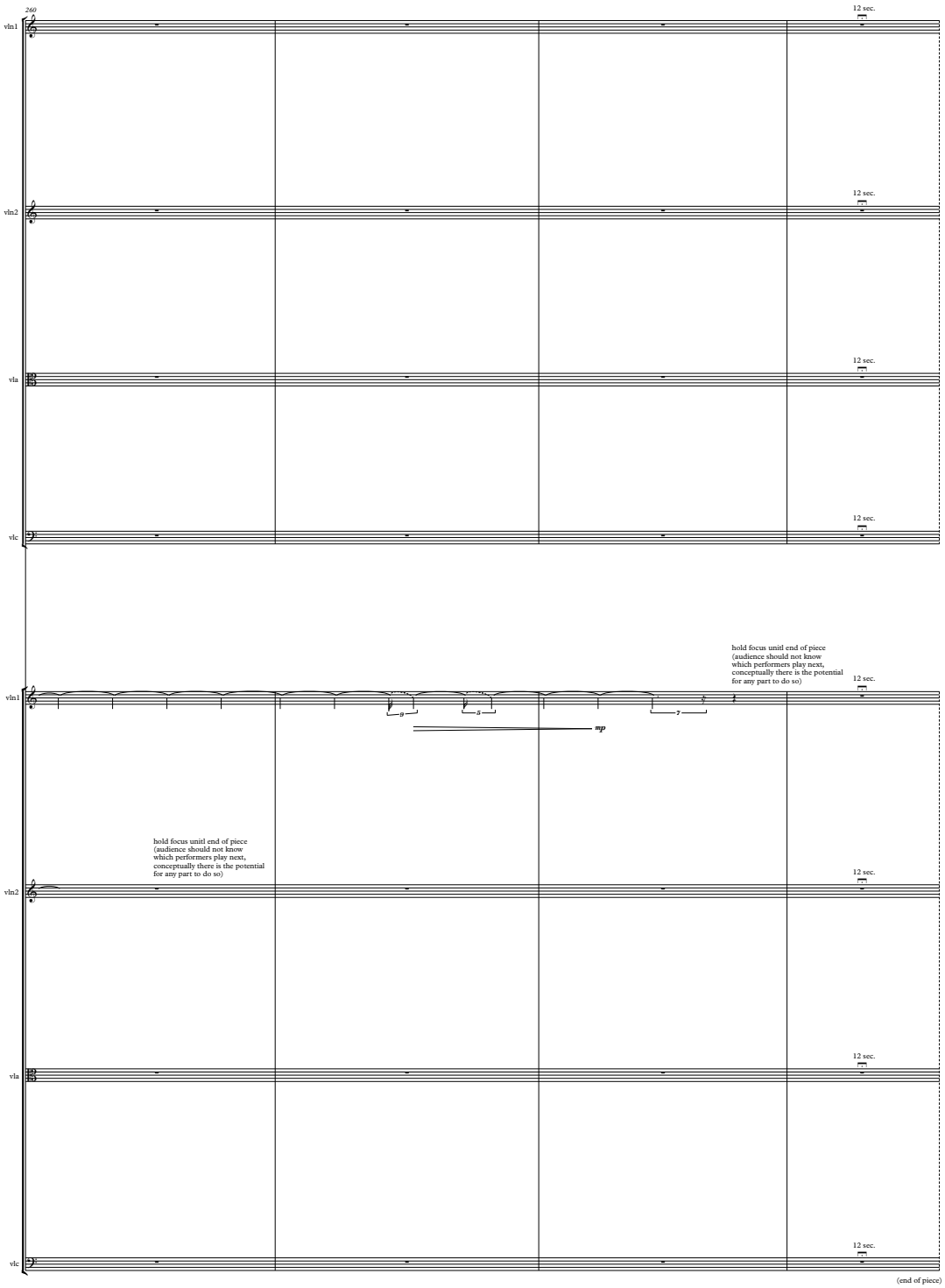

248
vln1
vln2
vla
vlc
(inconspicuously vanishing)
(sempre p)
l.v.
ppp(p)
slightly faster bow speed and a slightly more bow pressure than just before
M[=10+13]
mf
different focus within M
M[=10+13+3]
(l).v.
III
(sempre mf)


25
vln1
vln2
vla
vlc
very even bow, don't interrupt the flow, despite adding to the pulsation
mp
even slower bow speed, adjust bow pressure to bring out complex spectral interaction
M[(13)+1+11+7+3]
l.v.
III
mp
end tamtam sound (dampen)
very slow change in focus of same M
M[5+12+1]
IV


254
vln1
vln2
vla
vlc
vln1
vln2
vla
vlc
metal hue and bow hair 'grains' in the M are ok, even preferred!
bring in some other quality (sound a little like electronic sound, but
this has no conceptual connection whatsoever)
very slow bow speed, and
very low bow pressure
p
inconspicuously vanishing


257
vln1
vln2
vla
vlc
rather slow bow speed at low bow pressure, more and more concentrated
M[7+1]+13]
mf
II
bow speed getting slightly faster again,
bow pressure also slightly higher than just before
(sempre p)
vanishing
hold focus unitl end of piece
(audience should not know
which performers play next,
conceptually there is the potential
for any part to do so)

(end of piece)



(end of piece)

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