UNIVERSITY OF CALIFORNIA, SAN DIEGO

Confined walls of unity: The reciprocal relation between notation and methodological analysis in Brian Ferneyhough's oeuvre for flute solo

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by

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LIST OF ABBREVIATIONS

bsn: bassoon

cl: clarinet

db: double bass

f: forte

ff: fortissimo

fff: triple forte

hn: horn

mf: mezzo forte

mp: mezzo piano

ob: oboe

p: piano

pp: pianissimo

ppp: triple piano

sf: sforzando

vln: violin

vla: viola

vc: violoncello

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ABSTRACT OF THE DISSERTATION

Confined walls of unity: The reciprocal relation between notation and methodological analysis in Brian Ferneyhough's oeuvre for flute solo

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Brian Ferneyhough has written six challenging and complex pieces for flute solo: *Cassandra's Dream Song* (1970), *Unity Capsule* (1975-1976), *Superscriptio* (1981), *Carceri d'Invenzione IIb* (1985-1986), *Mnemosyne* (1986) and *Sisyphus Redux* (2011). Besides understanding Ferneyhough's compositional vocabulary, every piece also requires a different practicing method. This dissertation is a musical, interpretational, analytical and

motivating guide for flutists who desire playing Ferneyhough's oeuvre. After many years of practicing and researching these six pieces, I developed a performance practice method that may help aspiring flutists in the future while discovering this rich oeuvre.

Where *Cassandra's Dream Song* is a modern and complex transcription of an ancient myth, *Superscriptio* is a mathematically complex fight against the nature of the piccolo. *Sisyphus Redux* holds a real risk of experiencing Camus' 'philosophy of the absurd', while *Carceri d'Invenzione IIb* confronts both the performer and the audience with the limits of unbearably high and loud registers. *Unity Capsule* tests the performer because of the extreme length of such a complex piece, while *Mnemosyne* transcends the limits of information in notated music.

This performance practice method includes mythological, philosophical, mathematical and musical analyses, as well as a technical explanation and instrumental tricks that will enlarge the performer's creativity and freedom in interpreting this complex oeuvre.

INTRODUCTION

British composer Brian Ferneyhough (°1943) is inseparably connected with 'New Complexity'. Numerous musicologists have already extensively researched this genre in the field of contemporary music. Richard Toop, Richard Taruskin, Lois Fitch... They all talk about Ferneyhough's temporal approach, modernistic semantics or complex harmonic analyses. Although such research is extremely important for scholars, composers and performers, those texts lack of immediate practical use. As a performer of Ferneyhough's music, I consult those sources on a regular basis, but only *after* the practice process is completed. Musicological, analytical and theoretical papers are important to expand one's knowledge about Ferneyhough's music, but they don't provide any practical content for performers who want to practice and perform his *music*.

I began playing Ferneyhough's music for flute solo in 2009. As a Master's student at the Conservatoire Royal de Liège, Belgium, I was convinced I would pursue a career in contemporary music. For me, the best way to show my contemporary spirit and enthusiasm was by playing Ferneyhough's music. At the conservatory his music was considered as 'the most complex music ever written', so obviously I had found my goal. I

only knew of the existence of *Cassandra's Dream Song* by then, so I started practicing this 'most complex music' with a great amount of enthusiasm and pride. It took me six months to practice a piece of only two pages: I needed to decipher a - for me - completely new vocabulary, sound world and esthetic approach. My first performance of *Cassandra's Dream Song* was probably my shortest and fastest version ever: I was so nervous about all the techniques that I rushed through the material without understanding what this music really means and can become.

After practicing all his solo pieces for flute solo, after researching him and researching his music, after performing several pieces of him on stage, I regularly think of that first performance of *Cassandra's Dream Song* again: How I wish that I had some guidelines or a handbook that could explain me how to approach his music as a flutist. Also during my further research on his music, I wish I had a source I could consult during my quest to unravel Ferneyhough's music for flute solo. Those theoretical sources are helpful for a performer who wants to fine-tune or reconsider his or her interpretation or approach towards this music, but there is no practical information to be found on how to practice this music.

This is the reason why I decided to write this 'performance practice method' for the solo oeuvre for flute by Brian Ferneyhough. I want to write down all the tips and tricks I have developed while practicing this music,

in the hope that aspiring flutists of next generations will find guidance and help during their practice process. Help and guidance I wish I had when I was first working on this music. It could have saved the world from some pretty clueless performances.

This performance practice method includes mythological information (an important source of inspiration for Ferneyhough), mathematical and instrumental analyses as well as some personal tools and tips. Every piece requires a different approach: not one piece has the same intention. Although three pieces are inspired on ancient Greek myths, they all require a different approach and research. Every piece functions like a microclimate: it is a separate world within the universe of Ferneyhough's whimsical mind. Therefore I believe it is important to treat every piece with the same meticulous and personal analysis.

This performance practice method is not an exclusive solution for playing Ferneyhough's solo pieces for flute, nor do I have the intention to declare this method as the only truth. But it can be very helpful for a performer to unravel the marvels of this music without feeling limited or deprived from any creativity and freedom. That is a comment I hear a lot from performers all over the world: the amount of details on the score implies limitation and people feel they need to perform as if they were bound in a straightjacket. Reading papers and research results about

'*New Complexity*' and '*Extensive Temporal Sensibility*' does not help to lose that idea of limitation. With this method I want to proof that the amount of detail on the score is necessary and perfectly balanced in order for the performer to interpret this music freely and unlimited. It is not the notation that is limiting, but the inconsiderate interpretation of that notation that can be limitative.

This method does not include any explanation about specific extended techniques for flute: other sources, like *The Other Flute* by Robert Dick or *The Present Day Flute* by Pierre-Yves Artaud are excellent manuals for flutists who want to discover or improve their contemporary vocabulary.

Chapter 1: Cassandra's Dream Song (1970)

Cassandra's Dream Song was the first Ferneyhough piece that crossed my path in 2009. As a Master's student at the Conservatoire Royal de Liège, Belgium, I was determined to pursue a career in contemporary music. Ferneyhough's music has always intrigued me, because I couldn't find a link between the *audible* Ferneyhough (emotionally complex music) and the *visible* Ferneyhough (complex advanced mathematical scores). When I first saw the score of *Cassandra's Dream Song*, I was convinced it was the most difficult music on the planet. It took me over six months to sift through a score of only two pages. My first performance was courageous, but clueless.

I was so overwhelmed by the complexity of the music and the whimsicality of the composer that I lacked detecting obvious technical and musical patterns. I approached the piece as a technical showpiece, instead of appreciating the musicality and semantic symbolism of this extraordinary musical work.

1.1 Cassandra's Dream Song: A mythological analysis

The key to an accurate understanding of Ferneyhough's first flute solo piece lies in the research of the mythological background. Cassandra, one of the twenty-three daughters of the Trojan king Priam,

was chosen by the god Apollo to become a seeress, on one condition: that she would spend the night with him. Cassandra agreed and she was offered the gift of fortunetelling. Stories vary on how that gift was transferred onto her. Some ancient sources claim that, in a dream, a wolf spat into her mouth. Others tell the story that Apollo himself spat into her mouth, while a last version describes that she, as a child, fell asleep in a temple and that snakes whispered into her ear. [1]

Once she received the prophecy, Cassandra refused to spend the night with Apollo. He was furious because of her betrayal. Once a divine gift was offered to a human, it could never be undone. In his rage, Apollo decided to curse Cassandra: she would be able to foresee the future, but no one would ever believe her telling the truth.

Cassandra's curse led to a miserable life full of frustration, hysteria and disbelief. Whenever she had a vision about occurring events, she offered her services in trying to warn people, but every time she was ignored or laughed at. Especially the relationship with her father was a source of frustration - it only emphasizes the patriarchal standards of that time. The king (male) didn't take the prophesies of his frustrated and hysterical daughter (female) serious. [2]

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[1] Hyginus, *Fabulae 100-149* (2nd century AD)
Aeschylus, *Agamemnon* (458 BC)
Unknown, *Bibliotheca* (1st-2nd century AD)

[2] Christa Wolf, *Kassandra* (1983)

This stigmatization of gender specific characteristics was the beginning of a decennia-long discussion about the interpretation of this piece. In the seventies, when this piece was written and created, most flutists were men - it was only later so many women became interested in this instrument. For a while only Pierre-Yves Artaud (the creator of this piece) and Harrie Starreveld (Dutch flutist) performed *Cassandra's Dream Song*. Both of them had a very rational and analytical approach towards the piece.

A feminist countermovement was started in the nineties. Based on the feminist novel about Cassandra by Christa Wolf[3], Dr. Ellen Waterman analyzed the piece from a feminist point of view.[4]

After researching both interpretations I came to another, personally more suitable, conclusion: a conceptual, non-gender related interpretation.

1.1.1 The pioneer's version

This is the first interpretation of the piece by Pierre-Yves Artaud in 1974, later on adopted by Harrie Starreveld. Both performers approached the piece very mathematically and rationally. The piece is divided into two pages: page one is numbered from *line 1* to *line 6*; page two is listed

[3] Christa Wolf, Kassandra (1983)
[4] Ellen Waterman, Cassandra's Dream Song: A Literary Feminist Perspective (1994)

from *line A* to *line E*. Every line is divided into different sections, marked by rests or fermatas. The first page has to be played in the written order (from 1 to 6), and has to be interspersed with a chosen line of page two (the order of page two is free and the order of the sections in line C is free as well). The construction of the different sections on the first page is a palindrome. Both performers chose to approach the second page with a similar sense of logic and ordered the lines of the second page by increase of sections, ending with a sectional and harmonic climax (line B ends on a high D - highest note of the piece).

Line 1	(2 sections)	Line C	(4 sections)
Line 2	(4 sections)	Line E	(6 sections)
Line 3	(5 sections)	Line D	(8 sections)
Line 4	(5 sections)	Line A	(9 sections)
Line 5	(4 sections)	Line B	(11 sections)
Line 6	(2 sections)		

Both Artaud and Starreveld left the order of the sections of line C unchanged.

1.1.2 The feminist version

The feminist version by Dr. Ellen Waterman was a reaction to the stereotypical 'male' approach of the piece. Not only towards the rational analysis, but also especially as a reaction towards the stigmatizing division of the two pages. The first page looks clean and equalized without any emotional or harmonic peaks. The second page is constructed differently: the hysterical and unbalanced melodic lines determine the character of the page. The pioneer's version interpreted the first page as the 'male' page, while the second page was *obviously* the 'female' page.

Dr. Waterman re-examined the structure of the piece and constructed a new order of the second page - one with an emotional logic instead of a mathematical logic. Her interpretation is based on a dramatic evolution, ending with a resigned feeling in Line D.[5]

Line A	blind ambition
Line E	beginnings of an individual voice
Line C	choice
Line B	madness - ending on D, highest and loudest note
Line D	resolution, self-knowledge

[5] Ellen Waterman, Cassandra's Dream Song: A Literary Feminist Perspective (1994)

This interpretation is based on a literary novel by Christa Wolf, a German novelist, who wrote *Kassandra* from a woman-friendly perspective. She is interested in how a woman in a patriarchal society would react when she encounters so many obstacles on her road. She describes Cassandra as a smart, eager and curious woman, who is interested in politics and social problems, just like her father, King Priam. Unlike her mother and sisters, Cassandra desires a politically involved life above a married one.[6]

1.1.3 Conceptual interpretation

A third - and personal - interpretation is that one of a conceptual approach. The *Cassandra Complex* is a widely spread concept in psychology where people, who suffer severe physical and/or emotional pain, are not being believed by the people they trust to explain this matter. This results in frustration, hysteria and desperation caused by feelings of being ignored and abandoned.[7]

A derivative of this complex is the *Cassandra Dilem*ma, a phenomenon that is mostly experienced regarding topical world

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[6] Christa Wolf, Kassandra (1983)

[7] Melanie Klein, *Envy and Gravitude,* (1946-1947)
Laurie Layton Schapira, *The Cassandra Complex: Living With Disbelief: A Modern Perspective on Hysteria,* (1988)
Jean Shinoda Bolen, *Gods in Everyman: A New Psychology of Men's Lives and Loves*, (1989)

problems.[8] The whistleblower of certain upcoming disasters (like global warming or the refugee crisis in Europe) alerts the authorities and presents certain solutions. The news of such disasters can be too hard to handle, so people ignore this truth and advice because they are not ready to face these disasters. When these predictions finally come true, the whistleblowers themselves are often blamed for causing these disasters and not foreseeing any solutions.

The explanation of this phenomenon is that the input is constantly evolving. Solutions of today are not the solutions of tomorrow, so the output has to evolve in parallel with the input. With this information in mind - data is constantly evolving - the interpretation of *Cassandra's Dream Song* is more open and free. The classic division between the two pages (a 'male' page and a 'female' page) is no longer applicable. After analyzing the piece, I detected three large 'information sections'. The first section is the sound world around the 'A' (A natural as well as all pitch modifications). The second section moves around the sound world of 'B flat' (even expanding to a B natural). The material outside of these two sound worlds I call 'reaction': material that is in direct relation with the interpretation of the preceding material.

[8] Alan Atkinson, *Believing Cassandra: An Optimist Looks at a Pessimist's World* (1999)

The ‘male’ and ‘female’ characters are not stereotypically divided between the two pages anymore, but they are in direct dialogue with each other, spread out over the whole piece. Both characters are not determined by extra-musical parameters (ratio >< hysteria; static >< capricious; mathematical >< emotional), but by different pitch material. Both sound worlds don’t oppose each other but generate different material (‘reaction’) through their dialogue.

The dialogue between both sound worlds will differ every time, therefore the resulting material will be different every time as well, what indicates that a prefixed order of the second page is not advisable with this approach. This leads to the following construction of the piece:

Line 1	Line D: natural and logic continuation of the ‘Bb’ sound world
Line 2	Line A/E/C: direct reaction on the preceding interpretation of the dialogue
Line 3	Line A/E/C: direct reaction on the preceding interpretation of the dialogue
Line 4	Line A/E/C: direct reaction on the preceding interpretation of the dialogue
Line 5	Line B: climax of the piece
Line 6	

The order of line C is, for the same reasons, not predetermined as well.

The awareness of all of those different interpretations is a first step in forming a personal point of view on the general structure of the piece. Everyone's approach will be different, but examining those two existing models (pioneer's and feminist's versions) helped me developing my own view on the structure of the piece.

This, of course, is not enough to really understand all the material in detail. Since there is not that much material (only two pages), a detailed analysis of the micro-layer of this piece helped me practicing, performing and mastering the piece. The following detailed analysis is a personal analysis and is not in any case obligatory to follow by any other performer. It is one of the possible approaches to unravel the material on the score.

1.2 Analysis of the score

1.2.1 Page 1

Line 1

The most remarkable aspect of the first line is the use of pizzicati. Ferneyhough writes an alternation between pizzicati and key clicks throughout the whole line. The first half of the line remains around the sound world of the 'A', until he specifies a lip pizzicato on the 'Bb'. The

four times he writes a 'Bb', he writes a different technique than for the 'A', where he only uses pizzicati and key clicks.

The first two 'Bb's' are lip pizzicati, the third one is a flutter and the fourth one is a harmonic on 'Eb'. This first line contains the major structure of the first page. The 'A' sound world is the 'Action': These are fixed events. The 'Bb' sound world is a 'Reaction' that infiltrates the order of the 'Action'. Translated to the original myth, one can refer to Apollo as the 'Action' and Cassandra as the 'Reaction', the second voice that is trying to interfere with the fixed order.

The piece begins with several pizzicati, an event that is repeated throughout that first line. Many years ago I only played lip pizzicati in the first line, since it is technically my strongest pizzicato, although I knew that Ferneyhough specifically writes 'lip' with the 'Bb' notes. But after reading the story and after analyzing the piece, it makes total sense now to use two different types of pizzicato.

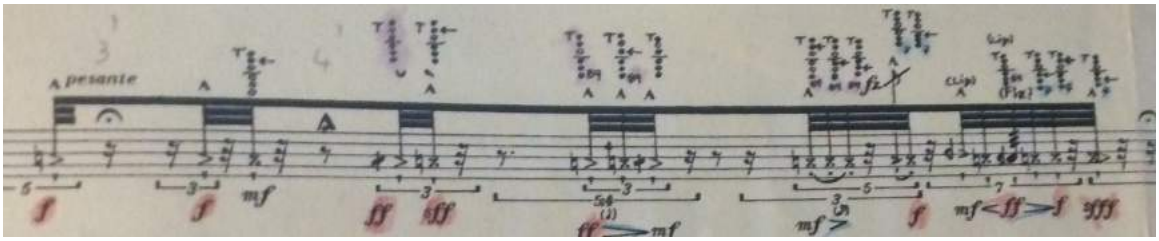

Figure 1.1: Page 1 Line 1, score *Cassandra's Dream Song* by B. Ferneyhough, 1970, Edition Peters

The most important reason to use two different types of pizzicato is the differentiation in sound between the two independent voices. A second, more subtle reference, is that Apollo (disguised as a wolf or not) spat Cassandra in the mouth to give her the gift of prophecy. The tongue pizzicato matches that gesture the best.

Time is another important aspect of this first line. The first half of the line is written freely, without any visual tempo grid. According to Ferneyhough himself, this has to be played as '*a fight against your own body*.'[9] The notes can only be produced as a result of an enormous internal necessity. The second half of the line is written in a more rigid grid, but due to the accelerando and rallentando arrows, it sounds more freely and disturbing.

The first half of the line is confidant and static, but after a while the key clicks mess with the steadiness of the very beginning. At that moment a new voice reacts and brings a dialogue in this line.

Line 2

The first half of the second line is written around the development of the 'A'. The 'Action' develops and gains power, since the 'A' grows from

[9] Brian Ferneyhough, performance notes in the score of *Cassandra's Dream Song* (1970), Edition Peters

a veiled ‘pp’ sound to an open and bright ‘ff’ sound. That event is repeated, but in a shorter version, combined with a nervous vibrato.

The third time the second voice interferes, results in a nervous trill. The second half of the line restores the order of the first line; only the pitch and the technique (key clicks) are independent from each other now. The ‘A’ continues as a long note, while the key clicks are superposed independently on top of that long note.

Line 3

The third line continues to develop the power of the ‘Action’. The ‘A’ starts as a veiled note, but is interspersed with fast, bright ‘A’s’. The conclusion of that gesture results in a disguised second voice, a harmonic ‘F#’ on the fingering of a low ‘B’. The second time this gesture is repeated, the ‘Reaction’ is more active and present, but disappears at the end of the gesture. The outcome is again that same disguised ‘B’ as in the preceding event. The third time this gesture is repeated, new sounds are mixed with the two standard voices, what creates more drama and intensity.

These new sounds, that are independent from the ‘Action’ and the ‘Reaction’, I refer to as ‘Chaos’. This is a reference to another Greek mythological phenomenon, *Chaos*. This is the ‘nothing’, the emptiness

where everything is born. 'Chaos' was neuter in ancient Greece and gave birth to everything. In this case, I see 'Chaos' as the neuter result of the two voices: the result can't exist without the presence of a dialogue and changes whenever a dialogue changes. But the continuation of the dialogue between 'Action' and 'Reaction' is also influenced by the 'Chaos'. The three voices feed each other.

Line 4

The two main voices lose their power and the 'Chaos' becomes more present. New techniques are introduced, but the result is still disguised. The key clicks are combined with a closed embouchure, what means that they don't only sound a seventh lower, but they are also less powerful and bright than open mouth key clicks.

This line refers to the difficulty of speech and the struggle to make a case. The air sounds are written in a way that the performer really feels the urge to sigh in frustration, especially the last gesture of the line. The very ambitious dynamics that are written with those key clicks are impossible to obtain. The effort behind it reflects the dynamics better. But this is related to the effort people need to make to be heard and that effort is mostly more intense than the actual result.

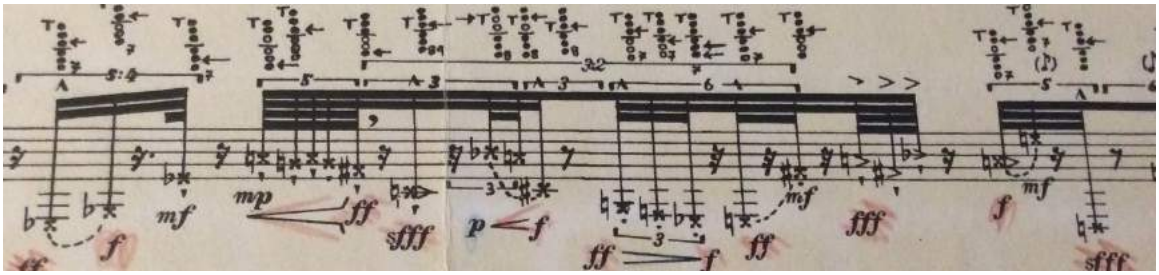

Figure 1.2: Page 1 Line 4, score *Cassandra's Dream Song* by B. Ferneyhough, 1970, Edition Peters

Line 5

This line is crucial. Both sound worlds, 'A' and 'Bb', are represented, but only as a fierce, short interruption of everything else that is going on. The trills, tremolos, grace notes, staccato notes and pizzicati are all very fast, very nervous and very intense. 'Chaos' overrules the two leading voices, and both of them are desperately trying to reclaim their places.

This line represents the middle of the action, where logic and common sense are far-gone, because the 'Action' and 'Reaction' are constantly in each other's way. The cohesion between the two voices is missing and that results in a new, free sound world.

Every time 'Action' and 'Reaction' are present, they are written together, as one struggling voice instead of two separate, arguing voices. Remarkable is also that the 'Chaos'-material is written in a louder dynamic than the actual struggling voices. The objective results are stronger than the actual argument.

Line 6

The last line of the page, and of the piece, has a different character than the rest of the page. The first half of the line is only 'Chaos'. 'Chaos' is very melancholic and mournful. 'Action' and 'Reaction' lost themselves and they are clueless.

In the middle of that line, a same gesture as in line 4 occurs: five key clicks on the fingering of a low C, but sounding a seventh lower. This memory of lost times evokes a new area, where the two leading voices come to their senses again and they end the piece in harmony, only occasionally interspersed with the results of their previous dialogues. Life is knocking at their door (not faith).

1.2.2 Page 2

The second page moves away from the fruitless dialogue on page one and shows the result of the (re)actions of the first page.

Line A

Occasionally the original two voices interfere in this line, but it is especially the second voice that tries to interrupt the line. The main gestures here are the fast repeated notes on one note. It happens on a 'F6', 'C4', 'A6', 'G6', 'C4', 'C3', multiphonic of 'Bb5' and 'F6', 'G4' and

'B6'. This line is very nervous, but still trying to be convincing. The repeated notes are gestures of convincement: repeating the same thing over and over again in order to make a clear case.

Line B

This line can be divided into several different increasing or decreasing gestures. The first one is the grace note section. There are four of those sections, where the last one of them is the most developed gesture. Another gesture is the development of the low 'G', by varying the speed and amplitude of the vibrato, combined with a flutter tongue. The long trills with increasing speed are written two times and the playful gesture of register jumps is written three times. The line ends with the highest note of the piece, the 'D7'. This line is very analytical and organic. Different outcomes, such as the trills or the grace notes, are in development throughout the line and each repetition of the gesture reacts on the previous one.

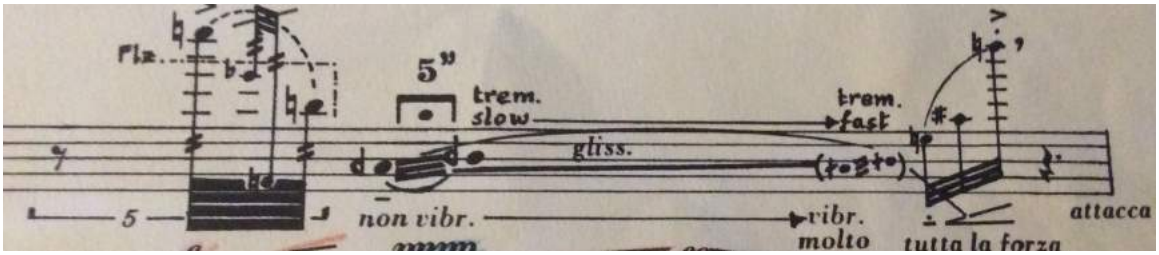

Figure 1.3: Page 2 Line B, score *Cassandra's Dream Song* by B. Ferneyhough, 1970, Edition Peters

Line C

This short line grants even more freedom. Not only the order of the four different events can be chosen, also the dynamics are completely arbitrary, varying from 'ppp' to 'fff'. The four gestures have their own characteristics, even without choosing the dynamics beforehand:

1. Increasing speed, intonation and intensity.
2. Can be divided in four subsections; the tempo speeds up and slows down again.
3. Contains four subsections, with a strong emphasis on the first note, a 'B6'. This is the only gesture with trills and a tremolo. This one should be played while turning the mouthpiece in and out.
4. This section has a strong division between staccato and legato. The ending gesture should be played while turning in the mouthpiece.

Line D

Line D has a strong emphasis on the second voice. The 'Reaction' is represented twice with a real (singing) voice. Throughout the whole line, the gestures are played with a lot of fluctuation: vibrato, smorzato, timbre trills, veiled tremolos and flutter tongue.

This line is all about development. The first 'Bb' starts veiled, with a small vibrato and ends with a large, hysterical vibrato. The 'F#4' develops

from non-vibrato with fast and small smorzato to molto vibrato and a large, but small smorzato to non-vibrato with fast and small smorzato again. The tremolo in the beginning of the next line evolves from a slow trill to a fast one and the next two 'Bb's' grow from a quiet and non vibrato note to a molto vibrato 'ff' note. Ferneyhough develops that note even more the second time, by adding a mutiphonic, a trill and an increasing vibrato. This line uses small germs that grow into large plants, interrupted two times by an unstable and shaky singing voice.

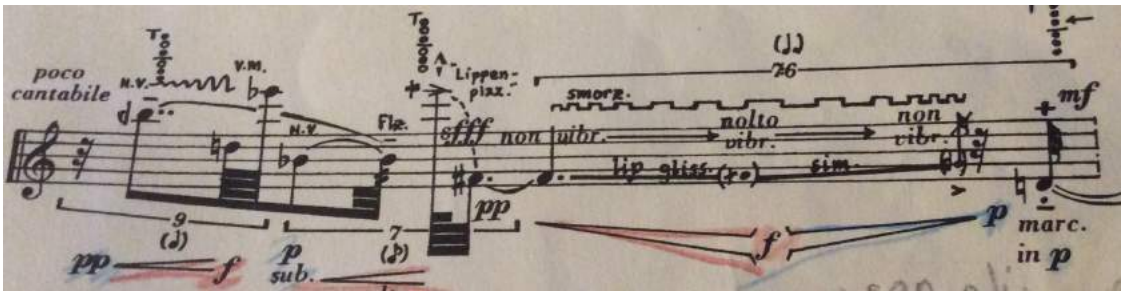

Figure 1.4: Page 2 Line D, score *Cassandra's Dream Song* by B. Ferneyhough, 1970, Edition Peters

Line E

This line seems like a moment of peace and quiet at the beginning of the line, but it develops very fast in an uncontrollable 'Chaos'. This line uses three different multiphonics, where the last two of them operate as a disguised 'Reaction'. This line uses several elements that are already explained in the rest of the piece: the harmonic notes, the development

of the 'C3', trills on high multiphonics, the use of the grace notes and the 'playful' gesture of line B.

One could see this as a memory or as a reflection of the piece, but it depends on where in the process of the piece this line will be played. For sure it is not the last line, since line 6 of page 1 concludes the piece. But by playing this line somewhere in the middle of the piece, it can be a direct reference to Cassandra, where she predicts what will happen later on.

1.3 Conclusion

At first sight, *Cassandra's Dream Song* looks like a very strict, limiting piece with almost no liberty for the performer to interpret creatively. The amount of information on the score can give the impression of limitation, but a substantive analysis creates an enormous freedom in the piece. A robotical and mathematical approach is not desirable neither is the intention of aiming for a '*beautiful, cultivated performance*'.[10] Ferneyhough explains the following in his performance notes:

> A valid realization will only result from a rigorous attempt to reproduce as many of the textural details as possible: such divergences and impurities as then follow from the natural limitations of the instrument itself may be taken to be the intentions of the composer. No attempt should be made to conceal the difficulty of the music by resorting to compromises and inexactitudes (i.e. of rhythm) designed to achieve a superficially more polished result. On the contrary,

[10] Brian Ferneyhough, performance notes in the score of *Cassandra's Dream Song* (1970), Edition Peters

> the audible (and visual) degree of difficulty is to be drawn as an integral structural element into the fabric of the composition itself.
> The piece as it stands is, therefore, not intended to be the plan of an ideal performance. The notation does not represent the result required: it is the attempt to realize the written specifications in practice which is designed to produce the desired (but unnotatable) sound-quality.

In order to aim for such energy and intention, a thorough understanding of the material on a micro-level as well as the comprehension of the concept behind the myth on a macro-level are necessary. Temporal and rhythmical precision in this particular piece is subservient to the precision in engagement and the aim for a suitable sound. The piece is written without any concrete temporal indications or bar measures. The only temporal indications are the characteristic indications and the arrows pointing out accelerandi and rallentandi. This 'lack' of information is intentional but does not imply a total freedom in rhythmical precision, but a freedom in interpretative tempi. Each line has its own temporal gesture with corresponding proportional rhythms. These rhythms are specifically written without a precise tempo, but are to be played correctly in the relative tempo. The exact tempo is the tempo of the performer. In order to choose appropriate tempi, the performer should have a certain analysis in mind. This freedom does not imply 'doing

whatever' but leads to a personal, creative and substantiated interpretation.

For *Cassandra's Dream Song*, a substantive analysis is the most effective tool in the research of understanding the material on the score.

Chapter 2: Sispyhus Redux (2011)

Ferneyhough waited until 2010 to start writing a solo piece for alto flute. This is twenty-four years after his last solo piece, *Mnemosyne*, for bass flute and pre-recorded tape. He never liked the alto flute, because of the limitations of the sound: he feels the alto flute's range (color and dynamics) is too limited. It was only because flutist Carine Levine commissioned a piece for alto flute, he started writing this piece. Even today, he still believes that his music doesn't work well on the alto flute.[11] Personally, I think this is his most beautiful and complete work for flute solo.

His aversion against the instrument influenced the theme of the piece: the condemned Sisyphus was obliged to roll a boulder uphill, only to see it fall down whenever he reached the top. He had to start over and over again until the end of times. While writing the piece, Ferneyhough felt he had to start over and rethink the purpose of the material every time he finished a bar or a phrase. He projected this attitude towards the construction of the piece: every single phrase leads to a certain point without necessarily continuing into the next phrase. Every phrase is a story on itself without it being a building stone of a larger story. Or is it? [12]

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[11] Brian Ferneyhough, personal comment during a masterclass at UCSD on March 4th, 2015

[12] Idem

2.1 Mythological and philosophical analysis

I could never really understand where this piece was going to, until I finished practicing the last bar. And even then I was not sure. I was hoping to find a common thread at the end of the piece, that wonderful 'aha-moment'. But at the end, I was still puzzled about the purpose of the piece. I was astonished by the fragility and beauty in this piece, combined with an inhuman strength. The idiomatic language in *Sisyphus Redux* is incredible: the fragility, the frustration in the unmatchable strength, the superposition of the extended techniques: it suits the alto flute remarkably well.

Whenever I am practicing a Ferneyhough piece, I use the 'knitting-method'. Some performers are 'sculptors': they first practice a piece in its entirety and will then fine-tune the details of the piece. Although I mostly work like that, this method doesn't suit me whenever I'm working on a Ferneyhough piece. Because of the tremendous amount of detail on the score, I need to work through the piece note by note, like knitting stitches one by one. Once I practiced the last bar of a piece, I usually know and truly understand the structure of the piece.

Sisyphus Redux remained a mystery, even long after I practiced the last bar. I researched the myth of Sisyphus, like I did with *Cassandra's Dream Song*, in the hope to find substantial answers.

2.1.1 The myth of Sisyphus

Sisyphus, king of Ephyra (supposedly the original name of Corinth), was a key figure in trade and navigation, but also a master in trickery and deceit. Whenever he had guests in his kingdom, he didn't hesitate to kill them for his own benefit, although that was a violation against the law of hospitality (xenia). He was also not afraid to betray the gods, even Zeus himself: Zeus abducted Aegina, daughter of Asopus, the river god. Sisyphus blabbed about this to her father, in exchange for causing a spring to flow on the Corinthian acropolis. Zeus was furious and ordered Thanatos, Death himself, to chain Sisyphus down below in Tartarus. Since Hermes was not present - it is his job to escort souls to the Underworld - Sisyphus saw an opportunity to escape by tricking Thanatos: He asked Thanatos to demonstrate how those chains work, only to capture Thanatos in those same chains instead. Once Thanatos was trapped, no one on earth died anymore. Ares, god of war, was extremely annoyed that his opponents would continue living, so he intervened and freed Thanatos from his precarious situation and turned Sisyphus over to Thanatos at the end.

Before Sisyphus died, he had asked his wife to throw his naked body into the middle of a public square, so he could later declare to Persephone, goddess of the Underworld, that his wife disrespected him

and that he needed to return to the upper world to set things straight with his wife. When Sisyphus refused to return to the Underworld, the gods sent Hermes, who dragged him back to Tartarus, where he was condemned to roll a huge boulder up a steep hill, only to see the boulder roll back once he almost reached the top of the hill. Sisyphus should continue this pointless and frustrating task until the end of times.[13]

2.1.2 Interpretational analysis of the figure Sisyphus

Apart from the punishment, nothing from the original myth seems to explain the material in *Sisyphus Redux*. There is no direct correlation between elements from Sisyphus' mythological story and the represented material and extended techniques on the score. The only striking element remains the frustration and pointless effort of Sisyphus, translated into the difficulty in responsiveness of the alto flute.

When taking a closer look to the historical interpretations of Sisyphus, it is remarkable that only the punishment survives. The reason behind this punishment, deceit and trickery, seems to be of no importance. The act of repeating a pointless task into eternity on the other hand inspired many philosophers, scholars and writers.

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[13] Homer, Iliad, translation by Patrick Lateur (2010)
Sophocles, Philoctetes (5th century BC)

Geological adaptations are e.g. the everyday rising of the sun in the east and sinking in the west, according to the solar theory. Or the continuous rising and falling of the waves of a treacherous sea.[14]

Ancient philosopher Lucretius (1st century BC) compared Sisyphus' task with politicians aspiring for a political office, but who are constantly defeated. He compares the quest for power ("an empty thing") with the task of rolling the boulder up the hill.[15]

Homer[16] and Ovid[17] both referred to Sisyphus: When Orpheus descends and confronts Hades and Persephone, he sings a song with the result of getting his wish of bringing Eurydice back. After this song is sung, Ovid shows how moving it was by noting that Sisyphus sat on his rock to listen, the Latin wording being "inque tuo sedisti Sisyphe, saxo".[18]

The book 'Sisyphus', generally ascribed to Plato, would actually be written by one of his students instead.[19]

Friedrich Welcker, a German philologist and archeologist of the 19th century, suggested that Sisyphus' punishment is based on the vain struggle of man in the pursuit of knowledge.[20]

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[14] Hugh Chisholm, *Sisyphus*, Encyclopedia Britannica, Cambridge University Press (1911)
[15] Lucretius, *De Rerum Natura III* (1st century BC)
[16] Homer, Iliad, book IV (8th century BC)
Homer, Oddyssey, book XI (7th century BC)
[17] Ovid, *Orpheus and Euridyce*, Metamorphoses Book X (8 AD)
[18] Idem
[19] Plato, *Sisyphus*, Dialogues (4th century BC)
[20] Burton Menoni, Kings of Greek mythology (2016), Lulu.com, ISBN 978-1-329-85427-7

Albert Camus, the French philosopher, wrote an essay called *The Myth of Sisyphus*. Here he describes Sisyphus as the 'absurd hero', fulfilling an absurd and meaningless task over and over again, hating death and living to the full.[21]

More recently, author and scientist J. Nigro Sansonese, known for his studies on mythology and biology, speculated about the origin of the name of Sisyphus. He suggests that 'Sisyphos' is onomatopoetic for the continual back-and-forth hissing sound of breathing ("siss"-"phuss"). Hereby he situates the mythology of Sisyphus in a larger context: that of archaic trance-inducing techniques related to breath control. Sansonese suggests that the repetitive inhalation-exhalation cycle is described esoterically in the myth as an up-down motion of Sisyphus and his boulder on the hill.[22]

Recent experiments revealed that workers are more motivated and will work harder when their work seems meaningful and that people underestimate the relationship between meaning (having a purpose) and motivation. These conditions are called the *Sisyphusian conditions*.[23]

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[21] Albert Camus, The myth of Sisyphus (1942)
[22] J. Nigro Sansonese, *The Body of Myth,* Rochester, VT: Inner Traditions (1994)
[23] Dan Ariely, *The Upside of Irrationality* (2010)

2.2 The myth of Sisyphus - Albert Camus

The only important question for Camus in philosophy is the following: "*Does the realization of the meaninglessness and absurdity of life necessarily require suicide?*"[24] According to Camus, humanity lives an absurd and pointless life: the hope of tomorrow brings us one day closer to death, the ultimate enemy. People live as if they didn't know about the certainty of death. Camus says: " *Once stripped of its common romanticism, the world is a foreign, strange and inhuman place; true knowledge is impossible, and rationality and science cannot reveal the world—such explanations ultimately end in meaningless abstractions and metaphors. From the moment absurdity is recognized, it becomes a passion, the most harrowing of all.*"[25]

Camus sees many examples of the absurd man in history:

- Don Juan: " There is no noble love but that which recognizes itself to be both short-lived and exceptional."
- The actor: " He demonstrates to what degree appearing creates being. In those three hours he travels the whole course of the dead-end path that the man in the audience takes a lifetime to cover."

[24] Albert Camus, *The myth of Sisyphus* (1942), chapter 1 *The Absurd Reasoning*
[25] Albert Camus, *The myth of Sisyphus* (1942), chapter 1 *The Absurd Reasoning*

- The conqueror: " The warrior who forgoes all promises of eternity to affect and engage fully in human history. He chooses action over contemplation, aware of the fact that nothing can last and no victory is final."[26]

As the ultimate absurd man, Camus describes the pointlessness of the punishment of Sisyphus: he sees Sisyphus as the absurd hero who lives life to the full, hates death, and is condemned to a meaningless task. Camus is interested in Sisyphus' thoughts when marching down the mountain, to start the next round:

> It is during that return, that pause, that Sisyphus interests me. A face that toils so close to stones is already stone itself! I see that man going back down with a heavy yet measured step towards the torment of which he will never know the end. This is the truly tragic moment, when the hero becomes conscious of his wretched condition. He does not have hope, but there is no fate that cannot be surmounted by scorn. Acknowledging the truth will conquer it; Sisyphus, just like the absurd man, keeps pushing. When Sisyphus acknowledges the pointlessness of his task and the certainty of his fate, he is freed to realize the absurdity of his situation and to reach a state of contented acceptance.[27]

Camus concludes that "all is well" and that "one must imagine Sisyphus happy."[28] Ferneyhough also ends his performance notes with that

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[26] Albert Camus, *The myth of Sisyphus* (1942), chapter 2 *The Absurd Man*
[27] Albert Camus, *The myth of Sisyphus* (1942), chapter 4 *The Myth of Sisyphus*
[28] Idem

exact same statement ("The struggle itself towards the heights is enough to fill a man's heart"), indicating that the journey on itself is the goal and not the fruitless quest of searching for meaning and a general thread.[29]

2.2.1 Camus in the score

Every line is a micro piece on itself. Each phrase has its own musical development, without necessarily relying on the previous phrase. Once the line is finished, the performer should think over his or her interpretation and execution of the previous phrase and *must imagine Sisyphus happy*.

Camus' essay on Sisyphus can be of great inspiration for this piece. Camus writes that Sisyphus is not miserable once he realized that he has to fulfill a pointless and on-going task until the end of times. Therefore, this 'hero of the absurd man' will not think about suicide, since he finds beauty every time he wanders down the hill to start pushing that boulder again. When Sisyphus walks down the hill, he is not only satisfied by his own accomplishments, he also has the time to enjoy his surroundings at that moment: the view, the landscape, the power of nature. That on itself can establish a feeling of freedom within a person.

This is an analogy that works in daily life, but also in this piece. Acknowledging that our life is meaningless and absurd and that we

[29] Brian Ferneyhough, score of *Sisyphus Redux*, performance notes (2011), Edition Peters

cannot escape the certainty of death does not imply that we cannot enjoy the beauty that comes on our path between birth and death. Although our requirements may not lead to great things, we can still experience pride of self-accomplishments. The absurd reasoning should not lead to suicide; it can lead to happiness, satisfaction and freedom.

2.3 Score analysis

The most remarkable elements on the score are the tempo markings. At first sight they seem extremely precise (e.g. 39,4), with no room for interpretation ('freedom'). These markings are often starting and ending points: they indicate a certain affect. Not one line continues in the same tempo. Between several tempi, Ferneyhough draws arrows, indicating accelerandi and rallentandi. This is not to indicate a robotical increase or decrease of the tempo, but to indicate an emotional development.

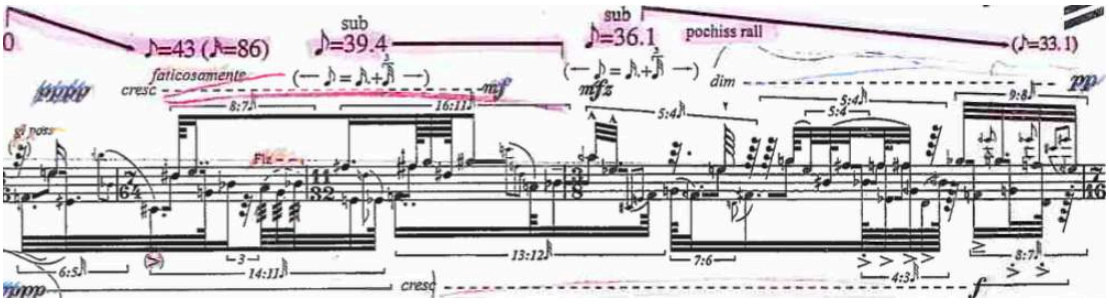

Figure 2.1: Page 1 Line 3, score *Sisyphus Redux* by B. Ferneyhough, 2011, Edition Peters

In the first line for example, the tempo starts at ♪ = 41. In the second bar, Ferneyhough uses an arrow that is pointing down (a rallentando). Naturally that means the performer concludes the phrase: playing softer and slower. However, his dynamic markings do not follow this logic. While the upper line is written with the logic diminuendo, the lower line marks a 'ff' note at the end of the phrase. This means that the performer still needs to find an urge in that retarding phrase.

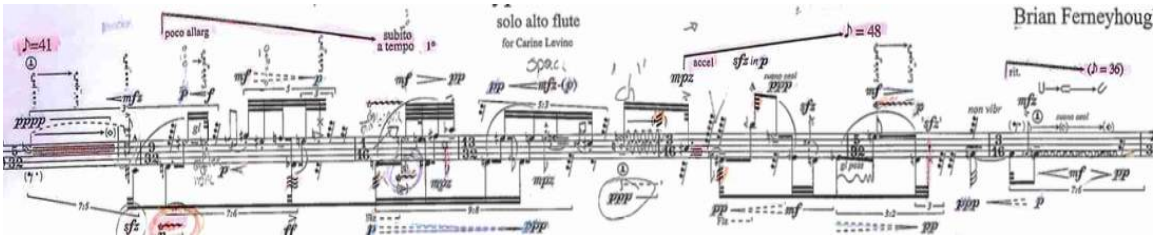

Figure 2.2: Page 1 Line 1, score *Sisyphus Redux* by B. Ferneyhough, 2011, Edition Peters

The piece is filled with these contradictions. Although most arrows are retarding arrows, Ferneyhough writes an accelerating arrow in bar 5 and 6, while his dynamics in both the upper and lower line decrease. This indicates a suffocated urgeness: interior excitement.

Besides the proportional tempo changes, he also writes sudden tempo changes. In the middle of the second line of the second page, he uses sudden tempo changes to emphasize the change of affect. This development is often increasing, in order to enlarge the tension and excitement. Another, similar, example is the second line of the third page.

Here the tension builds up until the second to last bar, where there is a sudden drop of energy and positivism.

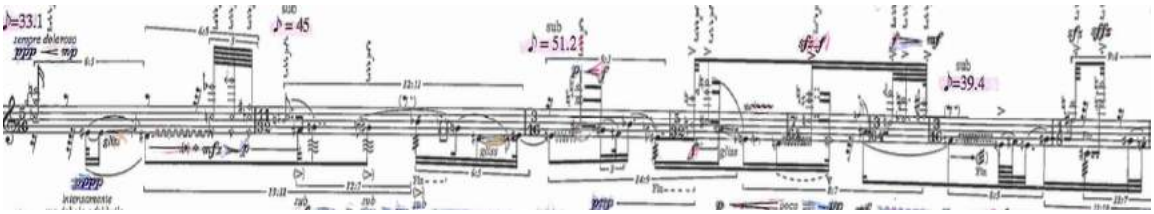

Figure 2.3: Page 3 Line 2, score *Sisyphus Redux* by B. Ferneyhough, 2011, Edition Peters

Ferneyhough uses a big range of dynamics in this piece, from 'ppppp' to 'ffff'. On an alto flute, especially the 'ffff' is relative, since the instrument's tube is too large to sound focused, and therefore projected and loud enough. The louder dynamics should be produced with a lot of effort and engagement, to create a sense of extreme (relative) loudness. The softer dynamics on the other hand can create moments of exceptional magic and fragility. Although the absolute difference between 'pppp' and 'ppppp' will be negligible, the performer can still embrace those moments by paying attention to the beauty and fragility that such dynamic markings indicate. It is also remarkable that his dynamic range in the softer dynamics is more elaborated than in the louder dynamics. Although this is according to the nature of the instrument, the performer should not neglect this indication: the piece may look overwhelming and aggressive, but there are several magical

moments in the piece that should not be taken for granted. It requires a lot of physical effort to produce these soft moments, especially while being in the flow of playing such complex music. But, in the spirit of Sisyphus, the performer should take some time to enjoy the true beauty of this piece.

The third line of the third page, as well as the last line of the forth page and the entire fifth page are written on two staffs. This is unusual for a flute piece. That second staff indicates an extra voice that interferes the major phrase. On the third page, Ferneyhough could have easily written the phrase on just one staff, but that would undermine his idea of dialogue. Both lines are clearly in a conversation with each other, and reading the two staffs separately helps to define both characters.

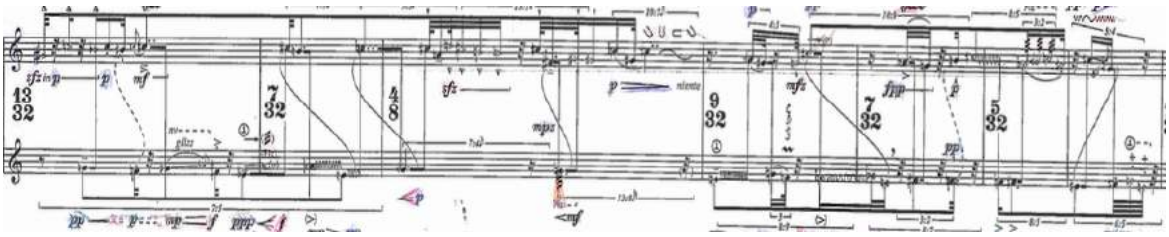

Figure 2.4: Page 3 Line 3, score *Sisyphus Redux* by B. Ferneyhough, 2011, Edition Peters

The piece becomes very complex and dense towards the end, starting from the last line of page four. Here the dialogue makes place for interruption. The lower staff literally interrupts the flow of the upper staff. Visually however, it is difficult to play from both staffs. I recommend writing

the notes from the lower staff into the upper staff, at the exact place where they should interrupt the phrase and in a visible red color. The tempo and density of those two lines (the last line of page four and the first line of page five) impede the capacity to read two staffs at the same time. The two last lines of page five are a conclusion of the piece and are written less dense and complex. Here it is possible to switch between the two staffs again.

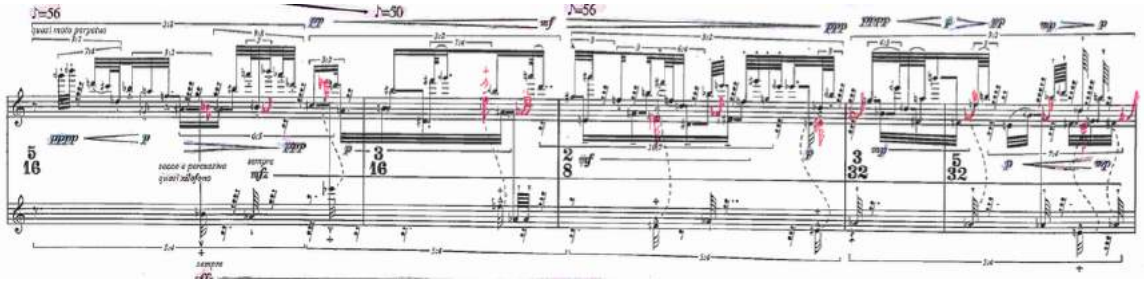

Figure 2.5: Page 4 Line 4, score *Sisyphus Redux* by B. Ferneyhough, 2011, Edition Peters

2.4 Conclusion

The actual material on the score is not the most difficult part of the piece. The execution of the intended affects behind the tempo changes, combined with unnatural dynamics, is a lot harder to control. Therefore I recommend marking all dynamics and tempi in color on the score. According to my own color system, I mark the dynamics in blue (soft) and red (loud) and the tempi in bright pink. This helps to understand the piece at first sight and it is a useful memory tool while performing the piece.

On YouTube, there is a recording of a master class with Ferneyhough on this piece, played by Matteo Cesari. Although I only use recordings to get a broader sense of the energy of a piece, I found this master class rather useful. Ferneyhough is not going into detail of a specific interpretation, but he gives a sense of what the general intentions and energy should be. Therefore this master class is not only useful for the player at the moment, but for everyone who wants to form his or her own identity in this piece. I rarely agree with the interpretation and execution of Cesari in Ferneyhough, but hearing him play and hearing Ferneyhough's interferences helped me to create my own interpretation.

I immediately missed fragility in the piece. For me, *Sisyphus Redux* explores the internal interpretation rather than an external demonstration. The happiness of Sisyphus - the happiness of people - can be found in deep personal and internal feelings. Feelings that not need to be exposed to be heard. The philosophical truth of Camus' 'happy man' made me explore my own personal and inner happiness while performing. The reason why I love this piece so much is because of Ferneyhough's use of soft dynamics. Performing on the edge of an audible level gives me pure joy and happiness. For me, those are moments of true honesty on stage. While concluding a phrase and before beginning the next one, I can

reflect on the strength and power of silence before I will, happily, start over at the bottom of the hill again.

Chapter 3: Superscriptio (1981)

Superscriptio, Ferneyhough's piece for piccolo solo, is a five minute long challenge for both the performer and the audience. The difficulty in this piece does not lie in the superposition of extended techniques or in mythological research, but in the extremity of dynamics and registers and in the advanced temporal feeling. *Superscriptio* has a single tempo for the entire piece (♪=56), but it is full of bar changes and irregular bars, like 1/10, 3/20, 2/12 or 1/48 bars. Unlike the composer himself, most people don't have that highly developed temporal sensibility. For Ferneyhough, the entire piece has to be played in one continuous tempo, including the irregular bars. As a performer there is another solution to understand the temporal change in each bar.

3.1 Mathematical analysis

A simple mathematical calculation can determine the speed of each bar separately. By dividing the tempo of the eighth note (♪ = 56 or 8 = 56) by eight, the result is the tempo for a whole note (𝅝 = 7 or 1=7). This is the starting point to calculate the speed of every bar, both regular and irregular. For example, to calculate the speed of the third bar, the 3/32 bar: 7 (speed of a whole note) multiplied by 32 (speed of one thirty-second note) divided by three (the speed of three thirty-second notes, or

the whole bar) equals 74,66. This is the tempo for that specific bar. This process needs to be repeated for every bar in the piece.

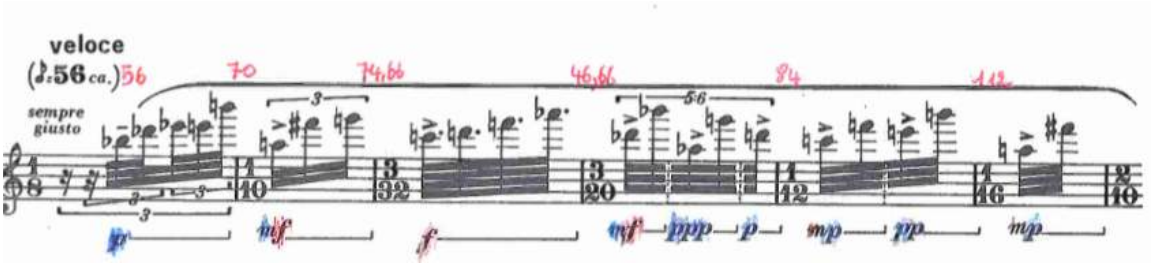

Figure 3.1: Page 1 Line 1, score *Superscriptio* by B. Ferneyhough, 1981, Edition Peters

Once these calculations are done, the performer has to practice each bar separately with a metronome. The polyrhythms in each bar have to be calculated and played in relation to the speed of that particular bar.

Once every bar is practiced with a metronome, the performer needs to memorize the exact speed of each bar. The most efficient way is by practicing and memorizing bar per bar, so that the performer can rely on his or her muscle memory. Once the performer practiced a small amount of bars, it is advisable to repeat that section without metronome and then check it with the metronome again, so that the exact tempi of each bar are imprinted in the muscle memory of the performer. This process needs to be repeated throughout the whole piece, so that the score merely becomes a guideline. The essence of the piece - the

whimsical tempo changes - becomes incorporated in the brain and muscles and will be part of the performer's memory.

A lot of the metronome numbers are decimals. There are digital metronomes that are able to change numbers per unit (like the Boss DB-30 Dr. Beat), but they cannot display decimals. Computer programs, like LogicPro, are able to produce decimal metronome numbers. The difference however is very small. In slow bars, e.g. bar 20 (5/16 bar = 22,4) the decimal number adds more significant time to the bar than in very fast bars, e.g. bar 57 (3/64=149,33). I find the computer program useful in slow, decimal bars or in bars with extremely slow or extremely fast metronome markings, which are not displayed on a regular metronome (The Boss DB-30 Dr. Beat goes from 30 BPM up to 240 BPM). Other than that, a regular metronome will do just fine.

Another problem in this piece are the extremely slow bars. In order to play those bars accurately, the bar needs to be divided in equal sections. In bar 16 for example (2/10 = 35), ten notes need to be played equally (10:8 tuplet). Playing ten notes equally in a tempo of 35 is a lot harder than playing five notes equally in a tempo of 70. Many of the extreme slow bars can be divided the same way, so that the interrelation between the notes can be as exact as possible.

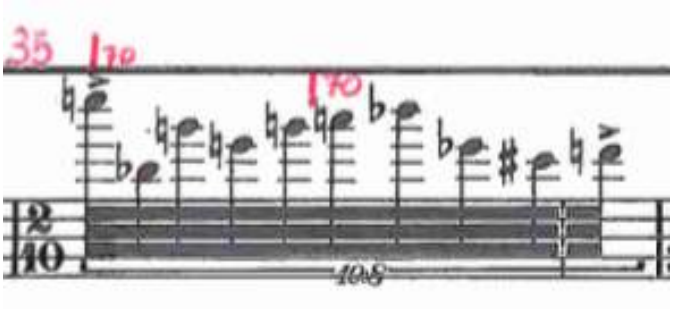

Figure 3.2: Page 1 Line 3, bar 16, score *Superscriptio* by B. Ferneyhough, 1981, Edition Peters

Since the score is especially a visual instruction tool, it helps to write down the metronome numbers in a notable color above each bar. This is an extra mnemonic while performing the whole piece. Since the lightening situation is different every time, I recommend writing them down with a red ballpoint. This remains visible under almost every lightening circumstance.

3.2 Dynamic analysis

Probably the most difficult part of the piece is the relationship between the dynamics and the corresponding registers on the piccolo. Especially the first phrase is extremely unnatural. The dynamics change abruptly a few times per bar, with the softest dynamics dedicated to the highest notes.

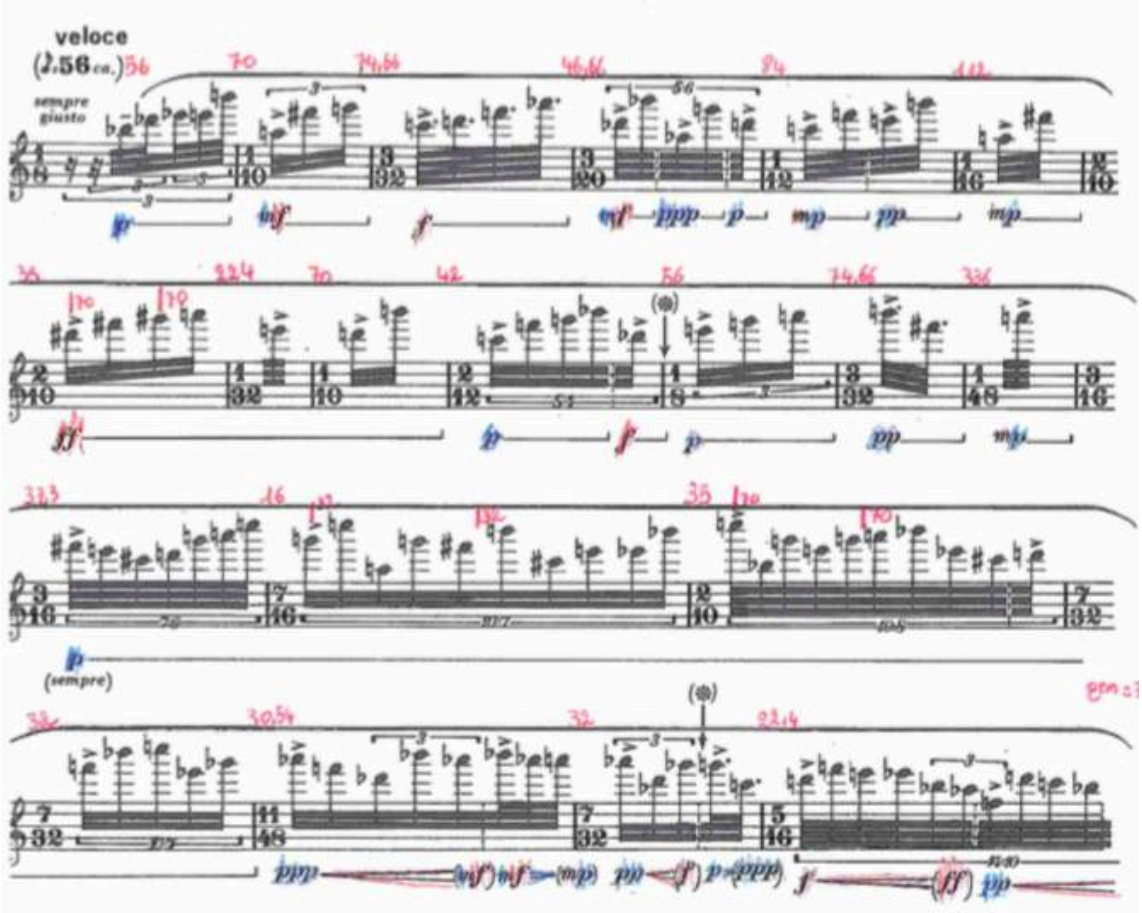

Figure 3.3: Page 1, score *Superscriptio* by B. Ferneyhough, 1981, Edition Peters

Especially a 'B6' is difficult to produce in 'pp' on a piccolo, because of the unnatural fingering ('forked' fingering or cross-fingering, a derivative from traverso fingerings). This note in particular requires a lot of sustain and resistance on a wooden piccolo. Producing this note in pianissimo and even softer dynamics increases the problem. A piccolo sounds very high (one octave higher than the concert flute) and quite loud when it is played in a natural and effortless way. The higher the note, the more resistance, air and space are needed. By reducing the required

dynamic level to a minimum, a new approach towards technically playing the piccolo is necessary.

The standard way of playing pianissimo on a piccolo (on every flute in general) is by lifting the diaphragm, pushing the chin forward, aiming for a higher air stream and reducing the space between the lips (the embouchure). Doing this movement over and over again on a piccolo, while searching for an extremely quite dynamic, can harm the embouchure. Muscles need to be gently prepared for such an extreme load. If not, the muscles overdo themselves and they lose tension. Without tension in the lips, it is impossible to keep a steady embouchure. Mostly, the muscles recover within the time course of a few minutes, but that is not productive in the practice process. To lower the pressure on the lips while practicing, it helps to turn out the piccolo and to point the head upwards. This is to increase the space between the embouchure and the mouth hole, so that the note needs less effort to sound. With this position it is possible to search for a soft(er) dynamic, without excessively fatiguing the lips.

It is extremely fatiguing to keep such a level of resistance and sustain throughout the first pages of the piece, although it is a relatively short passage. The best way to practice this sustained position is by playing that first page over and over again, until the muscles are tired.

After a while, it will be possible to repeat it more and to keep that focus for a longer period of time. Looking for specific exercises or focusing on high pianissimo notes during the daily warm-up does not help. It is the combination of the dynamic jumps and the specific dynamic extremities that is so difficult. Practicing sustained pianissimo notes does not help for this piece. The lip muscles need the same amount of time to develop a muscle memory, as the fingers need time for the tempi and the notes.

On the other hand, in the middle of the piece, Ferneyhough writes a very active and aggressive part in the lower register. This register, that sounds airy and soft on a piccolo, needs to be played 'ffff', sometimes combined with key clicks. Both actions are unnatural according to the way the instrument works. The small, wooden tube makes it difficult for the low notes to sound forte; the small plain keys on a wooden tube make it difficult to make noise with keys. The performer can exaggerate the color of the low register to create an *impression* of a louder dynamic. Playing very nasal, with a lot of focus on the nose, will make the sound color very dark. Because of the purity of the sound, the low register seems to be louder than it actually is. This is because the color is leveled in relation to the color of the high register. The middle and the high registers sound very pure on a piccolo, while the low register is more veiled and airy. By exaggerating these sound qualities in a louder dynamic, the register will

sound very weak compared to the other registers. By leveling the dark and pure color in the low register, it will automatically sound louder, especially in relation to the other registers.

By visually exaggerating the movement of the key clicks, the audience will receive the action better and therefore hear the key clicks louder than they actually are. This level of engagement and effort is necessary for the audience to perceive the feeble key clicks. Another trick is by waiting a micro moment before clicking the key. The sound of the preceding note will fade away, so there is more room for the key click to sound.

'Practicing *Superscriptio*' and 'performing *Superscriptio*' are two completely different perceptions. While practicing *Superscriptio*, the performer is trying to enlarge the natural boundaries of the instrument: dynamics, speed, register jumps and key clicks. While performing *Superscriptio*, other difficulties arise: fluency, phrasing, control and endurance. Although it is a piece of only five minutes long, it is very difficult to maintain a constant focus and sustain. Focusing on playing pianissimo can undermine the overall continuity and fluency of the piece. Therefore I recommend finding a more comfortable dynamic range while performing, instead of aiming for a personal record. It also helps to focus on the louder dynamics. Playing pianissimo is like balancing on a fine line

between *developing* muscles and *forcing* the muscles of the lips. Once those muscles are overworked, they become uncontrollable. Instead of lowering the dynamics, the performer can also increase the louder dynamics in order to make bigger dynamic differences.

Ferneyhough describes *Superscriptio* as a bouncy little piece.[30] For the performer, it is everything but that. Nevertheless, this intention should still be noticeable in the performance. The piece consists of four parts. The first part (page 1 and 2) is a dynamic challenge: lots of register jumps, dynamic changes and register extremities. The second part (page 3 and 4) is an expressive and aggressive part in the lower register, combined with unsuccessful key clicks. The third part (page 5,6 and 7) is whimsical and fragmented. This is the part where it is possible to show that cuteness and bounciness Ferneyhough desires. The fourth part (page 8) is a very virtuous and reckless coda: this part has to be played with a lot of risks and energy.

3.3 Conclusion

In this piece, direct visibility is important. Although the performer needs to practice this piece meticulously and bar per bar and the overall parameters of the piece (tempo and dynamics) become part of the

[30] Brian Ferneyhough, personal comment during a masterclass at UCSD on March 4th, 2015

performer's muscle memory, it is still very useful and advisable to mark those important parameters on the score to avoid doubt and memory failure. I can recommend writing down the bar tempi in a visible (red) ballpoint and coloring the dynamic markings (blue for soft dynamics, red for loud dynamics). This is efficient, not only during performances, but also while practicing the piece. While concentrating on the notes, the dynamic markings are immediately visible because of the color differences. Whenever in doubt about the tempo of a specific bar, the tempo markings can give a quick indication of the requested speed.

Chapter 4: Mnemosyne (1986)

Mnemosyne is another of Ferneyhough's pieces for flute solo where he uses a title directly derived from the ancient Greek mythology. Mnemosyne was a Titan and the personification of memory. According to the ancient Greeks, she invented language and words. This piece is the seventh and final stage in Ferneyhough's *Carceri d'invenzione* cycle and, together with the *Intermedio alla ciaccona* for violin solo, was completed almost at the last moment.[31]

What Mnemosyne remembers in this piece is the underlying substance of a previous hour and a quarter of music, constituted by the other parts of the Carceri sequence.

> The chordal patterns, that varied in the preceding six pieces, are again spread out here... as an omnipresent background which serves to bring into play or extend earlier 'harmonic spaces', and also to make available a discreet but constantly present series of focal notes around which the soloist weaves a limited number of intervallic chains, themselves derived from the eight initial chords and having strong internal relationships. The richer the sonority of this background - it increases from four to eight parts - the greater the scope for flexibility in the melodic variations. However, since in the final section of the composition the number of derived intervals is greatly reduced, the sonic gestures of the bass flute are increasingly 'hemmed in', 'imprisoned', until finally the process inevitably leads to a fade-out.[32]

[31] Alastair Williams, *Music in Germany since 1968* (2013), Cambridge University Press
[32] Brian Ferneyhough, program notes Mnemosyne (1986), by Paul Griffiths, Edition Peters

Ferneyhough first composed the long chords in the tape, before focusing on the solo part.[33] The choice for bass flute is not surprising. The cycle starts with a solo piece for piccolo, then the concert flute and the alto flute are used during the rest of the cycle. Since the tape consists of six bass flutes and because the tape starts after an introduction of the solo instrument (in the version outside of the cycle), it seems logical to choose the soft and woolly timbre of the bass flute for the solo part. Ferneyhough really focused on the flute during that part of his career. The fact that he takes the complete flute family into consideration during this whole cycle is a significant sign towards his love for the instrument. The conclusion with the bass flute creates a very desolate ending of a cycle that started with the sharpness and quirkiness of the piccolo.

But the choice of the bass flute also creates a sonorous problem: it constantly seems that the instrument is exploring its own limits and is fighting against its own limitations: "*It's a sort of cathedral-under-the-sea sound, rather like the Debussy prelude, in which everything is moving in slow motion, and it is reduced to a lower octave level, like a tape being played slowly*".[34]

Mnemosyne can also be played on itself (outside of the cycle), with the 'ad libitum' passage developing from absolute silence. During the

[33] Brian Ferneyhough, personal comment during a masterclass at UCSD on March 4th, 2015

[34] Brian Ferneyhough, program notes Mnemosyne (1986), by Paul Griffiths, Edition Peters

piece, the performer will be confronted with elements and techniques that are based on his other works for flute so far - *Four Miniatures for Flute and Piano* (1965), *Cassandra's Dream Song* (1970), *Unity Capsule* (1975–76) and *Superscriptio* (1981). The performer should try to embrace the limitations of the instrument in this sort of music in order to explore the time nuances and sound colors fully. *Mnemosyne* should not be a prison, but a precious marvel of previously explored material.

4.1 Metric analysis

Like in *Superscriptio*, Ferneyhough uses several unconventional metres (5/10, 7/12, etc). The same calculation as in *Superscriptio* applies here. It can be helpful to realize that all those irrational metres stand either in triplet or in quintuplet relation to the basic metre and are thus proportionately faster than those regular metres, e.g. 1/10 = 1/8 x 0,8.

The structure of *Mnemosyne* consists in general of the superposition and interference of patterns of two or three independent layers of material, whereby one layer frequently interferes with another. At a flute it is impossible to play several voices at the same time, but it *is* possible to cut into the notated duration of the activities on other staves. As a consequence, the durations are not always played in their full-notated value.

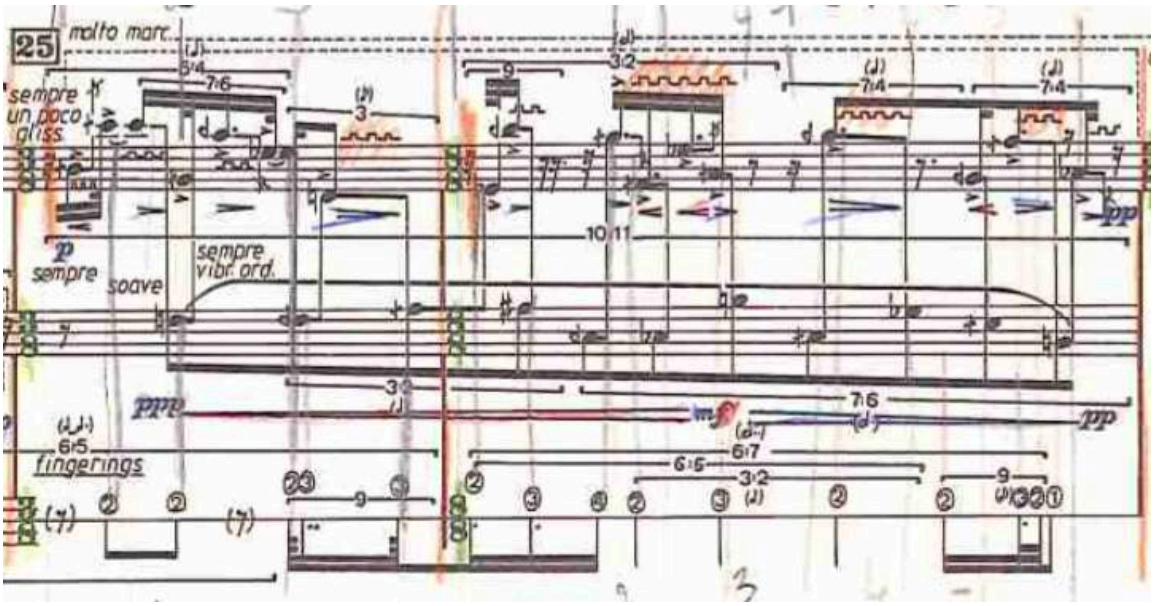

Figure 4.1: Page 3, Line 2, score *Mnemosyne* by B. Ferneyhough, 1986, Edition Peters

Ferneyhough notates some of those interruptions with vertical lines in the score, but I find it very helpful in certain extremely complex and dense passages to mark those interruptions more clearly, so that the sequence of the consecutive notes is distinct, without losing sight of the character of each independent line.

> Every effort should be made to impart the impression cutting from one such event to the next, regardless of discrepancies of register, amplitude or prevailing texture. It is important to preserve at all times a vivid sense of the independent character and mode of linear extension/variation of each component line, even though the energy set free by their continual interaction is at the forefront of the discourse.[35]

[35] Brian Ferneyhough, performance notes in score *Mnemosyne* (1986), Edition Peters

Mnemosyne is a piece for bass flute and prerecorded bass flutes. The exact length of the piece is thus predetermined, so that it is necessary for the (live)performer to play with a click track. The difficulty here is the superposition of the different staffs, all of them using nested tuplets. With a click track subdivided in separate beats, it is difficult and tricky to maintain a fluent inner feeling of the polyrhythms. I found myself struggling with the continuity of the piece while counting all the separate beats per bar in the click track. As a solution, I changed the click track by eliminating all the beats of the bar and only keeping a signal for the first beat of the bar. With this solution I found it easier to play the nested tuplets proportionally correct since I am no longer distracted by a noisy click track in my headphones. On the score however, I wrote down all the separate beats so that I have a visual marking point of all the beats.

To practice the piece, I kept the same strategy as in *Superscriptio*: practicing bar per bar with a metronome. I divided very slow bars into several parts to keep a sense of tempo while practicing.

The last page is a slow page with only very subtle tempo changes. For that page, I kept the subdivision of the click track to prevent myself from confusion in the similar tempi.

4.2 Instrumental analysis

The instrument - the bass flute - is a frustrating tool regarding Ferneyhough's music. The instrument is unwieldy and has a limited range of color and dynamics. Confronted with dense and complex music, written over several staffs, the bass flute doesn't serve as a helping friend. The bass flute's sound is thick and woolly with limited focus. Playing softly or playing techniques without pitch (e.g. beat boxing and pronouncing consonants in the flute) serves the bass flute well. Playing with loud dynamics, several register jumps, dexterous superpositions and articulated passages on the other hand are rather difficult to execute. Because of the magnitude of the tube and the mouth hole, these latter examples are almost impossible to play accurately.

The nature of the instrument leads to a static and calm atmosphere. The piece starts very softly, but very dense. Even if the performer executes every detail meticulously, the effect is mostly lost because of the woolliness and the slow projection of the sound. As a performer, I find it frustrating that the enormous amount of effort is not translated into actual sound. Combined with the wall of sound in the tape, I feel lost every time I perform this piece on stage.

However, this is not the feeling the audience has while listening to *Mnemosyne*. Therefore it is important to find a good balance between

the tape and the instrument. The instrument projects its sound forwards, so the audience receives more details than the performer. During the first performances I made the mistake to level my live sound to the level of the tape in the hall. Most of the times, the tape swallowed my live sound and much of the details were lost. Although it is more pleasant to listen acoustically to the tape, it can help to define the live sound if the tape is also played back in the headphones, combined with the click track. The sound engineer in the hall will take care of a correct mix, but it is important that the solo bass flute doesn't disappear in the woolly sound wall and can keep its own freshness - something that is very much needed for the continuity of the piece.

4.3 Conclusion

Besides my general approach of coloring the dynamics and marking the different tempi, I also use a more elaborated coloring system in this piece. Since the piece is so densely written, I find it difficult to notice the separate bars. The metre changes almost every bar and it is important to match the audible cues (first beats of the click track) with the visual cues. Therefore I separate every bar with a thick orange line, so that each bar stands out on its own. Hereby combined, I color every musical element that coincides with the first beat in orange. This is because the

piece is written on three different staffs and it takes too much time to observe every staff to find the first beat. This color mark is an important visual appliance.

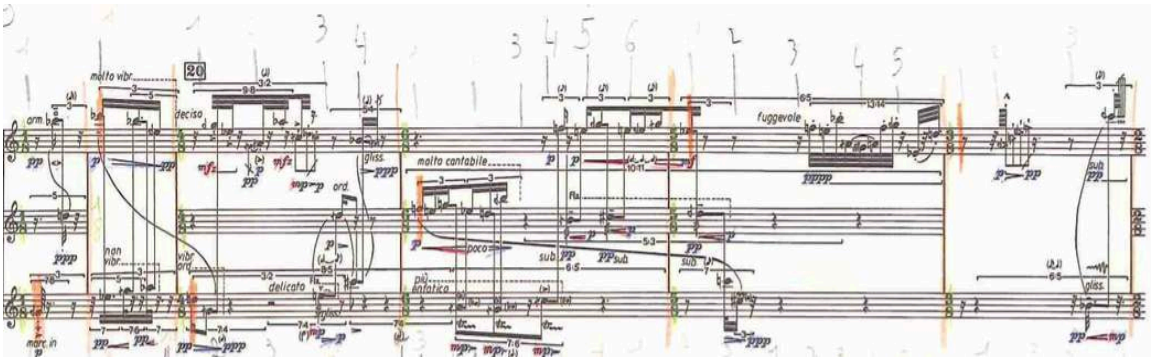

Figure 4.2: Page 3, Line 1, score *Mnemosyne* by B. Ferneyhough, 1986, Edition Peters

I also use a different color per metre - e.g. yellow for the 10th bars, green for the 8th bars or brown for the 12th bars - to increase the visual clarity in the piece.

Since I changed the click track, I find it easier to pay accurate attention to the proportional relationship between the different nested tuplets on the different staffs. However, it is important to practice each bar with a metronome and with attention to the placing of the subdivided beats. I recommend writing down the elapsed time at the top of each page, so it is easier to practice a separate page with the click track. Making a practice click track (per page or even per line) is also recommended.

A very important tip, that can save a lot of frustration, is to embrace the limits and imperfections of the bass flute. It is tempting to exaggerate the articulation and dynamics in the louder passages, to compensate the woolliness of the sound, but it only creates the opposite effect. The bass flute works best when its strong characteristics are highlighted: soft dynamics, sharp attacks and variation in different vibrato types. Whenever a loud, aggressive or saturated passage appears, it needs the space to sound. Therefore I would focus on the softness and precision during the entire piece and embrace those louder moments whenever they appear. The piece has a high risk of getting saturated after one page already when it is constantly played with force, while there is so much more to unravel in this magical piece.

Chapter 5: Carceri d'Invenzione IIb (1985-1986)

Carceri d'Invenzione IIb is a literal transcription of the solo flute part of *Carceri d'Invenzione II* for solo flute and chamber orchestra (2 ob, 2 cl, bsn, 2 hn, 8 vln, 2 vla, 2 vc, 1 db). This is the fourth piece of Ferneyhough's *Carceri d'Invenzione* cycle. Although the flute solo version does not officially makes part of the cycle, it is of course related to it. The cycle is based on the *Carceri d'Invenzione* drawings by the 18th century Italian artist Piranesi, famous for his etchings of Rome and his fictitious and impressive carceri (prisons). His series of etchings consists of sixteen numbered drawings: fourteen from the original series; the numbers II and V were added to the original series in 1761 for the second publishing. They are all 16" x 21" tall and are in portrait format (etchings I through IX) or landscape format (etchings X through XVI).

Figure 5.1: *Carceri d'Invenzione tab. XIV* (1749-1761) by G.B. Piranesi. Copyright has been obtained. www.italianways.com

The musical cycle as a whole lasts for almost one hour and a half and was premiered in Donaueschingen in 1986. The cycle consists of seven works, whereby two of them are original solo pieces for flute: *Superscriptio* for piccolo solo (1981), *Carceri d'Invenzione 1* for chamber orchestra (1982), *Intermedio alla ciaccona* for violin solo (1986), *Carceri d'Invenzione II* for solo flute and chamber orchestra (1985), *Etudes Transcendantales/Intermedio II* for flute, oboe, soprano, harpsichord and violoncello (1982-1985), *Carceri d'Invenzione III* for fifteen wind instruments and percussion trio (1986) and *Mnemosyne* for bass flute and pre-recorded tape (1986).

The three large ensemble pieces, *Carceri I*, *II* and *III*, have a very complex polyphonic structure and serve the title - inventive dungeons - well. Piranesi's drawings are characterized by inventive and witty staircases, arches and walkways: it is this layering and depth to which Ferneyhough responded. Modern adaptations in the visual arts can be found in the paintings by M.C. Escher, the 20th century Dutch painter, who tricks his audience with the same false depth perceptions.

Reacting directly to the etchings of the dungeons, Ferneyhough writes: " *Since I hold that all invention comes from restriction, it seems particularly appropriate to imprison musical states, thus empowering them to express themselves by means of the implosive energies thereby*

released." Hereby he quotes the argument that Deleuze made about the paintings about Francis Bacon: that painting is not about reproducing or inventing forms but all about capturing forces. [36]

All the pieces of the cycle belong to the category 'capturing forces'. The large ensemble works even more, since they deal with extreme complex harmonic and metrical structures on a larger scale. Where *Superscriptio* or *Intermedio all ciaccona* are a tour de force for the soloist, the *Carceri* pieces demand a great willingness from the audience to bear through the complex structures of witty and deformed harmony. Nevertheless, it is the harmony and strange polyphony that defines the 'inventive dungeon'.

In the case of *Carceri d'Invenzione II*, the solo flute part benefits from the orchestral support. The lower passages sound so much darker with the low strings and low winds in support of the virtuous flute. The high squeaky passages have a purpose in the orchestral formation. Remarkably, the solo flute part was first composed in its entirety before determining the orchestral material.

After listening to the concerto version of the piece, I am disappointed that the solo flute part also exists as a solo piece on itself. Although the complex perspectives of the 'inventive dungeons' are only

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[36] Alastair Williams, *Music in Germany since 1968* (2013), Cambridge University Press

part of the cycle and this variation does not form part of it, I miss the orchestral colors and meaningful direction in the solo piece. Because of the richness of the harmonic colors of the chamber orchestra, the high squeaky sounds of the flute blend well with the low registers in the orchestral parts. Without that support, only the squeakiness remains.

The solo flute parts consist of rigorously pre-determined modular patterns, which are cyclically permutated. The music is characterized by an exposition of material in the extreme upper and lower registers which gradually gravitate towards a detailed elaboration around central 'A' and 'F#'. Towards the end of the piece, the density decreases leading towards a sort of a vanishing cadenza.

5.1 Mathematical analysis

Like in *Superscriptio* and *Mnemosyne*, also this piece is full of irregular metres, like 2/10, 6/12, 9/24, etc. They stand - also - in triplet or quintuplet relation to the conventional metres, meaning that they are proportionally faster than the basic metres (1/10 = 1/8 x 0.8). Like in the two other mentioned pieces, the same calculation applies for *Carceri d'Invenzione IIb*. The only difference is that both *Superscriptio* and *Mnemosyne* are composed in one basic tempo, while this piece has several different tempi across the piece (♪ = 80, ♪ = 62, ♪ = 70, ♪ = 48,

♪ = 60, ♪ = 54, ♪ = 60, ♪ = 48, ♪ = 90, ♪ = 96). The calculation - 80 (speed of eight note) divided by eight is 10 (speed of whole note) multiplied by the denominator of the bar (speed of one beat of that bar) divided by the numerator of the bar (speed of that whole bar) - applies to all the different tempi.

After the calculation of each bar, the performer needs to practice each bar separately with a metronome until the speed of each bar becomes part of the muscle memory, just like in *Superscriptio*.

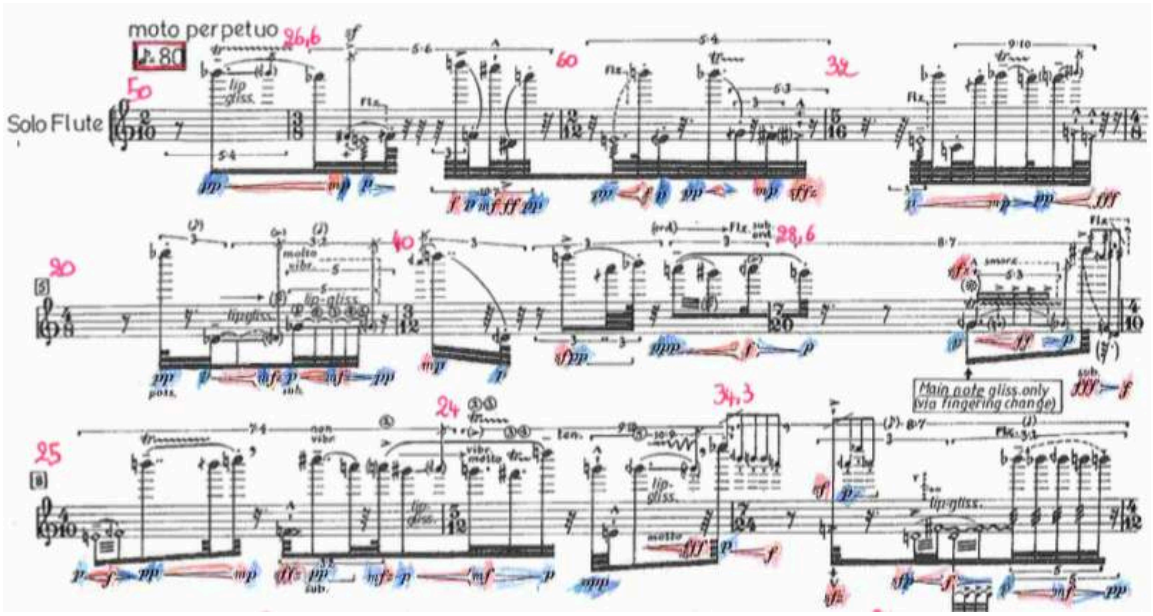

Figure 5.2: Page 1, score *Carceri d'Ivenzione IIb* by B. Ferneyhough, 1986, Edition Peters

5.2 Recording analysis

Listening to recordings can be helpful in the practice process of a piece. For Ferneyhough pieces I don't have the same viewpoint on

recordings as with other music. Normally I don't listen to recordings of the pieces I am playing until after my first performance. I want to create music, not duplicate music. Whenever I reach the stadium of complete conviction of my own viewpoint, I listen to recordings to strengthen my opinion: sometimes I get inspired; sometimes I completely disagree, what only confirms my viewpoint.

With Ferneyhough it is slightly different. During the practice process of a piece - which can last for several months - I often lose the sense of direction and energy. I get absorbed with details and whenever I want to 'perform' a certain part of the piece, I struggle through a sequence of details, without having a sense of continuity and general energy. Therefore I usually start by listening to several recording while following the score. Most recordings sound very impressive (like the music of Ferneyhough always does) and it is not always easy to follow the score during the first attempt. Nevertheless, those recordings may give a good vibe to start practicing the score in detail.

After a few weeks, I return to those same recordings and the score is suddenly much more transparent by that time. While following the score - or just listening to the recordings without the score, since the music will automatically be memorized after so much repetition - it becomes clear that those recordings often don't match all the details on the score at all

(dynamics, tempi, superposition of techniques). Besides a boost in self-esteem, listening to those recordings again can also give a power boost: I find new energy and engagement in the music and will focus more on continuity than on the details. Since I have a clear vision on Ferneyhough's music by now, I don't get influenced by someone else's interpretation anymore. I only get an energy boost by listening to the whole piece, instead of constantly (technically) focusing on a small part of the piece.

In this particular case, the ensemble recording gives an extra dimension to the interpretation of the solo piece. Since I am much more attracted to the chamber concerto, I often listen to recordings of that version, so that I can incorporate the orchestral parts into my own interpretation of the solo piece. Compared with recordings of the solo piece, the flute part in the original version has more depth and variety in sound, because it 'fits' into the other parts. That richness and depth is often lacking in recordings of the solo variation, what is unfortunate. Therefore I don't want to listen to the solo version too often since I want to get inspired by the orchestral energy.

5.3 Conclusion

The practice method of this piece is very similar to the one of *Superscriptio*. Also the physical effort needed from the performer is similar. Both pieces explore the limitations of the instrument and the performer. The beginning of this piece is extremely fatiguing to practice because of the high register. Ferneyhough often seeks notes from the fourth register, notes that require exponentially more effort that notes from other registers. Especially in the beginning of the practice process, I could only practice this piece in sequences of ten minutes because of the physical discomforts: nausea, dizziness and loss of energy. After a while, it is easier to maintain a tempered level of energy and to practice for longer periods of time.

Also like in *Superscriptio*, I needed to listen to recordings more often than with other Ferneyhough pieces. In both pieces, my focus was towards the combination of registers and dynamics, and I forgot about the overall flow. This makes practicing even more fatiguing. The mistake I made in *Superscriptio* (focusing on a specific passage for too long because of the physical difficulty) I avoided in this piece. It is important to play 'through' certain passages as soon as possible, to save energy and to establish a fluent continuity from the beginning to the end of the piece.

The chamber orchestra version is so rich and exciting, that I find it a pity to lose that intention in the solo piece. Rather than interpreting this piece as an independent solo work, I prefer to incorporate the original energy and intentions of the chamber orchestra piece.

Chapter 6: Unity Capsule (1975-1976)

Of Ferneyhough's several hyper virtuosic solo works written during the 1970s, *Unity Capsule* for flute solo (1975-76) may be the most extreme example, the 'opus magnum'. In several ways a continuation of the *Time and Motions Study* series, *Unity Capsule* examines as one of its main purposes the potential energy (musically and psychologically) of a soloist faced with a score that can't possibly be played by just one single performer.

The player must filter several layers of articulation, gestural types, and rhythmical patterns; he or she must attempt a musically viable reconciliation among straightforward "pitched" music, alternate sounds such as key clicks, breath sounds, vocalizations, multiphonics, or harmonics, each of which may be found under different basic tempi than that of another level. The resultant performer's anxiety, or adventurousness, becomes part of the expression of the piece.

If the details of *Unity Capsule* are likely to change from one performance to the next, Ferneyhough's highly integrated basic structure will nevertheless remain unchanged. As performers become more familiar with the piece, their changing aspirations for increasingly accurate performances become another facet of the performance. The expansion

of personal as well as instrumental limits was the main goal of Ferneyhough in this piece:

> The imprisonment of an instrument within the limits of the material assigned to it in a given composition and the restriction imposed upon the selection of material by the relatively arbitrary sound-producing qualities of the instrument in question form twin poles whose interaction via the meditational activity of the composer can, but seldom does, lead us to the true inner essence of musical characterization.
> All too often received conventions of instrumental treatment serve rather to conceal this intimate relationship between ordering mind and self-revealing pragmatic medium. Arbitrary scales of aesthetic value are continually being erected which, via well-meaning cosmetic treatment of a particular instrument, prevent that instrument expanding to its own natural boundaries: in particular this customary untruth leads to a division of available techniques into 'effective' and 'trivial' categories, the latter being dismissed as at best irrelevant, at worst an embarrassment to be eliminated at all costs from a 'work of art'.
> I believe, on the contrary, that the recognition and incorporation of such 'superfluous', alogical facets of an instrument's personality is a duty which brings with it three positive consequences. Firstly, the instrument as potential is released from the restrictions of instrument as mere tool. Secondly, the 'inner instrument' – the platonic ideal struggling to escape the bonds of material definition – is permitted to begin an expansion towards its own boundaries; boundaries beyond which, for that instrument, it is senseless to seek a 'beyond'. Thirdly, the composer can, by means of a suitably organized formal disposition of these newly-released heterogeneous elements, act as a doorway through which the amorphous, infinitely malleable material may flow reified and refreshed back into the positive perceptual world.
> *Unity Capsule* is a work, which encounters its own reality on the boundary between worlds. As in *Cassandra's Dream Song* (1970) the role of the performer is to redraw each boundary anew in terms of his own boundaries. Theodor Adorno (in a different context) once formulated the concept of 'musical prose'. In applying the term in a new definition to the

> significance of this particular piece I would like to direct the attention of the listener to the projection of a very specific processual methodology onto the 'inside' of the instrument/performer relationship in and through which the flute is made to 'speak' and, in speaking, to mediate between worlds in the creation of an auto-mythology.[37]

More than with his other pieces, Ferneyhough underlines the inner relationship between the instrument and the performer, between the performer and the instrument. More than any other flute solo piece, *Unity Capsule* is a reflection of the performer: how the performer reacts towards the score, towards the limitations of the instrument, the brain and the body and towards the limitations of him or herself inside that music. Ferneyhough's words - 'creation of an auto-mythology' - are applicable in several ways during the practice process: filtration of the information that is personally important, finding a personal voice (literally and figuratively), incorporating the piece, despite personal limitations.

This piece is no personification of a mythological metaphor (like *Cassandra's Dream Song* and *Sisyphus Redux*), no strict mathematical calculation (like *Superscriptio* and *Carceri d'Invenzione IIb*) or no study of instrumental limitations (*Mnemosyne*). *Unity Capsule* is Ferneyhough's opus magnum for flute in every way: length, density, control, superposition,

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[37] Brian Ferneyhough, performance notes in score *Unity Capsule* (1976), Edition Peters

polyphony, etc. It is a massive, fifteen-minute long monolithic tube, smothered by the enormous amount of actions and affects.

6.1 Reduction analysis

The amount of information and details on the score of *Unity Capsule* can be overwhelming. Nevertheless there is no reason for panic. In 1975, when this piece was written, the technical demands for *Unity Capsule* were unseen. Ferneyhough reinvented the possibilities for the flute and many of his techniques were new or almost unexplored. Where *Cassandra's Dream Song* is still a 'literary' piece, *Unity Capsule* confronts the performer with his or her own boundaries.

His early pieces are written with too many details - not for performers of the seventies, but for performers of the 21st century. The extended techniques in *Unity Capsule* are very common now and are part of the substantial package of extended flute techniques. A single symbol per technique is sufficient for contemporary flutists of today. In the seventies, Ferneyhough took no risk and explained his techniques with multiple symbols and sometimes even with text fragments in the score. The score is thus very time appropriate - in his performance notes he even mentions that this piece can only be played on a flute with open holes and a B-

foot, the standard flute these days - but for the contemporary performer of today there is just too much information on the score.

An important preparation, besides the standard coloring of dynamics and tempo markings, is to reduce the amount of information on the score: to eliminate all double or triple information. In the fourth bar for example, Ferneyhough writes a downward glissando. Above the line, he also specifies the position of the embouchure towards the mouth hole. But in order to produce such glissando, there is only one possibility for the embouchure to behave. Since the glissando is combined with a tremelo, a glissando with sliding fingerings is impossible to execute. So, the information above the staff is unnecessary.

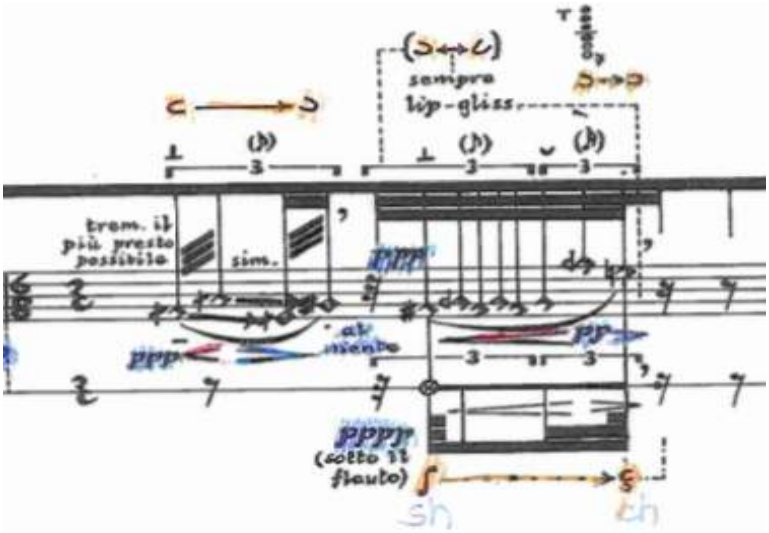


Figure 6.1: Page 1, bar 4 score *Unity Capsule* by B. Ferneyhough, 1986, Edition Peters

On the second page, Ferneyhough uses an asterisk next to a technique in the voice. That asterisk refers to a small box with text, where he explains how this technique should be executed. The symbol to describe the technique however is sufficient enough without the corresponding text.

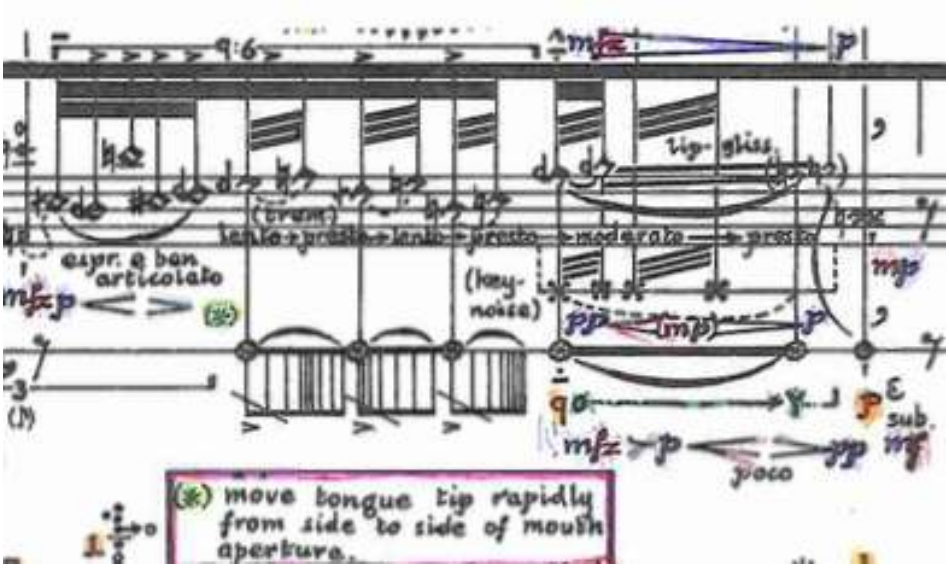


Figure 6.2: Page 2, Line 1 score *Unity Capsule* by B. Ferneyhough, 1986, Edition Peters

Another example of double information - something he writes quite often - is the transition of normal sound to air sound or vice versa. He both writes the common notation of a filled note head towards an empty note head as well as the filled, half filled or empty rectangles above the staff. Both symbols are correct and commonly used, but they both result in the same outcome.

It is important however to differentiate the 'double information' from the 'additional explanation'. At the top of the third page for example, there is a box with the text '*Gradual transition from legato to double-tongue staccato'*, underneath the correct notation of such action. This is double information. At the end of that same page, between brackets, the following text is written: '*one breath to end of phrase*'. This is not indicated otherwise, so this can be categorized as 'additional explanation'.

Another category of 'additional information' in this piece is the theatrical component. Ferneyhough gives instructions on where to freeze and where to move the flute away from and towards the lips. At the beginning of the piece and between movement two and three he also describes how long the performer should stand motionless and in playing position before continuing to the next part of the score. A last theatrical instruction, that also has a sonic consequence, is that the beginning of the piece should be played with the head-joint fully extended, until the moment where he writes '*return head-joint to normal playing position*'.

An extra component in this piece is - also a continuation of the *Time and Motion Study* series - the extensive use of the voice. The piece is written in double staffs, one for the flute actions and one for the voice actions (in movements one and three). Besides the extra amount of

information, the frequent usage of the phonetic alphabet is overwhelming.

Ferneyhough has the habit of writing down all the sequences of alternative fingerings in the score. Although the performance key also contains a microtonal fingering chart, he still writes series of alternative fingerings between the staffs in his score. Most of the time, his solutions are not practical to execute - they are not as idiomatic as his actual material on the scores. Therefore I always look for my own solutions, which are easier to execute in the given speed and context. I do a similar research for his suggestions for fingerings for multiphonics. Ninety-nine percent of the time I can come up with better and more practical solutions.

In *Unity Capsule*, Ferneyhough demands actions on three different layers: instrument, voice and body. An additional physical action is incorporated separately in the flute staff and in the voice line. Although the three layers are mostly executed together, Ferneyhough switches between the flute line and the voice line to write them down.

With all these different parameters on one score, it is important to get some clarity in the chaos. Therefore I indicate important parameters in different colors. The dynamics are traditionally in blue (soft) and red (loud) and the tempo indications are in bright pink. I don't highlight the different bars since there is no specific tempo written down in the score, only

tempo indications. Thereby the whole piece is composed in an eight metre, so the piece can be seen as one large bar of twenty pages. The fact that there is one large beam through the whole piece only emphasizes that feeling. It is important to create clarity: highlighting too much and too many unnecessary details would again complicate the score. I use an orange color for the useful and important symbols in the score, like flutter tongue, harmonics and accents. Extra information in the boxes I highlight in bright pink and the according asterisk symbols in bright green. They then really pop out on the score and it becomes easier to remember all the information.

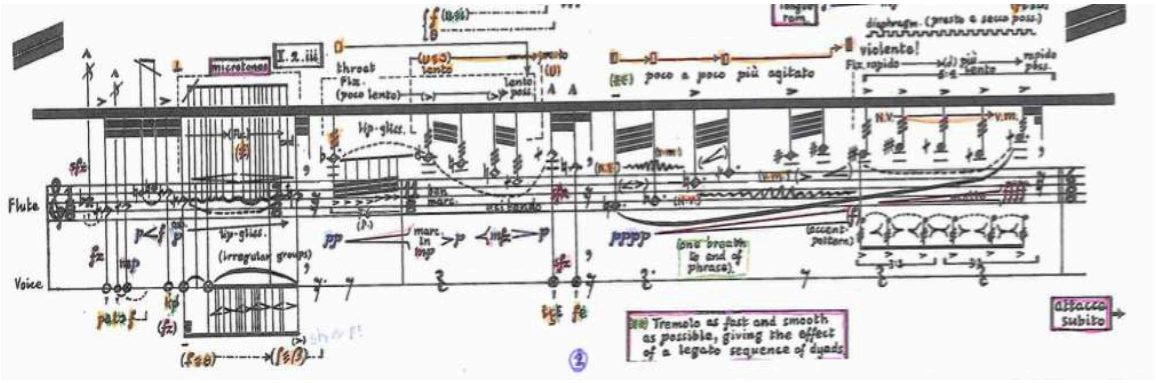


Figure 6.3: Page 2, Line 3 score *Unity Capsule* by B. Ferneyhough, 1986, Edition Peters

The extra layer of the phonetic alphabet needs some systematic clarification as well. Without any color markings on the score, it is easy to look past those symbols. Also the difference between consonants and vowels are not clear at first sight. Therefore I use different colors for the vowels (green) and the consonants (orange). Once it becomes clear

when he writes a vowel or a consonant, the exact letter is not so difficult anymore to remember. Without that color indication, it takes a lot more time to incorporate all the phonetic symbols. Symbols that he only uses once, or that I just have difficulties with memorizing, I rewrite with my own symbols in bright blue.

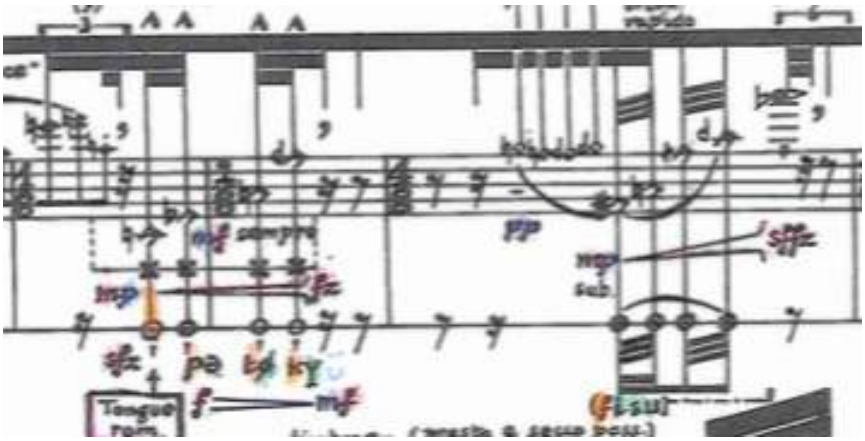


Figure 6.4: Page 2, Line 2 score *Unity Capsule* by B. Ferneyhough, 1986, Edition Peters

One section, page 9, is visually not clear for me. The whole page is a virtuosic game of three different embouchure tensions: air sound, half air-half sound and normal sound. The transitions between those three positions are marked with the corresponding rectangles above the staff. The distance between the - very fast - notes and the rectangles is too large to caption in one glance. Therefore I made a separate color code to facilitate the superposition of that section. I colored the whole page in

three different colors: pink (air sound), purple (half air-half sound) and green (normal sound).

6.2 Conclusion

The amount of information in *Unity Capsule* is comprehensive. Therefore it is important to structurally create some clarity in this massive score. Since I played all his other pieces for flute solo before practicing *Unity Capsule*, I was already very familiar with Ferneyhough's vocabulary. Because of the history I have with his pieces and since I played the more recent pieces of him before practicing this one, I could easily extract the redundant information on the score. The difficulty in this piece is not the specific content or the complex vocabulary, but the length of the piece and therefore the amount of information the performer has to process. To constrain the mental fatigue, I use a structural color code to visually help me through the amount of information. These colored accents are also necessary when reducing the score to an iPad format. The piece consists of twenty pages. I saw many performances already with almost the same amount of stands, but esthetically I don't agree with this setting. Since Ferneyhough is already so specific in his theatrical indications, I feel that any other scenic element will interfere with the structure of the piece. After all those months of practicing the score, most of the details will be

memorized by the time of the performance, but the visual component is a crucial auxiliary in performing this long piece on stage.

This is Ferneyhough's most elaborated piece for flute solo. Before dedicating time to this piece, I would recommend to get familiar with his vocabulary and style through some of his other pieces first. After practicing *Cassandra's Dream Song*, *Sisyphus Redux* and especially *Mnemosyne*, the actual content of the piece is not that difficult anymore. Even the different layers and staffs on the score are not insuperable anymore. What *is* difficult though is maintaining the focus and continuity throughout a twenty page long piece with information on three different levels and with the use of the instrument, the voice and the body.

Unity Capsule is a true challenge, on every possible level. Nevertheless, after an intensive research on his other pieces and with a clear and structural color code, even these *confined walls of unity* can be torn down.

Chapter 7: Conclusion

Practicing and performing the oeuvre of Brian Ferneyhough requires a different performance practice method than most (contemporary) pieces because of the complex density of the material on his scores. It is not music that becomes clear by just looking at the score. While researching his integral oeuvre for flute solo I developed a structural performance practice method. I use ten different pillars of practice auxiliary: sometimes only one is applicable, sometimes more pillars can be used for one piece. These tools are not obligatory to perform Ferneyhough, nor are they an exclusive solution. These tips are the result of my personal research in my own quest of performing Ferneyhough's oeuvre for flute solo.

A remark I hear regularly, concerning Ferneyhough's music, is that his detailed - almost maniacal - way of composing limits the freedom for the performer to create his or her own interpretation. After digging into his world of composing, notating and translating affects into music, I can only conclude that his detailed way of composing opens many doors to a personal, creative interpretation. By understanding his compositional parameters and vocabulary, the information on the score invites the performer to incorporate the music and express him or herself in the most personal way possible. Ferneyhough does not control the performer; he

invites the soloist to expand his of her own limits and to work around the limitations of the instrument.

Engagement is very important in his music. A lot of his extra-musical indications imply the use of physical energy, leading to an embodied performance. Throughout the years it seems that he becomes less detailed in his scores - the difference in indications on the scores of *Unity Capsule* (1975) and *Sisyphus Redux* (2011) is significant - but nothing is what it seems. The contemporary language for flute developed because of Ferneyhough's music and notation. Therefore he does not have the necessity anymore to explain every single technique in the piece. His notation and the kind of vocabulary he is using became the standard for contemporary flute techniques and don't require any more clarification.

Every piece functions like a microclimate: it is a world within a world, where it seems impossible to experience a personal freedom. But with the following performance practice methods, it may be easier to tear down those confined walls of unity.

7.1 Mythological analysis

Mythology is an important source of inspiration for Ferneyhough. Three of the six solo pieces for flute are directly derived from Greek mythological figures. *Cassandra's Dream Song*, a piece from 1970

already, is a literal translation of the life of Cassandra, one of the daughters of King Priam of Troy. The techniques and density of the material in this piece are not that difficult. But because of the open form, written on purpose by the composer, the performer should understand the mythological story of Cassandra in order to create a logical interpretation. Through the years there have been two very elaborated interpretations that are both logical in their own way. My personal interpretation is a conceptual and more up-to-date interpretation and serves the intentions of the composer well. This is the strength of that piece: decades after its premiere, the piece is still topical and still sounds very modern and contemporary. Some music of the seventies can sound dated by now, but Ferneyhough's music still invites performers to think about new interpretations, suitable to the newest generation.

In *Mnemosyne*, Ferneyhough does not adopt a literal translation of a Greek myth, but he refers in his title to the goddess of memory, to personify the concept of time, memory and melancholy. This last part of the cycle *Carceri d'Invenzione* serves as a conclusion of the previous hour and a quarter of music. The choice for the bass flute, as well in the tape as in the solo part, personifies the struggle of clearly trying to remember, but not succeeding. The bass flute does not speak well, and the given effort by the performer cannot be reproduced in sound. This veil of tristesse and

melancholy is a beautiful tribute to the goddess of memory and a humble realization of the human limitations.

Fifteen years later, in *Sisyphus Redux*, a philosophical conceptualization of the famous condemnation of Sisyphus forms the source of inspiration for Ferneyhough's latest flute solo piece. Here, the intention of the piece is a philosophical derivation of Camus' 'absurd reasoning'. Where I searched for a conceptual interpretation in *Cassandra's Dream Song*, *Sisyphus Redux* is already conceptually written. Nevertheless, a proper understanding of the mythological figure and furthermore of Camus' theory is necessary for the interpretation of this piece.

In all three cases, the knowledge of mythology creates freedom to interpret in a personal, but well-founded way.

7.2 Mathematical analysis

Many of Ferneyhough's pieces, as well solo as ensemble pieces, include irregular and unconventional metres, like e.g. 2/10, 9/24 or 5/12. For Ferneyhough himself there is no difference in tempo between a 'normal' metre and an irregular one. Those unconventional bars have a triplet or quintuplet relationship to normal bars and are thus proportionally faster than the latter (1/10 = 1/8 x 0,8). With this calculation, those irregular

bars are like a limp in the normal continuation of the tempo and the whole section or piece can be thought in the same tempo. I don't have that same temporal ability as Ferneyhough, so I need another calculation in order to determine the correct tempo.

The basic tempo in those three pieces is predetermined for an eight note. By dividing the tempo by eight, the result is the tempo for a whole note. That is the base tempo to determine the tempi of every single bar. To calculate the exact tempo of a certain metre, that base tempo needs to be multiplied by the denominator of the bar. This result is the tempo of one beat in that bar. By dividing that tempo by the numerator of the metre, the result is the tempo for that particular whole bar. Once this calculation is done for the whole piece (*Superscriptio*, *Carceri d'Invenzione IIb* and *Mnemosyne*), the performer should practice every bar separately with a metronome in order to incorporate the proper tempo.

7.3 Metric/proportional analysis

Even with the calculation above, the execution of polyrhythms and nested tuplets in irregular and regular metres stays a challenge. *Mnemosyne* requires a click track, since the piece is lined up with a pre-recorded tape. The original click track of the piece is one with every single

beat audible in the headphones. In complex music like this, it can be very confusing to continue counting every beat (sometimes there are even bars with 19 beats!). In bars with nested tuplets it gets even more complicated to retain a different pattern than the beat pattern. Therefore I eliminated every beat but the first one, so that I can execute the nested tuplets in proportion to the tempo. It is advisable to practice these tuplets with a metronome and to memorize the tempo of the polyrhythms and the nested tuplets.

7.4 Color code

My most important preparation - not only for Ferneyhough, but also for every other piece of (contemporary) music - is a structural color code. I use blue and red to indicate dynamic markings. Every soft dynamic is blue, e.g. 'p', 'pp', 'ppp' or 'pppp'; every loud dynamic is red, e.g. 'f', 'ff', 'fff' or 'ffff'. The middle dynamics, 'mp' and 'mf', are a combination of the two. The softer 'mp' is with the 'm' in red and the 'p' in blue; the slightly louder 'mf' is the reverse version, the 'm' in blue and the 'f' in red. Combinations of every dynamic with a 'sf' is done in the same way, e.g. 'sfmp', with the 'sf' and 'm' in red and the 'p' in blue.

All necessary technical information on the score, I mark in orange. This includes the symbols for extended techniques (like flutter tongue or

key clicks) and accents. Sometimes symbols are written in the staff, sometimes above the staff. When using the same color every time for that kind of information, it becomes clear at one glance when there are extended techniques of any kind written in the score.

All the tempo markings written above the staff I highlight in bright pink, like in *Sisyphus Redux*. When writing down the tempi for every single bar, a bright red ballpoint seems to be the safest choice in every (lighting) circumstance. The pink marker can fade away under certain light filters. So for *Superscriptio* and *Carceri d'Invenzione IIb* I used a red ballpoint to indicate the tempi. In *Sisyphus Redux* I used a pink marker to highlight all the arrows, indicating rallentandi and accelerandi.

Extra (relevant) information on the score, written in boxes, I also highlighted in bright pink. I only highlight the frame, so that I notice the box with information, but I do not need to read the exact words while performing. That should be memorized by then.

In *Unity Capsule*, Ferneyhough also adds a vocal component, using the phonetic alphabet. To facilitate the practice process, I color the vowels in green and the consonants in orange. In one glance it becomes clear if the written symbol is a vowel or a consonant. This is just a mere mnemonic since the actual content of the piece will be known before the first performance.

In pieces with different metres on top of complex and dense writing, like in *Mnemosyne*, I also use a fixed color per metre. Not only to visually separate all the bars, but also to have a fast recognition of the used metres. When this color code is still not sufficient to separate the different bars, I draw an orange line between every bar.

His scores become so much clearer and more vivid with some coloration. It clarifies the structure of the piece and separates the useful information from the useless information. Apart from that, colors stimulate the energy. If I have to practice a blank score for hours a day, my eyes get tired really fast and I lose my concentration. A colored score helps to keep the right focus and to fight the fatigue. All the information really pops out, so my practice time gets reduced because of the correct preparations.

7.5 Use of recordings

Listening to recordings can be very helpful, as long as they don't get in the way of a personal interpretation. Before I start a new Ferneyhough piece, I always listen to several recordings. Most of the time I feel intimidated and I fail in following every detail on the score. Whenever I start practicing, I usually don't listen to any recording anymore and I just learn to play the piece bar per bar. After a few weeks, I return to those

same recordings and the score suddenly becomes much more transparent by that time. While following the score, it becomes clear that also those recordings often don't match all the details on the score (dynamics, tempi, superposition of techniques). But those recordings give a real power boost: I find new energy and engagement in the music and will focus more on the continuity than on the details.

Although this applies to every piece, it is extra helpful in *Carceri d'Invenzione IIb*, since it is a variation of an ensemble piece. The recording of the ensemble piece brings a different level of energy to the solo part. That energy is necessary to bear through the practice process of such a physically demanding piece.

7.6 The art of reduction

The amount of information on Ferneyhough's score can be overwhelming. In his earlier pieces, the amount of indications on the score is remarkably more comprehensive than in his later work. Where he still needed to clarify most techniques in the seventies, his vocabulary and used extended techniques are much more common in the contemporary performance practice of today.

The double information on the score can cause distraction. Too much information is as confusing as too little information. Therefore it is

important to filter all the necessary symbols and instructions in the score before starting the practice procedure. A good preparation, with colors, tempo markings and metre indications will reduce and facilitate the necessary practice time.

In *Cassandra's Dream Song* and *Unity Capsule*, Ferneyhough still writes a lot of information between the staffs in the score. These are mostly theatrical or emotional indications. In his later pieces, he does not write that amount of indications anymore. Nevertheless, the intention of his pieces did not change. His early pieces are not more compulsory than his later pieces, only the perception on his vocabulary changed. Where his early pieces have a need for physical explanation, this music today is so well known to be physical music that requires a certain level of embodiment and engagement, that these physical indications become useless. By now, every performer knows his music demands a huge amount of physical effort and will automatically include that level of physicality in his or her performance.

7.7 Order of practice

Instinctively I chose a certain order to practice his oeuvre. *Unity Capsule* is his most dense and complex piece, so logically I didn't start researching his music with this piece. The easiest piece is *Cassandra's*

Dream Song. This piece is short (only two pages, in landscape) and is written on one single staff, mostly with only one voice on that staff. But it is a good anthology of his elaborated vocabulary and therefore the ideal starting point to get used to his way of composing.

The second piece I chose was *Sisyphus Redux*, because of the mythological connection (like in *Cassandra's Dream Song*) and because of the clarity of the score. This score is his neatest one: the font is clear and the temporal indications are simple enough to understand at first sight. *Cassandra's Dream Song* had an open form and no specific temporal indications. *Sisyphus Redux* has tempo markings and temporal indications, but still a regular metre. Therefore this piece is pleasant to practice and very instructive regarding extended techniques and their notation.

Superscriptio and *Carceri d'Invenzione IIb* both have irregular metres and are challenging regarding register, resistance, virtuosity and physical limits. *Superscriptio* is shorter (only five minutes long) and turned out to be the ideal preparation for the more elaborated *Carceri d'Invenzione IIb*. Although the technical demands on piccolo are extremely high and require several months of focus and dedication, the gained result in resistance, lip muscles and focus and register virtuosity, are beneficiary for practicing *Carceri d'Invenzione IIb*.

The complex density of *Mnemosyne* was an ideal preparation for *Unity Capsule*. The multi-layered staffs in *Mnemosyne* are very complex and difficult to process. It is also a long piece (ten pages of three-staff phrases) and demands a certain level of focus and concentration. The combination of three voices, complex and irregular metres and profound extended techniques was a turning point in my control of Ferneyhough's compositional material. I learned to multitask in *Mnemosyne*, the most important skill in order to perform *Unity Capsule*.

I would recommend to reach out to the less complex pieces first, before dedicating time and effort to his extremely dense and complicated pieces, like *Unity Capsule* and the very virtuous *Carceri d'Invenzione IIb*.

7.8 Notation is not limitation

One of the biggest misunderstandings of complex music is that the detailed and dense notation would be compulsory and would not leave any room for personal interpretation. The notation on itself is not limiting; an unfounded interpretation of the notation on the other hand can be limitative. The details on the score are indications for a rousing and embodied performance. 'Just' playing the techniques and notes does not make a piece. His music requires a lot of personal engagement.

Therefore, every performer sounds completely different in his music. Also every performance of just one performer can differ from time to time. For me, this vividness is the summum of freedom and creation: the material on the score (input) lasts forever, but the result (outcome) will develop daily.

7.9 Confined walls of unity

Approaching every Ferneyhough piece the same way would be a dishonor towards his oeuvre. Every piece functions like a microclimate: it is a world within a world, where it seems almost impossible to tear down the confined walls and experience a personal freedom. But as a dedicated performer of his music, I try to unravel this fine balance by very meticulously absorbing all the information on the score and to expand that information beyond my personal limits of that moment. Every piece has its own specific limitations and problems; every piece deserves a specific approach and attention.

Where *Cassandra's Dream Song* is a modern and complex transcription of an ancient myth, *Superscriptio* is a mathematical fight against the nature of the piccolo. In *Sisyphus Redux* there is the reality of experiencing Camus' *philosophy of the absurd*, while *Carceri d'Invenzione IIb* confronts both the performer and the audience with the limits of unbearably high and loud registers. *Unity Capsule* puts the

performer to proof because of the extreme length of a piece of this complex genre, while *Mnemosyne* transcends the limits of information in notated music.

The result is music that is constantly generating: music that tears down the confined walls of unity.

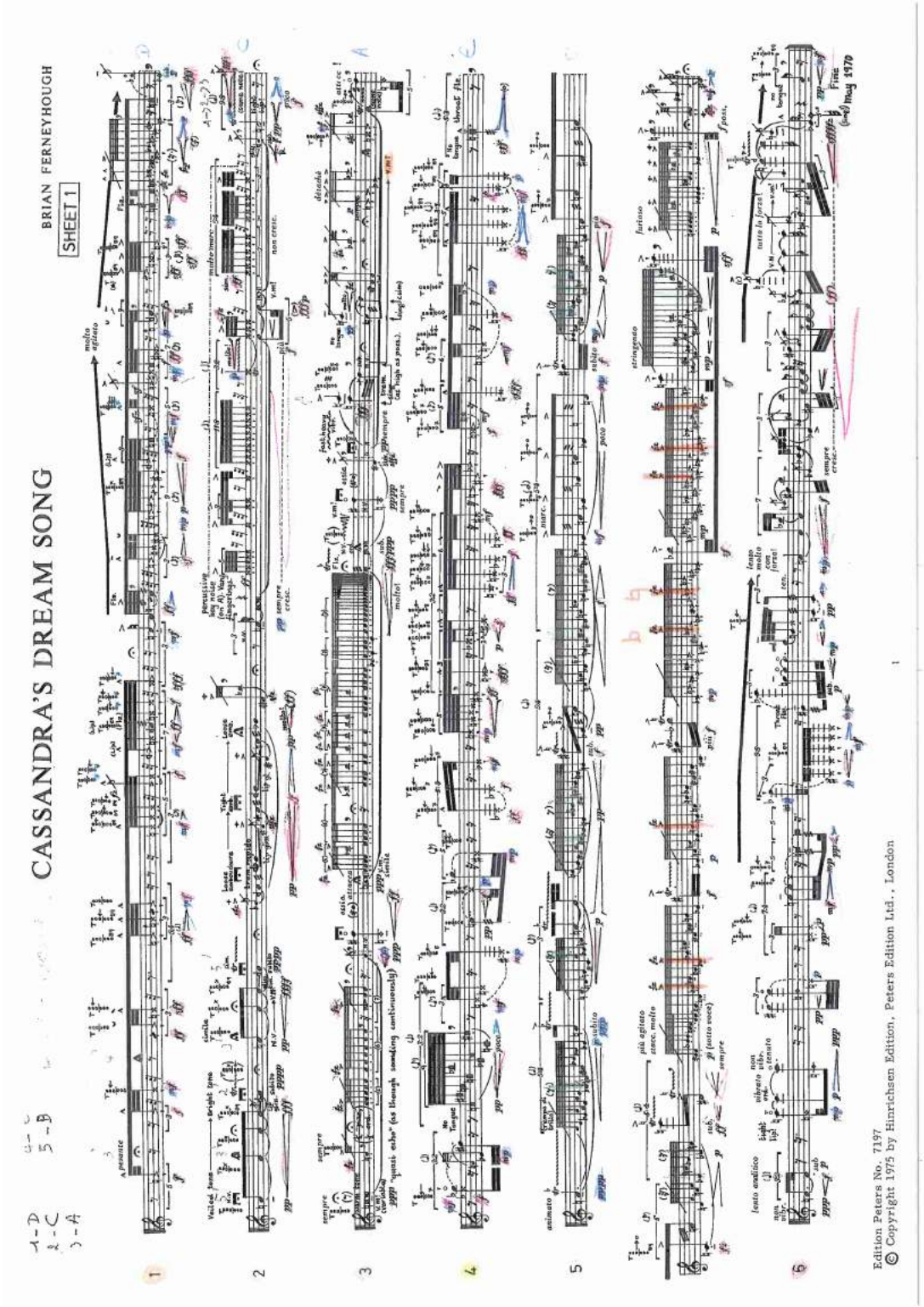
7.10 Knitters versus sculptors

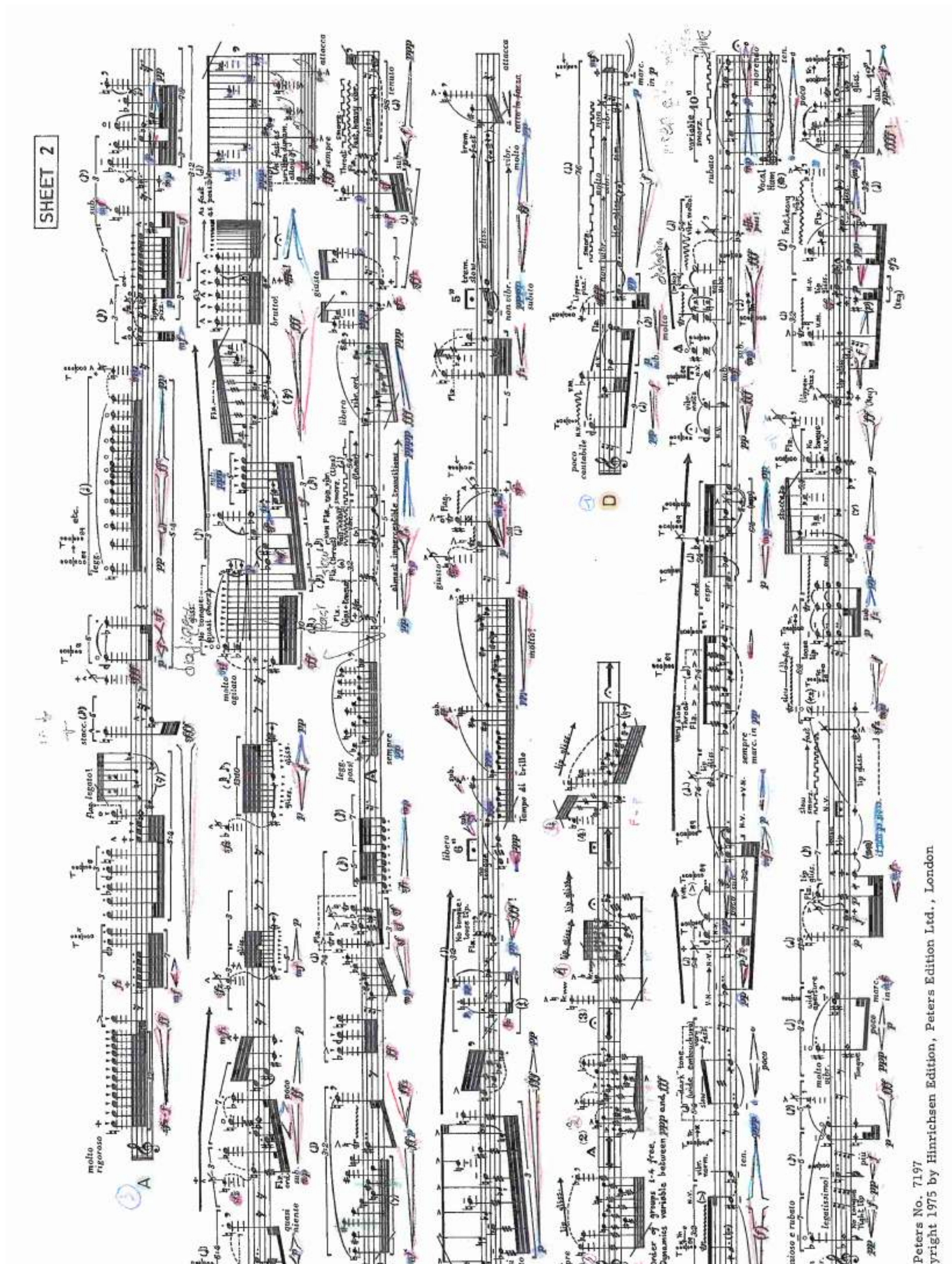
Performers usually have their own system for practicing music. Nevertheless, mostly that method will be a derivative of two standard practicing types: knitting and sculpting. Knitters work their way through the piece by practicing bar per bar very meticulously and precise. Once they practiced the whole piece, they can take a look at the whole structure, with all the necessary details already incorporated. Sculptors will first work their way through the whole piece and then return to the beginning to fine-tune the basic structure and reveal all the details.

In general I belong to the latter category, since I don't have enough patience to already focus on all the details from the beginning. For Ferneyhough's repertoire on the other hand, I belong to the first category, simply because the details make the structure. This means that the practice process takes a long time, what can be very frustrating. However, once the last bar is practiced, the piece already comes alive.

Although the first months can be demoralizing, the fun really starts once that double bar is reached. With the structure of the piece incorporated, it is very rewarding to fine-tune the piece even more and to discover all the details. And the good news is: once the piece becomes part of the muscle memory, it will never disappear again!

Score: Cassandra's Dream Song (1970)




SHEET 2
Edition Peters No. 7197
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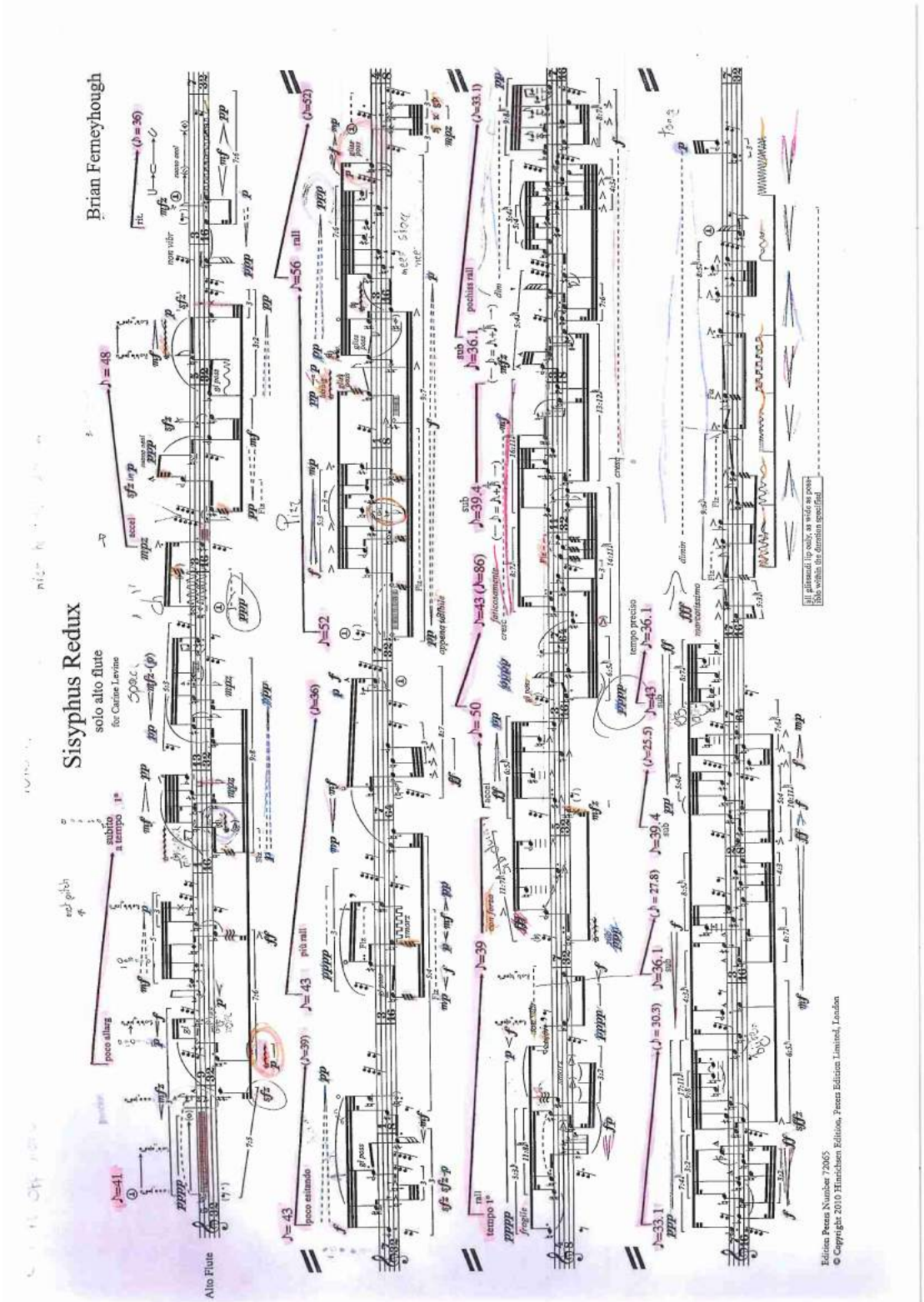
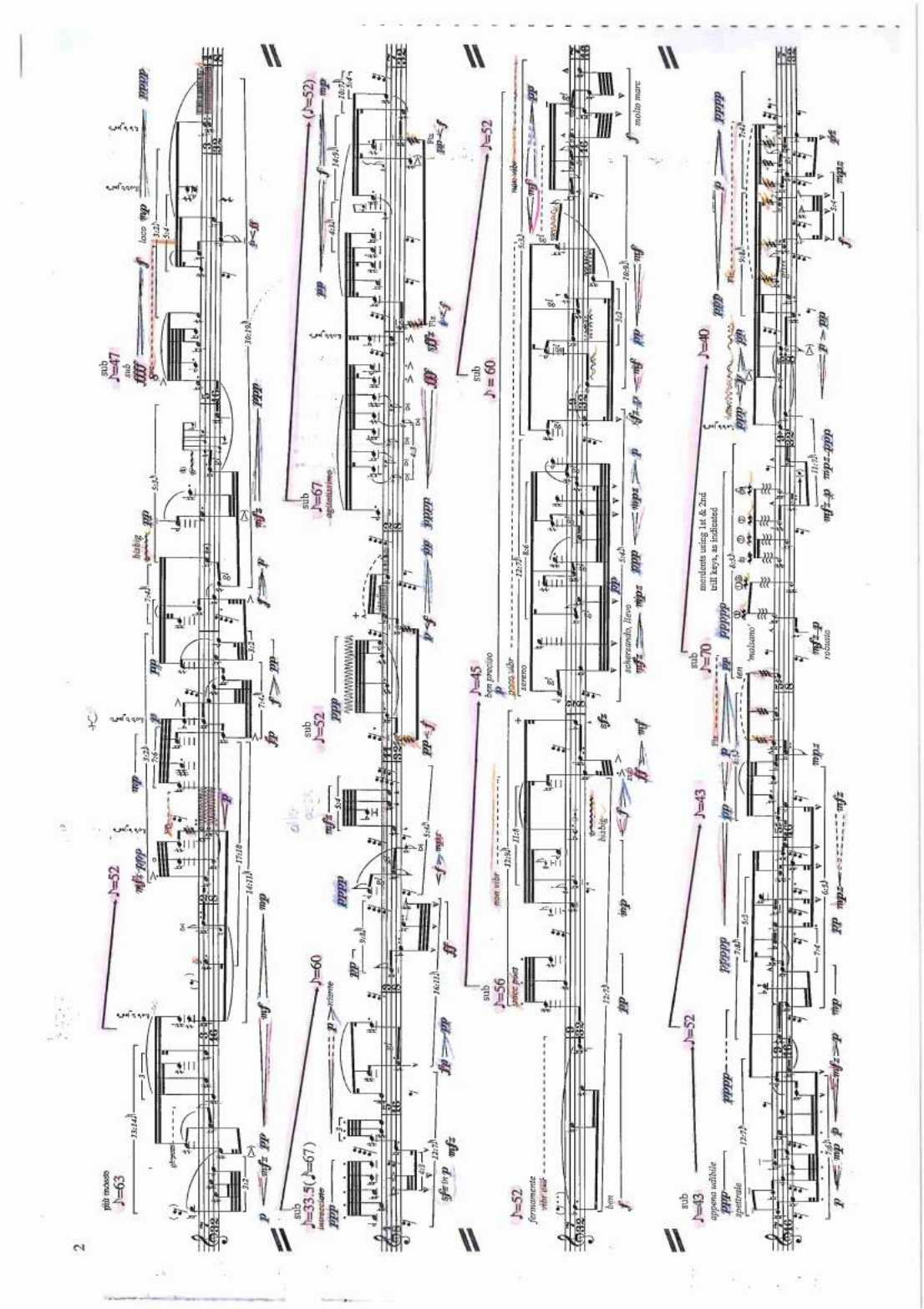
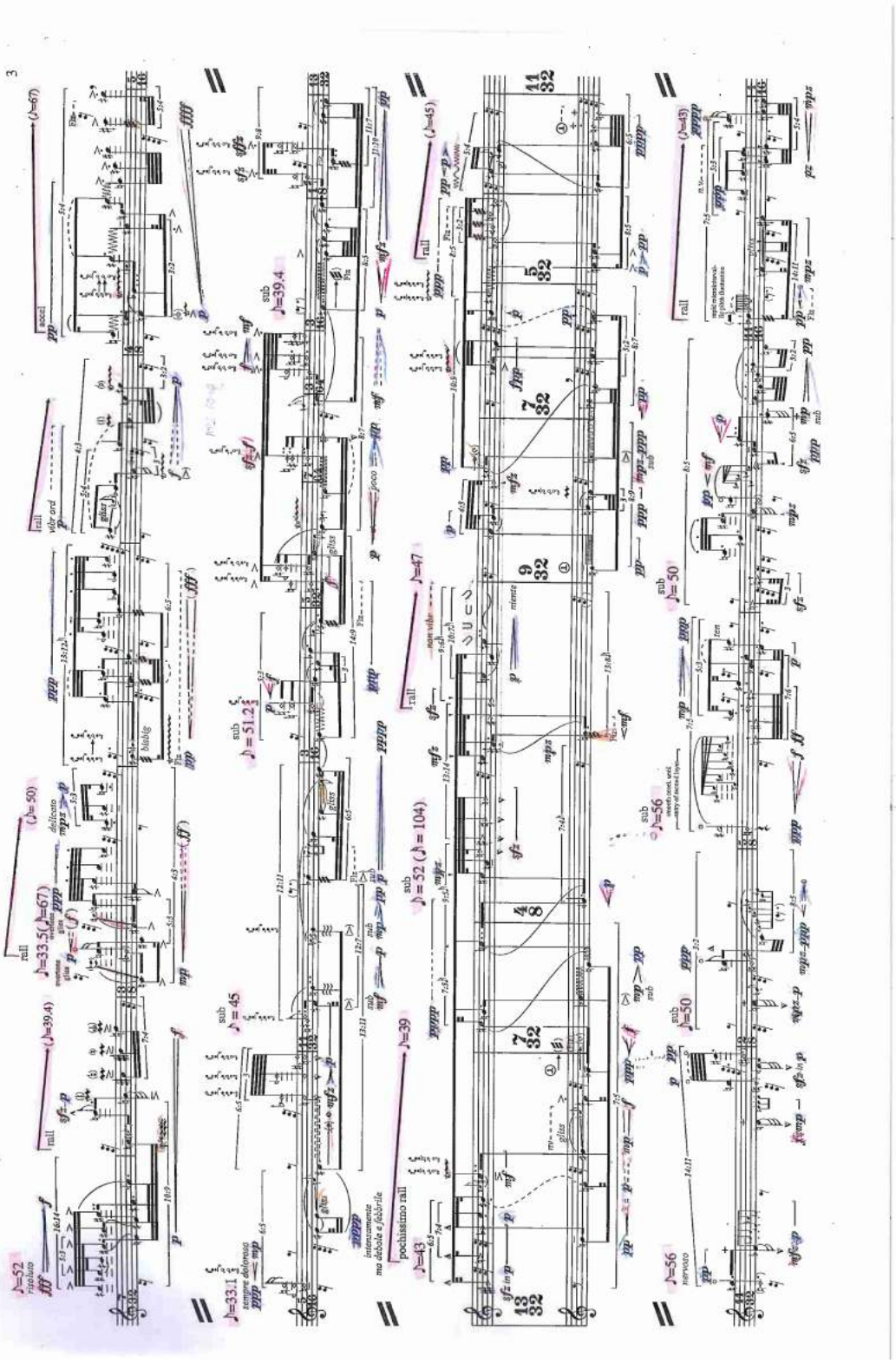
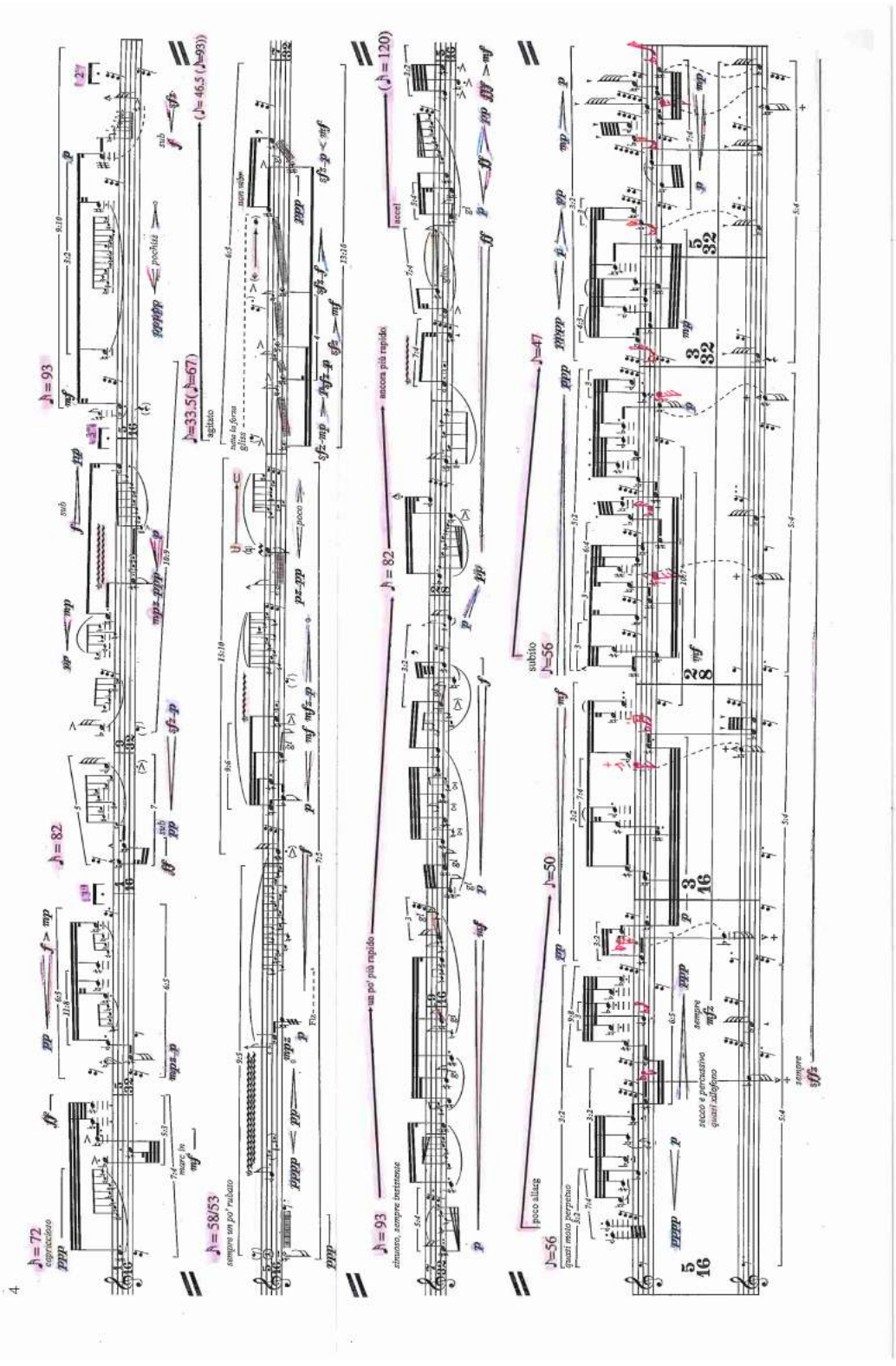
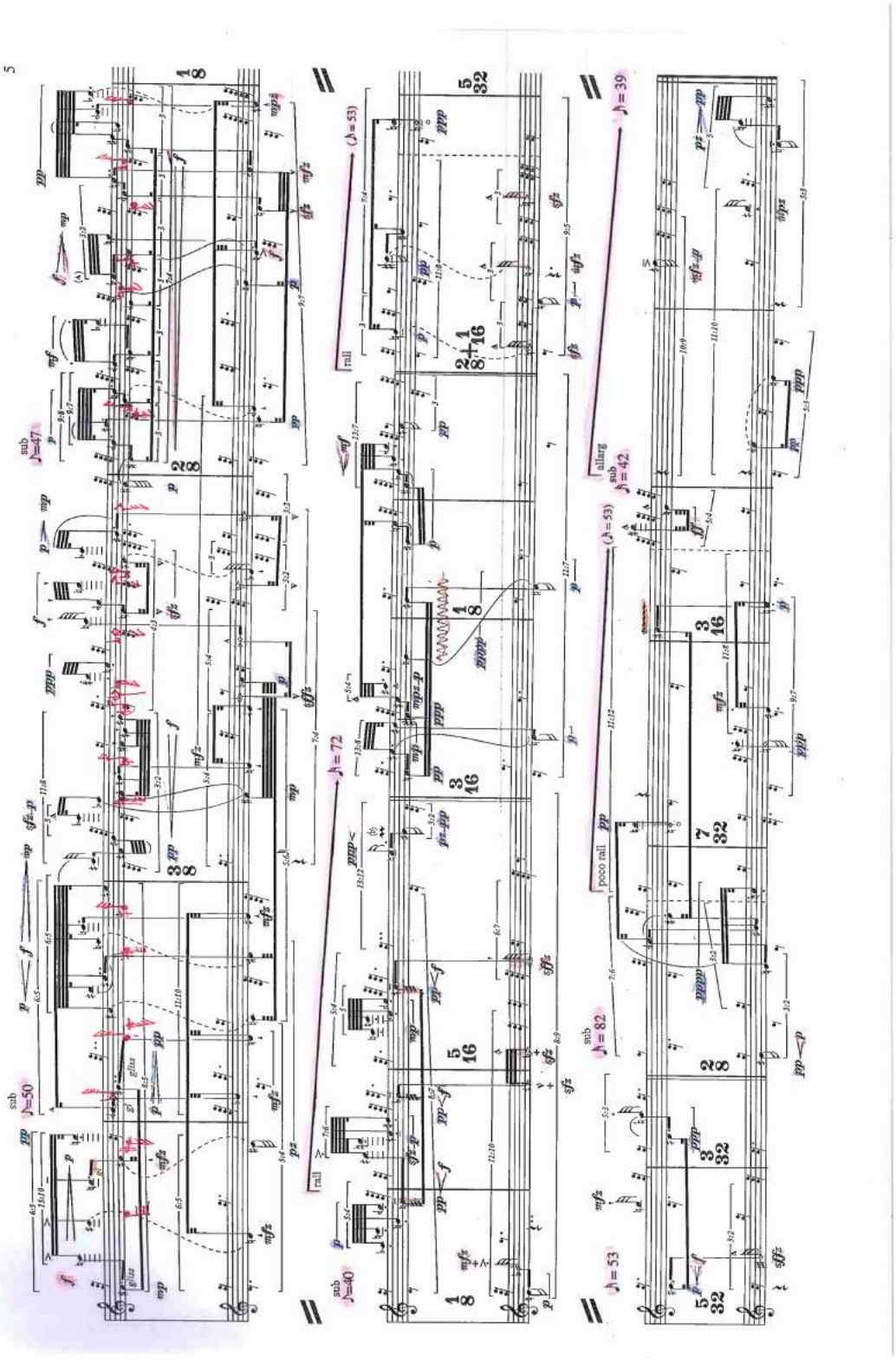
Score: Sisyphus Redux (2011)



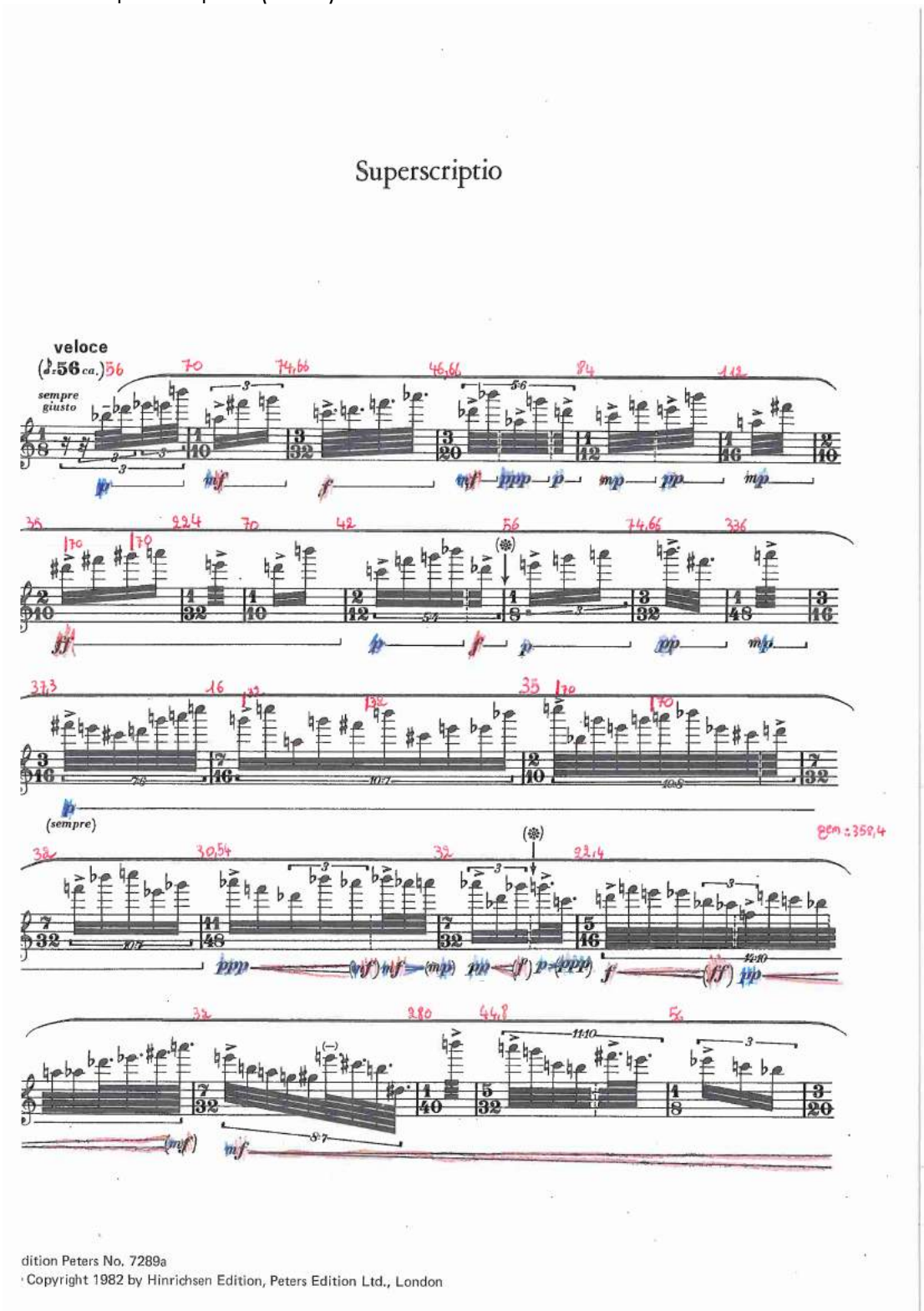


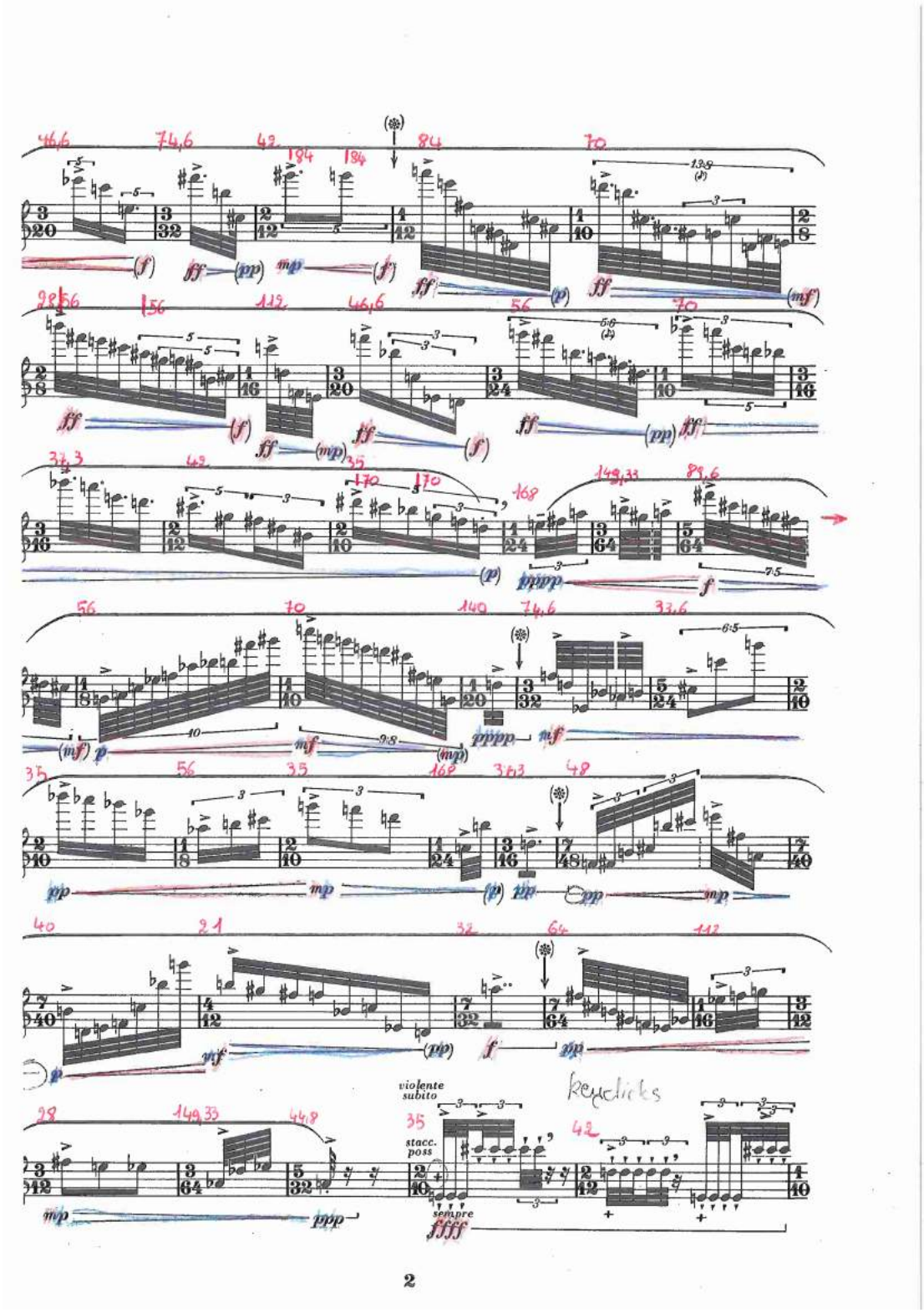


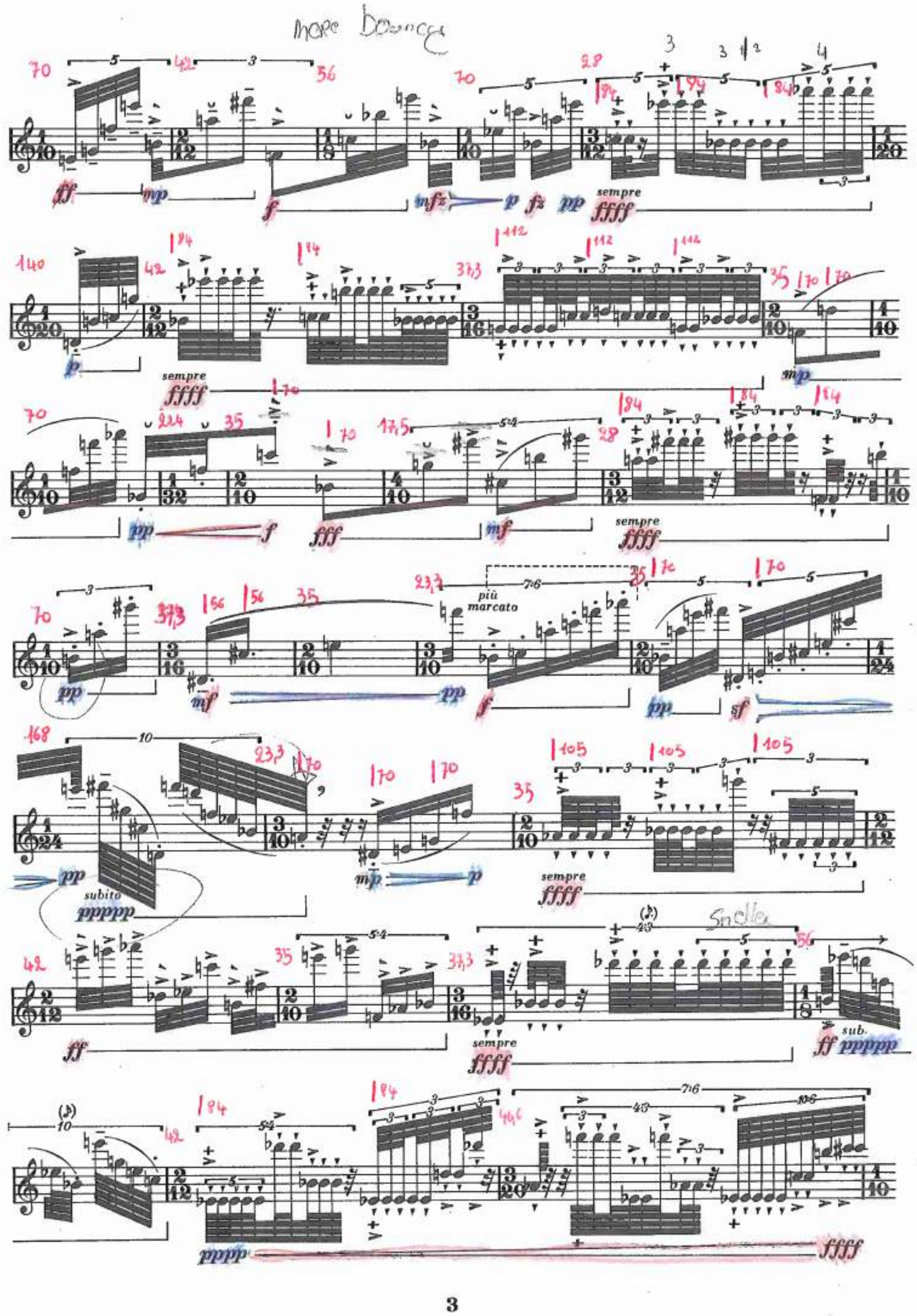


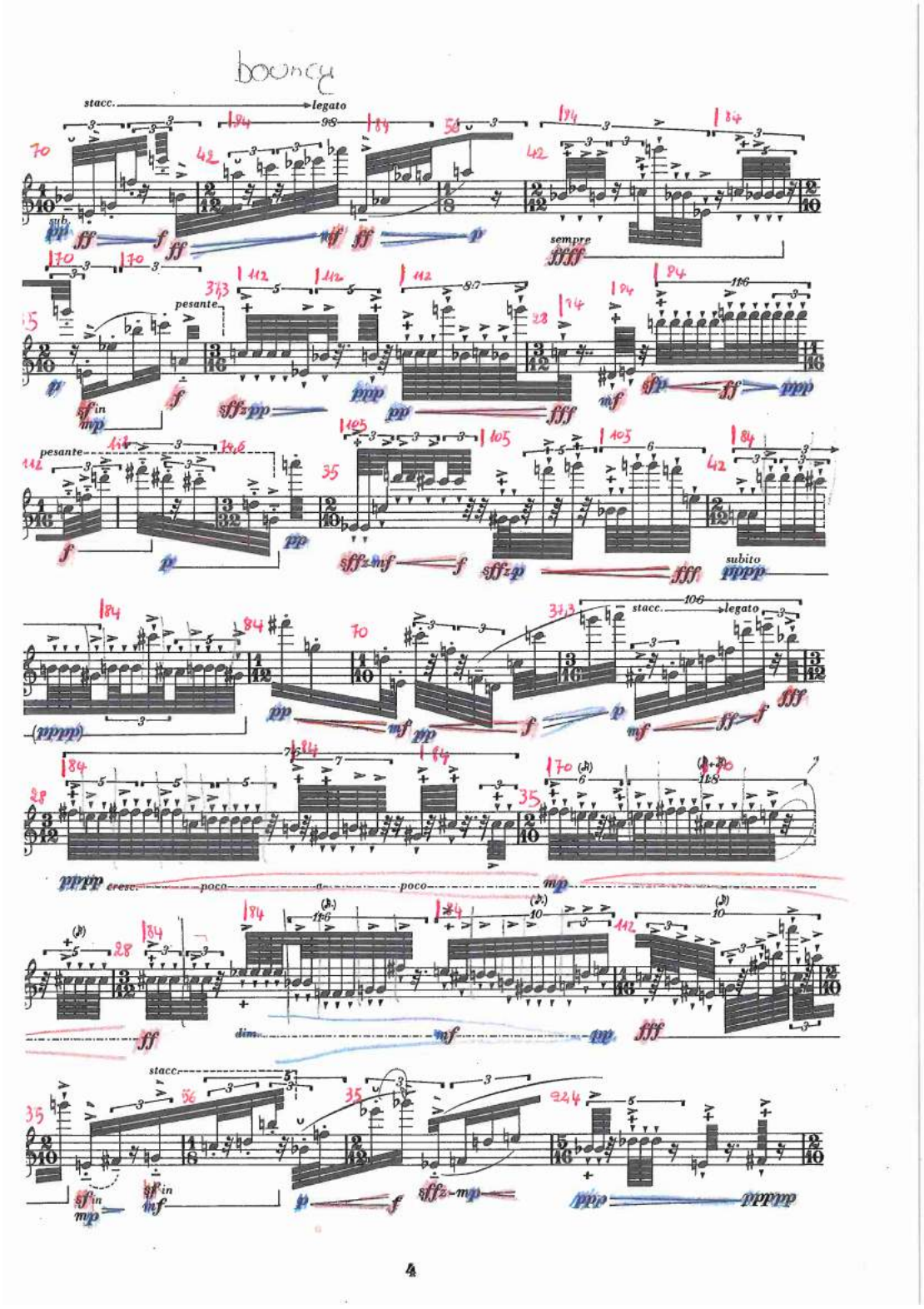


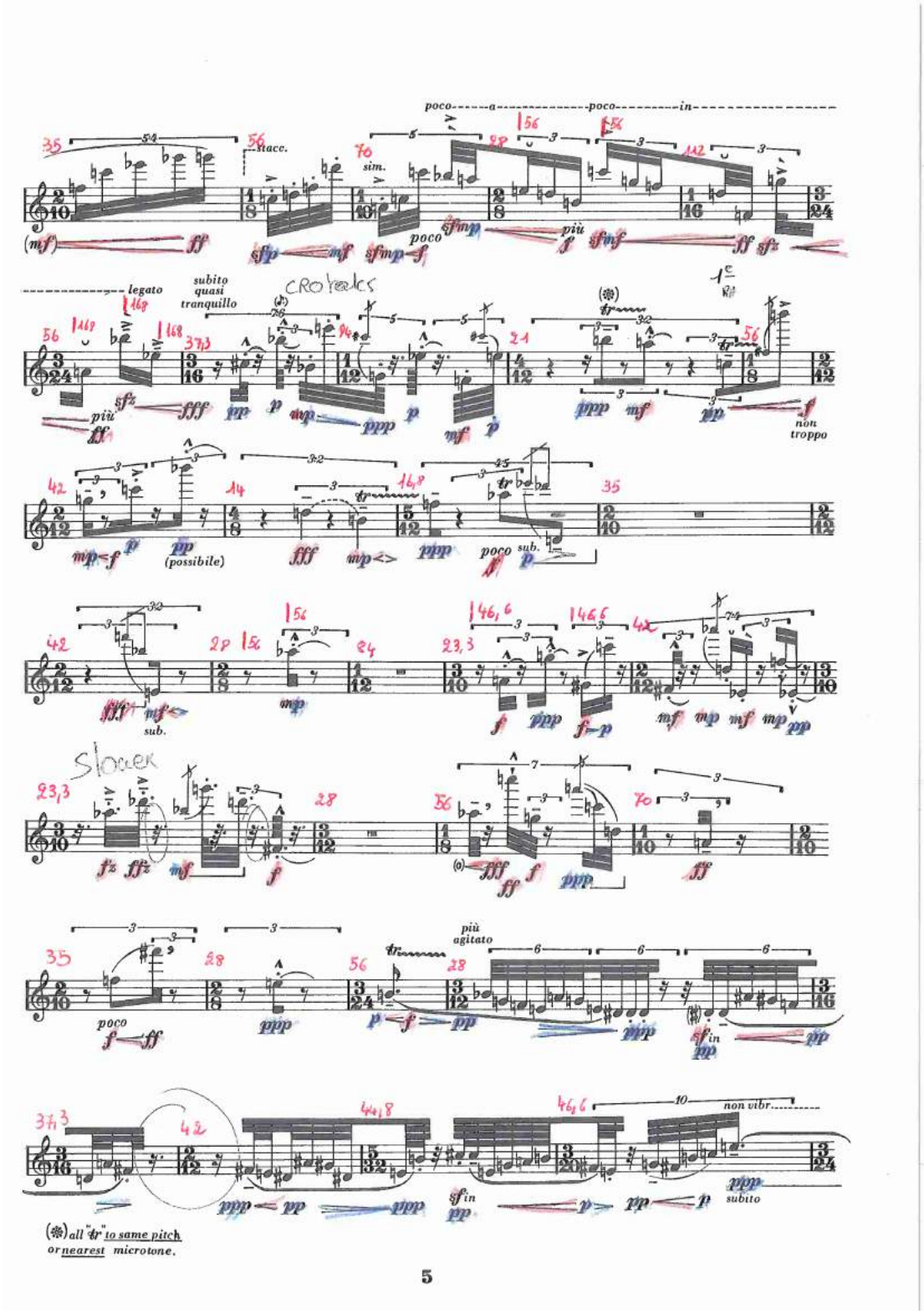
Score: Superscriptio (1981)

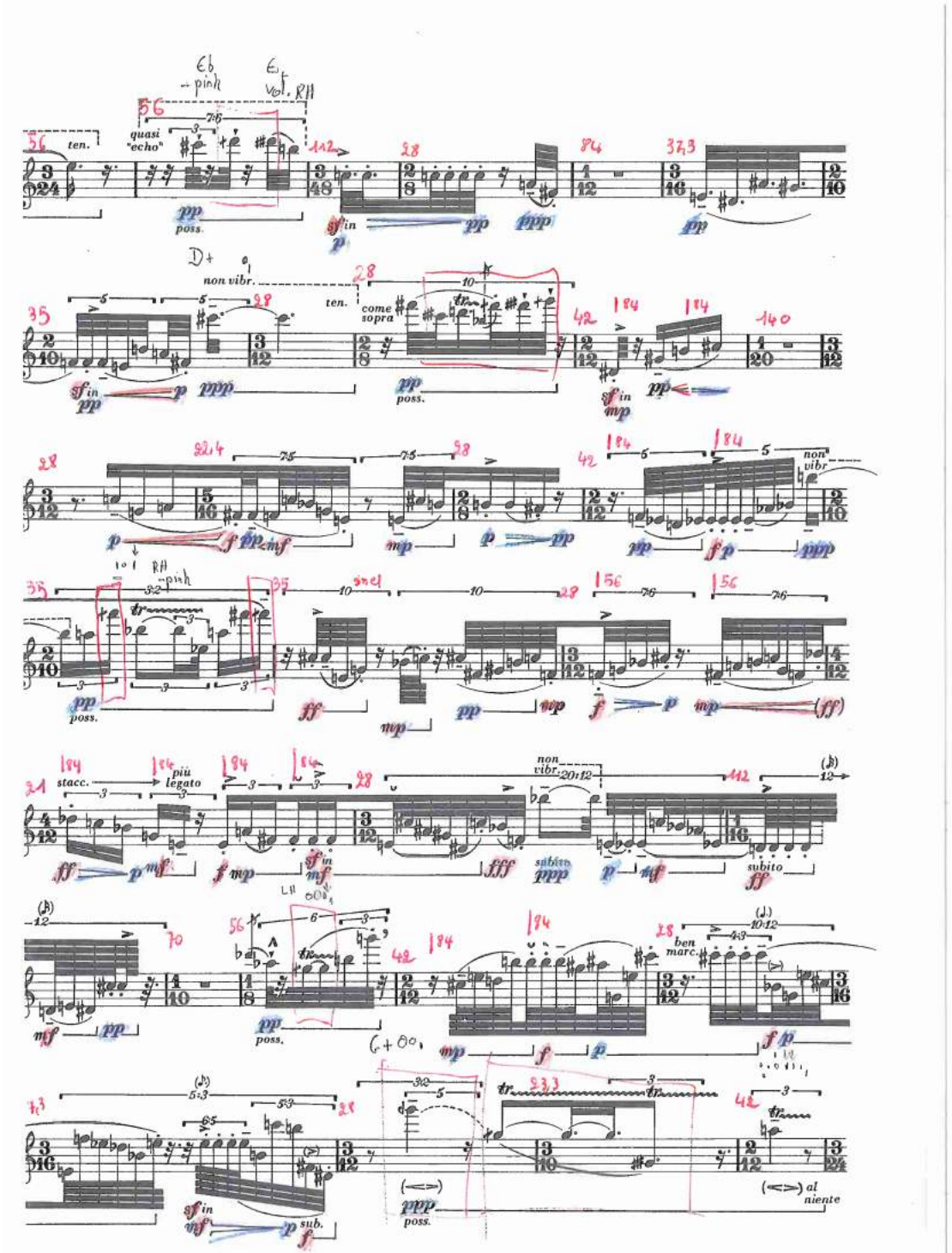


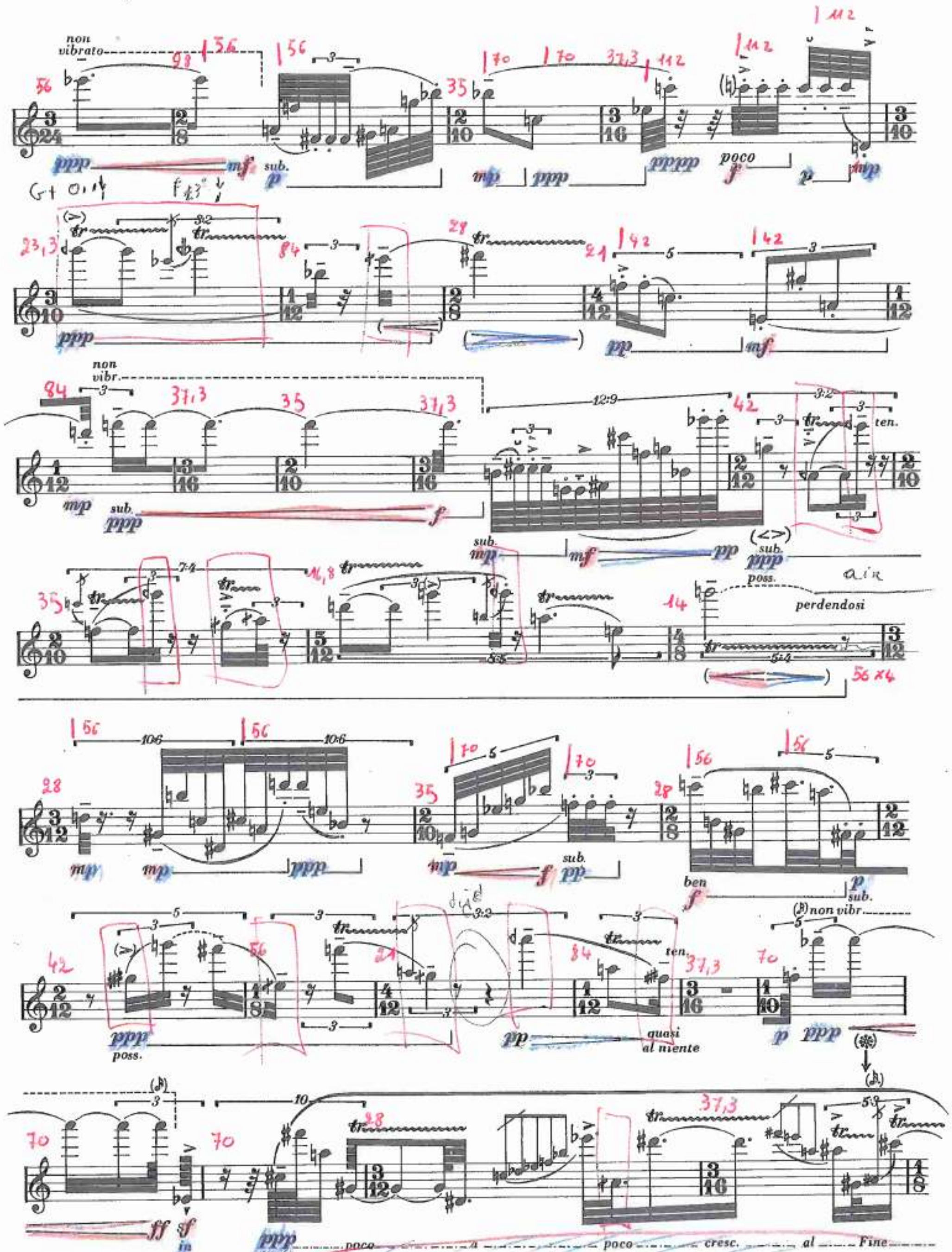

violente subito
stacc. poss
sempre
keyclicks

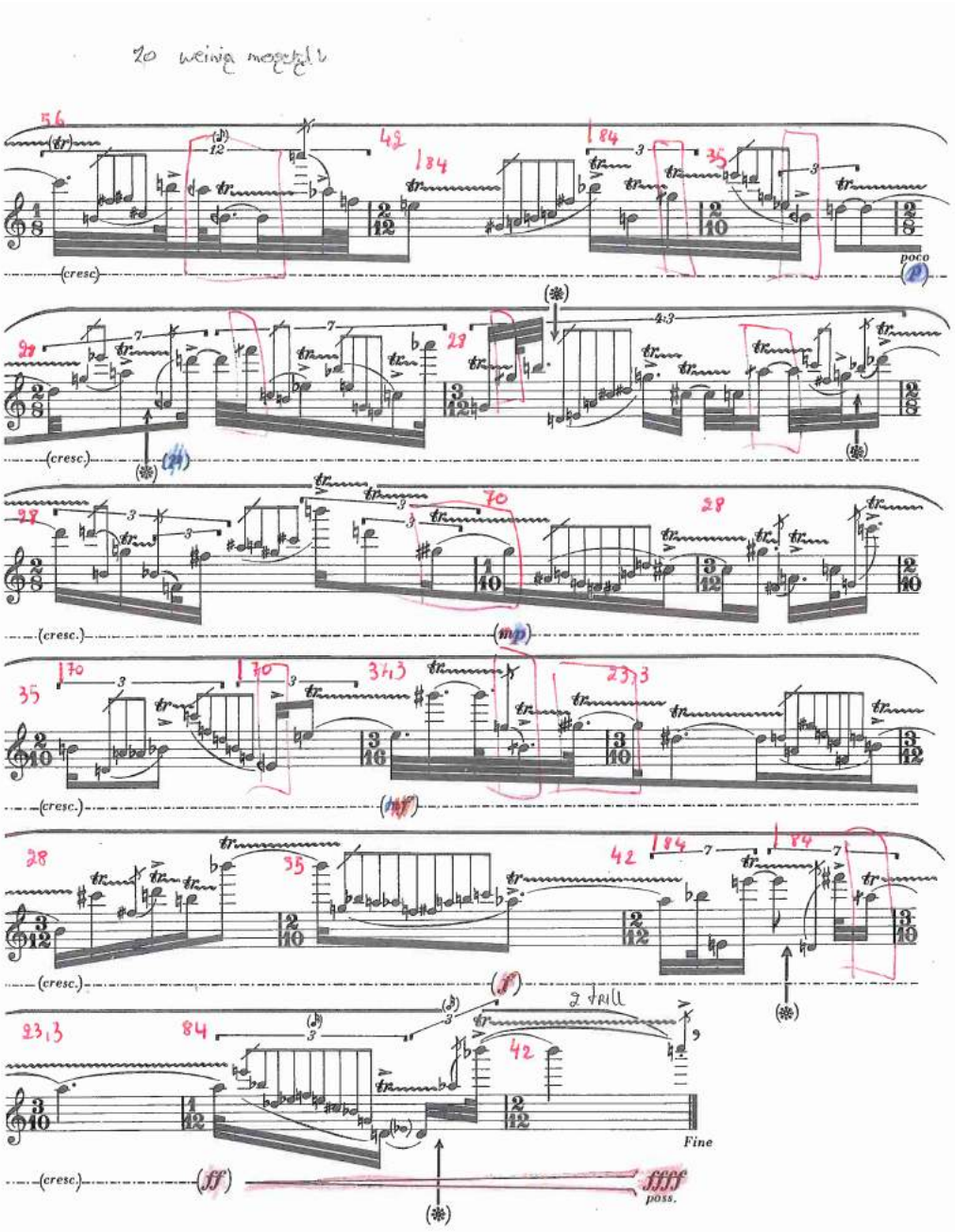

more bounce
sempre
ffff
più
marcato
subito
pppppp
sub.


bouncy
stacc.
legato
sempre
pesante
subito
cresc.
poco
dim.


poco a poco in
legato
subito quasi tranquillo
non troppo
(possibile)
sub.
più agitato
non vibr.
subito
(*) all "tr" to same pitch or nearest microtone.


quasi "echo"
ten.
poss.
non vibr.
come sopra
stacc.
più legato
subito
ben marc.
al niente


non vibrato
sub.
poco
non vibr.
ten.
sub.
poss.
perdendosi
ben
sub.
poss.
quasi al niente
non vibr.
poss.
poco a poco cresc. al Fine



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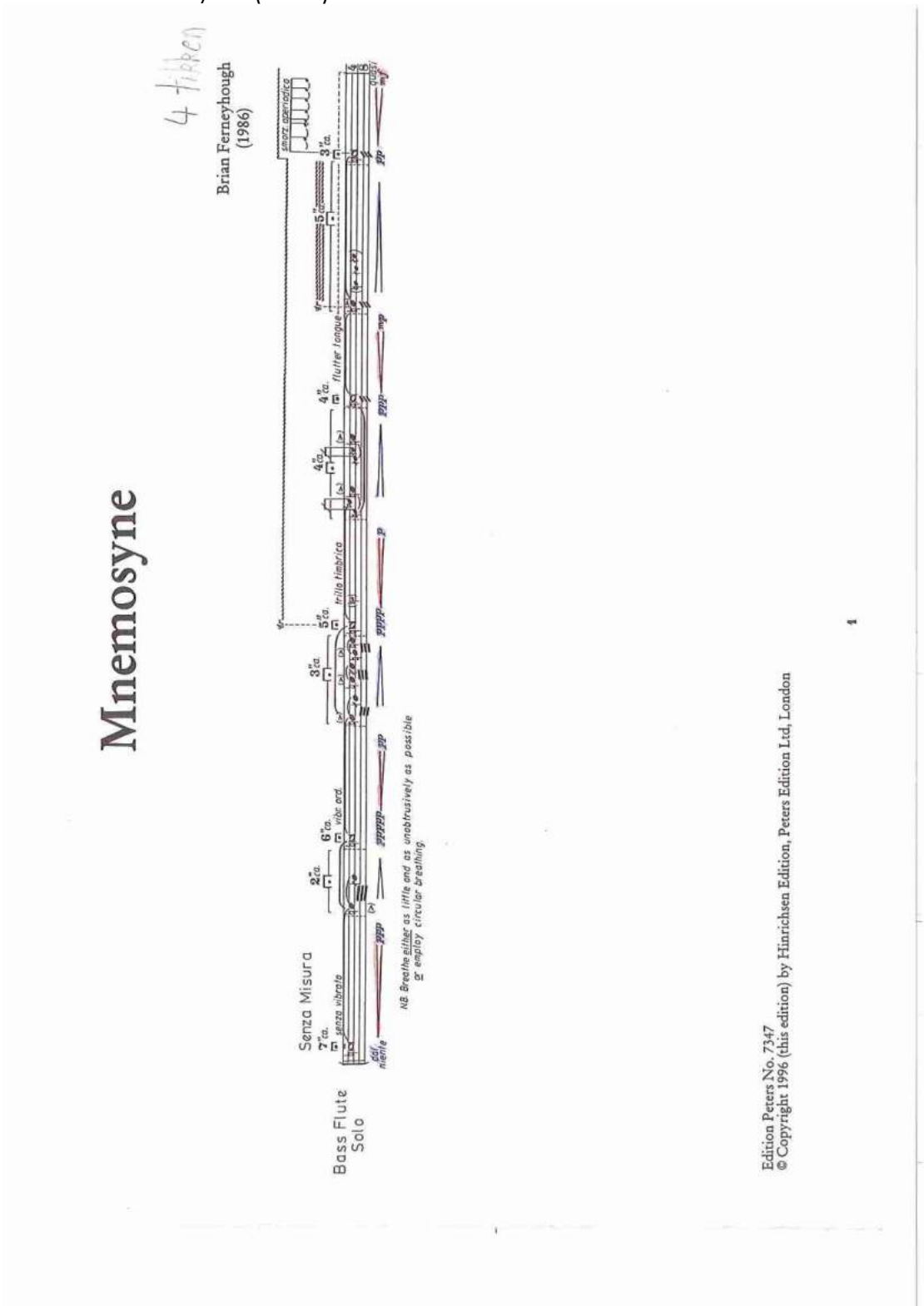
Score: Mnemosyne (1986)



Mnemosyne

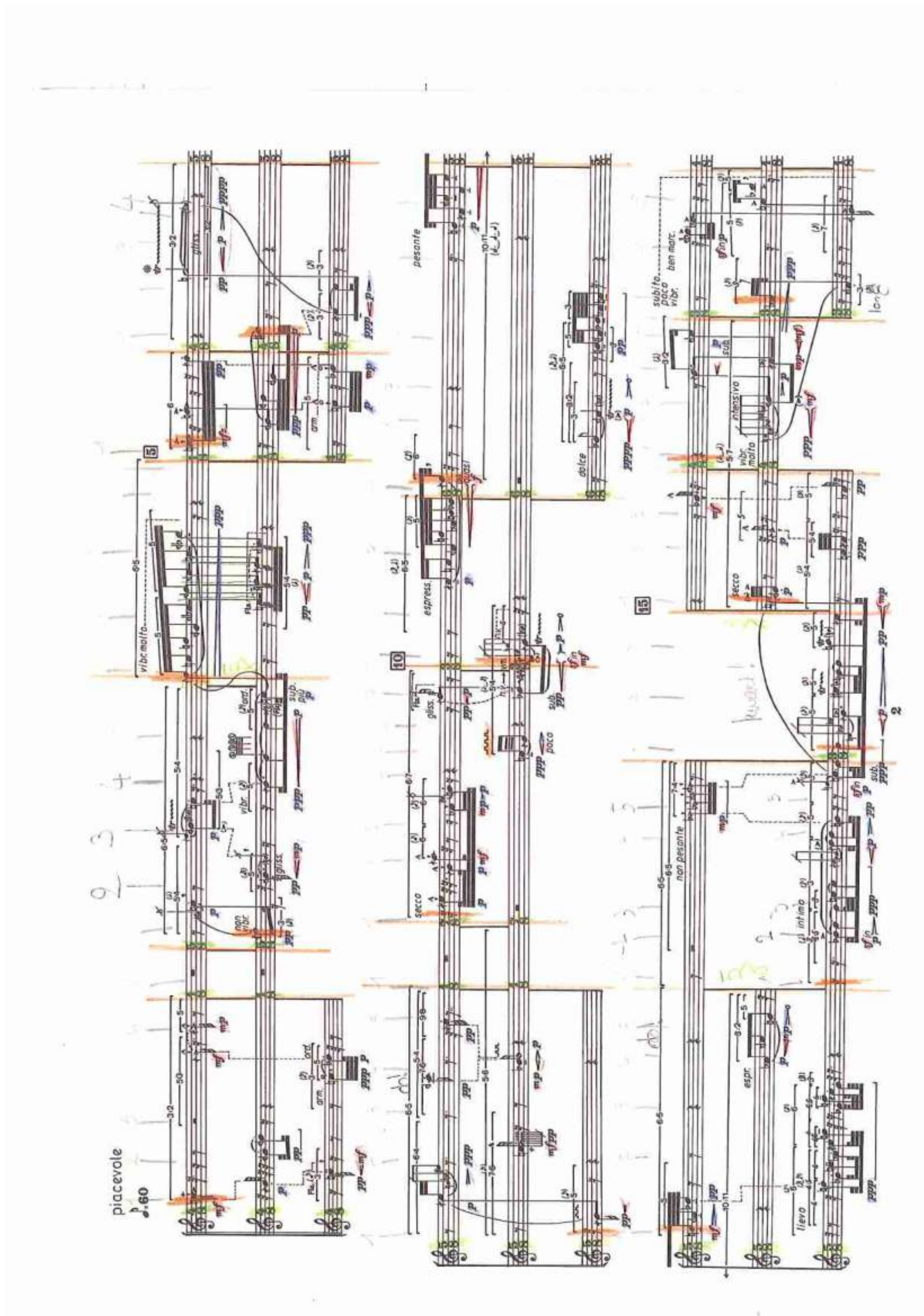
Brian Ferneyhough
(1986)

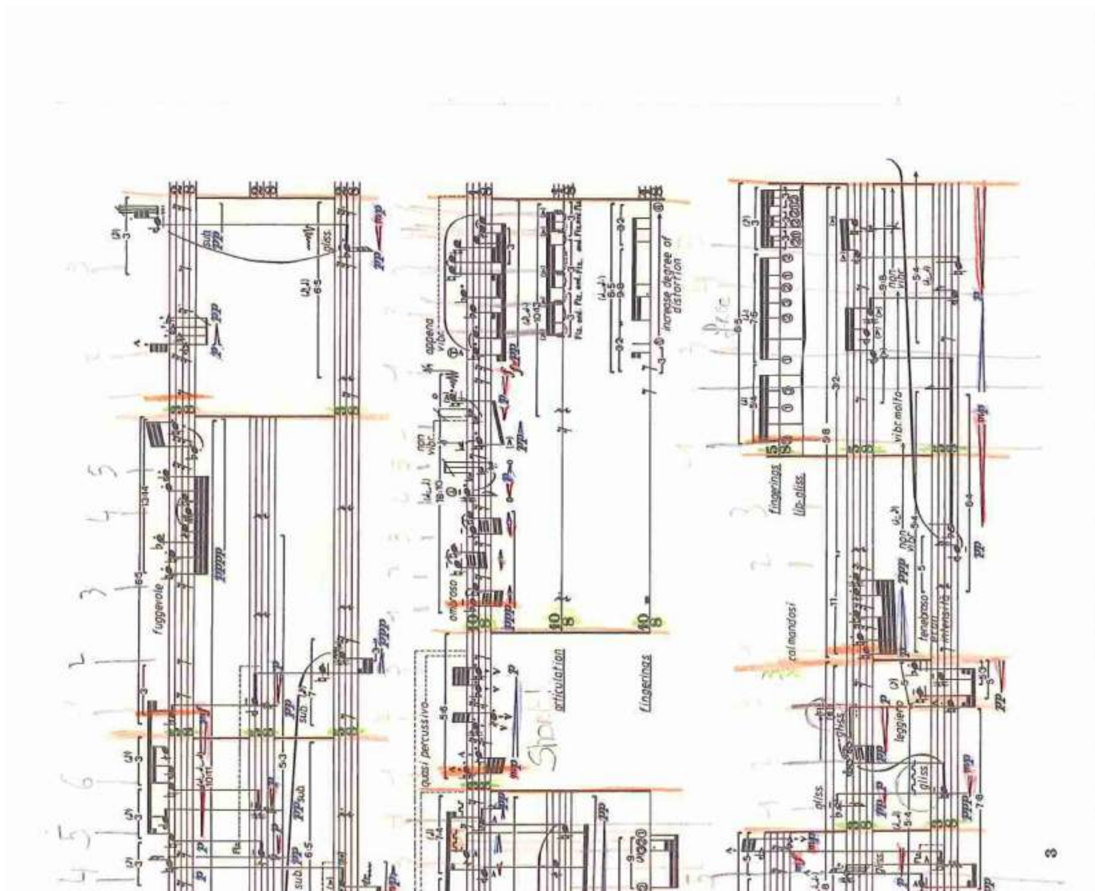
4 flutes

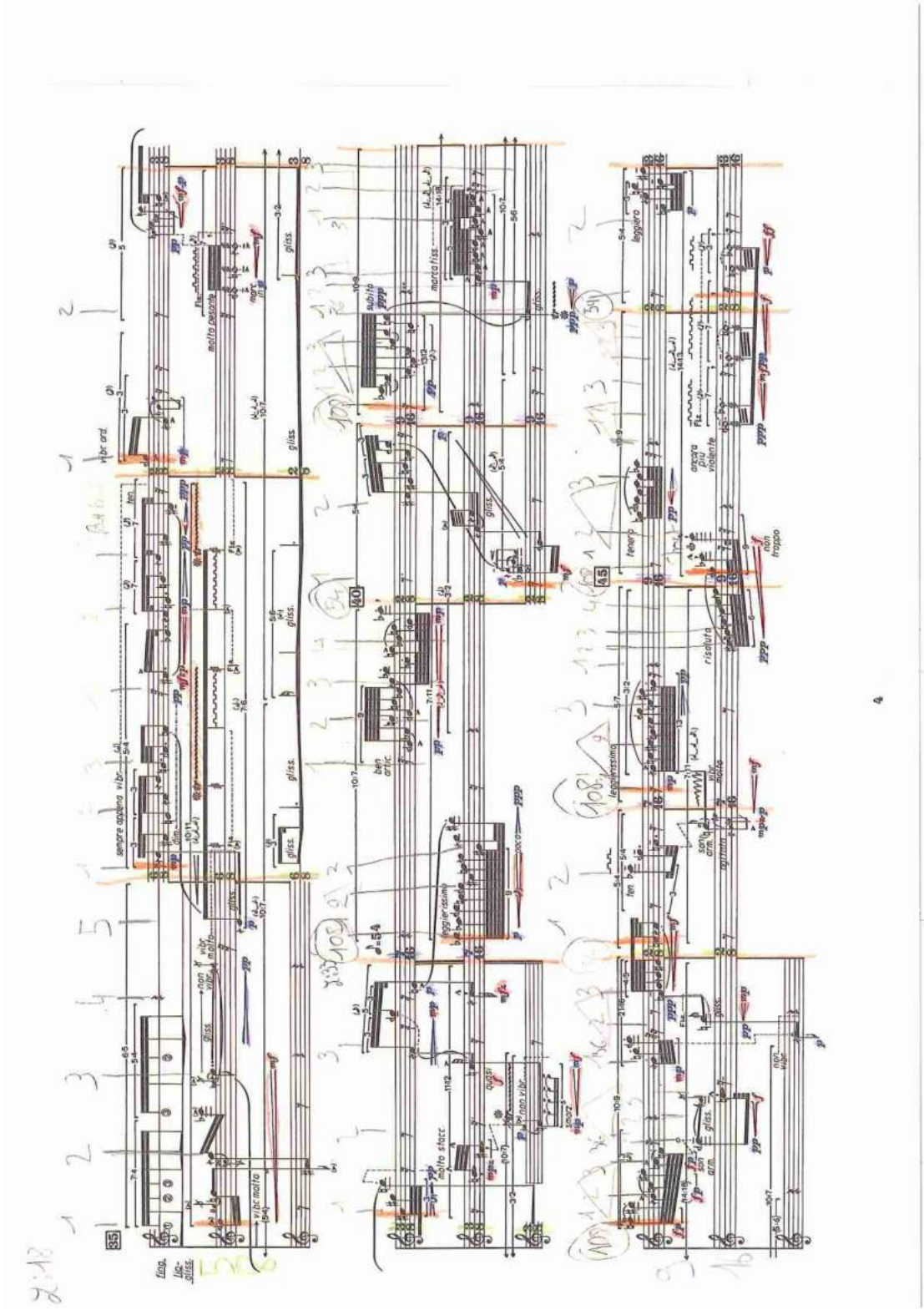
Bass Flute
Solo

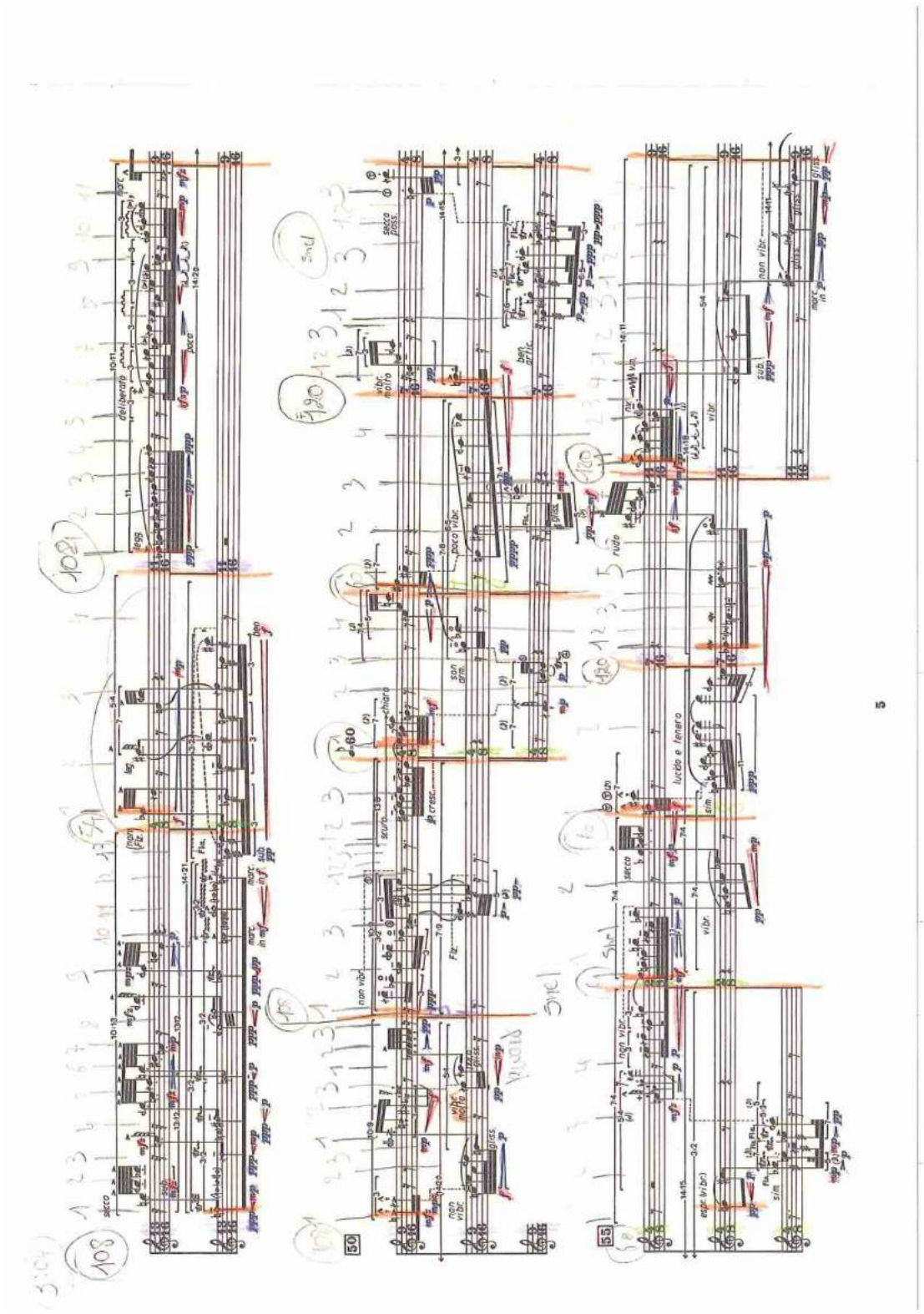
Senza Misura

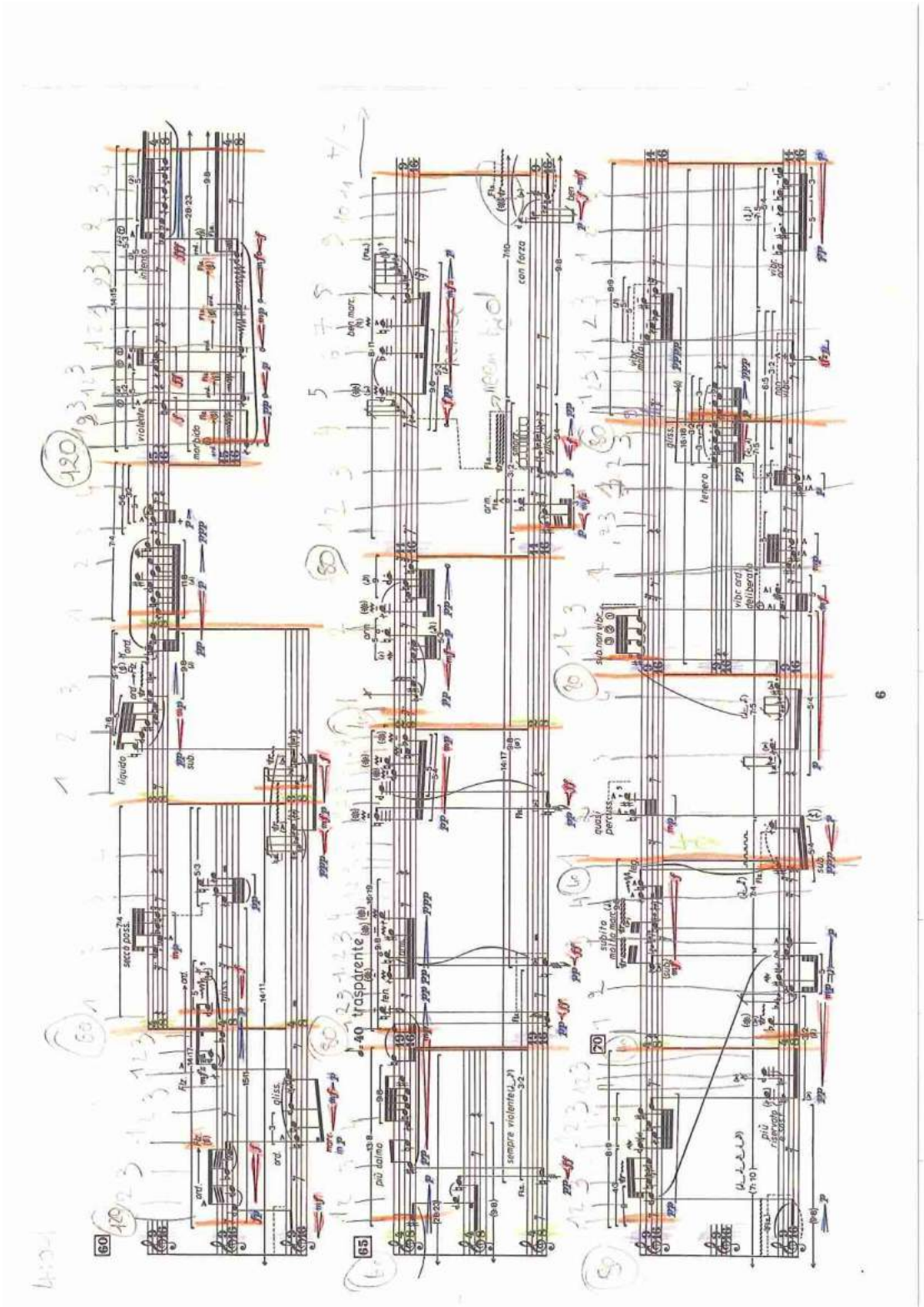
NB Breathe either as little and as unobtrusively as possible
or employ circular breathing

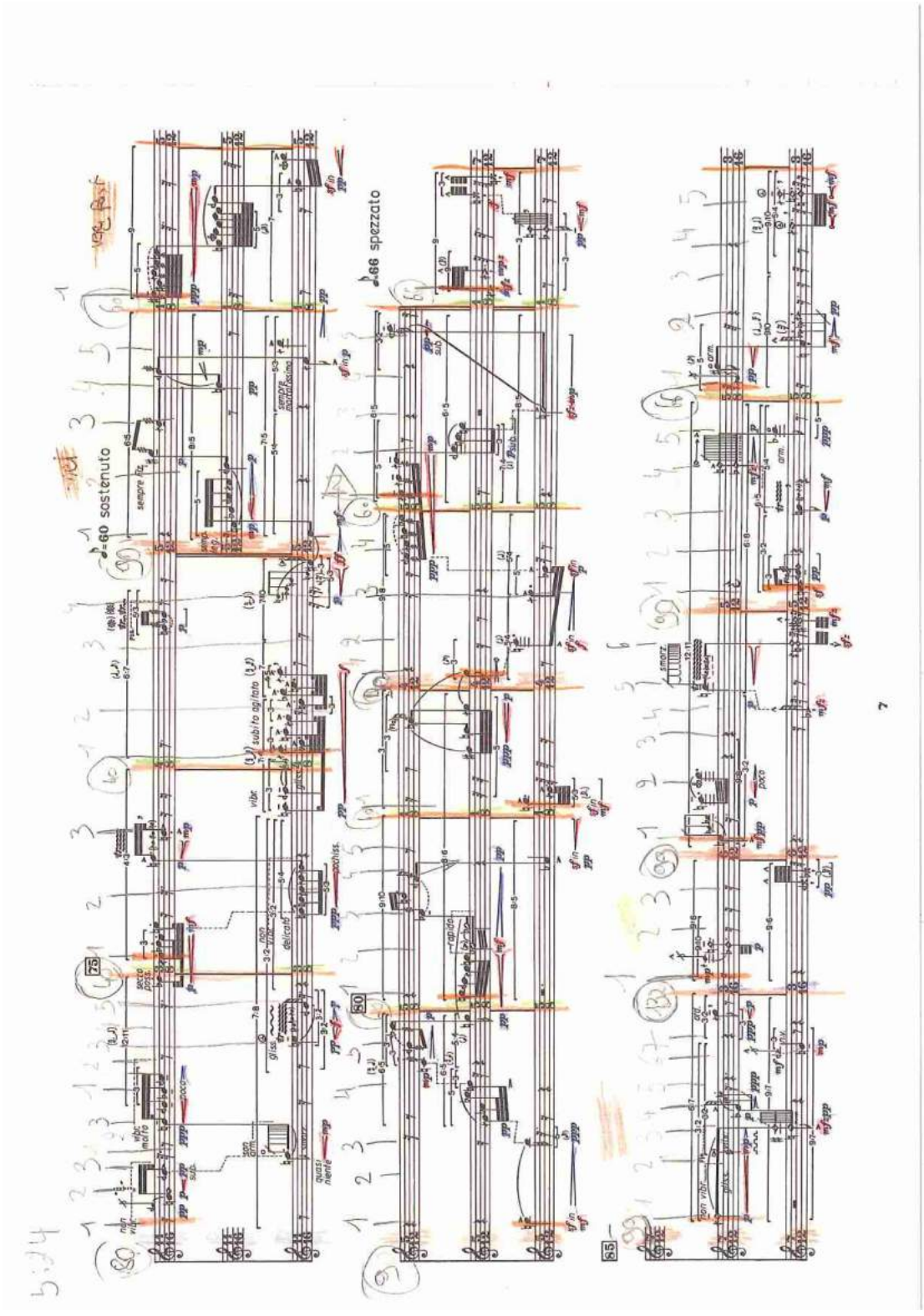


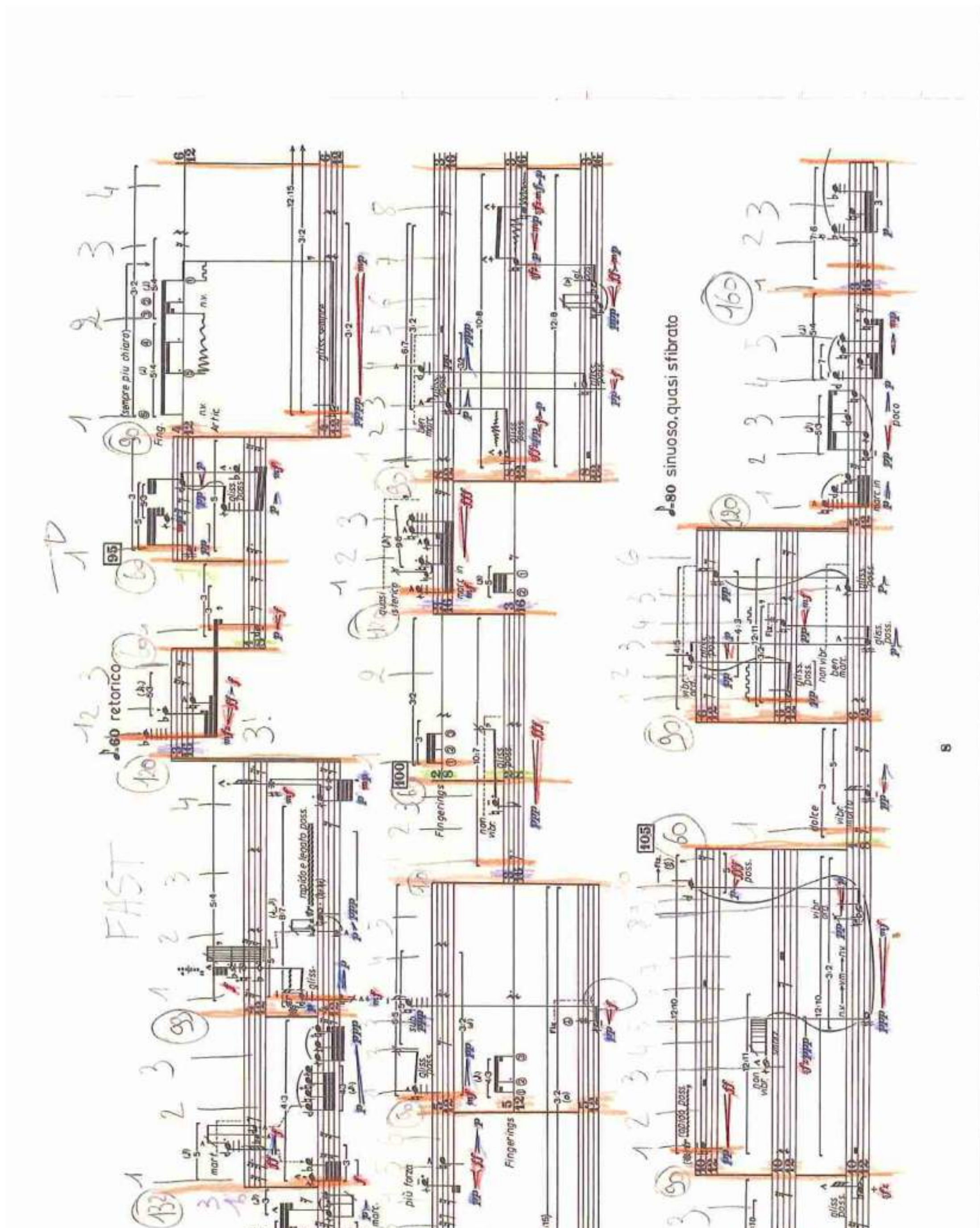


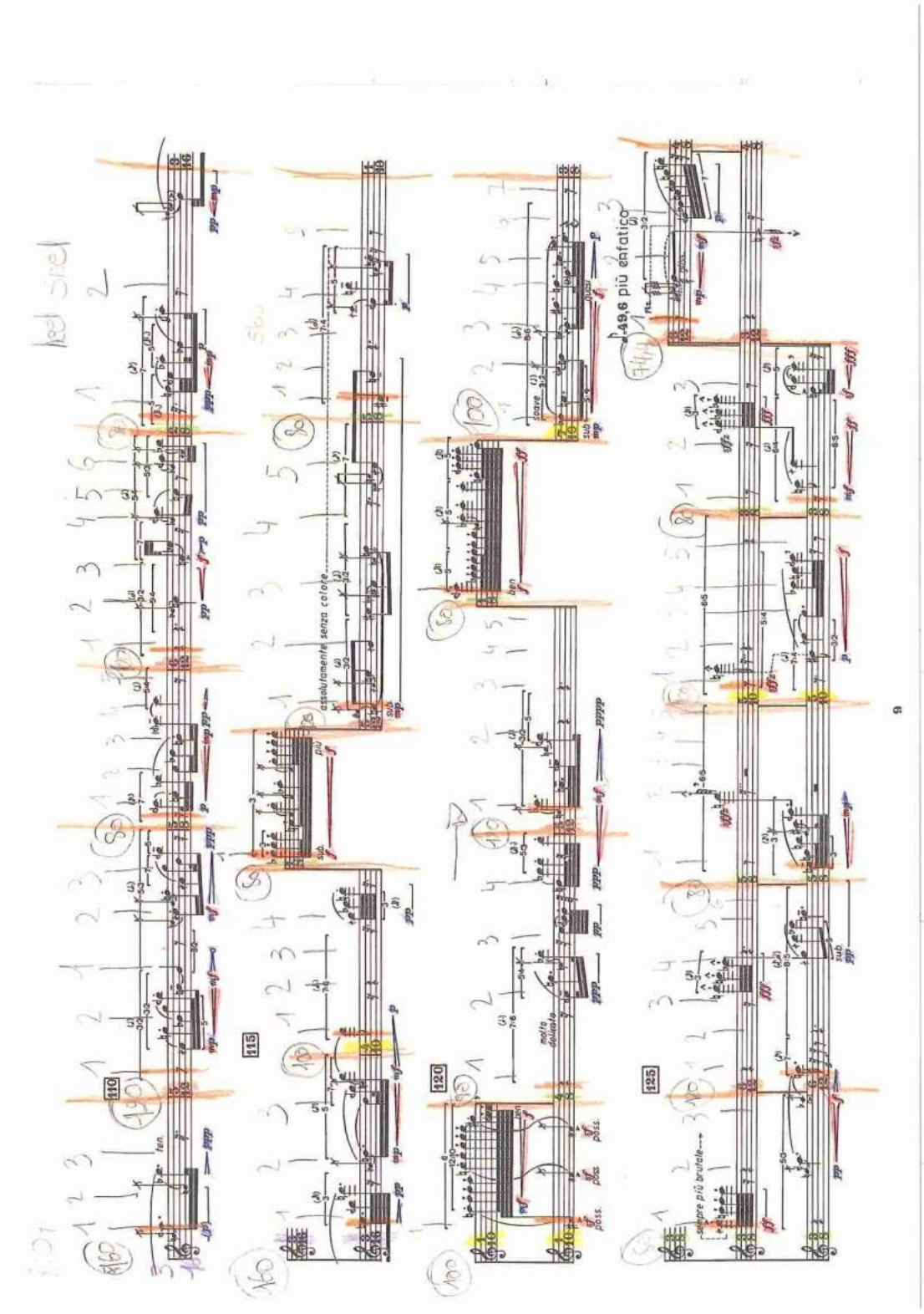


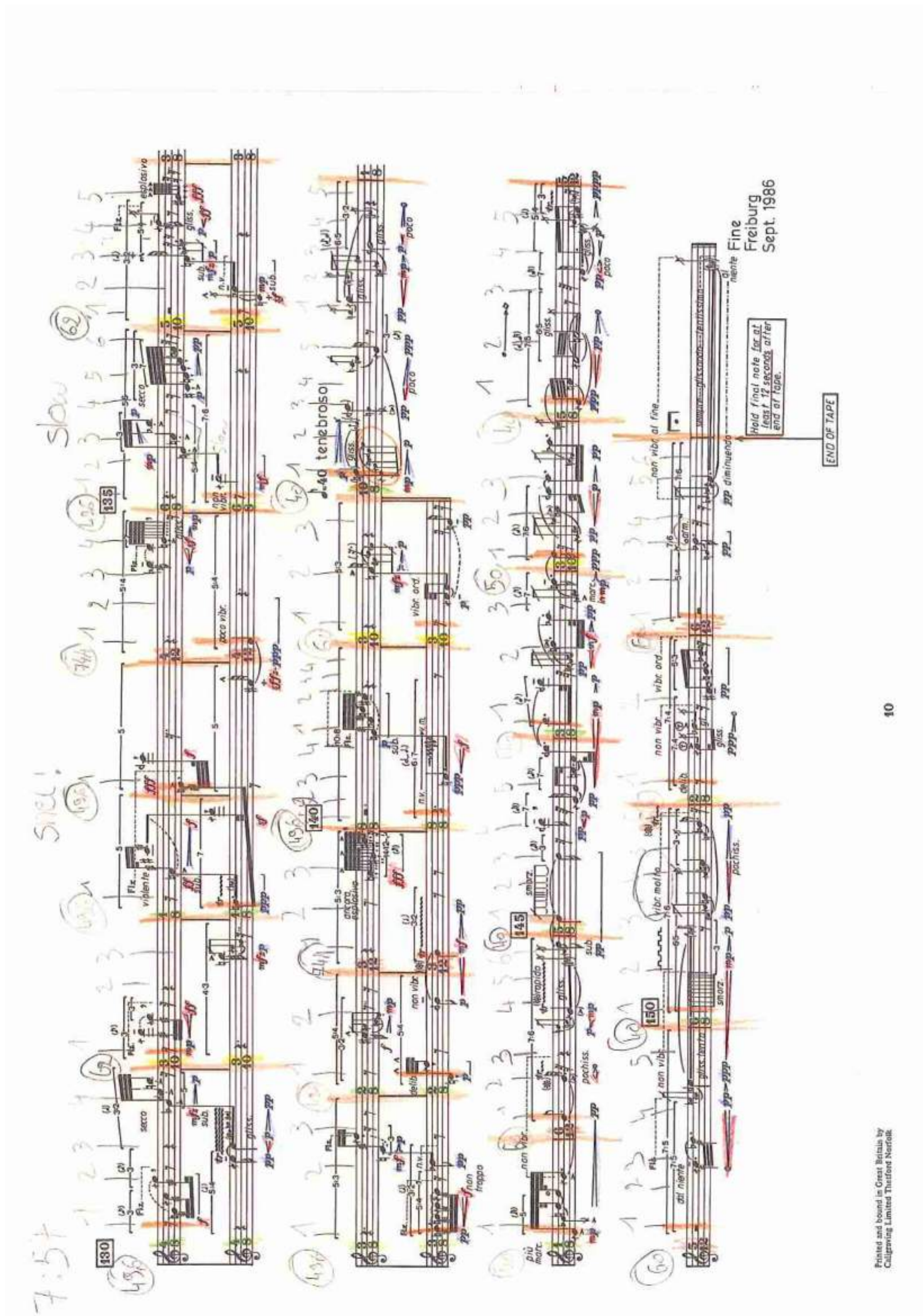



60
65
70
trasparente
♩= 40
6


♩=60 sostenuto
♩.66 spezzato
subito agitato
75
80
85


retorico
sinuoso, quasi sfibrato
Fingerings


110
115
120
125
assolutamente senza colore
molto delicato
sempre più brutale
149.6 più enfatico


Fine
Freiburg
Sept. 1986
Hold final note for at least 12 seconds after end of tape.
END OF TAPE
10
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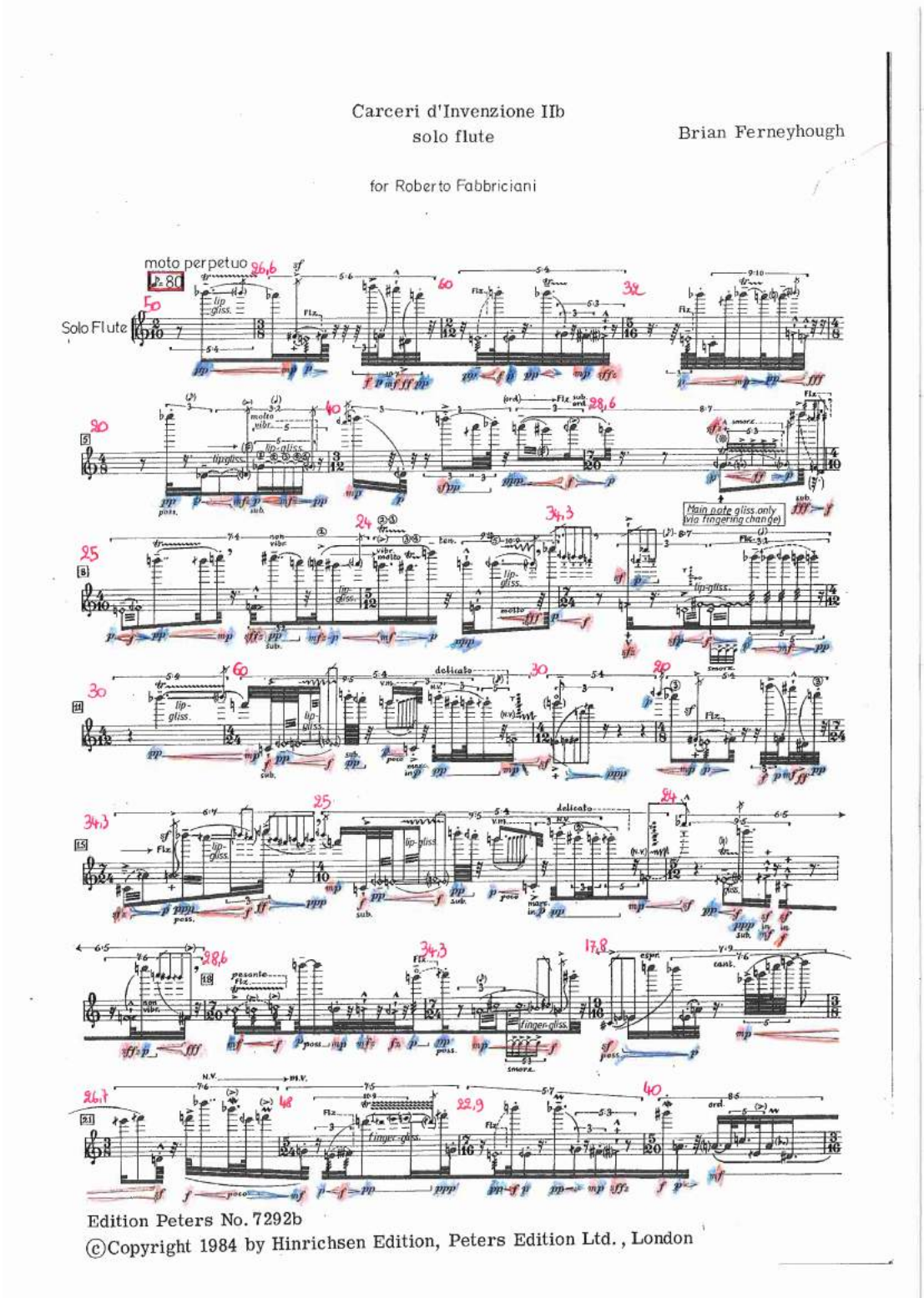
Score: Carceri d'Invenzione IIb (1985-1986)



Carceri d'Invenzione IIb
solo flute

Brian Ferneyhough

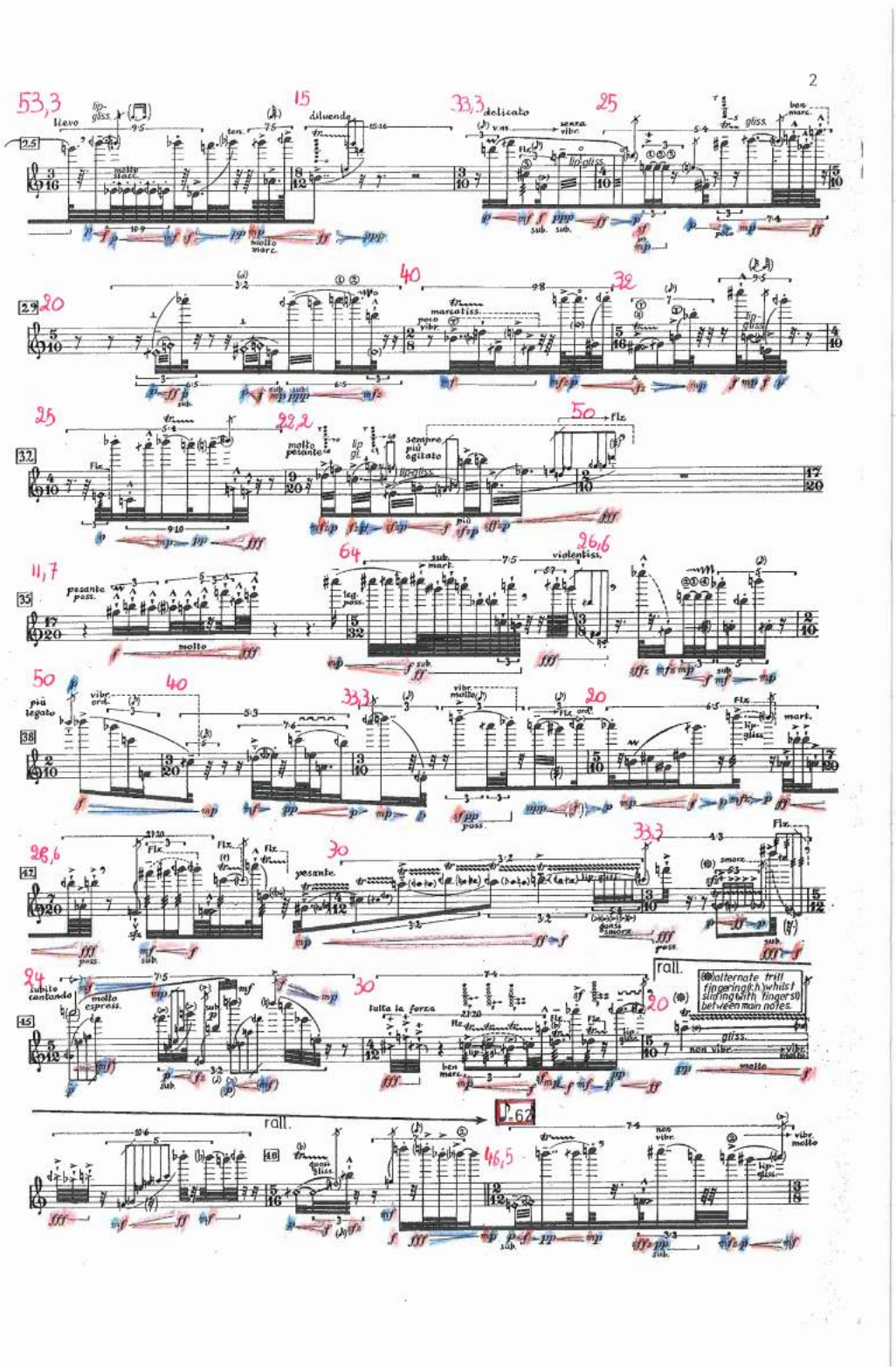
for Roberto Fabbriciani

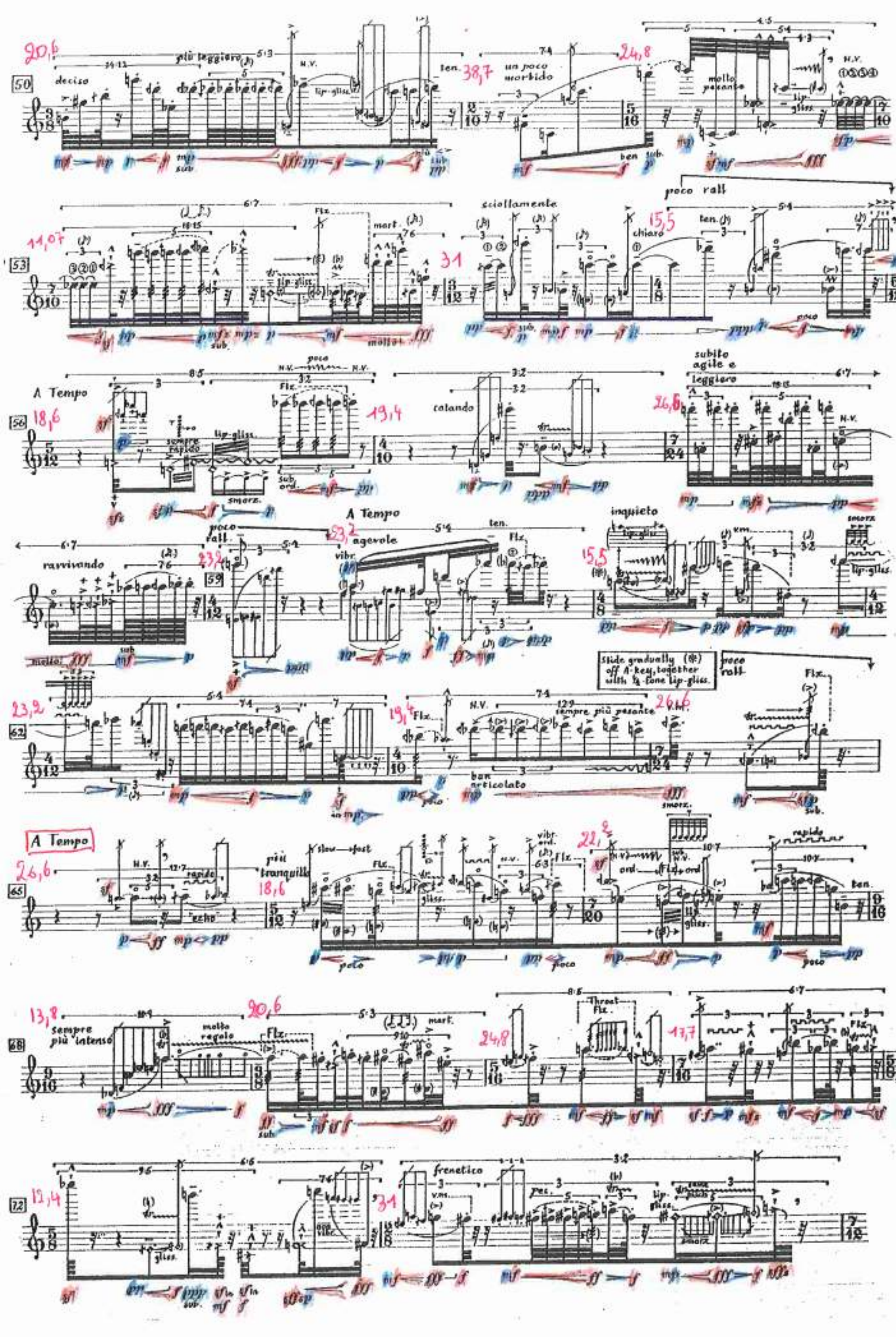
moto perpetuo

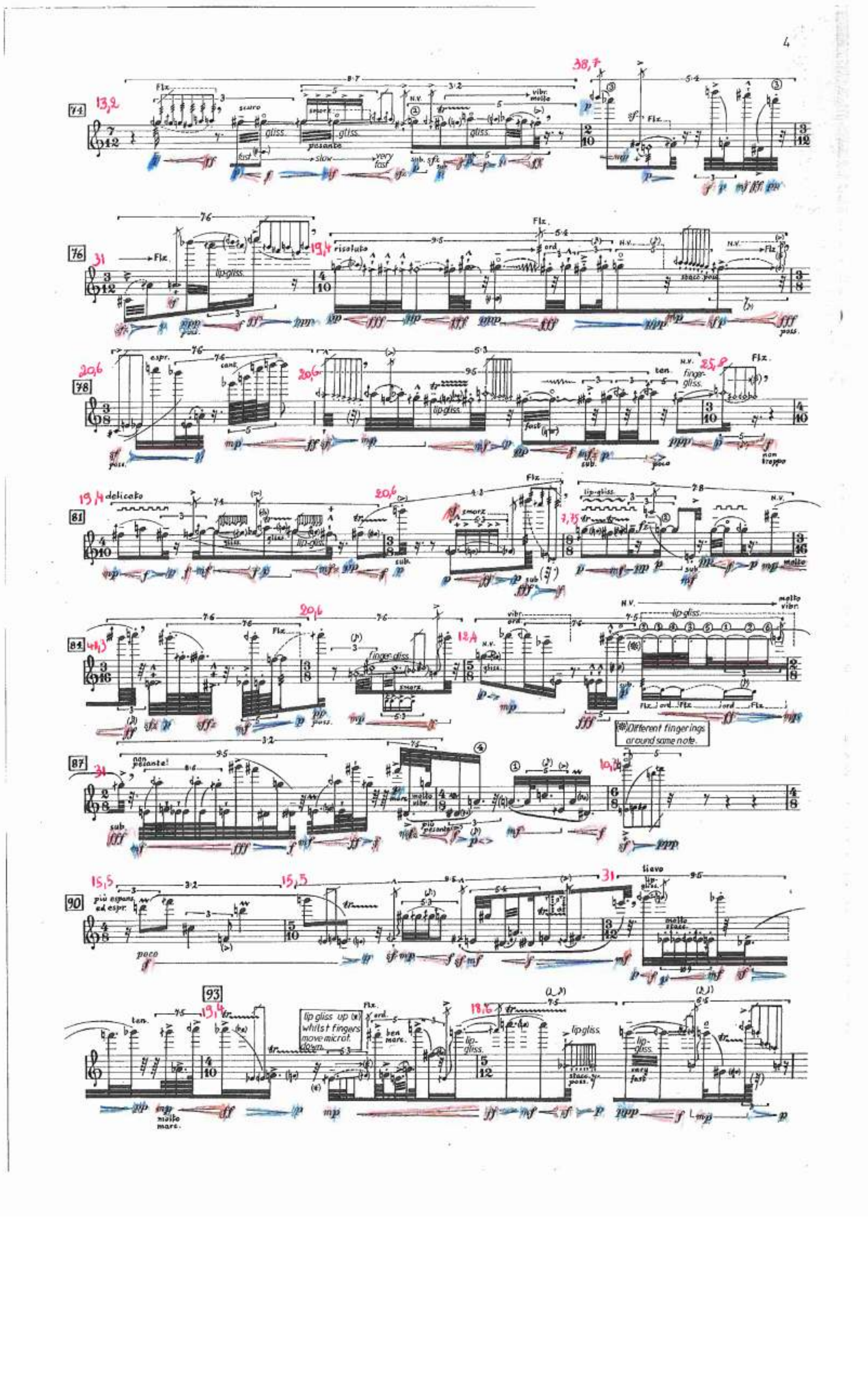
Solo Flute

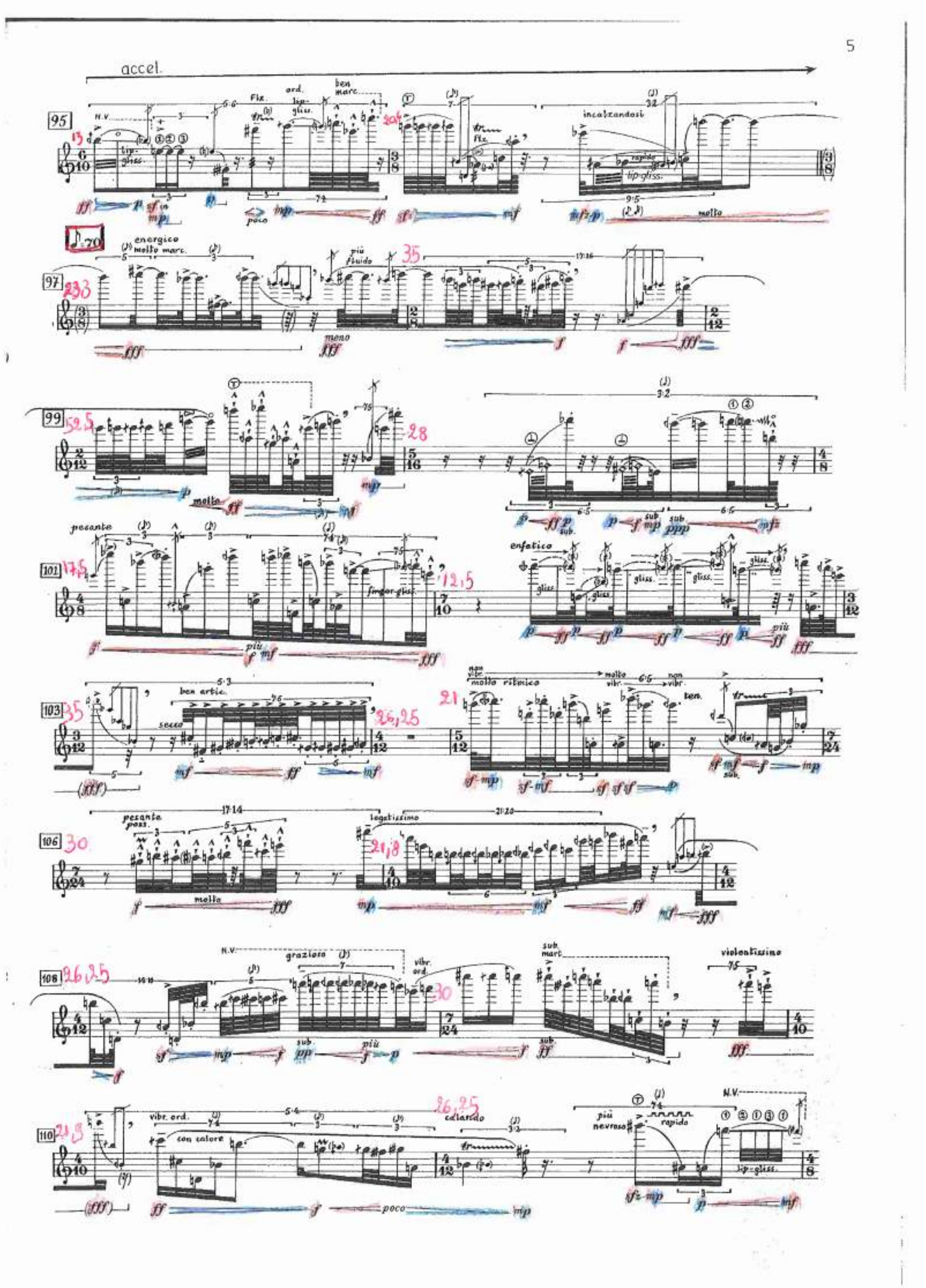
Main note gliss only (via fingering change)

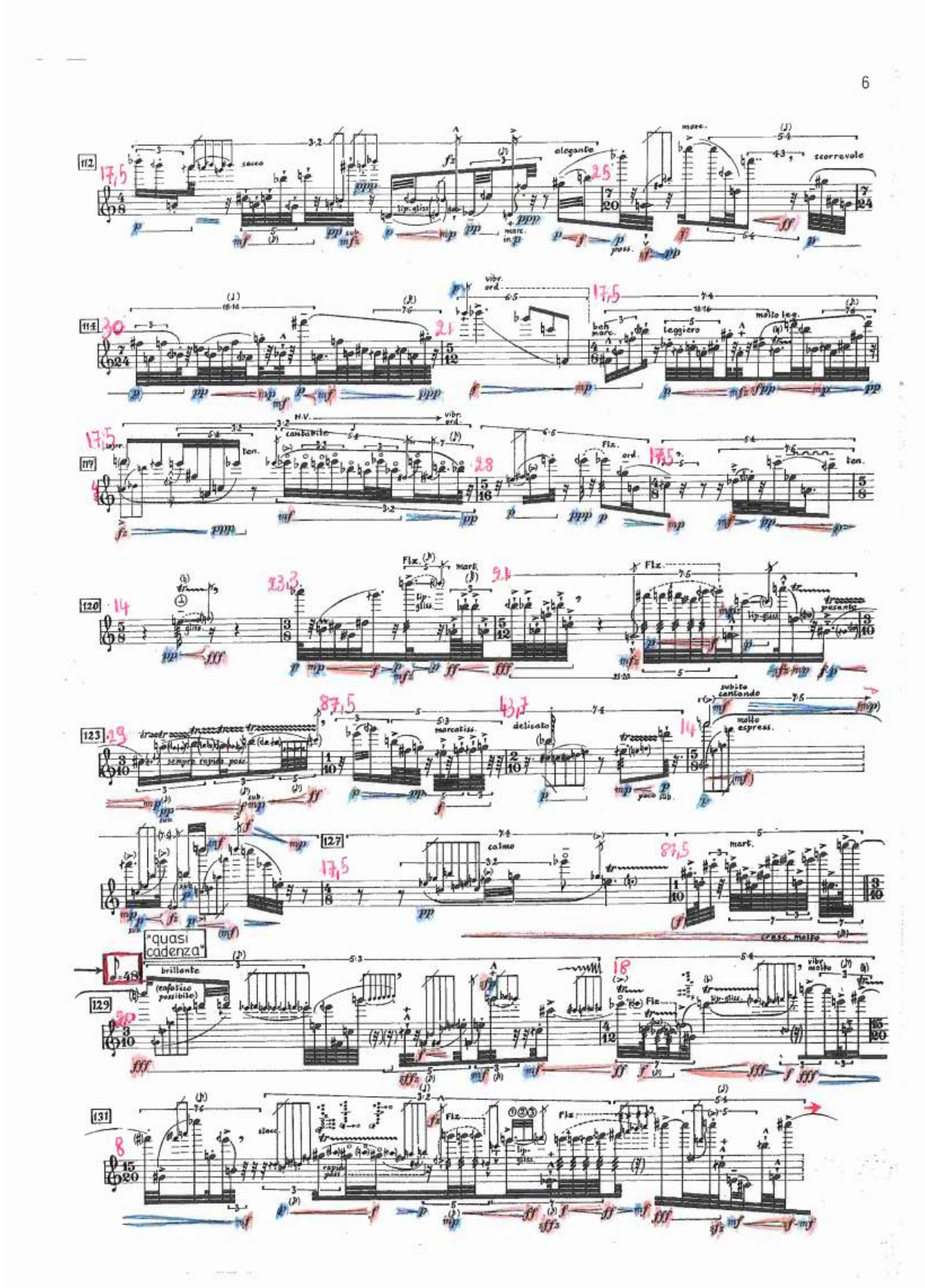
Edition Peters No. 7292b

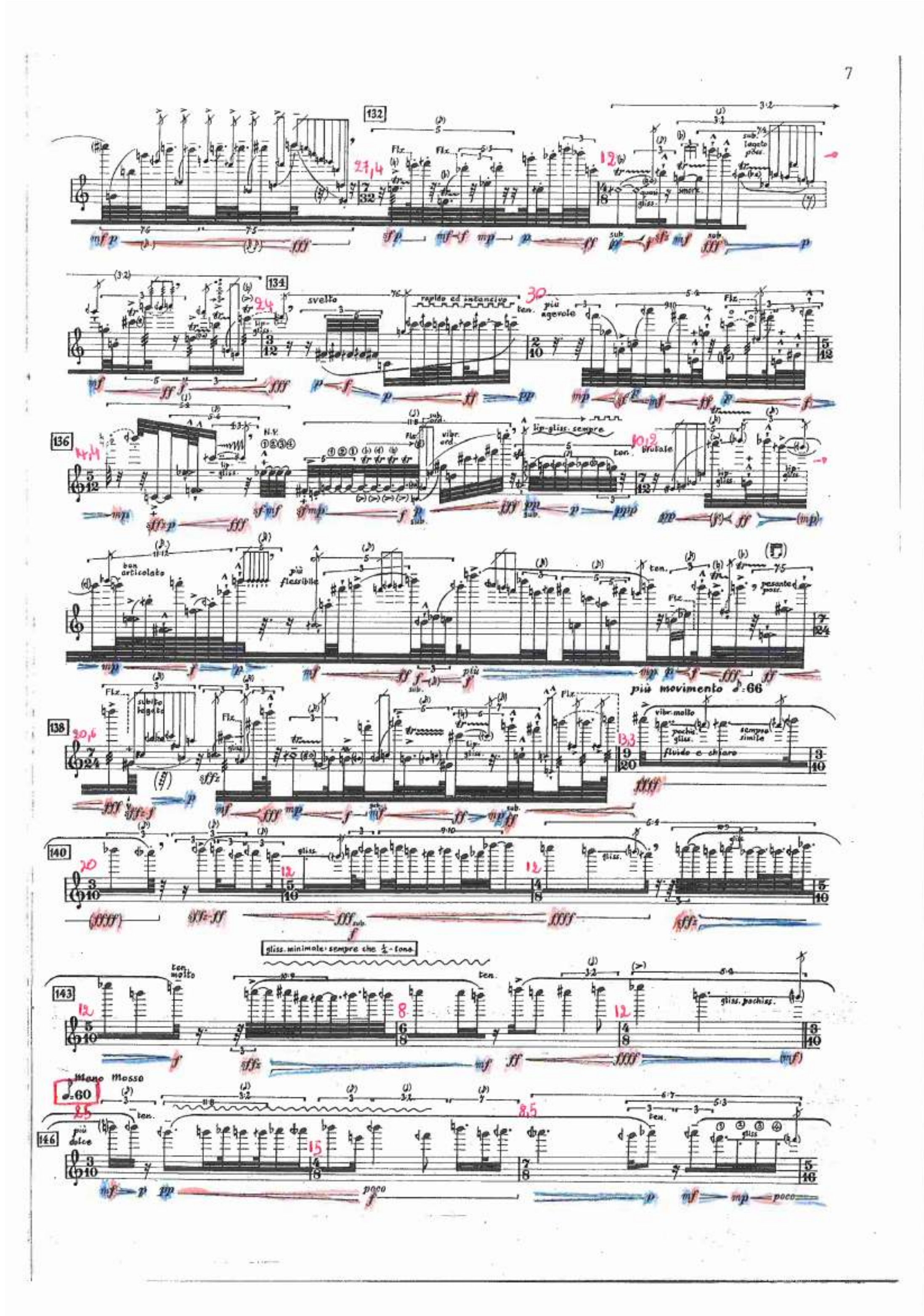

2
53,3
15
33,3
25
40
20
32
25
22,2
50
64
11,7
26,6
50
40
33,2
20
28,6
30
33,3
24
30
20
rall.
alternate trill fingering(h) whilst sliding with finger(s) between main notes.
rall.
46,5

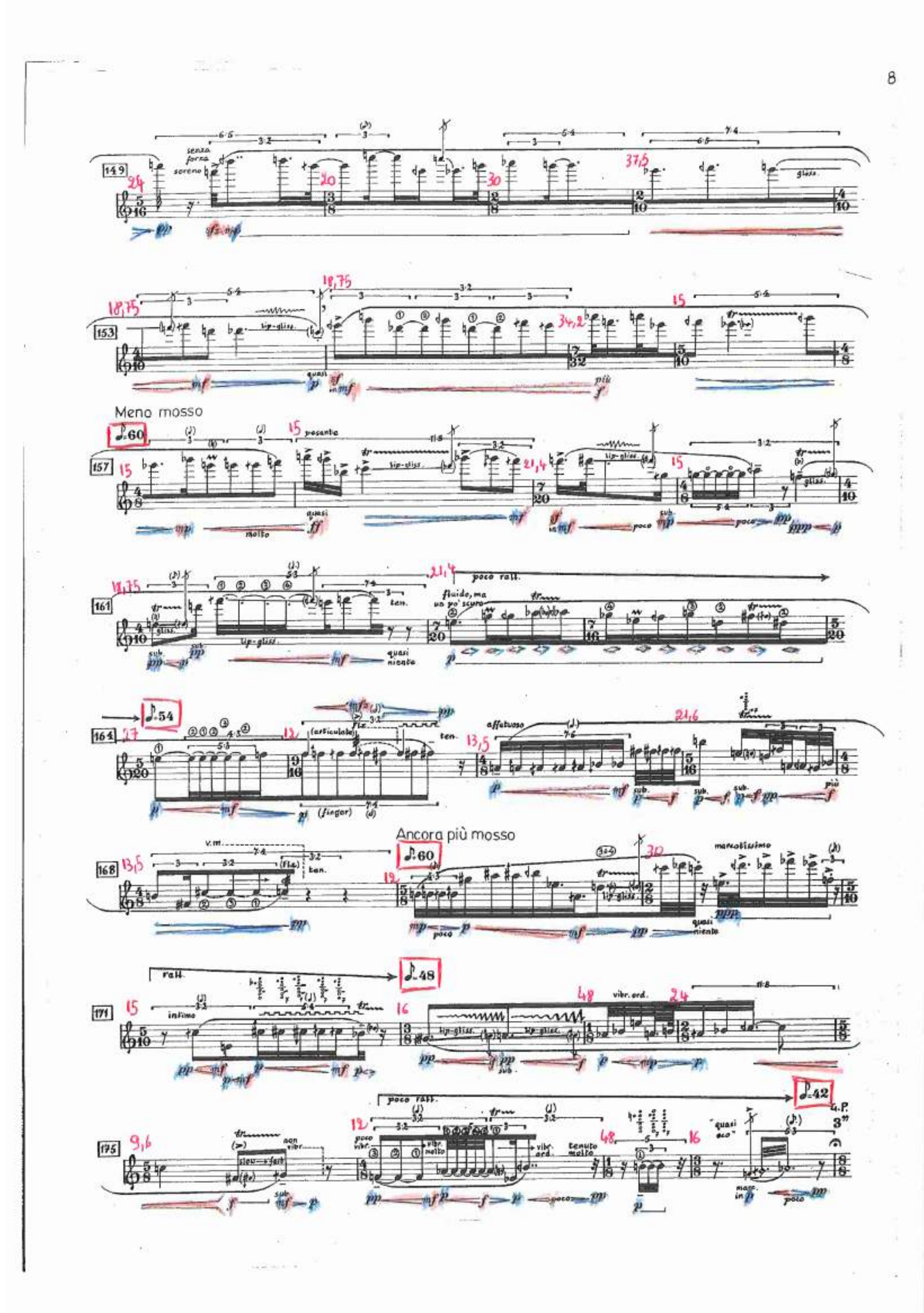

deciso
più leggiero
un poco morbido
molto pesante
sciollamente
poco rall
chiaro
A Tempo
calando
subito agile e leggiero
ravvivando
poco rall.
A Tempo
agevole
inquieto
Slide gradually (*) off A-key, together with ¼-tone lip-gliss.
poco rall.
sempre più pesante
ben articolato
A Tempo
più tranquillo
sempre più intenso
molto regolo
frenetico

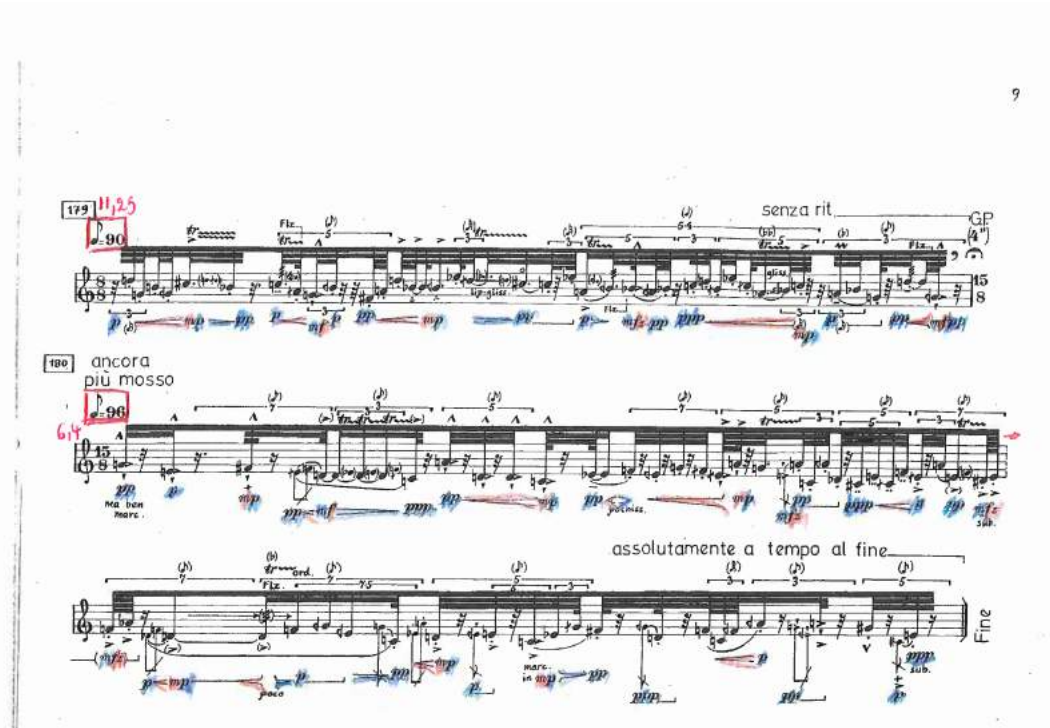

4
Different fingerings around same note.
lip gliss up whilst fingers move microt. down


5
accel.
incalzandosi
energico
molto marc.
più fluido
pesante
enfatico
ben artic.
secco
molto ritmico
legatissimo
graziosa
violentissimo
con calore
più nervoso
rapido

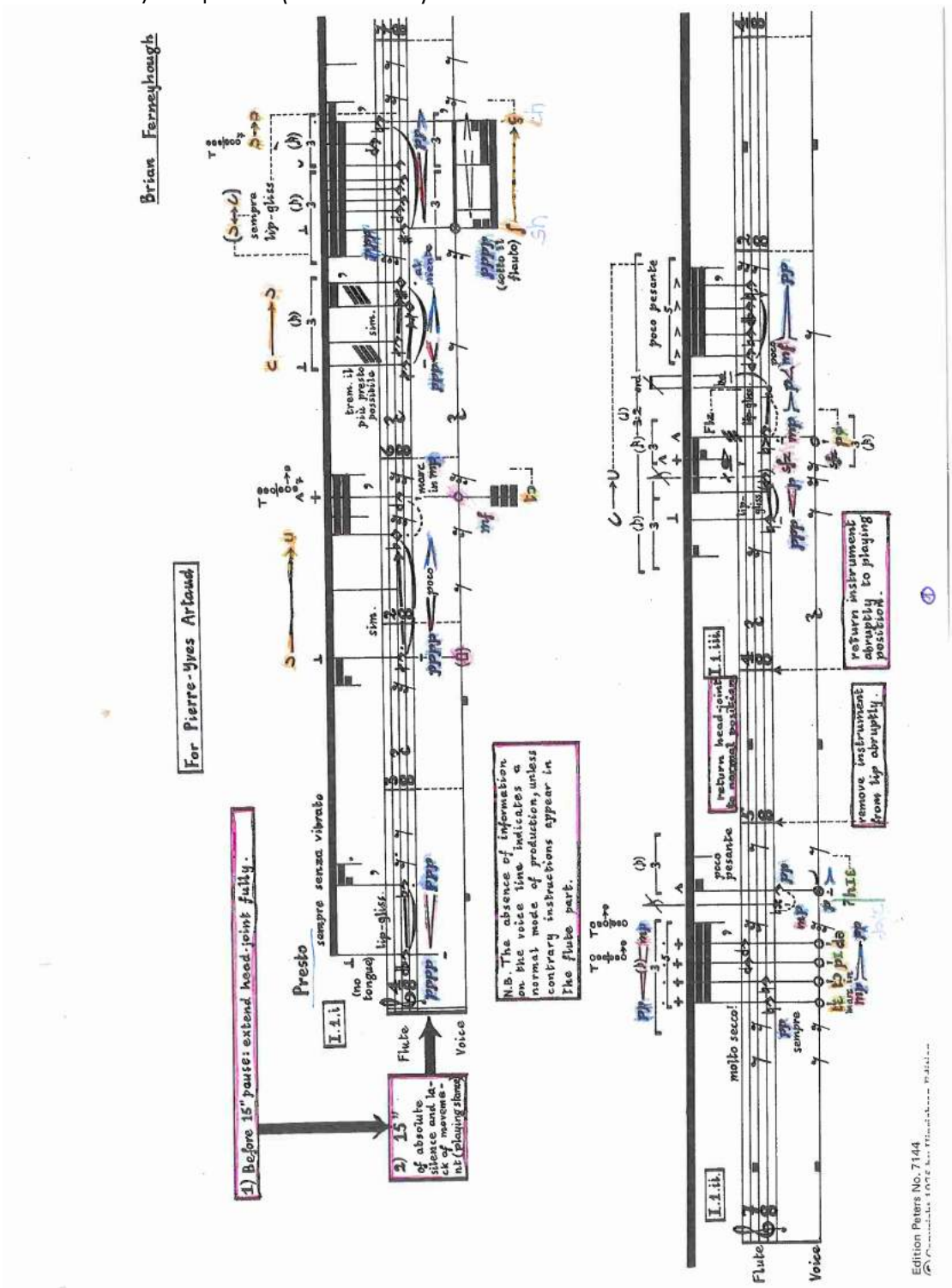

6
secco
elegante
scorrevole
leggiero
molto leg.
cantabile
delicato
molto espress.
calmo
"quasi cadenza"
brillante
(enfatico possibile)
cresc. molto

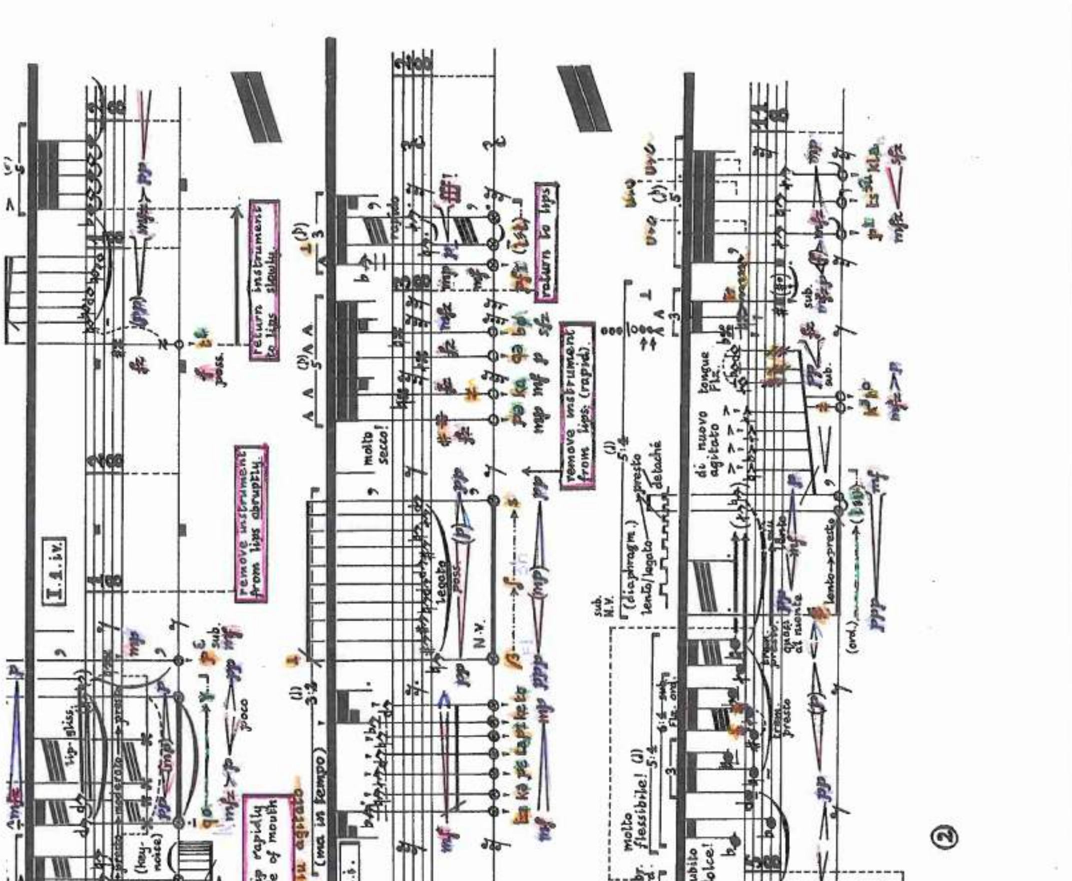

7
svelto
rapido ed intensivo
più agevole
lip-gliss. sempre
brutale
ben articolato
più flessibile
pesante
più movimento
vibr. molto
fluido e chiaro
gliss. minimale: sempre che 1/4 - tono
gliss. pochiss.
Meno mosso
più dolce

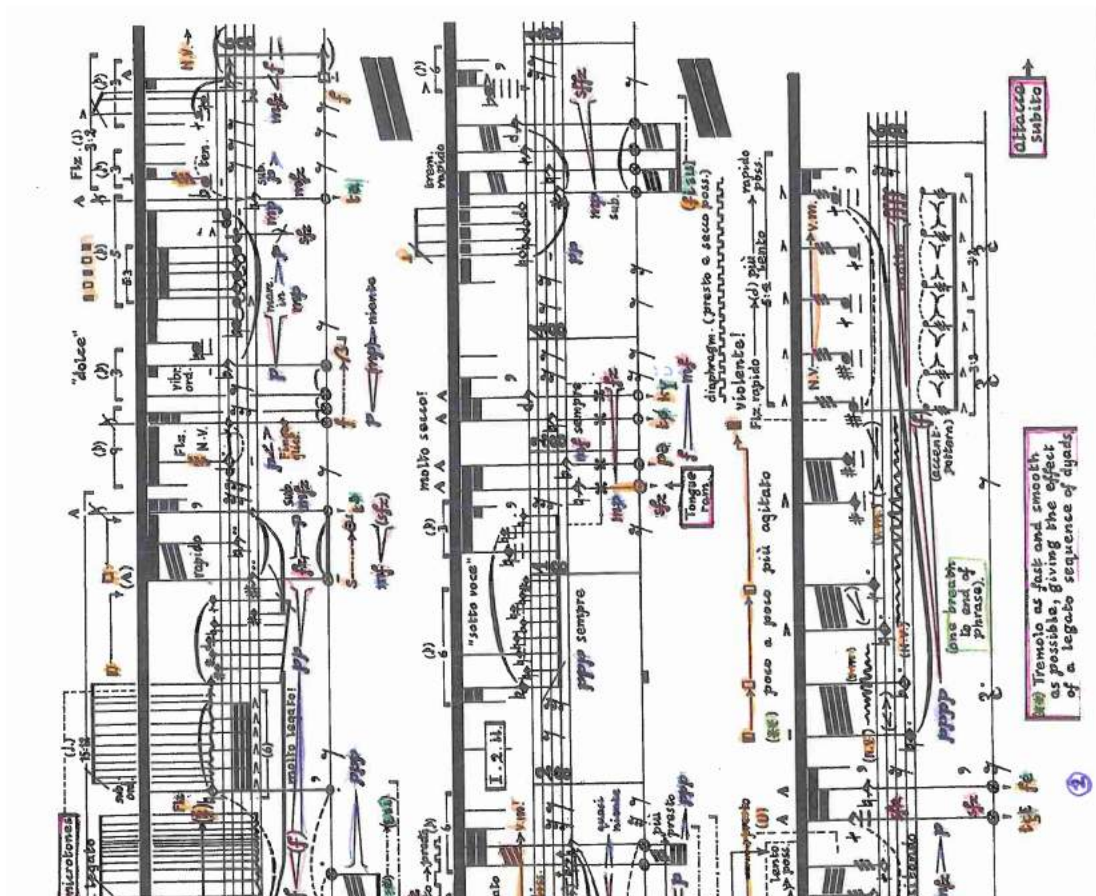

8
Meno mosso
Ancora più mosso

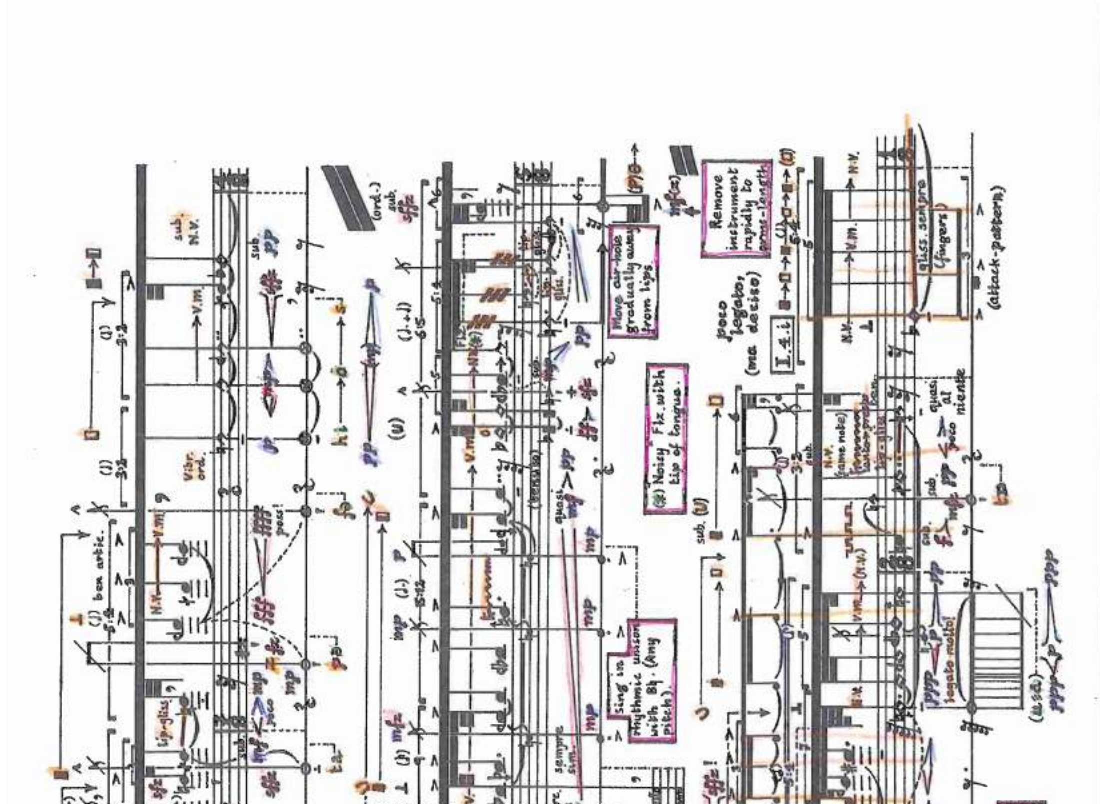

179
senza rit.
GP
180
ancora
più mosso
assolutamente a tempo al fine
Fine

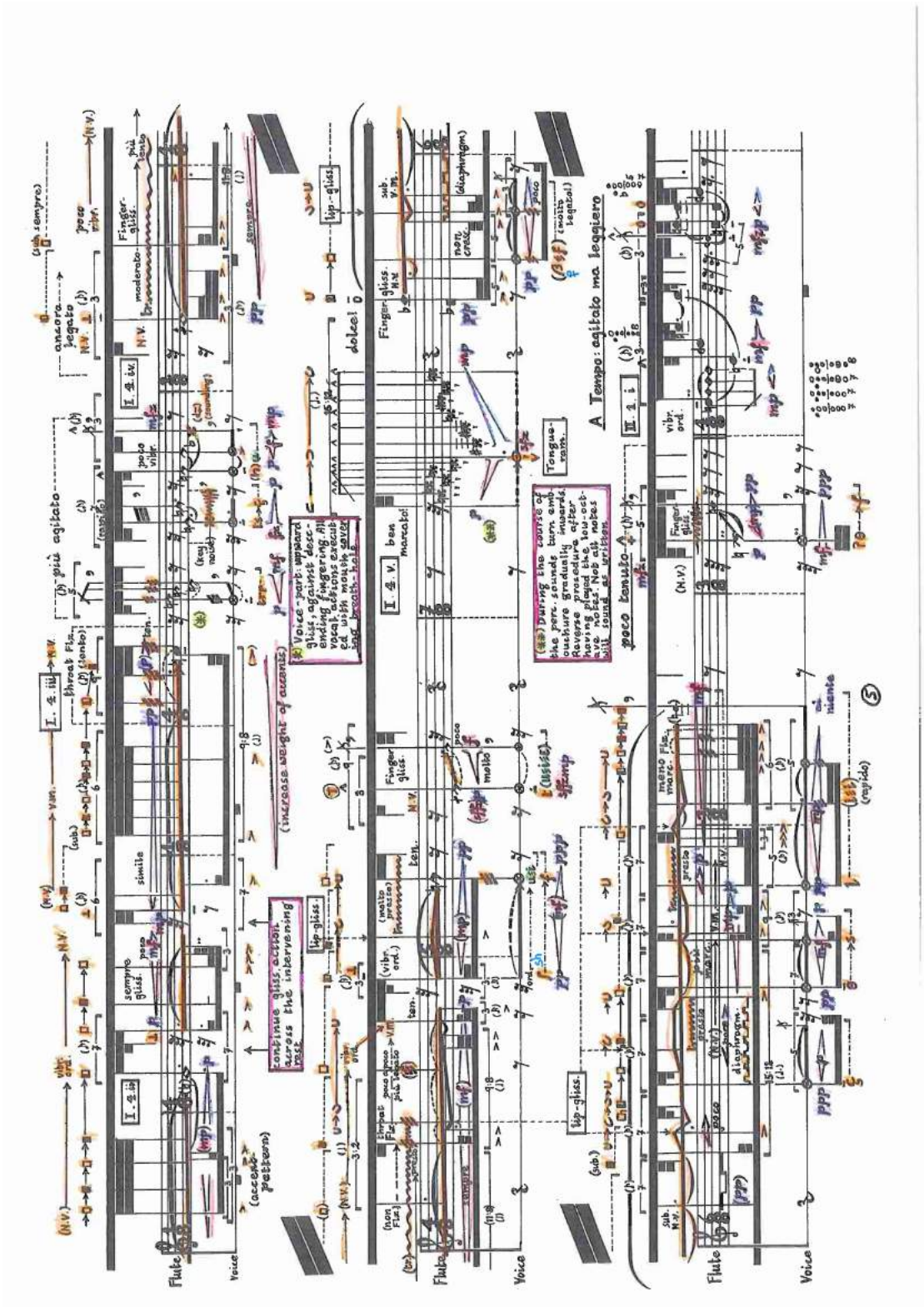
Score: Unity Capsule (1975-1976)

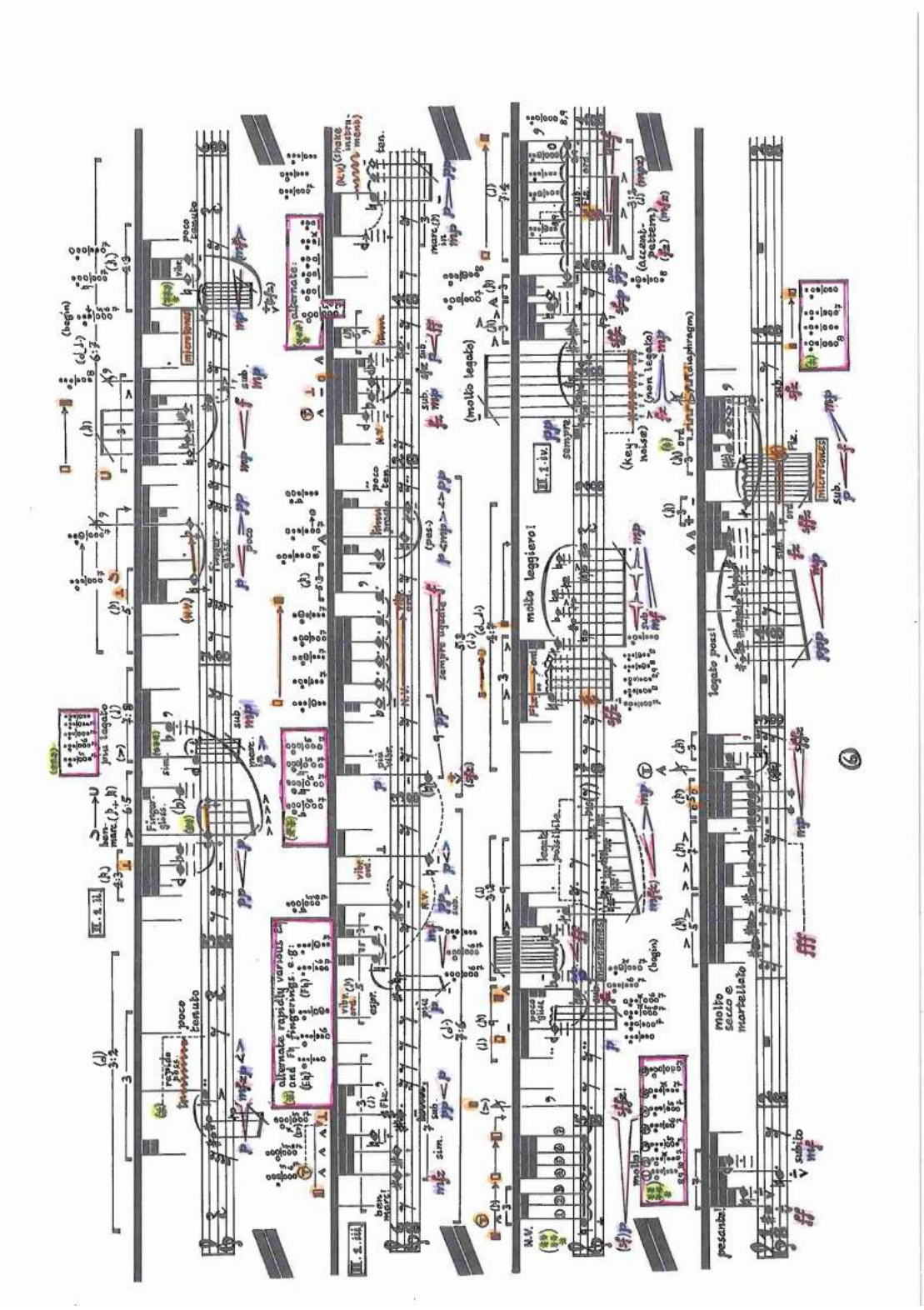


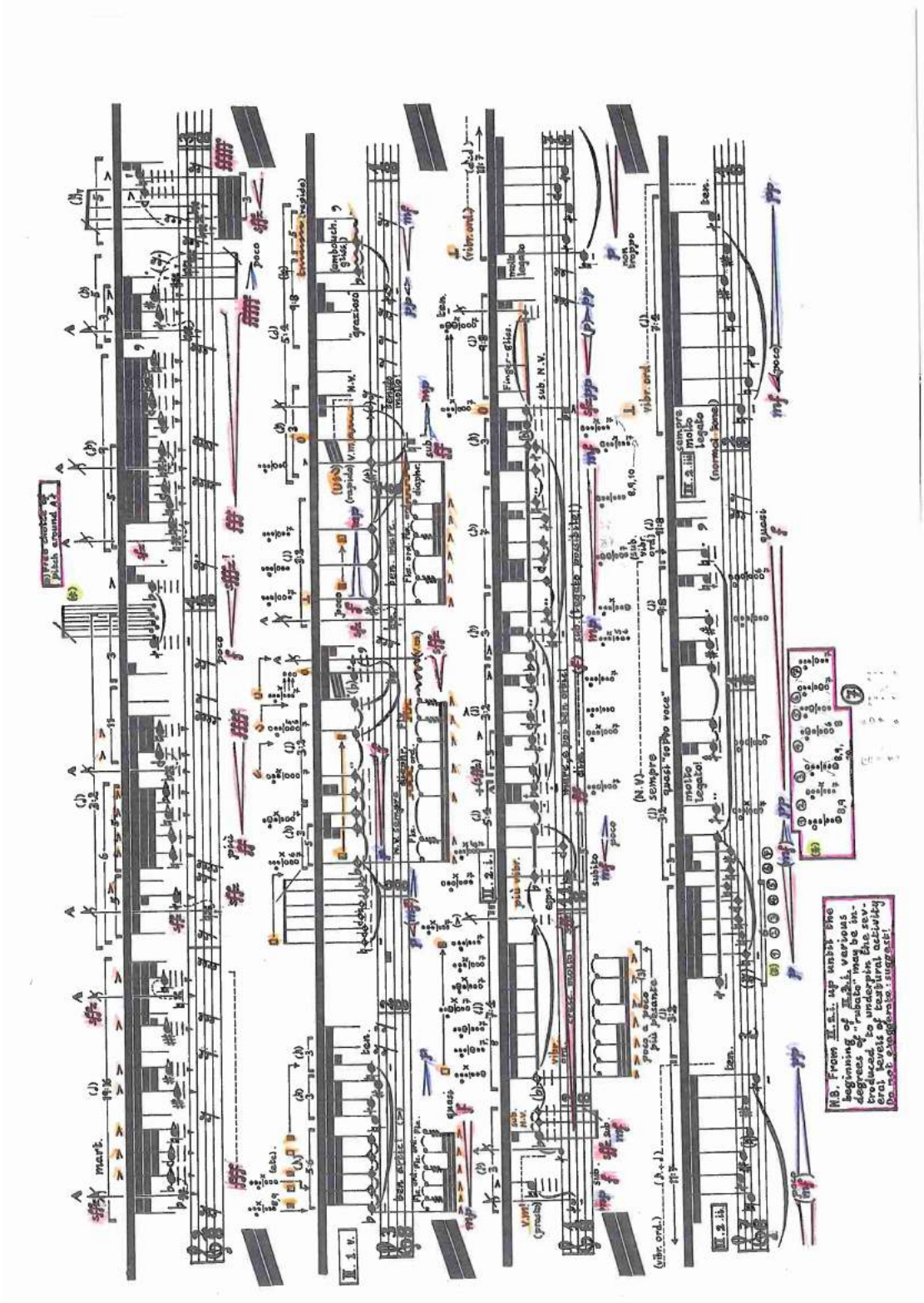

Flute
Voice
N.V.
lip-gliss.
pesante
espr. e ben articolato
(key-noise)
remove instrument from lips abruptly
return instrument to lips slowly
move tongue tip rapidly from side to side of mouth aperture.
più agitato
(ma in tempo)
molto secco!
remove instrument from lips (rapid)
return to lips
molto flessibile!
subito dolce!
di nuovo agitato
non troppo

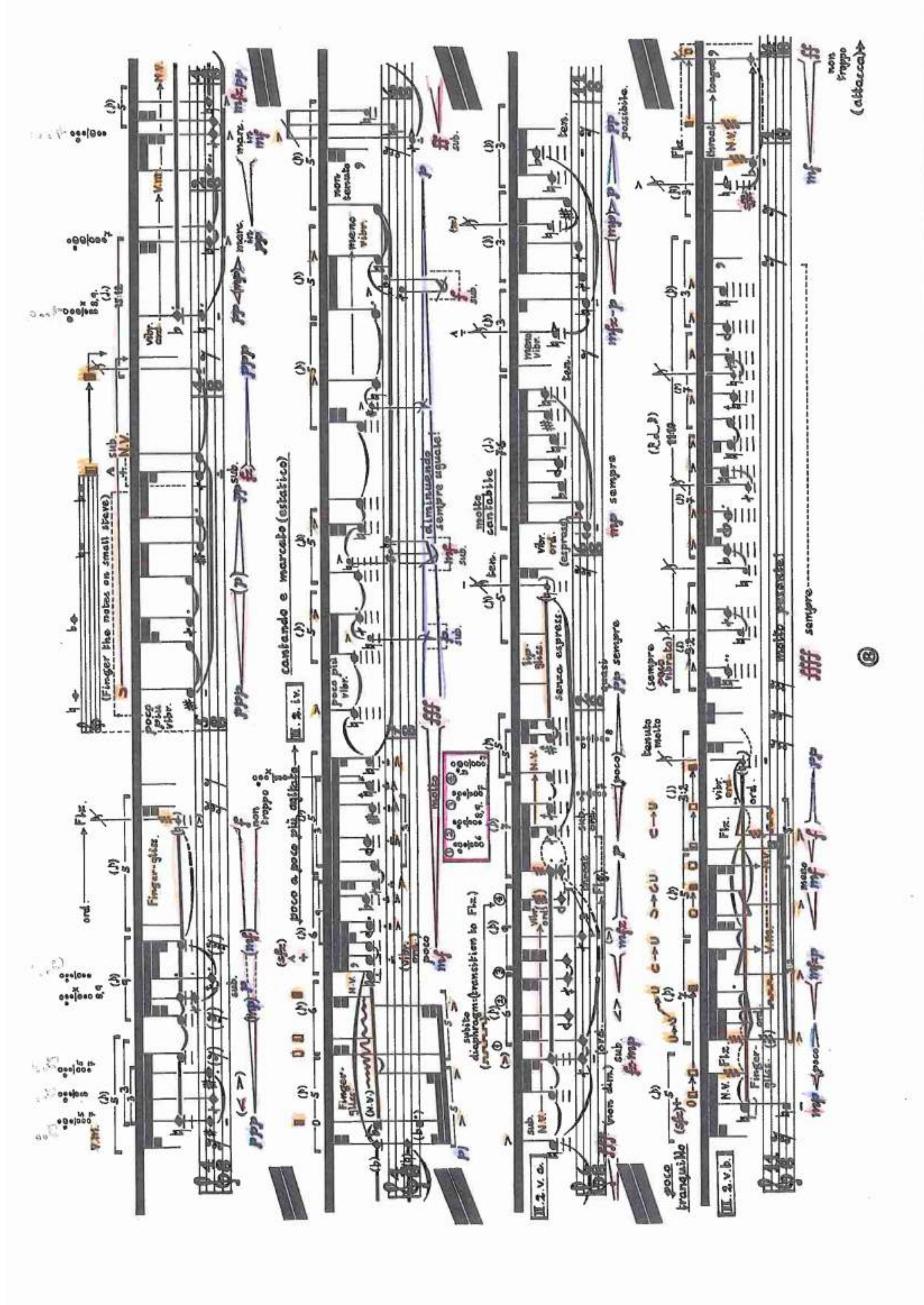

Flute
Voice
microtones
"dolce"
molto secco!
"sotto voce"
ppp sempre
violente!
poco a poco più agitato
Tremolo as fast and smooth as possible, giving the effect of a legato sequence of dyads
attacca subito

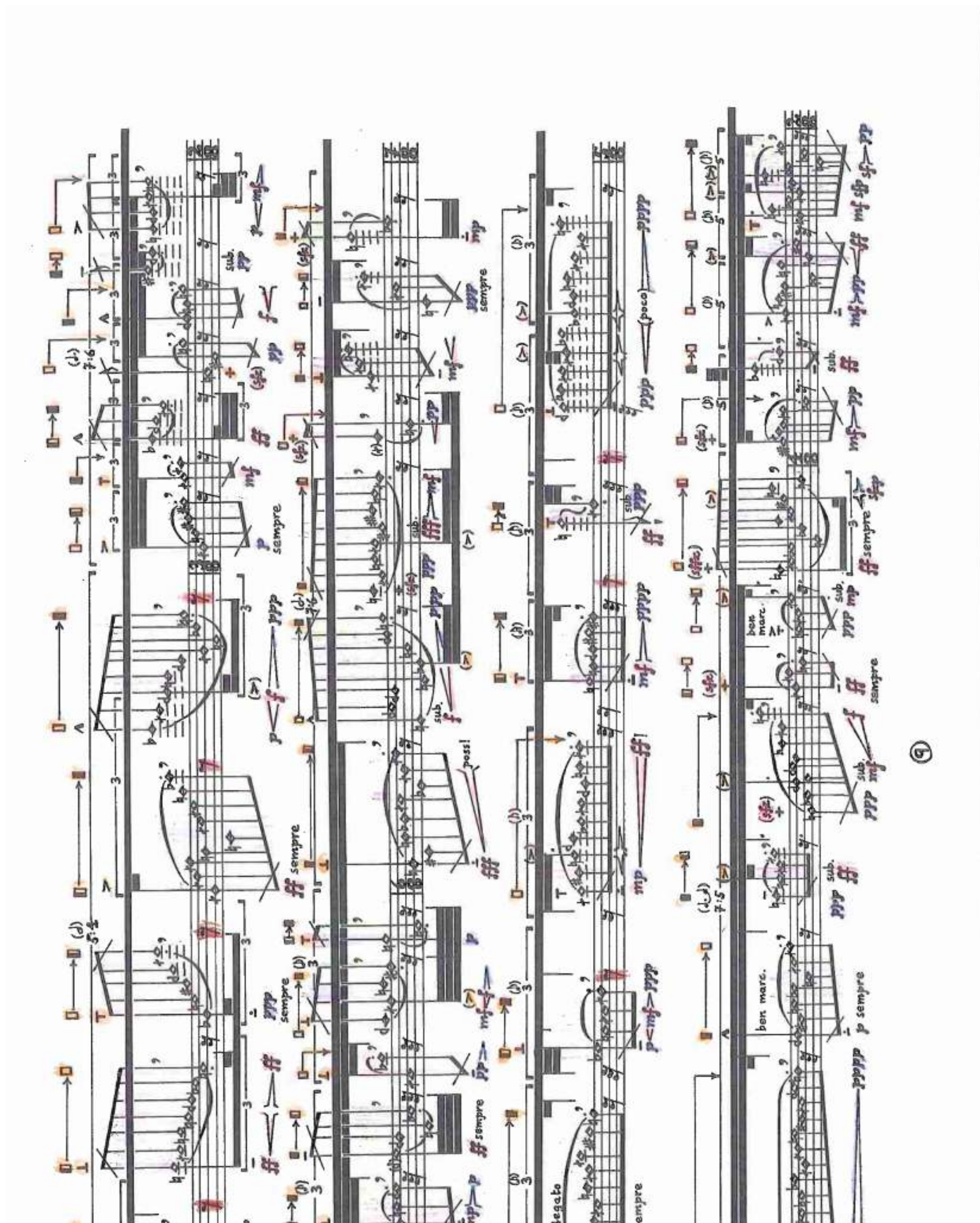

I.3.i
I.3.ii
I.3.iii
Flute
Voice
Move air-hole gradually away from lips.
Noisy Flz. with tip of tongue.
Sing in rhythmic unison with Bj. (Any pitch).
Remove instrument rapidly to arms-length
Return instrument rapidly to playing position
Exaggeratedly sweet and cloying tone.
(Accent-pattern)
(attack-pattern)
(Tongue-click)
molto intimo!

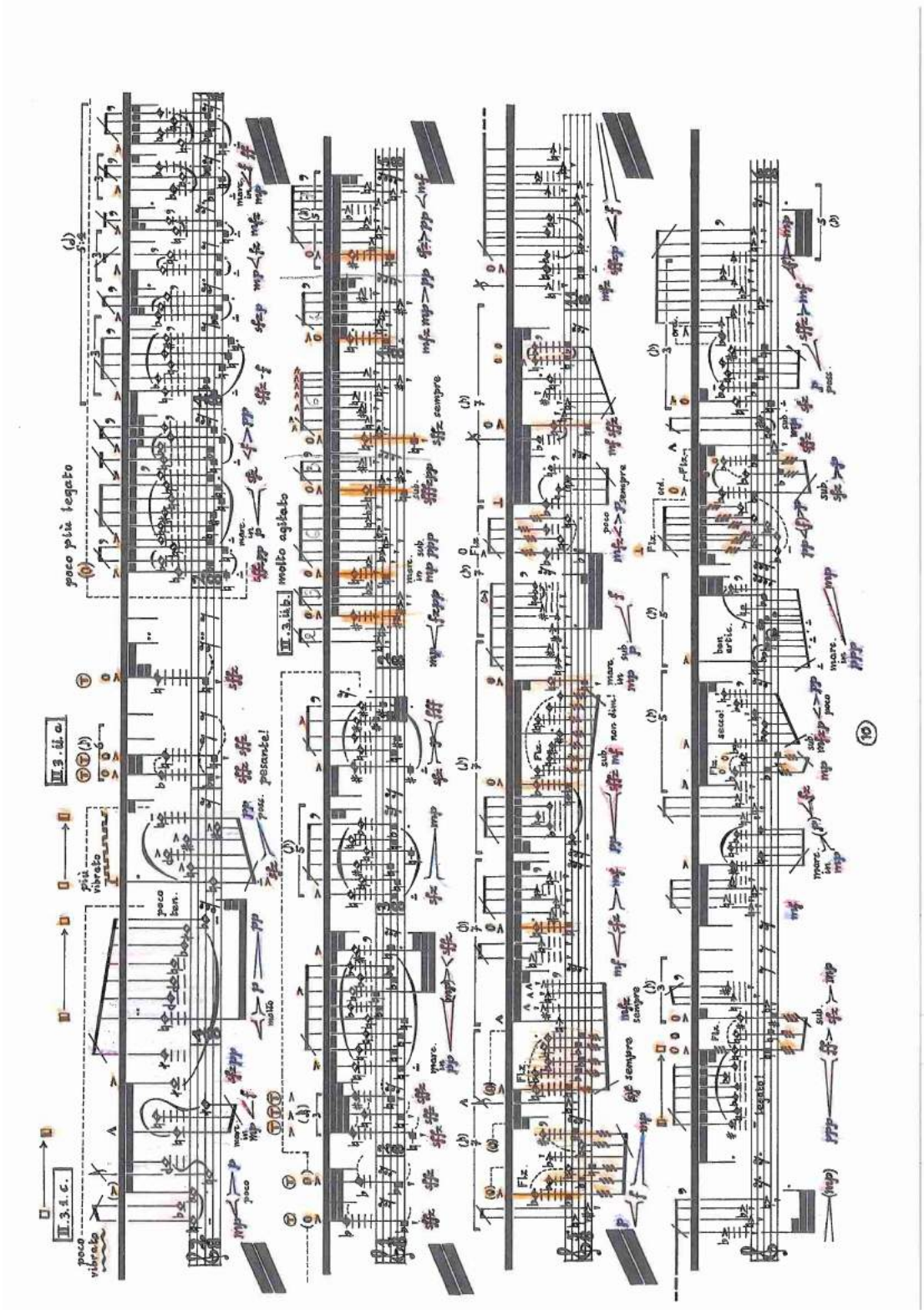

A Tempo: agitato ma leggiero
poco tenuto
Flute
Voice

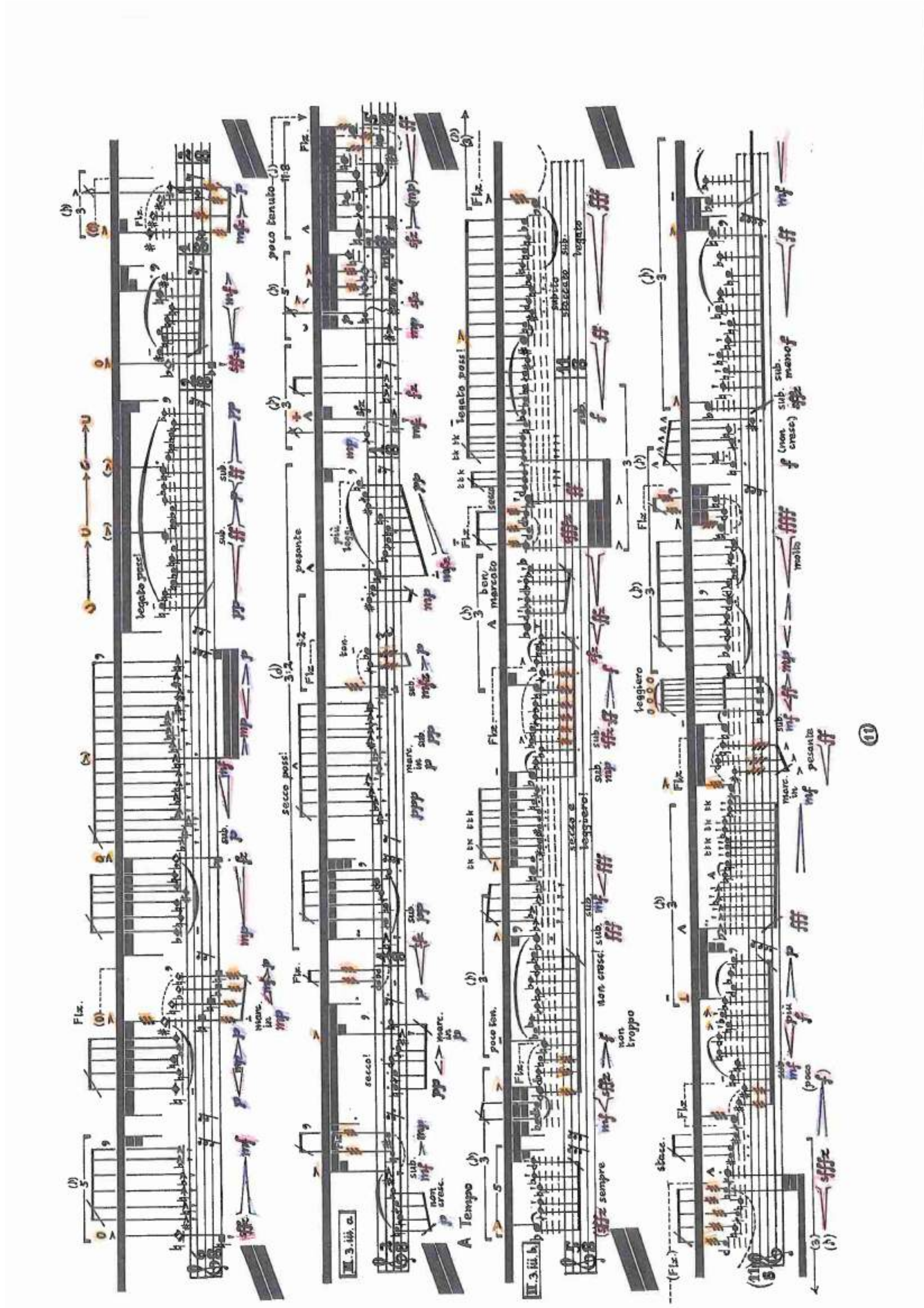


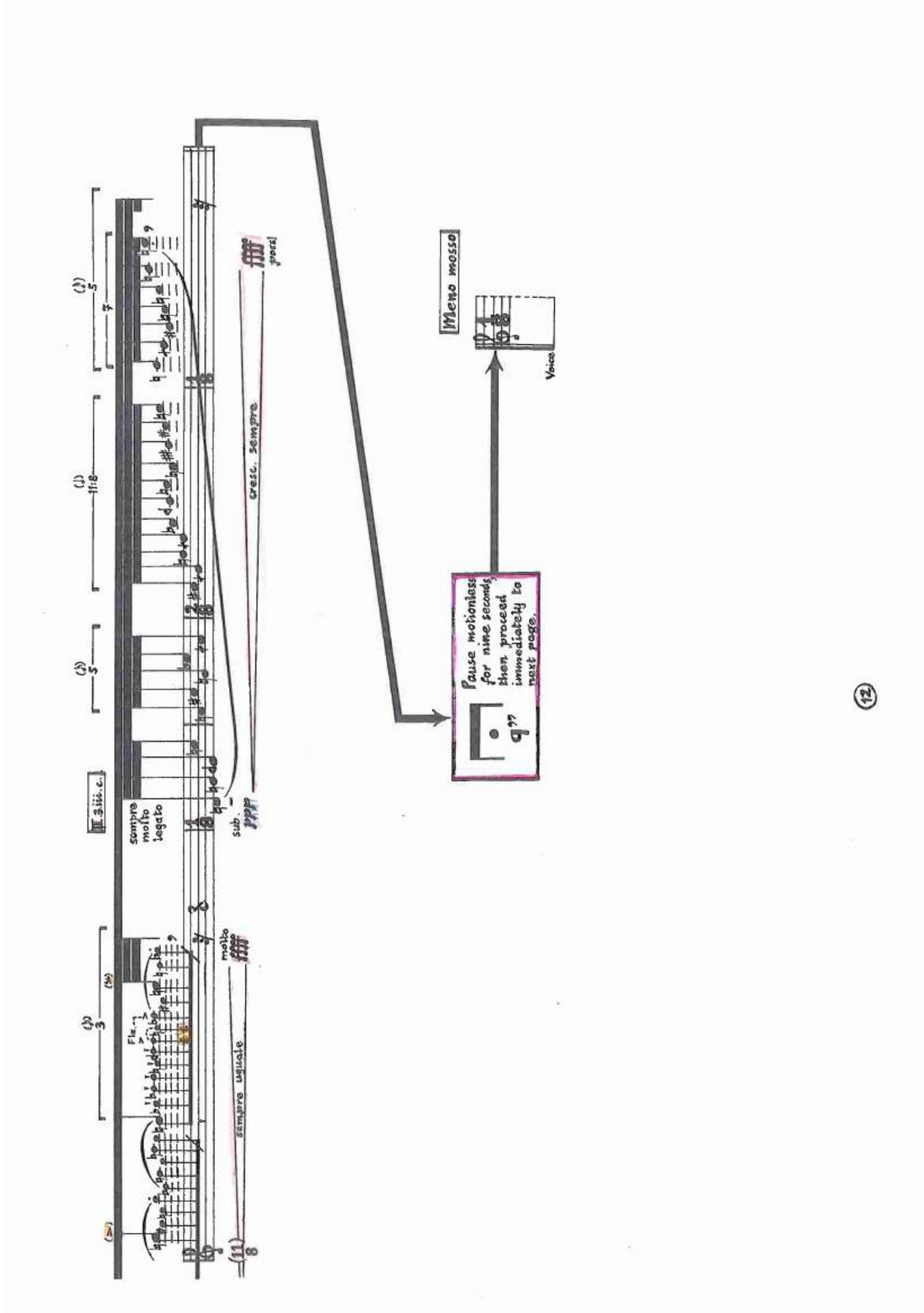

N.B. From III.2.i. up until the beginning of III.3.i. various degrees of rubato may be introduced to underpin the structural density levels of textural activity. Do not exaggerate, suggested!

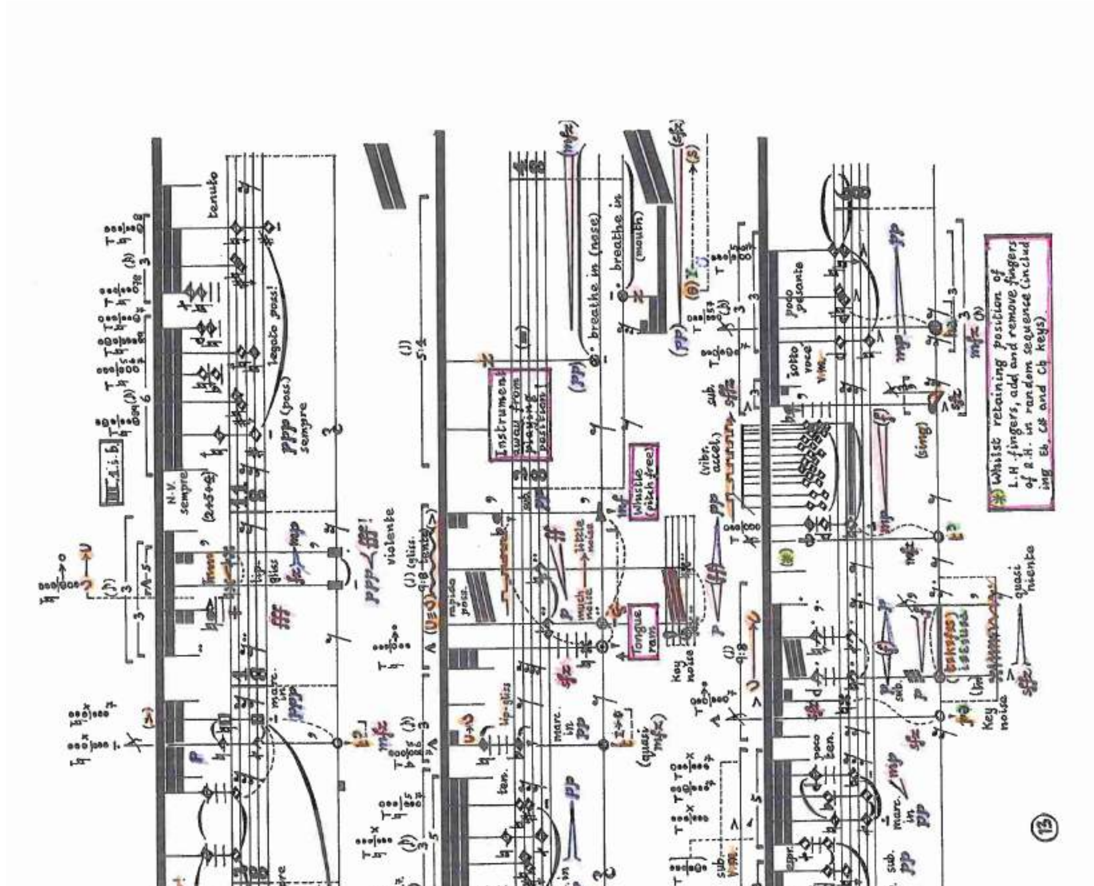

(Finger the notes on small staves)
cantando e marcato (estatico)
poco a poco più agitato
diminuendo sempre uguale
molto cantabile
senza espress.
non troppo
(attacca)

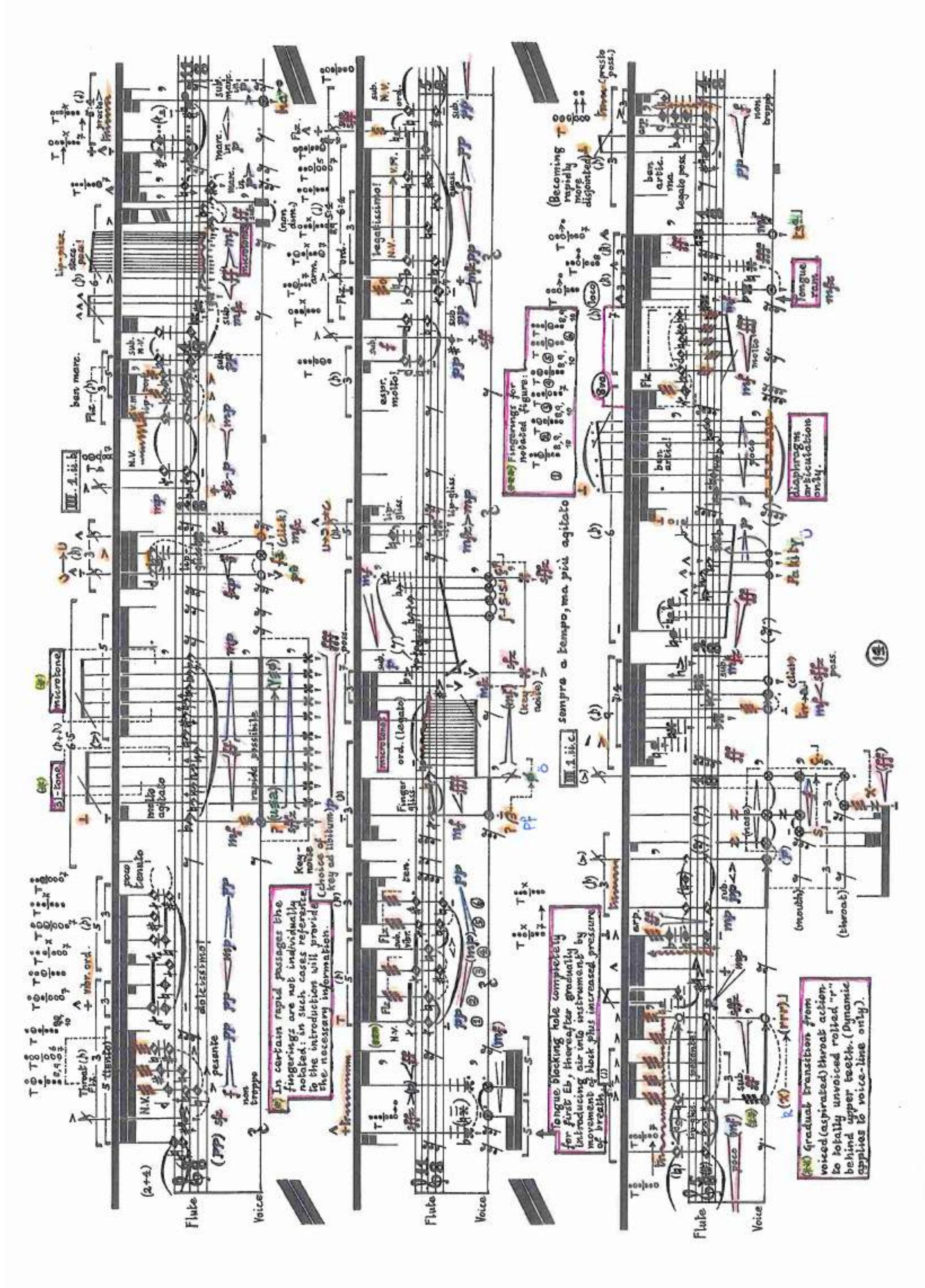

II.3.1.a.
II.3.1.b.
molto legato
ben marc.
sempre
9

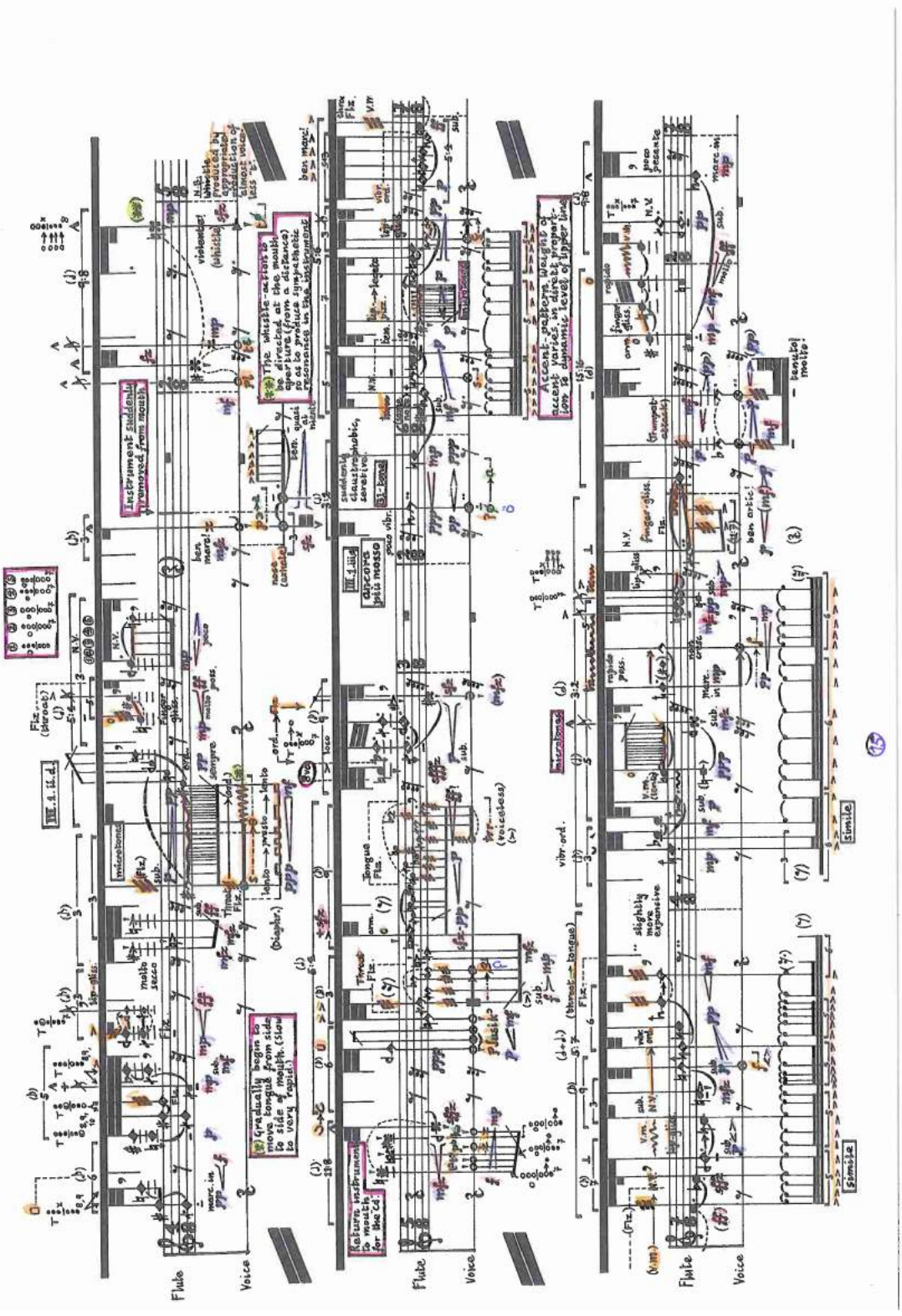


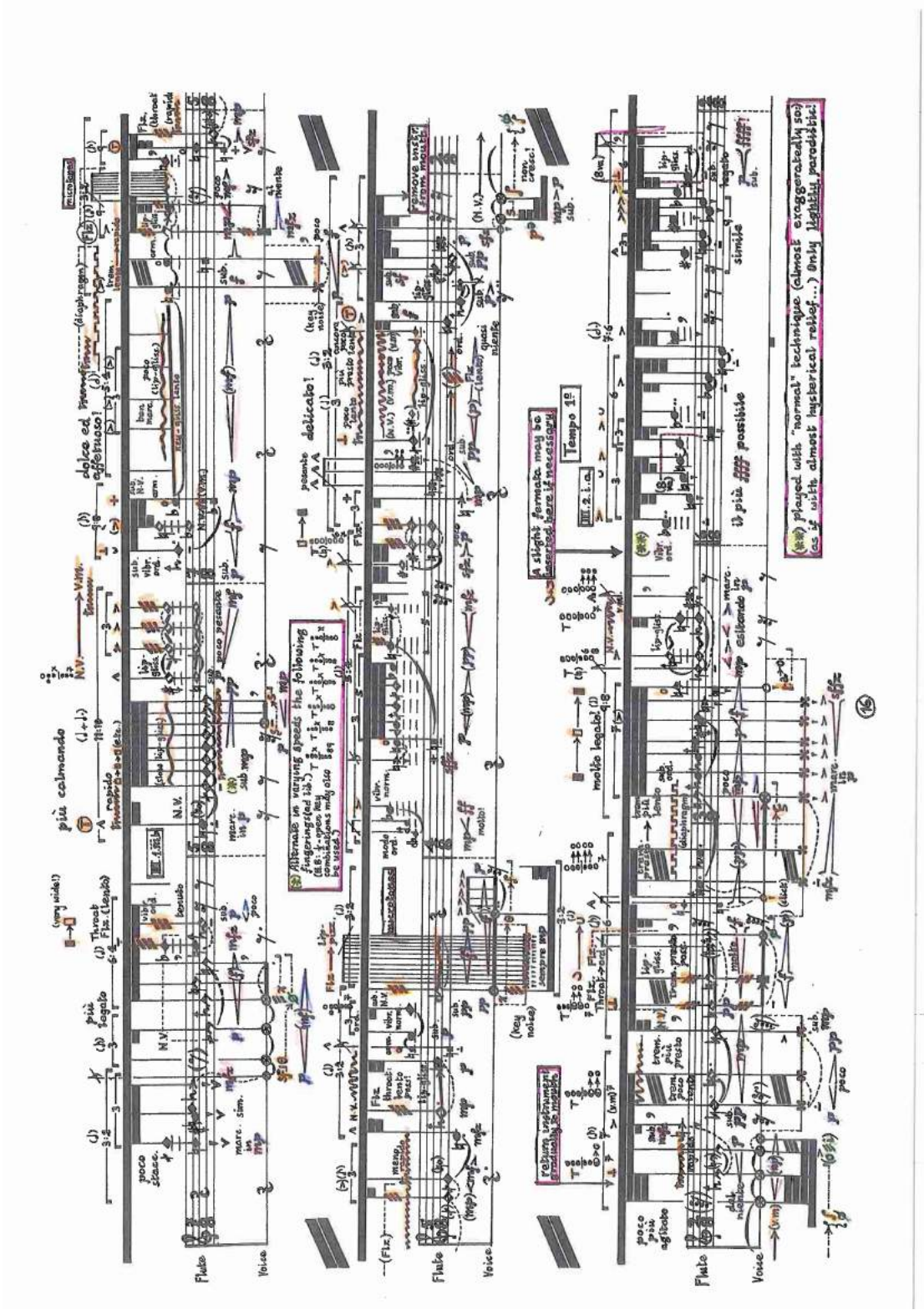


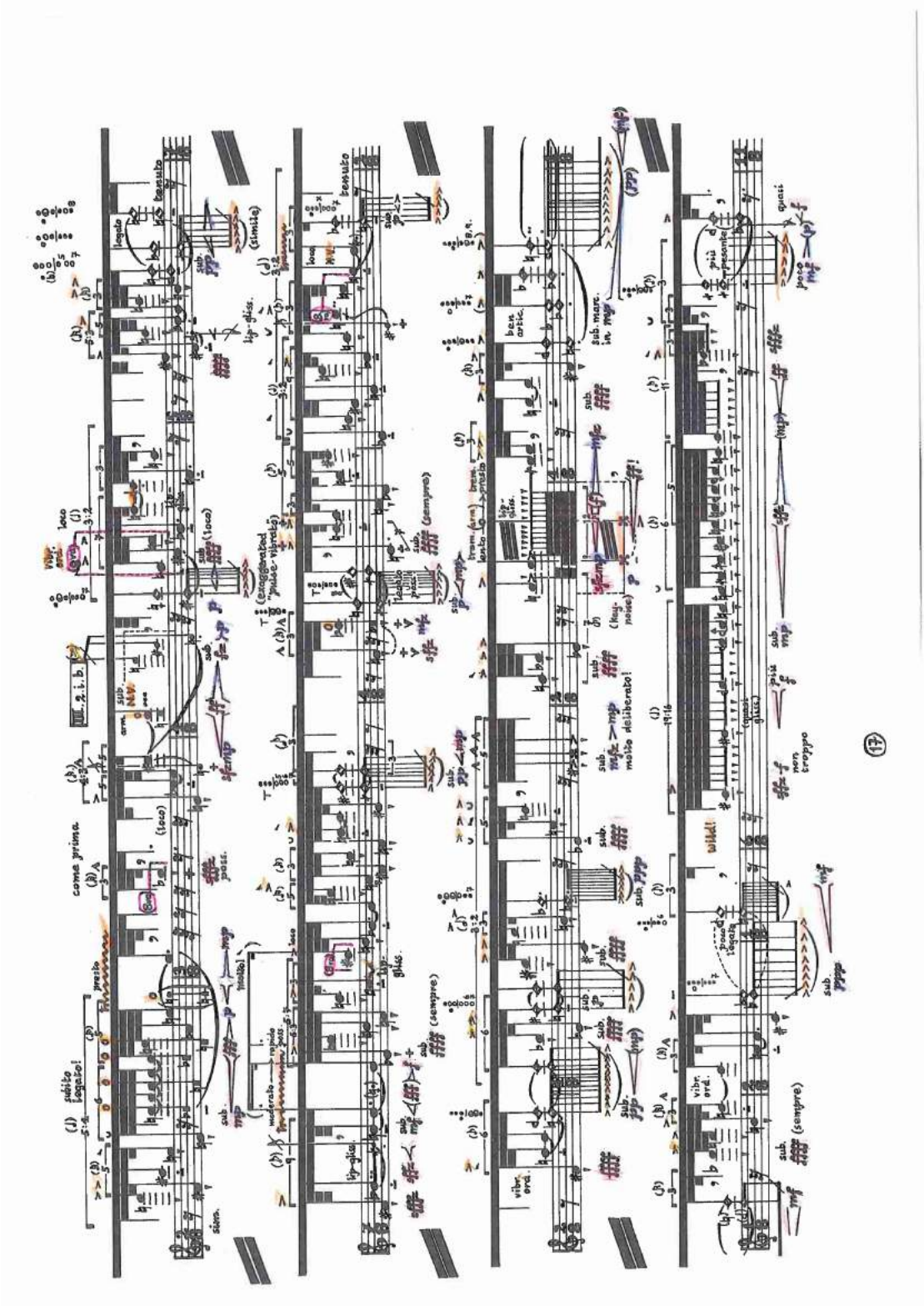

sempre uguale
molto
sempre molto legato
sub.
cresc. sempre
Pause motionless for nine seconds, then proceed immediately to next page.
Meno mosso
Voice
(12)

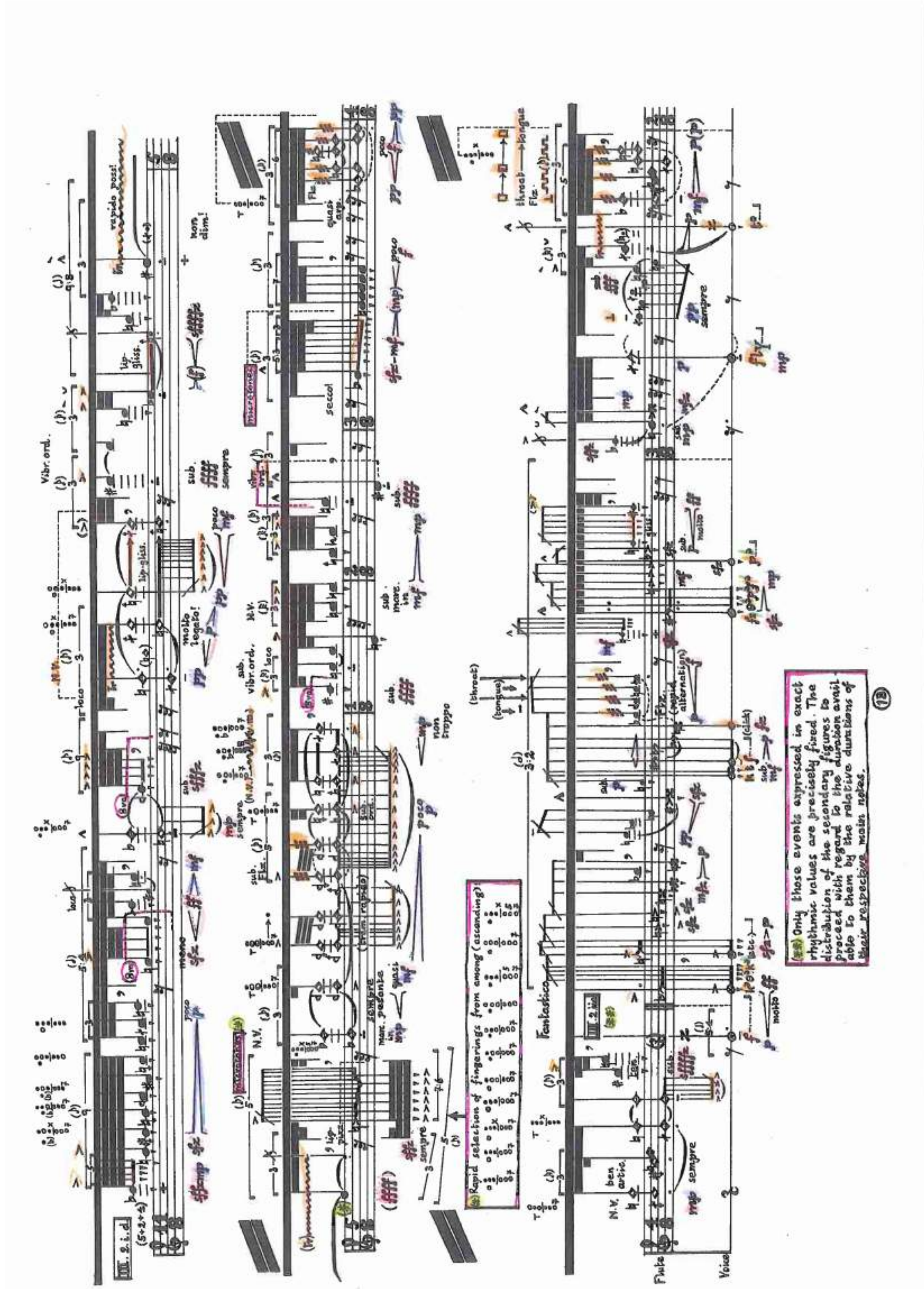

Meno mosso (see introduction)
esitante
tenuto
violente
poco leggiero
breathe in (nose)
breathe in (mouth)
Whistle (pitch free)
Tongue ram
Key noise
poco più mosso
(click)
sotto voce
poco pesante
quasi niente
Flute
Voice

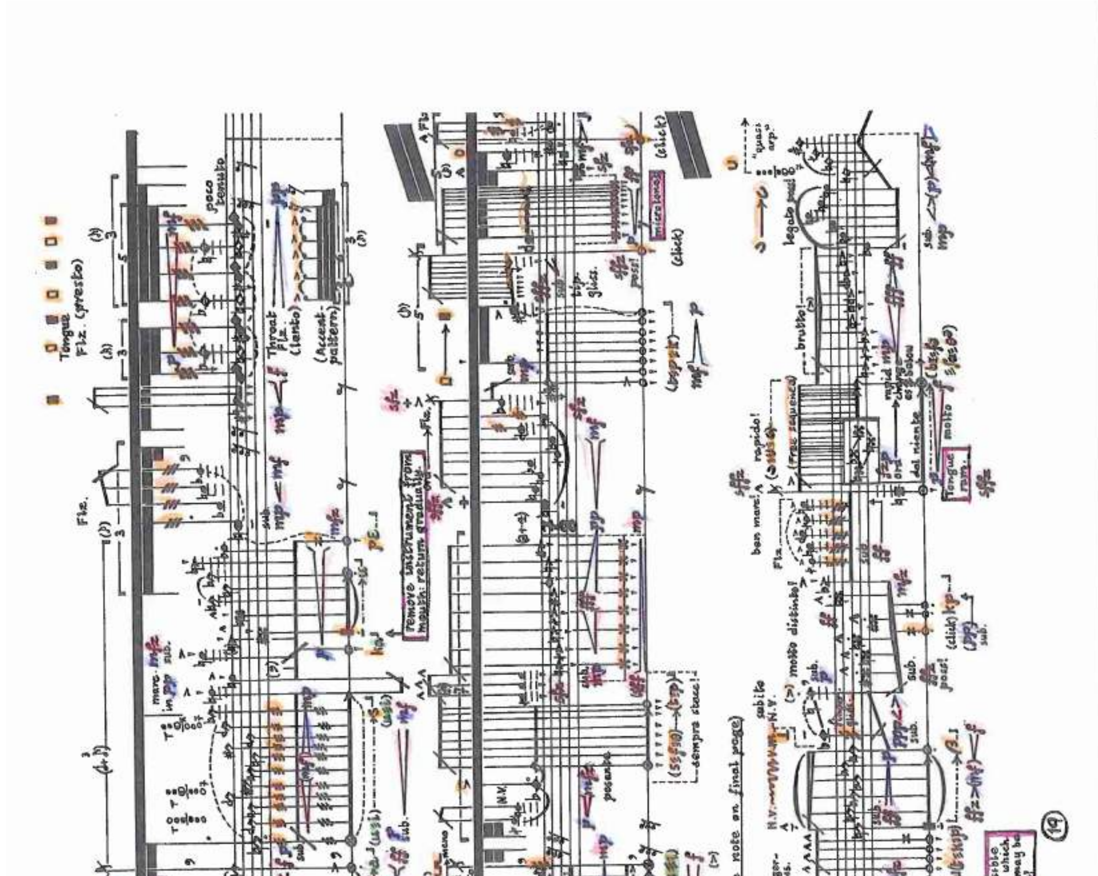

Flute
Voice
In certain rapid passages the fingerings are not individually notated: in such cases reference to the introduction will provide the necessary information.
Choice of key ad libitum
microtone
sempre a tempo, ma più agitato
Tongue blocking hole completely for first Eb, thereafter gradually introducing air into instrument by movement of block plus increased pressure of breath.
Fingerings for notated figure:
Becoming rapidly more disjointed
diaphragm articulation only.
Tongue ram.
Gradual transition from voiced (aspirated) throat action to totally unvoiced rolled "r" behind upper teeth. (Dynamic applies to voice-line only).

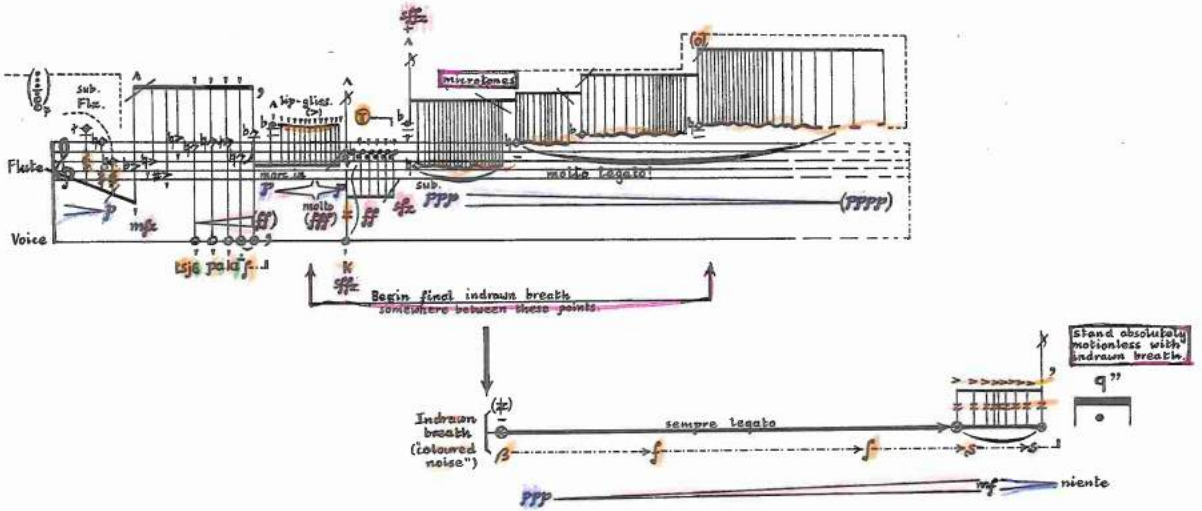

Flute
Voice
Flute
Voice
Flute
Voice


più calmando
dolce ed espressivo
delicato!
Tempo 1º
possible
Flute
Voice




Flute
Voice
Fantastico
Rapid selection of fingerings from among (ascending)
(**) Only those events expressed in exact rhythmic values are precisely fixed. The distribution of the secondary figures to proceed with regard to the duration available to them by the relative durations of their respective main notes.
(13)


Flute
Voice
Senza misura!
See note on final page
remove instrument from mouth; return gradually
molto legato!
last possible place at which breath may be taken!



Fine:
January 1976

(*) No breath may be taken in the "senza misura" after point given on the previous page. When air reserves are exhausted, the actions for the remaining material are to be mimed silently. At an appropriate moment the indrawn breath emerges gradually over the residual key noise. After inhaling to the fullest possible extent, the final position is to be held for exactly q" before releasing suddenly the breath: at the same instant the instrument is rapidly (and demonstratively) lowered.

Halstan & Co. Ltd., Amersham, Bucks., England

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