Preparing Spontaneity: musical language and strategies of elaboration of the improvised discourse

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August 2021

A paper submitted to McGill University in partial fulfillment of the requirements of the degree of DMus. Performance Studies

In memory of my clarinet teacher Cécile Costilhes, who taught me that musicality was more important than technique.

Ne t'attache en toi qu'à ce que tu sens qui n'est nulle part ailleurs qu'en toi-même, et crée de toi, impatiemment ou patiemment, ah! le plus irremplaçable des êtres.

Les Nourritures Terrestres (1897),
André Gide

Music is your own experience, your thoughts, your wisdom. If you don't live it, it won't come out of your horn.

Charlie Parker

ACKNOWLEDGEMENTS

I would like to thank the members of my doctoral committee: my supervisor Prof. Jean-Michel Pilc, who is an immense source of musical inspiration and whose insight on the improvisational process is enlightening; my co-supervisor Prof. Fabrice Marandola, who shared his invaluable musical expertise with boundless generosity and showed inexhaustible patience guiding me through this project; Prof. John Hollenbeck, whose unique perspective as an improviser and composer has expanded my vision; and Prof. Lena Weman, for her trust and support.

My friends and fellow doctoral students Andrés Vial, Alexis French, and Philippe Côté, who kindly lent me a microphone and did an excellent job at mixing my solo recording. Professors Kevin Dean, Joe Sullivan, and Rémi Bolduc, for their unique musicianship and generosity.

My wife Sarah, for constantly stimulating my creativity and making me feel that everything is possible, and for her inexhaustible patience throughout this work, in a period when our nights were particularly short; my son Yasha, who was born during the first year of this doctorate and who is responsible for these short nights! He brings me joy every day and already amazes me with his improvisations on the keyboard; my father Henri, a first rank scientist and an exceptionally talented pianist, and my very first teacher in improvisation; my mother Elisabeth, for her unconditional support, and for being a model of perseverance; my sister Chloé, who never stops impressing me with her brilliant personality, and whose footsteps I have followed when pursuing this doctorate; my in-laws Janet and David, for their interest and support in my music, and for all the good moments we share.

Laurent Cugny and Matthew Gelbhart, for their support with this research and our fruitful discussions; my first saxophone teachers, Thomas Savy and Tom Buckner, who fed the flame and gave me the confidence to pursue a career as a musician; George Garzone and Hal Crook, my musical heroes and mentors, whose contribution to my musical development is invaluable, and without whom this thesis would never have been possible; Olivier Hutman, whose swing and spontaneity are contagious and with whom I look forward to spending many more joyful moments playing; Gui Duvignau, Michael Sachs, Dylan Coleman, Ariel Tessier, Jeong Lim Yang, Neil O'Loghlen, Jun Young Song, Federico Casagrande, Gautier Garrigue, Yoni Zelnik, Antoine Karacostas, Stéphane Tsapis, Xavier Thollard, Michel Reis, Thiago Ferte, Nick Grondin, James Danderfer, Adrian Receanu, Mike Bjella, Peter Peter, Adrien Sanchez, Laurent Clouet, Donald Kontomanou, Leïla Olivesi, Fabien Debellefontaine, Nelson Veras, Cole Birney-Stewart, Michel Lambert, Joe Rosenberg, Dan Armeanca, who are my musical companions and much more.

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ABSTRACT

The purpose of the research described in this thesis is to investigate my *improvisational language* and relate it to my preparation. In the first chapter, I explore the dialectic tensions between individuality and tradition, and preparation and spontaneity, in the context of jazz improvisation. I use examples from jazz history and expose my own perspective, based on my experience as a performer. This is also the opportunity to discuss the analogy between music and language, applied to jazz improvisation, and to introduce the notion of *storytelling*. This reflection serves as a basis to investigate my *improvisational language* through a twofold approach. In the second chapter (corresponding to the first part of the investigation), I establish a methodology based on the hermeneutic interactions between performance and preparation, applied to the formal analysis of recordings of my improvisations. In the third chapter (corresponding to the second part of the investigation), I use *critical listening* as a tool to investigate my performative experience in the context of an improvised saxophone solo experiment. These two methods complement each other, the first one being useful to expand my *improvisational language,* adapting my preparation to target specific strategies*,* and the second allowing to gain insight on more elusive aspects that escape formal analysis and contribute to the *storytelling* (overarching construction of the improvised discourse, *time feel* and other aspects of execution).

RESUMÉ

Le but de la recherche exposée dans cette thèse est d'examiner mon *langage d'improvisation* et de le relier à ma préparation. Dans le premier chapitre, je fais appel à des exemples historiques du jazz et donne ma vision personnelle de musicien improvisateur pour entreprendre l'exploration des rapports dialectiques entre individualité et tradition, et préparation et spontanéité, dans l'improvisation jazz. Cette partie est aussi l'occasion de s'intéresser à l'analogie entre musique et langage, et d'introduire la notion de *mise en récit* [*storytelling*]. J'utilise ensuite cette réflexion pour examiner mon *langage d'improvisation* à travers une approche duale. Dans le deuxième chapitre (correspondant à la première partie de l'investigation), j'établis une méthodologie basée sur les interactions herméneutiques entre préparation et exécution que j'applique à l'analyse formelle d'enregistrements de mes improvisations. Dans le troisième chapitre (correspondant à la deuxième partie de l'investigation), j'utilise l'*écoute critique* comme outil pour examiner mon expérience d'improvisateur dans le cadre d'un projet d'enregistrement de saxophone en solo. Ces deux méthodes sont complémentaires, la première permettant de développer mon *langage d'improvisation* en adaptant ma préparation pour établir des stratégies spécifiques, et la deuxième permettant d'obtenir de l'*éclairage* [*insight*] sur les aspects qui échappent à l'analyse formelle et participent à la *mise en récit* (construction globale du discours d'improvisation, *sensation rhythmique* [*time feel*] et autres aspects de l'exécution).

INTRODUCTION

1. Origins of the research project

Over the last ten years, after completing a Masters in Jazz Performance, I have been working as a freelance saxophonist, leading several bands, and taking jobs as a sideman. I have also taught privately and in a conservatory in the Paris area. During these years I kept practicing daily, with routines that varied in intensity and length depending on my availability and motivation, and these nourished my inspiration and sustained my technical skills. I also acquired experience playing in various stylistic contexts, with bands where my role ranged from following specific aesthetic directions to ones where I had more freedom to affirm my personal voice through improvisation.

Around five years ago, I felt that I was reaching a plateau in my artistic development. I was navigating different sub-scenes of jazz, but did not wish to be part of any specific clique. I had released two albums as a leader and one as a co-leader and it was time to write some new music, but I kept asking myself where I was heading aesthetically, and this prevented me from moving along. I started to seek inspiration outside of jazz and got more interested in Balkan music. I took some lessons with musicians in the style of Bulgarian Wedding Music and started a band which performed some repertoire from Eastern Europe. I also practiced some of Olivier Messiaen's *modes of limited transposition*,[1] and tried to integrate them in my improvisations and compositions. This led me to consider creating an original improvisational language combining these modes with some idiomatic elements of Balkan music and other concepts that I had been practicing. This was my initial motivation to pursue a doctorate in music performance.

[1] All the modes which have the particularity of being transposable at most four times were used as a compositional device by Olivier Messiaen, as described in his book *The Technique of my Musical Language* (Alphonse Leduc, 2015).

As I reflected on this project and compared the improvisational process in jazz and in Balkan music, some fundamental questions emerged:

- What is the importance of the improviser's individuality in relationship with the necessity of following idiomatic rules faithfully?
- How much of the improvisation results from the development of musical ideas in 'real time' compared to the assembling of memorized formulas?

A reflection on the first question made me reconsider my initial project and change perspectives. Individuality undoubtedly plays an essential role in jazz: this is obvious when listening to the works of Louis Armstrong, Charlie Parker, Thelonious Monk, Miles Davis, Ornette Coleman, John Coltrane, and many others. However, I wondered if the expression of individuality in the music resulted from a conscious quest for originality, or if it was acquired by developing and nourishing intrinsic qualities. After being exposed to various points of view through my readings and discussions, I decided to take a personal stance on the issue. At this point in my musical life, I realized that it was time to build upon the improvisational language that I had acquired through practice and experience rather than seeking more information and new influences. Instead of trying to construct an original improvisational language, I decided to investigate my musical voice, or *sound,* to further develop expressive possibilities. In other words, the question changed from "How can I sound different?" to "Why do I sound like myself?" and from there, "How can I expand?".

The second question relates to the notion of spontaneity and its place in the improvisational process. It also brings into question the role and nature of preparation in jazz improvisation. In the liner notes of Miles Davis's album *Kind of Blue*,[2] Bill Evans compared the art of improvisation to a Japanese traditional painting technique, pointing out that in both art forms there is no time for deliberation and that the artist must let his ideas flow spontaneously. If we agree to define improvisation as a process of spontaneous composition, unravelling in the 'here and now', it could

[2] Davis, Miles, *Kind of Blue* (Sony/BMG, 1997).

seem paradoxical to prepare for it. However, jazz improvisation requires the highest expertise, and therefore most improvisers spend a lot of time in preparation. In the act of improvisation, which deals with spontaneity and the unknown, this preparation constitutes the visible part of the iceberg.[3] It can serve as a window through which to observe the improvisational process.

2. Goals

The object of this thesis is to establish and describe the use of a methodology that allows, through the investigation of my *sound*, the expansion of my expressive means as an improviser, while preserving the spontaneous character of the improvised discourse.

This investigation constitutes a form of self-teaching which could be redirected towards students and bear some rich pedagogical outcomes. In the context of institutionalized jazz education, there is a propensity to emphasize theory without connecting it directly to performance. Musicians are often encouraged to study the improvised works of others, but few pay close attention to their own improvisations. This can result in the development of a generic improvisational language, influenced by trends which are maintained by the music industry or through institutions. Additionally, the overwhelming amount of music, videos, and methods on improvisation easily accessible with the internet makes it tempting to be always looking for new sources of inspiration. Of course, this constitutes an extraordinary tool which, if used intelligently, can help musicians expand, but this proliferation of information can also inhibit musicians and become a false substitute for in-depth artistic exploration.

I hope that this work will help develop new pedagogic material for students in jazz and, more importantly, that it will inspire them to follow their own personal quest to expand possibilities of musical expression through improvisation. The methodology that I expose in this thesis will provide some guidance in this undertaking.

[3] This is the perspective of the improviser, whose preparation is visible while their improvisation in performance involves diving into their subconscious. In contrast, the audience perceives the performance as the visible tip of the iceberg while the preparation remains hidden.

3. Philosophy

This work does not aim to explain my improvisational process, nor does it constitute a treatise on improvisation. Instead, it represents a sample of an ongoing investigation which is idiosyncratic in nature and limited in that the object of the analysis is also its subject.

If this investigation is meant to instigate artistic development, it does not promote linear improvement with measurable outcomes, but rather a gradual, organic evolution, hopefully sprinkled by a few 'aha moments.' In this quest, the process is more important than the result, and the intellectual knowledge acquired along the way should remain grounded in musical instinct, which is crucial to preserve. In the end, what really matters is movement.

4. Outline

The first part of this thesis consists in exposing my reflection on individuality and spontaneity, informed by some readings on these topics and illustrated by examples from jazz history. I also explore the analogy between music and language and how it can apply to jazz improvisation. This helps justify my use of terms such as *improvisational language* and *storytelling*, throughout the dissertation.

This reflection leads to the description of my methodology, which consists in a two-fold approach. In the first part of this investigation (which corresponds to the second chapter of this thesis), I scrutinize my improvisations through formal analysis. Using several examples of my improvisations that are part of published studio albums, I uncover some improvisational processes and relate them to the strategies that I have practiced. This allows me to draw new strategies and to adapt my methods of preparation.

This first part of the investigation does not take into account the instinctive nature of improvisation, leaving out aspects of the improvised discourse that cannot be related to the use of specific strategies. Additionally, formal analysis, whether it is done through annotated transcription

or oral analysis, tends to emphasize musical content but does not capture the feeling with which the music is performed.

The second part of my investigation (described in the third chapter of this thesis) is meant to go beyond the limitations of formal analysis. It consists in another type of analysis, where I investigate the performative experience of improvised solo saxophone through a recording experiment, using *critical listening* as my main methodological tool. This allows me to evaluate the performance both at a subconscious level (implicit learning[4]) and a conscious one, where I draw specific observations, paying attention to the emotional and sensory responses that drive the performance.

I believe that jazz improvisation is a delicate balancing act between intuition and construction and these two methods of investigation thus complement each other in capturing the different facets of my *sound.*

[4] Implicit learning is "characterized as a situation-neutral induction process whereby complex information about any stimulus environment may be acquired largely independently of the subjects' awareness of either the process of acquisition or the knowledge base ultimately acquired." Arthur S. Reber, *Implicit Learning and Tacit Knowledge: An Essay on the Cognitive Unconscious*, Illustrated edition (New York: Oxford University Press, 1999), 14.

CHAPTER I: The elaboration of the improvised discourse: fundamental issues

1. Introduction

In the first part of this thesis, I give a personal perspective on fundamental issues related to jazz improvisation such as *individuality*, *spontaneity*, and *storytelling*. There are three sections, and I pay special attention to each topic separately. However, there are strong relationships among these three topics and for this reason there are references to each topic in every section. Throughout this exploration I seek to address the question: How does the spontaneous expression of aesthetic sensibilities in jazz improvisation relate to preparation?

This reflection relies on my experience as a saxophonist, improviser, composer, and most importantly listener of jazz and music in general. It is nourished by years of thinking about these topics and discussing them with fellow musicians in informal settings, as well as the prolific exchanges that I had with the members of my doctoral committee, including my supervisor Professor Jean-Michel Pilc, my co-supervisor Professor Fabrice Marandola and Professor John Hollenbeck.

I do not approach this reflection in a scientific way, and I am aware of the subjective nature of my research, which is not a musicological undertaking, but artistic research. Examples are taken from jazz history, with emphasis on alto saxophonists who influenced me, as well as some literature on improvisation to help support these reflections. The topics discussed all have philosophical, historical, musicological, linguistic, sociological, ethnological, and psychological implications. However, I wish to remain in my musician's shoes, a performer first and foremost, and if I do reference some notions derived from academic fields that go beyond my areas of expertise, it is only because my intuitive understanding of such notions helps nourish my artistic development.

In this first part, my personal opinions sometimes confront those of other musicians and authors. Other times, I offer ongoing reflections and questions, without trying to give any specific answer. In this continuous reflection on the artistic process, formulating questions and thoughts in a clear way is always valuable, even if it does not lead directly to definite answers.

This discussion informs the second and third chapters and serves as a theoretical basis to justify a two-fold methodology that can be applied to jazz performance. This work will inform my pedagogical activity, allowing me to approach these topics confidently with my students, providing them with ideas and examples that can help them form their own opinions.

2. Individuality, innovation, and tradition

2.1. In search of a *sound*

Since the early stages of my explorations in improvisation, I have tried to find a balance between acquiring fluency within the idioms established by master jazz improvisers and finding my own voice as an improviser. Immersed in music since childhood, and more particularly jazz, I started to improvise in an empirical, intuitive way, imitating the saxophonists whose music I was listening to repeatedly. As I became more comfortable improvising over the harmonic progressions of standards and later gained experience playing in a variety of professional settings, the question of individuality became pressing.

Individuality is highly valued in jazz and possessing a personal *sound* is part of the jazz tradition. Beyond timbral considerations, the word 'sound' is often used to describe a jazz musician's *improvisational language*, and the way in which they use this language to deliver the improvised discourse. This open-ended definition incorporates elements ranging from the use of specific melodic phrases to the general character or emotional impact of the music.[5]

[5] George E. Lewis, "Improvised Music after 1950: Afrological and Eurological Perspectives," *Black Music Research Journal* 22 (2002): 215–46, https://doi.org/10.2307/1519950.117.

As a teenager learning jazz saxophone, I could identify saxophonists after just a few seconds of listening to them and was intrigued by how different they all sounded. This was proof that within the jazz tradition musicians had the freedom to affirm their own artistic vision, to be themselves. This attitude contrasted with the classical studies that I was following on the clarinet, where the aesthetic perspectives seemed narrower. In this context, my teacher encouraged me to follow strict canons of beauty which were precisely defined by the French school, with its legacy of institutions and teachers. Within this tradition there was one optimal way of phrasing that fit the requirements of specific eras and composers. Breaking away from these canons was reserved for just a few exceptional world-class soloists.

2.2. Idiom and individuality

I believe that even in jazz individuality does not exist in a vacuum and that it is linked to a musician's position within a tradition. This tradition could be defined as the cumulative result of performances and recordings from improvisers who are considered masters.[6] However, the idiomatic contours of jazz are hard to define, and it is impossible to reduce jazz improvisation to a set of aesthetic criteria or stylistic rules. As a result, the jazz tradition can be understood in many ways. As psychologist Mihaly Csziksentmihalyi wrote, "the malleability and flexibility of jazz is a hallmark of the genre."[7]

The importance of individuality is not inherent to all improvised styles of music, but rather specific to jazz. In other styles of music that involve improvisation, following stylistic rules defined by the idiom can prevail over individuality. In Bulgarian Wedding Music, a style of Balkan music derived from traditional village music where improvisation is highly valued, most improvisers tend to imitate a few masters coming from a lineage of regional musicians. I have taken some lessons with expert musicians in this style, and I have learned that sound, phrasing, and ornamentation follow rigorous rules that vary subtly from region to region, but not from player to player. Improvisation relies on

[6] Keith Sawyer, "Improvisational Creativity: An Analysis of Jazz Performance," *Creativity Research Journal* 5, no. 3 (January 1, 1992): 253–63, https://doi.org/10.1080/10400419209534439.
[7] Cited in Keith Sawyer, *Creativity in Performance* (Ablex, 1997), 52.

the creative combination of melodic formulas acceptable within the restrictions of the genre, and a musician is judged on accuracy and virtuosity more than on originality.[8]

To illustrate the flexibility of the jazz idiom, I will focus on four major alto saxophonists who belong to the same generation and embody individuality. Julian "Cannonball" Adderley, Eric Dolphy, Lee Konitz, and Ornette Coleman were all born within a range of three years, seven to ten years after Charlie Parker. Even though the influence of Charlie Parker, among other saxophonists, is perceivable in their performative styles, they all possessed a highly personal conception of saxophone playing. Beyond technical considerations relative to the instrument, they each had a singular vision of jazz improvisation, their own distinct tones, distinct ways of swinging and articulating phrases, distinct uses of rhythms, melodic shapes, harmonic tensions, particular ways of interacting with the band, and of structuring the musical narrative throughout the improvisation.

2.3. Innovation and individuality

In the context of jazz improvisation, the concept of innovation raises some questions: Is innovation different from individuality? Does one need to innovate to possess an individual *sound*?
Pianist and pedagogue Ran Blake stated that: "Style is a selective re-creation according to sometimes conscious, and sometimes subconscious, values and judgements."[9] To possess a distinct, personal style in improvisation implies the presence of musical features which are exclusive to the improviser and are not the result of direct imitation of another player's style. Individuality requires some innovation. However, it is often impossible to distinguish between novel musical material from musical material made up of idiomatic elements that have been assimilated and altered, recombined

[8] I was also exposed to 20th century experimental music during a seminar on *New Music* held by Fabrice Marandola in the Winter of 2018. Performing works from composers of this current (including John Cage, Cornelius Cardew and Earl Brown) who included principles of 'indeterminacy' into their scores, was the opportunity to compare the role of the musician interpreting this experimental repertoire to the role of the jazz improviser. This topic is discussed in depth by George E. Lewis in in his essay "Improvised Music after 1950: Afrological and Eurological Perspectives," *Black Music Research Journal* 22 (2002).
[9] Ran Blake, *Primacy of The Ear*, First Edition (Third Stream Associates: lulu.com, 2011), 2.

with elements coming from other influential musicians, or deliberately transformed. [10] A musician's individuality is characterized by the fact that he is identifiable by informed listeners, but innovation is harder to pinpoint. It bears many possible interpretations that reflect the listeners' aesthetic bias or personal judgement.

The complex interactions between innovation, individuality, and tradition are illustrated by the comparison of styles of Cannonball Adderley and Ornette Coleman. Although they coincidently released albums in 1958 entitled respectively *Somethin' Else*[11] and *Something Else!!!*[12], Adderley and Coleman symbolize, in the eyes of musicians and critics, two opposite attitudes within jazz. Adderley represents the continuation of a tradition and is also credited for having popularized jazz by injecting soul into it.[13] Early in his career he was also marketed as the new Bird (Charlie Parker).[14] Identified as the inventor of free jazz, Ornette Coleman has caused many musicians and critics to deeply question their musical values. As Martin Williams put it: "His music represents the first fundamental re-evaluation of basic materials and basic procedures for jazz since the innovations of Charlie Parker."[15]

Adderley can be identified after a quick listen because he used distinct rhythmic, melodic, and harmonic material, and executed his musical ideas with characteristic performative features such as a specific tone, vibrato, a certain quality in the attacks and specific articulation patterns, a specific dynamic range, among other subtle elements. However, his improvisational language is also

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[10] Jazz trombonist and pedagogue Hal Crook wrote: "As many jazz masters have advised through their words and music: '*Imitate. Assimilate. Innovate.*' And in *that* order." *Beyond Time and Changes: A Musician's Guide to Free Jazz Improvisation*, Pap/Com edition (Rottenburg: Alfred Pub Co, 2015), 14. Clark Terry mentioned these three steps in an interview. "There's no disgrace for any kid today to copy what his idols did. That's one way of getting involved. Then after a certain point you say 'Wait I wonder why they make a right turn here. I want to see what happens if I make a left turn here,' and then you're getting into innovation." "Clark Terry, Trumpet and Flugelhorn," The New York Public Library, accessed July 19, 2021, https://www.nypl.org/audiovideo/clark-terry-trumpet-and-flugelhorn.

[11] Julian Cannonball Adderley, *Somethin Else* (Blue Note, 1958).

[12] Ornette Coleman, *Something Else!!!* (Contemporary, 1958).

[13] Cary Ginell, *Walk Tall: The Music & Life of Julian "Cannonball" Adderley* (Hal Leonard Books, 2013), XV.

[14] Ibid.

[15] Martin Williams, *The Jazz Tradition* (Oxford University Press, 1993).

largely derived from Parker's, reshaped, and transformed. He had other strong influences aside from Charlie Parker, the most obvious being Benny Carter, a predecessor of Parker. The distinct character of Adderley's style does not arise solely from the execution of new, personal musical vocabulary, but is also the result of an original recombination of musical vocabulary deriving from various players and styles, that he digested and interpreted in his own way. It is impossible to quantify how much of his improvisatory style is novel or how much is linked to the influence of other jazz musicians. He is firmly grounded in the post-bop tradition and stands within a legacy of alto saxophone players who can be traced back to the Swing Era. However, he clearly stands out from other musicians who share the same position in jazz history, and is acknowledged as a unique voice of the alto saxophone who modernized jazz language on the instrument.

In contrast with this continuity, Ornette Coleman represents a break away from the jazz tradition. If individuality is integrated as part of the jazz tradition, innovation could be interpreted as a point of departure from it. By questioning the musical structures for improvisation and the type of interactions that were predominant in jazz music, Coleman exemplified innovation. His performances gave rise to the most virulent polemics in the jazz community in the 60's and his music was initially met with hostility. Drummer and bandleader Max Roach was initially so appalled by his music that he assaulted the saxophonist.[16] Other musicians, such as John Lewis, supported him from the beginning. Adderley called Coleman an "innovator of the first water" and showed appreciation for his work.[17] Coleman never abandoned the traditional vocabulary inherited from Bebop and Rhythm and Blues, but by letting go of the harmonic structure, he redefined the way in which this vocabulary could be combined and organized.[18] Listening to any of his improvisations reveals a

[16] David Lee, *The Battle of the Five Spot: Ornette Coleman and the New York Jazz Field* (Mercury Press, 2006), 67.
[17] Julian Cannonball Adderley, "Cannonball Looks at Ornette Coleman," *Down Beat*, May 26, 1964.
[18] Michael Bruce Cogswell wrote about Coleman: "His innovation lies not in the creation of a new vocabulary, but in his redefining musical grammar and syntax."Michael Bruce Cogswell, "Melodic Organization in Four Solos by Ornette Coleman," *UMI*, 1989, 19.

profusion of arpeggios, scalar patterns, passing tones, as well as blues phrases which are part of a common vocabulary with which Adderley was also familiar. Coleman made an unusual use of common vocabulary.

2.4. The creative process

Instead of trying to situate individuality and innovation historically, comparing the style of musicians in relationship to an existing tradition, we can look at some of the underlying processes and the intentionality behind the development of the improviser's *sound*.

Innovation is the act of going beyond influences, transcending them to open new possibilities. In the liner notes of *Change of the Century*,[19] Coleman wrote about Charlie Parker: "Bird would have understood us. He would have approved of our aspiring to something beyond what we inherited." According to Coleman, there is something deliberate—and liberating— in the act of innovation.

Individuality is less deliberate. It is a state of being. When two people blow into a horn for the first time in their lives, the sound that emerges is immediately different. I have witnessed this when teaching beginner saxophonists of ages ranging from childhood to adulthood. Physiognomy affects the movement of their tongue, larynx, fingers, and some minuscule muscles that constitute the embouchure. Another manifestation of individuality is perceivable when different students learn the same transcription of a musician's solo and end up giving a different rendition of the work. Subtle differences in execution help to distinguish the different interpretations, much like the difference between performers in Western classical music. Furthermore, as individuals learn technique on their instrument and start to experiment with improvisation, their taste pushes them to gravitate around certain notes and rhythms, certain intervals, and tempi. This is individuality at its early stage and in its raw state.

[19] Ornette Coleman, *Change of the Century* (Atlantic, 1960).

Individuality is thus linked to how we experience music subjectively, how we perceive and how we feel. It results from the subconscious digestion of a multitude of influences that intertwine to emerge transformed through one's physical and mental limitations, which can only be partly transcended with practice.

The technical process of acquiring fluency in the jazz idiom can easily take over the development of one's personal voice as an improviser. If individuality is initially embedded in us, some kind of investigation is necessary in order to gain awareness of the intrinsic qualities that, when nourished and developed, make one stand apart from his peers. This exploratory work is not necessarily a conscious undertaking and many improvisers do not actively try to elucidate specific aspects of their performative style.

In jazz pedagogy, the tendency is to suggest students learn theory and transcribe solos, and that individuality will come along naturally as a byproduct of this practice. For some students this might be true, but many aspiring jazz musicians become too absorbed with the technical aspects of improvisation to focus on the development of their *sound*.

2.5. Going for a *sound*

In jazz history, the distinction between mainstream and avant-garde is epitomized by the emergence of Free Jazz in the 60's.[20] For some critics and musicologists, innovation is part of specific scenes or currents. I do not situate myself in a specific position on the continuum from mainstream to avant-garde, and I do not identify with a specific scene. I have been influenced by countless musicians on either side of the spectrum. Additionally, at this stage in jazz history, if critics still tend to put musicians into various categories – sometimes claimed by the musicians but not always—that go from revivalist or neo-traditionalist movements to non-idiomatic free improvisation that dissociates itself completely from jazz (also called 'contemporary improvisation'), the distinction between

[20] The emergence of Bebop in the 40's had also produced a divide in the jazz scene, leaving some of its actors skeptical about the new style.

mainstream and avant-garde does not make sense. Like many contemporary saxophonists, I am familiar with Bebop, modal jazz, and freer forms of improvisation. I have studied and incorporated into my playing the style of various saxophonists, including Adderley, Coleman, and other instrumentalists, and I find inspiration in other styles of music such as 20th century Western classical music or Romani music from the Balkans.

Affirming my individual voice while acknowledging these influences is the result of a process of maturation. During my musical development, I shifted from attempts to imitate the exact phrasing and sound of alto saxophonists that I admired, to the opposite attitude, pushing aside any reference to the jazz tradition. After closely listening to recordings of mine, I realized that my attempts to sound like other players, or on the contrary to sound 'completely original,' affected the general quality of execution of my musical statements, giving them a superficial character. Frenzied innovation was no better than imitation, both leading to subtle shifts in my state of mind that would impact the course of the improvisation dramatically. Beyond the content of the musical discourse or the use of specific musical ideas, the problem lay in my trying to gain too much control over my improvisations. In other words, I was 'trying to play' instead of 'just playing' or better yet, letting myself 'be played' by the music.

In more recent years I have realized the importance of protecting *spontaneity*. This has led me to try to stop censoring myself and let the music flow as freely as possible. This attitude implies embracing whatever influences have made their way into my subconscious, trusting that musical ideas will naturally emerge from my instrument tainted with a personal, distinct character. However, the notion of spontaneity requires close attention because it touches upon the definition of improvisation itself, raising the question of how much musical material is created and developed in 'real time' versus how much was prepared before the improvisation and is performed from memory.

In the following section, I will address this issue by using several examples in jazz history, mentioning how different players relate to it, and pointing out aesthetic implications linked to preparation. I will

then give a personal perspective on the issue, describing the evolution of my attitude with regards to preparation. I will finish this section by looking at spontaneity from a psychological perspective and introducing the notion of flow. This reflection will help resolve the apparent tensions between spontaneity and preparation and support the second part of this essay, where I discuss strategies of preparation.

3. Spontaneity vs. preparation

3.1. *Prepared means* and *predetermined material*

Improvisation is mostly spontaneous decisions and actions, with some possible occurrences of conscious thought to help track the global architecture of the solo. The implicit nature of improvisation is implied through the words of many musicians, including Louis Armstrong's statement about jazz: "If you have to ask what it is, you'll never know," Miles Davis's comment about improvisation: "You can't teach it, it's not a system,"[21] and John Coltrane's statement about practicing: "You have to practice hard consciously and then you let your subconscious do the rest."[22]

However, the fact that the process of improvisation is spontaneous does not imply that musical ideas are all created spontaneously. In the *New Grove Dictionary of Jazz*, Barry Kernfeld defines improvisation as "the spontaneous creation of music as it is performed."[23] This seems like a good definition, but it raises the question of what "spontaneous creation" might really mean. Are we taking this definition in its strict meaning, understanding that improvisation is creation *ex nihilo*, the development of new ideas in 'real time,' or are we talking about combining pre-composed formulas, selecting ideas in 'real time' instead of inventing them? Can we find a middle ground between these two opposite interpretations?

[21] Jason Squinobal, "The Lost Tools of Jazz Improvisation," *Jazz Education Journal* 38, no. 3 (December 2005): 50.
[22] Lewis Porter, *John Coltrane: His Life and Music* (Ann Arbor: University of Michigan Press, 2000), 226.
[23] Gregory E. Smith, "In Quest of a New Perspective on Improvised Jazz: A View from the Balkans," *The World of Music* 33, no. 3 (1991): 33.

Christopher Small wrote about the presence of "predetermined material … provided by the idiom in which the player operates."[24] Conversely, preparation does not erase the fact that musical improvisation is inherently unpredictable. Steve Lacy put it this way: "you have all your years of preparation and all your sensibilities and your prepared means, but it is a leap into the unknown."[25] The term "predetermined material" could be used to designate memorized melodic figures—often called 'licks' in the jazz jargon—played spontaneously during the improvisation. These could result from common idiomatic vocabulary, or they could be more specific to the improviser. The expression "prepared means" employed by Lacy goes beyond the ability to draw on a bank of musical vocabulary, and encompasses processes such as motivic or thematic development that can be practiced and developed with experience.

3.2. Preparation, spontaneity, and idiom

In jazz, the individuality of musicians often prevails upon collective idioms or styles. It is thus impossible to draw definite conclusions on the evolution of jazz through the analysis of its various collective styles without paying attention to individual players. However, when looking at this evolution from a historic perspective, from its early stages up to the end of the 60's, there are general trends in the way in which improvisers prepare their improvisation. Before the *Swing Era*, it was not uncommon for jazz musicians to compose solos (or parts of their solo) in advance before performing them.[26] Louis Armstrong did not follow this process, preferring to develop his solos with less predetermination, and this contributes to his status of innovator. In Duke Ellington's band, baritone saxophonist Harry Carney rarely modified his solos from one performance of a song to another[27] and Willie Smith, one of the major alto saxophonists of this era, is said to have written out

[24] Christopher Small, *Music of the Common Tongue: Survival and Celebration in African American Music* (Hanover, NH: Wesleyan, 1999), 291.
[25] Lewis, "Improvised Music after 1950,"106.
[26] Andy Hamilton, *Aesthetics and Music* (A&C Black, 2007), 200.
[27] Ibid.

his solos.[28] With Bebop, improvisation became almost sacred. This style is typically more *ritualized* — using a term employed by Keith Sawyers to designate the amount of constraint determined by the idiom[29] — than the ones that came after it such as Hard Bop, Modal jazz, and Free jazz. Indeed, the fast tempi and sophisticated harmonic changes of bebop prompted many improvisers to use a certain number of melodic phrases, sometimes called 'licks', that fit over specific harmonic changes. Charlie Parker, one of the founders of this style and an unquestionable genius, relied to some extent on precomposed *licks* to form his improvisations.

At first sight, Bebop necessitates more preparation than Free jazz, a style in which expression is meant to take over technique, putting the musician at less risk of 'failure' at least in appearance. However, in the context of Free Jazz, musicians cannot rely on the familiarity of repetitive structures such as the ones found in previous styles to elaborate the improvised discourse. Ornette Coleman, a pioneer of the genre, embraced the ideal of "total spontaneity," to "improvise without memory."[30] He pushed the description further and, concerning his performance in Texas in his early career, said: "(I was) trying to find ways to play things that I heard right on the spot, yet make them sound as though I had practiced them and polished them up."[31] Coleman was trying to avoid the use of 'ready-made' musical material, but wished nevertheless to deliver clear and coherent musical statements. He succeeded in achieving clarity and coherence thanks to an extensive use of motivic development and the ability to build musical ideas in continuity with what he had played before.

[28] Andy Hamilton and Lee Konitz, *Lee Konitz: Conversations on the Improviser's Art* (University of Michigan Press, 2007), 9.
[29] R. Keith Sawyer, "The Semiotics of Improvisation: The Pragmatics of Musical and Verbal Performance," *Semiotica* 108, no. 3–4 (January 1, 1996): 273.
[30] Hamilton, *Aesthetics and Music,* 207.
[31] A. B. Spellman, *Four Jazz Lives* (University of Michigan Press, 2004), 83.

3.3. Preparation, spontaneity, and Individual style

Beyond idiom, the balance between how much musical material is prepared and how much is created or transformed in 'real time' depends on the individual philosophy of each musician. Lee Konitz explained that, contrary to Bird's use of specific vocabulary, he employed "filler material" and "rhythmic phrases that could be performed in many different contexts, connecting one to the other." He used motifs interconnected by scales, arpeggios, and chromaticism, inventing new phrases during the improvisation, rather than using formulas that had been composed beforehand.

Parker created an extremely original and new musical vocabulary. He drew upon this incredibly rich and unique material over and over in his solos, and it is not rare to find the same exact phrase repeated in several, as demonstrated by musicologist Thomas Owens, who created a catalogue of Parker's motives.[32] The exceptional fluidity and coherence of Parker's musical discourse can be attributed in part to his use of predetermined material. Psychologist Jeff Pressing observed that the use of precomposed formulas that can be performed automatically allowed the improviser to focus on "higher levels of improvisational planning."[33] In most of his solos, Parker executed his musical statements with great precision and clarity, even in the most virtuosic passages. He used vocabulary that had been rehearsed and performed repeatedly and thus could focus on musical execution and 'time feel.'[34] The strategy is coherent with his aesthetic views, as expressed in an interview with saxophonist Paul Desmond: "But, I mean, ever since I've heard music, I thought it should be very clean, very precise, as clean as possible anyway, you know."[35]

Konitz displayed more vulnerability and a less obvious virtuosity. Following sinuous melodic lines, he seemed to take the listener along an adventurous path. When listening to Konitz I am constantly surprised and thrilled, but the overall picture of his improvisations does not possess the

[32] Thomas Owens, *Charlie Parker: Techniques of Improvisation* (University of California at Los Angeles, 1994).
[33] Aaron Berkowitz, *[(The Improvising Mind: Cognition and Creativity in the Musical Moment)]* (Oxford University Press, 2010), 149.
[34] This term is used in jazz to denote rhythmic aspects of musical execution.
[35] Carl Woideck, *Charlie Parker: His Music and Life* (University of Michigan Press, 1998), foreword 9.

same inevitability as Parker's. This approach to improvisation seems deliberate on Konitz's part. He gave less importance to precision than Parker and prioritized the creation of new musical material in 'real time' over perfection in the execution of the musical statements. He stated that there is a "very obvious energy" that is not present if there is too much premeditation: "There's something maybe more tentative about it, maybe less strong or whatever, that makes it sound like someone is really reacting to the moment."[36] According to Konitz's statement, the process which underlies improvisation, when done with a certain commitment to spontaneity, has a direct impact on the musical discourse. When the performer is improvising, the listener is sensitive not only to the music, but also to the act of music making, and can feel engaged in the performance along with the improviser.

Eric Dolphy had a particularly original and identifiable style. He is immediately recognizable after just a few seconds of hearing him. On a live performance of the piece *Abstraction*[37] by Gunther Schuller that draws upon classical Serialism, one can hear specific melodic fragments which are recurring almost identically throughout dozens of phrases in Dolphy's solo. As a result, these phrases sound related, like variations. This technique is different from the process of motivic development that Coleman used because it does not draw upon short melodic or rhythmic ideas developed during the performance but on the use of melodic figures which were part of Dolphy's idiosyncratic vocabulary. It is interesting to hear how, despite his extensive use of predetermined material, Dolphy was able to achieve so much momentum and to convey a sense of spontaneity.

The original version of *Abstraction* had Ornette Coleman as the soloist.[38] Coleman preferred to avoid employing predetermined material and there is little obvious repetition compared to Dolphy's version. Despite the use of specific idiosyncratic vocabulary, the version featuring Dolphy related more to the thematic elements of the piece than the one featuring Coleman. Schuller, in an

[36] Hamilton and Konitz, *Lee Konitz*, 104.
[37] Eric Dolphy, *Vintage Dolphy* (G.M. Recordings, 1986).
[38] John Lewis, *Jazz Abstractions* (Atlantic, 1960).

interview with pianist Ethan Iverson, confirmed that Dolphy's interpretation was more faithful to his intentions as a composer.[39]

3.4. Personal stance

My attitude regarding the role of preparation has evolved: in my early twenties I practiced a lot of specific musical phrases, patterns, and harmonic ideas, and actively tried to perform them in various improvisational contexts. I felt that this strategy was limiting my creativity, reducing my improvisations to a combinatory process that became predictable. Little by little, I adopted a quasi-opposite attitude, refusing to draw upon any premeditated formula and relying as much as possible on the inspiration of the moment. Through this effort I was also limiting myself. By pushing away musical ideas that I considered to be too premeditated, I was setting up a disguised process of self-censorship. Paradoxically, by trying too hard to be spontaneous, I was losing my spontaneity.

Instead of adopting an idealized view on spontaneity, I am now trying to find an aesthetic balance, freely incorporating material that I have practiced as well as reacting to my musical environment in 'real time.' As my musical tastes change, I also expect this balance to be in constant evolution.

3.5. Practicing issues

Lee Konitz's refusal to rely too much on *predetermined material* did not imply a lack of preparation. He said: "We talk about learning every change that existed, every inversion, every lick. And then when you play you forget about what you practiced and try to really invent something for the moment, according to what the rhythm [section]'s playing, according to the acoustics, the audience, how you feel at the moment, and so on."[40] Konitz's strategy was to prepare as many avenues as possible, and then forget all the preparatory work to let perception overtake thought, being as

[39] "Interview with Gunther Schuller (Part 1)," *DO THE M@TH* (blog), April 11, 2016, https://ethaniverson.com/interview-with-gunther-schuller-part-1/.
[40] Hamilton and Konitz, *Lee Konitz,* 206.

receptive as possible to his musical environment. He also reformulated this idea into a humorous, yet profound statement that breaks away from the seeming contradiction between spontaneity and preparation: "That's my way of preparation – to not be prepared. And that takes a lot of preparation!"[41]

If the discipline required to practice is arduous, the real challenge of improvisation is to forget about this preparation when improvising. Indeed, part of the problem of practicing improvisation is that one gets familiar with the material in such a way that the improvised performance can sound mechanical. This issue is confirmed by ethnomusicologist Paul Berliner: "In one of the great ironies associated with improvisation, as soon as artists complete the rigorous practice required to place a vocabulary pattern into their larger store, they must guard against its habituated and uninspired use."[42] I have experienced that over-practiced musical vocabulary could contribute to a feeling of saturation that takes away some of the enthusiasm and pleasure necessary to deliver music with conviction. However, recently I have learned to relate to familiar musical vocabulary in a different way, with more flexibility and the ability to play around the idea rather than to execute it in a literal way.[43]

Another problem is that practicing creates expectations, and that these expectations lead to putting too much effort into the improvisational process. It is a human trait to seek causality and therefore one tends to expect his work to produce immediate, perceptible results. When musical material is prepared thoroughly, one wants it to show in the improvisation. However, improvisation escapes this linearity. Bassist Cecil McBee said that in a good jazz performance "you're not going to play what you practiced… Something else is going to happen."[44] Pushing musical material into the improvisation always seems to fail, potentially affecting *time feel* as well as other aspects of

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[41] Hamilton, *Aesthetics and Music,* 206.

[42] Paul F. Berliner, *Thinking in Jazz: The Infinite Art of Improvisation*, 1 edition (Chicago: University of Chicago Press, 1994).

[43] I will come back to this point and illustrate it with examples in the second chapter of this thesis, when analyzing *memorized melodic figures* (Chapter II, 4.4.).

[44] Ingrid Monson, *Saying Something: Jazz Improvisation and Interaction* (University of Chicago Press, 2009), 84.

execution. The performer who thinks and tries during the improvisation does not have the distance and relaxation necessary to get into a state of flow. In other words, preparation, if not forgotten, can interfere with spontaneity. But how can we force ourselves to forget?

There are different ways to approach this question. One could stop practicing improvisation altogether. This would only be efficient at a certain level, where the player already possesses enough vocabulary and technical abilities. Although this strategy could appear like avoidance, it is a legitimate choice. In an interview with Derek Bailey, saxophonist Ronnie Scott – also the owner of a prestigious jazz club in London - mentioned how his technical abilities had sometimes regressed even though he had been practicing intensively, whereas he had experienced fluid performances after not having touched his saxophone for several weeks.[45]

I have never completely abandoned practice. This is partly because I am dependent on a routine to feel confident enough to go on the bandstand. This feeling of dependence has considerably diminished over the years, but it is still there to some extent. Another motivation to continue practicing is that I always have a backlog of musical ideas that are still 'in construction' and that it would be a shame to stop without fully digesting them. I have practiced some of these musical ideas for years and still feel that they have not matured enough to appear spontaneously in my improvisation, but I do not wish to give up on them. I enjoy practicing as part of a meditative undertaking which contributes to a certain psychological balance. However, I reduce it to its strict minimum on days when I am recording or performing, in order to leave more room for inspiration.

Another approach consists in deliberately dissociating the preparation of improvisation from its performance. This is the strategy that seems the closest to Konitz's approach, described at the beginning of this section. Dissociating practice from performance is essentially the same as forgetting about preparation. I have tried this method for years and I have gotten better at it. However, it does not work to full satisfaction. While improvising, I still catch myself trying hard to

[45] Derek Bailey, *Improvisation: Its Nature and Practice in Music* (Ashbourne England: Moorland Pub. In association with Incus Records, 1980), 129.

perform material that I have practiced instead of surrendering to the moment and playing ideas as they emerge naturally and subconsciously. In other words, I am still incapable of completely letting go and accepting that some of the ideas that I have practiced thoroughly might never emerge during my improvisations

A third avenue is using methods of preparation that are directly linked to the performance of improvisation. In other words, rather than dissociating improvisation from practice, one could practice improvisation by improvising. This method could include setting up specific constraints or using broad frameworks to stimulate creativity. Igor Stravinsky mentioned the paradoxically liberating use of constraint which stimulates creativity: "The more constraints one imposes, the more one frees oneself of the chains that shackle the spirit."[46] I find that exploring various levels of constraints is effective to target different aspects of the improvisational language. This point will be illustrated with various examples in the second part of this thesis.

Although the last two approaches to practice – one consisting in dissociating and the other one in merging preparation and improvisation—seem to contradict each other, I have found that, if used with the right balance, they could complement each other. The first approach can help expand the improvisational language and the second one helps in the construction of the improvised discourse.

3.6. A psychological perspective on spontaneity

It is important to delineate the role of preparation and to understand its relationship to performance. Even when done intelligently, practice does not systematically give access to highly successful improvisation – by "highly successful" I refer to a state of grace where the improviser feels that every move is inevitable and that the overall picture of the improvisation is perfect. Indeed, instinct and inspiration play a major role in the improvisational process, and these cannot be

[46] Igor Stravinsky, *Poetics of Music in the Form of Six Lessons*, Bilingual ed. (Cambridge, Mass. : Harvard University Press,1970), 87.

targeted through specific strategies, they can only be nourished. However, I believe that through practice and experience, the improviser can certainly reach a level of confidence and functionality which allows him to produce successful improvisations consistently. In an interview by his brother Harry, Bill Evans summed up his feeling about creativity and the elusive nature of inspiration: "There's a professional level of creativity that I can depend on at any time which is satisfactory for public performance always, and that I can depend on when I turn the switch but those other high levels, which can happen just occasionally, are really thrilling. You don't know when the heck they're gonna come."[47]

To understand the aspects of the improvisational process that go beyond the conscious use of strategies, it is useful to describe the mental state of improvisers when they operate at their best. When I played in his student ensemble, Hal Crook told my fellow bandmates and me to always play "what the music needed."[48] This advice, which could appear esoteric at first, had a practical application: it implied to forget about what we had practiced and even to forget about our egos in order to lose ourselves in the music. Although this 'letting go' is subjective, musicians tend to describe some common characteristics of their state of mind while improvising.

Trumpeter Roy Hargrove explained how, when improvising, he felt like a witness more than an actor: "It's not me. I'm a vessel and I'm trying to leave the vessel open, so that it can flow through."[49] Guitarist and composer Pat Metheny, in a conference organized by the Neuroscience Society, explained that to play his best, he needed to "really be in the moment, at the most micro-level possible, while essentially being almost removed from it." At his best, he feels like a listener who is "just standing there", listening to a guitar player. This guitar player happens to be 'himself.' Metheny asks himself what he would like to hear the guitarist play next, and he plays it in 'real

[47] Louis Cavrell, *The Universal Mind of Bill Evans*, Documentary, Music, 1966.
[48] When studying at Berklee College of Music from 2007 to 2009 I took private lessons and ensembles with Hal Crook.
[49] irockjazzmusictv, *Roy Hargrove - I'm Just a Vessel*, accessed August 11, 2021, https://www.youtube.com/watch?v=YF0rRM9kv5w.

time.'[50] Bassist Bob Cranshaw also described an out-of-body experience: "Again, I'm listening to the same thing as the guy sitting in the chair. I'm hearing the same thing. I'm on stage playing it but I never think of it in that way. It's kind of like I'm sitting and I'm listening to it. I know that I'm playing. That's a God-given gift to me. I'm there, but I'm like in the audience because I'm watching. I can see what they're doing, and it's like it's coming through me."[51] Pianist Kenny Werner, who wrote *Effortless Mastery*,[52] described his state of mind the following way: "If you are a piano player, you watch your hands and you imagine they are someone else's hands. As they play, you think, 'Oh yeah, this feels great,' and you keep doing that, and after a while you're not involved."[53]

These descriptions provide some evidence of a mental state that is highly sought after by jazz musicians. They talk about accessing a special place, often referred to as 'the zone.' In this state of abandon, there is a perfect balance between control and absence of control and in this balance lies the possibility to improvise effortlessly. In his book *The Art and Heart of Improvisation*, Jean-Michel Pilc talks about "the state of grace" as "some kind of subconscious energy, something rooted in the deepest areas of the brain, a deep and firmly grounded perceptive sense of music which allows you, in the moments of inspiration, to feel like you are not playing at all and you are actually in the room with the audience, listening to the music, enjoying every bit of it while your body double is playing."[54]

Mihaly Csíkszentmihályi provided a theoretical framework to understand the mental state involved in a creative discipline such as improvisation. He defined the concepts of "flow," or "optimal experience" as "the state in which people are so involved in an activity that nothing else

[50] *Dialogues Between Neuroscience and Society: Music and the Brain*, accessed March 30, 2020, https://www.youtube.com/watch?v=yhAbNv1gJT8.
[51] "Interview with Bob Cranshaw," *DO THE M@TH* (blog), April 8, 2016, https://ethaniverson.com/interviews/interview-with-bob-cranshaw/.
[52] Kenny Werner and Jamey Aebersold. *Effortless mastery*. Jamey Aebersold Jazz, 1996.
[53] David Schroeder, *From the Minds of Jazz Musicians* (New York, NY: Routledge, 2017), 18.
[54] Jean-Michel Pilc. *It's About Music*: *The Art and Heart of Improvisation*, Balquhidder Music/Glen Lyon, 2013, 23.

seems to matter."[55] Csíkszentmihályi studied the experience of individuals achieving flow state through different types of activities. He found nine characteristic elements: "clear goals every step of the way, immediate feedback to one's actions, balance between challenge and skills, action and awareness are merged, distractions are excluded from consciousness, there is not worry of failure, self-consciousness disappears, the sense of time becomes distorted, the activity becomes autotelic." This latter characteristic means that the activity is itself rewarding and is not solely pursued for relativistic consequences such as prestige, fame, or financial remuneration. Considering the first characteristic, one might argue that in an activity such as improvisation, where every step is unknown, there are no clear goals. Csíkszentmihályi explained that for creative disciplines it is harder to define the goal of the activity. Nevertheless, he explained that "the creative person somehow must develop an unconscious mechanism that tells him or her what to do."[56] Jean-Michel Pilc compared the inspired improviser to "an interpreter under dictation" and used the image of "peripheral vision" to describe the process of the improviser who follows an internal thread.[57] Commenting on the state of flow achieved by one of his students and translating into the ability to hear himself play "a little bit from the outside," Pilc explained that "from the absence of choice comes freedom, from the inevitable comes fearlessness."[58]

According to Richard Ashley, improvised performance gathers the conditions that allow the flow state: "The use of one's abilities inside the constraints of one's body and its limits in performance, the timing of one's actions with external events, and retrieving and utilizing one's knowledge promptly in improvisation provide a powerful framework for a sense of personal achievement and is thus a great proving ground for Csíkszentmihályi's concepts of optimal

[55] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention*, Reprint (HarperCollins e-books, 2009), 155-180.
[56] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (HarperCollinsPublishers, 1996), 150.
[57] Pilc, *It's About Music: The Art and Heart of Improvisation*, 105-106.
[58] Ibid, 219.

experience and creativity."[59] The development of unconscious mechanisms as well as the prompt retrieval of knowledge are linked to preparation, and more specifically the *predetermined material* and *prepared means*.

Denny Zeitlin, an acclaimed pianist who has recorded over 35 albums and also worked as a clinical psychiatrist and as a private practitioner, also talked about achieving a flow state in improvisation, which satisfies Csíkszentmihályi's conditions. According to Zeitlin, the creative moment involves the bringing together of two separate disciplines: the particular skill or technical discipline and the involvement of the "ecstatic tradition." This ecstatic tradition involves the "loss of the positional sense of the self." For the creative spark to happen there should be a union of "the intellectual, aesthetic and cognitive sides" with the "emotional, passionate, ecstatic sides." His advice focusing on the process rather than the content helps to avoid perfectionistic traps. He also identifies three major themes that he has encountered in his private practice and that can be responsible for the inhibition of the flow state: fear of loss of control, fear of failure and humiliation, an underlying guilt about success.[60]

Most of my performances as an improviser seem to combine moments of *flow*, with occurrences of thought intrusion where flow is compromised. Interestingly, while the balancing of these moments in and out of flow plays an important role in determining how I feel about my performance, it is impossible to quantify objectively how much it really affects my playing. Nevertheless, there are memories of special performances that I associate with a state of grace, where flow seems to have never ceased. I remember such moments happening as early as when I first started improvising. When I try to recall what I have played during concerts when I was able to really let go, I usually do not remember specific musical content. I mostly remember that playing was effortless and easy.

[59] Ashley, "Musical Improvisation", 2.
[60] "Denny Zeitlin - Unlocking the Creative Impulse," accessed April 5, 2020, https://dennyzeitlin.com/DZ_Unlockingthecreativeimpulse.php.

When trying to analyze why some performances were so effortless, I cannot establish conclusive links with specific external elements. There are links to factors such as my emotional state, the presence of specific people in the audience, how much I slept or drank before playing, but as soon as I try to be more specific and draw conclusions, I realize that there are counter examples that prove me wrong. In fact, playing several nights in a row under the same conditions seems to have produced very different results as far as flow is concerned. Moreover, I have noticed that I sometimes get affected by the presence of peers or mentors, while other times this rather seems to stimulate my creativity.

If the reasons for variations in achieving flow are not external, I have come to the conclusion that there are self-produced causes. I have identified several possible reasons for failure to achieve flow. The attempt to impress the audience, a specific audience member, or some musicians in the band might have sometimes inhibited me. Trying to deliberately play in 'real time' some specific musical ideas that were prepared beforehand has also prevented optimal experience.

The following story reveals some of the mechanisms that come into play in the performance of improvisation and the ability to let go. About ten years ago, I played a composition of mine on the soprano saxophone during a recital. As was often the case at that time, I ended up trying to find the perfect reed until right before the beginning of the concert started. This reflected a form of nervousness or insecurity more than disorganization on my part. When I arrived on stage, after trying to play a few notes to get in tune and warm up, there was another, much more important problem that occurred: I could not get any note from the high register to come out. After an adrenaline rush which paralyzed me for a few seconds, my lucidity came back, and I realized that I just had to adjust the position of the neck of the saxophone to allow the octave key to function again. The issue was solved just a few seconds before the beginning of the performance. After thinking that I would not be able to play at all, this resolution liberated me from the questions of

having picked the right reed or not, or any other musical concerns and insecurities. There were no questions anymore, no more fear, I could just play, and I played effortlessly.

4. Musical language and storytelling

4.1 Jazz and the language analogy

I have used the expression 'improvisational language' to designate the ensemble of musical vocabulary and various processes that constitute the core of my improvised discourse, which I scrutinize in the second part of this thesis. Yet, the analogy between music and language and more specifically jazz improvisation and language, is not self-evident and requires further investigation. Showing some of the parallels between improvised music and language as well as some of the limitations in this analogy will help describe the rest of my research more precisely.

4.1.1. Overview

The analogy between language and music is used extensively by musicians and composers from all musical traditions around the world, including jazz musicians talking about improvisation. Max Roach said: "It's like language: you're talking, you're speaking, you're responding to yourself. When I play, it's like having a conversation with myself."[61] Although it seems intuitively obvious that there are links between music and language, especially in the case of jazz improvisation, these are not easy to rigorously establish. As ethnomusicologist Ingrid Monson pointed out, there is something "fundamentally untranslatable about musical experience."[62] or, as Jean-Michel Pilc put it, "They are both languages but from different universes."[63]

In the 20th and 21st century, attempts have been made by musicologists and linguists to find theoretical and empirical grounds for this analogy. Leonard Bernstein was among the first to instigate a thorough reflection on this topic through a series of lectures at Harvard in 1973, called

[61] Berliner, *Thinking in Jazz: The Infinite Art of Improvisation,* 192.
[62] Ingrid Monson, *Saying Something: Jazz Improvisation and Interaction* (University of Chicago Press, 2009), 74.
[63] Pilc, *It's About Music: The Art and Heart of Improvisation*, 109.

The Unanswered Question.[64] Inspired by Noam Chomsky's theories of a universal grammar, Bernstein used an interdisciplinary approach and attempted to analyze music through linguistic terms, using analogies with phonology, syntax, semantics, and hierarchical structures, but also referring to philosophical concepts of aesthetics.

Some research has focused more specifically on the music and language analogy within the context of improvisation. According to Aniruddh Patel, tonal improvisation is guided by melodic, rhythmic, and harmonic rules, which are similar to syntactic rules in language.[65] This gives us an optimistic perspective on a possible convergence of the mechanisms of speech and improvisation.

Psychologist Aaron Berkowitz has used a constructivist, usage-based linguistics approach to compare cognition in spontaneous speech with improvisation.[66] Peter Culicover has suggested the existence of a generative grammar in jazz improvisation which could help us better understand language and cognition in general.[67] Communication theorist Keith Sawyer described collective improvisation using concepts of semiology. He introduced the idea of an "emergent system," in which the overall system could not be predicted from analyzing its individual components.[68] Ethnomusicologists such as Paul Berliner or Ingrid Monson have looked at the socio-cultural aspect of jazz improvisation and language. Finally, some neurosurgeons have used fMRI scanning to map the active zone of musicians' brains when improvising.[69]

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[64] "The Unanswered Question: Six Talks at Harvard | Educator | About | Leonard Bernstein," accessed March 23, 2020, https://leonardbernstein.com/about/educator/norton-lectures.
[65] Aniruddh D. Patel, "Language, Music, Syntax and the Brain," *Nature Neuroscience* 6, no. 7 (July 2003): 674–81, https://doi.org/10.1038/nn1082.
[66] Aaron Berkowitz, *The Improvising Mind: Cognition and Creativity in the Musical Moment* (Oxford University Press, 2010).
[67] Peter W. Culicover, "Linguistics, Cognitive Science, and All That Jazz," *The Linguistic Review* 22, no. 2–4 (January 12, 2005), https://doi.org/10.1515/tlir.2005.22.2-4.227.
[68] Sawyer, "Improvisational Creativity."
[69] "Isolating Creativity in the Brain," *Harvard Gazette* (blog), February 5, 2009, https://news.harvard.edu/gazette/story/2009/02/isolating-creativity-in-the-brain/.

Before looking at some specific terms employed in linguistics and how they could be used to describe the improvisational process, I will examine parallels between language acquisition and learning jazz improvisation.

4.1.2. Acquisition

Berliner described the process of transcription of improvisations of master musicians by younger players as a means of acquiring vocabulary to formulate their own improvisations.[70] He compared learning jazz to language acquisition: "just as children learn to speak their native language by imitating older competent speakers, so young musicians learn to speak jazz by imitating seasoned improvisers."

Berkowitz compared language acquisition to the learning of improvisation. In language, perceptual competence is the ability to understand, and productive competence is the ability to produce speech. Berkowitz defines perceptual competence in music as the "ability to recognize and comprehend the music(s) of the culture(s) one has been exposed to, and productive competence in music as "the ability to produce novel stylistically idiomatic music in real time, i.e. the capacity to improvise."[71] In both language and music, perceptual and productive competence engage in a relationship of reciprocity. Productive competence is acquired through production. Simultaneously, perceptual competence is refined and language or music is acquired: "the more knowledge one has of how to produce and reproduce linguistic utterances or the elements of a musical style, the more nuanced the ability to perceive— and hence acquire—greater subtleties of the language or musical system being learned."[72] This reciprocity between perceptual and productive competence serves as a theoretical ground for *critical listening*, a process that I will describe as part of the recording experiment exposed in the third part of this thesis.

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[70] Berliner, *Thinking in Jazz : The Infinite Art of Improvisation, 95.*

[71] Berkowitz, *The Improvising Mind, 108*.

[72] Ibid.

My experience as a teenager learning improvisation through trial and error, before I knew any music theory, corroborates Berkowitz's comparison with language acquisition. I was exposed to music theory much later, and when I was eighteen, I started following a jazz curriculum at the Conservatory, which included a class on jazz harmony. When I first encountered music theory, I felt inhibited by the fear of 'playing wrong.' This affected the spontaneity of my performances, and it took me some time to figure out what place to give theory.

I believe that in jazz improvisation, instinct should be prioritized over intellectual knowledge. There are countless examples of jazz musicians in history who were able to improvise the most sophisticated music without any knowledge of theory. Louis Armstrong, Django Reinhart, or Chet Baker are such musicians. However, theory can be helpful to generate new ideas that can be practiced, digested, and integrated into the musician's improvisational language. For example, John Coltrane's practice of Slonimsky's *Thesaurus of Scales and Melodic Patterns* likely inspired his composition of *Giant Steps* and more generally his use of harmonies based on the equal division of the scale.[73]

4.1.3. Vocabulary

As discussed earlier, improvisers all have a knowledge base of predetermined material consisting of musical elements that appear in the improvisation frequently, with possible variations. These elements extend from melodic formulas or 'licks' to specific patterns and melodic shapes, intervallic systems, rhythmic motifs, and textures. Some jazz musicians refer to this as their 'bag.' I have described how improvisers used such material with varying degrees of flexibility, some relying on memorized melodic figures more than others, and I have given a personal perspective on this matter.

It is natural to associate melodic formulas (or 'licks') to vocabulary. Their use is similar, vocabulary being accessed spontaneously during speech and 'licks' being accessed spontaneously

[73] Porter, *John Coltrane*, 149.

during performance. However, this remains a loose comparison, and in my opinion, it would be arbitrary to push the analogy further and to associate musical elements such as notes, phrases or motifs to more specific functions of vocabulary such as verbs, nouns, adverbs, conjunctions, etc.

I distinguish the use of 'vocabulary,' stored in long-term memory, and accessed spontaneously from processes such as motivic development and melodic variation. Although these can rely on vocabulary to some extent, they put emphasis on transformation more than the musical object itself. This distinction will be useful in the analysis of my improvisational language.

4.1.4. Syntax

The assembling of musical vocabulary and more generally the architecture of the improvised discourse could be compared to syntax. Just as in speech, the underlying mental processes of improvisation are largely unconscious, and the type of knowledge used is mostly procedural.[74] Procedural knowledge involves implicit learning. It is the ability to do, without necessarily knowing 'how' we do. This type of knowledge can be accessed faster than declarative knowledge, or knowledge 'that.' Since improvisation involves fast decision-making, it relies mostly on procedural knowledge.[75] Johnson-Laird reminded us that: "If you ask yourself how you are able to speak a sequence of English sentences that make sense, then you will find that you are consciously aware of only the tip of the process."[76] It is the same for jazz improvisation.

Some musicologists, psychologists, and pedagogues have tried to model improvisation by spelling out its rules. One common view—which became prevalent through the institutionalization of jazz pedagogy in the 60s and is less popular today —is that the harmonic progression of a piece directs the use of possible notes.[77] This translates into the *chord-scale theory*, derived from George

[74] P. N. Johnson-Laird, "How Jazz Musicians Improvise," *Music Perception: An Interdisciplinary Journal* 19, no. 3 (March 1, 2002): 417, https://doi.org/10.1525/mp.2002.19.3.415.
[75] Richard Ashley, "Musical Improvisation," Oxford Handbook of Music Psychology, December 4, 2008, 4, https://doi.org/10.1093/oxfordhb/9780199298457.013.0038.
[76] Johnson-Laird, "How Jazz Musicians Improvise,"417.
[77] David Ake, "Learning Jazz, Teaching Jazz," in *The Cambridge Companion to Jazz* (Cambridge University Press, 2003), 266–67. In the 70's, educator Jamey Aebersold started the publication of popular play-along methods,

Russell's Lydian Chromatic Concept of Tonal Organization and taught in universities for the past fifty years. This method consists in teaching students the use of possible scales that fit harmonic progressions. In my experience, it can be an effective method if students already possess a strong sense of melody, but otherwise it can produce weak results, with improvisations that sound unimaginative, if not plainly incoherent. Additionally, the systematic approach and predictability that results from the chord-scale method can inhibit the development of the student's personal voice. This issue has been raised by many musicians and educators, including David Ake: "Students of that method tend to play highly symmetrical lines that correspond predictably with the downbeat of each chord's arrival."[78]

Along these lines, Johnson-Laird suggested that there are two main constraints in jazz improvisation: the first one is that notes will be chosen from the scales prescribed by the chords, and the second one that musicians "improvise melodies that embody a pleasing contour."[79] The first constraint is much too narrow to be taken seriously by any jazz musician. It does not take into account the rhythmic aspects of jazz improvisation, thematic relationships such as melodic variations, motivic development or solo architecture in general. The second constraint is elusive, if not fundamentally subjective.

Using linguistic tools derived from Noam Chomsky's generative grammar theories, linguist Peter Culicover compared jazz improvisation to speech.[80] He mentioned the existence of a jazz grammar, arguing that bebop lines are formed by outlining chord tones on strong beats and approaching them chromatically from weak beats. These rules are internalized by the improviser who applies them implicitly, to form melodies when improvising. If this model reflects part of the

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which included a 'scale syllabus,' a tool that associates a scale to chords in a lead sheet partition. This encouraged students to base their improvisation on a choice of notes from a 'correct' scale.

[78] David Ake, *Jazz Cultures* (Berkeley, California: University of California Press, 2002), 126.

[79] P. N. Johnson-Laird, "How Jazz Musicians Improvise," *Music Perception: An Interdisciplinary Journal* 19, no. 3 (March 1, 2002): 436.

[80] Culicover, "Linguistics, Cognitive Science, and All That Jazz," January 12, 2005.

underlying processes of improvisation in bebop-inspired styles, there are many examples of musicians breaking these rules.[81]

Such models fail to describe how musicians developed highly individual improvisational languages and why they sounded different from each other when improvising over the same chord progression. As a result, if some kind of descriptive grammar could be drawn, it would have to be largely personalized, adapted to each player, especially in the case of innovators. Moreover, in contexts such as free improvisation, where there are sometimes no predetermined harmonic progressions, these models completely lose any significance.

4.1.5. Semantics

The question of meaning in music is both fascinating and difficult to address. Bernstein formulated the idea that music has intrinsic meanings of its own. Like poetry, music speaks in metaphors.[82] Paradoxically, with its inherently ambiguous character, music can name the unnamable. Music's expressive powers come from its ambiguity.

According to Berkowitz, semantics is the point where differences between music and language might be the most obvious. He gives a broad answer on how significance is produced in music: "Yet musical schemata certainly build up significance (broadly defined) based on how and when they are used in relation to immediately adjacent schemata in a composition or improvisation, throughout a stylistic repertory."[83] This could be interpreted as meaning deriving from the recognition of recurring elements inside a structure, according to an idiom or a given style. Culicover gave a more distinct view on the topic of meaning in music: "language is used to encode and

[81] For instance, on the second take of the piece *Au Privave*, Charlie Parker finished his improvisation with a G falling on beat one of bar one of the structure, which corresponds to the 9th of the F7, an extension of the chord. Charlie Parker, *Bird: The Complete Charlie Parker on Verve* (Verve / Polygram, 1990).
[82] "The Unanswered Question: Six Talks at Harvard: Leonard Bernstein," accessed March 23, 2020, https://leonardbernstein.com/about/educator/norton-lectures.
[83] Berkowitz, *The Improvising Mind,* 106.

communicate Conceptual Structure, while in the case of jazz (and music in general), what is communicated is the form itself."[84]

Language and music both communicate meaning through form but meaning in music is much more subjective than in language. It is impossible, in music, to establish a link between "significant" and "signified," using Saussure's conception.[85] If I cannot draw formal parallels between language and improvisation where semantics is concerned, connections could be made with regards to how spoken language and jazz improvisation are experienced by the listener. Getting familiar with an idiom, or more specifically a musician's style, allows the listener to get a feeling which is comparable to one of understanding spoken language. In other words, jazz improvisation tends to mimic speech, and can thus be perceived as such.

I have vivid memories of childhood hearing my father's jazz records and being intrigued by the proliferation of notes in the improvisations. I remember that little by little what I initially heard as an unintelligible jumble of sounds became pleasant and harmonious, and eventually started to carry meaning; this meaning could not be described with words but there was a feeling that music was speaking to me, nevertheless. This happened progressively. I would put on Charlie Parker records every morning and started to get familiar with his improvisational language. I remember, later, listening to John Coltrane and not understanding what it was all about. Something attracted me to Coltrane's sound, but I had to wait several months until it really spoke to me.

I also remember experiencing this after a hike in the mountains in southern France, when I was a teenager. After lunch, as I was laying on the grass, about to fall asleep for my afternoon nap, with my earphones plugged in, I woke up suddenly, a little startled. I felt that someone had whispered in my ears, and I was ready to answer him. I did not recognize any specific words, but I had the strong impression that a message was being passed on. As I woke up, I realized that, in my

[84] Culicover, "Linguistics, Cognitive Science, and All That Jazz,"1.
[85] Ferdinand De Saussure, *Cours de linguistique générale* (Paris : Payot, 1982), 97-103.

state of drowsiness, I had interpreted Michael Brecker's saxophone solo coming out of the CD player as spoken language.

To this day, it sometimes takes me some time to find meaning in music that I have not heard before. The question of familiarity is essential in the development of musical taste in jazz improvisation, and I believe that this is linked to the fact that appreciation comes together with understanding. It sometimes takes a long time to recognize structures, recurring patterns and the various elements which characterize a player's style. Note that this understanding does not happen on an intellectual level, through a deliberate process of analysis: it happens at a subconscious level.

4.1.6. Socio-cultural standpoint

In her book *Sayin' Something* Ingrid Monson tried to understand the relationship between jazz practice and cultural meaning through the examination of metaphors about language used by jazz musicians describing their art. [86] There is the metaphor of a "jazz language," which describes a musical and aesthetic system and the metaphor of "talking," which describes the act of performance. She associated this distinction to Saussure's notion of *langue* and *parole*, which distinguishes the idea of language as a system and language as it is performed (speech).[87]

More specifically, Monson investigated the interaction between the soloist and the rhythm section. She cited bassist Richard Davis talking about the exchanges that can happen in the course of the improvisation: "That happens a lot in jazz, that it's like a conversation and one guy will… create a melodic motif or a rhythmic motif and the band picks it up."[88] She pointed out that, from the jazz musician's perspective, good improvisation is characterized by the fact that the soloist "says

[86] Ingrid Monson, *Saying Something: Jazz Improvisation and Interaction* (University of Chicago Press, 2009), 73.
[87] Ibid, 85.
[88] Ibid, 76.

something" with their instrument or "makes that horn talk."[89] The metaphor of conversation is thus central to describing not only interaction, but the nature of a successful jazz improvisation.[90]

Additionally, the metaphor of storytelling is widely used by jazz musicians to describe self-expression in improvisation. According to trombonist and scholar George Lewis, the emphasis on a personal narrative and the importance of individuality in jazz are characteristic of African American culture.[91]

4.2 Storytelling

Elaborating on improvisation and *storytelling*, Lester Young used to tell younger players "You're technically hip, but what is your story?"[92] The metaphor of storytelling is widely used by jazz musicians to describe the narrative quality of jazz improvisation— achieved subconsciously, or using conscious strategies—and the assertion of an individual voice or a *sound.*

4.2.1. Coherence and the architecture of the solo

The coherence and architecture of Louis Armstrong's solos was put forward by musicologists and was also noted by jazz musicians in his time, such as trumpeter Roy Eldridge.[93] When he first heard Armstrong in 1932, he was impressed by the continuity between the musical ideas that formed his discourse: "I was a young cat, and I was very fast, but I wasn't telling no kind of story."[94] By contrast, "every phrase [Armstrong played] led somewhere, linking up with the next one, in the way a

[89] Ibid, 84. Charlie Parker also used this metaphor: "Mingus, let's finish this discussion on the bandstand. Let's get our horns and talk about this." Woideck, *Charlie Parker*, 214-216.
[90] Beyond the metaphor, there can be a deliberate imitation of spoken conversation. In the duo section of *What Love?*, Eric Dolphy and Charles Mingus's subtle use of microtonal intervals and specific rhythms makes some passages sound strikingly close to prosody. Charles Mingus, *Charles Mingus Presents Charles Mingus* (Candid, 1960).
[91] Lewis, "Improvised Music after 1950."
[92] Robert G. O'Meally."Good Morning Blues: The Autobiography of Count Basie." In *Black American Literature Forum*, vol. 21, no. 1/2, pp. 211-215. St. Louis University, 1987, 221.
[93] Brian Harker, "'Telling a Story': Louis Armstrong and Coherence in Early Jazz" 63 (1997): 47, https://doi.org/10.7916/D8TM78W9.
[94] Mike Pinfold, *Louis Armstrong, His Life & Times* (Universe Books, 1987), 59-60.

storyteller leads you on to the next idea. Louis was developing his musical thoughts, moving in one direction. It was like a plot that finished with a climax."[95]

Armstrong described the general process by which he achieved a sense of coherence in his improvisations: “The first chorus I plays the melody. The second chorus I plays the melody round the melody, and the third chorus I routines.”[96] Brian Harker analyzed this structural coherence in detail by looking at transcriptions of Armstrong’s solos, and displaying different types of paraphrases, musical rhymes, and other melodic and rhythmic variations, as well as the use of arpeggios and break, which Armstrong called “routines”. He argued that Armstrong’s solos took the syntactical form of dramatic poetry.[97] We cannot know from his statement whether Armstrong consciously practiced creating melodic variations or if he did so instinctively. However, the term “routines” employed in reference to his third chorus suggests the use of vocabulary derived from the practice of rudiments on the trumpet which he integrated as part his improvisational language. In his description of the set of three choruses, Armstrong exposed a strategy of elaboration of his improvisation.

When asked about storytelling, many jazz musicians mention processes of construction of their solos. This corroborates the idea that musical meaning dwells in the architecture of the improvised discourse. Using chess as an analogy, Buster Williams described storytelling as a process that relied on the strategic pacing of musical ideas: “It’s also like playing a game of chess. There’s the beginning game, the middle game, and then there’s the end game. Miles is a champion at doing that. So is Trane. To accomplish this, the use of space is very important— sparseness and simplicity— maybe playing just short, meaningful phrases at first and building up the solo from there.”[98]

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[95] Lewis Porter, Michael Ullman, and Edward Hazell, *Jazz: From Its Origins to the Present* (Englewood Cliffs, N.J: Prentice Hall, 1992), 168.
[96] Richard M. Sudhalter and Philip R. Evans. 1974. Bix: Man & Legend. New Rochelle, NY: Arlington House.
[97] Brian Harker, “‘Telling a Story’: Louis Armstrong and Coherence in Early Jazz” 63 (1997): 47, https://doi.org/10.7916/D8TM78W9.
[98] Berliner, *Thinking in Jazz*, 201.

4.2.2. Storytelling and the referent

Formal structures in jazz can include Broadway standards or similar type compositions with harmonic progressions and a steady pulse, or modal structures. In the case of Free jazz there can be a total absence of predetermined formal structure. It is also possible to imagine all kinds of non-conventional forms, as I describe in the preparatory phase of the recording experiment in the third part of this thesis.

Kenny Barron suggested that the composition on which the musician improvises could guide the construction of the narrative: "There are certain sections of the tune which build harmonically and suggest that the intensity should also build at that particular point. That's a very natural thing to happen, and what you play will always build there. Other times, it's a matter of wherever it occurs, wherever you feel it coming. It could happen in different spots within the tune at different times."[99] Storytelling in jazz thus combines the personal narrative of the improviser with the constraints implied by the formal structure on which he improvises. Paul Berliner described this interaction between the player's personal story and the meanings already embedded in the composition: "In a sense, each solo is like a tale within a tale, a personal account with ties of varying strength to the formal composition."[100]

The relationship between an improviser's discourse and the formal structure on which they improvise is linked to the idiom in which he improvises and to his individual style. For example, the way in which Eric Dophy related to harmonic progressions was much different than the way Cannonball Adderley did. Adderley's harmonic language, although drawing upon sophisticated chord substitutions and other modern techniques, did not possess the dissonant quality characteristic of Dolphy's. Dolphy affirmed that he also improvised melodies in relationship with the harmonic progression of the piece, contrarily to musicians such as Ornette Coleman who abandoned these progressions, but he did so in an idiosyncratic way. Dolphy said in 1960, "I think of my playing as

[99] Ibid, 201-202.
[100] Ibid, 205.

tonal. I play notes that would normally not be said to be in a given key, but I hear them as proper. I don't think I 'leave the changes' as the expression goes; every note I play has some reference to the chords of the piece."[101]

From Bebop to the end of the sixties, the general tendency was to relate to formal structures with more and more freedom. This eventually translated into different aesthetic conceptions, illustrated by the following examples:

- Miles Davis Second Quintet: The improvisations of the band members connected strongly to the forms of the standards or compositions, but with a high degree of freedom. The structures were played scrupulously but pushed to their outer limits by the rhythm section and soloist, who interacted with abundant use of polyrhythm and harmonic substitutions. As a result, the music sounded very free and flexible, but with a strong sense of common purpose.[102]
- Ornette Coleman (various bands): forgetting about predetermined structure allowed the invention of structure in 'real time' and conveyed to the music a sense of unpredictability.[103] In the liner notes of *Change of the Century*, Ornette Coleman said: "When our group plays, before we start out to play, we do not have any idea what the end result will be."[104]
- John Coltrane "Classic Quartet:"[105] The use of modal structure allowed the improviser maximal harmonic freedom and the superimposition of idiosyncratic harmonic language such as substitutions based on the equal division of the octave in major thirds called 'Coltrane changes.' The exceptional length and constant high energy characteristic of

[101] Vladimir Simosko and Barry Tepperman, *Eric Dolphy: A Musical Biography and Discography* (Hachette Books, 1996), 10-11.
[102] The aesthetic result of what Davis' band is drastically different from that of Ornette Coleman's bands.
[103] In such context, the roles of soloist and accompanist was blurry, and the term 'conversation' might apply better than 'storytelling.' Ekkehard Jost noted that in free jazz, "the accompanying function of the rhythm group has been increasingly eliminated in favour of interaction between all the musicians in a group." Ekkehard Jost (1974). Free Jazz. Vienna: Universal Edition A.G., 10.
[104] Ornette Coleman, *Change of The Century*, (Atlantic, 1960).
[105] This term is used in reference to Coltrane's band active from 1962 to 1965, featuring pianist McCoy Tyner, bassist Jimmy Garrison and drummer Elvin Jones.

> Coltrane's improvisations was supported by the rhythm section which actively contributed to shaping the discourse and conveying a sense of unity and direction.[106]

Before founding his "Classic Quartet", John Coltrane recorded the album *Giant Steps*,[107] where he experimented with original harmonic progressions. The composition *Giant Steps* illustrates a particular type of relationship between the formal structure of a composition and the storytelling of the improviser. In the outtakes of *Giant Steps*, Coltrane can be heard saying: "I goin do, tryin just, makin the changes, I ain't goin be tellin no story…"[108] Coltrane's comment suggests that the harmonic changes – which were unorthodox at the time —as well as the fast tempo at which the composition is played, make it difficult to pace musical ideas and achieve the same level of storytelling as on more traditional structures such as standards. In fact, Coltrane's solos on the various takes of this piece display the use of a lot of preconceived formulas, arguably more than in his other works.

Coltrane's comment is followed by an exchange with one of the band members, who isn't identified: "you make the changes, that'll tell them the story." The possibility of the story residing mostly within the harmonic changes of the composition rather than being the result of choices made by the saxophonist "in the moment" of his improvisation is linked to the complexity of this framework. Trumpet player John McNeil said that "If you just make the changes and the tempo, it's going to be pretty amazing,"[109] implying that building a coherent solo is not necessary to make this piece work, and that the ability to keep up with the structure and to do so with the right *feel* is enough to create a successful improvisation.

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[106] Jean-Michel Pilc described this as "availability to the general rhythmic energy". Jean-Michel Pilc, "*It's About Music: The Art and Heart of Improvisation*," Balquhidder Music, 50.
[107] John Coltrane, *Giant Steps* (Atlantic, 1960).
[108] Vijay Iyer, "Exploding the Narrative in Jazz Improvisation," in *Uptown Conversation*, ed. Robert O'Meally, Brent Hayes Edwards, and Farah Jasmine Griffin (New York Chichester, West Sussex: Columbia University Press, 2004), 394, https://doi.org/10.7312/omea12350-020.
[109] Berliner, *Thinking in Jazz*, 232.

This type of relationship between the storytelling of the improviser and the demand of the composition is not unique to *Giant Steps*. It has become common for jazz musicians to improvise on highly constraining formal structures that go beyond the complexity of this piece and often there is not much room left for the improviser to "tell a story."

Shortly after recording *Giant Steps*, Coltrane started his explorations of modal music, a framework that allowed much more freedom for improvisation. In the later part of his career, he evolved toward free jazz, with the formal structure of the composition almost disappearing completely. In such context, Coltrane nevertheless continued to superimpose the harmonic changes of *Giant Steps*—often called 'Coltrane changes'—but in a less systematic, less predictable way.

4.2.3. Beyond coherence – storytelling and *sound*

The plot of a story can be interesting, but if it is not told with the right intonation and pacing, its meaning and implications will not reach or move the audience. The parallel could be made with jazz improvisation. For example, most jazz musicians agree that having a good *time feel* is more important than displaying harmonic sophistication; an intricate Bebop line delivered without *swing* does not have much significance.

I have discussed the importance of individuality in jazz improvisation and introduced the notion of *sound*. I believe that, beyond structural considerations and a search for musical coherence, storytelling is achieved through the expression of this *sound*. A musician's *sound* and the story expressed through their improvisation are intertwined. George Lewis said that *"*part of telling your story is developing your own sound."[110] Additionally, it is hard to distinguish musical execution from its content. The "telling" itself is part of the "story." Pianist Cecil Taylor explained how this applied to Coltrane: "in short his tone is beautiful because it is functional. In other words, it is always involved in saying something. You can't separate the means that a man uses to say something from

[110] Lewis, "Improvised Music after 1950.", 117.

what he ultimately says. Technique is not separated from its content in a great artist."[111] It is not surprising that Coltrane named one of his albums *Coltrane's Sound*.[112] This album, recorded in 1960, shortly after *Giant Steps*, includes standards that have been reharmonized and contain chord changes reminiscent of *Giant Steps*. This shows how Coltrane integrated this harmonic progression not only as a technical device, but as part of his *sound*.

Moreover, a musician's *sound* could be interpreted as the expression of the player's emotional experience, often tied to his personal history. George Lewis stressed the importance of personal narrative in African American musical traditions. He quoted Erroll Garner: "If you take your instrument, I don't care how much you love somebody, how much you'd like to pattern yourself after them, you should still give yourself a chance to find out what you've got and let that out."[113] as well as saxophonist Yusef Lateef: "The sound of improvisation seems to tell us what kind of person is improvising. We feel that we can hear character or personality in the way the musician improvises."[114] This last comment suggests that there is an intimate relationship between the improviser's musical and psychological personalities. Charlie Parker formulated this idea with powerful words: "Music is your own experience, your thoughts, your wisdom. If you don't live it, it won't come out of your horn,"[115] to which George Lewis extrapolated: "The clear implication is that what you do live does come out of your horn."[116]

Armstrong exemplified storytelling through various techniques of melodic manipulation and overall coherence, but beyond these technical considerations there is a need for expression that Armstrong described using extra musical terms: "When I blow I think of times and things from outa the past that gives me an image of the tune .... A town, a chick somewhere back down the line, an

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[111] Cecil Taylor, "John Coltrane," *Jazz Review*, January 1959, 34.
[112] Coltrane, John, *Coltrane's Sound* (Atlantic, 1964).
[113] Arthur Taylor, *Notes and Tones: Musician-to-Musician Interviews*, Expanded, Subsequent edition (New York: Da Capo Press, 1993), 97.
[114] Lewis, "Improvised Music after 1950.", 117.
[115] Michael Levin, and John S. Wilson, "No bop roots in jazz: Parker," *Down Beat* 61. No2: 24, 1994. (Originally published September 9, 1949).
[116] Lewis, "Improvised Music after 1950.", 119.

old man with no name you seen once in a place you don't remember.... What you hear coming from a man's horn-that's what he is."[117]

4.2.4. Taking chances

Improvisation is distinct from composition for the essential reason that it results from the simultaneous creation and execution of the musical discourse.[118] The impossibility to change, rework or polish the music in 'real time' - no matter how much predetermined material is used - has aesthetic consequences.[119] In this context, it is interesting to reflect on the notion of mistakes. Miles Davis's approach is particularly inspiring. He said that "When they make records with all the mistakes in, as well as the rest, then they'll really make jazz records. If the mistakes aren't there, too, it ain't none of you."[120] In this statement, he implied that taking risks is the only way to really be oneself when improvising. I believe that the perceivable vulnerability in Davis's improvisations does not affect the beauty of his solos. As listeners, we are sensitive to the process that underlies the improvisation, beyond the content of the music. With Davis, we sense a taste for risk taking and this awakens our empathy and creates a feeling of intimacy.

The notion of mistake, in the context of improvisation, is harder to define than in written music, where the musician is supposed to be faithful to the composer's intentions. It is impossible to reduce improvisation to a set of rules. However, beyond the existence of such rules, the notion of accuracy can apply. This relates to the feeling with which ideas are executed more than the validity of the musical content. If musical statements are played with conviction, as if they had been written, the discourse becomes clear and conveys a character of inevitability.

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[117] Larry L. King, "Everybody's Louie." *Harper's Magazine*, November, 1967, 69.
[118] Lawrence Gushee talked about "oral composition". Lewis Porter, *A Lester Young Reader* (Washington: Smithsonian Institution Press, 1991), 226.
[119] Jazz historian Ted Gioia introduced the notion of "imperfect art".Ted Gioia, *The History of Jazz* (Oxford University Press, 2011).
[120] Robert Walser, "Out of Notes: Signification, Interpretation, and the Problem of Miles Davis," *The Musical Quarterly* 77, no. 2 (1993): 356.

In his book Improvisation, *It's About Music*, Jean-Michel Pilc explains that feeling prevails over content. He describes how he demonstrates this to his students by performing material which is harmonically "wrong" but when played with conviction, with the "right feeling", sounds strikingly good.[121] Berliner has described how masterful improvisers were able to transform mistakes into musical ideas that could be developed. Kenny Barron said: "part of the act of performing jazz is taking chances, and sometimes the chances you take don't work. But the craft is taking an idea that doesn't work and turning it into something that does work." [122] Art Farmer said: "As instantly as a note comes out which is not the one I intended, some other alternative comes to me."[123]

Turning a mistake into a valid musical statement, when it is of course impossible to go back in time to edit, reveals the way that improvised music is perceived. The listener hears the present in relationship to the past and bears constant expectations for the future. As a result, memory of notes that appeared as mistakes a few seconds earlier can become perfectly acceptable to our ears as the music unravels. Additionally, the contribution of other musicians in the band can help mistakes sound 'acceptable'.[124]

Developing my ear to recognize and accept dissonances without the need to resolve harmonic tensions has been very useful in the development of my melodic language. Studying with saxophonist George Garzone was my opportunity to deepen this understanding through practice.[125] His Triadic Chromatic Approach, which consists in superimposing chromatically contiguous triads to

[121] Jean-Michel Pilc, "It's About Music: The Art and Heart of Improvisation," Balquhidder Music, accessed May 20, 2020, http://www.balquhiddermusic.com/books-and-cds-1/pilc-its-about-music, 26.
[122] Berliner, *Thinking in Jazz*, 210.
[123] Ibid, 211.
[124] Herbie Hancock related experiencing this when performing the piece *So What* with Miles Davis: "Right in the middle of Miles's solo, when he was playing one of his amazing solos, (…), right in the middle of his solo, I played a wrong chord (…) It sounded completely wrong, it sounded like a mistake (…) Miles paused for a second, and then he played some notes that made my chord right. It made it correct, which astounded me." SafaJah, *Miles Davis According to Herbie Hancock*, accessed July 19, 2021, https://www.youtube.com/watch?v=FL4LxrN-iyw&t=1.
[125] I took private lessons with Garzone from 2008 to 2010 at Berklee College of Music.

any harmonic progression, creates sequences of notes which are alternatively consonant and dissonant in relationship to the chords.[126]

Putting the notion of mistake into perspective has fundamentally liberated my playing. It has allowed me to prioritize aspects such as *rhythmic feel*, *storytelling*, and *interaction*, opening new possibilities for the expression of my *sound*.

5. Conclusion

Throughout this reflection, based on my experience as an improviser and informed by examples taken from jazz history and literature, I have exposed my conception of individuality and explored the dialectic tensions between spontaneity and preparation. I have explained my use of the analogy between language and music in the context of jazz improvisation and this has led me to define the terms 'improvisational language' and 'storytelling.'

This discussion serves as a basis to support the methodology used in the investigation of my *sound*, which I describe in the next two chapters. Having emphasized the psychological dimension of the improvisational process, it is now clear that the expression of a jazz musician's *sound* through improvisation relates not only to preparation, but also to notions of *instinct* and *inspiration*. To take this into account, my methodology follows a twofold approach composed of the formal analysis of my improvisational language and the investigation of the performative experience of improvisation through a recording experiment. The next chapter corresponds to the first part of this methodology, consisting in the formal analysis of examples of my improvisations.

[126] For the melodic line to be less predictable (less "symmetrical" in Garzone's terms), the inversion of the triads should be changed from one triad to the next.

CHAPTER II: Investigation of my improvisational language through formal analysis

1. Introduction

A musician's *sound* results from complex interactions between subconscious and conscious mechanisms. It involves the musician's instincts and intuition, as well as the use of strategies that rely on some preparation.

In the first part of this thesis, I have introduced the notion of *improvisational language*, which encompasses musical vocabulary as well as various processes of development of musical material during the improvisation. In this part I scrutinize my improvisational language through the formal analysis of my work, exploring the relationship between performance and preparation.

After presenting a general methodology in the first section, I establish three *categories of cognitive processes* that group processes which rely on the use of different types of memory. For each category I describe the main strategies and methods of preparation that I use, the musical effects that I am seeking to produce, and some associated problems. I then undertake the formal analysis of some excerpts of my improvisations. For each example analyzed, I draw observations and suggest new methods of preparation. I conclude this part by recalling some observations and outcomes of the analysis.

2. Methodology

2.1. General methodology

2.1.1. Philosophy

As discussed in the first part, the improvisational process draws essentially upon procedural knowledge. After having improvised, it is impossible to recall and describe exactly what was played and which processes were used. Given this problem, investigating the improvisational language could seem overly ambitious or plainly impossible.

A solution would consist in breaking down the musical product – a recording or a transcription of an improvisation – into smaller pieces that could be scrutinized. However, I believe that the improvisational language is in constant evolution, and therefore isolating fragments of the improvised discourse and cataloguing them is limited. Such work would lose its purpose shortly after it was undertaken. Additionally, exposing my idiosyncratic vocabulary would be of limited pedagogic interest. Instead, I wish to uncover the underlying processes which are responsible for the emergence of musical statements.

2.1.2. Assumption

I believe that my improvisational language is influenced by my methods of preparation, which include all the exercises and techniques that are part of my practice. This practice is meant to target specific strategies which I use as part of the elaboration of the improvised discourse. Knowledge of these strategies can thus constitute a key element in the investigation of my improvisational language.

2.1.3. Application

Prior to the beginning of my doctoral research, I often listened to recordings of my improvisations, seeking to relate what I heard to my practice. More recently, I started actively recalling strategies and methods of preparation and paying close attention to my daily practice.[127] These observations led me to group improvisational processes into three broad categories that I call *categories of cognitive processes*, which I describe in the next section. My methodology consists in scrutinizing some examples of my improvisations using these categories as a framework for formal analysis. I transcribe the recordings and annotate the transcriptions (in some rare cases I do not use musical

[127] Over the years, I have briefly notated some exercises in various notebooks where I kept track of my practice. These documents are a useful source to recall methods of preparation. See Appendix 1 for an excerpt of a practice book.

notation but only written text for the analysis) using a system of legends which are adapted to each category.

The observations that I draw from formal analysis are then related to existing strategies and this can lead to reconsidering my use of strategies and my preparation. The methodology follows these steps:

- Analysis of an example (using *categories of cognitive processes*)
- Observation of the active processes and their relationship to the existing strategies
- Adapting existing strategies or establishing new strategies

2.2. Hermeneutic circle

To investigate my *improvisational language*, I break it down into parts through formal analysis. This analysis is based on a preconception, a pre-understanding of the improvisational language resulting from the knowledge of my strategies. I do not start from scratch when I analyze an example, I know what I am looking for. However, some processes which were not part of conscious preparation are also uncovered through this analysis. I can then adapt the existing strategies or create new ones to target these processes. In turn, these new strategies constitute part of the knowledge which I use to analyze further examples in the investigation of my improvisational language. This back and forth between preparation (which informs the analysis) and performance (observed through formal analysis) constitutes a hermeneutic circle.[128]

[128] "The anticipation of meaning in which the whole is envisaged becomes actual understanding when the parts that are determined by the whole themselves also determine this whole." Gadamer, Hans-Georg, Donald G. Marshall, and Joel Weinsheimer. 1989. *Truth and method*. New York: Continuum, 291.

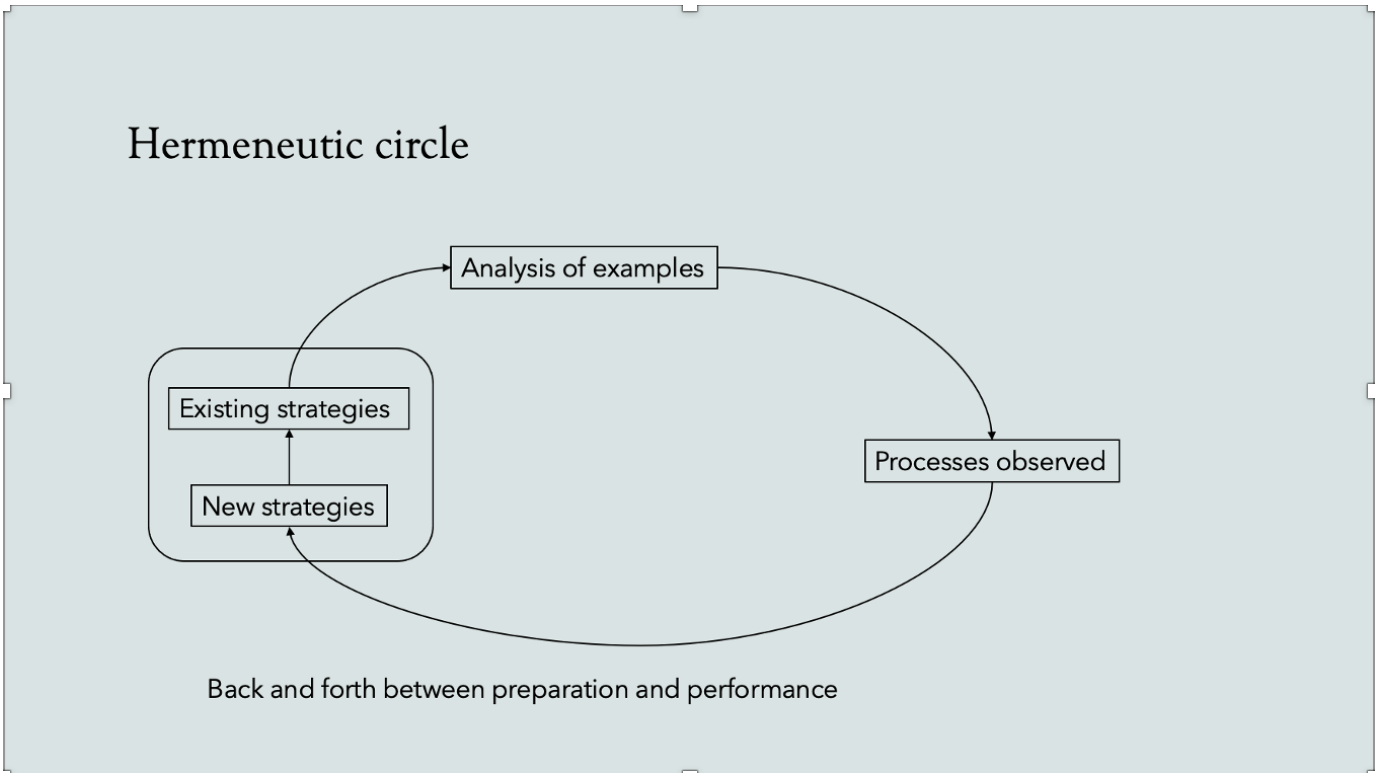

Figure 1 - Hermeneutic circle of preparation/performance interaction

2.3. Limitations

Artistic growth is not reducible to analytical understanding but also comes with experience and involves instinct, inspiration and feeling. There is an inherent limitation to self-analysis due to the implicit nature of improvisation. The power of the improviser's imagination acting spontaneously goes beyond his capacity to analyze his own improvisations *a posteriori.*[129] As a result, I believe that attempts to analyze improvisation, whatever the method used, fail to grasp the process in its integrality, and omit some of its most essential aspects.

Consequently, I do not intend to present a complete model for improvisation or to undertake an exhaustive analysis of my work. Instead, I take a pragmatic stance and circumscribe

[129] "The hermeneutic dimension of this process (referring to the description of an experience) is inevitable: any examination is an interpretation, and any interpretation reveals and hides everything at once." Depraz, Natalie, Francisco Varela, and Pierre Vermersch. *L'epreuve de L'experience*. Paris, France: Zeta Books, 2011, 27 [personal translation].

the formal analysis to several techniques of my improvisational language. Fundamental aspects of improvisation such as interaction and musical execution are addressed as they come along throughout the examples but do not constitute independent objects of analysis. The recording experiment analyzed in the third part of this thesis is the opportunity to observe aspects which escaped the formal analysis undertaken in this section.

3. Description of the analytical tools

3.1. Self-analysis

Musicologists have referred to two main types of elaboration of the improvised discourse: a combinatory approach that describes improvisation as the chaining together of musical units, and an approach that explains the unwinding of the improvisation through the development of musical units.[130] To capture the processes which underlie my improvisational language, I have established my own system of analysis, which combines aspects of both approaches, emphasizing different types of musical relationships that occur at various levels of temporality within the improvisation.[131]

To formalize this analysis, I have created specific legends for the annotation of my improvisation transcription. Musical transcription always approximates the musical gesture and thus constitutes a form of interpretation.[132] In the case of transcribing one's own performance, the intimate connection with the music makes this interpretation particularly powerful.[133]

[130] Laurent Cugny, *Analyser le jazz* (Paris: Outre mesure, 2009), 402.
[131] In his analysis of Lester Young's solo on "Shoe Shine Boy", Lawrence Gushee, mentioned that in music "different kinds of relationships operate over different time spans" and that "It may be that within one and the same kind of music, performers differ greatly in the emphasis or control of one kind of relationship, and in the way their memory functions at the various levels." Lewis Porter, *A Lester Young Reader* (Washington: Smithsonian Institution Press, 1991), 226.
[132] For a thorough discussion on the problems of transcription in jazz see Laurent Cugny, *Analyser le jazz* (Paris: Outre mesure, 2009), 350-354.
[133] Ran Blake stated that "A theoretical analysis or a transcription is more effective if the spirit, melodies and rhythms of the music are already part of you. Then you can transcribe or analyze with the sound of the music still in your ears."

Written analysis has several benefits:

- It sheds light on musical material that emerged using subconscious mechanisms, making the material available to be polished or reworked and stored in long-term memory.
- It allows us to uncover processes that led to the emergence of musical ideas and to gain control on such processes by adapting or creating new strategies.
- The use of transcription and annotation allows to document this material and make it available to others for pedagogic purposes.

NB: In contexts where I am analyzing processes based on the use of broad constraints (which I call *modes of play*), a textual description is more suitable than a transcription and no musical notation is used.

3.2. Categories of cognitive processes (CPP)

Based on knowledge of my strategies of preparation[134] and the examination of my playing through listening to recordings, I have grouped improvisational processes into three categories. These categories constitute a framework for the analysis of examples. I use the term *categories of cognitive processes* to define these categories because the processes are based on cognitive procedures such as associative thinking, quick decision-making, and the use of various kinds of memory. This terminology is not based on scientific research, it is the result of my intuitive understanding, as a musician, of the processes that underlie the performance of improvisation.
I have established three main categories:

- *Memorized melodic figures* (procedural memory)
- *Thematic and motivic development* (working memory)
- *Constraint-based generation* (working memory and procedural memory)

[134] Some of these are gathered in notebooks or have been recorded. Most are remembered.

In the Atkinson-Shiffrin memory model, long-term memory is the stage where information is held indefinitely.[135] The prevalent type of long-term memory used in improvisation is unconscious or implicit and is called procedural memory.[136] Using *memorized melodic figures* (or 'licks') in the improvisation calls upon procedural memory and often on a subcategory called kinesthetic memory (also called 'rote memory' or 'muscle memory'). [137]

Working-memory is a cognitive system that allows temporary storage of information and the manipulation of this information.[138] Processes such as motivic and thematic development rely on its use to manipulate and transform musical material.[139]

Both working memory and procedural memory are active when using constraints to generate musical material during the improvisation.

3.3. Overarching process of construction

Beyond these categories, the improviser subconsciously tracks what was played and builds his discourse in continuity, considering the overall architecture (the 'big picture'), deciding when to keep developing an idea or when to change, how to pace the improvisation in terms of intensity, when to end the solo etc. This is the improviser's answer to the question "what does the music need now?" (see Chapter I, 3.6. A psychological perspective on spontaneity). Using the metaphor of *storytelling*, this aspect could be compared to the plot of the story (see Chapter I, 4.2.1. Coherence and the architecture of the solo).

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[135] Shiffrin, Richard M., and Richard C. Atkinson. "Storage and retrieval processes in long-term memory." *Psychological Review* 76, no. 2 (1969): 179-193.
[136] Richard Ashley, "Musical Improvisation," Oxford Handbook of Music Psychology, December 4, 2008, 4.
[137] As a result of a qualitative study on the improvisational process based on performance and interviews, Martin Norgaard has identified four main strategies, including one which he called the "idea bank", which is similar to my category of *memorized melodic figures*. Martin Norgaard, "Descriptions of Improvisational Thinking by Developing Jazz Improvisers," *International Journal of Music Education* 35, no. 2 (May 1, 2017): 118.
[138] Shiffrin, Atkinson, *Storage and retrieval processes in long-term memory*, 179-193.
[139] Gunther Schuller's analytical approach drew on motivic and thematic development to put forward the coherence and structural unity found in the improvisation. He was followed in this approach by musicologists such as Frank Tirro or Henry Martin. Laurent Cugny, *Analyser le jazz* (Paris: Outre mesure, 2009): 401-442.

This process transcends the three categories that I have just exposed. It relies on a multitude of compositional parameters such as pacing, rhythmic density, the use of a specific register of the instrument, the length and shape of musical phrases etc. Variation of energy levels and the creation of climactic points also depends on aspects of execution such as the use of contrasting dynamics, articulation, tone quality etc. All these parameters could be targeted separately through preparation. When studying with Hal Crook, I practiced gaining control on such parameters by using specific scenarios. For example, to gain control on phrase length I would practice repeating the following sequence: "one long phrase – one short phrase – one long phrase," over standards. This type of systematic practice has been very effective in my development, opening new doors and helping me get out of habits which limited my expressive possibilities. However, I do not wish to integrate these strategies into the present analysis. At this stage, I prefer to view solo construction as a holistic process, which combines a multitude of musical parameters that are subject to an ever-changing balance. Trying to gain too much control of this balance could prevent one from seizing opportunities of interaction in 'real time' and capturing the inspiration of the 'moment.' Solo construction is first and foremost the product of instinct and not the result of conscious preparation or preconception.[140]

[140] In a comment on the solo recording submitted as part of this doctorate (which is analyzed in Chapter III), Jean-Michel Pilc suggested that "construction is often achieved the best way in the moment, instead of by preparation, hence an apparent contradiction between the extended time scale of the piece itself, and the very short-term process which allows the improviser to decide immediately, at every moment, how the construction should proceed in order to achieve the best overall shape."

3.4. Model

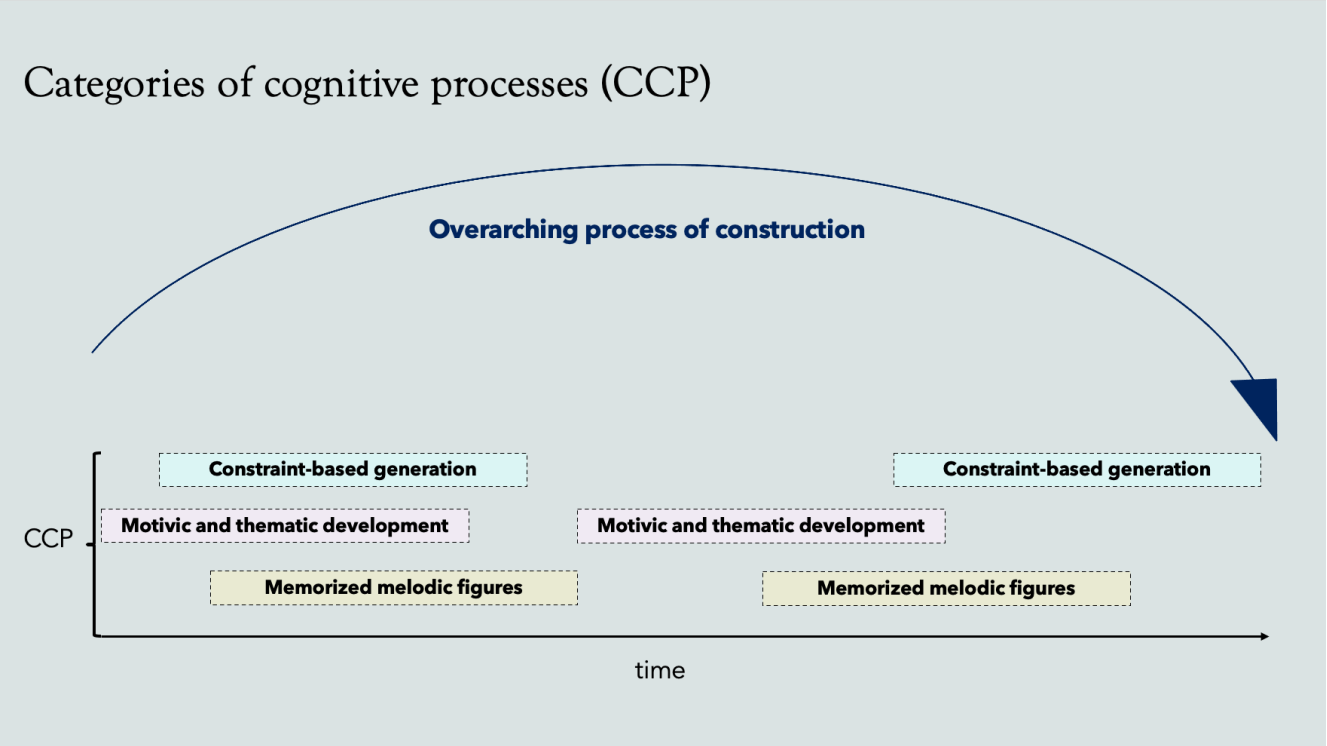

Figure 2 - Categories of cognitive processes (CCP)

In this figure, time unravels along the x axis. The colored rectangles above the axis correspond to *categories of cognitive processes*. The figure shows that at any moment during the improvisation, I could be using the three simultaneously, two of them or just one. The contour of rectangles is a dotted line to signify that the categories are permeable. The arrow shows the process of overarching construction which transcends these three categories. The curved aspect reflects the atemporality of this process: the improviser subconsciously tracks what he has played, acts 'in the moment' and anticipates his next moves.

3.4.1. Observations

Processes often happen simultaneously and therefore categories can overlap. For example, a *memorized melodic figure* could be used as an extension in the development of a motif. In this case I would be using two categories simultaneously (*motivic development* and *memorized melodic* figures). Sometimes it is clear that one process predominates, other times there is too much

simultaneity, and it is up to the analyst to privilege one category over another. This model can be applied to any referent,[141] whether the structure is predetermined or not in the improvisation.

3.4.2. Limitations to the model

In principle, I have designed these categories to be all encompassing, which means that any segment of the improvised discourse could fit into either category or several at the same time. However, these categories do not provide a full explanation of the improvisational process. Often it is impossible to relate a passage of the improvisation to some specific improvisational processes. Instead, such a passage is the result of many simultaneous processes that cannot be separated and identified individually. For example, some passages of music sound particularly melodic. The melodic character of such passages might be linked to thematic continuity, it could result from the use of constraints such as restricting oneself to playing diatonic scales or specific intervals, or it could draw upon melodic figures that have been practiced and memorized. However, the melodic nature of a musical statement cannot be reduced to any such elements. Playing 'melodically' is the result of many complex interactions that cannot be broken down and separated. Melody could thus be considered as resulting from musical instinct more than preparation.

Another aspect which seems hard to grasp through formal analysis is the production of textural effects that are guided by physical manipulation of the instrument. Sometimes, during the improvisation, I have felt that the instrument itself had inspired certain musical gestures. These cannot be linked to specific strategies. Instead, they are the result of a certain state of mind, an attitude of *let go*.

3.4.3. Interaction

All the examples that I will analyze include a high degree of interaction between the rhythm section and me. However, except for the duo with Ariel Tessier, the roles of soloist and accompanist are

[141] In this research I apply the model to standards, compositions which feature a harmonic progression such as 'times and changes' as well as free improvisation.

maintained, with the saxophone giving the general direction of the discourse and the rhythm section supporting it. In this context, it is not essential to take interaction into account to capture the improvisational process. Moreover, focusing on interaction would complexify the analysis tremendously.[142] I thus chose to leave interaction out from this analysis, except for short mentions when analyzing examples taken from the duo, where it is tied to the improvisational process.

4. Analysis

4.1. Introduction

4.1.1. Application of the methodology

In this section I present the different *categories of cognitive processes* and their subcategories. I start with a short description of the process, some strategies that I have employed and some specific exercises that I have practiced, as well as some problems that arise. These constitute the pre-conceptions which come with the analysis of the examples, as part of a hermeneutic approach.

Each *category of cognitive process* or each subcategory is illustrated through one or more examples of analysis of my improvisations on different pieces. Some pieces serve as examples for several cognitive categories. For clarity, I have only presented excerpts of the annotated transcriptions in this part of the thesis. The integrality of the transcriptions can be found in the appendix. Once examples are analyzed, I present some links between the processes observed and the preparation and sometimes I suggest some new strategies and exercises.

NB: I do not try to undertake a complete analysis of the improvisations. Instead, I choose a particular CCP and then select some examples of improvisations where it predominates over the other CCPs. In some cases, it would be possible to analyze examples using other CCPs. For example, some of the

[142] The analysis of interaction in the improvisational process could be part of a different research project. Robert Hodson has analyzed the interaction in several historic jazz ensembles in his book *Interaction, Improvisation, and Interplay in Jazz* (Routledge, 2007).

duo pieces work well to illustrate the sub-category *modes of play* but also contain a lot of *motivic development*.

4.1.2. Exercises

Many strategies and methods of preparation described in the following section have been passed on to me by teachers Hal Crook and George Garzone. Over the last ten years, I have continued to practice some of these exercises, modified some and created new ones, inspired by their general conception.

When practicing these exercises, I often recorded myself and listened to the performance right away. This allowed me to make sure that I had successfully stayed within the framework of the exercise. More importantly, this allowed me to see how creative and musical I was able to be within the limitations that I had imposed on myself. For example, if the exercise consisted in developing a motif, I could evaluate whether the links between the original motif and the last variation were noticeable, and I could also evaluate how aspects of musical execution such as tone, dynamics and articulation were integrated and if the *time feel* was good. Note that this process is different from the critical listening that I will describe in Chapter III because it is specific to the exercises practiced, not to an entire improvisation which does not follow specific constraints.

4.1.3. Repertoire for analysis

The examples that I analyze are representative of the repertoire that I choose to play in my musical projects. I try to establish a balance between highly dense structures, such as compositions with many chord changes and complex rhythmic features, with standards of the Great American Songbook that can be interpreted with a lot of flexibility, and I often include pieces that feature free improvisation.

In the examples selected, there is an original composition that follows the blues form, *Meshigene*, a Broadway standard by Burton Lane, *How About You?*, a modern composition by Steve Swallow, *Falling Grace*, a Yiddish song by Mordechai Gebirtig, *Reysele*, an original composition

without harmonic changes, *Something Joyful*, as well as two pieces that are fully improvised, *Baignade Dangereuse* and *Crotale Crotale*. I recorded these pieces on three albums that were released from 2015 to 2021: *Small Talk* (2015),[143] *Forgotten Waters* (2017)[144] and *Something Joyful* (2021).[145] These albums were all recorded in professional studios, and most of the tracks from which the improvisations are extracted are not first takes but have been selected amongst several.

4.2. Motivic and thematic development

4.2.1. Motivic development

Definition

Motifs are short combinations of pitch and rhythm, with two to eight notes. Motivic development consists in the repetition and transformation of this material.[146] Using this process, the improviser creates a form within the preexisting form of the referent (unless we are talking about free improvisation where no form is preestablished).

Goals/effects

This process could be compared to the development of ideas in speech. The improviser, the other band members, and the audience can follow a thread of musical thought. This continuity in the discourse also facilitates the interaction between band members. When improvising over 'time and changes,' techniques of motivic development can help gain harmonic flexibility. The structural unity between motifs transcends harmony. Motifs can be developed 'outside' of the chord changes to create harmonic tension.

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[143] Jonathan Orland, *Small Talk*, (Paris Jazz Underground, 2015). Personnel: Jonathan Orland, alto saxophone; Nelson Veras, guitar; Yoni Zelnik, double bass; Donald Kontomanou, drums.
[144] Jonathan Orland and Ariel Tessier, *Forgotten Waters* (self-produced, 2017). This is a duo recording with drummer Ariel Tessier.
[145] Jonathan Orland, *Something Joyful* (Steeplechase-Lookout, 2021). Personnel: Jonathan Orland, alto saxophone; Olivier Hutman, piano; Yoni Zelnik, double bass; Ariel Tessier, drums.
[146] In analysis, formal links between any two different musical ideas can often be established by looking at their various features and comparing them. When establishing such links, the question is to know how musically relevant these links are. When analyzing my improvisations, I try to identify similarities between ideas based upon aural perception first. Looking at the transcription can then reveal some similarities that were missed when using aural perception only. The relevance of such observations is up to the analyst.

Existing strategies

- Motifs should possess enough rhythmic contrast so that they can be easily retained and consecutive 8th notes should thus be avoided.
- Developments can include modification of the rhythm, pitch, or both. I tend to focus on the rhythmic aspect, using the following techniques:[147]
    - Fragmentation consists in extracting the beginning part, middle part, or end part of an original motif (OM).
    - Extension consists in adding a musical phrase before, after, or before and after OM.
    - Augmentation consists in elongating the rhythmic value of one or multiple pitches.
    - Diminution consists in contracting the rhythmic value of one or multiple pitches.

All combinations of these various developments can be done.

Existing methods of preparation

During the last dozen years, I have practiced using the following techniques over standards, compositions, and in free improvisation:

- Create OM, develop it with one or several specific techniques decided, recap OM.
  In this exercise, the number of developments and specific techniques is fixed in advance, to target these techniques specifically.
- Create OM, develop it over a certain section of a song. In this case, the number of developments is not decided in advance, but the improviser follows the length of the section. It is possible to do this exercise using two original motifs.
- Create OM, improvise without relating to OM, recap OM, create new motif, improvise without relating with new motif, recap new motif etc.[148]

[147] These techniques are gathered in Hal Crook's book *Beyond Time and Changes: A Musician's Guide to Free Jazz Improvisation*, Pap/Com edition (Rottenburg: Alfred Pub Co, 2015): 41-55.
[148] This exercise is notated in Appendix 1 as [OM – TC -OM] where TC stands for 'through-composed'.

All kinds of variations can be done on these exercises: For example, create a motif (OM1), then a second motif (OM2), then come back to (OM1), then play a 3rd motif (OM3) and repeat this form playing variations at each occurrence of a motif.

These exercises are meant to enforce short-term memory and to get used to applying transformations to initial ideas so that this process can be done spontaneously during improvisation.

Problems

- Original motifs should emerge spontaneously during the improvisation, by a subconscious process of associative thinking. I have sometimes found myself looking for motifs in performance and this intervention of conscious thought took me out of the 'zone' (see Chapter I, 3.6. A psychological perspective on spontaneity).
- Continuity between motifs and their various transformations needs to be perceivable by the other musicians in the band and by the audience. However, being too deliberate can lead to sounding unnatural and didactic.

Example: Improvisation on Falling Grace

This piece was composed by Steve Swallow and featured in the album *Small Talk*.

a. Legend of motivic analysis

- Original motif (OM) is circled in red
- Red squares contain note groupings (integrality) with same rhythm as original or preceding development, at the same place in the bar (pitches can be different or identical)
- Green squares contain note groupings (integrality) with same rhythm as original, displaced (pitches can be different or identical)
- Blue polygons contain extensions of OM before OM (pre) or after OM (post) or fragmentation of OM (frag)
- Green polygons contain augmentation of OM (aug), diminution of OM (dim) or combinations (augm/dim)
- Note groupings colored in red are same pitches as original

- Note groupings colored in green constitute the same melody as original, transposed
- Note groupings colored in blue are arranged in similar shape as original motif
- Motifs are labeled with 2 numbers: XY. X is the occurrence of OM in relationship to other OMs. Y is the occurrence of a transformation in relationship to the other transformations of the same OM.

This legend was created according to my insight on the process, and knowledge of my preparation. It was then refined according to observations that came along with the analysis. The links between the various developments are only shown through their link to a common OM, (except when the exact same notes are repeated from one development to the next). The reason for choosing to relate to an original motif is that I want to emphasize continuity between elements. A common link between several developments expresses stronger continuity than several common links from one development to the next.[149] This system follows my method of preparation, which is based on the establishment of an original motif and its development.

[149] In his analysis of improvisations by Ornette Coleman, Ekkehard Jost used the term "motivic chain association" to describe the identification of relationships between single developments. This differs from my analysis of developments through their link to a common original motif. Ekkehard Jost, *Free jazz* (Graz: Universal Edition, 1974), 50.

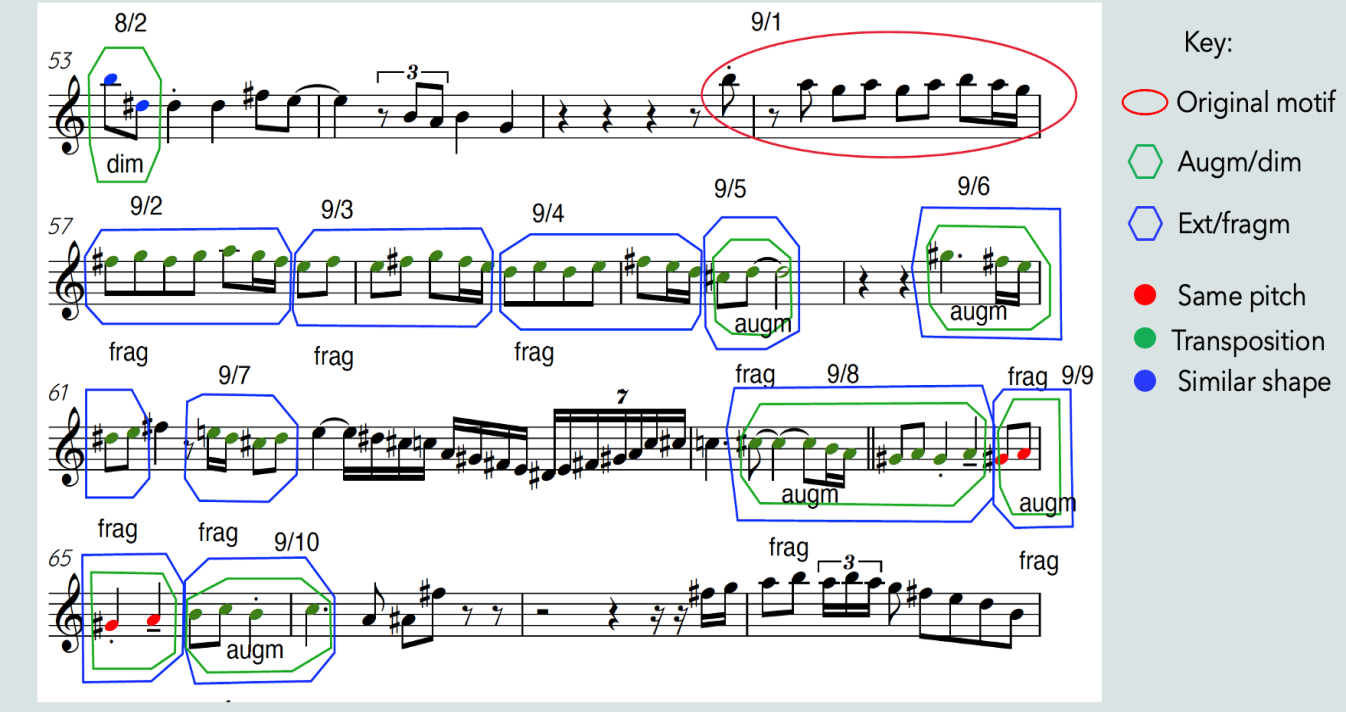


Figure 3 - Motivic development - analysis of solo excerpt on *Falling Grace*

For a complete annotated transcription and textual analysis of the improvisation see Appendix 2

b. Observations

- Many motifs are introduced.
- Motifs are between 2 and 9 notes, average is around 5.
- Developments are quite short. The longest development is 9 transformations of OM and takes place over 10 bars.
- All the techniques listed in the strategies are adopted in this example. There are many combinations, sometimes with 3 different techniques, such as fragmentation, diminution, and extension.
- Rhythm is often subject to a lot of transformation, altering different rhythmic values by augmentation or diminution. In comparison, pitch content is kept quite consistent, with preservation of melodic contour in most cases and sometimes transposition of original melody.

c. Links to preparation and outcomes

The use of the four techniques of development (fragmentation, extension, augmentation, diminution) and their combinations mentioned as part of my strategies of motivic development is apparent in the improvisation, showing that the preparation had a direct impact on the performance. However, it is interesting to observe that a lot of attention was given to creating continuity through the preservation of melodic shapes. This has not been the object of any specific practice. As part of the hermeneutic approach, it would be interesting to adapt my strategies to focus not only on the rhythmic development of the motifs, but also their melodic development. Additionally, the developments exposed in the analysis are very short. It would be interesting to practice longer developments.

d. New exercises

- Keeping the same rhythm as OM, vary melodic contour. Intervals can be augmented or diminished, melodic contour can be inverted.
- Practice developing motifs over a whole chorus or more.

4.2.2. Thematic development

Definition

In my definition, thematic developments include all the parts of the improvised discourse that relate to the written composition in any way other than harmonically. For example, this relationship can be melodic, rhythmic, or structural.

Goals/effects

Just like with motivic development, thematic development creates continuity, unity, coherence and contributes to storytelling. It also allows the improviser to achieve some freedom with regards to the chords, establishing connections to the piece which transcend harmonic changes.

Existing strategies

- The main melody can be embellished.

- The main melody can be used as a thread (internalized) on which to build a countermelody.
- 'Comments' can be added within the rests, in response or anticipation to melodic phrases of the piece.
- Melodic fragments of the piece can be preserved or transformed through techniques of motivic development described in the previous section.
- The phrasal organization of the original melody can be used as a guideline.
- In some cases where there are rhythmic 'kicks' integrated into the form of a piece, these can serve as landmarks.
- Thematic links can be achieved by preserving the general character of the improvisation.

Existing methods of preparation

I have not spent much time practicing thematic development through specific exercises, except indirectly through my practice of motivic development. However, for pedagogic purposes, I have created some exercises that allow students to break down the strategies into easier steps. Here are two examples of exercises:

- Exercise 1: The piece is divided into sections, and there is an alternation of the melody and improvisation between sections. On a standard, a possible division would be alternating 4 bars of melody and 4 bars of improvisation. The reverse process, with 4 bars of improvisation leading to 4 bars of melody is even more effective. Once this becomes natural, the same principle could be applied more loosely, introducing fragments of the original piece at any point, and improvising around them.
- Exercise 2: Variations on the melody are built following three steps: rhythmic modification, pitch modification, adding 'comments' or 'fills.' Each step is practiced separately before all these are combined.

NB: A prerequisite to improvising variations is the assimilation of original melodies and their associated bass lines. An efficient way to target this is to sing melodies while playing bass lines on

the piano, as well as the opposite, playing the melody on the piano and singing bass lines (this can be done by any instrumentalist). I find it also useful to transpose melodies in twelve keys.

Problems

- Thinking about a piece harmonically or reading changes from a lead sheet can prevent the improviser from focusing on thematic development. The harmonic progression should be internalized to prevent thinking about it during the improvisation.
- As mentioned in the previous section, and applicable here, the preservation of continuity between a motif and its developments should be perceivable but it should not sound like the product of a deliberate effort.

Example 1: Improvisation on Something Joyful

This piece is an original composition featured in the album *Something Joyful*. It consists in a melody with no predetermined harmonic changes. A pulse is kept by the rhythm section throughout the saxophone solo. The form of the improvisation does not strictly follow the original form of the head.

a. Legend of thematic analysis

- Red squares contain note groupings with the same rhythm as the original, on the same beat of the measure.
- Green squares contain note groupings with the same rhythm as the original, displaced on a different beat.
- Blue hexagons contain a development of a fragment of original melody (fragmentation, extension, diminution, augmentation, and all combinations).
- Red circle contains rhythmic material loosely related to “gimmick.”
- Note groupings colored in red are identical to the original pitches.
- Note groupings colored in green constitute the same melody as the original, transposed.

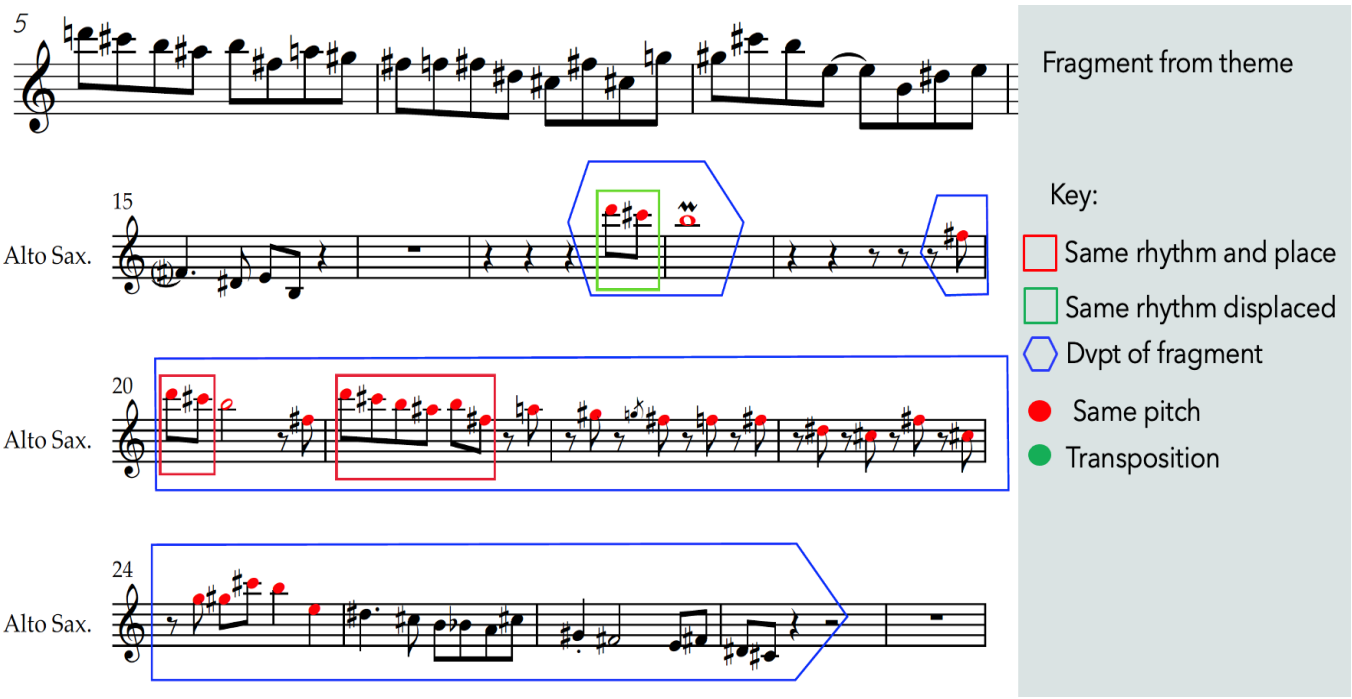


Figure 4 - Thematic development - analysis of solo excerpt on *Something Joyful*

For a score, a complete annotated transcription and textual analysis of the improvisation, see Appendix 2

b. Observations

- In the absence of a predetermined harmonic framework that could help build a connection between the improvisation and the piece, thematic development is particularly effective.
- My improvisation draws both on the general character of the piece and a specific use of its melodic content.
- A rhythmic motif working like a gimmick is played by the drums between sections AA' and A'' inspires some rhythmic ideas in the improvisation.
- Several fragments of the original melody are developed.

c. Links to preparation and outcomes

- Melodic content is often preserved through rhythmic variations. This results from my practice of motivic development. It would be interesting to preserve rhythm and operate more drastic pitch variations.

- It would be interesting to practice improvising on the melodic structure of the piece, despite its complexity.

Example 2: Improvisation on Reysele

This piece is a composition by Mordechai Gebirtig, featured in the album *Small Talk*. The improvisation is performed with rubato feel with the guitar playing the original melody in the background.

a. Legend of thematic analysis

- Notes colored in red are the same pitches as the original and are used as 'target-notes.'
- Red arrows show the general shape of phrases that can be compared to the original.
- Blue segment delineates phrases which are labeled with numbers (only used in complete annotated transcription).

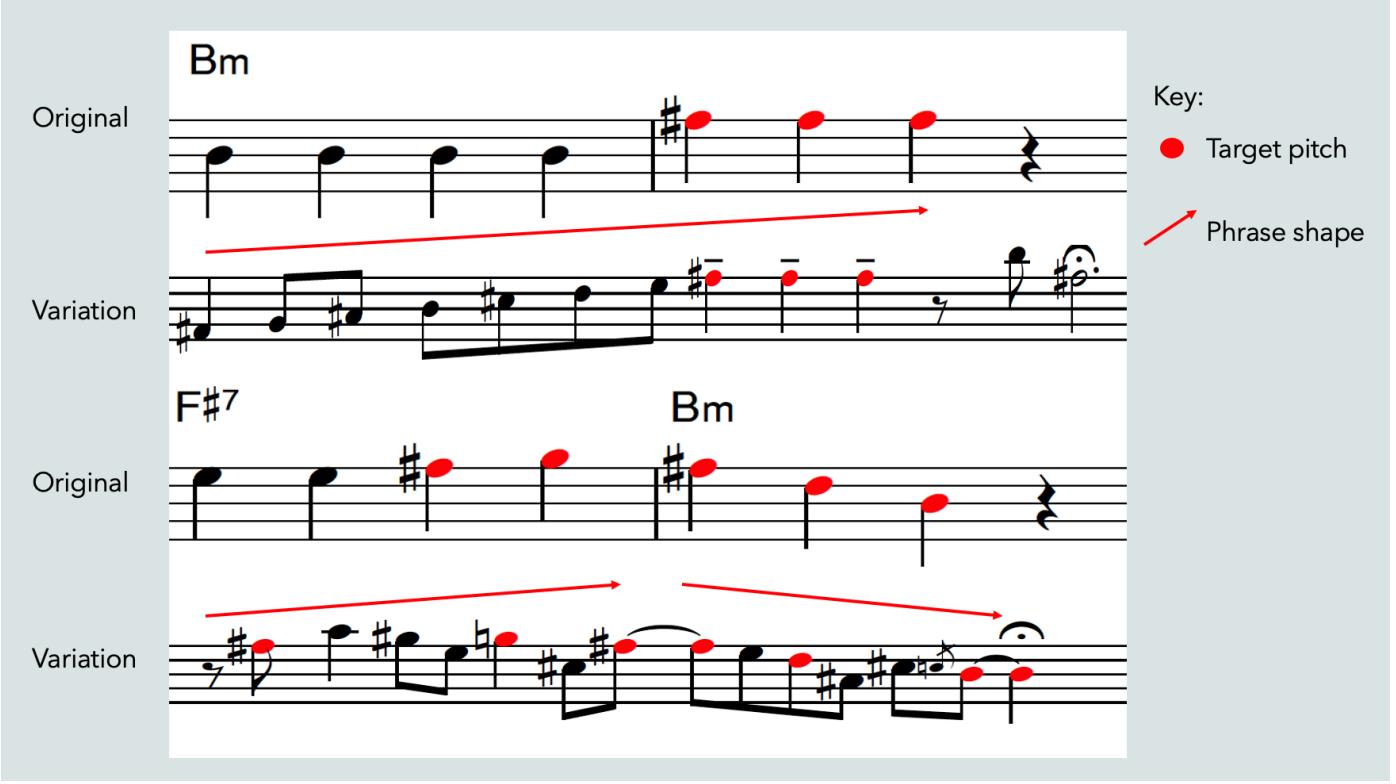


Figure 5 - Thematic development - analysis of solo excerpt on *Reysele*

For a score, a complete annotated transcription and textual analysis of the improvisation, see Appendix 2

b. Observations

In this improvisation, rubato melodic variations are built using loose links with the original melody. There is no preservation of fragments of the original melody.

The analysis of this example reveals the coexistence of three main processes:

- Targeting some significant pitches of the original melody
- Following loosely the shape of the original melody
- Following loosely the length of the original phrases

c. Links to preparation and outcomes

There were no existing preparatory exercises that targeted those strategies.

d. New exercise

Play the original melody on the piano and sing variations/sing original melody and play variations.

4.3. Constraint-based generation

This process consists in the creation of musical material that fits within a set of constraints. The referent itself (a musical structure with the possible existence of a melody, bass line and harmonic progression) represents a set of constraints which the improviser acts upon. However, in this section we are not focusing on the constraints produced by the referent, but on constraints set by the improviser.

The present category encompasses constraints that bear varying degrees of liberty, ranging from the use of a specific register of the instrument to the restriction to specific pitch sets. The application of these constraints involves the internalization of rules.

Using an archetypal Bebop idiom, which largely draws on the use of arpeggios and chromatic approaches to embellish chord tones and extensions, constitutes an example of *constraint-based generation*. I have internalized the rules of Bebop implicitly by listening to recordings repeatedly early on in my musical development. This language constitutes the basis of my improvisation, but I

wish to concentrate on specific idiosyncratic approaches that I have developed more recently and that I am still trying to integrate into my playing.

In this section I will not try to list every aspect of my improvisations that follow constraint-based generation but will limit myself to two main processes:

- the use of two different *musical systems*.
- the use of *modes of play*.

4.3.1. Musical systems

I call musical systems the combination of musical objects and rules. An object could be as simple as an interval and as complex as a scale. A system could be as simple as an ascending scale and as complex as the tonal system.

I will describe two systems that I have been practicing over the last few years: One of them is a derivative of George Garzone's Triadic Chromatic Approach, which I have named 'quartal pitch-shape system' and the other one is the application of Olivier Messiaen's third mode of limited transposition in a tonal harmonic context.

4.3.1.1. Messiaen modes of limited transposition (MLT)

Definition

Mode III described by Olivier Messiaen in his book *Technique de Mon Langage Musical,*[150] contains 9 notes with the following ascending intervals on an octave:

1, ½, ½, 1, ½, ½, 1, ½, ½. (1 is a whole-step and ½ a half-step).

[150] Messiaen Olivier, *Olivier Messiaen: The Technique of my Musical Language* (Alphonse Leduc, 2015).

Below is the first transposition of mode III as notated by Olivier Messiaen:[151]

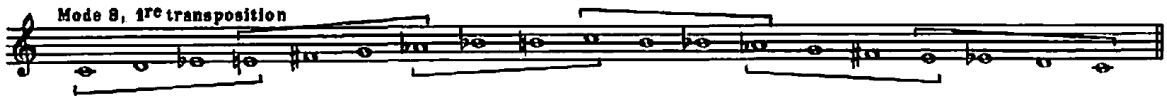


Figure 6 - Olivier Messiaen's mode III, first transposition

This mode bears four transpositions. It can be interpreted as the combination of two augmented scales a minor third apart.[152] Any melodic structure from the scale that is transposed a major 3rd or down stays within the scale.[153]

Goals/effects

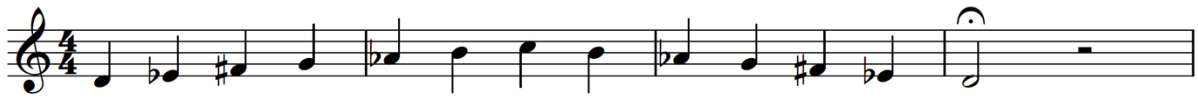
- Mode III conveys a sense of tonal ambiguity. If used and developed for a long enough duration, it sounds like a colorful texture, with an otherworldly character.
- Its resemblance with other scales, such as the altered scale or the augmented, whole tone and symmetric diminished scales contributes to its ambiguous nature. It is not identifiable by most listeners, so it produces the feeling of hearing something 'strange yet familiar.'
- As a result of its symmetric nature and of the number of notes, the scale can resolve to several tonics.
- Melodic lines built upon fragments of the scale that contain augmented seconds resemble some oriental scales encountered in the Makam system.[154]

[151] Ibid, 52.
[152] Augmented scales are hexatonic (6 notes). The combination of two such scales with the overlap of 3 common notes creates a 9-note scale. The first transposition of mode III is the combination of the C augmented and Eb augmented scales.
[153] My first encounter with this mode was through a book of saxophone etudes: Lacour Guy, *28 Etudes sur les Modes à Transpositions Limitées d'Olivier Messiaen* (Billaudot, 2000).
[154] I do not seek to draw an exact parallel between specific fragments of mode III and Makam scales. This comparison is based on a subjective association of sounds. For a description of the Turkish Makam system, see Karl L. Signell PhD, *Makam: Modal Practice In Turkish Art Music*, 2008th edition (Usul Editions, 2008).

Existing strategies

- The specific character of the scale due to its symmetric nature makes it possible to superimpose it on any harmonic changes. Dissonances that result are made 'acceptable' thanks to these structural characteristics.
- Mode III contains 9 notes that are also common to one whole tone scale and two augmented scales. Playing mode III could be equated to playing the whole tone scale with chromatic approaches to degrees 1, 3 and 6, or combining two augmented scales. Getting familiar with whole-tone and augmented scales is thus useful in preparation for mode III.
- I often use mode III to build and sustain tension over dominant chords in cadential contexts. Triads which are part of mode III and that also constitute the upper structure of the altered dominant chord can be used like a 'ladder' used to resolve.[155]
- This scale can be used modally, and its intervals and melodic structures can be exploited.
- The scale contains 9 notes, but it is often more practical to use fragments, resulting in a set of new scales that are not symmetric. I prefer those that contain augmented seconds, such as the 7-note fragment consisting in the following ascending intervals [½, 1 ½, ½, ½, 1½, ½, 1] (fragment 1 in figure 7) or the 8-note fragment consisting in the following ascending intervals [½, ½, 1 ½, ½, 1, ½, ½, 1] (fragment 2 in figure 7).

Fragment 1



Fragment 2[156]

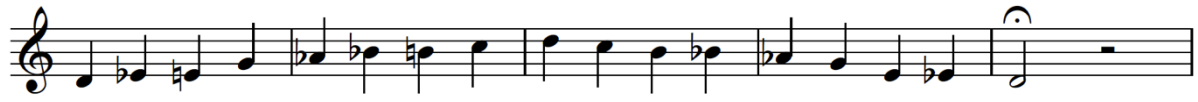


Figure 7 - Two fragments of mode III

[155] On a G dominant, the Db triad can be used. It is part of the second transposition of mode III.

[156] Both examples of fragments are based on the first transposition, starting on the 2nd degree.

Existing methods of preparation

- Improvise freely using pitches of the scale.
- Play specific patterns. Figure 8 is an example of a pattern based on the first transposition:

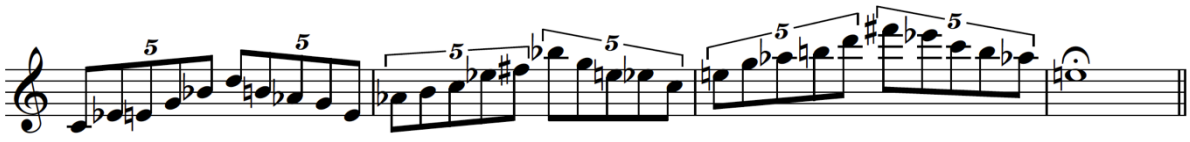


Figure 8 - Intervallic pattern based on mode III

- Play rubato or in time over cadences.
- Write etudes that use the scale (see Appendix 2 for annotated scores of etudes).

Problems

The important number of notes makes it difficult to build balanced melodic lines and to quickly convey the character of the scale.

Example: Improvisation on How About You?

This piece was composed by Burton Lane and is featured in the album *Something Joyful*.

a. Legend of MLT analysis[157]

- Notes from the scale are colored in green
- Red arrows show descending triads used for resolution.

[157] In the annotated scores of the etudes on *Cherokee* and *Star Eyes*, notes from mode III are colored in green, but no red arrow is used because there is no systematic use of a descending triad for resolution such as in the improvisation displayed in Figure 9.

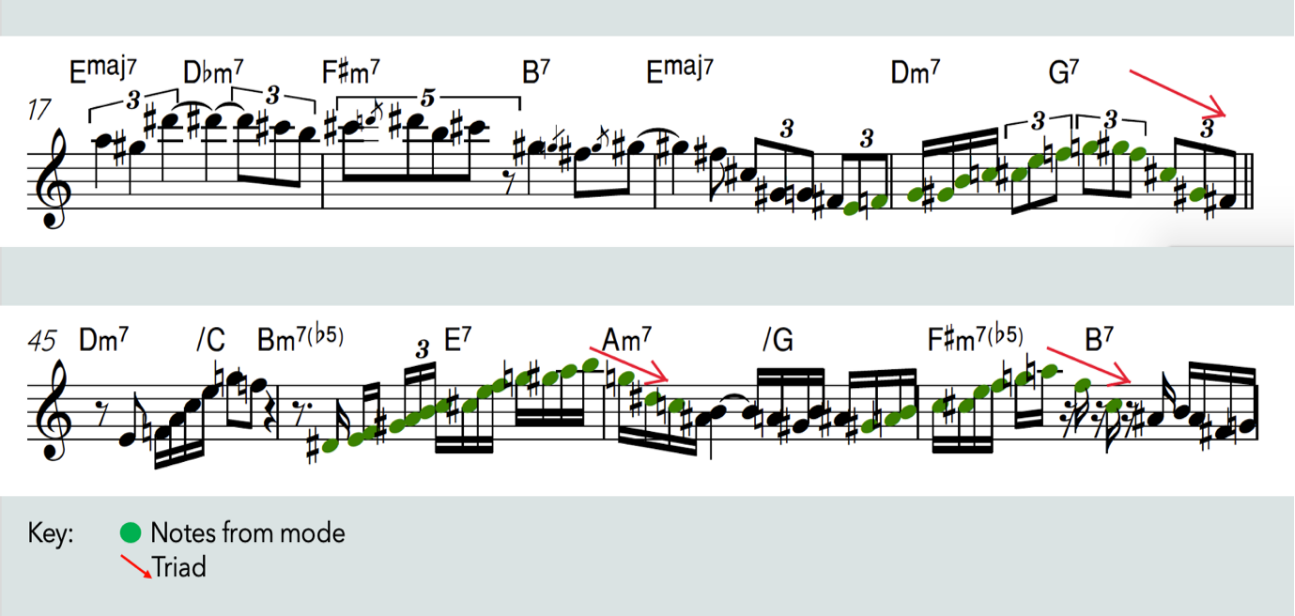


Figure 9 - Use of Mode III: analysis of solo excerpt cton *How About You*

For a complete annotated transcription and textual analysis of the improvisation, see Appendix 2

b. Observations

- The mode is employed at a cadential point to linger over the harmony, creating a sensation of wavering that ends shortly with the resolution.
- Fragments of the scale are used in ascending motion, and a descending triad is used for resolution.

c. Links to preparation and outcomes

- All the melodic fragments that I have employed are based on one transposition (second transposition). This is not only due to the harmonic context; the fact this transposition feels most comfortable under the fingers is a considerable factor. It would be interesting to use the other transpositions.
- It would be useful to practice alternative shapes.

NB: The strategies used to improvise with mode III could be applied to other modes of limited transposition. I have started practicing mode VI, which consists in the juxtaposition of two major

tetrachords a half-step apart, producing an 8 notes scale with the following ascending intervals to the octave:

[1, 1, ½, ½, 1, 1, ½, ½]

Below is the first transposition of Mode VI as notated by Olivier Messiaen:[158]

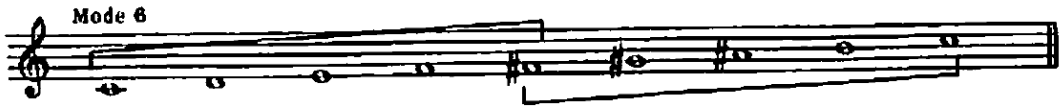


Figure 10 - Messiaen's mode VI in first transposition

The composition *Don't Change* (see Appendix 2), was initially written as an etude to practice mode VI. It uses notes and harmonies taken from this mode in its first transposition exclusively.

4.3.1.2. Quartal pitch-shape system (QPSS)

Definition

- This system consists of the juxtaposition of suspended triads, a half-step apart and in different inversions. It is derived from the Triadic Chromatic Approach conceptualized by George Garzone, but based on suspended triads instead of regular triads.
- Like all triads, suspended triads exist in a fundamental position and in two inversions. I think of the fundamental position as a structure of a major second up from the root and a perfect fifth up from the root. This position is commonly notated "sus2." The rule is to move from one sus triad to the next going up or down a half step, changing inversions as well as the shape of the triad.

Goals/effects

- This system generates melodies that rapidly move in and out of tonality. Melodies sound atonal but there is also an impression of continuity due to the consistency in intervals generated (major and minor 2nds, 4^{th}, $5^{th,}$ and 7^{th}). The melodies resulting from this system

[158] Messiaen, *Technique of my Musical Language*, 54.

sound less angular than those resulting from the Triadic Chromatic Approach. The presence of intervals of 2nds and 4ths conveys an 'impressionistic' character.

- This system is too complex for the ear to grasp the rules that regulate its production. As a result, the listener cannot predict the unravelling of the melodies. The system doesn't sound systematic!
- It is possible to combine this system with the Triadic Chromatic Approach on which it is originally based, using suspended triads together with triads of any color (major, minor, diminished, augmented). This generates all possible intervals within the octave and the melodies produced sound serialist.

Existing strategies

- By momentarily superimposing this system over chord progressions, it is possible to get away from a vocabulary of scales and arpeggios and to get out of the tonal system while keeping coherence due to the structural homogeneity.
- The system can be played to extend a musical phrase, it can lead into a musical phrase, or it can be played independently.
- It can be used near a climactic point, to create momentum in the solo and increase the level of harmonic tension. It can also be used to break away from tonal and more conjoint scale-based melodies, conveying a sense of breach in the music.

Existing methods of preparation

Methods of preparation for the Triadic Chromatic Approach can be adapted to the present system. Here are a few exercises that I have practiced:

- Play system slowly with the metronome marking different groupings. Typically, I emphasize groupings of two or four notes which contrast with the three-note groupings of the triads, as in the following example:

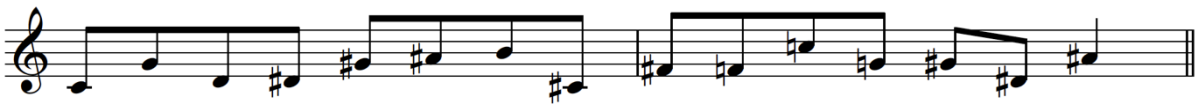


Figure 11 - Quartal pitch shape system (QPSS), example

- Play rubato, accelerating, and decelerating.
- Control the melodic contour by practicing specific directions (up, down, combinations).
- Alternate playing and singing lines to avoid playing mechanically.
- Play very slowly over a standard harmonic progression to hear the superimposition of the system over chords or just the bass line. An alternative way of practicing this is to sing slowly while playing a drone or the bass line of the standard with the left hand.
- Improvise phrases that combine the system with chromaticism and motifs.
- Write etudes that use the system to establish interesting melodic paths that can be integrated into muscle memory and serve as a basis for the generation of new musical ideas (transcriptions of excerpts of etudes are given further in this section).
- I have written a piece, *Noef*, based entirely on the system (see Appendix 2 for a full score).[159]

Problems

- The rules that govern this system are so constraining that it is hard to integrate it in continuity to other melodic ideas without it sounding forced or artificial. One should not seek to follow the rules of this system strictly. Being flexible with its use and integrating chromaticism or other melodic elements which are 'out' of the system is encouraged.

[159] This piece is based on a nine-note melodic cell made up of three 'sus triads' grouped according to the rules of the *quartal pitch-shape system*. In some passages - trumpet part of sections B and D3 - this cell was 'linearized' by aligning neighbouring pitches in order to form a scale.

Examples: Etudes of Cherokee and Star Eyes

I have not found examples in my recordings where I make use of this system in a clear way. Instead, I present an example of its use in two etudes that I have composed, based on the harmonic progressions of *Cherokee*, by Ray Noble, and *Star Eyes*, by Gene de Paul and Don Raye.

a. Legend of QPSS analysis

- Orange rectangles surround sus triads in fundamental position.
- Purple rectangles surround sus triads in 1st inversion.
- Green rectangles surround sus triads in 2nd inversion.
- Arrows show direction of the intervals between the notes of the triad. There are four possible directions: ascending, descending, ascending-descending, descending-ascending.

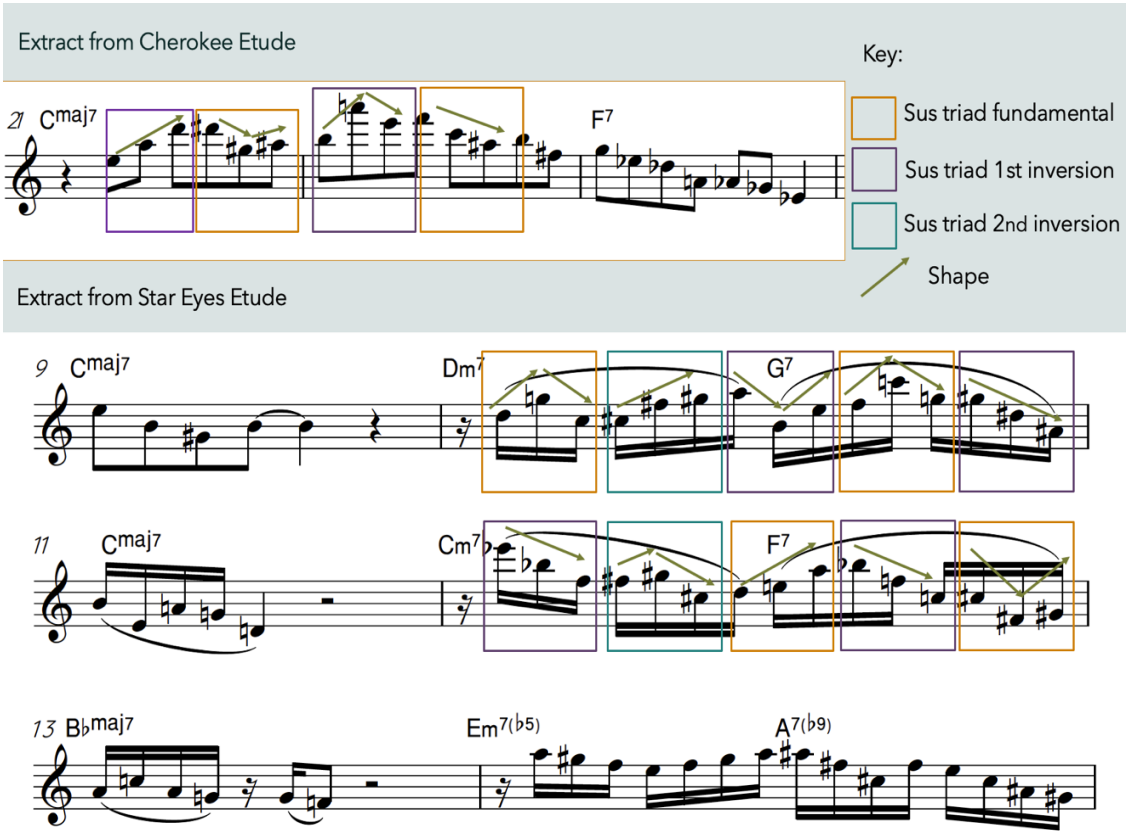


Figure 12 - QPSS - analysis of excerpts of etudes on *Cherokee* and *Star Eyes*

For a complete score of these etudes, see Appendix 2[160]

[160] In in these etudes the QPSS is only used in the same bars displayed in the excerpts presented in figure 12. To preserve clarity, the etudes are not annotated with the QPSS key.

b. Observations

- At bars 21-23 of *Cherokee*, the harmonic tension is sustained without a clear resolution.
- In *Star eyes* the system is employed at cadential points (II-V-I resolutions). The tension is resolved at bars 11 and 13.
- The system produces strong dissonances between the melody and harmony of the piece. In both examples, these tensions are made more 'acceptable' by the high velocity at which the notes are played. In the case of *Cherokee,* it consists in 8^{th} notes played at a fast tempo. In the case of *Star Eyes,* it consists in 16^{th} notes at a medium tempo.

NB: In the etudes I have rigorously employed the system, alternating the position and directions of the triads. In improvisation, the system could be used with more flexibility.

c. Link to preparation and outcomes

The reason why I do not find the emergence of melodies inspired by this system in my recorded improvisations is probably because I have only practiced it for the last two to three years. It would be interesting to observe the outcomes of my preparation in a few years.

4.3.2. Modes of play

Definition

In this section I describe some processes which are less constraining than the systems just described. I use the terminology 'modes of play' - not to be confused with the French term 'modes de jeu' which refers to timbral alterations using specific techniques - to designate various improvisational approaches that participate in conveying a specific character to the improvisation (or a passage of the improvisation).

Goals/effect

The character of a musical passage can be associated with the use of specific musical features. For example, the contemplative nature of a passage could be linked to the use of long rests, slow rhythms, and soft dynamics. The sophisticated character of a passage could come from the sinuosity of the melodic lines and fluidity could be linked to a warm sound and legato phrasing. The joyful character could come from the employment of specific rhythms and articulation patterns.[161]

Modes of play fit into the cognitive category of *constraint-based generation* because it is through the establishment of musical limitations that the character of the music manifests. Constraints inspire the improviser to convey clear musical intentions. Of course, the character of a passage does not result solely from the establishment of such limitations, it also reflects the general approach of the improviser, or his *sound*, as defined earlier.

Existing strategies

- *Modes of play* can consist of broad musical topics such as trills, long tones, soft dynamics, short rests. They can also result from combining several musical parameters, such as 'staccato articulation in the high register' or 'low notes with wide vibrato', or more specific intervals and melodic contours.
- Navigation between *modes of play* creates momentum. As part of the solo construction and storytelling, staying within a set of constraints and then letting go of the framework to move on to another *mode of play* creates contrast and surprise.
- In the context of a duo, which is analyzed as an example, there is sometimes the clear intention to follow the other player's gesture, or to go against it.

[161] Music being essentially abstract, the character that emanates from a passage could be defined through the description of the feelings that the music produces on the listener. For example, the music could be called contemplative or agitated, delicate or aggressive, joyful or melancholic. The description of the character could also be associated with the gesture of the musician. For example, a passage could be called introspective or bold, delicate or frenetic, raw or sophisticated. Through associative thinking, elements that are outside of the music field could also help describe the character of the passage. For example, the music could be fluid or dry, angular or smooth, bright or obscure, light or heavy. These comparisons are subjective, and the use of vocabulary depends on the imagination of the listener.

Existing methods of preparation

I have mostly experimented with *modes of play* in the context of free improvisation. However, the following methods of preparation are applicable to any referent:

- Choose a *mode of play*. Ex: A = short phrases and short rests, B = staccato phrasing with wide intervals, C = long rests and glissandi.
- Follow a specific preconceived scenario. Ex : ABC ABC etc… or AB AC AB AC etc… When doing this over standard forms, it is possible to assign a specific length to each *mode of play*, for example, 16 bars or 8 bars (this length can also be decided spontaneously). This exercise consists in the creation of a form within the preexisting form.

I have practiced regularly for several years with drummer Ariel Tessier, and we have recorded the pieces that are used as examples in this section. We have designed and practiced several exercises together, including the following:

- Alternate sections where both players are using *modes of play* that match each other with sections where both players are using *modes of play* that contrast.
- Each player establishes 3 *modes of play.*[162] When one of the players triggers any of these modes, the other follows as quickly as possible.

Problems

- A *mode of play* should be defined clearly enough so that the improviser does not lose track of it, and so that other musicians can grasp its nature. However, the framework should be treated with enough flexibility so that the improvisation does not sound rigid or forceful.
- *Modes of play* can be applied to all contexts and referents but are easier to use when there is no preestablished formal structure.

[162] Using three *modes of play* seems sufficiently fruitful. Using more is possible but would be challenging.

Note on examples

In this sub-category, the analysis is meant to target the general character of the music, conveyed with the use of broad constraints, rather than specific pitches or rhythms. As a result, it is not useful to transcribe the examples analyzed. Instead, textual analysis is undertaken directly after listening, and there is no use of musical notation. The timing of the passages is given, the character of each passage is described, and the musical parameters that are used to convey this character are listed.

In the following examples, the pieces analyzed were improvised without using predetermined structures.[163]

Example 1: Baignade Dangereuse

This piece is an improvisation featured in the album *Forgotten Waters*.

For a textual analysis see Appendix 2.

a. Observations

Modes of play often alternate between soft, delicate melodic lines and fierce, aggressive runs. The transitions between the *modes of play* are direct in most cases. There are only two occurrences when the transitions are smoother, more progressive, without a break.

b. Links to preparation and outcomes

- In this duo setting, the passage from one *mode of play* to the next is the result of some change that I have induced or an intervention of the drummer. Sometimes it is impossible to know who triggered the change. The exercise described in the *Existing methods of preparation* section relate directly to the performance.
- Since most transitions observed are direct, it would be interesting to practice smooth transitions, carrying some characteristics of a *mode of play* into the next.

Example 2: Crotale Crotale

This piece is an improvisation featured in the album *Forgotten Waters*.

[163] Both tracks are available for listening at the following Bandcamp link: https://forgottenwaters.bandcamp.com/album/forgotten-waters-2

a. Analysis

The main *mode of play* consists in long, low *subtones* that evolve throughout the integrality of the improvisation. The note is repeated with various articulations including *slap tongue* (1:25/2:35). *Multiphonics* are added to the notes (1:51/2:27/2:46). Towards the end of the improvisation the long *subtones* are interrupted by short incursions in the high register (3:19). These interruptions become more and more frequent. At the very end (4:32) I depart from the long notes and start to play speech-like melodic ideas using a *subtone* sound in the low register. The interventions in the high register are kept at a constant pace. A short rhythmic theme is introduced to finish the section.

b. Observations

The main constraint stays almost throughout the entire piece. I introduce interferences such as articulation and *multiphonics* that create variations on the main idea, and high notes create interruption. At the end, the interferences take over the main idea for a short moment.

c. Links to preparation and outcomes

It would be interesting to practice improvising a whole piece on one *mode of play*, exploring the limits of the framework without moving on to another idea.

4.4. Memorized melodic figures (MMF)

Definition

Listening to music, learning repertoire, practicing rudiments, and performing improvisation regularly leads inevitably to the memorization of specific melodies and rhythms. The subconscious selection of fragments that fall well under the fingers and that get rapidly engraved into long term memory is part of the development of the improvisational language.

Goals/effects

Beyond the fact that for most musicians they are impossible to avoid, *memorized melodic figures* contribute to a player's identity. The use of figures that are created by the improviser or that are

derived from other musician's vocabulary and personalized contributes to the idiosyncratic nature of the musician's *improvisational language*.

On the other hand, the use of idiomatic vocabulary common to many players can also be effective, giving some landmarks to the fellow bandmates and the audience, and helping them to connect to the individual style of the improviser and to acknowledge their idiosyncrasies.

Existing strategies

- Possessing a certain amount of 'ready-made' melodic figures allows the improviser to 'take a break' during the improvisation and let muscle memory take over.[164] This helps the improviser pace his ideas and sustain inspiration throughout the improvisation without being mentally exhausted.
- I do not practice introducing *memorized melodic figures* into my improvisations. However, I have consciously decided not to censure myself when such figures emerge in the improvisation.

Existing methods of preparation

- Most often I do not compose melodic figures consciously. They emerge naturally while I improvise, as a side-effect of my practice. When they are not fully integrated, figures tend to appear only in specific tempos and keys. It is then useful to transpose and sing them to activate the inner ear and gain flexibility in their use.
- Recently I have also composed and practiced a few phrases based on some of the systems described in the previous section. Having some 'fixed examples' helps me to generate new phrases when improvising. I sometimes write down such figures in a notebook or record them with my phone to rework them later, but often I just retain them orally. The example below uses Messiaen's mode III on a II-V-I cadenza, with a delayed resolution.

[164] Muscle memory, also called kinesthetic or rote memory, is a subcategory of procedural memory, which was mentioned in section 3.2. of this chapter.

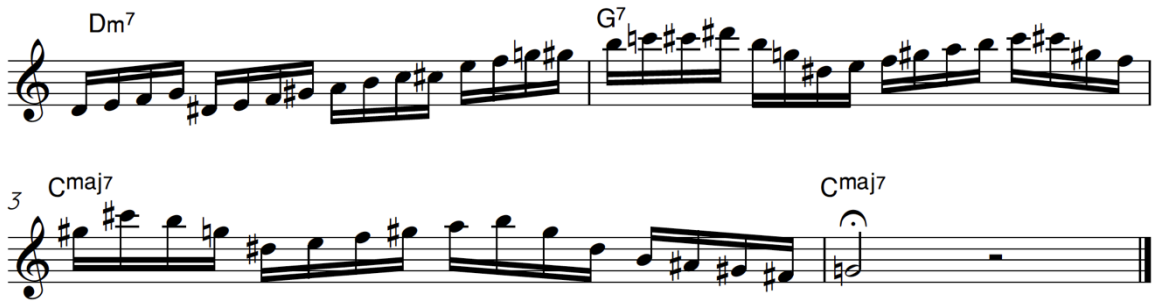


Figure 13 - Example of memorized melodic figure (MMF) based on mode III

Problems

A musician who relies too much on the use of *memorized melodic figures* misses the opportunity to develop musical ideas in 'real time' and risks becoming too predictable. Ran Blake stated that "If your music has licks, they should be of your own design."[165] I consider that *memorized melodic figures* are only problematic if they are overused and borrowed directly from other players without being digested and reinterpreted. In this case the overall discourse can sound like mere imitation rather than true individual expression.

Examples: Improvisations on Falling Grace and Meshigene

In analysis, one way to recognize *memorized melodic figures* would consist in transcribing a large amount of my improvisations and to look for recurring melodic fragments. Such a systematic approach would lead to the identification of melodic figures which are part of a 'stored bank of vocabulary' that I use frequently, with various degrees of transformation.[166] This method, which could be computer-assisted, is beyond the scope of the present research. Additionally, as part of a methodology based on the analysis of the process rather than the content, it is not necessary to analyze a large quantity of specific examples of *memorized melodic figures* from my improvisations. In the current state of my research, I prefer to treat these figures as ever-evolving entities and

[165] Blake, *Primacy of the Ear,* 2.
[166] Such an approach is comparable to Thomas Owen's formulaic analysis of Parker mentioned in Chapter I, 3.3.

instead of cataloguing them, the analysis of a few examples is sufficient to observe *how* these are integrated within the improvised discourse.

Two excerpts are grouped in this analysis, coming from my improvisation on *Falling Grace*, which was already analyzed as part of *motivic and thematic development*, and a composition of mine based on the blues form called *Meshigene*, featured in the album *Something Joyful***.**

a. Legend of MMF analysis

Notes from *memorized melodic figures* are colored in purple.

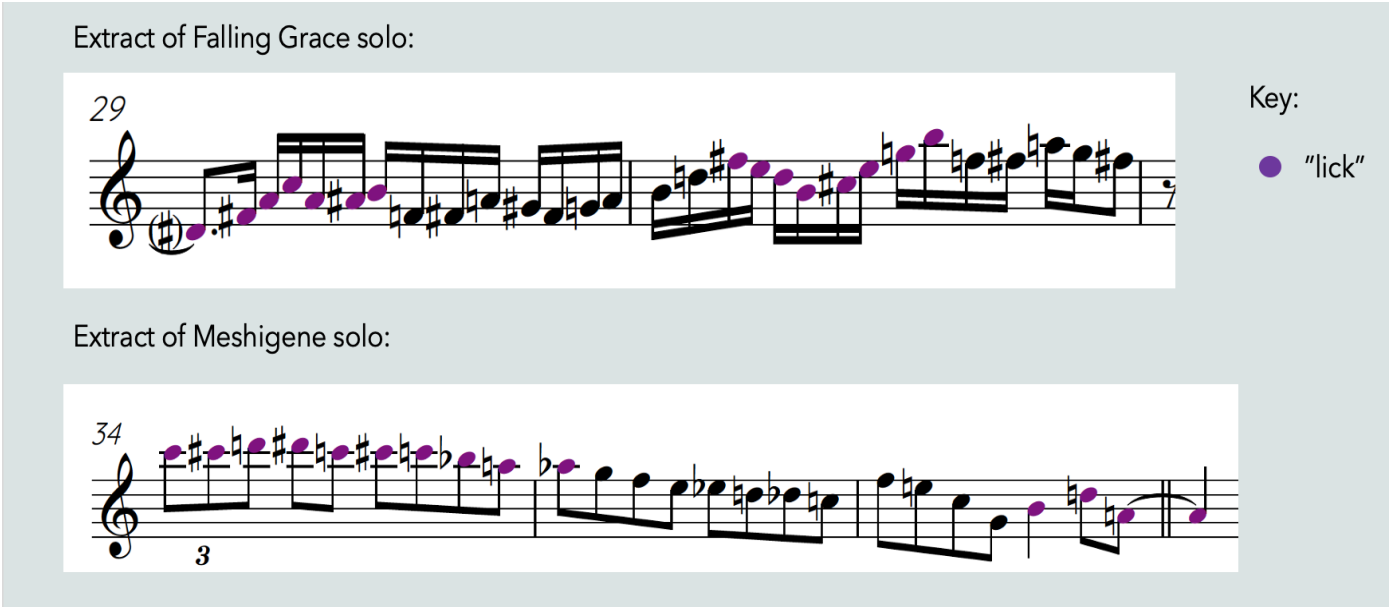


Figure 14 - MMF - analysis of solo excerpts on *Falling Grace* and *Meshigene*

For complete annotated transcription of the improvisation on Meshigene, see Appendix 2.

b. Analysis

There is no textual analysis in this category because the identification of *memorized melodic figures* is sufficient to draw observations.

There is no systematic delineation of *memorized melodic figures*. I rely on an intuitive understanding of my *improvisational language* to recognize them. Identification of groups of notes under this particular CCP relates to their degree of oral familiarity.

The excerpt of my improvisation on *Falling Grace* shows the use of archetypal Bebop fragments. The excerpt of my improvisation on *Meshigene* shows a phrase reminiscent of Julian

Cannonball Adderley's style at measure 34 and a typical Charlie Parker melodic resolution at measure 36.

c. Observations

- I can trace some of the *memorized melodic figures* found in the two examples to my first encounters with Parker and Adderley's styles as a teenager.
- The *memorized melodic figures* that I use are often small fragments of Bebop archetypal 'licks' that are connected using more generic melodic material. As a result, these figures do not stand out as 'licks' but are integrated as part of the improvised discourse.
- *Memorized melodic figures* are relatively sparse. In these two examples that come from two albums recorded five years apart, the solos are approximately the same duration and contain the same number of *memorized melodic figures*.

d. Link to preparation and outcomes

- The presence of vocabulary acquired a couple decades ago that still emerges subconsciously in my solos is an indication that I have successfully stopped censuring myself. Moreover, the fact that this vocabulary is integrated into my improvised discourse in a natural and personal way bears satisfactory aesthetic outcomes. This encourages me to carry on with this 'non-censure approach.'
- Since in recent years there was no conscious practice of the *memorized melodic figures* observed in these examples, their emergence is the result of a subconscious process of natural selection. This presence also proves the longevity of long-term memory and especially kinesthetic memory.

5. Conclusion

5.1. Outcomes

5.1.1. General observations

Formal analysis exposed the following relationships between preparation and performance:

- Some processes observed in the analysis were applied without conscious preparation. This is the case of most processes analyzed as part of the sub-category *thematic development*.
- Some passages displayed the use of specific processes that had been practiced but formal analysis also revealed the use of other simultaneous processes that had not been practiced consciously. The preservation of melodic contour as part of the process of *motivic development* is such an example.
- Other times, a specific process which had been practiced did not appear at all in the improvisation. This is the case for the *quartal pitch-shape system*.

5.1.2. Etudes

The composition of etudes is an important new strategy adopted through this research.[167] I had written etudes in the past but had found little success in this undertaking because the compositional material was too disconnected from my improvisational language. The approach that I used as part of the present research involves putting myself in the state of mind of improvisation when writing the etudes. In the composition process, I can slow down and edit what I hear internally and get beyond my kinesthetic memory to open new paths. I prioritize continuity over novelty, trusting that it is more beneficial to operate small changes on ideas that emerged spontaneously than to base the writing process on an intellectual construction. This method necessitates that the material targeted in the etudes – consisting mostly of Messiaen's mode III and the *quartal pitch-shape system* in the examples presented in this thesis – has been practiced long enough so that it is already internalized.

[167] During this doctorate, I have composed a dozen etudes, two of which are presented in the appendix of the present thesis.

Various methods of practice can be applied to these etudes. Tempos can be changes, as well as articulation patterns, dynamics, and other indications. Passages can be isolated and transposed. It is also interesting to alternate playing passages of the etudes and improvising on the structure (this is similar to Exercise 1 described in section 4.2.2.1.).

The effects of the composition and practice of these etudes has not been analyzed in this thesis because most of the etudes were written recently and there are no new published recordings to draw examples from. However, in my daily practice and performance I am starting to feel the outcomes of this work.

5.2. Side-effects

The hidden outcome of the analytical process is implicit learning. Transcription and analysis necessitate listening repeatedly to passages of my improvisations.[168] This leads to the implicit memorization of melodic fragments as well as all the subtle details of execution with which the improvised discourse is delivered. It also gives insight on the process of overarching construction, the storytelling.

These 'side-effects' of formal analysis are arguably more useful than the analysis itself. This observation leads to the methodology adopted in the next part of this dissertation, which involves critical listening as a tool to investigate my *sound*.

5.3. Next steps

The formal analysis undertaken in this part of the thesis is meant to explore my *improvisational language* through the investigation of the links between preparation and performance. The third chapter of this thesis is the opportunity to explore aspects of the improvisational process that are not relatable to the conscious application of strategies. In this part I focus on the instinctive nature

[168] Interestingly, transcribing myself took as much time and effort as transcribing other players.

of improvisation, paying close attention to my perception and the impressions that emerge when improvising and when listening back to recordings.

CHAPTER III: Investigation of the performative experience: Critical listening applied to improvised solo saxophone

1. Introduction

1.1. Limitations of formal analysis

In the second part of this thesis, I focused on the investigation of processes which are part of my improvisational language through formal analysis of excerpts of my improvisations in various musical contexts. For this analysis I adopted a hermeneutic approach, where I used knowledge of my preparation and conscious strategies as a point of departure to investigate the processes employed spontaneously during the improvisation.

Aimed at expanding my improvisational language, this method has been fruitful in many ways, and some of its outcomes are yet to be discovered or fully exploited. However, formal analysis is not meant to elucidate the elaboration of the improvised discourse in its integrality. The emergence of some recurring elements in the discourse can be traced back to practice, but other elements are harder to grasp, more contextual or more surprising. Formal analysis is well adapted to describe all the processes that can be linked to preparation, but it does not capture those which rely mostly on instinct.

In particular, in the previous analysis I did not address the overarching process of construction which contributes to the global architecture of the improvised discourse and the storytelling. Even if a complete improvisation were broken into sections that drew upon various processes - categorized in the CCPs (*categories of cognitive processes*) that I established - it would still be impossible to explain why these fragments work together to constitute a well-balanced, coherent musical discourse.

1.2. New approach

As mentioned in the conclusion to Chapter II, the fact that it required many hours of focused listening to transcribe and analyze my improvisations produced some interesting 'side-effects.' Repeated listening allowed me to implicitly capture and consolidate some of the more elusive material, including those that did not relate directly to preparation.

This observation constituted my main motivation to pursue a process of *critical listening*, which I applied to the recording of solo saxophone improvisation. This recording experiment bears a dual outcome; firstly, it triggers implicit learning and secondly it allows the conscious observation of aspects of the improvised discourse which escaped formal analysis. Using this framework, I uncover some processes that were already observed in the formal analysis, and I also establish relationships between performance and preparation. However, where my previous methodology relied on the categorization of these processes and the description of the musical content that resulted from their use, the present analysis focuses on the feeling with which the improvisation is performed and puts forward the aspects of execution that were left out. Moreover, the links between preparation and performance are not explored systematically to adapt existing strategies but are used instead to gain insight on the overarching process of construction and storytelling.

Throughout this third and last chapter, the reader is encouraged to use the recording of my saxophone solo as a reference.[169]

2. Critical listening

2.1. Phenomenological approach:

This part of the thesis is the opportunity to focus on the instinctive nature of improvisation. Through the description of a recording project, I explore some aspects of the improvisational process that

[169] This recording also constituted my last recital requirement for the doctoral program. It is available as an attachment to the thesis link accessed via: https://escholarship.mcgill.ca/concern/papers/4t64gs98h?locale=en

escaped analysis, including the sensory and emotional responses that drive the performance. Moreover, I pay close attention to my impressions when listening back to recordings. These include satisfaction/frustration, expectations/acceptance, familiarity/surprise. It is interesting to recall impressions from the performance and compare them to the impressions that arise during critical listening. In this process of retrospection, I am not only interpreting an experience but also my relationship to the experience. There is a double interaction between the object and the subject, and the subject with himself. This constitutes a phenomenological approach.[170]

2.2. Goals and outcomes

Before undertaking this research and without following a specific methodology, I regularly recorded my performances in concerts and jam sessions and listened back. I had noticed that it helped me gain insight on my improvisational process, and that more generally it improved my playing.[171] Several outcomes make *critical listening* a valuable tool for self-analysis.

Repeated listening allows one to evaluate the music on a subconscious level. By simply listening, without any deliberate effort, one takes note of what works and does not. This applies to specific musical content, but more importantly to the general flow and the feel of the music (aspects of execution). Regularly immersing oneself in their own recordings triggers a form of natural selection which is responsible for the evolution of the musician's improvisational language. I do not try to explain the mechanisms of this process because it consists in a form of implicit learning, which, by definition, cannot be elucidated by their author.

This evaluation can also be done consciously. The conclusions drawn from critical listening can inspire the improviser to use new methods of preparation or generate self-advice which does not

[170] The focus of phenomenology is "the *how* of the manifestation, of the *monstration*, of the donation of the object." ["le comment de la manifestation, de la monstration, de la donation des choses."] Michel Henry, *Auto-donation: entretiens et conférences* (Paris: Beauchesne éditeur, 2004), 121. [personal translation].

[171] I also took part in the Improvisation Workshop Project, a unique experiment led by Prof. Jean-Michel Pilc, gathering musicians from various backgrounds, who improvised together and were asked to listen back and briefly comment on the performance through a video journal. The journal entries are available at https://www.improvworkshopproject.com/journals.

necessarily require practice. This form of analysis, although it can also impact the preparation, is to be distinguished from the methodology adopted in Chapter II, which sought to establish specific links between the use of strategies implemented through practice, and the improvisational language employed in performance. The present analysis sheds light on broader musical aspects such as *time feel* and storytelling and does not rely on systematic relationships between practice and performance. The use of a log helps keep track of the ideas that emerge during critical listening.

Additionally, there is a therapeutic side to critical listening. In my experience, the discrepancy between 'how I think I sound' and 'how I really sound' has narrowed down to the point where I am no longer shocked, or overly surprised when hearing myself on a recording. Additionally, confronting myself to 'how I really sound' has helped me stop to ask myself 'how I want to sound' and allowed me to abandon an idealized version of my playing. This evolution toward a more realistic perception has helped me to leave the ego aside and distance myself from my performance. As a result, listening sessions do not produce the kinds of frustrations that were rather frequent years ago.

2.3. Interferences

Memory of cognitive processes and associations that were made during the performance is present to varying degrees when listening back to myself. When I listen shortly after a performance, I sometimes remember specific thoughts that led me to make specific decisions. Sometimes I also revisit the emotions that accompanied my playing. It is interesting to observe the emergence of these interfering thoughts and emotions and I believe that it can give some insight on the improvisational process.

Furthermore, even when the spontaneity or flow of the music was not directly compromised by the occurrence of specific thoughts and emotions, the simple fact that I remember these creates interference and alters my perception of the music. For example, when expectations were not met, a particular passage might be interpreted as a mistake. When memory faints with time, or according to someone else's judgement, the same passage might sound perfectly acceptable and exempt of

mistakes. It is thus wise to wait before trying to evaluate the passage because the memory of the experience is too charged. Taking a few days off and coming back to a recording is usually enough for me to listen with less interference. The 'residues' of the playing are less intrusive, and the music can now be evaluated with more clarity.[172]

3. Recording experiment

3.1. Methodology

3.1.1. Solo saxophone, why?

Much of my saxophonist's life - and my life in general! - has consisted of playing alone. However, this was usually done with the mindset of practice rather than with the goal of producing a finished work. This is the first time that I have dedicated time to the development of a solo recording. So far, solo saxophone playing represented too much of a challenge for me and I had no idea how to approach it.

Several reasons led me to overcome this initial resistance:

- As part of artistic research (also called "research-creation"), the framework of the doctoral project, has allowed me to take some pressure off. In such context, the creative process becomes the object of experiment, and the process becomes as important, if not more, than the product.[173]
- As this research revolves around the investigation of my *sound*, it is useful to present the improvisational experience in a 'pure setting,' where no external factors come to influence it.

[172] In his comments on my solo saxophone recording - which is part of the experiment that I describe in the following section - Prof. John Hollenbeck suggested having at least one other person participate in the critical listening to provide a fresh, detached perspective.

[173] "Research-creation is understood as (1) an approach applied to (2) an individual or multiple-agent (3) project combining (4) research methods and creative practices within a dynamic frame of (5) causal interaction (that is, each having a direct influence on the other), and leading to both (6) scholarly and artefactual productions (be they artistic or otherwise)." Sophie Stévance and Serge Lacasse, *Research-Creation in Music and the Arts: Towards a Collaborative Interdiscipline* (London: Routledge, 2016), 123.

- More prosaically, the restrictions linked to a world pandemic were the perfect opportunity to undertake such a solitary work!

3.1.2. Particularities

The main particularity of the solo configuration lies in the absence of interaction. Since there are no external stimuli due to the presence of other musicians, instinct must be self-sufficient, inspiration must be self-nourished. Additionally, in the case of a monophonic instrument such as the saxophone, the absence of harmonic and rhythmic references provided by other instruments takes the improvisers away from their traditional role.

In jazz history, there are a few examples of important saxophonists who played or recorded solo, including Sonny Rollins,[174] Lee Konitz,[175] Steve Lacy,[176] and Anthony Braxton.[177] In general, I have purposely avoided becoming too familiar with saxophone solo recordings because I did not want to be too influenced by them.

3.1.3. Application of the methodology

I started this project without a specific pre-established methodology. My intention was to record a minimum of 35 minutes of improvised solo saxophone and to document the steps that led to this artistic production. Since solo saxophone requires a lot of concentration from the performer and the listener, 35 minutes seemed to be a reasonable duration. My method evolved in response to the musical needs as they became apparent throughout the experiment. I was able to describe the steps that led to the completion of this project only *a posteriori.*

[174] Sonny Rollins, *Solo Album* (Milestone, 1985).
[175] Lee Konitz, *Lone-Lee* (Steeplechase, 1974).
[176] Steve Lacy, *Solo* (Emanem, 1972).
[177] Anthony Braxton, *For Alto* (Delmark, 1971).

3.1.4. Summary

- I recorded from February 25th to May 4th, with a total of 28 sessions that were 1-2 hours long each.
- The repertoire consisted in free improvisations, standards and some Thelonious Monk pieces.
- Each recording session was followed by critical listening.
- I kept a log with descriptive input, comments, self-advice, free associations, good passages highlighted.
- Towards the end of April, I started to listen back and evaluate all highlighted passages and continued with the recording sessions and critical listening.
- By May 4th I had finished recording and had selected around 50 passages.
- Over the next three days I did several listening sessions and reduced this to a final selection of 15 tracks.

3.1.5. Daily organization

I got into the habit of going to the studio several times a week and to systematically listen back at least 30 minutes of the recordings every evening, avoiding listening back to music that was recorded on the same day (I usually listened to music recorded the day before).

I kept a log where I took short notes.[178] These notes included delimitation of sections with timing[179] and brief description of passages ("Bar X, I play this standard with rubato feel," "Bar Y, animal sounds in this section," "Bar Z, sounds like a Japanese flute here" etc.), impressions ("relaxed," "tense," "interesting" etc.), specific comments ("slows down here," "good use of nuances there," "nice melody" etc.), general comments ("sounds good," "does not work," "uninspired," "exciting,"

[178] See excerpt of my critical listening log in Appendix 3. The page selected as an example was chosen randomly amongst the 17 pages of the log.

[179] I used the timing tool provided by the software GarageBand, which consists of bar numbers (when recording without a click, these are virtual bar numbers that do not correspond at all with the music).

“boring” etc.). Sometimes I added advice such as (“stop trying!,” “play simpler ideas,” “use more dynamic contrast,” etc.). For efficiency and spontaneity, notes were taken mostly in my mother tongue, French. Additionally, I highlighted all the passages that I liked. This was a first step towards selecting the final tracks and to avoid having to select from too much material later.

NB: The type of recording used in the present methodology is distinct from the recordings used in Chapter II. In the latter, analysis was done on studio recordings and the tracks had been the result of a process of preselection (they were not necessarily first takes). In the present experiment I pay attention to all the steps of the recording, not only the final selection.

3.1.6. Evolution of methodology

Initially, I tried to play freely for 35 minutes without stopping, following a stream of consciousness. After a few sessions of critical listening, I concluded that some passages were good, but that complete tracks were too unequal to be satisfactory. I realized that I was not yet able to sustain inspiration for long periods of time and gave up on the idea of recording for this long without a break. Instead, I decided that I would improvise for as long as it felt natural, and then select excerpts from the different sessions to form the full recording.

As I advanced with the recording process, I started to get a clearer glimpse of the picture. I had many examples of free improvisations or improvisations on standards that were quite successful, but where I was not fully satisfied. This gave me some indications on how to pursue the project, what to hang on to and what to let go of. I had a sense of the general esthetic direction where I was heading.

Towards the middle of April, I decided that I had experimented enough and gave myself a deadline to finish recording by the beginning of May. At this stage I had a good idea of what I had recorded, what had worked and what might be missing to get at least 35 minutes of music that would constitute a coherent whole. Based on these impressions, I started to be more deliberate in my approach. For example, I had not succeeded yet in recording an example of ‘theme and

variation,' and so I recorded several takes of the standard *What Is This Thing Called Love?* with this form in mind.

By the end of April, I started to listen back to all the passages that I had highlighted in the log. By the last recording date on May 4th, I had selected around 50 passages that I cut and stored as single tracks in a file on my computer. At the beginning of May I did a couple more listening sessions and reduced this to a final selection of 15 tracks. In this process of selection, I deliberately tried to be quick with my decision-making to avoid overthinking and hesitating too much.

3.1.7. Repertoire

I did not want to select a fixed list of pieces in advance but to draw on a flexible framework that included a repertoire of free improvisations, standards and some Thelonious Monk pieces. Aside from my love of Monk's music, I chose to perform some of his pieces because they all possess a strong rhythmic character, a quality that becomes particularly helpful to ground the improvisation, in a context where I do not have the support of a rhythm section.

3.2. Preparation

3.2.1. Practicing form

As part of my preparation, during the couple months that preceded the recording, I practiced improvising using a variety of preconceived forms, or *scenarios*, as guidelines for the improvisation. As I started the recording project, I let go of the intention to follow these scenarios, hoping that I had internalized some of the forms and that they would appear in some of my improvisations spontaneously.

Concerning the standards, I knew that I did not want to limit myself to conventional forms with the exposition of the *head*, improvisation on the harmonic changes of the *head* and the re-exposition or *out-head*, so I wrote down some alternative ideas. I had tried most of these when playing in group situations but had left them at the early stages of experimentation and did not have

a good grasp on some of them. Below are some examples of scenarios that I established for practice. Some are specific to standards and Monk pieces; others can be applied to free improvisation.

Specific to standards:

1. Play the melody rubato, with embellishments, take it far out (possibility to modulate, alter melody etc.)

2. Melody emerges from textural improvisation like a figure that emerges from the block of rock in an Auguste Rodin sculpture.[180]

3. Conventional: Intro, *head*, 'time and changes', *outhead.*

It is possible to combine any of these forms. For example, in the 'conventional scenario', the head could be played rubato with embellishments.

Non-specific to standards:

1. Rondo form*

2. Theme and variation

3. Textural form**

** [ABACAD etc.] where A,B,C,D are contrasting 'modes of play.'*[181] *When applied to a standard, the length of the sections of modes of play do not have to coincide with the length of the sections of the standard.*

Example: A = notes in the high register with trills, B = use of space, C = big intervals and D = highly dense material. A,B,C,D can be 8 bars long each.

***Textural forms can be based on timbral transformations, or they can rely on specific 'modes of play'. They contrast with narrative forms in that there is no definite establishment of contrasting sections, rather one section consisting in repetition and gradual transformation.*

[180] I find Rodin's sculptures of caryatides particularly evocative. They convey a sense of freedom within form both literally and metaphorically.

[181] See part Chapter II (4.3.2) for an explanation on my use of the term 'modes of play'.

NB: All these forms have been used commonly by composers of Western classical music from various eras but that they are much less employed in jazz.

3.2.2. Problems and strategies

3.2.2.1. Problems

I will now expose some of the problems that emerged during the experiment and some strategies that were adopted.

Along the recording process, I realized that my attempts to start from a blank slate and spontaneously engage into playing standards after having freely improvised often failed. There would be a moment when I found myself questioning which song would fit as a continuation of the improvisation, and this would affect the spontaneity and break the flow. In some recordings it was obvious that rather than stopping the development of a section to start the exposition of a standard, I should just have continued to improvise. More generally, after completing any section, there would often be some indecision as to how to continue the improvisation. As a result, transitions between sections sometimes felt forceful. This raises the question of when to continue developing a musical idea or when to move on to another topic. I have observed that on some days, this process seemed quite natural and there were no hesitations, and on other days I was subject to more indecisions. This issue has to do with musical instinct and not intellectual knowledge so there does not seem to be a method to solve it. However, I believe that critical listening done over long periods of time can help gain more consistency, and that experimenting with the use of various frameworks can also be helpful.

In a more typical performance context, where the repertoire is fixed in advance, predetermined structures serve as a landmark to construct the discourse and indecision is minimized. Moreover, in a context other than solo playing, the other musicians continuously inspire the soloist and contribute to the decision-making and overall direction of the discourse. To help gain fluidity within the context of this experiment, I found it necessary to introduce some preconceived

frameworks which bear various degrees of constraint. For example, I started one of the sessions improvising a suite made up of three short contrasting movements. Introducing this formal structure helped me get a sense of direction. Although I judged that the piece was not interesting enough to be kept in its integrality, the first movement was highly satisfactory.

3.2.2.2. Strategies

- A few weeks into the recording process, at the beginning of the sessions I fixed some of the repertoire and sometimes some general aspects of the form such as the tempo or key (or the absence of tempo and key). I then tried to let the pieces evolve as spontaneously as possible, treating the framework with flexibility.
- On a couple occasions, I ended up improvising some short melodies that had a song-like quality but that I was not able to develop spontaneously. Some little adjustments had to be done. I memorized these melodies, modified them mentally and recorded several versions until I was satisfied.
- I sometimes let the physical manipulation of the instrument guide me. The movement of my fingers and variations in embouchure position became as important as the music. This state of mind allowed me to create a few short textural improvisations that bear interesting sound effects. Since these effects are not the result of a conscious use of specific extended techniques, it would be hard to reproduce them outside of the particular context in which they were produced.
- Towards the end of the experiment, I tried to create pieces based on the repetition of rhythmic cells, maintaining a *groove*. During critical listening I was not satisfied because the rhythmic drive did not feel solid enough to justify the absence of storytelling and sustain the interest of the pieces. This would require some more experimentation.

3.2.2.3. Links to preparation

Although they were initially meant to work as triggers for creativity and not as preconceived formal frameworks, I sometimes made a deliberate use of the scenarios that were listed in [section 3.2.1. Practicing form]. As part of the final selected tracks, there are a few examples of formal structures that correspond exactly to these scenarios and that were employed with variable degrees of premeditation:

- A 'theme and variation' form is employed on *What is This Thing Called Love* (The track *Mont-Tremblant* is a first variation using tremolos and the track *What is This Thing?* consists in four more variations), two Thelonious Monk pieces (*Bye Ya* and *We See*) were played with conventional forms and a few melodies which were embellished (*The Song is You*, *Like Someone in Love*). In these examples, I had decided to use such forms before recording.
- Textural improvisations such as *Shakuhatchi*, *Gazouillis or Oiseau Mouillé,* as well as 'Rodin forms' such as *Yiddish Song*, *Lullaby Medley*, were not premeditated and appeared spontaneously. In the case of *Like Someone in Love*, I also started without any preconception on the form. The structure that emerged spontaneously is interesting: it consists in an introduction which is mostly rubato, the exposition of the melody (one chorus and a half) over a steady pulse, with a lot of embellishment and two modulations, and a rubato coda to finish. The introduction, and coda are of equal duration as the exposition of the melody (about one minute each) and the structure of the piece can be summed up as 'improvisation – melody – improvisation.' This type of form could be further exploited in future performances.
- Melodies which appeared spontaneously and were remodeled through oral modification (*Si Tu Veux Bien and Lament*) constitute an oral compositional technique in several steps.
- The rondo forms mentioned in my preparation did not appear as such in any selected tracks, although their practice might have influenced the elaboration of the discourse from a broad

perspective. My attempts to perform them during the preparatory stage of the experiment had been less than successful so I did not try to use them deliberately during the recording.

In short, my approach evolved from an idea of maximum freedom following a stream of consciousness exclusively, to the addition of diverse frameworks appearing with various degrees of premeditation. In my experience there was no ideal balance between freedom and constraint in the establishment of such frameworks. Experimenting with 'in-betweens' allowed me to produce a variety of pieces, with contrasting characters.

3.3. Evaluation

When evaluating my recording through critical listening, I looked for a balance between requirements of accuracy on the one hand, and the overall expressive impact and storytelling on the other. Accuracy became an important question, especially when listening back to standards and pieces by Thelonious Monk. Notes in my log are full of mentions of problems of rhythmic and formal accuracy. Notably, there are many occurrences when I was slowing down or 'dragging,' and the subtraction of one or more beats in the structure was frequent. Free improvisations with no preconception of the form - or at least no periodical repetition of a rhythmic or harmonic structure – do not bear the same expectations as 'time and changes' but are not exempt of issues of accuracy. Sometimes I became aware of specific problems while I was improvising but decided to continue, thinking that the overall picture might compensate for the mistake. Unfortunately, I often played with less confidence after having made a 'mistake'[182] and this reflected in the execution of the music. Other times, I was aware of the problem while I was playing and stopped recording because I thought that I would not be satisfied when listening back. There are also times when I only noticed problems after listening back, not when playing. I then faced the question of evaluating how much these problems weighted with regards to the overall picture.

[182] I use quotation marks around 'mistakes' to emphasize the subjective nature of this notion in the present context.

Critical listening led me to think that lack of accuracy generally resulted from deliberate thinking and attempts to control the direction of the improvisation, as well as the ambition to deploy specific vocabulary or processes which had been practiced. As a result, poor execution often occurred in passages where I was playing overly sophisticated material which I had not fully internalized. Although I have been aware of this problem for many years and have generally improved my ability to let go of expectations, the context of solo saxophone - where I was completely responsible for the outcome of the music - seems to have favored its reemergence.

Additionally, in the context of 'time and changes' I observed that I often tended to take too many choruses. The comment "too long" is omnipresent in my log – appearing more than 20 times – and there are many occurrences when the improvisation was highly successful for a certain duration and then its general quality dropped down suddenly. This is linked to my limited capacity of concentration, which manifests with the tempo dropping or the form being modified unintentionally.[183] Moreover, after playing on 'time and changes' for a while, I exhausted my ideas and found myself forcefully pushing the discourse to its natural limits in sophistication and intensity. By then, all inspiration was gone. This problem bears an obvious resolution, which consists in playing shorter solos. Being aware of the problem is only a first step, but as critical listening revealed, applying this solution in performance is still not self-evident.

Admittedly, the problem of accuracy became my main preoccupation in the conscious evaluation of my recordings. On 'time and changes,' when I considered that the *time feel* was good enough and the form was followed faithfully, I was usually satisfied by every other aspect of my improvisation. This is a valuable lesson and can inform me on how to conduct my practice. At this stage in my musical development, it might be more fruitful to develop my rhythmic strength than to expand my melodic vocabulary.

[183] I had already gained some awareness over the issue of concentration and its relationship with rhythmic and structural accuracy while attending John Hollenbeck's seminar on concentration during the Fall of 2018, where we practiced playing slow quarter notes.

To avoid getting trapped into my perfectionist tendencies, it was useful to evaluate passages as part of the larger context of the improvised discourse. In some cases, the overall picture compensated for the lack of accuracy noticed in isolated passages, and this helped in the selection of the final tracks. During a tutorial where I played a duo with a piano student, Jean-Michel Pilc had mentioned the importance of prioritizing clarity over precision. This advice gained meaning throughout this experiment. I observed that in some passages there might be a beat or two missing in the structure, but if the musical statements were played with enough conviction, following each other coherently, the lack of precision did not matter. Moreover, if the tempo fluctuated slightly the music might still be *swinging* and convey a sense of inevitability despite this lack of precision. Conversely, I observed that some passages might have been precise rhythmically and formally, but the intentions were not clear. The pulse might have been close to metronomic, and I could confirm that the structure was played precisely when listening and mentally counting each beat, but when listening back without this analytical mindset I did not really understand what was going on. I concluded that someone else than me listening to this music would likely have been even more confused! This absence of clarity might have been caused by the length and sinuosity of phrases, or the density of the discourse that lacked space and definition. This often happened when I was trying to use specific harmonic concepts rather than putting forward my natural sense of melody. In my log, this is illustrated by comments such as “Play simpler!” or “Was this necessary?”.

3.4. Nourishing inspiration

3.4.1. Practicing

A few weeks into the experiment, I felt a form of saturation, my concentration was diminished, and I sometimes felt a lack of inspiration. This led me to reduce my practice to its strict minimum to leave room for inspiration. I barely practiced any technical exercises, and when I did so, I stuck to rudiments and nothing that was intellectually too demanding. I purposefully started sessions without warming up, to avoid the feeling of mental saturation that practicing sometimes produces.

When I practiced, I only did it right for a short time after recording, or in the evenings, preferably away from my instrument, on a keyboard. Singing and tapping a swing rhythm, with the metronome on the 4th beat of every second bar helped me gain more confidence with my *time feel*. I also sang melodies while playing bass lines with my left hand, or conversely I sang the bass line as I played the melody with my right hand. Since inspiration is self-nourished in solo playing, I had to use my imagination in order not to feel too 'lonely.' These exercises, inspired by my tutorials with Jean-Michel Pilc, helped me to internalize rhythmic, melodic, and harmonic components of pieces and stimulated my imagination.

3.4.2. Conditioning

I also tried a few conditioning techniques to stimulate creativity. I experimented placing a poem that I looked at while playing. I also used a metronome application in silent mode, following the movement of the needle as if it were a conductor (this technique was applied to the recording of *Bye Ya* and *The Song is Slow*). These techniques were meant to help me get into "distracted concentration," an expression employed by Hal Galper to designate the particular state of awareness which allows to "get yourself out of the way of yourself," or in other words to let the ego aside, allowing subconscious mechanisms to take over.[184] I only used the 'silent metronome technique' toward the end of the experiment and abandoned the poem reading rapidly because I did not see immediate results and for lack of belief and discipline. However, I would like to try these methods more in diligently in the future, as I understand their function and see some potential in their use.

Finally, I took the habit of shutting off the light and removing my shoes, which helped me enter a relaxed, meditative state. I also avoided listening to too much music during the recording days, especially jazz, as it sometimes produces a feeling of saturation.

[184] "Jazz Pedagogy | Hal Galper," accessed March 7, 2020, http://www.halgalper.com/commentary/jazz-pedagogy/.

3.4.3. Observations

It is difficult to draw any systematic observations on inspiration. Sometimes I felt more inspired after having taken a few days of break from recording and listening. Other times it is only after many repeated takes that good ideas emerged. Looking through my notes, I cannot draw specific links between inspired performance and the timing of the recording. Some sessions were done in the morning and some in the afternoon, but this does not seem to have affected my playing in any noticeable way. I wish that I had been able to record in the evenings, but a curfew prevented me from doing so.

3.5. Final product

3.5.1. Sound

The studio in which I recorded is a small room which is usually used as a rehearsal space rather than a recording studio. I had to adjust to a dry sound which is not very favorable to the saxophone. Before listening back to recordings, I made a habit of adding some reverb to the tracks to smoothen out the sound. As a result of this repeated process, I was able to create a mental image of my sound with the added reverb and this helped me overcome the acoustic problems of the room.

This is the first time that I recorded myself with professional equipment, and I had to experiment before I found how to position the microphone and to set the right input level. Some tracks were not usable because of poor sound due to my lack of competence. Additionally, the fact that I did not have an optimal and systematized position affected the homogeneity of the sound over different sessions. I handed in my files to a sound-engineer, Philippe Côté, who was thankfully able to produce a highly satisfactory mix despite these limitations.

3.5.2. Order

A final step after selecting the tracks consisted in putting them in an order that created a subjective balance. This balance was achieved by alternating tracks which contrasted in their forms and tempos. For example, *Gazouillis*, a high energy and hectic textural improvisation, is followed by *Si Tu*

Veux Bien, a melodic statement with a simple and repetitive structure. I also looked for global coherence in the unravelling of the tracks and tried to have the storytelling transcend the scope of each individual track.[185]

3.5.3. Brief description of the selections

Below is a brief description of the tracks that I selected. The titles for my improvisations were chosen after these were recorded through a process of free-associative thinking, which is reminiscent of the improvisational process itself.

1) Shakuhachi (Orland)

Based on the development of a long tone that gradually shifts colors. Tone quality and ornamentation are loosely inspired by Japanese Shakuhachi music. Improvisation is initially based on timbral transformation but evolves into a melody. The piece is completely improvised.

2) Mont-Tremblant (Variation on *What Is This Thing Called Love* by Cole Porter)

A first variation based on the harmonic changes of the Cole Porter standard 'What Is Thing Called Love?' with the use of tremolos. This 'mode of play' is kept throughout the whole piece.

3) What Is This Thing (Variations on Cole Porter's *What Is This Thing Called Love?*)

A series of four other variations on What Is Thing Called Love? The first one follows 'time and changes' at a fast tempo. The second one is a rubato version that navigates freely through different keys. The third one is pointillistic and sparse. The fourth bears a pushy, plaintive character which is almost caricatural and humorous.

[185] As suggested by Jean-Michel Pilc in his comments to this recording, it would be interesting to explore alternative orders for the tracks and to see how this reprogramming would affect the overall storytelling. One possible point of departure would consist in leaving the pieces in the chronological order of their performance.

4) Bye Ya (Thelonious Monk)

This version of Thelonious Monk's composition follows the original form. The introduction uses some oriental-sounding colors borrowed from minor harmonic modes, as well as Messiaen's third mode of limited transposition. These colors come back during the chorus.

5) Gazouillis (Orland)

The improvisation is guided by my physical relationship with the instrument. Fingers are running quickly through the keys and the overblowing creates dense textures of harmonics and squeaks. In the midst of this chaos some blurred melodic lines emerge. The sequence ends with the repetition of a short rhythmic theme.

6) Si Tu Veux Bien (Orland)

This melodic line emerged through improvisation. It is meant to be delicate and soothing, like a lullaby sung to put a child to sleep.

7) Oiseau Mouillé (Orland)

In this sequence I made use of trills and extended techniques such as subtones, bisbigliando and slap-tonguing. There is little repetition of recognizable motifs, and the music is mostly through-composed. The fast runs and other jerky musical gestures are reminiscent of the movements of a bird taking a bath in a paddle of water.

8) Like Someone in Love (Jimmy Van Heusen)

After an improvised introduction, the melody is played at a slow medium tempo, with ornaments and spontaneous modulations. A long outro is improvised after the exposition of the melody.

9) Lament (Orland)

This repetitive melody was improvised and memorized. I took a few takes before I was satisfied with the way the melody gradually evolved, with subtle variations in each repetition.

10) Yiddish Song (unknown)

The melody of a Yiddish lullaby called 'Amol is Geven A Meilach' emerges after a motivic improvisation. The melody is played with a soft pointillistic gesture that makes it almost unrecognizable until its second part is exposed in a more conventional way.

11) Buffalo Island (Orland)

This sequence recalls the vision of two buffalos walking side by side as I was driving in Alberta. A specific atmosphere is depicted through the repetition of musical cells that evolve in a particular direction. The buffalos seem to have reached their destination by the end of the track.

12) We See (Thelonious Monk)

Inspired by Monk's approach, I made use of thematic material to guide the improvisation, and the melody of the composition served as a kind of watermark.

13) The Song Is Very Slow (variations on *The Song Is You* by Jerome Kern)

This is a very slow variation on the standard 'The Song is You,' which is usually played at a medium up tempo. The idea came from watching Guy Maddin's movie 'The Saddest Music in the world,' which features a slow cello version of this melody.

14) Lullaby Medley (Orland)

In this track there is no form, no storytelling. "Twinkle Twinkle Little Star" and Brahms' "Wiegenlied" are recalled through a stream of consciousness, nonlinear narrative.

15) Called Love? (variations on *What Is This Thing Called Love* by Cole Porter's)

This is an alternate take to track 3.

3.6. Conclusion

3.6.1. Outcomes

This investigation of improvised solo saxophone playing was the opportunity to apply critical listening in a methodical way, documenting the steps that led to the production of artistic material which stands out from my previous work. The absence of other musicians to support and

complement my musical statements forced me to put my tricks aside, to abandon some of the overly complex material that I was working on and to focus on essential musical aspects such as sound, rhythmic feel, melody, and storytelling.

Not only did critical listening work as a trigger to the subconscious exploration of my *sound*, but it also allowed me to draw some specific observations. To avoid the intrusion of conscious thought, which broke the flow of the improvisation, I experimented with various strategies, including the use of predetermined frameworks. When evaluating the music, it was useful to prioritize clarity over precision and to put questions of accuracy into perspective by looking at the big picture.

3.6.2. Limitations and perspectives

The 10-week span over which I led this experiment is very short. From my experience, artistic growth is a slow, gradual process, with sudden 'aha moments' that often appear after long moments of stagnation. This work should be considered the premise of a new form of practice, one which relies on creativity, inspiration, and imagination more than on mechanics and mental calculation. Over this short period, I had the opportunity to set up a framework in which to pursue my explorations. It would be interesting to measure the outcomes of this experiment over a longer period. This would be the opportunity to study more systematically how critical listening is affected by the conditions in which it is undertaken, looking at parameters such as time span between recording and listening, place where it is done, state of mind, specific use of the critical listening log etc.

Additionally, I have mentioned my difficulty sustaining inspiration over long periods of time when improvising. This will hopefully improve naturally, as I pursue this work and gain confidence in the solo setting. However, I also intend to continue developing new strategies. For example, it could be interesting to design other frameworks, including roadmaps that involve precise rhythmic indications or that prescribe the use of specific musical gestures. Exploring the limits between

improvisation and written composition would certainly bring me to unknown territories.[186] Another avenue would consist in elaborating long textural improvisations, based on the transformation of sound or the use of repetitive ideas, breaking away from traditional storytelling to create non-linear, trance-inducing music.[187] It would be interesting to expand my sound palette by further exploring extended techniques on my instrument, possibly through the study of contemporary works for saxophone solo.

[186] In his comments on this recording, Prof. John Hollenbeck encouraged me to write solo compositions, suggesting that this would expand my possibilities in improvisation, especially concerning the use of form. Unlike my composition of etudes (described in Chapter II of this thesis) which targeted specific improvisational techniques, this type of composition would be intended to practice the overall architecture of the improvisation.

[187] Along these lines, Prof. John Hollenbeck suggested creating "sonic scenes" that do not evolve towards pitch-oriented material but constitute the integrity of a piece.

CONCLUSION

1. A heuristic approach

The main challenge of this research was to combine my performer's mindset, which relies mostly on the intuitive understanding and internalization of musical concepts, with the analytical mindset necessary to translate implicit knowledge into words and to elaborate a methodology. Paradoxically, the fact that I have had no academic training in research and no background in musicology was helpful in establishing this connection. It forced me to create my own methodology, through a heuristic approach that is not unlike improvisation itself.[188]

After a reflection on fundamental questions related to jazz improvisation that helped clarify my thoughts and better define my goals, I started the investigation of my *improvisational language* by transcribing and analyzing my recordings. To examine the processes underlying the elaboration of the improvised discourse, I explored the connection between performance and preparation. However, I realized that some essential aspects of improvisation linked to instinct, inspiration and emotion had no direct relationship with preparation and could not be captured through formal analysis. This prompted me to complement my methodology by pursuing another form of investigation, based on the phenomenological interpretation of the improvised performance.

This two-fold approach to the investigation of my *sound* bears several outcomes that are useful in the pursuance of my artistic development. Firstly, formal analysis allowed me to reflect upon my strategies and prompted me to draw some new methods of preparation, such as the composition of etudes. Secondly, *critical listening* allowed me to evaluate my improvised performance and draw some observations on key elements of the improvisational process such as *time feel*, *flow* and *storytelling*.

[188] Through his supervision, Prof. Fabrice Marandola helped ensure the global coherence of this methodology.

Throughout these two parts, I believe that the implicit learning resulting from the time spent listening to my own improvisations constitutes one of the main outcomes. Moreover, at this stage in my artistic development, focusing on the overall improvisational process through critical listening seems more substantial than seeking to expand my improvisational language by adapting strategies and practicing new exercises.

This research also bears tangible outcomes, with the production of etudes and compositions, a recording, and auto-ethnographic documentation (critical listening log and annotated transcriptions).

2. Notes on pedagogy

Teaching improvisation is a delicate undertaking that can interfere with the preservation of the student's instincts and the development of their *sound*.

Teaching individuals from age six to adulthood in the Paris area for ten years has provided an opportunity to observe how little technique and improvisational skills are related. The tendency was that the older the students were, the more inhibition they displayed. This is not surprising because instinct goes along with playfulness, a quality that is often lost to the profit of maturity. Usually, the older the students were, the more they knew about instrumental technique and theory, but this did not improve their improvisational skills, quite the contrary.

Throughout their training in the standard schooling system or in their professional careers, students were conditioned to follow strict guidelines – such as the rules of spelling in the case of children – to obtain satisfactory grades or professional recognition. This daily conditioning at school or at the workplace also dispossessed them from the audacity to explore, discover and express themselves without knowing exactly what they were doing from a purely intellectual perspective. Unfortunately, the conservatory where I taught for five years, instead of encouraging students to use their ears and learn through a process of trial and error, followed similar pedagogical methods.

Although I have been lucky to develop my musical instincts early on during childhood, I have also been subject to inhibition, especially later in my teenage years, when I attended the conservatory and was confronted to theory classes for the first time. My description of the student's inhibition could thus appear as a projection of my own struggles, but several discussions with them came to support my hypothesis. They often formulated their frustrations and fears very explicitly with sentences such as "I don't know what to do," "What am I supposed to play?" or "When I try it sounds bad, so I've stopped trying."

3. Pedagogic outcomes

I hope that the research exposed in this thesis will inspire a pedagogic approach that preserves the student's instinct and individuality, while bringing them the tools to develop their improvisational language. The self-pedagogy undertaken throughout my research could be redirected towards students on two levels. Firstly, the methodology could be used by the teacher to draw specific strategies adapted to the students' needs. For instance, a student who instinctively uses the repetition of motifs when improvising but feels limited in their ability to develop them could be given specific exercises that help them target this aspect of their improvisational language and expand. Moreover, the student could be encouraged to use examples given by the teacher to create their own exercises. Secondly, the methodology itself could be transmitted so that students become self-reliant. Instead of explaining and prescribing, the role of the teacher would consist in conveying *feeling* and guiding the student throughout his own investigation. This second pedagogic application of the methodology is particularly meaningful when targeting elusive aspects of the performance which some consider unteachable - incidentally, these aspects correspond to those investigated in the second part of my methodology. For instance, the notion of *swing* can be felt or heard, but cannot be notated or explained – the fact that some high-level classically trained musicians cannot emulate this type of phrasing correctly is a proof that, beyond analytical description and technical mastery, it requires full oral immersion in the genre to internalize and master it. Therefore, rather

than trying to give explanations, students could be taught to recognize a certain kind of feeling and to sharpen their perception by listening to examples played by the teacher or coming from recordings. Their phrasing can then improve through a process of trial and error, informed by critical listening done under the teacher's supervision.

Aside from allowing students to expand their improvisational language, the methodology that I propose would provide them with an autonomous artistic approach. One should not wait to have acquired mastery of the jazz tradition to express their individuality through improvisation, otherwise they are doomed to wait eternally! Fluency in the jazz idiom should remain a priority, but an obsession with faithfulness to tradition leads to restrained and conservative playing. On the other hand, rejecting the tradition and deliberately trying to be innovative and original can be detrimental to musicality, tainting the improviser's style with a superficial, unnatural character. Self-investigation allows students to go beyond the ideologically driven dichotomies between tradition and innovation or classicism and avant-garde, to find their own place.

4. Perspectives

Both parts of my methodology draw upon the exploration of analysis of studio recordings. In the first part of the methodology, these recordings consist of tracks from published albums, which have been the object of a pre-selection during the editing phase of the production. In the second part, dozens of hours of my solo saxophone were subjected to critical listening. In both cases the music was made inside the studio. As an extension of this research, it would be interesting to apply the same methodology to live recordings and to see if and how the presence of an audience would affect the improvisational process.

Additionally, my categorization of improvisational processes described in the second part of this thesis bears some potential outcomes beyond self-analysis. For example, it could be helpful in

comparing the improvisational approach of various players. Moreover, computational techniques of pattern recognition could be used to assist this kind of analysis.[189]

5. Music and beyond

To finish, I would like to put my work into perspective quoting the father of jazz improvisation, Louis Armstrong, who expressed some skepticism about analysis, stating that "Like the old-timer told me… 'Don't worry about that black cow giving white milk. Just drink the milk.'"[190] These words come as a reminder that improvisation should not be reduced to a recipe or a sophisticated model.

Throughout this thesis, I have tried to demonstrate that improvisation lies somewhere between intellectual construct and intuition, preparation and instinct, premeditation and spontaneity, the conscious and the subconscious. Improvisation forces us to embrace the present, accepting our creations as they emerge, no matter what was prepared through practice or what strategies were premeditated. The impossibility to edit or correct the musical discourse makes improvisation a particularly stimulating experience and the excitement that results is directly communicated to the audience. This encounter with the unknown is inseparable from the music that is created.

It has become clear that the self-investigation which constitutes this research goes beyond music. Improvisation is not only part of most musical genres from around the world, but it is also present in our daily activities, including our physical movements, our social interactions, and our conversations. Like speech, musical improvisation fulfills a need to communicate, but it also allows us to go beyond words to express ourselves spontaneously, without filters, affirming our identity.

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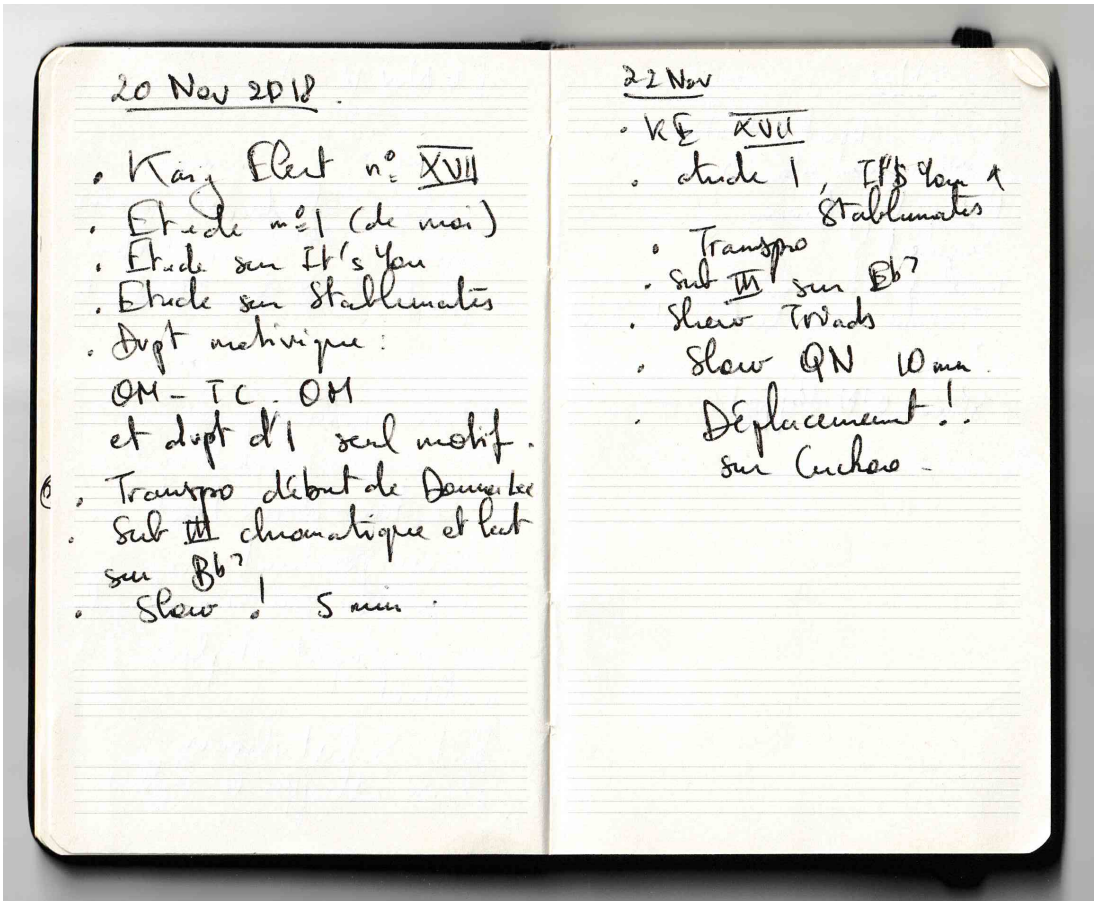
[189] I am currently taking part in an interdisciplinary project financed by CIRMMT (Center for Interdisciplinary Research in Music Media and Technology), where we aim to analytically compare Charlie Parker and Lee Konitz's approaches to improvisation, trying to distinguish elements developed in 'real time' such as *motivic and thematic development*, from elements resulting from the assembling *of memorized melodic figures*. The implementation of algorithms is used to assist this analysis.

[190] Richard Meryman, "An Authentic American Genius: An Interview with Louis Armstrong," *Life*, April 15, 1966, 92-116.

The improviser's growth results from an ongoing exploration, a journey that necessitates discipline and perseverance, but, more importantly, playfulness and audacity.

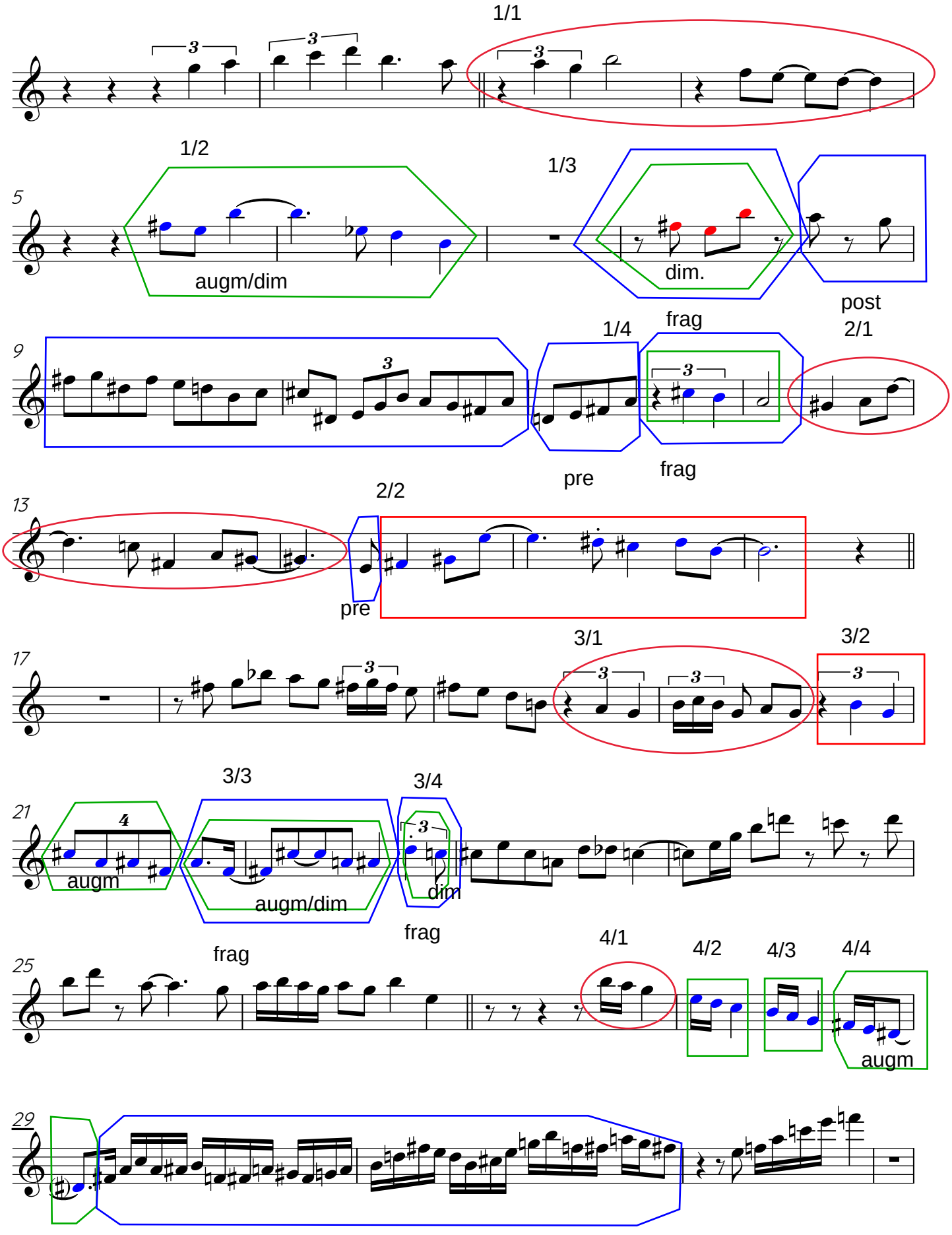
APPENDIX 1

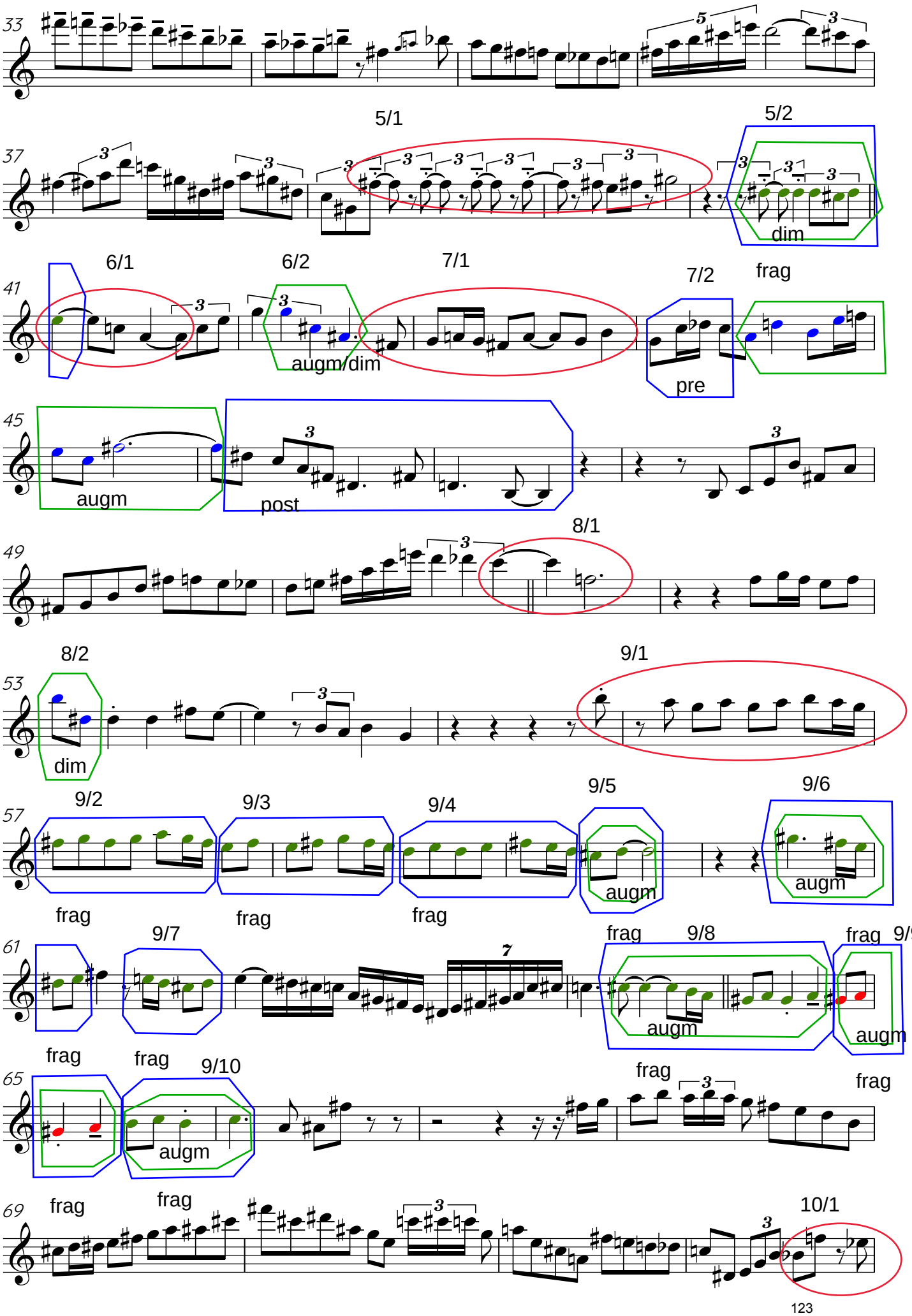
Practice book excerpt



APPENDIX 2 - Analysis

Falling Grace - Annotated transcription of improvisation




33
37
5/1
5/2
dim
41
6/1
6/2
7/1
7/2
frag
augm/dim
pre
45
augm
post
49
8/1
53
8/2
dim
9/1
57
9/2
9/3
9/4
9/5
9/6
frag
frag
frag
augm
augm
61
9/7
9/8
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frag
frag
augm
augm
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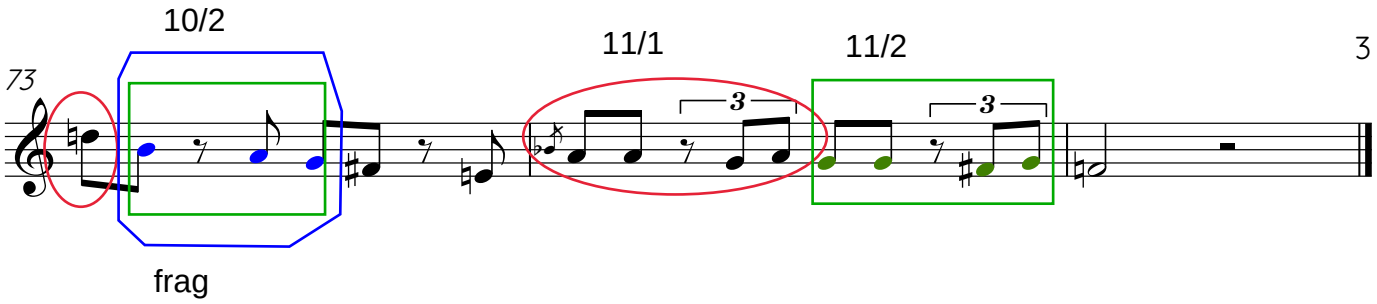
frag
frag
9/10
augm
frag
frag
69
frag
frag
10/1


10/2
11/1
11/2
3
73
3
3
frag

Falling Grace – Textual analysis of improvisation

Bars 3,4 OM 1/1. 6 notes.

Bars 4,5 1/2. Rhythm is transformed by augmentation and diminution combined; link to OM is mostly due to the number of notes and shape of melody.

Bars 8-11 1/3. Fragmentation and diminution with a long extension that follows; fragment shares the same pitches as 3 first notes of 1/2.

Bars 11,12 1/4. Fragment with same rhythm (last 2 quarter note triplets) displaced by 2 beats, preceded by extension.

Bars 12-14 OM 2/1. 8 notes.

Bars 14-16 2/2. Same rhythm, similar melodic shape, preceded by a 1-note extension.

Bar 19 OM 3/1. 6 notes (16^{th} note triplet is an ornamentation of B).

Bars 20,21 3/2. Starts with the same rhythm, augmentation at the end; similar melodic shape.

Bars 21,22 3/3. Fragmentation (last note is left out), augmentation and diminution; similar melodic shape.

Bar 22 3/4. Fragmentation and diminution.

Bar 27 OM 4/1. 3 notes.

Bars 28-29 4/2, 4/3. Same rhythm and similar melodic shape; developments form a hemiola (3 8^{th} notes over 4/4 meter).

Bar 28-30 4/4. Augmentation of last note leading into long extension.

Bars 38-39 OM 5/1. 8 notes.

Bars 40-41 5/2. Fragmentation and diminution; pitches transposed.

Bar 41 OM 6/1. 3 notes.

Bar 42 6/2. Augmentation and diminution.

Bars 42,43 7/1. 6 notes (16th notes are ornamentation of F#).

Bars 44 – 47 7/2. Fragmentation with augmentation preceded and followed by extensions; similar melodic shape.

Bars 50-51: OM 8/1. 2 notes.

Bar 53: 8/2. Diminution; similar melodic shape.

Bars 55,56: OM 9/1. 9 notes.

Bar 57: 9/2. Fragmentation with pitches transposed.

Bars 57,58 9/3. Fragmentation with pitches transposed.

Bars 58,59 9/4. Fragmentation with pitches transposed.

Bar 59: 9/5. Fragmentation with augmentation; pitches transposed.

Bar 60-61: 9/6. Fragmentation with augmentation; pitches transposed.

Bar 61: 9/7. Fragmentation with pitches transposed.

Bars 63,64 9/8. Fragmentation with augmentation; pitches transposed.

Bars 64,65 9/9. Fragmentation with augmentation; same pitches as 9/8.

Bars 65,66 9/10. Fragmentation with augmentation; pitches transposed.

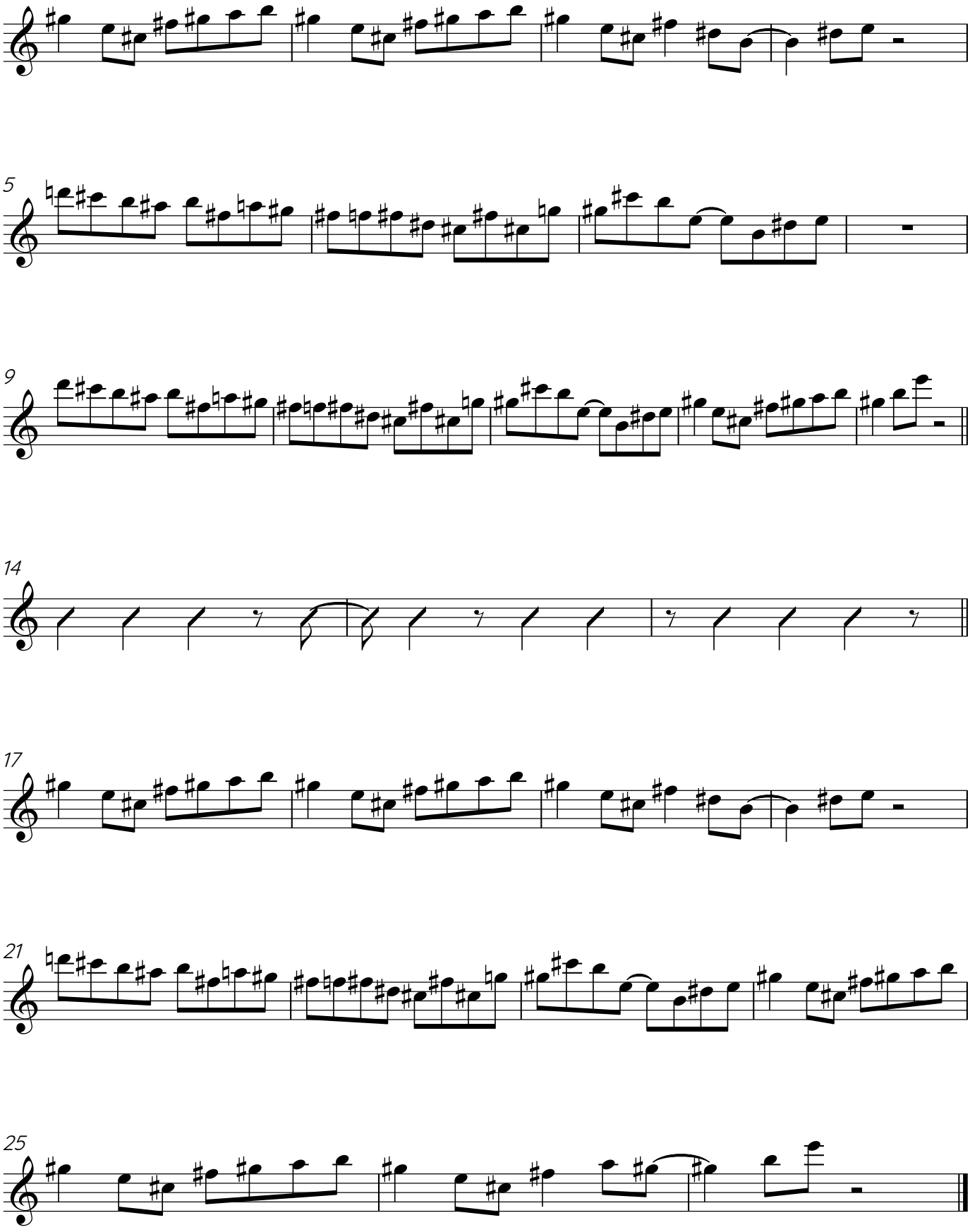
Bars 72,73 OM 10/1. 4 notes.

Bar 73 10/2. Fragmentation with the same rhythm displaced by 2 beats; similar melodic shape

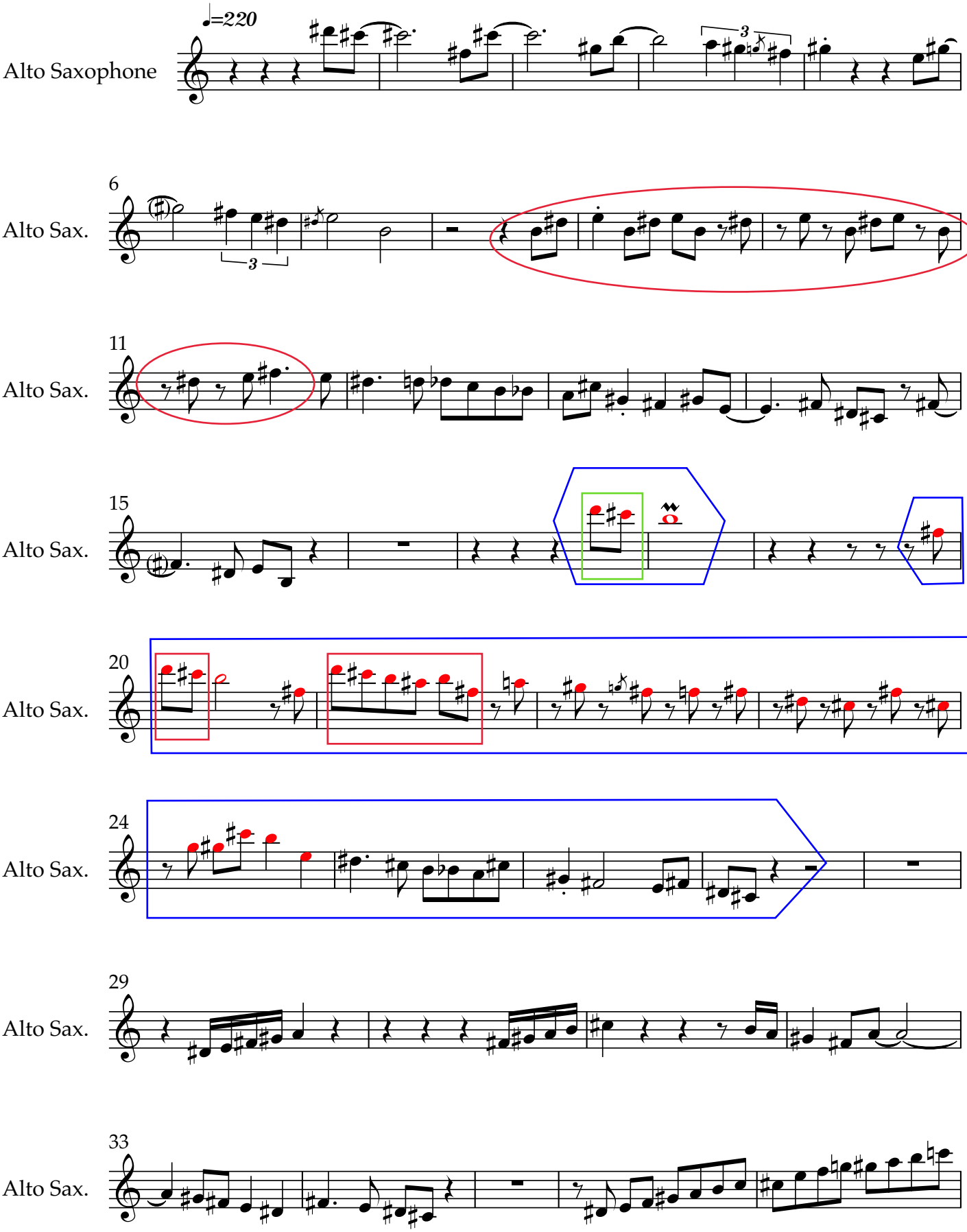
Bar 74 OM 11/1. 4 notes.

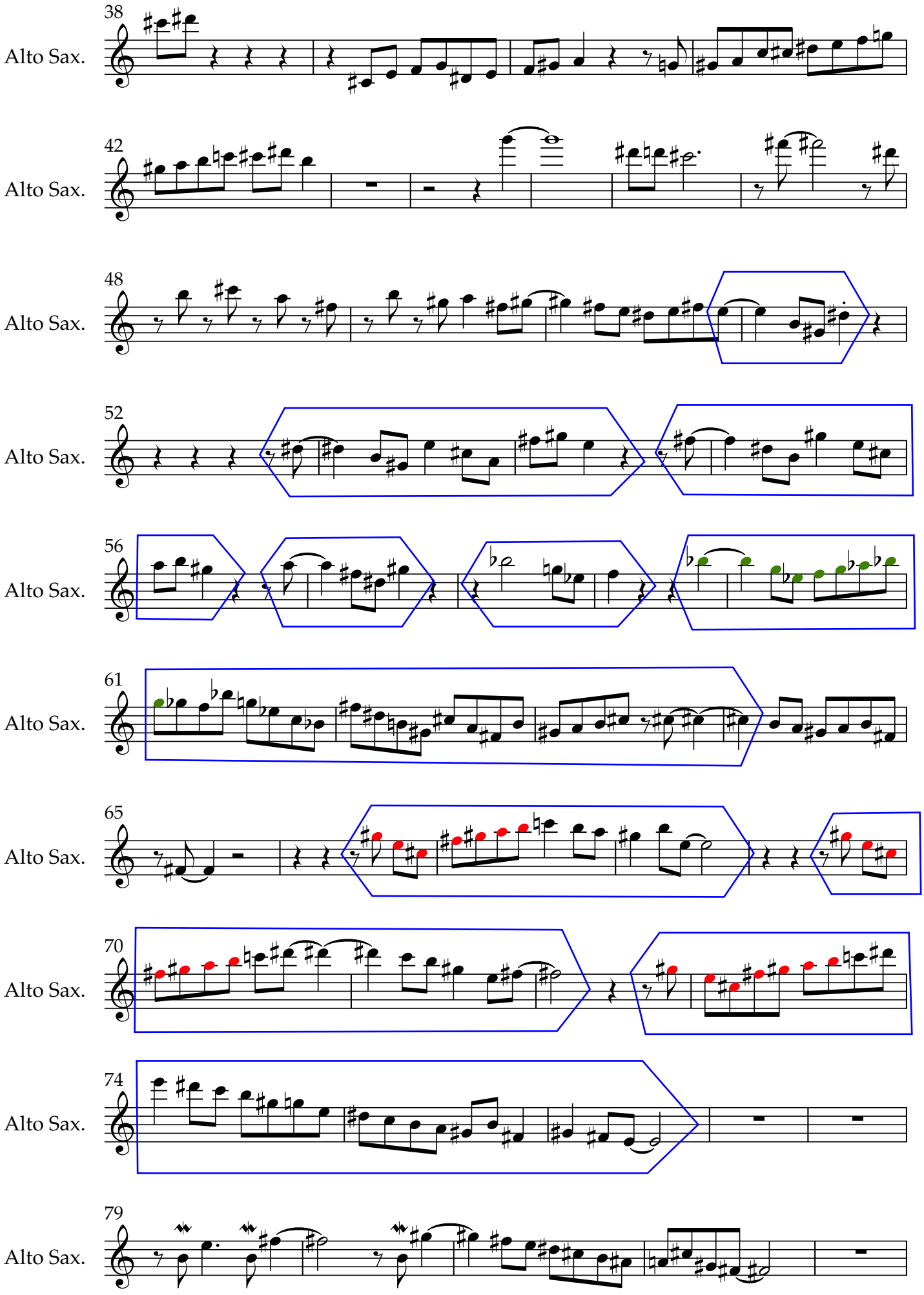
Bar 74 11/2. Same rhythm and pitches transposed.

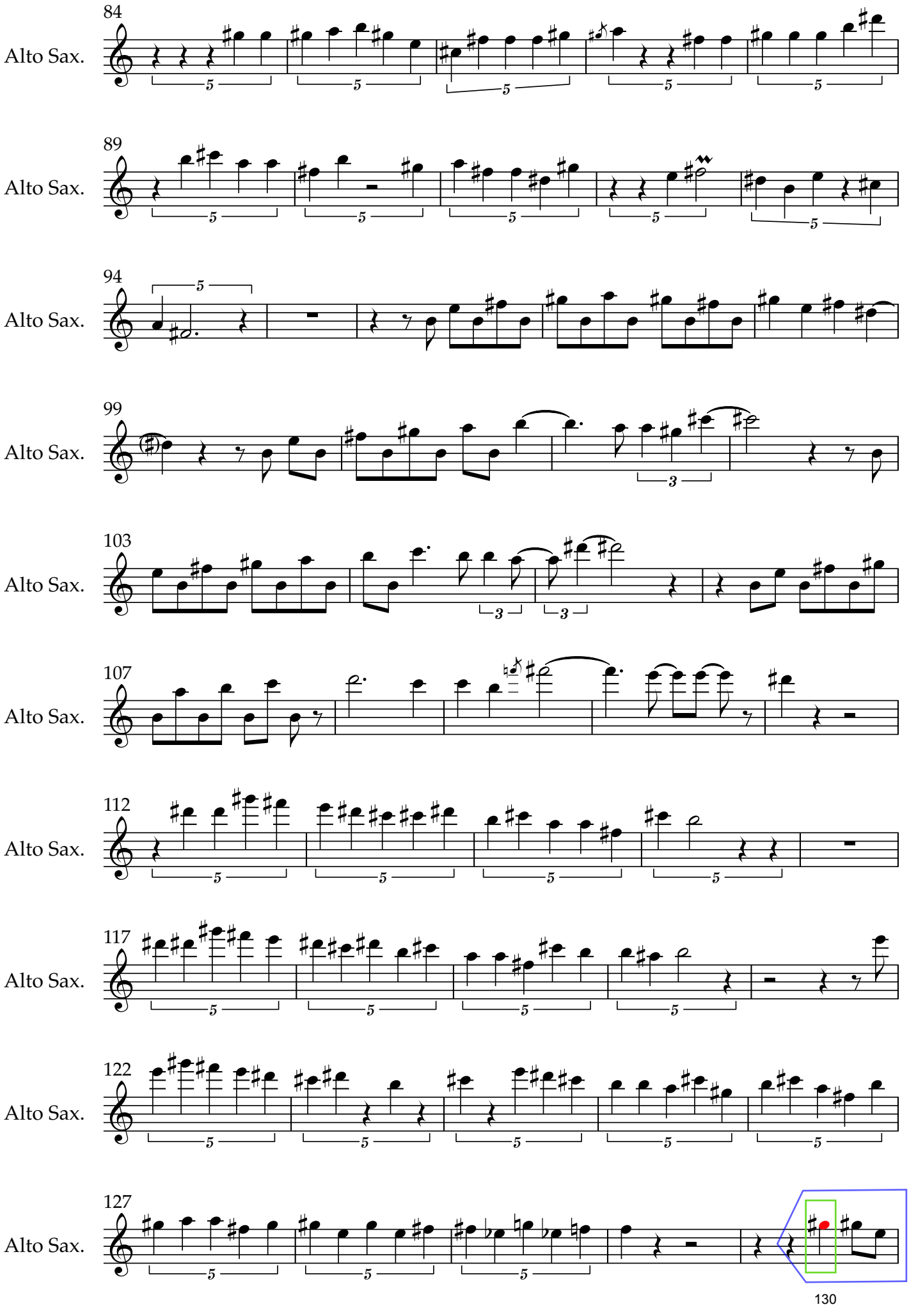
Something Joyful - Theme score



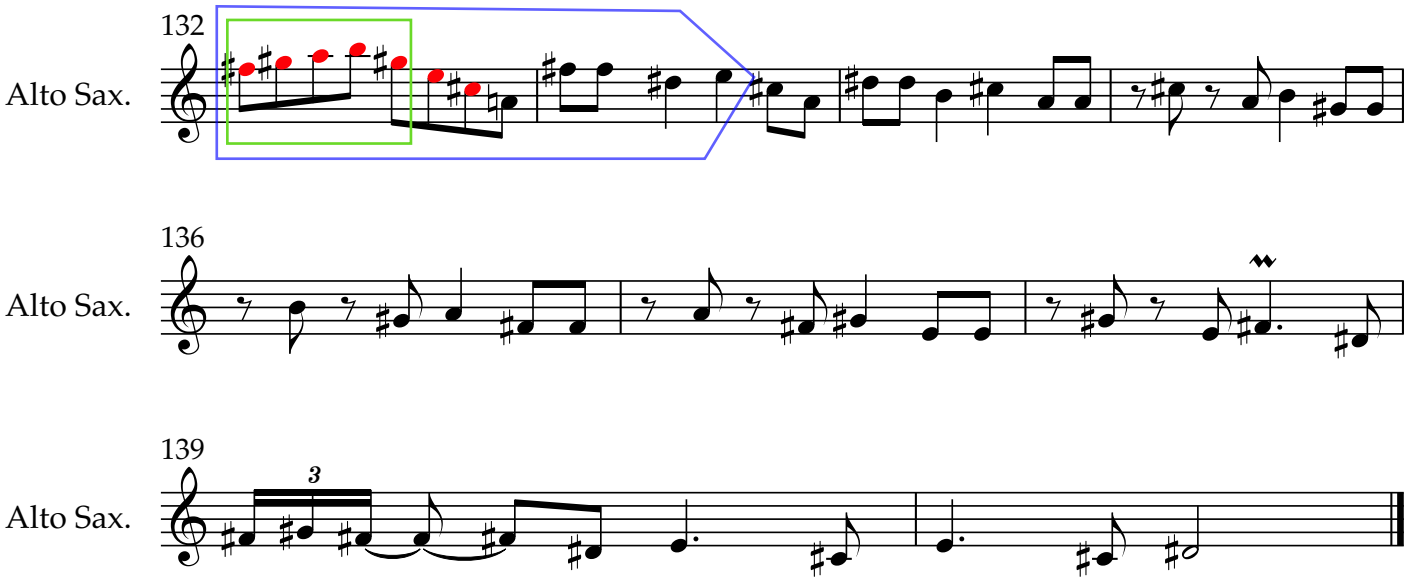
Something Joyful - Annotated transcription of improvisation




38
Alto Sax.
42
Alto Sax.
48
Alto Sax.
52
Alto Sax.
56
Alto Sax.
61
Alto Sax.
65
Alto Sax.
70
Alto Sax.
74
Alto Sax.
79
Alto Sax.


84
Alto Sax.
89
Alto Sax.
94
Alto Sax.
99
Alto Sax.
103
Alto Sax.
107
Alto Sax.
112
Alto Sax.
117
Alto Sax.
122
Alto Sax.
127
Alto Sax.
130

4



Something Joyful – Textual analysis of improvisation

Bars 8-11 Melodic phrase contains an implicit rhythm that resembles the "gimmick" (bars 14-16), with syncopations and alternations of groupings of 2 and 3 8th notes; original is 2/2/3/2/3/2/3/2/2/3 whereas development circled is 2/2/3/2/2/2/3/2/2/2/3.

Bars 17-18 Melodic fragment of original melody (bar 9) displaced by 3 beats and 3rd note is extended and ornamented.

Bars 19-20 Same melodic fragment of original melody (bar 9) in the same place, preceded by an 8th note; 3rd note is also extended.

Bars 20-27 Motivic development of fragment of original melody (bars 5-7); extension before fragment (one note, F#), original fragment (same pitches and rhythm) in original place, followed by rhythmic variation of original fragment, followed by extension at 25.

Bar 51 Same shape and rhythm as fragment of original melody (bar 3), different pitches.

Bars 52-59: Idem with various developments.

Bars 59-61: Fragment of original melody (bars 1-2) transposed a step above; anticipated a quarter note before the beat; long extension added after fragment, starting on second 8th note of 61.

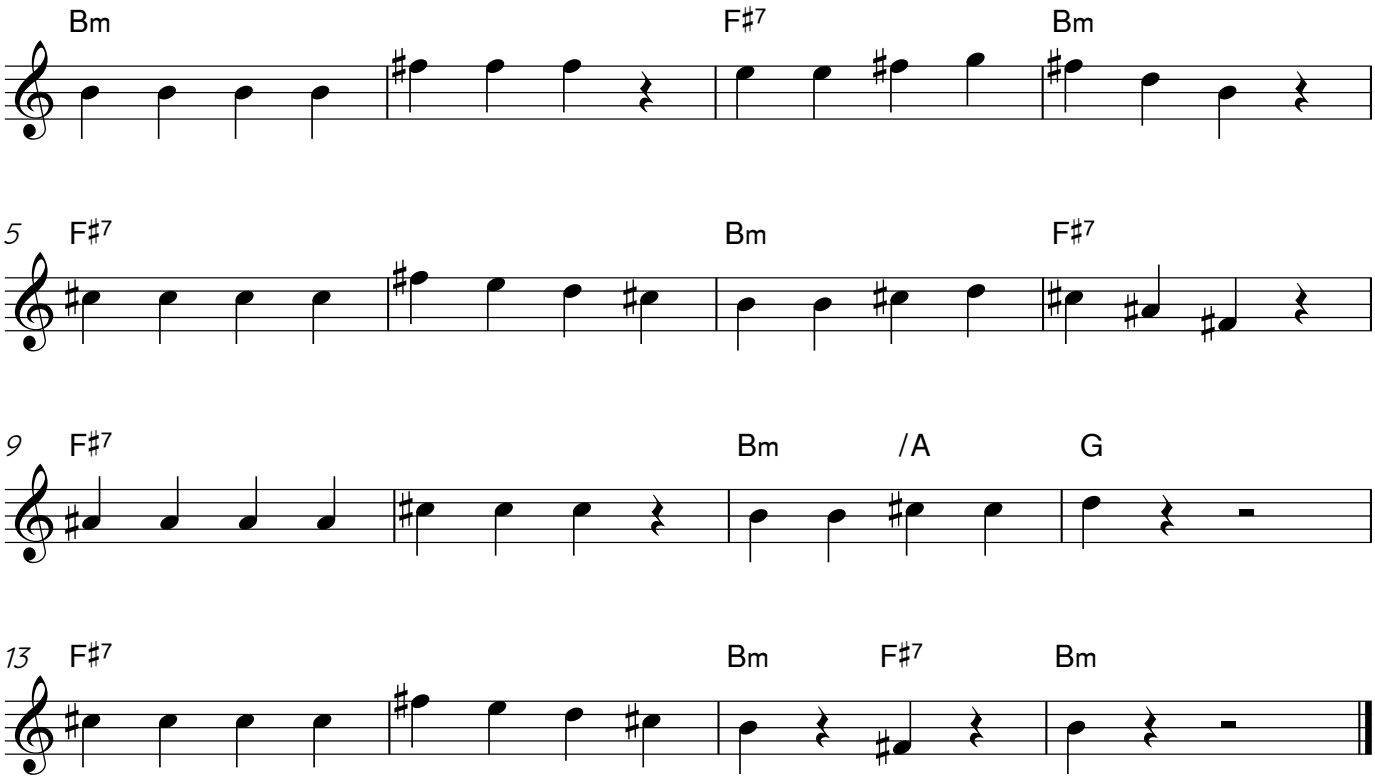
Bars 66-68: Rhythmic diminution of fragment of original melody (bar 1) followed by extension starting on 3rd beat of 67.

Bars 69-72: Idem with different extension starting on beat 3 of bar 70.

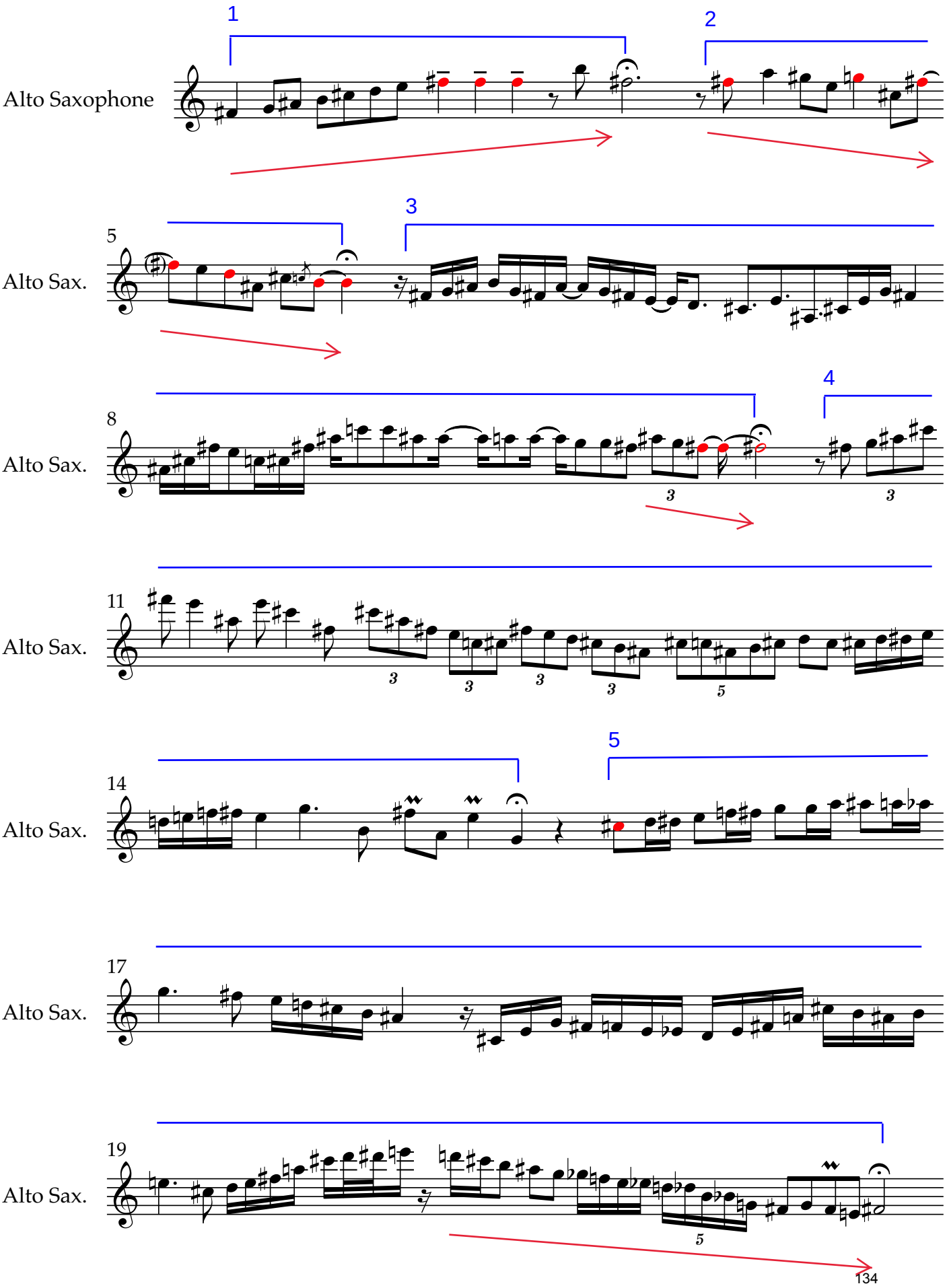
Bars 72-76: Idem with different extension starting on beat 4 of bar 73.

Bars 131-end: Fragment of original melody (bar 1-2) displaced by 2 beats, with variations in 2nd and 3rd pitches, diminution of 9th and 10th notes and long extension; the extension is a long development of a motif based on the idea of descending diatonic 3rds, with different rhythms.

Reysele - Theme score



Reysele - Annotated transcription of improvisation



Reysele – Textual analysis of improvisation

Phrase 1 Corresponds to the first phrase of the original melody (bars 1-2), with a similar length and shape; the 3 F# are used as target notes.

Phrase 2 Corresponds to the second phrase of the original melody (bars 3-4), with a similar length and shape; the notes colored in red correspond to the exact original melody and are interpolated by embellishments.

Phrase 3 Corresponds to the third phrase of the original melody (bars 5-8), with a similar length; the shape is quite different until the end of the phrase, which also resolves to the same pitch as the original phrase.

Phrase 4 Corresponds to the fourth and fifth phrase of the original melody (bars 9-12), with a similar length; the shape of the variation does not follow the original and is more complex; the three pitches circled at the end of the phrase follow the shape of the bass line.

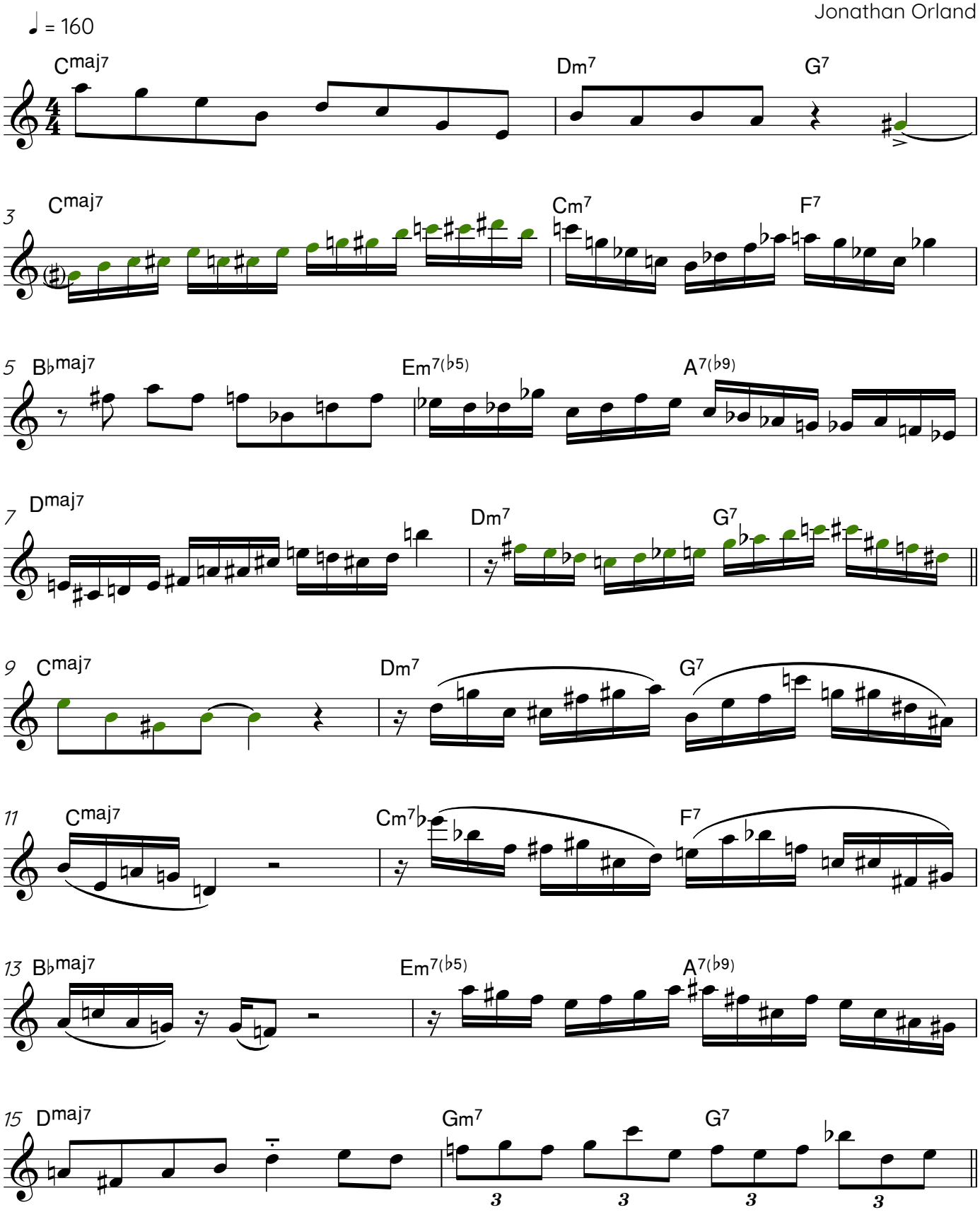
Phrase 5 Corresponds to phrase 6 of the original melody (bars 13-16); it is longer, acting like a long conclusion to the previous statements; it finishes with a descending line similar to the original.

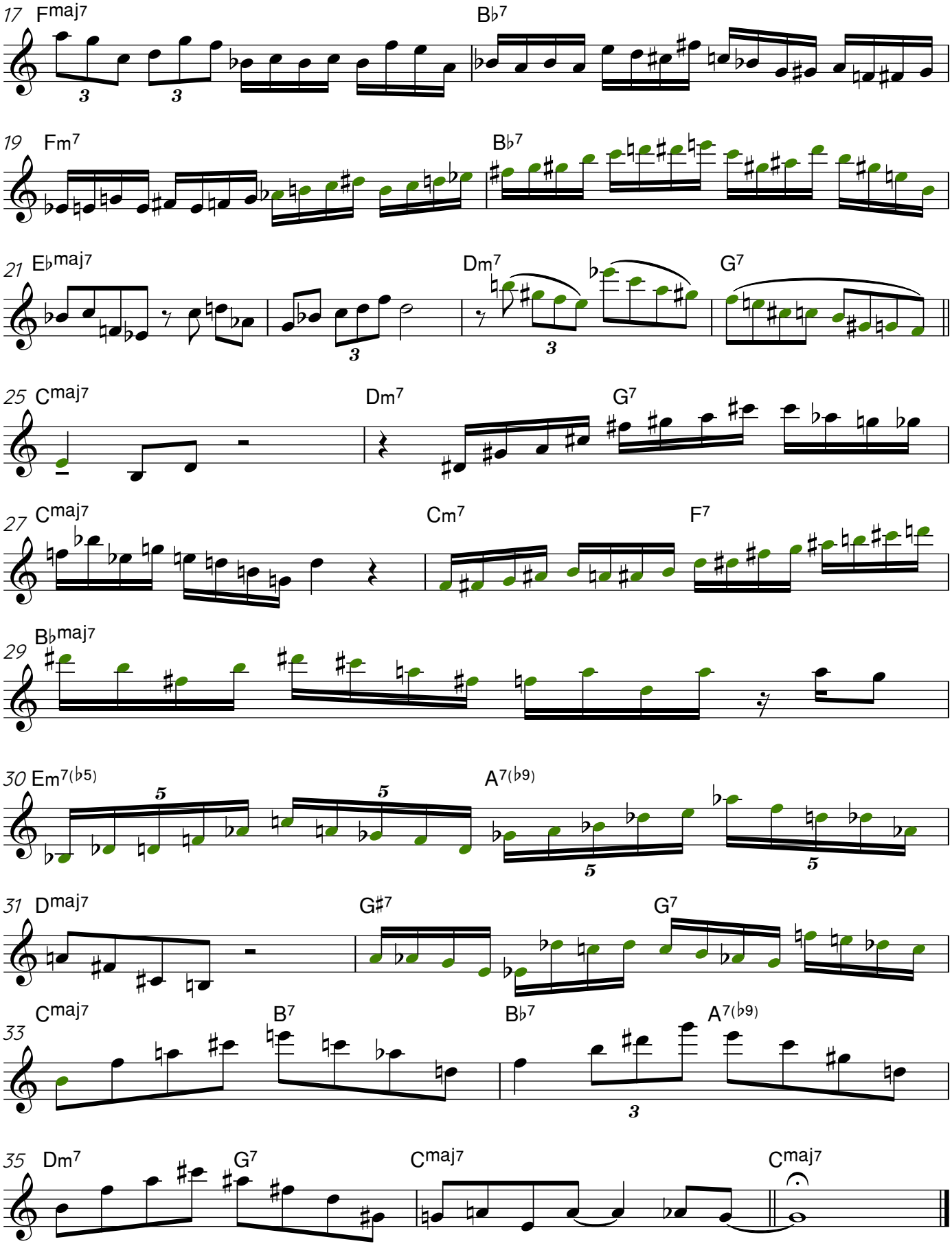
NB: No detailed harmonic analysis is provided here as I am paying attention to thematic relationships. However, one can observe the prevalence of the B minor harmonic scale which relates to the original melody as well as numerous incursions in the half-step whole-step diminished symmetric scale of the dominant.

Eb Instruments

Star Eyes - Annotated score of etude

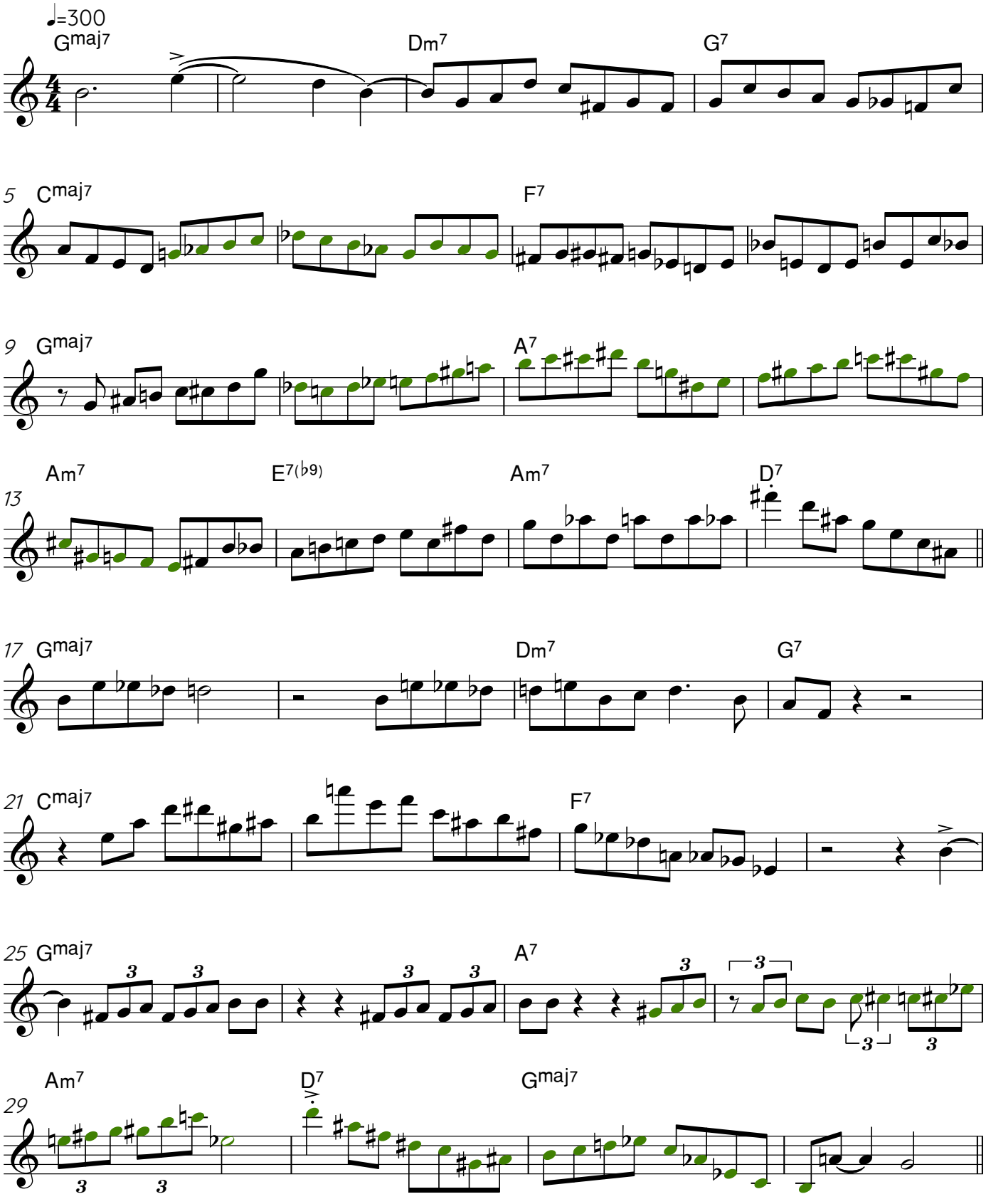
Jonathan Orland



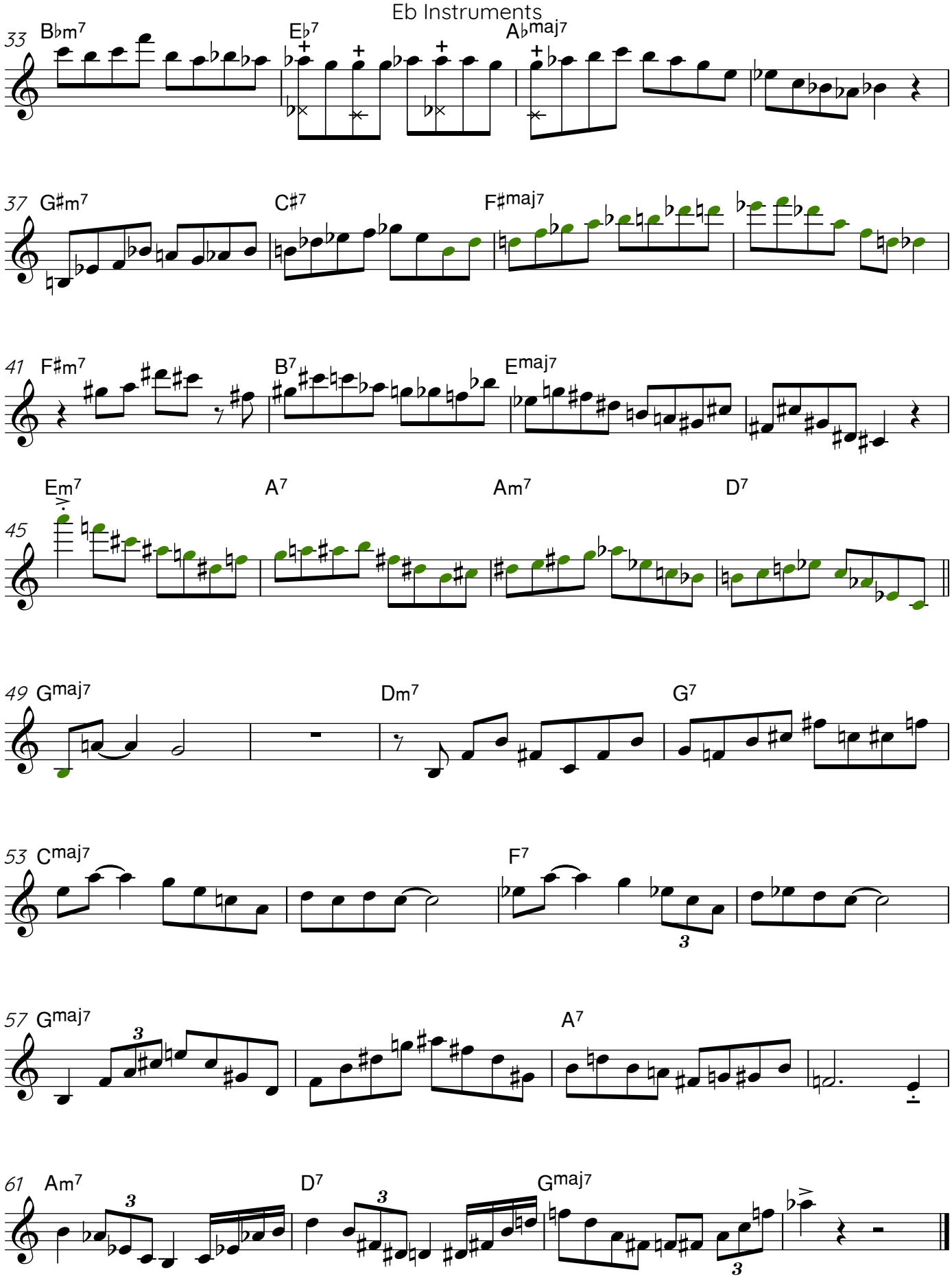

17 Fmaj7
B♭7
19 Fm7
B♭7
21 E♭maj7
Dm7
G7
25 Cmaj7
Dm7
G7
27 Cmaj7
Cm7
F7
29 B♭maj7
30 Em7(♭5)
A7(♭9)
31 Dmaj7
G♯7
G7
33 Cmaj7
B7
B♭7
A7(♭9)
35 Dm7
G7
Cmaj7
Cmaj7

Cherokee - Annotated score of etude

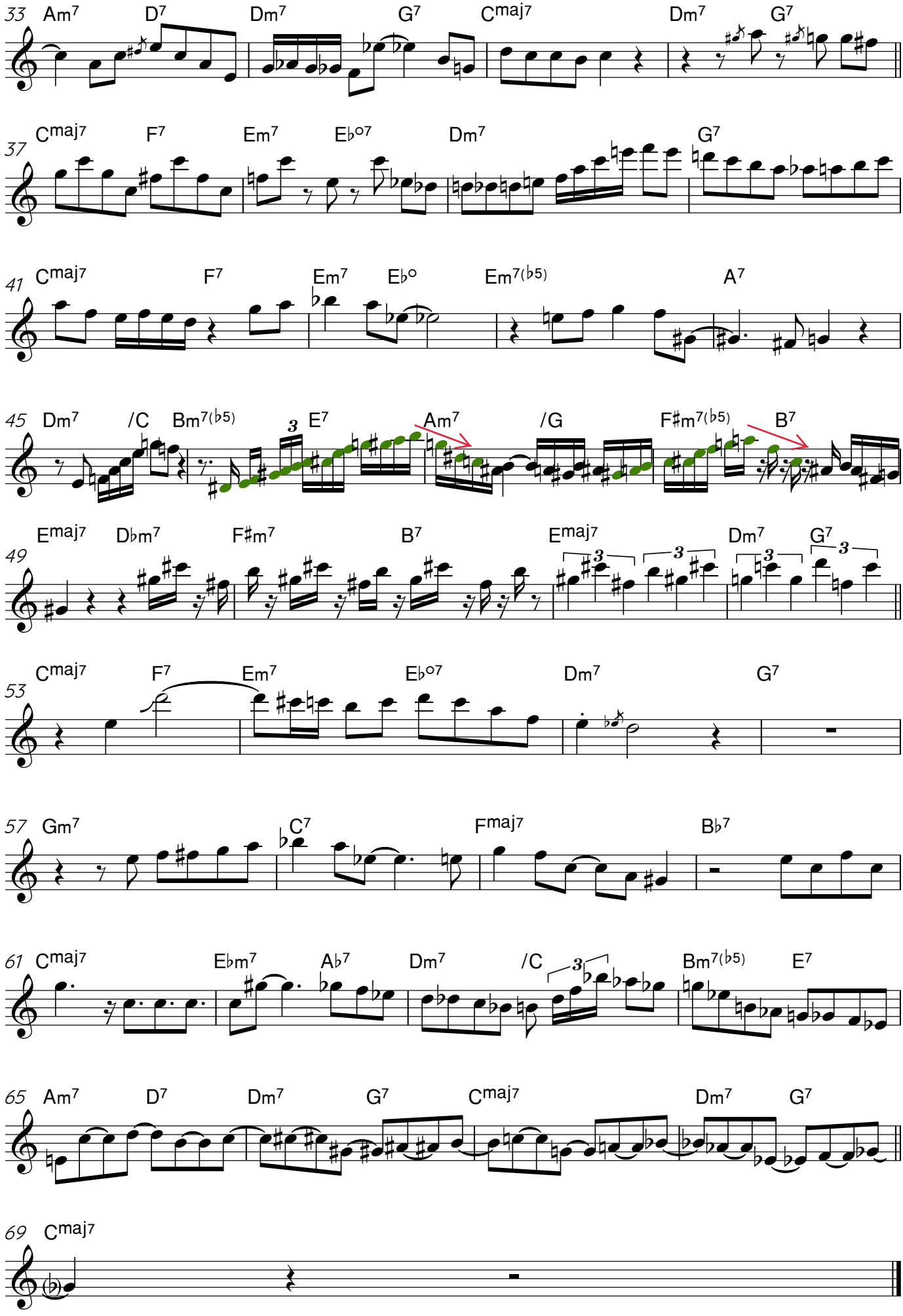
Jonathan Orland



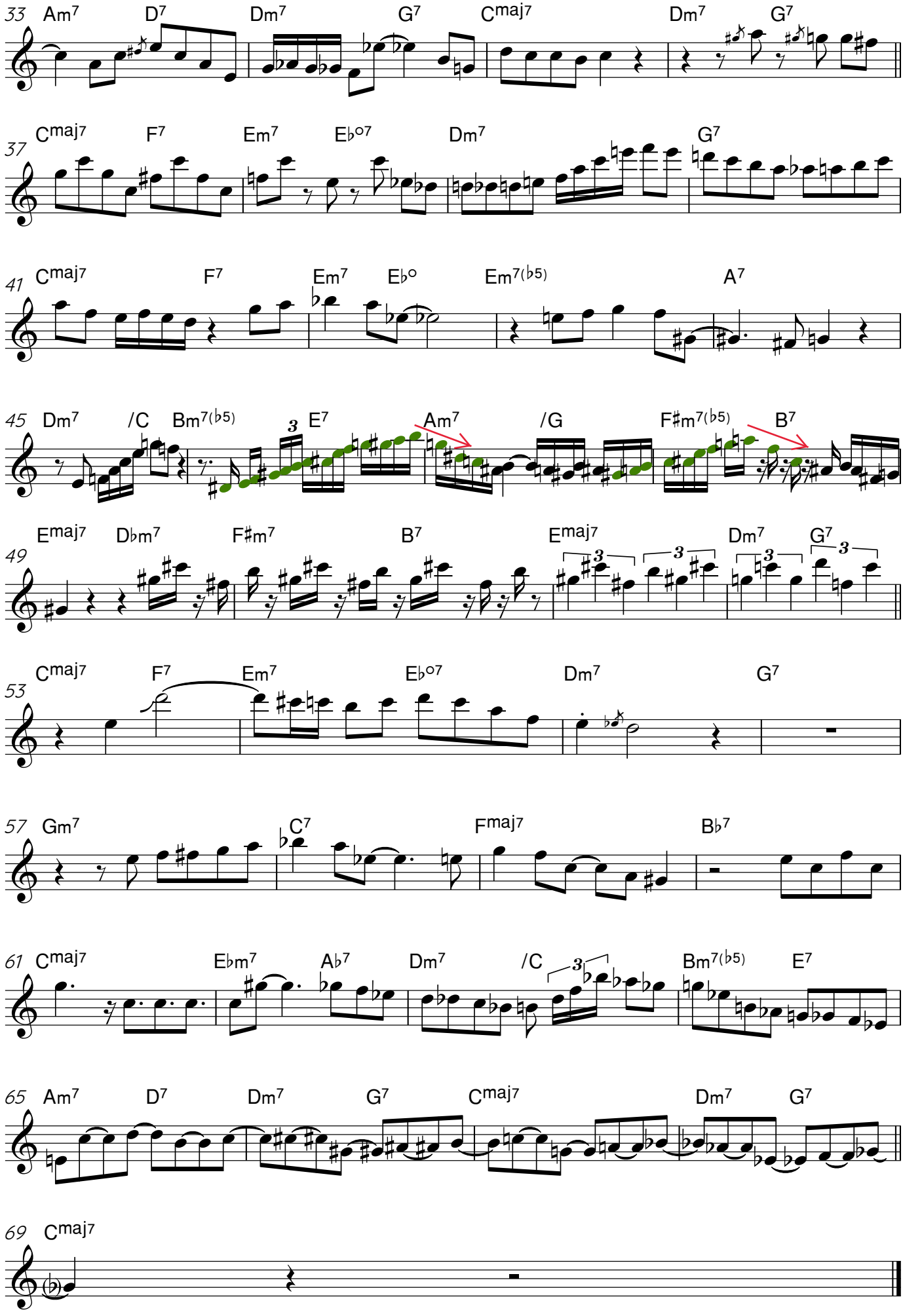
Eb Instruments



How About You? - Annotated transcription of improvisation


33 Am7 D7 Dm7 G7 Cmaj7 Dm7 G7
37 Cmaj7 F7 Em7 Eb°7 Dm7 G7
41 Cmaj7 F7 Em7 Eb° Em7(b5) A7
45 Dm7 /C Bm7(b5) 3 E7 Am7 /G F#m7(b5) B7
49 Emaj7 Dbm7 F#m7 B7 Emaj7 Dm7 G7
53 Cmaj7 F7 Em7 Eb°7 Dm7 G7
57 Gm7 C7 Fmaj7 Bb7
61 Cmaj7 Ebm7 Ab7 Dm7 /C Bm7(b5) E7
65 Am7 D7 Dm7 G7 Cmaj7 Dm7 G7
69 Cmaj7


Am7 D7 Dm7 G7 Cmaj7 Dm7 G7
5 Cmaj7 F7 Em7 Eb°7 Dm7 G7
9 Cmaj7 F7 Em7 Eb°7 Em7(b5) A7
13 Dm7 /C Bm7(b5) E7 Am7 /G F#m7(b5) B7
17 Emaj7 Dbm7 F#m7 B7 Emaj7 Dm7 G7
21 Cmaj7 F7 Em7 Eb°7 Dm7 G7
25 Gm7 C7 Fmaj7 Bb7
29 Cmaj7 Ebm7 Ab7 Dm7 /C Bm7(b5) E7


33 Am7 D7 Dm7 G7 Cmaj7 Dm7 G7
37 Cmaj7 F7 Em7 Eb°7 Dm7 G7
41 Cmaj7 F7 Em7 Eb° Em7(b5) A7
45 Dm7 /C Bm7(b5) 3 E7 Am7 /G F#m7(b5) B7
49 Emaj7 Dbm7 F#m7 B7 Emaj7 Dm7 G7
53 Cmaj7 F7 Em7 Eb°7 Dm7 G7
57 Gm7 C7 Fmaj7 Bb7
61 Cmaj7 Ebm7 Ab7 Dm7 /C Bm7(b5) E7
65 Am7 D7 Dm7 G7 Cmaj7 Dm7 G7
69 Cmaj7

How About You – Textual analysis of improvisation

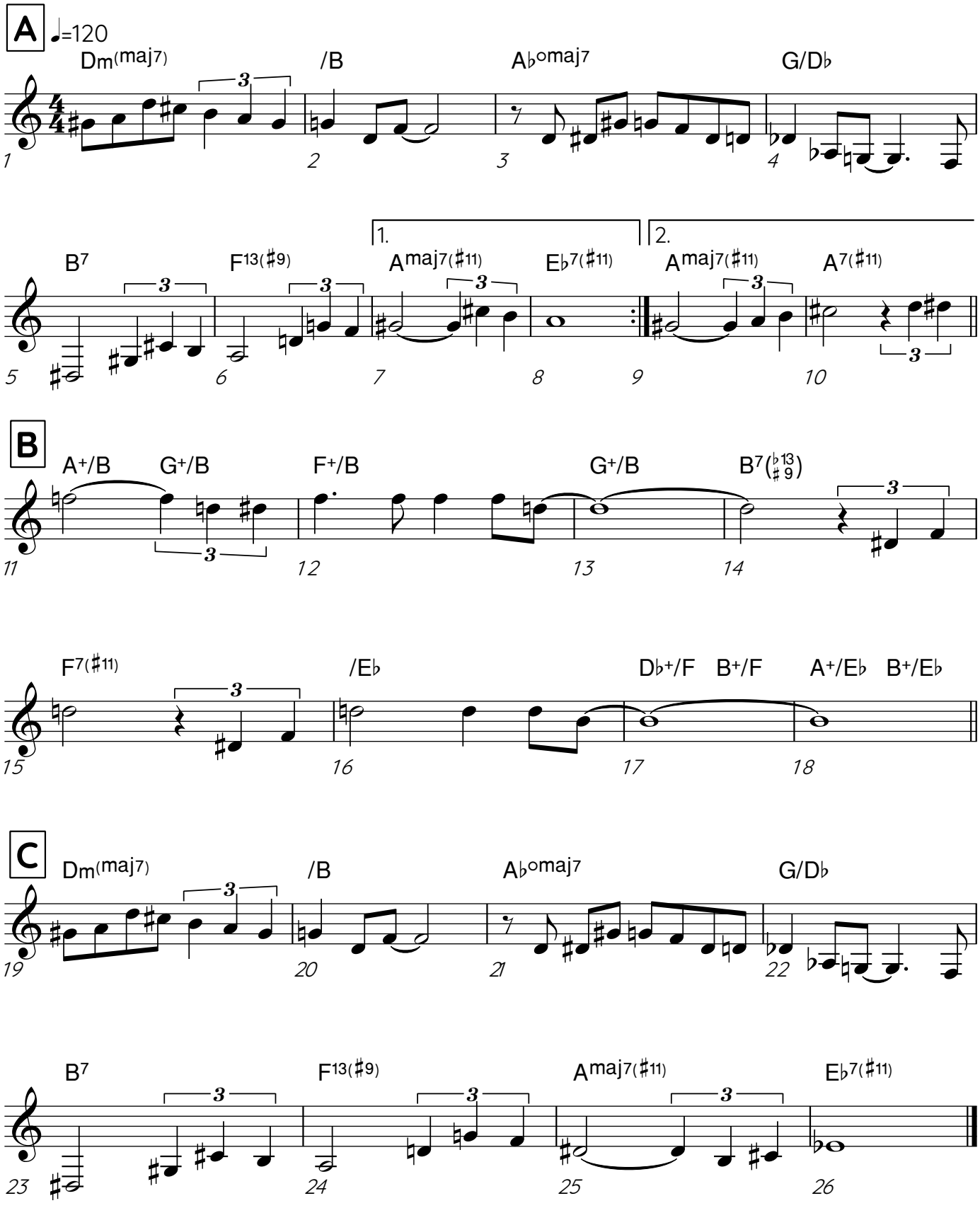
Bars 19, 20 Use of the second transposition of mode III at the end of the first A section, in II-V cadence going to the tonic C Major chord; it is used as an ascending fragment that lacks a D# and an A to form the complete scale; this fragment is in fact a C double harmonic scale starting on G (considering that the previous E and F are passing tones); the descending C# Major triad, upper structure triad of G7 (#11, 7, b9) is used as a pivot to resolve to C Major.

Bars 46-47: Use of the second transposition of mode III; ascending fragment lacks G natural before G# and D# after C# to form the complete mode; descending B augmented triad works as a pivot for a delayed resolution to A minor (relative minor of C major); note that B augmented does not relate harmonically to E7, the V of A minor; this is not a typical way to resolve but it sounds natural, maybe because A minor is the relative minor of C Major and that B augmented resolves to C major.

Bars 47-48: Use of the second transposition of mode III; ascending fragment lacks D# after C# and G# after G natural to form the complete mode; a second inversion descending F Major triad is used as a pivot upper structure of B7 to resolve to E Major.

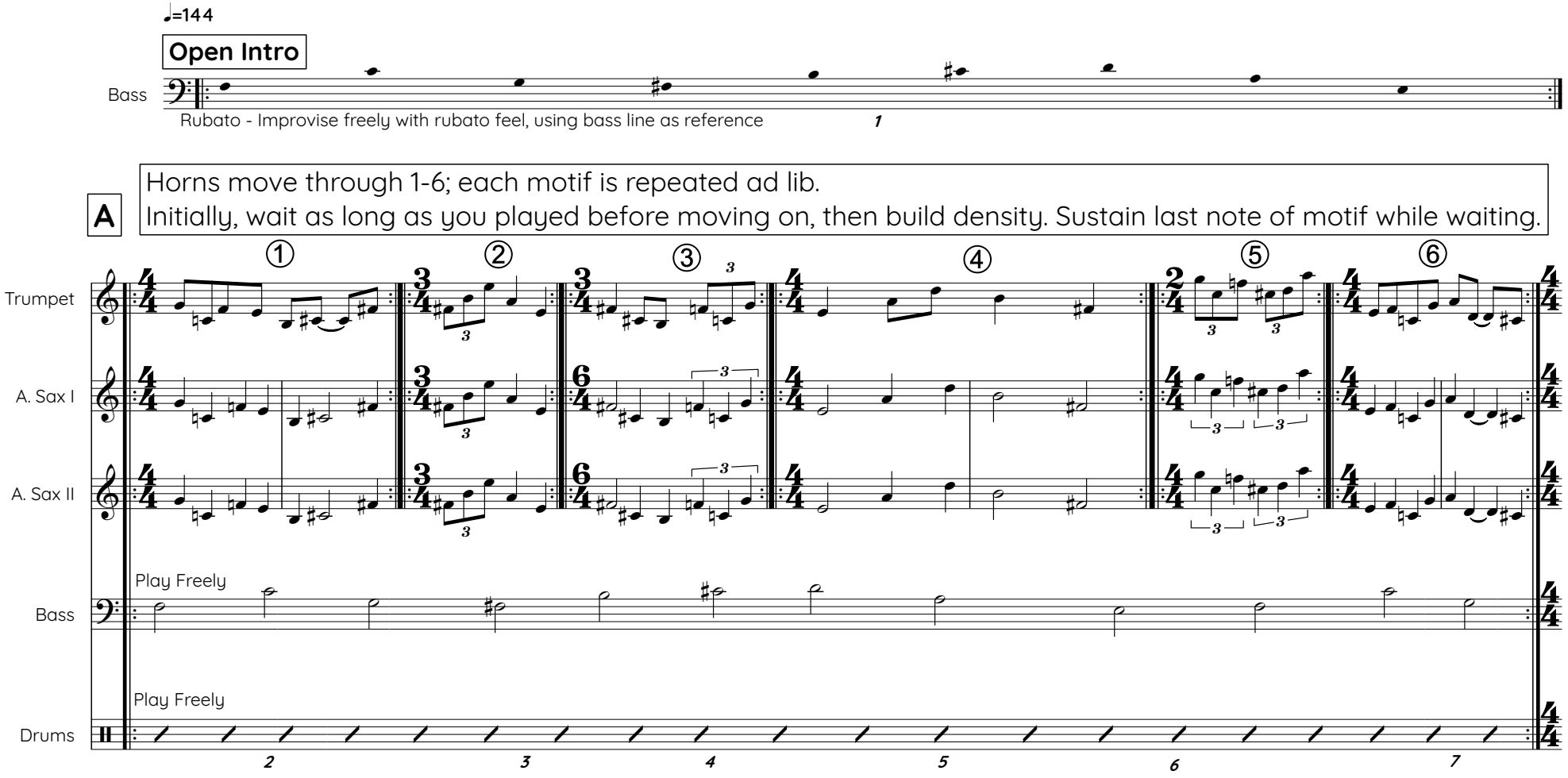
Jonathan Orland

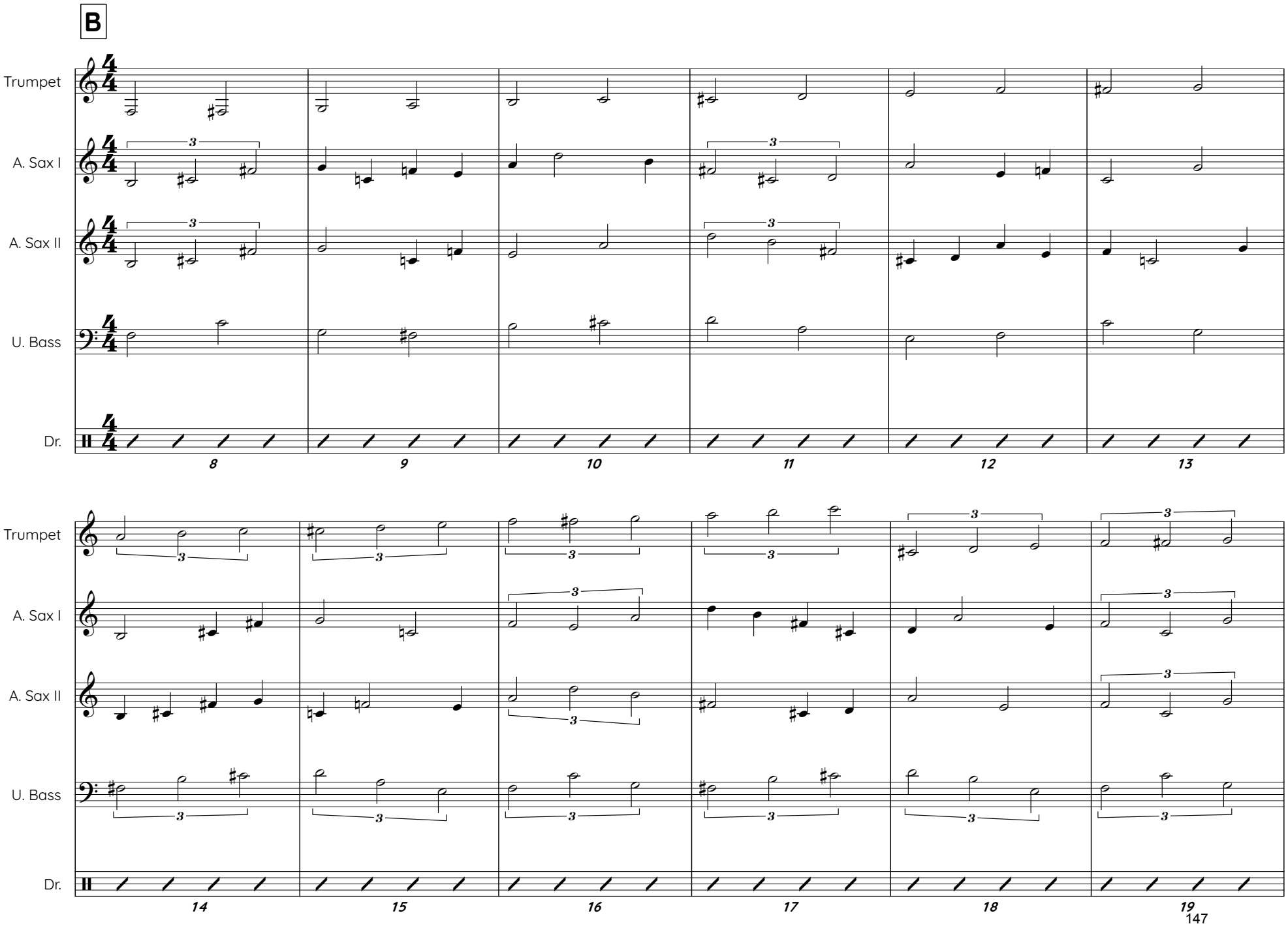
Don't Change - Score

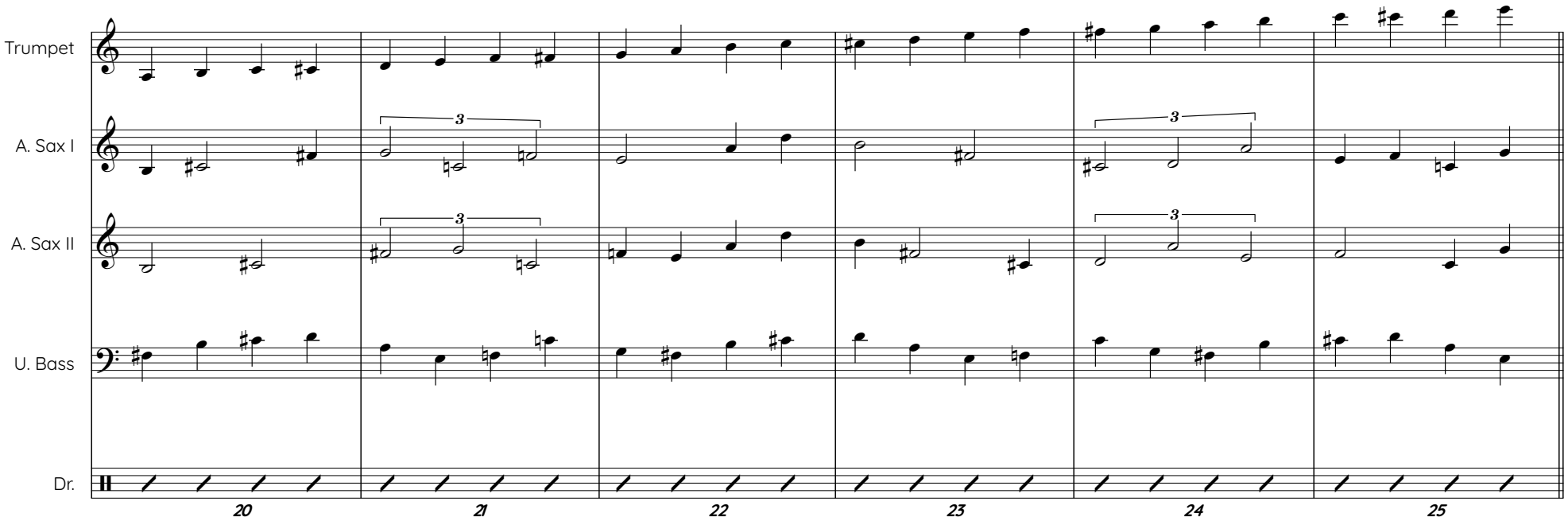


Noef - Score

Composer notes:
- Try keeping the improvisation section (C4) quite short (Piece ≤ 10 min)
- Dynamics are not written; musicians naturally play louder in each section as density increases
- The drummer is free on the whole piece; they can switch from underlining the structure to deconstructing it



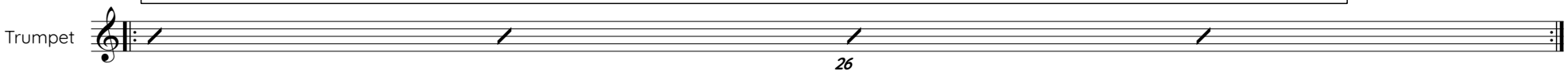

B
Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
8
9
10
11
12
13
14
15
16
17
18
19



C1

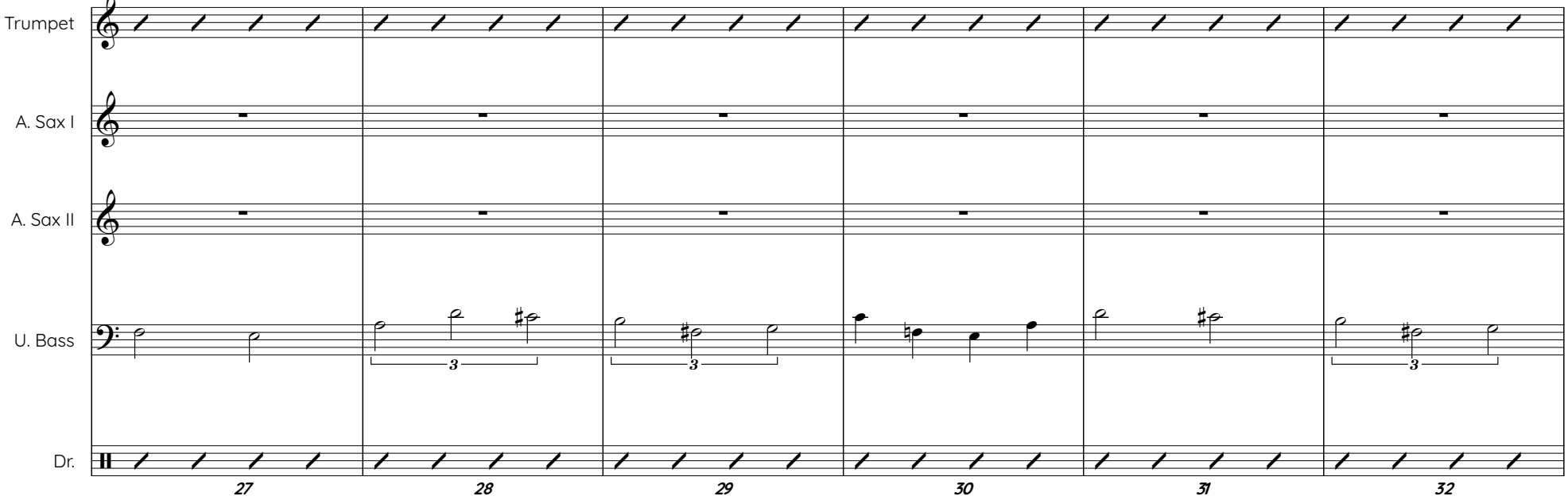
Open

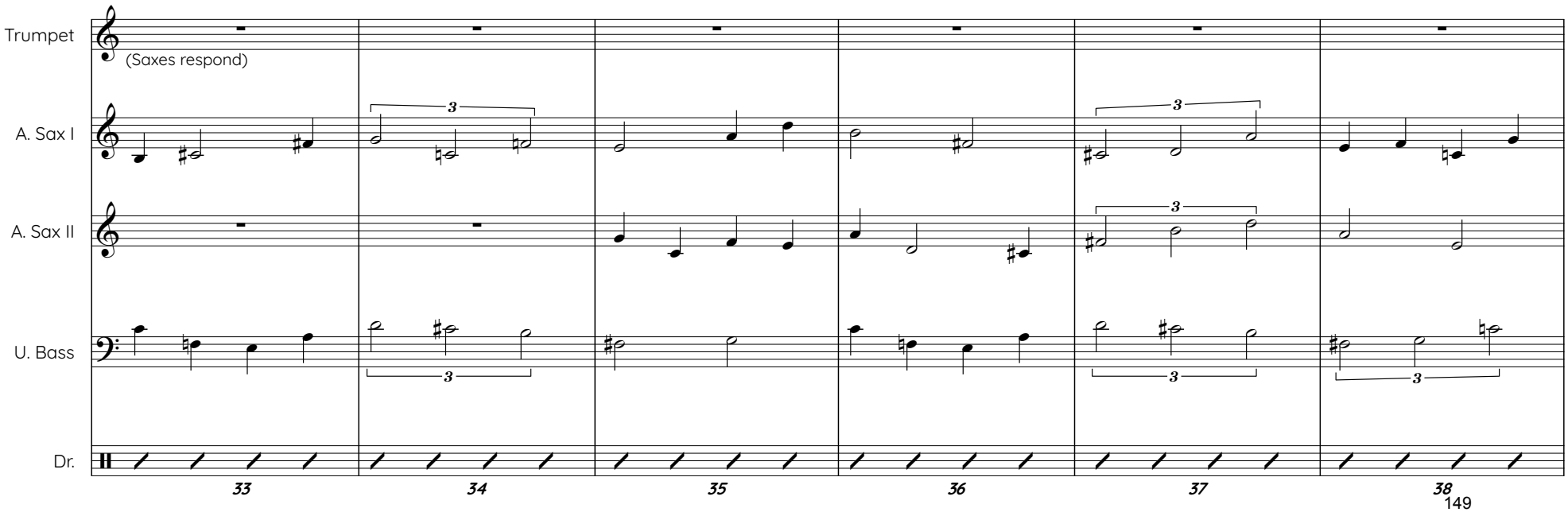
Trumpet improvises freely inspired by melodic material from A and B; starts alone and then drums join

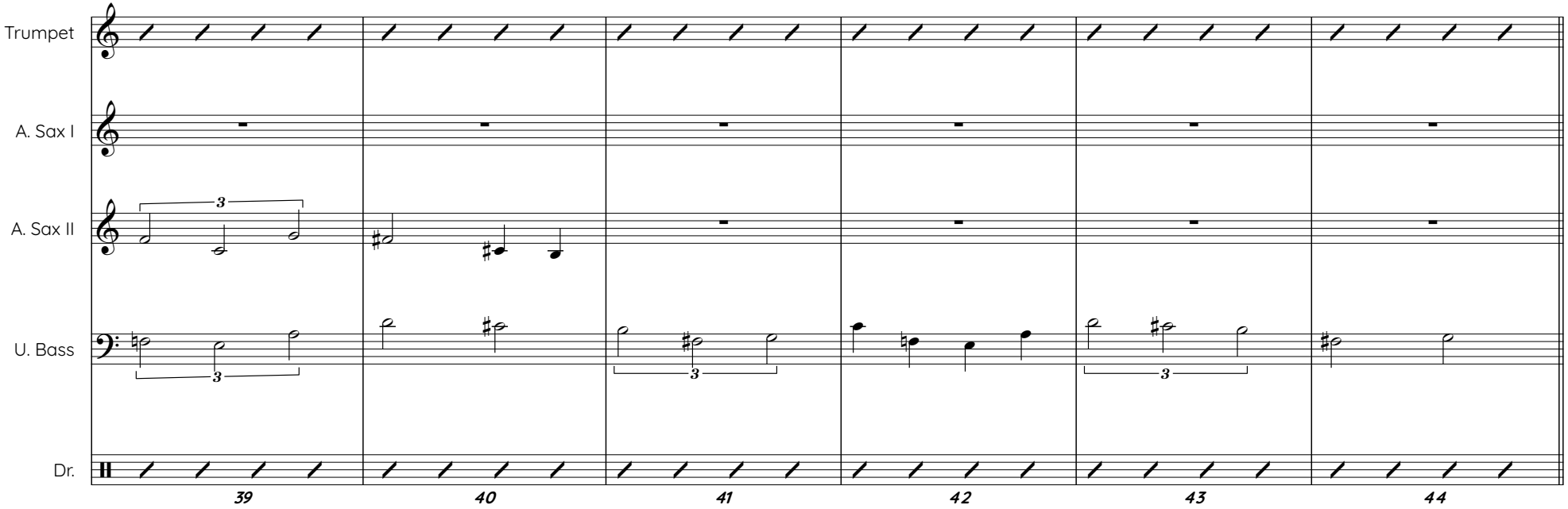


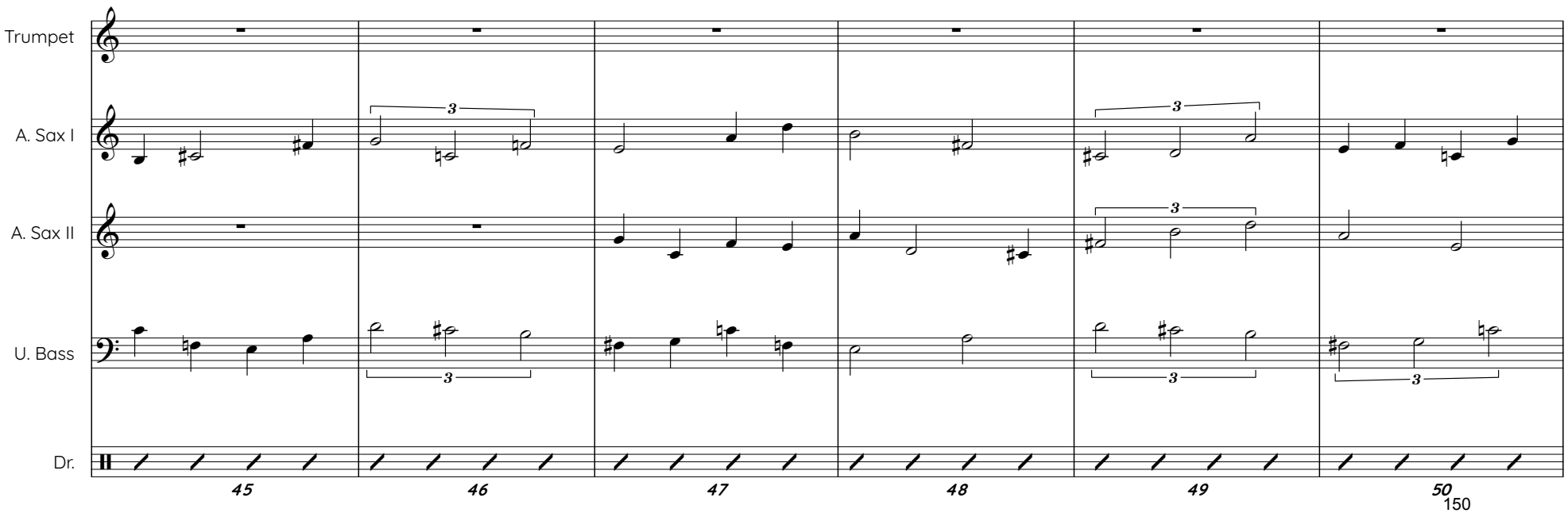
Slightly Faster ♩=160

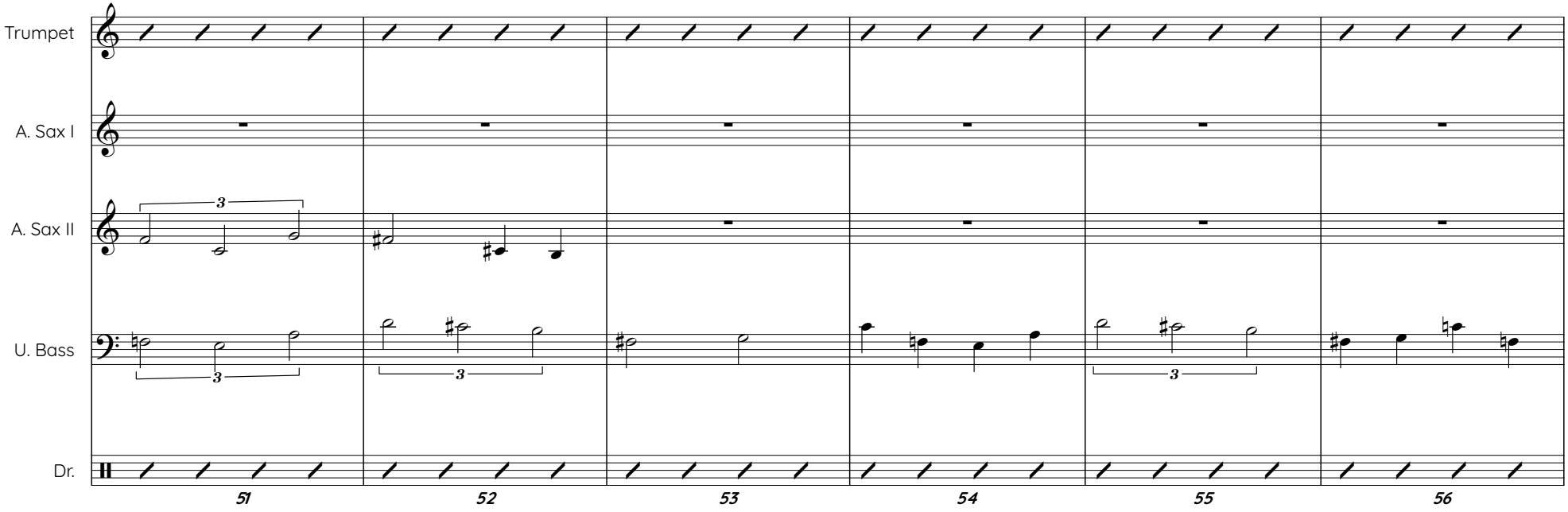
C2 Trumpet continues improvising but plays more sparesely when saxes enter with backgrounds. Towards the end of **C2** trumpet can override backgrounds.

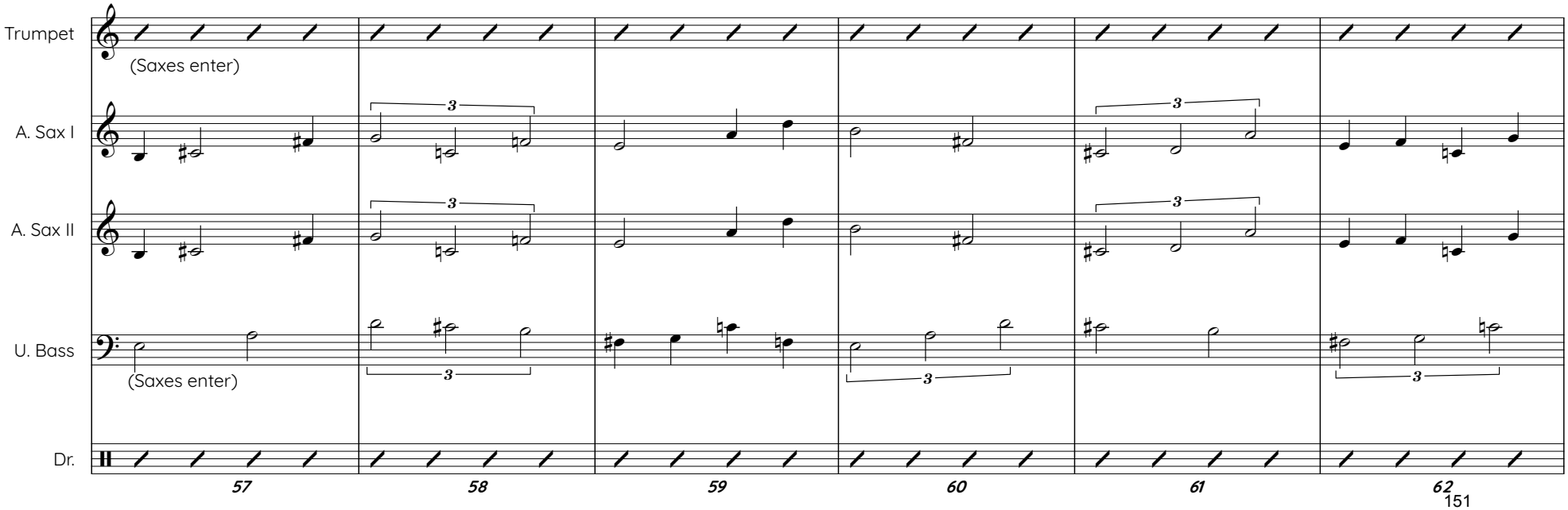


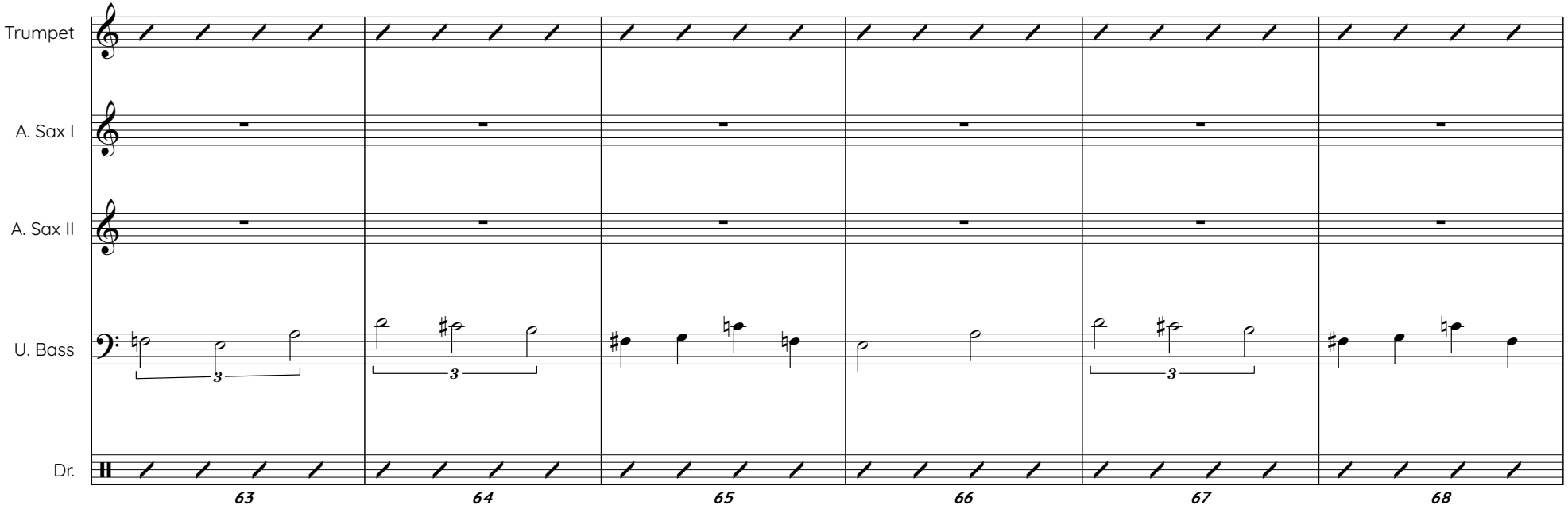


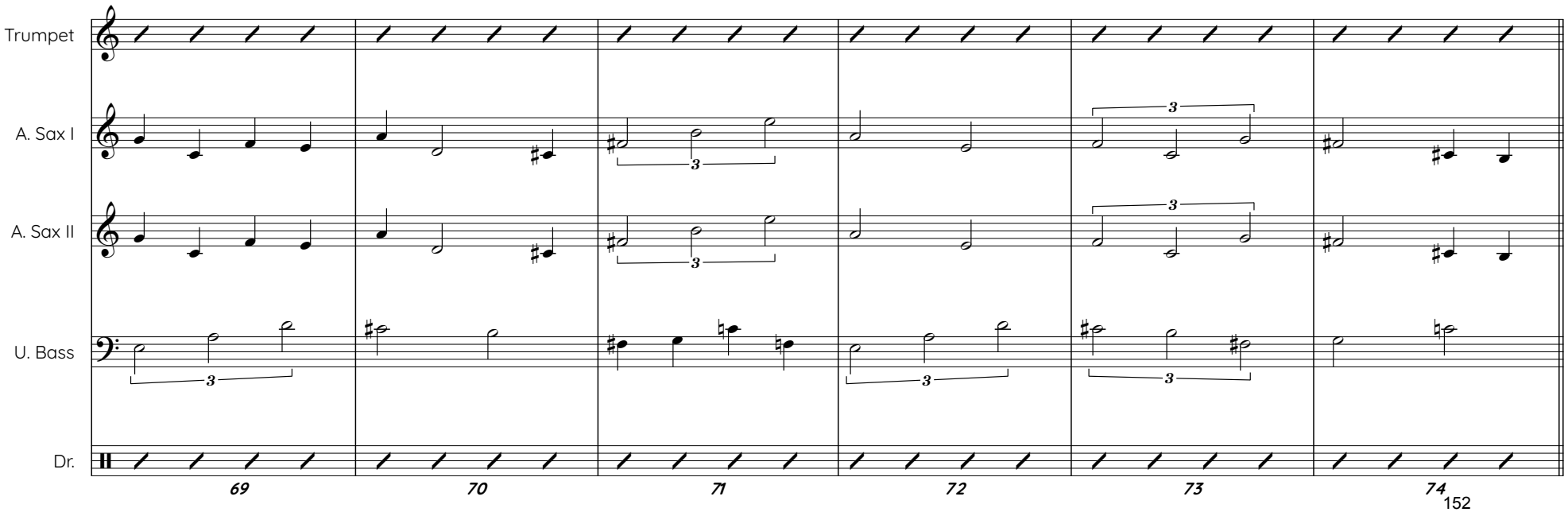

Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
39
40
41
42
43
44

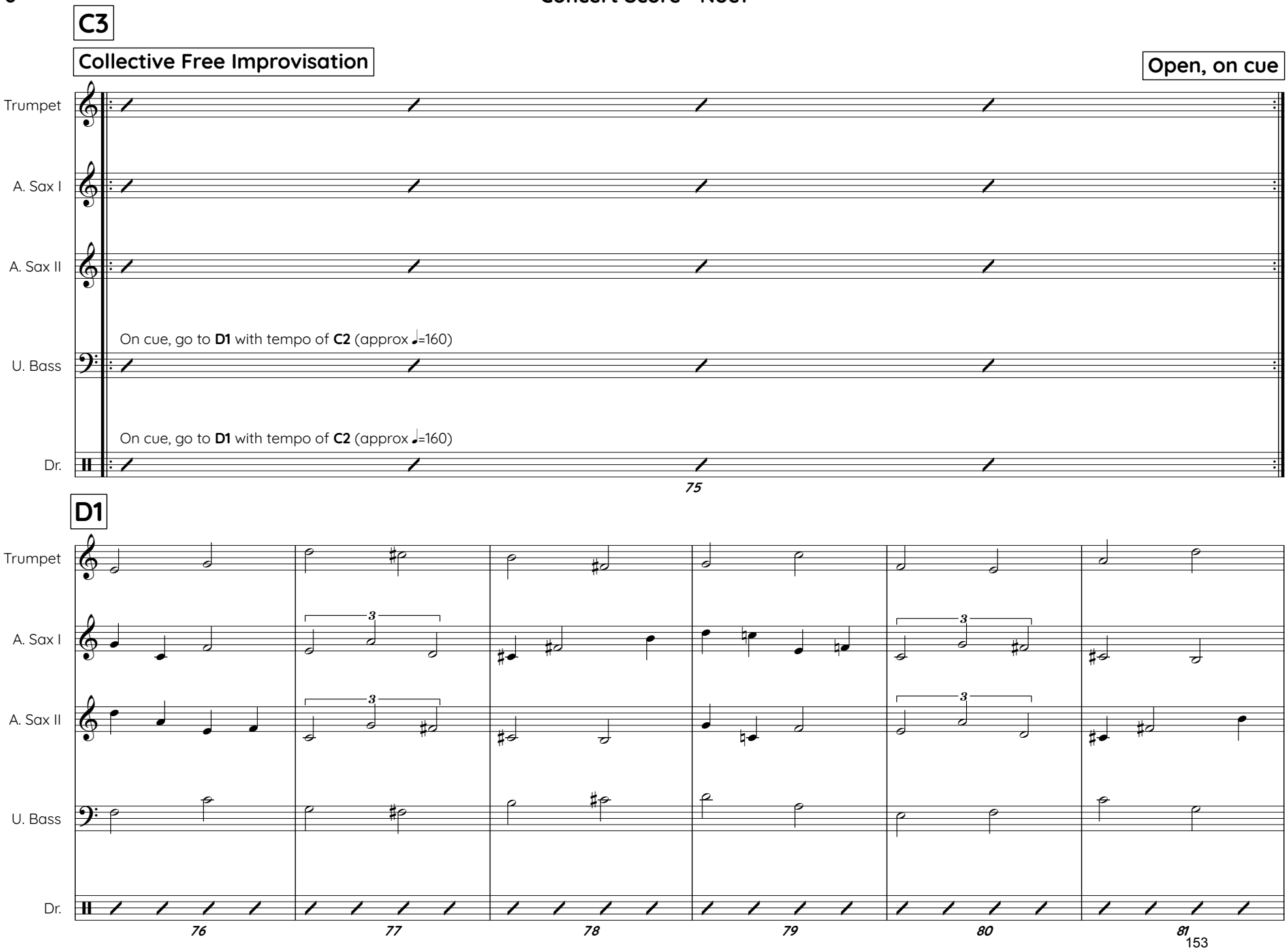

Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
45
46
47
48
49
50

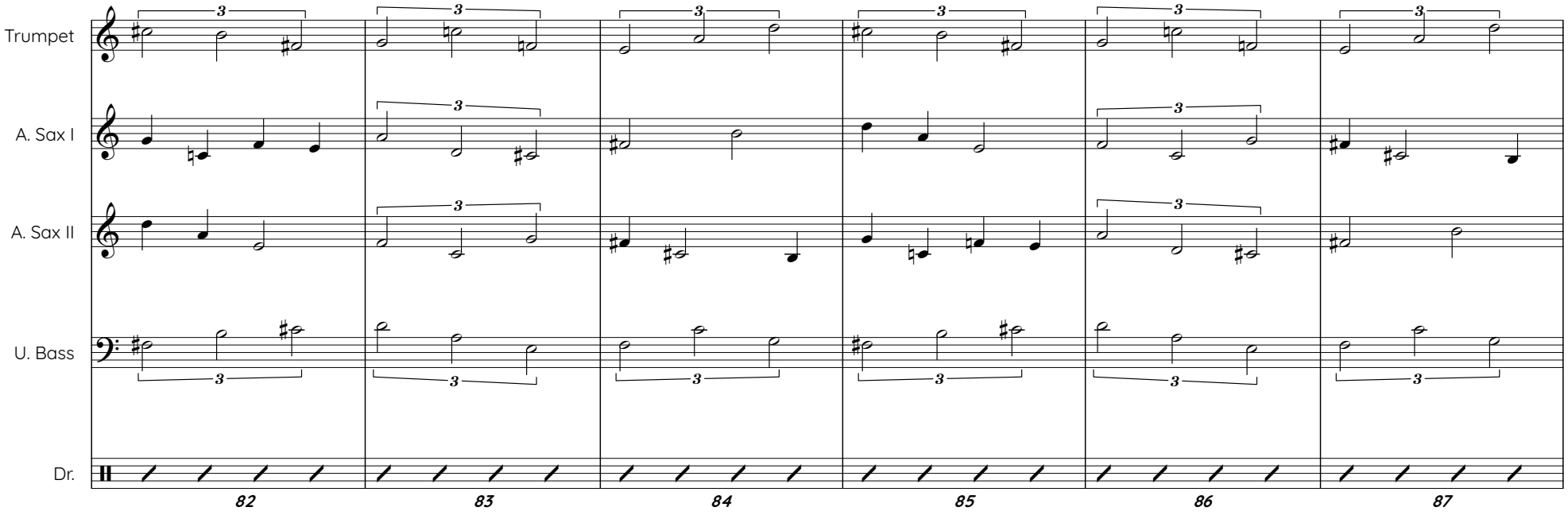

Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
51
52
53
54
55
56

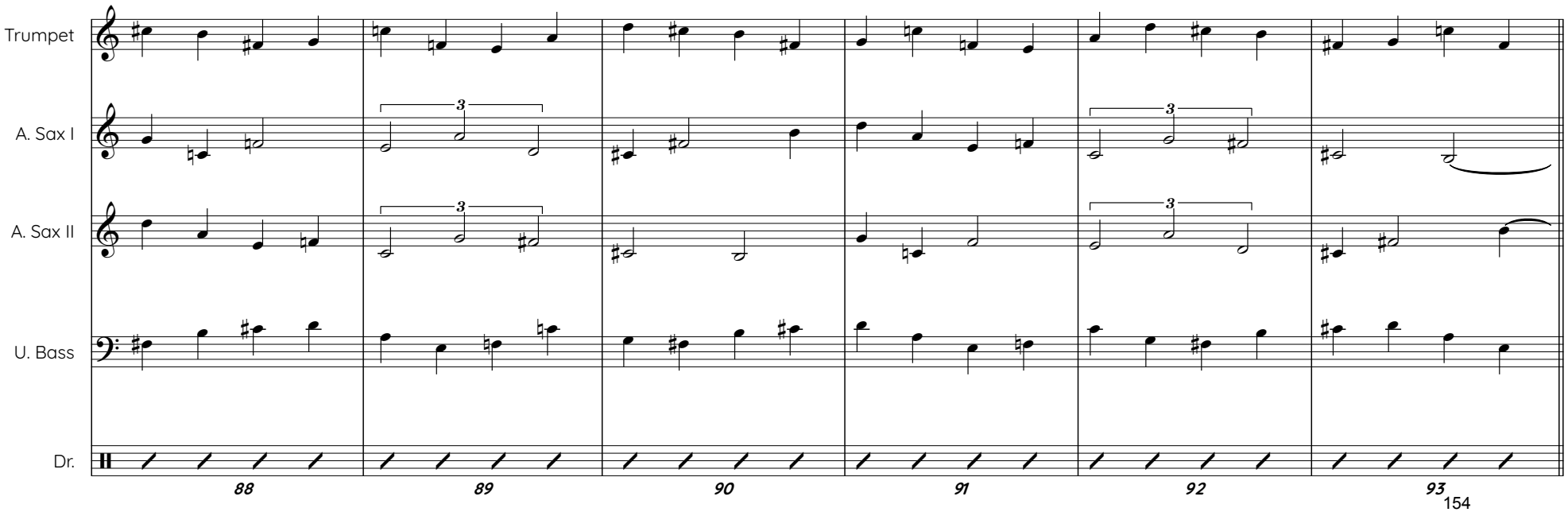

Trumpet
(Saxes enter)
A. Sax I
A. Sax II
U. Bass
(Saxes enter)
Dr.
57
58
59
60
61
62

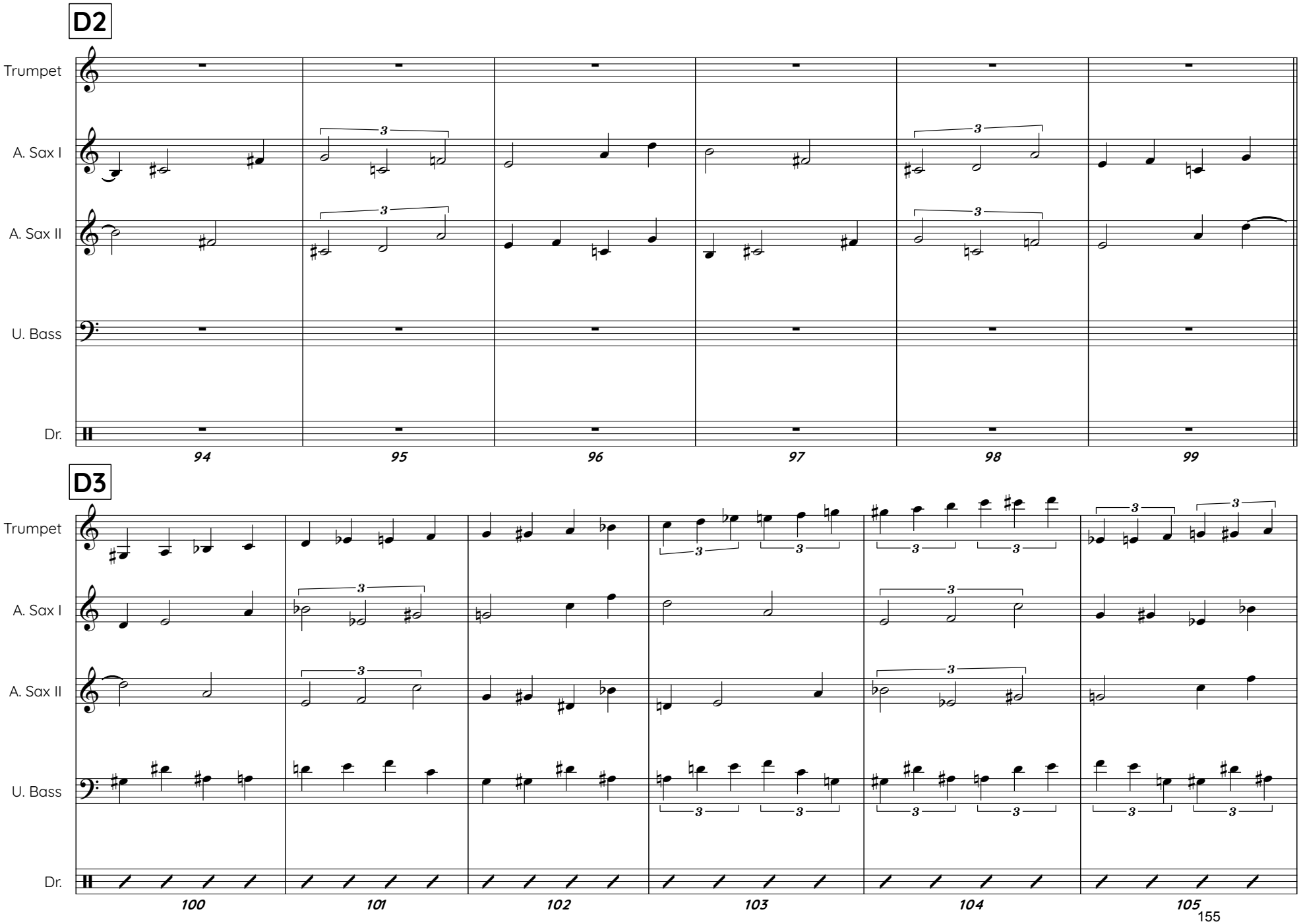

Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
63
64
65
66
67
68

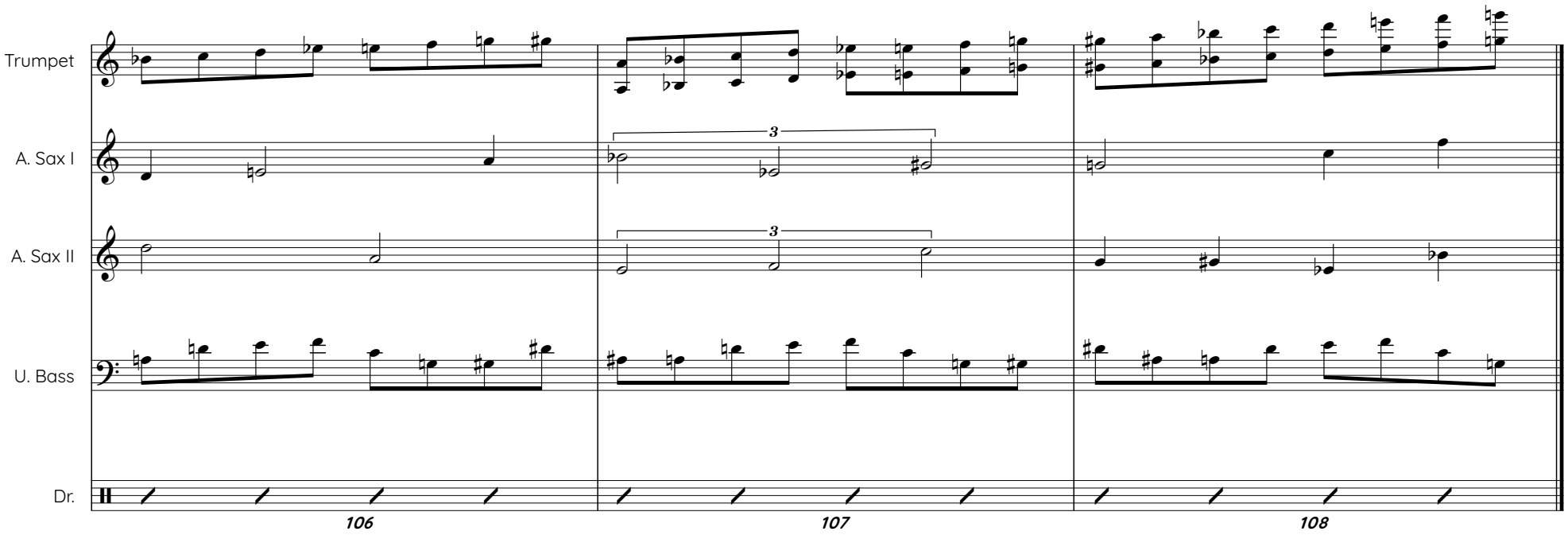

Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
69
70
71
72
73
74


C3
Collective Free Improvisation
Open, on cue
Trumpet
A. Sax I
A. Sax II
On cue, go to D1 with tempo of C2 (approx ♩=160)
U. Bass
On cue, go to D1 with tempo of C2 (approx ♩=160)
Dr.
75
D1
Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
76
77
78
79
80
81


Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
82
83
84
85
86
87


Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
88
89
90
91
92
93


D2
Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
94
95
96
97
98
99
D3
Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
100
101
102
103
104
105


Trumpet
A. Sax I
A. Sax II
U. Bass
Dr.
3
3
106
107
108

Baignade Dangereuse – Textual analysis of improvisation

A 0:00 – 1:00 *Character*: gentle, delicate, speech-like. / *Musical parameters*: small ambitus, chromaticism and absence of tonal marker, soft dynamics, hushed and sub-tone sound.

B 1:00 – 1:32 *Character* : song-like, repetitive, familiar, warm, intimate. / *Musical parameters*: repetition and development of a 3-note cell, soft dynamics.

C 1:32 – 2:12 *Character*: tonal, delicate, open, exotic. / *Musical parameters*: long notes, ornamentation, soft dynamics, large ambitus.

D 2:15 - 2:25 *Character*: aggressive, unrestrained. / *Musical parameters*: fast runs, uncontrolled harmonics and cracks, a few staccato notes, fortissimo dynamics, full sound.

E 2:25 – 2:41 *Character*: fluid, exotic, like 'water-drops.'/ *Musical parameters*: various intervals using pivot note, soft dynamics and hushed sound.

F 2:42 – 3:17 *Character*: aggressive, unrestrained. / *Musical parameters*: staccato notes, fast runs, altissimo with throat effect.

G 3:19 – 3:37 *Character*: aggressive, insistent, and cantankerous. / *Musical parameters*: repeated notes and pivot, harsh attacks, fortissimo dynamics.

H 3:37 – 4:11 *Character*: aggressive, unrestrained, insistent. / *Musical parameters*: fast runs, repetition of an idea, fortissimo dynamics that follow a decrescendo towards the end.

I 4:11 *Character*: contemplative, delicate, warm, vulnerable, like a whisper. / *Musical parameters*: soft dynamics and velvety sound, repetition of a short melodic theme.

Transitions:

A → B straight into B

B → C short pause leads into C

C → D crescendo that leads into D

D → E short pause and straight into E

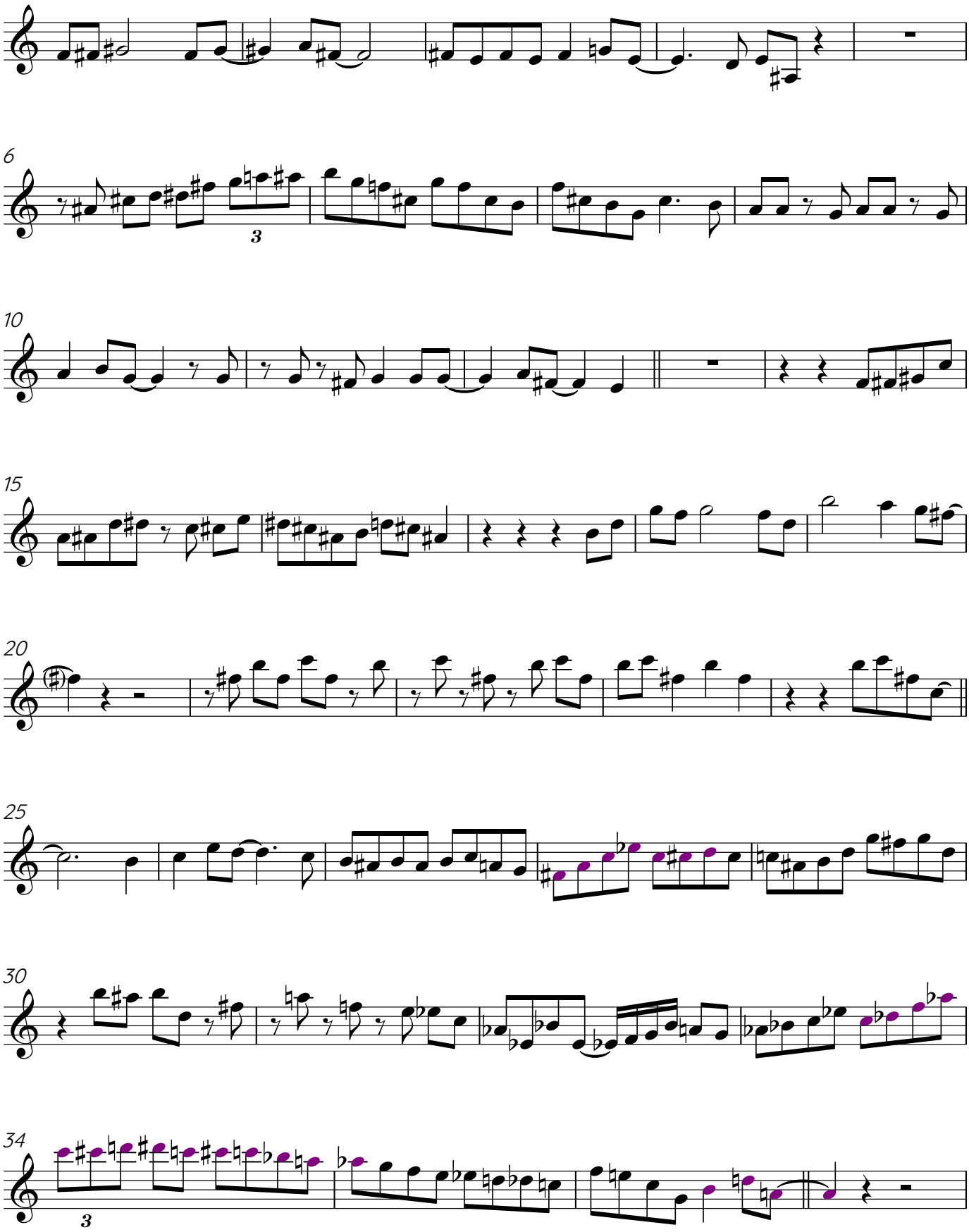
E → F short pause and straight into F

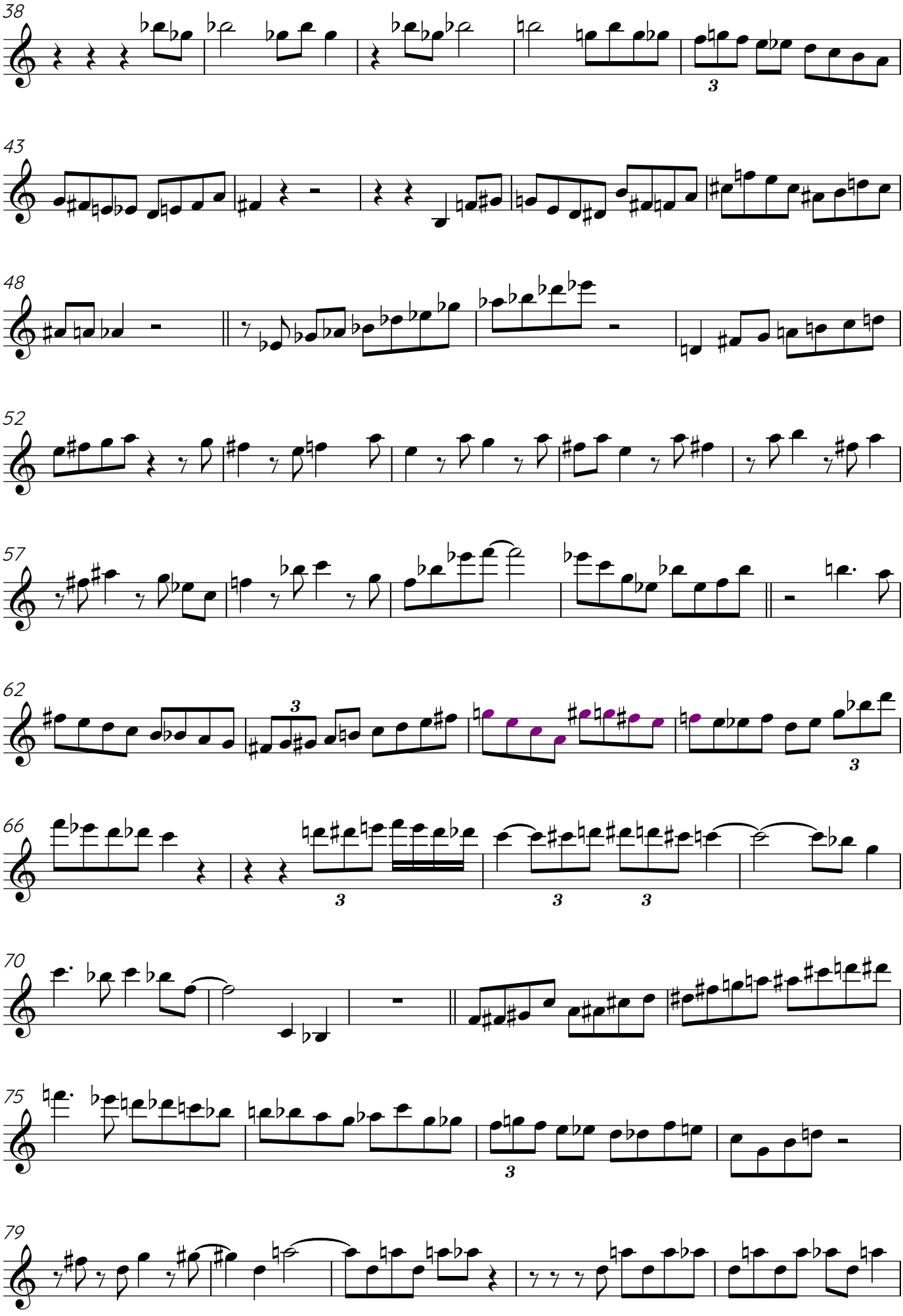
F → G short pause and straight into G

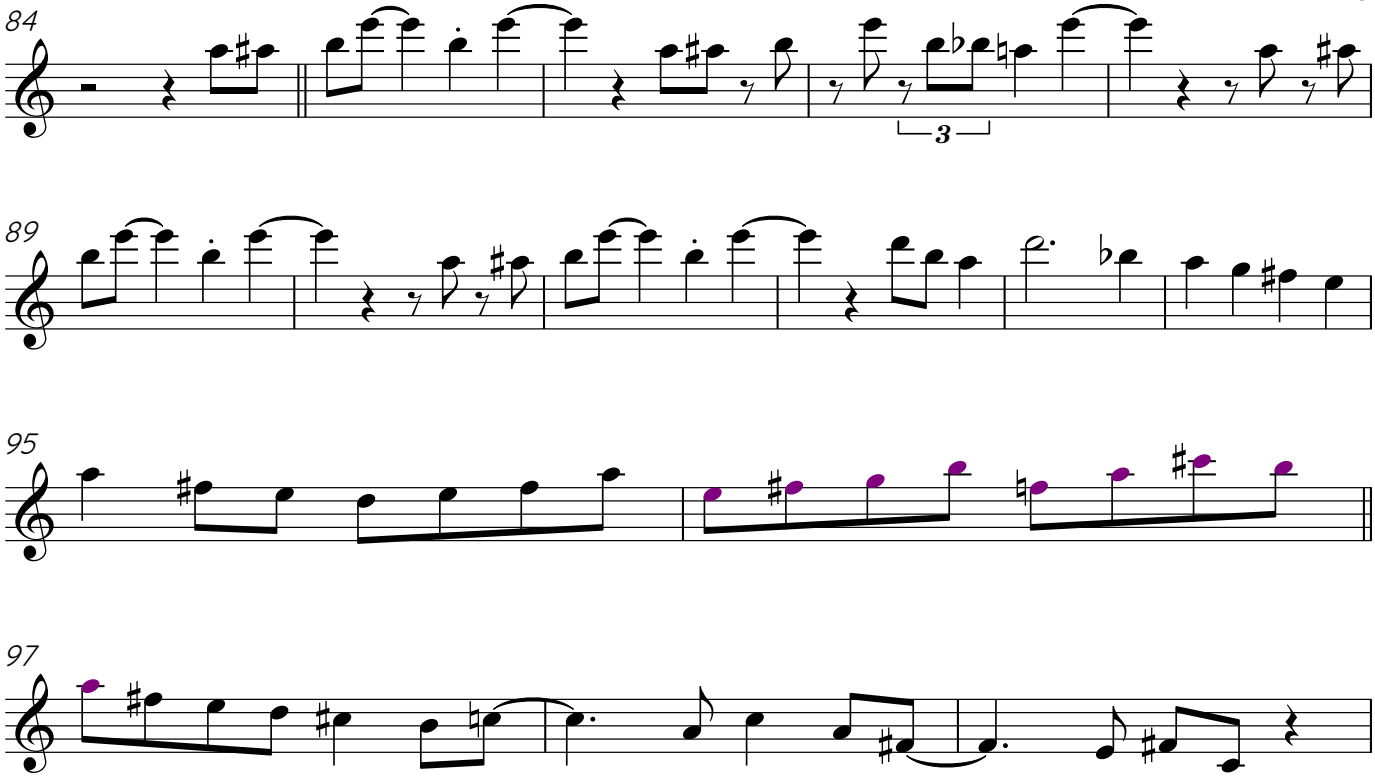
G → H short pause and straight into H

H → I H fades into I

Meshigene - Annotated score of improvisation




38
43
48
52
57
62
66
70
75
79


84
3
89
95
97

APPENDIX 3
Extract of critical listening log

20210226

Track 1

Analysis

Very focused beginning. Textural. Sons de ballon. Pas de superflu. Notes tenues pures.71 resonance Puis apparition d'une mélodie. Proche du début d'hier mais plus réussi. Plus déterminé et sûr. Plus simple et clair. Beau développement de la mélodie.

171 nouveau départ commentaire sur ce qui a été joué avant. Petites références à la mélodie.
213 nouveau thème, pas mal.
237 pierre et le loup – développent moins convaincant.
290 etc.. un peu statique, cherche quelque chose, ne trouve pas…
Vers 300 développement intéressant mais devient poussif, trop d'effort
327 squeaks – continuer avec petite interruption vers 365 pour citer thème pierre et le loup- bien
383 coda pour finir. Bien
Pause
397 on revient à une note longue. Bonne idée ! triton descendant ala messiaen. Mélodie qui revient pour s'agrandir. Part dans une envolée qui sonne spontanée.
497 attention on revient un peu à la mélodie.
491 jazz ornithology bon time au début puis devient un peu poussif apres le trille à 507. Puis se cherche. Son trop tendu.
563 – blues for alice. Theme pas terrible. Chercher plus de douceur, ça marche mieux. Legato
595 bien
617 commentaire rubato
653 pause bien méritée. Ça n'allait nulle part
665 idée interessante
691 sheets of sound. Trop force.
711 –
Vers 733 quartal system. Pousser plus loin, c'est interessant.

Conclusion

Globalement, les idées sont mieux soutenues et plus de conviction. L'ensemble n'est pas cohérent et c'est inégal

Track 2

Sheets of sound un peu abstrait mais intéressant.
A partir de 43 un peu moins détendu et devient moins intéressant. Va vers un thème qui est un peu cliché free mais qui sonne mieux que je pensais en jouant.
91 pause puis mélodie qui rappelle celle de track1 pas propre mais sonne spontané. Va vers green dolphin. Theme rubato avec embellishements. Puis 'time and changes' pas assez mélodique. Un peu tendu parfois. Devient monotone mais il y a de bons passage. Pas assez d'activité rhythmique. Trop de recherche harmonique et lignes trop sinueuses.
Vers 235 motif rhythmique intéressant. Il faut jouer sur la grille juste avec des motifs sinon ça n'a pas d'interet.
Me concentrer uniquement sur le rhythme si je joue la grille.

REFERENCES

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