HENDRIK VAN TWILLERT

BACH’S CELLO SUITES TRANSCRIPTION AND INTERPRETATION FOR BARITONE SAXOPHONE

A dissertation presented to the University of Aveiro in partial fulfilment of the requirements for the PhD in Music – Performance under the scientific supervision of Doctor Jorge Salgado Correia, Associate Professor of the Communication and Art Department of the University of Aveiro, Portugal.
Here I am…

Some thoughts of mine that you should know
You raised me up a long time ago
I couldn’t forget what it meant to me
Now I hope I can make you something to see

I know you’ll understand my melody
It’s my way to send my love to you
Here we are, just you and me
Just you and me
With the melody of my heart…..

Henk, New York, 01-10-2010

In memory of my parents,

“Moeder” Aartje van de Geest
&
“Papa” Lammert van Twillert
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I must point out that a work of the magnitude of a doctoral research is not possible without the support of a myriad of people. It is mandatory to express my gratitude to all that were present throughout this path.

My first words of appreciation must be addressed to my advisor Jorge Salgado Correia, for believing in the project since the very first days, the freedom he gave me throughout the work, and for his careful guidance. Without his emboldening and thoughtful supervision, I would hardly accomplish to reunite the tapestry of ideas that I had in my mind into a concise Doctorate Thesis.

I shall mention the impact that Robert Rowe had in the choice of the research path. During my first visit at the NYU his considerations were of extreme importance to me. I will always remember with admiration his guidance that was always confined to very simple and insightful gestures. I recall very precisely the moment he handed me the seminal book to me and this particular research “Music and Emotion” edited by Patrick N. Juslin and John A. Sloboda.

Jay Levenson is another person I should not forget to mention. His spontaneous interest in listening to the Cello Suites on baritone saxophone along with all the discussion we had gave me an untold motivation to carry this massive work. His office at the MoMA (New York) was a shelter where my ideas always found enthusiasm and a smile!

The time Anner Bylsma took to explain me the mysteries of baroque music, combined with its knowledge and non-stop enthusiasm for Bach’s music, and in particular the Cello Suites made of every hour an entire day, and every day an entire week. His timeless expressions are an “organ point” that will remain eternally with myself.

Filip Davidse was the one who took my hand and showed me the ins and outs of the degree, by sharing its admiration for contributing to the creation of new knowledge.

I must address a special thanks to Gilberto Bernardes for his never-ending time and availability for assisting me during the course of the research. His intellectual rigor and selfless urge to perfection had a critical impact in the late “articulation” of my thesis by providing the right “notes” to my ideas.

No matter when or how, every time I needed Fernando Ramos I knew that I could count on him. His inspiring ideas and his softly (more whispering) corrections made our friendship unconditional.

The digital edition of the transcription of the J. S. Bach Cello Suites for baritone saxophone, as well as major design issues that make this document extensible more readable and appraisal was not possible without the precious help of Menne Smallenbroek.

Not only behind the Black & White Ivory an accompaniment and a guide in music, above all a Friend in Bright & Dark days, thank you Tjako van Schie.

To my manager and for years my Portuguese representation, João Parreira, I should say thanks for always believing in all my projects. The moment Bach was involved the deal was closed.
The cooperation and support of all my current and former students, the love for music we share, their non-stop belief in all my projects, made them the ideal partner of my highest demands. A word of appreciation to the board of directors of the Escola Superior de Música e das Artes do Espectáculo, where I currently hold a teaching position, namely the President Francisco Beja for not only sharing but providing a space to accomplish our ideas. To the President of the Instituto Politécnico do Porto (IPP), my gratitude for the enthusiastic support, Rózario Gambôa, and the endless care of Cecília Sequeira.

During my career I had the pleasure of knowing some of the finest musicians who influenced me in many remarkable ways. My friends of the Amsterdam Saxophone Quartet: Rob Hauser, Bart Kok, Daphne Balvers, Andre Hemmers (1955-1999) and Fernando Valente (1962-1998). Their enthusiasm, constructive criticism and advice have influenced my personal development throughout my career.

In special I would like to mention a very dear friend, whose wisdom, sensitivity and expressiveness helped us both to better ourselves and share those feelings with the world; Alleluia “Hermano” Mario Pinto (1949-2012).

I must express some gratitude to the infinite support of my dearest family. My brothers and my two beautiful sisters always found encouraging words in difficult stages of my research, and always where nearby for me. Last but not the least, to my biggest fan, friend, and wife, Laurinda van Twillert Freitas, the greatest of thanks for being the eye-witnesses of so many struggles, for her love and comforting presence I have too often been deprived.

Aveiro, Portugal – July 22, 2012
Henk van Twillert
J. S. Bach, interpretation, transcription, saxophone, suites for violoncello.

Bach’s Suites for unaccompanied cello are a masterpiece of the Classical Western canon for their singularity and their creator’s mastery. A myriad of transcriptions were made throughout the centuries with bigger or lesser freedom. This thesis aims at revealing insights from the art of linear polyphony and its performance on a monophonic instrument such as the baritone saxophone. The study of the musical structure is supported by examples from the visual domain that help us to understand the notion of linear polyphony as a third-dimension object. The particularity of this study, in relation to the multiple existing literature about Bach’s music, is its focus on a wind player’s point of view, a saxophonist, which, given the restriction of the polyphonic possibilities of the instrument, reveals some discerning solutions on the performance, analysis and elaboration of the polyphonic thinking in Bach’s Suites.

Similar to the relative novelty of the cello at Bach’s time, my work aims at giving as close as possible the same perspective of the music through a new vision and instrument.

I analysed the art of linear polyphony and the techniques of elaboration of the melody in the Cello Suites, notably as a means to support the interpretation (e.g. articulation, phrasing, dynamics, vibrato, fingerings, etc.) and to devise a transcription of the Suites for the baritone saxophone. My choice fell on a transcription for baritone saxophone based on the manuscript from Anna Magdalena Bach, wishing to provide detailed guidelines for saxophonists who want to create a more informed interpretation. I hope to offer a better understanding of these works and to provide a reference to build and develop an individual interpretation, especially on the baritone saxophone.
Palavras-chave

J. S. Bach, interpretação, transcrição, saxofone barítono, suites para violoncelo.

Resumo

As Suites para violoncelo solo são uma obra-prima do cânone musical ocidental pela sua singularidade e mestria do seu autor. Várias transcrições foram feitas ao longo dos séculos, com maior ou menor grau de liberdade desta obra. Esta tese foca-se na arte de polifonia linear e na sua interpretação num instrumento monofónico, como o saxofone barítono. O estudo da estrutura musical é suportado por exemplos no domínio visual que ajudam a compreender o conceito de polifonia linear como um objecto tridimensional. A particularidade deste estudo, em relação à vasta literatura existente sobre o assunto, é o ponto de vista de um saxofonista, que, devido à restrição das possibilidades polifónicas do seu instrumento, revela algumas soluções na interpretação, análise e elaboração do pensamento polífónico nas Suites de Bach. De forma análoga à relativa novidade do violoncelo no tempo de Bach, o meu trabalho visa dar a mesma perspectiva das Suites através da sua interpretação no saxofone barítono.

São apresentadas várias análises do ambiente da arte da polifonia linear e das técnicas de elaboração da melodia, como forma de desenvolver uma interpretação (por exemplo, articulação, fraseado, dinâmica, vibrato, dedilhações, etc.) e de apoiar a elaboração de uma transcrição das Suites para saxofone barítono. A minha contribuição foi realizar uma reedição do manuscrito de Anna Magdalena Bach, e fornecer orientações detalhadas para os saxofonistas que querem criar uma interpretação mais informada, oferecendo uma melhor compreensão dessas obras e fornecendo uma referência para construir e desenvolver uma interpretação.
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Folder 2 & 3
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Folder 4
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Folder 5
Live DVD of the 1st Bach’s Cello Suite recorded at the Festival Clarinet & Saxophone, Caracas. Henk van Twillert – Baritone Saxophone.
13 October 2011, Sala Fedora Aleman, Caracas, Venezuela.

Folder 6
Live DVD featuring the project “Bach Azul” – the 1st Bach’s Cello Suite performed by Henk van Twillert - baritone saxphone with “Companhia de Bailado Conemporaneo Portuguesa”, Choreography by Rita Judas.
12 December 2002, Theater São Luiz, Lisbon, Portugal.
Folder 7
Live DVD presenting Henk van Twillert – Baritone Saxophone performing the Prelude of the 1st Suite (BWV 1007) and Sarabande of the 5th Suite (BWV 1011) included in the project “Transformations”.
03 March 2012, NicolaiKerk, Utrecht, The Netherlands
1. INTRODUCTION

“Knowledge and experience often
Color or modify our opinion
About what is heard”.

Leonard B. Meyer

1.1 Motivation

Bach Cello Suites and the Baritone Saxophone

In the last thirty years my career as a performer and professor of saxophone has taken me to numerous countries where I share my emotions and enthusiasm with thousands of people. I played music from John Cage to Fado, passing by Frank Zappa and Johann Sebastian Bach. Bach was by far the biggest challenge; I discovered different emotions and a different way to transmit them. Playing Bach became a goal.

One of my biggest dreams was to live and work in New York. When I became fifty I had the opportunity to achieve that dream, which coincided with the beginning of my Doctorate Thesis studies. It was a time for a life-changing decision, first of all to leave the Amsterdam Conservatory to be able to concentrate on the work I had been developing for years in Portugal.

Right after making my inscription at the University of Aveiro, close to my students I had the opportunity to share my days between New York and Porto. At this point, I must introduce a person that was crucial for the course of my studies, my supervisor Dr. Jorge Salgado Correia. His enthusiasm and remarkable guidance for making a research of Bach’s Cello Suites and to construct a transcription for the baritone saxophone, with the appropriate time well-founded corrections made it happen. His philosophical knowledge
enlightened my through. I will never forget the long conversation about Leonard B. Meyer and George Steiner, whose books *Emotion and Meaning in Music* and *Real Presences*, respectively, were a truly inspiration.

By the time I began the work that lead me to this dissertation, while living in New York, I became aware of something that we all know: music has an incredible power to touch us, whether performing, listening, or creating. For that reason, I spent several months reading literature relating emotion and music and ways to investigate it.

Another seminal person who I may mention on this point is Dr. Robert Rowe. After seeing one of his lectures in 2008 at an electronic music symposium in Amsterdam that I went together with, in that time one of my Master students, Gilberto Bernardes, I knew that even if he was not an expert in my research field, I envisioned somebody who had discovered a way to measure emotions, and was an important influence by presenting me authors that I have referred to since then, such as John Sloboda and Patrick Juslin, who introduced me how to research emotion in music.

This study brought me also to other great vibrant areas besides music, some of them quite far from my area of expertise. MoMA’s (Museum of Modern Art – New York) director Jay Levenson was one of the people that have motivated these fields of study. Together with Dr. Sara Cavaco from the University of Iowa, USA, and the laboratory of Neurobiology of Human Behavior, Porto, Portugal, I became a member of a neuropsychological research team that investigated musical memory in a patient with severe anterograde amnesia. As co-author, I made a publication in the Journal of Clinical and Experimental Neuropsychology in 2012.

Before going in to more details concerning the later phase of my research I must go back some years and introduce the reader to some of my background.

Bach’s music has always been present throughout my life. The first contact with his music and his contemporaries was during my early years at the church. My Protestant background gave me a strong musical knowledge of the canonical erudite repertoire. Like a Latin American child gains body
knowledge from the constant exposure to the sound of the salsa. Bach’s counterpoint lines were vital to me since the beginning of my musical education.

Even before starting my musical studies I had a special contact as organ registrant assistant of my brother, organ player, Willem van Twillert. Curiously I can find some connection with those early days given the position that I was placed in when assisting him. Being next to the low note pipes gives me a sensation nowadays that I brought something from those days to the special relationship I have with lower registers.

The need to play Bach comes from the bottom of my heart, the love especially for the Cello Suites. Luckily the Cello Suites fit perfectly into the range of the baritone saxophone better than any other saxophone, due to the possibility to play a low A, which corresponds to an open C string on the cello.

As a saxophonist engaged for years with the performance of the baritone saxophone, I believe that the cello constitutes a reference to the baritone saxophone in terms of sound. Furthermore, Bach’s Cello Suites establish a bridge for other repertoire that is perfectly compatible with the range of the baritone saxophone, such as Schumann’s Fantasiestücke, opus 73, for Cello and Piano, Rachmaninov’s Cello Sonata in G minor, opus 19, or Elgar’s Concert for Cello in E minor opus 85. In fact, I do not think that I am making arrangements anymore; rather, I am doing sonic adaptions, notably because I always depart from the original score. However, the result is presented through another medium, the baritone saxophone.

You may ask why I did not make my studies on the cello, given such references. The answer is very clear for me, because the flexibility of the baritone saxophone was fundamental. In the same concert for my public I can cover a wide range of repertoire that goes from Johann Sebastian Bach to Charlie Parker and beyond.
Bach’s Cello Suites in Concert

Bach’s music on the saxophone in concerts is something that can easily generate strong reactions. According to L. B. Meyer (1956):

“Knowledge and experience often color or modify our opinion about what is heard, if for example, we see a large orchestra on the concert stage, we immediately become aware of its potential sound. Consequently an opening solo for a single instrument, e.g., the flute solo at the beginning of Debussy’s afternoon of a Faun, will have quite a different effect, will be heard differently, than it would be were it the opening of a sonata for unaccompanied flute” (Meyer, 1956, p. 80).

One can imagine the thoughts and feelings of the public attending a concert featuring Bach’s Cello Suites and surprisingly seeing a baritone saxophone on stage instead of a cello. You can easily verify (even without any scientific grounding) in the social media networks and websites alike, such as YouTube or Facebook, the reaction from people. The numbers are balanced.

I played Bach’s Cello Suites at different Festivals (New Port Festival 2006, 2007) and for very varied audiences, and one of the things I was asked to do many times was to play no repertoire other than strictly baroque music.

In 2001 in the weekly music program Reiziger in Muziek (Reiziger, 2001) for Dutch International Television I had an interview with Han Reiziger about playing the Cello Suites on baritone saxophone, my love for Bach, the dynamic of the baritone saxophone, and the breathing which gives a comfortable impact to the music of Bach. I played the Sarabande of the 4th Suite and the Minuet of the first Suite.

2001 brought more visibility to my interpretation of the Bach Cello Suites on the baritone saxophone. The moment that the very well known music critic Kasper Jansen of the Dutch newspaper Nieuwe Rotterdamsche Courant (NRC, 2001) gave a positive review to the presentation, made me
feel that several doors opened and the acceptance of playing the Suites on baritone saxophone was no longer a question.

In 2003, I remember clearly a performance at the opening of the music season in Amsterdam in the prestigious main hall of the Concertgebouw. I played the 4th Suite by Johann Sebastian Bach.

Now I’m invited each year to play the Cello Suites on Good Friday, after the St. Matthews Passion in the Church De Duif. This event became a new tradition in Amsterdam, and I feel that the public, programmers, players are beyond a certain ideological conception that baroque music should be played by traditional instruments or according to certain rules.

1.2 Objective of the Research

The present research is the final step of a process that started years ago and culminated in several concerts, recordings, and seminars about baroque music, with a special focus on Johann Sebastian Bach and his Suites for Cello. Several particular questions aroused in this process such as the specification of the transcription, the relationship between blowing (winds) – bowing (strings), the role of the editor, the Early Music Movement and the problems of authenticity, amongst many other issues. These kind of issues are not only important for the sake of the creation of new knowledge and the advance of research, but also – and strictly related to my role as teacher – to fill a gap in the repertoire for this instrument and establish a deeper knowledge on the interpretation of early music practices with saxophone.

The main goal of this study is to reunite the research and practices that have been explored in the domain of the Bach’s Cello Suites, namely the study of the various manuscripts and its saxophone transcriptions, to enable me to position between all possible editions and propose a new publication of the Suites adapted for baritone saxophone. It is not my purpose to find which version or transcription is the most faithful or original manuscript, however, in
the light of what I aspire to do it is of course very important to be familiar with these issues.

A secondary objective of this research, which is directly related with the main question, is to understand how the articulation can help the communication of emotions in the domain of the baroque music practices. I raise the question that emotions can be activated by someone’s interpretation, namely through articulation. Therefore, it is to be investigated how the articulation can reveal the details of the structure and consequently exposes to the listeners a line of thought, so to speak, which conveys the creation of meaning.

Due to the actual situation of the research in music in Portugal I hope that my Doctorate Thesis will help a natural development in the area of performance.

1.3 Structure of the Thesis

The study undertaken here comes as a necessary step to mark a long learning process, from my early years until the present, where Bach’s Cello Suites were always an orientation at a personal, artistic and human level.

A major basis for this study was Ernst Kurth’s Grundlagen des Linearen Kontrapunktks: Einführung in Stil und Technik von Bachs Melodische Polyphonie (1917), namely the influential examples that led me to further investigate compositional strategies applied in the Bach’s Suites. Also, a further study has applied many discoveries to the reality of the baritone saxophone. De Zes Suites Voor Violoncello-solo van Johann Sebastian Bach (Hulshoff, 1962) was another fundamental reference for this thesis. Kurth was also an important reference for Hulshoff, who used examples of the technique of one-voice polyphony from Kurth and extended them in his book De Zes Suites Voor Violoncello-solo van Johann Sebastian Bach (Hulshoff, 1962).

Another fundamental foundation for this study, to which I have referred to many times during the writing of this thesis, was my own score of Bach
Cello Suites (Wenzinger 1950) that has been influenced me over the past years, from my beginnings as a student until recent performances. It is a score fully annotated by many masters, such as Anner Bylsma (notably the Sarabande of the 5th Suite and the Allemande of the 6th Suite) Daniel Wayenberg, Lodewijk de Boer and my teammate from the Amsterdam Saxophone Quartet Bart Kok, who produced my first recordings of Bach’s Cello Suites in 2000 (Erasmus Music & Media, 2001, see media contents folder 2 & 3).

The thesis is organized in five chapters, as follows:

In **Chapter 1** details the motivation, objectives, and delineates the methodological plan behind this thesis.

**Chapter 2** examines the state-of-the-art concerning the literature related to Bach’s Cello Suites, namely those that analyse performance aspects. Also, the most relevant sources and manuscripts of Bach are enumerated and documented.

A **chapter 3** focuses on the elaboration of a polyphonic melody in Bach’s Cello Suites. It establishes the connection between harmony and its suggestion on a single homophonic voice. Also, the perpetuation and reception of this particular music style is highlighted, notably it asks for critical listening. Finally, the chapter finishes by establishing a parallel with the visual arts domain to present the concept of a third dimension in Bach’s polyphonic melodies.

**Chapter 4** details all structural elements present in the elaboration of a polyphonic melody in Bach’s Cello Suites. The following elements are examined in detail and separately: rhythm, articulation, ornaments, polyphony, tempo, and dynamics. I conclude by establishing the bridge to the problems that each of these elements arouse in the transcription process for the baritone saxophone.

**Chapter 5** is an extension of the previous chapter in terms of content but with a focus on each technical aspect of saxophone performance. This chapter not only refers to each of the fundamental compositional elements of the Suites that were translated into a transcription (score) for the baritone
saxophone, but also mentions interpretative aspects that can constitute an essential guide for wind instrumentalists when covering baroque music repertoire. The chapter finishes by presenting a major goal of interpretation, which covers all technical aspects mentioned earlier: to communicate musical emotions.
2. BACH’S CELLO SUITES: 
AN HISTORICAL PERSPECTIVE

“[A musician cannot move others
Unless he too is moved”

C. P. E. Bach

2.1 Historical Research

Since Mendelssohn’s times, (1830-1840) we have witnessed a revival of the repertoire of the past, namely from the baroque era (1600 – 1750). Mendelssohn was also the responsible for the first public revival performance of Bach’s music, with the performance of the St. Mathew Passion that occurred in 1829 in Berlin (Mercer-Taylor, 2000, p. 36). However, only more than a century later during the 1970s and 1980s and beyond there, has been a research movement that has given a deeper academic dimension to historically informed research in music.

The revival of the 17th and 18th century music repertoire started in the early 20th century. However outside of the historical settings, i.e. interpreted with the style of the period, historical performance only emerged before the turn of the 20th century, namely with Arnold Dolmetsch (1858-1940), a leading figure in the 20th century revival of interest in Early Music. Some years later, in 1981, the Orchestra of the 18th Century initiated by Frans Brüggen became a reference. Another two major authorities in the field are Christopher Hogwood, founder of the Early Music Consort (1967) and the Academy of Ancient Music (1973) and John Eliot Gardiner founder of the English Baroque
Soloists (1975). Therefore, it was even later than this date that period instrument performers became proficient at these ‘new’ instruments.

Much has been written about Bach’s Cello Suites since then. However, the studies deal mostly with parts of the Suites, without considering them in their entirety, and come mainly from analysts or cellists. Most probably, no one has written about the interpretation and experience of the Bach’s Suites for baritone saxophone in mind.

The following paragraphs document some relevant literature, which approach the Cello Suites from different viewpoints.

Cellists have written most of the dissertations and books that approach the interpreter of Bach’s Cello Suites, and their major aim is to provide a performance guide for their contemporaries. For example, Nathan Davis’s dissertation (1986) extensively reviews the characteristics of the instrument for which the Suites were originally written and offer a fruitful contribution about the implications regarding interpretation. Others discuss the relationship of the character of the dance movements and their interpretation (Kaplan, 1994). More recently, Jungmood Lim (2004) presented a critical edition of Suite N° 5 along with extensive interpretive details of the 5th Suite. Although the perspective given by the above-mentioned authors is mainly from and for a performance perspective, the research presented is valuable material not only for the cellist but also for the whole community of musicians.

Of the existing analytical studies of this repertoire, much attention has been focused upon the Allemande, for example Victor Mansure (1992) provides a comprehensive stylistic evaluation of all Bach’s Allemande’s (not restricted to the Suites), as well as a categorization of this dance movement according to their intrinsic characteristics. Nancy Snustads’s (1994) follows a similar approach as Mansure’s but narrowed its focus to the Allemande’s of the Six Cellos Suites. Snustad analyzes the selections using ideas from theorists who were contemporaries of Bach, for example, Johann Philipp Kirnberger (1721 – 1783) and Friedrich Wilhelm Marpurg (1718 – 1795), as well as from the modern theorist Leonard Ratner (1916 – 2011). He
subsequently compares the analytical results as a means of identifying both common and distinguishing traits of the genre. Richard Todd (2007) makes a comparative analysis of the Sarabandes of the Six Cello Suites and demonstrates the relationship between analysis and interpretation on the guitar. Another major reference is the work of Heinrich Schenker (1868 – 1935), whose *A Contribution to the Study of Ornamentation* (Schenker, 1908) is of primary importance.

While these articles may provide a valuable understanding of the composition's architecture, they do not make the bridge between analysis and performance as articulated in this thesis.

A different perspective is given by Philip Nauman (2003), which presents an overview of the existing editions of the Cello Suites, and explains the position of the unaccompanied music for strings, while at the same time acknowledging that there were more composers who composed for unaccompanied Violoncello, who may be summarized as follows:

- Giuseppe Colombi (1635-1694), Chaccona a Basso Solo (c1670);
- Domenico Gabrielli (1659-1690), 7 Ricercate, op.1 (1687);
- Domenico Galli (1649-1697), Trattemento musicale (1691);
- Francesco Scipriani (1678-1753), Principi da imparare a suonare il violoncello e con 12 toccate a solo.

Someone who should be mentioned because of his contribution to the baroque music practice field is Anner Bylsma (1934), whose essential book *Bach, the Fencing Master* (Bylsma, 1998) draws a remarkable compendium about the style and aesthetics of Bach's Cello Suites. It features transcriptions by Bylsma of the first three Suites for violoncello by J. S. Bach, with annotations for the contemporary performer. The book also includes an extra chapter by Gé Bartman (1953) about Christian symbolism in the first three Preludes of Johann Sebastian Bach's Six Suites for Solo Cello. The message of Bylsma is: don't try to reach the standard of J. S. Bach, instead play with
the information set down by Bach himself in his scores with the potential of modern instruments. From Anner Bylsma we can learn that it is preferable to look to the authentic version of the humanity of the artist than the “authentic,” aware of its idiosyncrasies.

Baroque music has been part of the saxophone repertoire since the early years of the instrument’s creation. Either through studies or repertoire the music of the baroque period has had an important role in the development of the majority of all saxophonists today, as stated by one of the leading saxophone interpreters Eugene Rousseau (1982):

"If the students of the saxophone do not play transcriptions of other music, there is no way that they will be able to develop their musical culture as performers. Music of Bach and Handel, all music of the eighteenth century provides rich examples of ornamentation, staccato, and legato style, various tempi, and the forms of that era... Without these kinds of transcriptions the saxophonist cannot develop his foundation in musical styles. Thus the use of transcriptions is musically proper and educationally indispensable" (Rousseau, 1982, p. 91).

One the most important sources that documents this fact are recordings, namely from Marcel Mule playing the 2nd Brandenburg Concerto of Johann Sebastian Bach BWV 1047, the Dutch Aurelia Saxophone Quartet extensive review of Bach’s Art of Fugue BWV 1080 to the more jazz style interpretations by the Quintessence Saxophone Quintet. Some of the most famous edited material from the leading (past and present) saxophonists of baroque repertoire is:

- Marcel Mule: Famous recording with Pablo Casals at Prades Festival 1950 – 2nd Brandenburg Concerto BWV 1047 and the transcriptions of five Flute Sonatas by J. S. Bach. BWV 1030 – 1035;
Jean-Marie Londeix: Arrangement of Johann Sebastian Bach's Cello Suite n° 1 BWV 1007;

Aurelia Saxophone Quartet: Recording of the Art of Fugue, J. S. Bach BWV 1080 and the Sonatas K87, K96, and K519 by Domenico Scarlatti;

John Harle: Publication of J. S. Bach Sonata G-minor BWV 1020;

Jean-Denis Michat: Recording of the J. S. Bach Flute Partita in A minor BWV 1013;

Eugene Rousseau: The Undowithoutable Instrument, recording of Allesandro Marcello's Oboe Concerto in D-minor and J. S. Bach Flute Sonata BWV 1035 in Saxophone Colors;

Steven Mauk: Recording of The Saxophone and Me: Johann Sebastian Bach.

Among the various recordings enumerated, it is interesting to note the motivation behind the recording of the Brandenburg Concerto n° 2. “In the 1950s the renowned conductor and cellist Pablo Casals (1876 – 1973) was left at the last minute without a trumpeter to perform J. S. Bach's Brandenburg Concerto n° 2. Desperate Casals called upon Marcel Mule (1901 – 2001) to perform the part on the sopranino saxophone… I can tell you his impression of the saxophone playing the trumpet part! I had not even finished the first measure when he shouted while continuing to conduct…"Bravo Monsieur". It was a revelation for many people to hear the saxophone playing the music of Bach (Rousseau, 1982, p. 45-73).

Many people have said that Pablo Casals invited Mule due to their friendship. However, it is interesting to note that Otto Klemperer (1885 – 1973) also invited Mule for the same solo in 1946, four years before the more famous performance at the Prades Festival (Spain); perhaps this is from where Pablo Casals was influenced (A 78-rpm recording of the second Brandenburg concerto made in 1946 by Otto Klemperer and the Pro Musica
Orchestra with Marcel Mule playing the trumpet part on sopranino saxophone was later issued on LPs (Vox Set 619) (Michael Latchman, 2004).

The need to adopt a very fast tempo due to the limitations of the 78-rpm gramophone record, commonly known as a phonograph record, may also justify the choice of sopranino saxophone for the Brandenburg Concerto n° 2. Both recordings with Marcelo Mule on the sopranino saxophone playing the trumpet part are extremely fast, tempos almost impossible to perform on a trumpet. It is argued that this tempo was chosen because both, Casals and Klemperer, wanted the concerto to fit on one side of the 78-rpm gramophone record, which meant that the tempos had to be pushed, an interesting idea is; that tempos of modern recordings of ancient music could be determined by modern technology.

Performances of baroque music on the saxophone are prolific among Marcel Mule’s contemporaries. Mule was a true supporter of the performance of baroque music on the saxophone, which is evidenced by the amount of transcriptions of baroque music published by him.

It is not unusual that transcriptions are an important part of the repertoire for the saxophone, giving its late creation, Adolphe Sax (1814 – 1894) got his patent on his invention the saxophone in 1846. Naturally, it took also some time for the solo repertoire to grow. Transcriptions are not just a ready source of repertoire for saxophonists but also an indispensible source for pedagogy.

However, for the performance of Bach’s Cello Suites, it is obvious that one of the big differences between the cello and baritone saxophone is the inability for the saxophonist to play two voices simultaneously. Even though the saxophone is a monophonic instrument, capable of interpreting only two musical dimensions as being the melody ‘horizontal’ and the harmony ‘vertical’. The third dimension would be given by other melodies that would correspond to the deepness that perspective can add to a two dimensional picture. The interpretation may support the hidden ‘third dimension’ suggested by the second and further voices existent in the Suites.
An interesting article by Manfred Wagner (2000), “One Voice are Many Voices...” deeply focuses on the same subject, namely the link between the suggested dimensions resultant from the linear counterpoint and the geometric drawings by Leonardo da Vinci’s 72-side Sphere Polyhedron. While referring to Hulshoff (1962), Manfred Wagner states that it is not a coincidence the parallel between the elaborations of Bach’s solo music with Leonardo da Vinci’s Ikosaeda. In music we have two exact dimensions ‘melody’ horizontal and the harmony ‘vertical’. Harmony can establish a suggested third dimension (Wagner, 2000, p. 1). Discussing the analogy in the visual domain Wagner (ibid.) exposes a musical thinking that may help us establishing a different performance and listening experience while approaching the Cello Suites in a monophonic instrument such as the baritone saxophone.

2.2 Overview of the Cello Suites Manuscripts

One will understand that in order to speak about profound matters and emotion such as the ones present in Bach’s works, one needs to have a clear understanding of the sources at our disposal, and the information they carry, for example the articulation. We may understand how the Cello Suites were originally annotated, because the different editions provide contradictory information.

Let us give first a closer look at the available sources of the Suites that have survived until now. In 2000, Bärenreiter released an edition of the Cello Suites that contains a facsimile copy of each of the five potential sources (Bach 2000). It contains an introductory text with fundamental information about the various sources along with a scholarly critical performing edition (an urtext version of the score) by Schwemer, Woodfull, and Harris (2000), which will be addressed as Schwemer-Woodfull-Harris.
The sources will be referred to according to letters for the reasons of simplicity:

A – Anna Magdalena Bach, manuscript copy, 1727-1731;
B – Johann Peter Kellner, manuscript copy from 1726;
C – Anonymous copy, second half of the 18th century;
D – Anonymous copy, late 18th century;
F – Lute Suite BWV 995, 1727-1731 (5th Suite).

There have been over 90 editions since the first published copy was released in 1824 (Schwemer–Woodfull-Harris, 2000). This may be the result of a lack of an “autograph” source or a reliable copy of the Bach’s Cello Suites. Below is a list of the first and different editions from the major publishing house from 1824:

- 1825, re-edition Janet & Cotelle (Probst, Leipzig);
- 1826, Friedrich Dotzauer (Breitkopf & Härtel);
- Circa 1865 Friedrich Grützmacher (C. F. Peters);
- 1888, Alwin Schröder (Kistner & Siegel);
- 1879, Alfred Dörffel (Breitkopf & Härtel);
- 1897, Norbert Salter (Nicolaus Simrock);
- 1898, Robert Hausmann (Steingraber Verlag);
- 1900, Julius Klengel (Breitkopf & Hartel);
- 1907, Jacques van Lier (Universal Edition);
- 1911, Hugo Becker (C. F.Peters);
- 1918, Pollain (Durand & Fils);
- 1919, Cornelius Liégeois (Henri Lemoine);
- 1924, Luigi Forino only the 5th Suite (Ricordi);
- 1929, Diran Alexanian (Salabert);
- 1933, Paul Bazelaire (Max Eschig);
• 1941, Enrico Mainardi (Schott);
• 1944, Paul Grummer (Doblinger);
• 1949/’57, Richard Sturzenegger (Edition Reinhardt);
• 1950, August Wenzinger (Bärenreiter Edition);
• 1966, Dimitry Markevitch (Theodore Presser Company);
• 1966, Paul Tortelier (Galliard Editions);
• 1972, Pierre Fournier (International Music Company);
• 1971, Janos Starker (Peer Musik Verlag);
• 1982, Pablo Casals – Foley (Continental);
• 1998, Anner Bylsma (Uitgeverij Anner Bylsma);
• 2000, Kirsten Beisswenger (Breitkopf & Härtel);
• 2000, Bettina Schwemer & Douglas Woodfull-Harris (Bärenreiter Edition).

It is fascinating to examine the difference between the various enumerated sources and see how much they vary, mainly in matters of articulation.

To further support the aforementioned hypothesis that the lack of an autograph version gives space for an infinite amount of later critical editions I will focus on the Six Solos for Violin by J. S. Bach. An autograph version of the Six Solos for violin has been discovered in the beginning of the 20th century. It is possible to find the manuscript in the library of the Tübingen University in Germany (Hulshoff, 1962, p. 14).

On the title page the manuscript has the following annotation:

Sei Solo. à Violino Senza Baßo Accompagnato. Libro Primo.
da Joh. Seb. Bach aõ 1720 (see figure 1).
The reference on the title of the Sis Solos for violin has a two-fold importance for our study. First, the words *Libro Primo* imply a possible second collection of similar (solo) works, which could be the Cello Suites. Second, around the same year annotated in the title page (ao 1720') is probably around the time during which the Cello Suites were written, which coincides with the period in which Bach held the position of Kapellmeister at the Court of Anhalt-Cöthen (1717-1723).

The autograph of the Six Solos (D-B Mus.Ms.Bach P 967) can infer the relationship between a possible autograph of the Cellos Suites *Libro Primo* and the autograph(s) of the Six Solos. Bach’s own title on the autograph title-page of the Sei Solo has them as *Libro Primo*; Georg Heinrich Schwanberg, a violinist and organist who studied with Bach in Leipzig 1727 – 1728, musician at the court of Braunschweig-Wolfenbüttel, has the Violin Solos as *Pars 1* - and the Cello Suites as *Pars 2*.
It has been suggested that the flute solo BWV 1013 may have been the beginning of a *libro Terzo, Pars 3* for flute (Ledbetter 2009, p. 4). Also it has been suggested that the Suites were not completed until Bach in Leipzig wrote a series of cantatas involving violoncello piccolo, in 1724-5. All we can say for certain is that they were complete by early 1726 when Kellner made his copy (Ledbetter, 2009, p. 10).

What remains unclear is if the ‘second book’ includes all Six Suites, since the *Libro Segundo* was never discovered (Ledbetter, 2009). It has also been suggested that the Partita for flute solo BWV 1013 may have been a step forwards *a Libro Terzo*. It would follow the *Sei Solo* for violin and the Six Suites for cello, as a putative *Libro Segundo* (Ledbetter, 2009, p. 270-1).

This perhaps means that the only manuscripts from the Cello Suites that remain until now are from different copyists. However, a version of the 5th Cello Suite for lute, named ‘*Pièces pour la Luth*’, is Bach’s autographed version and it is in the Bibliothèque Royal, in Brussels. On the first page lies the indication: ‘*autographe*’, and the composition is not different from the 5th Cello Suite, even if it is written for the lute on two staves (see figure 2).

According to C. S. Terry (1932, p.146), Monsieur Schouster, to whom the piece is dedicated, was probably a member of the Dresden Kapelle, a chamber musician and a bass singer, and his father was Josef Schuster, subsequently Kapellmeister there. Therefore, the autograph can be associated with Bach’s Leipzig period. However, the Suite is not an original composition for lute, but an “arrangement” by Bach himself of the 5th Cello Suite.

Staatsbibliothek zu Berlin – Preußischer Kultur besitz, Mus. Ms. Bach P 269 (appendix 1).

This manuscript is a copy made by Anna Magdalena Bach (1701-1760), Johann Sebastian’s second wife, and has been dated somewhere between 1727 and 1731.

Anna Magdalena was known to be a faithful copyist, who nevertheless made some errors from time to time, and who also brightened the music by varying, for example, the articulation. As Winold (2007, p. 91) stated, “despite the general excellence of Anna Magdalena’s calligraphy it was not always
completely legible and accurate. One proof for this is a comparison of her copy of the Solo Violin Sonatas and Partitas with J. S. Bach’s original of the same works.”

“An attentive comparison between the autograph of the Sei Solo and Anna Magdalena Bach manuscript is enough to realize how badly some modern editions have looked at these historic documents” (Bylsma, 2012, p. 73).

Figure 3: Comparison between Johann Sebastian Bach’s autograph of Violin soli (Neue Bach Ausgabe, 2007, p. 967) and Anna Magdalena Bach’s manuscript (Neue Bach Ausgabe 2007, p. 268).
When describing Anna Magdalena as Bach’s copyist, it is important to stress two specific characteristics: first, that her music calligraphy resembled that of her husband’s; and secondly, that she made reliable copies (Tomita, 2007, p. 65). In their study, billed as a “scholarly critical performing edition”, of Bach’s Cello Suites, Douglas-Woodfull-Harris (2000) describe Anna Magdalena as a dependable assistant, as we can confirm in the following statement:

“Anna Magdalena is generally considered a reliable copyist who followed her models in great detail and did not introduce arbitrary changes. It is therefore safe to assume that the handwriting, beaming, stemming, and page turns in the Anna Magdalena Bach MS fairly accurately reflect the writing in the autograph” (Douglas-Woodfull-Harris 2000, p. 5).

Likewise Beisswenger (2000) makes a similar observation:

“Anna Magdalena was a conscientious copyist, who was faithful to the source in an extreme measure (even reproducing changes of pages and staves). What is problematic, however, is her transcription of the articulation” (Beisswenger 2000, pp. 64 – 65).

The relationship between the (undiscovered or lost) autograph of the Cello Suites and Anna Magdalena copy of it must be similar to that between the autograph of the Violin Soli and her transcription, which present a few copying errors. However, the musical text most likely reproduces the readings of the autograph quite faithfully (see figure 3).
As is clear in the example above (figure 4), the third and fourth 16\textsuperscript{th} notes have a slur, which is repeated in bar 2, but the same articulation is not present in bar 3 as was expected given the consistency of the figure. The ‘slurs’ absence in bar 3 is probably because the indication ‘simile’ would be implicit for the interpreters at that time. Generally, it is difficult to understand and observe a consistent articulation in Anna Magdalena’s manuscript.

Anna Magdalena Bach, whom Schwemer-Woodfull-Harris (2000) refers to as the most reliable of Bach’s Cello Suites sources, is, however, notoriously unclear on her slurring notations. Her slurs are overall misplaced over different notes, or simply lacking altogether.

As a final comment, keeping in mind that Anna Magdalena Bach was a mother, who became pregnant almost every year during the first ten years of her marriage, combined with the childcare required by their children, one can imagine how difficult it would have been for her to maintain her focus for long periods of time. This aspect should not be forgotten when discussing her role as copyist.

Source B: *Sechs Sonaten Pour le Viola de Basso. Par Jean Sebastian Bach: Pos. Johann Peter Kellner*

Staatsbibliothek zu Berlin Preußischer Kulturbesitz, Mus. Ms. Bach P 804
Kellner (1705 – 1772) was a musician from Thüringen and copied many works of Bach. He was probably very well acquainted with Bach personally. According to Stinson (1989), Kellner’s copy of the Cello Suites was completed during the first half of the year 1726, but the title page as well as the final page of music was added around 1727. Kellner copied from a different source than Anna Magdalena Bach did. It remains unclear if Kellner’s source was a different J. S. Bach autograph or a copy circulating among those more closely associated with J. S. Bach (Stinson, 1989, p. 105).

Furthermore, Kellner is known for his carelessness, and this copy is no exception. There are not only many mistakes, but also he took a lot of freedom notating the articulation.

One can see in the following example’s below that it is again very different from source A (see figure’s 5 - 8).

![Figure 5: Prelude of the 1st Suite manuscript Johann Kellner](image)

The opening of the Prelude of the 1st Suite highlights clearly their differences. Anna Magdalena Bach’s version has brief slurs that are over different 16th notes on the first and third beats of each measure, and occasionally absent. As Schemer-Woodfull-Harris (2000) points out, “the copyist seems at pains to vary the slurring on a bar-by-bar basis.” Kellner is
much more regular in his approach, his slurs appear consistently over the first three or four 16\textsuperscript{th} notes of the first and third beats.

Also, in the Kellner version of the 5\textsuperscript{th} Suite, there is no Sarabande and the Gigue has the first 9 measures only. Contrary to the other sources, the 5\textsuperscript{th} Suite in this manuscript also lacks the scordatura indications. These notes intended for the A string are accordingly notated the way that they would normally sound. Likewise there is missing a note with the indication that the 5\textsuperscript{th} Suite should be played on a 5-string instrument.

![Figure 6: Prelude of the 1\textsuperscript{st} Suite manuscript Anonym](image)

Source C: 

*Suiten Und Preludien Für das Violoncello von Joh. Seb. Bach*

Staatsbibliothek zu Berlin Preußischer Kulturbesitz, Mus. Ms. Bach P 289
Figure 7: Prelude of the 1st Suite manuscript Anonym

Österreichische Nationalbibliothek Wien, Mus. Hs. 5007

Both manuscripts from source C and D come from a collection of pieces owned by Johann Christoph Westphal (1727-1799), are made in the second half of the 18th century by two anonymous copyists. It is now known that the manuscript of source C was written by two anonymous copyists and that the second copyist takes over in the middle of the first Bourrée of the 3rd Suite (Solow, 1996, cited in Prindle, 2011, p. 8). Solow (ibid.) also cites a fourth source, newly discovered with the same style of his writing, in an anonymous hand (source D). However, most 20th century editions of the Suites did not take this fourth source into account, due to its relatively recent discovery. According to Solow (1996):

[T]he existence of an additional lost copy is likely because the two extant anonymous facsimiles (source C and D) [referring here to Westphal and the new 1996 copy] have many grace note ornaments that are not in the Anna Magdalena or the Kellner – and thus probably not in Bach’s original. Also, their slurring is quite different from the Anna Magdalena and the Kellner and are, therefore, questionable.

This was the first edition of the Cello Suites. It was published in Paris in 1824. The edition relies on a manuscript discovered by Louis Pierre Martin Norblin (1781 – 1854).
In comparison with the previous manuscripts, and the referred example, the articulation in this edition is once again different. The slurs are being predominantly over groups of four notes. This version no longer mentions the work as *Suites*, rather, on the front page it is referred to as *Sonates ou Etudes*. In the beginning a tempo indication is given (Allegro Moderato) as well as a number of dynamics, which never appeared in previous versions. Bach was very sparing in what concerns dynamic indications. It also provides fingerings to guide the performer.

The last autograph, mentioned before, that should be referred to is the version for Lute.

**Source F**: *Pièces pour la Luth à Monsieur Schouster par J. S. Bach*. Bibliothèque Royale, Brussel, II 4085 (see figure 2, and appendix 2).
This is a lute version of the 5th Suite made by Johann Sebastian Bach, probably somewhere between 1727 and 1731. This Suite for Lute is a transcription of the 5th Suite BWV 1011. The watermark in the paper is the same as source A, and was used by Bach between 1727 and 1731. Hence this autograph was completed around the same time (circa 1730) as source A. This is extremely important because it is the only document related to the Cello Suites by Bach himself, and therefore our only possibility to check on Bach’s notation of a Suite. The different mechanics of a lute are of course cause for different annotations, but it can still provide us with a lot of insight into Bach intentions.

A thorough discussion of these numerous issues is beyond the scope of this thesis. However, relevant discrepancies will be discussed as they arise throughout the course of this thesis.
3. THE SUGGESTED THIRD DIMENSION
IN BACH’S CELLO SUITES

“There is always a bass in the mind of the listener, and
Communication is always with the whole fabric
Of the composition, whether latent or tangible,
To reach each other through music or word
Passes through thin air anyway........”
Anner Bylsma, 2012

Music and geometry share many concepts. For instance, composers have been using symmetry for hundreds of years. (Hart, 2009)¹ “Thinking about symmetry in the musical plane is useful not just for analysis, but also as inspiration for composers” (Hart 2009, p. 1). Also, “on a large scale, one can find examples of constructions such as crab canons—where the same notes are played forwards and backwards at the same time (most famously in Bach’s A Musical Offering), or table canons, where the same sheet music is played by two instrumentalists looking down at it from either side of a table, so that their notes are upside-down and backwards (ibid.) When looking at a piece, music theorists commonly look at how motive and themes are developed. In many of Bach’s works, motives and themes can be analyzed through geometrical concepts such as horizontal or vertical translation, mirrored horizontal or vertically or even through the use of rotation. “Knowledge of these patterns may be useful for music analysis, but more importantly it is helpful for composers to be aware of the symmetries that we are already using intuitively, so that we can have conscious control over our work” (Hart, 2009, p. 2).

Even if the musical plane cannot be compared in a linear way to the

Euclidian plane, a set of notes can be thought of as a set of points in 2-dimensional space. Time and pitch is seen horizontally while harmony space is mapped vertically, and the fact remains that time and pitch is different from space, but most strongly in our perception.

According to Hulshoff (1962), when we are looking to a logically motivation for the nuances in big lines of our solo music, we have to see the harmonically background which is influencing the dynamic. We have to follow not only he melodically line, but also how the harmony (mostly suggested) is changing, and getting harmonic stress and relaxing, which are demanding for dynamic nuances (Hulshoff 1962, p. 66).

For this we need to know and getting insight to the harmonically structure, and knowing how and with which musically tools we need to use for to find the way how to do those (suggested) harmonically nuances

Kurth’s melodic – genetic view of Bach’s counterpoint, and his nearly exclusive linear approach to analysis. Bach counterpoint was manifestly harmonic, Kurth contended that he had not meant to deny the role of harmony, only to illuminate the contrapuntal structure from the melodic angle in order to counterbalance the prevailing excessively harmonic view (Kurth, 1991).

In baroque music, the primary basis of the composition is the horizontality of the different layers, which assume, anyway, a vertical consequence as a result. The linear polyphony is not grounded in the harmony, but the harmony is implied in the contrapuntal development. If the harmony was notated as an accompaniment, the aim of the melody was commonly reduced to the expression of an affect.

Thus, without any doubt, in contrapuntal writing there is more freedom and medium of expression, despite the satisfaction the polyphony could give us.

“One of the most striking features which gives its characteristics quality to baroque music us the freedom its grants to the performer in improvising the greater point of the expression as he goes along, and even quite a substantial part of the notes. Nothing is regarded as entirely fixed. (No wonder baroque music appeals
strongly to our freedom – loving generation). The secret of baroque musicianship is imagination and fantasy within the boundaries of style” (Donington, 1982, p. 6).

This form was intellectually accepted, because the spirit was educated to understand this music, despite its complexity, notably because of the implicit harmony given to a single voice (Hulshoff, 1962). This required an intellectually trained imagination to follow the unspoken voice constructions of Bach’s solo works, which disappeared during the course of the 18th century. Its contemporaries took a different path towards simplicity of mediums, which made Bach’s music and its predecessors to be hardly understood (ibid.).

The public was prepared to hear and identify works with a solid harmonic basis. However, a piece for a one-voice instrument was felt as limited and with a certain aesthetic poverty. At the time, when the performers had to perform one single voice works they attempted to force the music and their interpretations with all kind of effects to lead it an extra harmonic cohesion. It was hard to understand at the time why composers did not notate a harmonic accompaniment. When the art of polyphony was in its decaying phase, there was a long absence of this form of composing for a one-voice instrument (ibid.).

### 3.1 The Elaboration of a Polyphony Melody

There are no better study sources for understanding Johann Sebastian Bach than his solo works (Kurth, 1917), particularly due to their architectural basis and the expansion of the figures, which reveals its polyphonic music concepts. Within these groups of solo works, the Cello Suites are even more valuable because the polyphony is made essentially by the melody and not by the double strings (chords).

Throughout this chapter I will present most of the elaborative techniques Bach used to suggest polyphony recurring in a single voice line. As mentioned in the introduction (section 3), a major basis for this study was
Ernst Kurth (1917) *Grundlagen des Linearen Kontrapunkts: Einführung in Stil und Technik von Bachs Melodische Poyphonie*, and *De Zes Suites Voor Violoncello-solo van Johann Sebastian Bach* (Hulshoff, 1962). Kurth was an important reference for Hulshoff, who used examples of the technique of one-voice polyphony and extended them in his book, which constituted a reference for this thesis, with particular emphasis on content presented in the current chapter. It should be noted that some of the mentioned figures here, are provided by Kurth (1917) and Hulshoff (1962). The referred books supports the research presented in this thesis by using a similar discussion applied to the performance of Bach’s Cello Suites on baritone saxophone.

### 3.2 Polyphony

When Bach wrote for a single voice the harmonic background was already implied by the polyphonic nature of the melody. It was truly linear polyphony. The listener has to be able to appreciate and enjoy this. It takes more concentration and skill on the part of the listener to understand these ‘hidden’ harmonies and different voices. This was a skill gradually lost by the audiences in the 18\(^{th}\) century, who turned towards a more direct emotional expression.

As Anner Bylsma (2012) says, “surely not meant to be played as written, but meant to register in the mind of the listener as written” (Bylsma, 2012, p. 7).

Let me explain shortly this abstract concept of linear polyphony, which will be further discussed in the following chapter – music in science. Imagine that a truly polyphonic piece of music is like an object in space, for example a multifaceted object, where every line represents a voice. The whole construction is harmonically governed by almost mathematical principles.

This three-dimensional object can be projected upon a surface, a two-
dimensional space. When seeing this two-dimensional figure, one can imagine what the original three-dimensional object must look like.

It is the same with linear polyphony which only has two-dimensions; the melody ‘horizontal’ and the harmony ‘vertical’. Nevertheless the third dimension can be given by other melodies that would correspond to the deepness suggested using the other two. Thus if polyphony is projected (with skill of course) upon a flat surface, the artist, who has only one voice at his disposal, can do justice to the whole three-dimensional construction. This demonstrates that in playing Bach’s Suites, one does not really need an instrument capable of playing several voices at the same time.

The aim of the thesis to provide a transcription of the Cello Suites for baritone saxophone, I keep the following examples in the transposed key to the baritone saxophone, which is tuned in E♭. Also, to provide a broader discussion to the techniques for baritone saxophone and keep a connection with the baritone saxophone transcription.

One of the most common ways polyphony is implied in a single voice line is to repeat a previous note after a certain amount of time, within the boundaries of our memory perception. This effect is more noticeable when the repeated note lacks a resolution, thus the delayed note is only stable on the second time as was remarked in figures 10 and 11.

![Figure 10: Gavotte II of the 6th Suite](image)
As musicians, we must be aware of the transfer of the voices in order to point out the polyphony and correct resolution that lasts sometimes a full bar.

Figure 12 presents a descending melodic progression highlighted in the figure by the brackets, which is supported by an organ point (B). This organ point is of particular relevance for the performer, since it gives a sense of rhythmic stability. The timbre of the note has a strong effect on both the cello (D) and the baritone saxophone, because of the natural resonances of the instrument's body.

In figure 13, the low A (cello C), which stands out due to the closing of the tube and results in a strong acoustic effect stays in the memory throughout the bar, because of the big interval.

Figure 14, shows another example where the low A (cello C) marks its presence.
Another common way in which polyphony is implied is the technique of delayed resolution. A good example is the Prelude of the 5th Suite (figure 15). The resolution of the G# bar 220, only occurs at the end of the bar, which clearly asks the listener to imagine it throughout the passage.

In the next example (figure 16) the A (cello C) is in a low octave, and as stated before, has a special effect due to the natural resonance of the closing tube, low open strings. This open string effect is commonly used in the Suites given the natural resonance of the low register of the cello. In the baritone saxophone it also may have a similar effect, either by the acoustic properties of the tube or that imposed by the performer.
In figure 16, the Courante of the 3rd Suite, one can also note two concurrent layers.

The first layer appears on the vertices of the main melody – the first note of each bar – forming every time an interval of a second. The second layer fulfills the melody and completes the bar in ascending motives. A sense of counterpoint between those two layers is formed due to the different directions they use.

![Figure 16: Courante of the 3th Suite](image)

The same occurs in the following example. A common technique Bach uses regularly to make polyphony clear is the use of a ascending and a descending melodic progression. A sense of counterpoint between those two layers is formed due to the different directions of the referred melodies.

![Figure 17: Allemande of the 6th Suite](image)

In the next example (figure 18) we see several sequences in mirroring several layers, upper and lower brackets and counterpoint beginning in bar 94.
Another common technique used regularly by Bach to make polyphony more clear is the use of an organ point (see figure 19 and 20, also presented and discussed in figures 32, 35 and 36). Another technique used in the same example is the ascending melodic progression of the upper line (upper bracket) that converges towards the same note at the end. In terms of performance the increasing interval is an important aspect, since it may govern timing, dynamics, and in general the overall presentation of the phrase. The same idea may be explored in the example of figure 32.

The use of organ point also relevant for the performer and listener since it gives a sense of rhythmic stability (figure 20).
In Figure 20 and 21, it is possible to observe the separate development of the melody line, upper bracket, against the bass line, lower bracket.

Figure 21: Prelude of the 2\textsuperscript{nd} Suite

Figure 22: Menuet of the 1\textsuperscript{st} Suite

Figure 23 presents an interesting process that can almost be described mathematically. The signed melodic constructions coming from the Fuga, has two melodic lines with two running rhythmical processes, see also figure 33.
The Allemande of the 4th Suite (figure 24) presents an elaboration that starts with an intrinsic arabesque of seconds on the upper line, which constitute a good guiding principle to organize the phrase during performance. These notes remain easily in the memory and should be highlighted by the performer with the direction of the air on the baritone saxophone until the first note of bar 3. The same elaboration is present in figure 34 and could be activated using the same air technique. The continuous movement by seconds is interjected occasionally with thirds, such as the beginning of the second bar, which clearly demand a particular attention in the articulation.
Figure 25 shows a sequence of intervals, both in descending progressions.

![Figure 25: Gavotte I of the 5th Suite](image)

In the next example (figure 26) the bass is intertwined with the melody. The E in bar 29 that is repeated in the 30th and 31st bar, moves to E sharp in bar 32 resolves in bar 33 to the F sharp. Also, in this example we can see an organ point F sharp started in bar 30 second beat and repeated in bar 32 the second beat that remains throughout the passage and in the listeners memory, which collides and accentuates the dissonance with the E and later E sharp. In order to hear this "collision" the performer could activate the pointed notes through the use of dynamics, or airflow, for instance.

![Figure 26: Prelude of the 2nd Suite](image)
In the Courante from the 6th Suite (figure 27 and 28) can be observed a sequence of thirds in the upper voice, both in ascending (figure 27) and descending progressions (figure 28).

![Figure 27: Courante of the 6th Suite](image1)

![Figure 28: Courante of the 6th Suite](image2)

The bass line presented in the example below (figure 29 Allemande of the 4th Suite) is written in the form of a cadence, in duo with the descending upper line. The end of the phrase occurs roughly in the third bracket line (bar 39) with the note A followed by a B to the tonic.

![Figure 29: Allemande of the 4th Suite](image3)
One will note that Bach carefully notates performance remarks in order to achieve a particular sound result, which is clearly present in the following example (figure 30). According to Ledbetter (2009), this is a slightly unusual harmonic structure for Bach, because the necessity of having open strings as tonal centers (Ledbetter 2009, p. 227). The polyphony is notated with the different direction of the brackets. The open string technique can be obtained on the saxophone (see figure 31) by opening or closing a different key or changing key combinations, in order to change the color of the tone (see section 4 of chapter 5, open strings techniques on the saxophone).

![Figure 30: Prelude of the 6th Suite cello edition](image)

![Figure 31: Prelude of the 6th Suite](image)
The Courante of the 1\textsuperscript{st} Suite is another example of an organ point with an ascending melodic construction. The articulation in this example visibly highlights the movement of the upper layer.

![Figure 32: Prelude of the 1\textsuperscript{st} Suite](image)

In figure 33, one can observe a very complex example of voice-leading passage with three concurrent layers. The upper and middle voices present sequences of seconds throughout the passage, as in figure 23, and the lower layer can be seen as an organ point. Still, there is a motive that is imitated throughout the passage, which is notated in brackets on the example.

![Figure 33: Prelude of the 3\textsuperscript{rd} Suite](image)
Figure 34 presents several sequences (marked in brackets) in several layers that refer to techniques such as imitation, mirroring, and the progression of a bass line. To highlight these elements in the performance the performer may use the same strategies as detailed earlier while referring to figure 24.

![Figure 34: Allemande of the 3rd Suite](image)

Figure 35 presents clearly an organ point, which starts on the first E, and a motive figuration with a waving form. The amplitude of the melodic waves also develop towards the larger intervals, ranging from a 5th – 10th, to a 6th – 11th, 7th – 12th and finally an octave in the fourth bar. Further in the end of the Prelude the same motive feels even more stretched in terms of range, because of the organ point, which also gives an energetic push, as we can observe in figure 32 and 36.
On the next example, due to the distance between motives we perceive it almost as a polyphonic composition, each having its own independent progress.
The next examples beneath (figure 38 and 39) present another melody, which helps to understand the development of each separate voice in that melody.

![Figure 38: Courante of the 4th Suite](image)

![Figure 39: Prelude of the 2nd Suite](image)

Looking at the next example (figure 40), if one extracts its harmonic basis and its several layers, one will be still very far away from the essence of the excerpt, and could barely imagine the astonishing trimming that would result based on the initial harmonic reduction. Both the simple compositional strategies and the restriction of using a single voice instrument is clearly an aesthetic need in Bach’s expression. The linear counterpoint is an independent form of art, with its own possibilities. It has a very strong and identifiable musical identity that would be totally violated when in the presence of an accompaniment. It would not only be unnecessary but also, would destroy the essence of the intricate texture of this art form.
Figure 40: Gavotte of the 5th Suite

Figure 41 presents the saxophone transcription of the previous example, the articulation of which enhances the harmony and the several layers of the musical structure.

By separating and analyzing the complexity and progress of the voice leading of each layer we can understand clearly the hidden subtleties of Bach’s solo art. Although it becomes very clear how difficult it is to examine all the finest details that contribute to the mastery of Bach’s musical expression.
3.3 The Music of Science

By borrow concepts from mathematics, notably trigonometry; I would like to enlighten the subtleties of the characteristics of polyphonic melody.

One has to imagine a polyphonic composition as a regular polyhedron form drawn by the lines of different voices, distributed in an organized mathematical form. Those three dimensional figures (see figure 42) could be projected on a flat surface. The projection will redesign this object as a flat picture.

![Figure 42: Leonardo Da Vinci’s illustrations of the work De Divina Proportione by Luca Pacioli published in 1509. The octahedron is one of the five Platonic solids and one of the nine regular polyhedral.](image)

Leonardo Da Vinci’s (1452 – 1519) illustrations for Pacioli’s (1445 – 1509) De Divina Proportione were probably the first to show polyhedra as lattice structures. Da Vinci’s drawings show clearly the connection between his latticed polyhedral and linear stereo metric images of architectural structure (Gabriel 1997, p. 12). Let us compare these projections with linear counterpoint. According to Hulshoff (1962), the figures 42, 43 and 44 depict polyhedrons shaped on a two-dimensional space, designed accordingly to the
Euclidean laws and perfectly ordered. Even though the lines are separated in space, on the flat projection the intricate group of lines will superimpose and cross each other. Similarly, the voices of a polyphonic melody cross and superimpose, even if they follow the same organization of a harmonically ordered polyhedron. Although, speaking about music remains very far from the Euclidean laws and what prevails are the “laws” of art and the musical notation (Hulshoff, 1962, p. 44).

The two-dimensional projection of a polyhedron on a flat surface may only account for a well-formulated simulation of the three-dimensional space, by modeling the perspective. However, to understand this reality we need imagination, and experience. When confronted with these projections with two crossing lines, one will understand, that in real space those lines do not intersect, and are far apart from each other. The analogy to musical space is not that easy to grasp but the idea is very close. The musical notation can be seen as a flat representation of a real performance, similarly to a real world polyhedron represented in two-dimensions.

The very same effect takes place at an emotional level. As Becker (Slobada-Juslin 2001, p. 153) states “emotion is an enactment, not a representation in the mind. It is a way of being-in-the-world, not a way of thinking about the world” (ibid.). In order to understand and translate the musical notation to a real world performance, which can be seen as a three-dimension polyhedron in space, one will “think of music making and music listening within a process that may also include quiet introspection or, conversely, include preaching, glossolalia, and dancing, or the murmuring of mantras … A musical event is not just in the minds of the participants, it is in their bodies; like a vocal accent in the speaking, emotion in relation to musical listening is personally manifested, but exists supra-individually.

Each person, both musicians and listeners, seem to be acting as self-contained, bounded individuals, and indeed they experience whatever the experience as deeply personal emotional, but the event as a whole plays itself out in a super-individual domain” (Sloboda-Juslin, p. 153).
Figure 43 and 44: Two popular polyhedron of Renaissance times with the 72-sided Sphere, designed by Leonardo Da Vinci, drawn with six rows of twelve faces. It illustrates a theorem from Euclid, and as a possible structure for a dome, it symbolized the role of geometry in architecture.

One can think on the architectonic or have sculpted artworks in order to visualize polyphonic compositions. The plastic arts are influenced several times by these constructions, and this will give us a complete image of the three-dimensions, and even then we are still grasping the technique of the flat screen.

When a construction work is projected one will always see the bodylines, or otherwise they will be merged in the object. It depends on the point of observation. One knows that those invisible lines exist, because one could in the progress of the picture, with the help of our imaginative intellect, measure the progress of the invisible lines. For the judgment of the value of these artworks, this does not make sense. It depends on complete different motivations. The art of painting has its own laws, and its value depends completely on its own specific modes of expression, such as color, texture and forms. Similarly, a linear polyphony can be clearly translated from the two-dimensions, melody and harmony, to a suggested three-dimension space, which incorporates the harmonic thinking.
Similar to the field of visual art one can suggest a certain space, because the solo art has just a simple line of notes available, certain voices will be covered, like lines in the art of painting. However like in this last case, one can reconstruct them. The solo art of J. S. Bach, with its polyphonic melodic construction can be seen as a flat projection of a real polyphonic composition.

Comparable to paintings, Bach’s solo works are inspired by spatial data, although, like the art of painting, they have their own laws of beauty, and their own ways of expression within specific properties.

One should engage in an expedition through imagination to envision the totality of the dimensions of Bach’s linear polyphony. A variety of cases with different scopes need to be considered. However, the imagination should flow spontaneously, guided by the experience rather than by our intellect.

A person that should not remain unmentioned, because of his contribution to the link between geometry of music is Dr. Dmitri Tymoczko (1969), whose book, Geometry of Music. Harmony and Counterpoint in the Extended common Practice (Tymoczko, 2011) draws remarkable conclusions. Tymoczko (2011) addresses the modern theorists, performers, and analysts and provides a rich understanding of tonality by drawing the attention of his geometric relations. A fascinating particularity of the book it’s the refreshing view exposed in diagrams (see figures 45 and 46) representing the relationship between close associated chords and scales.

Chord Geometries represents chords and voice leadings in a variety of 3D geometrical spaces. The voice leading system is between successive chords and is represented by continuous paths in spaces.
Figure 45: Trichord Prism Dmitri Tymoczko

Figure 46: Chord GeoMetries Dmitri Tymoczko
Dreaming is one kind of imagining. We must not ignore and avoid understanding through imagining in a way that allows for implicit our unconscious or subliminal imaginary. These images can even elaborate around elements of the music itself, about tones, harmonies, or melodies. While hearing the arpeggios on the Prelude of Bach’s 1st Cello Suite, one may imagine the intermittently sounding pedal tone to be sounding eternally present, *die Hochste Vollendung*, using a terminology borrowed from Heinrich Schenker which refers to this process as imagining (Arnold Schering 1931, p. 133).

The third-dimension in Bach’s music is like nonfigurative paintings that present fictional worlds populated by features of the paintings themselves. It may seem that the various bits of make belief do not even belong to the same fictional world, but there is no good way of deciding where one world stops and another begins (Alperson, 1994, p. 49).

If the score can be seen as a nonfigurative representational painting, the resulting sound or performance would constitute the imaginary populated world. According to Kendall Walton (1997), “It is fictional (...) that the pedal tones of J. S. Bach Prelude (1st Cello Suite) sound continuously” (Walton 1997, p. 61). This result need not distress the musical purist. This may not be easy, however, especially in the case of music it is not easy to deny that it often has fictional worlds.
4. EXAMINING BAROQUE MUSIC: A THEORETICAL VIEWPOINT

The choir surprised Mozart by performing the double-choir motet “Singet dem Hern ein neues Lied” by Sebastian Bach. When the choir finished, he shouted out in joy: “Now this is finally something Where we could learn from!”

Rochlitz, Anekdoten aus Mozart Leben
In: Allgemeine musikalische Zeitung

The current chapter presents a theoretical discussion concerning seminal elements of Bach’s Cello Suites that are pertinent for devising a saxophone transcription of the Suites as well as an interpretation that is supported by some background information.

Relevant literature will be discussed and studied concerning the various musical elements such as ornamentation, dynamics, slurring, vibrato, etc., which will be further examined in the next chapter in the major contribution of this thesis, i.e. a saxophone transcription of Bach’s Cello Suites and some guidance for an informed interpretation of the score.

4.1 Ornamentation

Ornaments were not simply details but intrinsic elements in Bach’s works. Notation-wise he was very meticulous concerning articulation. When very complex and ambiguous symbols were used, they were often accompanied by careful explanation (Neumann, 1978).
Before Bach’s time, composers commonly used ornamentation, but, generally, performers could freely change it according to their taste. However, Bach did not share this general attitude towards his music (Carrington, 2009).

Besides some grace notes before and after the trills, one does not find much ornament’s in the Suites. Grace notes are supposed to be played with the same values that are notated. The slashed ornaments appeared only on the second half of the 18th century. However, an exception is found in the bar 19 of the Allemande from the 1st Suite (see figure 47, 48 and 49), notably the grace note after the trill.

![Figure 47: Allemande of the 1st Suite bar 19-20 manuscript Anna Magdalena Bach](image)

![Figure 48: Allemande of the 1st Suite bar 19-20 source C anonymous](image)

![Figure 49: Allemande of the 1st Suite bar 19-20 source E first edition](image)

**Trills**

The trills are the most common ornament throughout the Suites. One can find about one hundred trills throughout the six Cello Suites. It is crucial to understand them, and discuss the ways they should be performed. One of the best source to understand the performance of trills in Bach’s music is by
reading Bach’s own words in the *Klavierbüchlein für Wilhelm Friedemann Bach*, published on the facsimile version from Landshoff (1933). Below (figure 50) we find Bach’s explanations of the keys for Wilhelm Friedemann and a close up of the Applicatio in C major (figure 51).

**Figure 50**: Explanation of the keys by J. S. Bach’s hand in the Klavierbüchlein für Wilhelm Friedemann Bach

**Figure 51**: Close-up of the first bar of Applicatio in C major, BWV 994 J. S. Bach's fingering marks are clearly visible
Figure 52 shows explicit notes that one can devise from the same document, that trills should start predominantly with an upper auxiliary note. This rule is even more important when the trills demand a turn ending or termination.

![Figure 52: A guide to some ornaments in J. S. Bach's manuscript of the Klavierbuchlein für Wilhelm Friedemann Bach](image)

According to Neumann (1978), “[t]he table was written as a first introduction to ornaments for the child... Bach’s models were basically excerpts made from the much larger table of d'Anglebert to provide a first introduction to certain French practices, which an aspiring clavier player needed to learn” ((Neumann, 1978, p. 127 - Carrington, 2009, p. 25).

A remark one can note in the table (see figure 52) is that the duration of the symbols used were representative of the length of the trill. The second symbol, “mordant,” is the common “mordent”. The third symbol is a trill with a termination. “Cadence” (fourth symbol) is what in theory we call nowadays a
turn. The following one, “doppelt-cadence,” is a trill that starts from a second below. The symbol marked as “idem” (same) basically refers to the previous symbol but starting from above, as clearly indicated by the sign. “Doppelt-cadence und mordant” is a trill that starts from below and has a termination. The 10th symbol uses the same principle as the previous but starts from above. Both “accent steigend” and “accent fallend” are grace notes either from below or above. “Accent und Mordant” is a combination of an accent and a mordent, as explained before. The “accent und trillo” is another compound of appoggiaturas that were previously explained that can also be notated as the last symbol on the table of d'Anglebert. An appoggiatura is an ornamental note that leads melodically into the main note that follows (Sherman, 1997, p. 156).

**Trills on Bach’s Cello Suites**

Bach’s linear contrapuntal works are mainly driven by the direction of the voices. Thus, trills must be performed without disrupting the natural flow of the lines, or enhance their direction. They can also be seen as a special accent or ‘emotional vibrato’, later on discussed in section 6. Performers must be especially aware of the beginning and end of the ornament in order to enhance the structure of each voice.

Figure 53 and 54 presents a typical example in which we must conduct fluently the direction of the trills (listen to track 1, folder 1).

![Sarabande](image)

Figure 53: Sarabande of the 1st Suite
In order to group naturally a chain of trills one must start each trill on the note itself and disregard terminations, as we can see in figure 55 (listen to track 2, folder 1).

Figure 55: Gigue of the 5th Suite

Figure 56 presents how Anna Magdalena Bach notated the chain of trills.

Figure 56: Gigue of the 5th Suite bar 54-58 manuscript Anna Magdalena Bach
In the autograph of the Lute version of the 5th Suite made by J. S. Bach, there is a trill on the E natural (4th bar of figure 57), followed by a termination.

Figure 57: Gigue of the 5th Suite Lute bar 53-57 autograph Johann Sebastian Bach

Figures 58-66 (tracks 3 and 4, folder 1 exemplify examples 58 and 59), I notice that Bach already wrote the resolution or termination of the trills, therefore performers should not add any extra notes to the passage to enhance the fluidity.

Figure 58: Sarabande of the 1st Suite

Figure 59: Sarabande of the 3rd Suite

Figure 60: Allemande of the 6th Suite
Figure 61: Allemande of the 6th Suite

Figure 62: Allemande of the 6th Suite

Figure 63: Allemande of the 6th Suite

Figures 64: Allemande of the 3rd Suite

Figure 65: Sarabande of the 2nd Suite

Figure 66: Allemande of the 5th Suite
Trills also aim at creating variations, especially when the same note is repeated on a particular strong beat, as one can see in the following example:

![Figure 67: Allemande of the 5th Suite manuscript Anna Magdalena Bach](image)

In the following instance the trill starts on the upper note. Even though it is not notated in the Anna Magdalena Bach manuscript it is added in the saxophone transcription, confirming the discussion before. See example 68, (tracks 5 and 6, folder 1 present examples 68 and 69).

![Figure 68: Sarabande of the 4th Suite](image)

![Figure 69: Allemande of the 5th Suite](image)
In the Gigue of the 6th Suite (figure 70) one must start on the upper note to avoid colliding with the following note (track 7, folder 1).

![Figure 70: Gigue of the 6th Suite](image)

In the next example, figure 71, we clearly see the added note, indicated as a grace note, that precedes the trill in order to maintain the line (track 8, folder 1).

![Figure 71: Sarabande of the 2nd Suite](image)
Grace Notes

Grace notes are not common in Bach’s Cello Suites. There are only five examples throughout the Six Suites at the manuscript of Anna Magdalena Bach (Figures 72 – 76)

Figure 72: Allemande of the 1st Suite bar 19

Figure 73: Allemande from the 5th Suite bar 11

Figure 74: Courante of the 5th Suite bar 4

Figure 75: Courante of the 5th Suite bar 11

Figure 76: Gavotte of the 6th Suite bar 20
Grace notes have an important function in baroque music, notably to create harmonic accents by sustaining dissonant notes at the beginning of the figure. There are essentially two types of grace notes: appoggiaturas and acciaccaturas.

The appoggiatura (long), as opposed to the acciaccatura (short) is an important melodic ornament and often suspends the principal note by taking away the time-value of the appoggiatura prefixed to it, generally half the time value of the principal note, and in baroque practice played on the beginning of the beat (unlike in later musical styles where the grace note occurs before the beat). All the notated grace notes on the manuscripts of the Suites are appoggiaturas, which are all depicted in figures 72 -76.

The acciaccatura is perhaps best thought of as a shorter, less melodically significant, variant of the long appoggiatura, where the delay of the principal note is scarcely perceptible – theoretically subtracting no time at all. It is written using a grace note and usually slashed. The acciaccaturas are not present in the manuscripts of the Suites, and it is a less common ornamentation in baroque music practice, although its common to play it combined with trills even if it is not notated.

Tracks 9 and 10 of folder 1 give an example of the grace note of the Allemande from the 1st Suite (bar 19) performed as an acciaccatura and appoggiaturas. The natural flow of the melody is disrupted when performed as an appoggiatura.

Even if the appoggiaturas are sparse throughout the Suites, Bach composes the same effect that we obtain from this ornamentation in the melodic leading motion. This melodic construction appears on the second beat on most of the measures of the Sarabande from the 5th Suite (figure 77), which is also present in Cantata BWV 21, Nº 2 Aria Ich Hatte Viel Bekümmernis (figure 78), which looks coincidently similar to the Sarabande of the 5th Suite.
As Winold (2007) notes: "the typical Sarabande second-beat accent is achieved in most of the measures by having an appoggiatura on the first 8th note as we can see in figure 77. However, there is also an agogic accent on the 4ter note that appears on the third beat of most of the bars" (Winold 2007, p. 64).

Another melodic feature that Bach uses throughout the Suites that have the same "value" as an appoggiatura, but is written down in the melodic voice leading, is a preceding note to the trills. Winold (2007) refers to “over twenty compound trills in the Suites for which Bach very specifically spelled out the appoggiatura presence preceding the trill” (Winold, 2007, p. 174). These melodic artifacts are expressed in figures 79-82.
Figure 81: Prelude of the 4th Suite

Figure 82: Allemande of the 5th Suite
4.2 Articulation

Articulation is used in various contexts with some related concepts. Schweitzer (1905), for instance, refers to it as “phrasing”. Currently, authors express preference for ‘articulation’ to denote the inner and concise notation-wise slurs, which are tied together during performance, and apply more often the concept ‘phrasing’ when referring to the overall structure of a phrase, notably the interconnected elaborations that compound it.

During Bach’s time articulation, dynamics, bowing and slurring were closely linked (Butt, 1990, p. 99).

Slurred passages in string parts are to be played on the same bow stroke (Butt, 1990, p. 188) contrary to what happens later on, during 18th and 19th centuries, where very long slurs were cut by different bowing directions.

Articulation is an essential aspect of performance. It is the basis of an interpretation, and influential for a good understanding of the piece. If this is true of all music, it is especially important for baroque practices and once more for contrapuntal works, such as Bach’s Suites for Cello, due to their intrinsic complexity.

A pertinent question every performer and researcher should ask themselves when studying Bach is if there is a possible explanation for the missing or incomplete information concerning articulation, especially given the detail we find in the scores from the composer.

The articulation is responsible for defining and enlightening the language of a composer. However, Bach’s Cello Suites are an example of imprecise notation in what concerns articulation. We must understand that the style and language that was clearly understood by Bach’s contemporaries, suffered later an important lack of understanding, given the huge amount of suggestions that emerged on later publications. Thus, a gap started to emerge and grew tremendously in the following generation on this matter.
I strongly believe that it is our duty to rely on Bach’s notation articulation-wise, and follow his strategies, when articulation is clearly absent. It is known that Bach gave a lot of importance to articulation, notably by the annotation he made on the copyists’ work. One can observe several times more corrections concerning slurs than wrong notes or rhythms (Schweitzer, 1905). Given this necessity of grasping the origins, the best sources for a good understanding of the articulation are the first manuscripts, notably the Anna Magdalena manuscript and the autograph version of the 5th Suite for lute by Johann Sebastian Bach.

Nowadays, it is common practice for editors to make note of every change to the original manuscript. However, this was not the case during Bach’s time. Some editors ignored most of the articulations notated in the manuscripts. This may have happened for various reasons, though a plausible one is the fact that the notation concerning articulation on the manuscripts is ambiguous, particularly in what concerns the start and end points of each slur. As one can observe in figures 83 – 85 and 86 - 88, these examples show two manuscripts and the first known edition of the Bach’s Suites, and the three copyist/editors clearly altered the articulation without adding or modifying any note.

Figures 83 – 85; comparison of the Prelude’s from the 1st Suite between articulations of the three manuscripts from source A: Anna Magdalena (figure 83), source B: Johann Kellner (figure 84), and source E: Janet et Cotelle, Paris (figure 85).

Figure 83: Prelude of the 1st Suite manuscript Anna Magdalena Bach
Figure 84: Prelude of the 1st Suite manuscript Johann Kellner

Figure 85: Prelude of the 1st Suite manuscript Janet et Cotelle, Paris

Figure 86 – 88; comparison of the Prelude’s of the 5th Suite between articulations of the three manuscripts from source A: Anna Magdalena, figure 86), source B: Johann Kellner (figure 87), and source E: Janet et Cotelle, Paris (figure 88).

Figure 86: Prelude of the 5th Suite manuscript Anna Magdalena Bach
Both performers and editors should ask themselves the question of how to fill in the blank missing articulations, because clearly there is a lack of information in the manuscripts. We believe that we shall empirically test different solutions by referring to other Bach scores and manuscripts, and later research for a plausible explanation.

Relying on Bach’s manuscripts, notably the Cantatas, Brandenburg Concertos, St. Matthews Passion, and the Höhe Messe, Schweitzer (1905) and Keller (1925, p. 6) summarized some important notes, referred commonly as “rules” for baroque music practice on what concerns articulation, as follows:

- Intervals that segment melodic lines in a particular pattern or sequence should also be played separately, or may represent the start of a new sequence;
• When bigger intervals occur or when equally spaced groups of notes that follow the same direction are contradicted, that represents a change in articulation, generally the end of a slur;
• A group of notes when forming a particular organization will be consistently slurred until the end of the sequence. Normally another layer in a different register that is articulated differently will accompany these motives.

To verify the rules stated above, let us observe the next examples as notated on the manuscripts of Anna Magdalena Bach. Groups of notes that follow a certain principle, share the same articulation as present in figures 89 - 94.

Figure 89: Gigue of the 2nd Suite bar 58 – 60

Figure 90: Courante of the 3rd Suite bar 26 – 28

Figure 91: Prelude of the 2nd Suite bar 26 - 28

Figure 92: Prelude of the 3rd Suite bar 21 - 23
Another way organizing the notes can also be an arpeggiated chord, as shown in the next examples (figures 95 - 97). Three notes of each chord are slurred:

The following example shows that if we follow the stated rules it can protect us from erroneous corrections on hundreds of examples throughout the different editions of the Suites, as we can observe in figure 98 - an extract
from the Courante of the 1st Suite. This figure appears in the Anna Magdalena Bach manuscript several times slurred as shown in figures 99 and 100, and a variation of the same motive (figure 101) is slurred in a different way. “Every possible way of slurring six 16th seems to have been tried” (Byslma, 2012, p. 34).

![Figure 98: Extract from the Courante of the 1st Suite](image)

![Figure 99: Courante of the 1st Suite manuscript Anna Magdalena Bach](image)

![Figure 100: Courante of the 1st Suite manuscript Anna Magdalena Bach](image)

![Figure 101: Courante of the 1st Suite manuscript Anna Magdalena Bach](image)

![Figure 102: Courante of the 1st Suite manuscript Anna Magdalena Bach](image)
The manuscript has different slurring; the second phrase (figure 100) could be as demonstrated in figure 98, however, we can also use the following example when there is a breaking point (commonly a third), which we noticed in bar 22 (figure 102). The slurring is as the manuscript provides, as discussed before by Keller (1925) and Schweitzer (1905).

![Figure 103: Extract of the Courante of the 1st Suite](image)

Schweitzer (1905) presents us different ways to systematically articulate a simple group of four 16th notes, as follows:

![Figure 104: Group of systematic articulations suitable for Bach's music presented by Schweitzer](image)

According to Schweitzer (1905) the simple articulation forms present in figure 104, represent the most graceful material to create richer combinations. The second group of 16th notes, in figure 105, appears systematically on the manuscript of Anna Magdalena Bach, and is a very traditional figure in Baroque music.

![Figure 105: Allemande of the 4th Suite bar 27 manuscript Anna Magdalena Bach](image)

The pairing articulation overrules sometimes some passages that would be articulated in a different way if one would follow the before-
mentioned “rules” by Schweitzer (1905) and Keller (1925), as it is possible to see in figures 106 and 107.

Figure 106: Gigue of the 2nd Suite bar 28 – 32 manuscript Anna Magdalena Bach

Figure 107: Courante of the 6th Suite bar 33 manuscript Anna Magdalena Bach

We have seen that articulation is a very contentious subject in Bach’s Cello Suites. The various manuscripts, and following editions largely differ on this matter. The key point that we should have in mind, which is strongly pointed by the “rules” enunciated by Schweitzer (1905) and Keller (1925, p. 6) that the articulation should support a natural flow of the melodic material, and most importantly, to enhance the melodic construction and phrasing direction (Winold, 2007). The relation between meter, agogic, and accents emphasizes this aspect and will be further discussed below.

Although all findings presented in the current chapter are valid for an interpretation of Bach Cello Suites on the baritone saxophone, as it will be discussed in the next chapter, it is pointless to copy literally the articulations of the manuscripts to a baritone saxophone transcription because the baritone saxophone and the cello have distinct natures, as does the lute compared to the cello.

When using different instruments, one has to apply different forms of articulation due to the characteristics of each instrument, namely to use the possibilities of each instrument to enhance the melodic elaboration exposed
in the preceding sections. Therefore, while mainly relying on the Anna Magdalena Bach manuscript (source A) and their slurring, it will be suggested that some small adaptations will better convey the instrument and its specificities.

Here I juxtapose two examples, figure 108, the Anna Magdalena Bach manuscript and figure 109, the saxophone transcription of the Prelude of the 2nd Suite, bar 52-53. In the Anna Magdalena Bach manuscript, bar 52 has only the second beat as a slur, while the saxophone transcription has the slurs on the first and third beat. In bar 53 the first and the second beats are staccato, while in the baritone saxophone transcription I put the slurs in the same bar in groups of three and two notes. Both changes are mainly to keep the melody flowing in the lower register of the baritone saxophone.

Figure 108: Prelude of the 2nd Suite bar 52 – 53 manuscript Anna Magdalena Bach

Figure 109: Prelude of the 2nd Suite Saxophone transcription
Articulations, Meter and Accents

A particular characteristic of the Suites in what concerns the meter is that the note that falls on the heaviest (first) part of the bar is often not the beginning of a phrase but the end of it. Therefore, the necessity of showing the melodic construction overrules the inherent accents of the metrical structure, as shown figure 110. The phrase started in bar 54 ends in bar 55, the second beat is the beginning of the next phrase, repeated in the next.

Figure 110: Prelude of the 2\textsuperscript{nd} Suite bar 54 – 56 manuscript Anna Magdalena Bach

Another characteristic found regularly in Bach’s music is that the articulation is not so much driven by the meter or symmetry, but much more by the melodic structure. “The music is fundamentally conceived in terms of the strategy of four strings and the language of the bow” (Ledbetter, 2009, p. 119). Articulations in Bach’s music have priority above the metric structure and serve the melodic elaborations. Thus, the articulation must not rely on any fixed rhythmical or pattern-based scheme but on the variety of phrasing present throughout the works, notably because on the cello and the baritone saxophone it is possible induce the meter by dynamics, which was not the case of the organ pieces, as Schweitzer (1905) notes, which need a stronger meter organization due to the lack of dynamical accents, although they can have color differences using various registers exposed in different dynamic levels.

Accents in Bach’s work are significantly related to the melody. A rhythmical interpretation leads towards melodic accents and not to a metric structure. For example, Bach changes the metrical accents in the Christmas Oratorio BWV 248 in different words such as schlaf, wache, and diesen in to
durational and/or melodic accents (Bossuyt, 2004, p. 52). Therefore, the time signature is merely a necessity to organize the melodic elaborations. The “inner-metric” comes from the accents of the melody. The melody has its own direction and laws (micro-articulation) This is especially clear in the second part of the Allemande from the Suite in D, which would benefit the melodic flow by not having any bar lines.

Tracks 11, 12, 13 and 14 (folder 1) present examples of a passages in which the melodic flow is more relevant to the interpretation than the meter of the musical structure, namely the Prelude of the 1st Suite (measures 31-34), see figure 111.

![Figure 111: Prelude of the 1st Suite Saxophone transcription](image)

This may be seen further on the Prelude of the 2nd Suite (measures 1-9), the Courante of the 1st Suite (measure 1-4), and the Sarabande of the 5th Suite (measure 1-8), respectively. In the mentioned recordings the strong accent of the music structure is shifted to the 2nd beat in the first three examples and in the last recording, the Sarabande of the 5th Suite, to the 3rd beat (see figure 120).
Articulation is such a central topic in the interpretation of the Bach’s Cello Suites that we should examine it through various perspectives and its relation with other musical elements. In this section, I examine the relationship between articulation and polyphonic elaboration. This relationship is crucial for the practical explanation of the concept of the third-dimension referred to earlier, especially because the articulation (even if combined with other interpretative elements such as dynamics and rubatos) is an important element to separate the various contrapuntal plans (voices) of the melody.

It is possible with the articulation to enhance the clarity of the discourse so that all the intertwining (tangled voices) may become transparent. The next example figure 112 is clear in that matter:

The first G natural for baritone saxophone will be played with an accent, to remain in the memory as an upper layer; this note will not be slurred. The group, specified with a bracket will be slurred, as a fragment of seconds in a row. This voice continues three times, and the E will be heard, becoming a laydown middle voice, which we hear between the lower voice C – B – C – B).

As mentioned, we are missing the tools for the middle voice E-E-E or the under voice C-B-C-B through slurring, but still we can clearly show the knitting when we slur in the beginning of three slurring’s C –B – C. Then the three notes will have an equal position, which makes them belonging to each other. In this way the voice is nevertheless suggested. The same with the
three E’s, because of the three slurring’s, which are also brought to equal position; although they play as second notes in the slurring a less important role.

The second G of the upper voice will be touched upon shortly to remind us that it is still there, also in the manuscript the most important note B of the under voice will be played separately as we can see in the figures 113 and 114. In the baritone saxophone transcription (figure 115), I put the slurs on the second beat in groups of two notes, according to the guidelines discussed below, but also to keep the natural melodic flow and activate the transposed low B, as shown in figure 115.

Figure 113: Prelude of the 2nd Suite bar 49 manuscript Anna Magdalena Bach

Figure 114: Prelude of 2nd Suite bar 53 manuscript Anna Magdalena Bach

Figure 115: Prelude of the 2nd Suite bar 53 Saxophone transcription

It is possible to use the following set of guidelines to unfold the problems of articulation:

- A natural row of notes (seconds) slurred;
- Characteristic groups of two or more notes under one slur;
• A fragment of a chord slurred, bracketed;
• The important notes B flat and D (G and B), the first and the last note, based on the amplitude of the interval, played separately.

It is important to keep in mind that we find ourselves in the area from the “one voice polyphony” and that this polyphony is projected on to a flat surface. This form of interpretation has its own ambience and specific conditions. In the visual arts its purpose is clear, i.e., to project a three-dimensional figure on a flat surface, and the same effect occurs also in music.

Although the articulation may be an important interpretative element to enhance the polyphonic elaboration, it is not necessarily the most expressive element to demonstrate the music structure. Bach does not do it as well, as can be seen in the next example:

![Figure 116: Gavotte I of the 5th Suite](image)

Would that the bracketing of notes of one voice the rule, than he would make the slurring as in the following example:

![Figure 117: Gavotte I of the 5th Suite](image)

However it seems that with Bach, the paired notes are more important. The slurs are provided clearly two by two in the Anna Magdalena Bach manuscript, and yes, these slurs give a “playful charm”.

Figure 118: Gavotte 1 of the 5th Suite Saxophone transcription

The manuscript of the Sarabande of the 5th Suite is completely provided with all the slurring’s, figure 119, as in in the baritone saxophone version, figure 120, besides the extra slur in the 3rd, 7th and 11th bar third beat, later on discussed in section 7.

Figure 119: Sarabande of the 5th Suite manuscript Anna Magdalena Bach
The four 8\textsuperscript{th} notes of every bar, which do not belong to one voice, are tied by one slur. When we put just the slur over the third and fourth 8\textsuperscript{th} notes, than the polyphony would probably result more clearly, but in my opinion the ambience will be different.

The next examples are a clear elaboration of one voice polyphony. When applying the stated rules one gets the following result:
Nevertheless, in the Anna Magdalena Bach manuscript we could see a slur over the complete group of four 16th notes (see figure 122). When applying the stated rules the articulation would be very chaotic, which does not match the melodic smooth construction.

![Figure 122: Allemande of the 4th Suite Anna Magdalena Bach manuscript](image)

The saxophone transcription shows clearly the slurs over the complete group of four notes, conforming to the Anna Magdalena Bach manuscript.

![Figure 123: Allemande of the 4th Suite Saxophone transcription](image)

In conclusion, apart from all the stated rules and research behind the movements, it is important to focus on the construction of the melody to grasp the essence of the music, which can guide performance decisions. Leonard B. Meyer notes in his remarkable book Emotion and Meaning in Music the following:

“Thus, in a sense, one might say that qualitatively the performer’s role is always the same; he is always an active creator, shaping and molding the abstract scheme furnished him by the composer or by tradition. Quantitatively his role varies” (Meyer, 1956, p. 200).

Bach himself was a great improviser and virtuoso performer. He would probably not expect a cellist to follow slavishly every slur (or even the non-existing slurs), and the same could probably be applied to the saxophone or
any other instrument. The music is the authoritative element. Bach’s own version of the 5th Suite for the lute proves this point. The inexistence of a slur does not diminish the mastery of the piece.

4.3 The Tempo and the Form of Bach’s Suites

Originally the baroque Suite consists of four movements: Allemande, Courante, Sarabande and Gigue. Bach’s Cello Suites have also the Prelude as a first movement and inserted a pair of gallant dances, or galanteries, between the Sarabande and the Gigue. The Preludes are introductory movements, freely structured and a good example of Bach’s incomparable improvisations skill. Each Prelude endows the corresponding suite with its general character. All Suites follow the same order: Prelude, Allemande, Courante, Sarabande, Galanterie and Gigue. The gallant dances are two Menuets in suites 1 and 2, Bourrées in suites 3 and 4, and two Gavottes in suites 5 and 6.

The form of the Six Suites are developed gradually by the combination of at least six or seven different dance forms to one cycle. Below we can find a brief description of each dance and their particular characteristics.

The Prelude is a wholly improvised instrumental introduction to the Suite. Preludes gives the player greater liberty in the choice of the tempo (Winold, 2007, p. 12).

Allemande (French for German dance) is one of the most popular instrumental dance forms with fluid but reflective character. Its structure is commonly broken, serious, with well-constructed harmony organized in a duple-meter moderate tempo (ibid. p. 34).

The Courante was a dance of French origin, and the verb courir (to run) describes its rapid tempo. The Courante has two versions: the Italian Courante, in 3/4 meter, and the French Courante, somewhat slower and with a more nervous rhythm, composed in 3/2 time (ibid. p. 45).
The Sarabande, of Spanish origin, was so widespread in New Spain that at one time it was even regarded as its birthplace. Fray Diego de Durán noted that before 1579 the Sarabande, extremely popular in New Spain, was endowed with a sinful sensuality. As a result, it was banned by the inquisition, not only in Spain, but also throughout the entire Spanish Empire. By Bach’s time, however, the dance had lost its obscene, lascivious connotation. All the Sarabandes of the Cello Suites are glow, equivalent to the adagios of classical sonatas (ibid. p. 56).

Gigue (gig in English and giguer in old French) is a word that means to spring. It has a lively, cheerful character in a duple meter (ibid. p. 77).

The Menuet (small or delicate) is a very popular and widely spread social dance, done in a stately fashion in European courts. A cheerful dance in triple meter (3/4) divided in two repeating sections and with a melody with sixteen measures long. The Menuet is the only baroque dance type that composers continued to employ on a regular basis in the classical period (ibid. p. 68).

Bourrée is a folk dance, or can be a French courtly dance. Its distinguishing features are lively running, duple-meter, with an opening upbeat, in moderate-quick tempo (ibid. p. 70).

The gallant movements originate from old French dances. The Menuetto, or Menuet, was meant to be dance gracefully with small dainty steps, as denoted by its etymology: pas menu (small step). The Bourrée, whose name is derived from the verb bourrir (old French for to flap the wings), is typically at the Auvergne region, whereas the Gavottes were danced by Gavots, inhabitants of the French Dauphiné region (ibid. p. 74). Finally, there is the Gigue, probably derived from the Irish word jig. Both the dance and the term itself were transported from Ireland to England and then on to the continent (Prieto, 1998, p. 223-224).

The Suites consist of four basic parts; we can see the logical changes of the development of slower and faster dances. The difference in tempo is less between the Allemande and the courante than between the Sarabande and the Gigue. That is why it is possible between those two to have an
alternative dance: Menuet, Bourrée or Gavotte, with a moderate tempo. In this way we can see a gradual development of a logical and perfect construction, which became for centuries its musical form.

The Preludes complete the form, and give the character, deciding the entire Suite. We can see in big lines the tempi for the different parts as follow:

- Allemande - A comfortable fast walking tempo;
- Courante - A Joyful “lively” tempo;
- Sarabande - A moderate slow tempo;
- Gigue - A fast “lively” final.

The form of a suite has enough variation concerning the tempo; Anna Magdalena Bach does not give any tempo indication, except J. S. Bach in the “Lute Version” at the beginning of the Fuga of the Prelude: *tres vite*.

Figure 124: Prelude of the 5th Suite Lute version J. S. Bach autograph bar 26 - 28

It is the responsibility of the performer to choose the appropriate tempo, and it is also needed to know the form of the dance in order to show clearly the difference between them.
4.4 Agogic

According to the New Grove Dictionary of Music and Musicians (2001), agogic stands for “a qualification of expression and particularly of accentuation and accent. The qualification is concerned with variations of duration rather than of dynamic level.”

The agogic has to do everything with the length and stress given to a note through extended duration. We can also describe this as the nuances of tempo. The small changes of the length of a note, i.e. rubato, used as a tool to express the melody. It is clear that small nuances in tempo have to do with melodic tensions and relaxations; they can influence the melody by small accelerations and delays.

The melody of Bach is not dictated by metrical symmetry, the force behind it is the process of the inner-melodic tensions, this means that we feel more free and put agogic accents when needed. It is obvious that the knowledge of “healthy style feeling” of the performer should be in charge.

4.5 Vibrato

It remains an open question if Bach was expecting performers to use vibrato, and in which form.

According to David Ledbetter (2009), Michel de La Barre (1675-1745), a leading virtuoso in French Court music, claims in his Avertissement that he has developed a completely new sound for the flute, and that his aim was to do for the flute what his colleague Marin Marais has done for the bass viol. This being so, La Barre would almost certainly have used a full battery of ornaments analogous of the viol, including the Flattement (finger vibrato) and Enflé (swelling on a note).

The horn and the flute were relatively new instruments in the manner Bach used them. The first composition for flute transversal came after 1713,
there is no evidence of his compositions for the transverse flute before 1717.
La Barre composed the first music for flute and bass-continuo, Suites Opus 4, 1702, (Ledbetter 2009).

The unique source of the flute Solo, Partita in four movements (BWV 1013) (not autograph) dates from after 1725. The Neue Bach Ausgabe Critical Report dated the manuscript of Anonymous 5 part c.1722-3, but more recent analysis has shown that the writing characteristics are in fact from a later stage, after 1725 (Ledbetter, 2009, p. 272).

Anthon van de Horst (Het Continuo, Radio bode 17 November 1939) says that for the vibrato, although used in a very moderate approach, have two indications: First, the organ of St. Jacobi – Church in Hamburg Germany has a tremolo register which was built between 1638 and 1692, for which Bach had a tremendous admiration. We can see this as an imitation of a natural vibrato of other instruments and the human voice.

There is also the fact that the players had the possibility to give “life” to the clavichord – tone, which is possible since with that instrument one can control the pressure variation of the hammers on the strings. In the Cello Suites, Bach is using an activated vibrato in the form of a trill - see bar 12 Sarabande of Suite n° 4.

This is the only situation where we observe a trill at the end of a melody, which can be indicated as a tremolo or vibrato.

Figure 125: Sarabande of the 4th Suite bar 11-12 manuscript Anna Magdalena Bach

The vibrato would be quite modest in Bach’s time and may be later when the cellos placed a spike under their instruments, the vibrato became larger. The almost universal custom of using a chin-rest for the violin and a spike for the cello makes it possible for a player to produce, without tiring a
vibrato that is wider, quicker and used with far less discrimination that it was 150 years ago (Tharston, 1963, p. 35-36).

Neumann (1978, p. 519-520) argues that Bach’s use of a wavy line as depicted in figure 125 denotes the use of vibrato for vocal and melody instruments. It could be also seen as an extended trill on the keyboard in Bach.

Figure 126 presents several examples that support Neumann’s assertions. All examples are taken from several Cantatas; example a and b from Cantata 66, example c from Cantata 116, example d from Cantata 87, examples e and f from Cantata 243, example g from Cantata 245, example h from Cantata 245, and example I from Cantata 137. All these examples share expressive features in terms of direct affect, such as fear, sorrow, victory in God, or the imploration of God’s pity (Neumann, 1978, p. 519). Neumann discusses that the use of such a symbol for trill is not suitable due to the “feeling of gloom and anxiety” (ibid.). He defends that vibrato, as an intensity waving mechanism is the meaning of such symbol.

A quote from Essempio XVIII concerning the 14th ornament of expression, the Close Shake (vibrato) written in the book The Art of Playing on the Violin (1751) from Francesco Geminiani (1687-1762) goes some way to explain vibrato: “this can not possibly be described by notes as in former examples... and when it is made on short notes, it only contributes to make their sound more agreeable and for this reason it should be made use of as often possible” (as quoted in Bylsma, 2012, p. 81).
Neumann (1978) also establishes the use of a waving line commonly linked with trills as vibrato in instrumental practices, namely in chromatic passages. A typical example can be seen in the unaccompanied violin Sonata in A minor, figure 127, example a and b. Neumann points another case as a misinterpreted trill from the 5th Brandenburg Concerto, figure 127 example c in the flute and violin parts. The third example d shown in figure 127 is taken from the Gamba Obligato of the Cantata 76 and the last example e the cantata 8. Neumann defends that all these cases “intend to underline the emotional coloring which so often is associated with Bach’s chromaticism” (Neumann, 1978, p. 520).

Figure 126: A set of examples about the use of vibrato in J. S. Bach’s works presented in Neumann (1978, p. 520)
It is possible to conclude that vibrato was present in the baroque music practice, namely in artistic singing. Although slightly different from the notion of vibrato that is used nowadays, it has been in various references in intensity oscillations of a single pitch by many old theorists (Neumann, 1978, p. 521). Also, it has been demonstrated that the use of a wavy line denotes in many cases the use of vibrato technique instead of trill in instrumental and vocal practices. This discussion is particularly important to support some of the decisions that must be taken by the contemporary interpreter while performing Bach’s Cello Suites.
4.6 Harmony and Dynamics

In this section I want to compare harmony and dynamics, because they are structurally inseparable within Bach’s works. I will start by introducing the important harmony in Bach’s solo pieces. It is already mentioned that we would violate aesthetically Bach Suites or his solo works by adding an accompaniment, since its harmonic strength relies on the horizontal harmonic elaboration.

As is known, Bach was also an accomplished organist. Dynamics were an idiosyncratic element on this instrument, notably just by changing registers or changing keyboards. This is very noticeable in Bach’s organ works, particularly the register dynamics. These dynamic effects had also influenced his orchestra works, as present in the opposition between “tuttis” and “obligate”, as well as changing the number of voices.

Dr. Anthon van der Horst (1899-1965), a reference on Bach’s repertoire, was remarkably known for his interpretations of the Saint Matthew Passion (BWV 244) and the Höhe Messe (BWV 232). He mentions that in order to get close to Bach’s essence he used to conduct with copy of the manuscripts (Horst, 1938). According to Van der Horst “Bach used in his compositions already gradually dynamics, although in his compositions there did not exist indications for that, but as a conductor or interpreter on those instruments on which it is possible to do a gradual dynamic, one can not forget to do it. George Friedrich Handel knew already in England the “crescendo flaps” (swell boxes) that organs had (Bicknell, 1996). Its invention was ascribed to Abraham Jordan (London, St. Magnus the Martyr, 1712) but a similar device existed already in 17th Spanish organs for the Corneta de Eco. Although of limited effect, it was the start of a development towards expression in organ building (Bicknell, 1996, p. 154).

Also, by the time, the hammerklavier, i.e. pianoforte, started to be constructed and refined. The organ, harpsichord, clavichord, and pianoforte maker Gottfried Silbermann also made these instruments that he called
"Hemmer-Flügel". The hammerklavier, i.e. harpsichord or pianoforte, was invented by Bartolomeo Cristofori (1655-1731). Cristofori, born in Padua, Italy, was a musical instrument inventor who worked in the design and development of harpsichords. According to Wolff (1966) Gottfried Silbermann also had the laudable ambition to show one of these instruments of his later workmanship to the late Capellmeister Bach, and have it examined by him; and he received, in turn, complete approval from him (Wolff, 1966, p. 366). Also, by the time, the hammerklavier, i.e. pianoforte, started to be constructed and refined, it is known that Bach knew of its existence (Wolff, 2011, p. 379, 441). A special effect is available with some Cristofori fortepianos: when the una corda register is selected by moving the keyboard sideways, then only one string is played, the other of the pair being free to resonate in sympathy.

According to Hulshoff (1962, p. 65), Kurth (1917) Gründlagen, Bach’s nuances are activated by his melodic contours: a melodic line that goes upwards expresses excitement, and can be interpreted, as transcribed in the saxophone edition and shown below:

![Figure 128: Allemande of the 1st Suite](image1)

In figure 129 we have the same procedure but simple on the upper voice between the two layers.

![Figure 129: Gigue of the 1st Suite](image2)
Harmony can also contribute actively to the dynamics, particularly certain leading tones, chromatic and dissonant.

![Figure 130: Sarabande of the 2nd Suite](image)

One of the roles of the interpreter is to manage the tension in the melody by using dynamic nuances, having in mind the interaction between dynamic tensions and harmonic equilibrium.

By analyzing only the melodic contour of the melodies, it is restricting one awareness of the subtleties of melodic elaboration. We need to look at the harmonic progressions and to see how they create tension, which can be translated into dynamic nuances.

A common rule we can bear in mind is that modulations, remarkably from the tonic to the dominant will increase the harmonic tension; a deflection to the side of the sub-dominant will be the opposite and will create a weaker moment. The last effect is popular in Bach, particularly around the end of a composition, as we can see in the three examples from the Suites 1, 4 and 6 (see figures 131-133). All Preludes from the Suites, and particularly the last one, are chosen because they are written more freely in structure. Thus, they focus more on harmony, which will activate the dynamic nuances. (Tracks 15-17, folder 1).
Figure 131: Prelude of the 3\textsuperscript{rd} Suite

Figure 132: Prelude of the 4\textsuperscript{th} Suite

Figure 133: Prelude of the 6\textsuperscript{th} Suite
Harmony usually implies a high activity in the bass line. For example, when the bass starts a linear movement, upwards or downwards, diatonically or chromatic, or it gets an important position as a “pedal point”.

Particular chords, such as the Neapolitan Sixth – a supertonic triad with minor sixth degree and chromatically lowered root (Carrington, 2009) – were a very expressive element for Bach. They ask a special dynamic treatment. Also, often after a short or long preparation, a climax will be initiated on the dominant. Usually, at these climaxes the harmony tends to stagnate, and finish with a fermata, or a rest. Afterwards Bach usually introduces new material with a lower level of tension.

Even if it is harmonically less complex the in Prelude of the 1st Suite (example 134), formulates a climax on bar 22 that arrive at a fermata (first inversion of the chord). The organ point is followed by an increased tension towards the final. It avoids the sub-dominant degree that indicates no relaxation.

![Figure 134: Prelude of the 1st Suite](image)

The next example is harmonically more complex by repeating to several seventh chords and organ points. After the organ point on F, which highly increases the tension until bar 48, where we are close to three 4ters of the Prelude. After wards, the melody line rests on a second inversion of the chord with a fermata, followed by a rest. Subsequently, on bar 49, the Neapolitan Sixth appears in a very emotional passage, which has to be played with a restrained and formal sound.
From bar 55 (figure 136) the tension increases, notably by a bass line going upwards. It is followed by an organ point that starts on bar 59. At this point there is no deflection to the sub-dominant.

Figure 135: Prelude of the 2nd Suite

Figure 136: Prelude of the 2nd Suite
The Prelude in E flat is harmonically the richest, full of tension and complex harmonies. A descending bass line prepares a climax on bar 49. Interestingly, we do not have a chord on the fermata as expected.

![Figure 137: Prelude of the 4th Suite](image)

The previous example if followed by a colorful mix of modulations, using a moment of relaxation in A sharp (bar 49), which moves to an enormous tension in bar 80 (Neapolitan Sixth), as we can see in the next figure.

![Figure 138: Prelude of the 4th Suite](image)

Towards the end, of bar 80, there is an expressive harmonic setback that delays our expectations, and brings the music to a stronger glorious final. I would like to make clear that in this Prelude, the harmonic structure might guide us in what concerns dynamic nuances. We must realize clearly how this structure is articulated and how to manage it.
The Prelude in C of the 5th Suite, has a different set of characteristics that separate it from the 4 Preludes presented previously, because it is built upon different principles. The introduction is not a composition in its own sight, but a preparation for the fugue that follows. The slow harmonic development has an organ point on the tonic, followed by another organ point on the dominant that lasts for five bars. It has a static character and does not develop towards any climax. During the fugue the dynamics should reveal and clarify the density of the voices, notably at bar 52 when Bach starts modulating. The elaboration of the fugue themes on several tonalities must be understood and enhanced through the dynamics. The accompanied interlude’s have in their turn to be played at a secondary (lower) dynamic level, as a sort of “register dynamic”. The pedal point from bars 144 to 148 lead us to a reprise of the tonic on bar 149, which has to be enhanced dynamically.

![Figure 139: Prelude of the 5th Suite](image)

In the following example Bach introduces a climax on bar 208, which is followed by a sudden setback on the sub-dominant.

![Figure 140: Prelude of the 5th Suite](image)
An expressive rising chromatic line that leads to the end of the movement comprises the last ten bars of this Prelude (track 18, folder 1 presents an example of the previous figure).

The Prelude in D from the 6th Suite is not specifically different; the theme comes back on both the dominant and sub-dominant, which should be dynamically prepared. Also, we can observe that the composition is harmonically richer closer to the end.

The dance movements of the Suites are harmonically less developed. The modulations are moving typically from the tonic to the dominant or sub-dominant, and remain within the circle of close tonalities. Characteristically they gradually increase in tension during the course of each movement, which is accompanied by a larger activity in the bass. In conclusion, we can remark that the second part of each movement is harmonically more tens.

A few observations should be pointed out:

In bar 64, of the 2nd Suite, the Neapolitan Sixth starts the course to a climax on bar 72 (second inversion).

![Figure 141: Gigue of the 2nd Suite](image)
In figure 142 the second part of the 5th Suite Allemande has unexpected surprises. The being unexpected low B♭ in Bar 26 and the false end in bar 29:

![Figure 142: Allemande of the 5th Suite](image)

The Sarabande in C, (in A for the baritone saxophone transcription) which clearly relates and extracts Bach’s melodic material from the opening of the soprano aria from the Cantata 21, BWV 21 is a movement filled with dramatic sense. “The opening melodic gesture, the opening chordal progression, and the key of C minor (A minor saxophone transcription) are shared by both works. The title of this Cantata; *Ich hatte viel Bekümmernis*, which may be translated as; *I was in deep distress*, and the text of the aria; *Seufzer, Tränen, Kummer, Not*, which may be translated as; *Sighs, Tears, Sorrow, Need*, provide valuable insight into the emotional content of the Sarabande of 5th Suite” (Winold, 2007, p. 88). It is elaborated in five groups of four bars, every group has its own climax in the middle and a relaxation point at the end. The tensions in the fourth group do not disappear when the fifth group follows on and brings it even further to a climbing bass. At the end the tension is resolved again.

As Anner Bylsma (2012) notes “for Bach, the writing of a Sarabande, it must been like creating an atmosphere, adapting a mentality, a mentality of strict reserved hiding great passion” (Bylsma, 2012, p. 61).
One could be emotionally moved when playing the Sarabande of the 5th Suite, may be by the use of a waving line with an increasing amplitude could indicate a increasing excitement, besides the seven diminished fourths, the five diminished fifths and the diminished third in just 20 bars. For me it is one of the most grief-stricken pieces over such a limited time, given its rhythmical simplicity and extraordinary harmonic richness. These alliterated intervals in which Bach expresses himself are a mastery of musical expression, and one of the strongest method of working to touch the listener.


Here we see (figure 143) three interludes in the bars 4-8, 16-20 and 28-32.

![Figure 143: Gavotte I of the 5th Suite](image)

Bar 40: A contraction in E minor, follow-up on a lower level to prepare the climax of bar 57, afterwards through (IV) to a final.
A special moment or event is in the remarkable low A at bar 11: A mysterious soft sounding seventh.

After the climax on bar 16, Bach restarts building gradually on a lower level relying on previous fragments placed on a second layer at this point. Later on, in bars 21 and 22 he quotes the whole phrase completely until bars 23 and 24 where further developments occur, notably by adding new layers.
The development from bar 18 until bar 20, namely its “fermata” in bar 20, leads us to a reprise on full tension.

Similar effects to the interludes are the echo effects, as mentioned by Bach in the Prelude in D. The echo technique has a direct relation and is used expressively in combination with the register dynamics. This specific case of nuances can be demonstrated in the following examples:
It is important to rely on the existing manuscripts as our primary source. When the manuscript does not provide any information concerning articulation it is our duty to search for similar elaborations on Bach’s repertoire, or follow any stated “rules” among the myriad of authorities on the subject.

However, to simply trust on blind rules taken from various contexts can be dangerous. It is always necessary to analyze the voice leading and study
the best possible solution, because above all the mastery of Bach does not tolerate any closed and static system.

The bridge between harmony and dynamics were illustrated clearly, I hope, in this section. Harmony drives dynamic colors. Concerning dynamics Bach left the task to the performer, however, it requires a deeper understanding of his works. Rules or laws cannot be stated, and Bach’s work is too intricate for simple generalization. Besides, the mentioned interaction between harmony and dynamics cannot be more than an indication. At the end it all depends on the initiative of the performer.

It is obvious that the performer will always discover new ways and develop different perspectives throughout the years when in contact with this music.

My goal is clearly directed to the performance of the Bach’s Suites on the baritone saxophone, although, we should also state that all the mentioned interpretative subtleties that articulate higher dimensions from a single melodic line, as in the case of Bach, is valid for any homophonic instrument that shares the same limitations and possibilities as the baritone saxophone, for being both a non-period instrument and an instrument that is not capable of playing chords.
5. APPROACHES TO BACH’S CELLO SUITES ON BARITONE SAXOPHONE

“A musician cannot move others
Unless he too is moved”

C. P. E. Bach

The current chapter justifies most decisions taken in the major contributions of this thesis, a transcription of Bach’s Cello Suites for saxophone and its related interpretation. It is supported by the many findings brought to light in the previous chapter and through some audio recordings that are supplied in additional media. The main goal of the recordings is to provide comparative judgments about the decisions taken while transcribing the score, namely at the level of the articulation, accents (metrically), dynamics, and so on.

The transcription for saxophone described here is clearly devoted to the baritone saxophone, since it is my instrument of choice and also because it presents similarities at the level of its range as the cello. Notably because the low A present on the baritone saxophone is essential for performing the Suites as they are notated. Even though it is my intention that the reflective proposals detailed here can serve a bigger purpose, not only for saxophonist, but also for any wind player, cellists and even vocalists.

There is one crucial difference between the baritone saxophone or the cello and the voice in terms of transmission and communication. A singer will express the emotion more directly, because it is fundamentally embodied. Juslin & Sloboda (2001) claims that people ‘catch’ more easily the emotions of others while watching their facial expressions, probably through some kind
of ‘motor mimicry’. The fact that particular aspects of emotional expression in music are extremely similar to those of vocal expression, suggest that we get emotionally aroused by the voice-like aspects of performance. (Juslin & Sloboda, 2001, p. 329).

With an instrument there is an extra medium in between. But “The body is not only registering experiences and information but making, in the act of perceiving, the necessary adjustments” (Correia, 2003, p. 18) capturing the performers’ emotional display. Therefore, the ultimate aim of this chapter is to provide and justify the choices of a transcription of the Cello Suites for the baritone saxophone that support the communication of the emotional aspect of the score.

5.1 Transcriptions

A music transcription is a version of a composition in another instrumentation, whereby the original stays as much as possible intact (De Vente, 2005, p. 37). In comparison with an original work, a “transcription is also creative in the sense that the original score is adapted and not reproduced; consequently its adaptation to the new medium has to be suitable for that end, ensuring that the composer’s musical ideas are preserved in the new medium and not distorted in any way. Therefore, transcription has a dual purpose in that it has to faithfully present the composer’s ideas consistent with the new medium into which the work is transcribed and thereby provides the opportunity for the creative impulses of the transcriber” (Lloyd, 2011, p. 217).

A transcription is clearly different from a paraphrase, which is a free instrumentation based on themes from other composition. In Franz Liszt, for instance, we can clearly observe the difference. Composers such as Beethoven, Wagner, Busoni, and mainly Johann Sebastian Bach, to whom Liszt has enormous respect, made transcriptions of their compositions, for example, with great taste, in a perfectly simple and straightforward manner,
for example Liszt's piano transcriptions of Bach's organ music. These particular transcriptions established the standard models for all future works that followed this approach. It includes *Six Preludes and Fugues* for organ (BWV 543-548) and the *Fantasia and Fugue in G minor* (BWV 542), (Stinson, 2006, p. 105). The medium in which a transcription is manifested does not diminish the impact and the true understanding of a composition.

Liszt paid less attention to his contemporary opera composers; Liszt borrowed themes from other composers such as Donizetti, Bellini and Meyerbeer in many of his compositions. The piece *Ad Nos* is a typical example of such appropriation, which in this case is a chorale theme from Meyerbeers opera *Le Prophète* (Arnold 2002, p. 194) and *Valse à Capriccio sur deux motifs se Luxia et Parisina* and *Reminiscences de lucia di Lammermoor* (I & II). Their melodies formed just the basic elements for opera paraphrases.

Over the years I have felt the necessity to study the original manuscript in order to escape the overwhelming amount of information that we gather either from past performances, colleagues, critics, books on analysis or even from listeners. When performing with the Anna Magdalena Bach manuscript I could understand the natural flow of the melodic lines that are expressed through her handwriting. Hence, we shall ask ourselves the question of the necessity of providing another version.

One of the most known editions of Bach’s Cello Suites for saxophone was made by Jean Marie Londeix (Suite N° 1 by J. S. Bach transcribed for saxophone solo by Jean Marie Londeix. Editions Henry Lemoine, 1963) and there arise several pertinent questions. First, it was conceived with a more pedagogical function than for artistic purposes. In order to avoid the low A and allow the interpretation on every saxophone by transposing it one tone higher. As Londeix states (Umble 2000) “I feel that I can make certain adjustments to better facilitate adapting them [J. S. Bach Cello Suites] to the saxophone without betraying my goal of being able to bring life to the ineffable spirit of this music.” (Umble, 2000, pp. 188-189). Contrary to Londeix, the solution adopted here clearly does not involve any transcription. The transcription
stays faithful to the original key, and it is advisable that performers on saxophones, other than the baritone saxophone players, play every low A one octave higher.

Most editions are interpretations of the piece. We should make the parallel with the flute Partita by J. S. Bach about respiration: there are no respiration marks. When familiar with the style, one does not need any notational constrain to impose any sort of phrasing.

Besides, many works don’t have any instrument assigned, (Art of Fugue), and it is known that Bach was curious about any technical developments coming from the instruments makers, as Ledbetter (2009) points out:

> Out of the great variety of bass stringed instruments in the seventeenth century, the emergence of the violoncello is associated with the shift with the new Italian styles. [...] At the time instrument making had real reached its classic phase, never to be surpassed. The fact that Bach could write some of the defining repertory of the instrument around 1720 shows not only its genius, but also the responsiveness of German courts to current fashion. In the same way Bach wrote superbly imaginative horn parts in the First Brandenburg Concerto, probable originally composed in 1712/13, shortly after the Waldhorn came into Germany (Ledbetter, 2009, p. 35).

Even the invention of the viola pomposa has been an attributed to Bach. The viola pomposa which is described as follows: “It is tuned like a violoncello but with an extra top string, is somewhat larger than a viola, and is secured by a belt so that it can be held on the arm in front of the chest’ (Hiller, 1963-2007, Doc. III, p. 186-7, BR pp. 451-2). Also, several contributions to the Viola da Spalla are attributed to Bach, such as adapting its proportions to the cello in order to enhance its sound quality (Drüner, 1987).

A balanced combination between expertise and intuition are key elements of a convincing interpretation. Most discussions about accidents and mistakes on the manuscripts, which occupy thousands of pages on literature
end up at an impasse when an artist stands on stage and his/her ultimate goal is to transmit the whole world of Bach and his works. Every discussion reduces the size of this enormous masterpiece to a utilitarian problem. Beyond the scores there are always the creative work of the performer, making his/her metaphorical projections indispensable, creating his/her “subjective” emotional narrative.

5.2 Articulations

Articulation is an aspect that provides constant different forms of diction and it is one of the most important elements interpreters should be aware of in Bach.

This is the responsibility of the arranger or editor, which was not the case of Schwemer and Woodfull – Harris (2000) this edition avoids all articulations and bowings.

Every articulation principle or rule, based on certain premises, leads one to flattering. Bach is always doing something different than what we are expecting. His spiritual empire is too strong for us to keep it in die cast rules. This is also meant for the ground rules, as already mentioned before, they can give us direction, because the rules are based on what Bach presented to us, but we can not see it as a way of declamation. In case of doubt we have to use our own intuition, expertise, knowledge of style, balance and taste.

Mappings between bowing and blowing

It is important to realize that it is pointless to copy literally the articulations from any cello edition to the saxophone part, given the different nature of the two instruments. But why it matters so much, one may wonder. In conclusion, the baritone saxophone and cello do not seem so far apart as a
cello and lute. They are both melodic, lyrical, deeply resonant instruments with roughly the same range.

The biggest difference is the use of the bow, to produce the sound. But the direct counterpart in the saxophones case is the air, the breathing. The similarities between bowing and blowing are striking. Both are essential to make a good phrase and articulation in general.

The biggest difference is the use of the bow, to produce the sound. But the direct counterpart in the saxophones case is the air, the breathing. The similarities between bowing and blowing are striking. Both are essential to make a good phrase and articulation in general. Many analogies may be established between bowing and blowing.

For example, to produce sul tastò or flautando, the bow is drawn fast over the fingerboard to produce a flute-like tone. The sound is softer and slightly muted. This is analogous to what one would do on the baritone saxophone, when one would use a lot of air (drawing fast the bow) in combination with less pressure on the reed, producing a somewhat softer, close to sub-tone (muted) sound (Black and Gerou, 1998).

Sul ponticello can be achieved by bowing near the bridge, which produces a more metallic and raspy effect; the sound is richer in overtones. In the baritone saxophone a similar effect to sul ponticello can be obtained by giving pressure on the mouthpiece closer to the tip opening, which will produce a more narrow sound with higher frequencies.

Playing mutes or con sordino will darken the sound by reducing the amount of vibration, which in turn reduces the number of upper partials. On the baritone saxophone we can achieve a similar effect by playing sub-tone, which is obtained by giving different pressure with the lower lip, will reduce the vibrations, which in its turn reduces the amount of high frequencies producing a soft and dark sound. The sound result is very similar in both instruments.

On the baritone saxophone we can vary and mix those techniques, gradually during playing in order to obtain various tone colors.
In Bach’s time staccato referred to the separation of the notes. Other terms synonymous with staccato—include spiccato, piqué and pointé, as we know from the contemporary definition of this style of articulation by Sébastien de Brossard:

Staccato is almost identical in meaning to spiccato. In other words, all string instruments should execute such strokes dryly and distinctly without dragging the tempo, much in the manner that we in France refer to as piqué or pointe (Brossard, 1703, p. 135).

Whereas in the case of a cello, or violin, the attack is made with the bow, in the case of a saxophone it is done by means of the tongue, breath or keys. The latter one may seem a little bit surprising, but because the keys on a baritone saxophone are so big, opening, or closing, them can already be an attack in itself.

Let us for example look at the first notes of the Prelude of Suite n° 1 (see figure 151). If I follow the slurring of Anna Magdalena (source A), I would have to make an attack on the baritone saxophone on the first three notes G, D and B (E, B, and G for baritone saxophone) and could lead to a sluggish start.

Figure 151: Prelude of the 1st Suite manuscript Anna Magdalena Bach

If one however takes the slurring of figure 152, i.e. a slur over the G, D and B, it would sound probable just right on the baritone saxophone.

Figure 152: Prelude of the 1st Suite manuscript Johann Kellner
The opening of these big keys creates a kind of tenuto attack, which corresponds much better to the resonant and supple sound the cello can achieve here. For the cello it is very easy to execute these notes with a lot of suppleness and resonance, attacked or not. This is of course because of the use by Bach of many open strings. Using one’s breath can then activate this ‘tenuto’ attack on the baritone saxophone.

A recording of the first bars of the Prelude of the 1st Suite is supplied with the aim of comparing the articulation between the Anna Magdalena manuscript and my transcription to support the above-mentioned statement (listen to CD 1, tracks 19 and 20).

This simple example demonstrates the extreme importance of having to scrutinize all the articulation marks. To create a similar effect on the saxophone it appears one sometimes has to do a seemingly the opposite.

It also shows us why the question of finding the historically most correct annotated version of the Six Suites is of less urgency importance to saxophone players than it is to cello players.

5.3 Playing chords on the Baritone Saxophone

Chords in Bach’s Cello Suites are not abundant, they occur only sporadically in the Sarabandes and mainly in the 6th Suite.

As I mentioned before in the section about bowing, in Bach’s time, bows had a different strength. According to Laird (2004). The baroque bow is not like modern bows. Its convex shape allows grasping the string a little more than modern bows. This is an advantage when playing on gut strings, because they have more surface resistance than metal. The baroque bow is also ideal for achieving the articulation of shorter notes.

The baroque cello bow should be held further from the frog, keeping the middle finger in contact with the hair. The resistance of the bow at the
beginning of each stroke is commonly overcome by bow speed rather than by pressure, asking for faster bowings (Laird, 2004, p. 44).

In the baritone saxophone transcription, I modified mostly of the chords into grace notes. Individual grace notes or group of grace notes are generally slurred with the succeeding note. The slurs usually cover the full group of grace notes and played commonly in an upward fashion.

The double notes present in the manuscript and editions for cello have a very similar treatment in my performance indications and saxophone transcription as the chords. One of the double notes is converted to a grace note and it should be played with a short duration, to convey a sense of the harmony, instead of the length in time indicated by Bach. However during playing I decided to enhance the note that belongs to the voice leading of the melody, not discarding the given notes.

Another two examples are provided in CD 1 to clarify the performance of the chords in the saxophone. Tracks 21 and 22 present the beginning of the Allemande of the 6th Suite. Track 21 is a recording of Pablo Casals and Track 22 my own. Note that both recordings need to play the notated chords as grace notes, as was my choice in the overall transcription.

5.4 Open Strings Techniques on the Saxophone

As I mentioned in the previous chapter, the manuscripts of the Suites refer to some open strings that are attributed to Bach since it is presented in almost every manuscript, even if they have some minor differences in terms of notation. In my opinion, the effect should be disregarded on the baritone saxophone transcription given its importance on the overall performance, because this effect is seminal to enhance the polyphonic construction and the phrasing.

On the saxophone a similar effect can be obtained by changing the fingering in order to shape the sound color without changing the pitch. A small remark should be noted as to the selection of which note one should alter. I
shall choose carefully the alternate fingerings, as shown in figure 153, in order to not mischaracterize the phrasing and the meter. As a general rule for the baritone saxophone I would use the alternate fingering when a position on the cello is notated and use the regular fingering when the open string is notated. This alternate fingering technique is very common and somehow borrowed from the extended techniques used in most contemporary saxophone repertoire practices.

Figure 153: Prelude of the 1st Suite

When an F sharp, transposed on the baritone saxophone, occurs in the upper melodic line, (upper brackets), the alternate fingering used is indicated as “TF”. This closes the natural acoustic of the note and provides us with the effect as originally notated in the manuscript by Anna Magdalena (listen to track 23 on the CD 1 for an open string example on the baritone saxophone, which corresponds to the four bars depicted in figure 153.
The same technique is used below in figure 154. In figure 155 a similar technique is being used only for different notes. In this way the desired effect is still accomplished.

![Figure 154: Prelude of the 6th Suite](image1)

Between the original manuscripts, source A, B, C and D, and the first edition, source E, we find an essential difference, in bar 33, 3rd beat, in the Prelude of the 1st Suite. In the figures below one may observe clearly the difference between the editions, regarding the open string technique. Based on the manuscript of Anna Magdalena Bach, I choose not to make use of alternate fingerings for the baritone saxophone, rather to see it as an upbeat for the coming phrase.

![Figure 156: Prelude of the 1st Suite bar 33 manuscript Anna Magdalena Bach](image2)

![Figure 157: Prelude of the 1st Suite bar 33 source E first edition](image3)
Another effect present in the manuscripts, which can be explored on the baritone saxophone in a very similar way as the cello, is the resonance of particular low notes, commonly open strings for the cello. The effect generated by the low C has a special effect due to the natural resonance of the body of the instrument, due to the fact that it is an open string. The very same effect takes places on the baritone saxophone by playing the low A. The low register has a natural resonance produced by the full closed body.

5.5 Dynamics

The manuscripts of Bach’s Cello Suites, as in most of his works, have sparse indications concerning dynamics. A question that we can ask ourselves is if a modern edition should contemplate dynamics that convey the today’s interpreter. This is a problem that is universal and applicable to saxophone and cello players, as well as editors. As for most structural elements discussed here, I follow the same assertion: my transcription relies on the manuscript of Anna Magdalena Bach in combination with the conclusions dawn from the analysis further adapted to the idiosyncrasies of the baritone saxophone. My opinion is that my duty, as editor, is simply to transmit ideas, open the discussion, and point towards some informed solutions.

In chapter 3, I presented a detailed overview as to the nature of dynamics in Bach’s idiosyncratic writing. I think that all dynamics have to be done within the taste and stylistic constraints of the epoch, as the opposed to the use of dynamics typical from the 19th century – which we can still find on several recordings and performances everywhere. Interpreters should be
aware, in my opinion, of the dynamic capabilities of the instruments of Bach’s time, notably the organ and its layers and register dynamics in order to understand the quality of the dynamics. Concerning the nuances per se, they should be mainly driven by the harmonic progressions and the melodic elaborations. In short a good understanding of both stylistic characteristics, as well as the structural and analytical aspects of the pieces will make an informed and rich performance.
5.6 Breathing

Bach’s Partita for flute (BWV 1013) also known as *Solo pour la flute traversière* is one of the most important sources for studying the breathing in Bach’s works. It is the only example of solo linear-polyphony work Bach ever wrote for a wind instrument. “The exceptional technical demands of this piece have encouraged the notion that it must have been written for an exceptional player, perhaps the great Dresden virtuoso Pierre-Gabriel Buffardin” (Ledbetter, 2009, p. 270).

In comparison with the Cello Suites, the Partita for flute by J. S. Bach is written in an unnatural manner for winds, and is much more closer to the writing for strings. The unrelenting Prelude of the E flat major Cello Suite with its long phrases in 16th notes are endemic in Bach’s writing and are present as well in the Allemande of the Partita for flute. Therefore the study of the scores for strings may represent a very relevant document to understand the phrasing and breathing (Ledbetter, 2009, p. 271).

According to David Ledbetter (2009), physical aspects of breathing and tonguing must be at the service of the structures and harmonic conjunctions, provided by the composer. The integration of the practical and physical aspects with the intellectual and emotional elements is typical in Johann Sebastian Bach’s works. The player needs to develop a subtle hierarchy of breathing and articulation to match the hierarchy of phrase and types of phrasing. There is no perfect solution to the problem of breathing; different players have different strategies. There for, as long as there is good structural understanding, repeated performances will suggest different and equally workable solutions. Tracks 24 and 25 from the CD 1 exemplify the variability of the breathing and their accordance with the phrasing and musical structure. In the same motive of the Prelude of the 4th Suite, the breathing is used differently, because of the harmonic construction. Track 24 is the recording of bars 22-31, and track 25 bars 56-63.

Quantz (1752) gives a good overview concerning breathing for baroque
music practices and understanding the intentions of the composer. For example, the Prelude of the 1st Cello Suite provides a useful clue for shaping throughout the movement. In this style, beginnings and endings are often elided – a note can be at the same time the end of one shape and the beginning of the next – and function is ambiguous.

Many researchers have established a link between body and musical expression as a privileged medium of communication. Among these we may cite some pedagogue’s such as Truslit, Orff and, more recently, researchers like Choksy, Correia, Gordon, Mark & Gary, Alexandra Pierce and many others, who argued the relevance of working on expression of physical movement and gesture as fundamental for musical expression (Correia, 2013, in press).

A final remark should be pointed towards one of the supplied media contents of the thesis. “Bach Azul,” a choreographed performance of the 1st Bach’s Suite, gave me a lot of insights and knowledge of the physicality inherent in the phrasing of the Suites. Through the physical movement many findings concerning the natural flow of the phrases and breathing decisions were made. Of course we cannot extrapolate the universal validity of such an approach, but it may be seen as a strategy to discover intuitively the structure of the music and to make some decisions concerning breathing. Around 22” (1st Suite Prelude bar 15) I had to adapt the timing and respiration to the movement of the dancer in order to stay synchronized with the dance movements. Around 27” (1st Suite Prelude bar 5) my breathing had to be synchronized with the dancer movement, which required me to delay the gesture. Also the rallentando around 38” (1st Suite Sarabande bar 8) was an imposition of the dance movements. Also, around 48” the dancer forced me to play with forward and backward movements (the same happens at 1’41” bar 13, and 2’34”, bar 15).

After rehearsing for a while, I had the feeling that my respiration, dynamic aspects and my metrical movements became part of the choreography, as can be seen in the recording. Musical and physical gestures were openly synchronized.
5.7 Comments Concerning Major Differences Between Autograph and Manuscript versions and the Saxophone Transcription

It is not my intention to provide a complete explanation of all the choices made in the saxophone transcription. Instead, the most prominent examples are detailed in order to provide an overview of my approach to the performance of baroque music practices on the saxophone. A clear reference should be made however to the Anna Magdalena Bach Manuscript, which constitutes the basis of my transcription. Looking at this edition I would say that the result is a polished version of Anna Magdalena Bach manuscript, and that I added another layer on top of the manuscript.

It is important to know how accidentals are used in Bach’s music. Clearly, Bach was not systematic. An accidental was commonly valid for the note it was associated with. In the Sarabande of the Suite n° 5 in the bar 2 and 5, there is no repetition of the accidentals, and in bar 22 of the same Sarabande he repeats it. It is clear that all notation used is to avoid mistakes that could be less obvious for his contemporaries. In this chapter I will try to highlight some important decisions taken in the saxophone transcription.

1st Suite

An important discussion shall be focused on the 2nd Menuet of the 1st Suite (see figure 160 and 161). A point raised is the use of E or E flat in bar 3. In the Anna Magdalena Bach manuscript it is written E♭ I believe that this accidental exists because there is a ♭ sign written. In the baritone saxophone transcription it remains flat, however a note is given to the interpreter who should decide which accident to use. According to Winold (2007), the first two-four bar sections of this minuet are both based on one of the most venerable harmonic formulas in music, often called the "Chaconne" bass.
This progression consists of chords based on the upper tetrachord of a natural minor scale. (Winold, 2007, p. 69) (See figure 159, transcription for baritone saxophone).

![Figure 159: Chaconne bass for baritone saxophone](image)

In bar 30 of the Prelude of the 2nd Suite (see figure 162), it is not clear if the accidental note, present in the Anna Magdalena Bach manuscript, is a natural or a sharp sign. In the saxophone transcription I adopted a natural sign. If Bach wanted a repeated B flat, I believe that he would probably not repeat the accidental sign.
At the end of the same Prelude (see figure 165 and 166) I notate and perform the chords as arpeggios. This option relies on many similar options made by Bach himself, such as in the *Chaconne of the D minor Partita nº 2* BWV 1004, for unaccompanied violin, (figure 164) in which Bach clarifies his intention by providing a couple of beats as arpeggiated chords (Winold, 2007).
In bar 27 of the Courante, there is a G in the third 16th note of the third beat (see figure 167) in the Anna Magdalena Bach manuscript. In the saxophone transcription I notate a D instead of an E (F and E in the Anna Magdalena Bach manuscript) because of the sequence. However, when played as in the manuscript, the E (G cello version) has a resolution in the next bar and a fluent melody line appears.

In the saxophone transcription (see figure 168), I keep the two possibilities for the interpreter.

In the Gigue, bars 69-71, I put in the baritone saxophone transcription only the first bass note to not overcomplicate the harmonic structure.
3rd Suite

In the Prelude of the 3rd Suite, in particular the second note of the second beat of bar 30, I play a G sharp (B in the Anna Magdalena Bach manuscript) the bass line that starts in bar 27 justifies this decision:

Figure 169: Prelude of the 3rd Suite bar 27 – 35 manuscript Anna Magdalena Bach

In bar 7 of the Sarabande, I changed the last B flat to a C for the melodic flow (see figures 171 and 172). A more natural melodic line is achieved, namely to arrive at the A.

Figure 170: Prelude of the 3rd Suite bar 29-32

Figure 171: Sarabande of the 3rd Suite bar 6 – 8 manuscript Anna Magdalena Bach
In the baritone saxophone transcription, see figure 172, the last G natural (B flat in the Anna Magdalena manuscript) is changed for A.

Figure 172: Sarabande of the 3rd Suite bar 7

Figure 173 presents a problem relevant to any transcription of the Suites for a monophonic instrument. There are two common solutions to arpeggiate the lower layer as grace notes in the baritone saxophone, or to ignore the lower layer and remain with the main melody. The solution adopted in my edition is somehow in the middle, I notate only a few double notes as grace notes, namely in the beginning of bars 33-40 to not destroy the melodic flow and still give the sense of the harmony provided by the double notes in the cello. The same procedure is repeated in bars 93-99.

Figure 173: Gigue of the 3rd Suite bar 32 - 39 manuscript Anna Magdalena Bach

Figure 174: Gigue of the 3rd Suite
4th Suite

In bar 31 of the Prelude of the Suite nº 4, the third note of the Anna Magdalena Bach manuscript is a B flat. However, most of the editions notate it as an A flat (see figure 175). In the same bar, it appears for the first time as an interval of a major second on the fourth and fifth beats. The same happens in bar 35. It is the first time that there is no bass in the beginning of the bar. The strong consistent pattern of the initial thirty bars changes from this point on.

Figure 175: Prelude of the 4th Suite bar 27-37 manuscript Anna Magdalena Bach

In bar 59, the arpeggiated chords present in the Anna Magdalena Bach manuscript (see figure 176) are written in a different way than all modern editions for notation reasons. In the same bar, it is not clear if Bach wrote a double flat or a sign. The flat sign is not necessary. Probably, Bach wants a double B flat.

Figure 176: Prelude of the 4th Suite bar 59 manuscript Anna Magdalena Bach

Figure 177: Prelude of the 4th Suite bar 59
In bar 30 of the Allemande the last 8th note of the manuscript is a G (see figure 178). Most editions change it for an F. I follow the Anna Magdalena Bach manuscript and notated a G (E in the baritone saxophone transcription) instead, since it functions as a pre-tonic for bar 31.

Figure 178: Allemande of the 4th Suite bar 30 manuscript Anna Magdalena Bach

An A flat in bar 22 of the Sarabande (Anna Magdalena Bach manuscript) is clearly written (see figure 180). However, most modern editions replace it with an F, see edition Wenzinger (Wenzinger, 2012). I follow the Anna Magdalena Bach edition. Like this it could be a strong start of the sub-dominant. Anyway, I keep a note referring to the possibility of playing an F instead (D in the baritone saxophone transcription). The interpreter should make the choice.

Figure 180: Sarabande of the 4th Suite bar 22 manuscript Anna Magdalena Bach

In bar 28 we find an A flat in the third note of the second beat (see figure 181). The A flat could have the function of a delayed resolution to the tonic.
The Bourrée is a very particular movement concerning the transcription of several layers. Even if the baritone saxophone could play every note present in the bass line as grace notes, I decided to neglect some notes. Since each part of the Bourrée is always repeated, in the first performance of each of the sections I ignore all bass notes I order to clearly present the melody. When repeating the sections, I play the melody in conjunction with the bass line. I also decided to avoid the repetition sign and notate it extensively. As Anner Bylsma (2012) states, "don't play bass notes or harmonies, the listener can fill them in by themselves."

At the end of the Gigue the last A flat reinforces the final cadence (see figure 182).

5th Suite

The autograph version of the 5th Suite for Lute makes it easier to solve some problems related to the choice of particular notes.

In the fugue of the Prelude, the manuscript gives minor information concerning slurs. I tried to adapt it to provide some regularity to the melodic flow. Some examples are provided below (see figures 183 and 184):

• Theme 1: bar 28 the second 8th note until the first note in 28 staccato;
• Theme 2: bar 29 after the 8th note until the first note in 30 I slur the first two 16th;
• Theme 3: bar 32, I slur the four 16th;
• Theme 4: bar 41, I make a slur after the first 16th;
• Theme 5: bar 34, I slur the third and fourth 16th;

Figure 183: Prelude of the 5th Suite

• Theme 6: bar 94, I slur the first three 16th.

Figure 184: Prelude of the 5th Suite

In the Prelude of the 5th Suite, bar 220, a very unusual phrase can be found in the manuscript of Anna Magdalena Bach. As shown in the figure below there is written a septuplet, which does not occur in any of the Suites. In this case I chose to rely on the Lute transcription, since it was written by Johann Sebastian Bach himself.
In the second bar of the Allemande of the 5th Suite, I play a C (A, baritone saxophone transcription)

In the Allemande I put a trill in the fourth beat of bar 8.

In the Courante I skip several chords to enhance the melodic line and to keep the dance character more clear (see for example bar 4). In particular in the second part I avoid using chords (bars 14-23).

In the Sarabande the original slurs from the manuscript are kept almost intact. The only exception is the slur of the two last 8th notes on bars 3, 12 and 19, and an extra slur is added when there is 4ter note in the bass (Lute version) in order to enhance the resonance of such bass notes (see figure 188).
The Gavotte receives the same treatment as the Courante in order to keep the melodic flow and the dance character (see example 189). Gavotte 1 is conforms to the manuscript, as the Gigue.
**6th Suite**

Throughout Suite nº 6, every note higher than an F sharp (register 4) on the baritone saxophone is notated an octave lower (8va Basso), because it poses many technical difficulties. However, it remains optional and it is left to the interpreter’s choice to play it, or not, in the original register.

It was only in the Prelude that I changed the register in bars 70-79, because in my opinion the difficulty of that section in the original register gives in the wrong idea of the facility of the melodic elaboration.

In the Allemande, I didn’t change register due to the numerous harmonic changes. Here, I definitely play the bass notes. This is done in order to enlarge the harmonic perspective and still preserve the presence of a suggested third dimension.

In the Courante, bars 12, 32 and 33 have the same idea as exposed in the Minuet of the 1st Suite is and we spoke about in the chapter Articulation page 74.

In the Sarabande, I avoid the use of double notes in order to get a clearer harmonic progression.

![Figure 190: Sarabande of the 6th Suite](image)

The first Gavotte has a distinct musette character, in order to enhance that character all the chords were avoided.
In the second Gavotte, bar 13, I only put once time the low B as an upbeat, hopefully fulfilling the function as a pedal note. Playing repeatedly the low B would increase the technical difficulty and would make it very confusing for both the performer on the baritone saxophone and listener.

In the Gigue, instead of adapting the chords to single notes, I preferred to enhance the dance character of the movement. The only exception can be found in bars 21 and 22 to activate the harmonic progression (cadence).
5.8 A Commentary on Historical informed Performance

For years I was worried about the true intention in Bach’s works and to be able to communicate it as close as possible. Although, more recently I tend to move from Bach’s intentions to what could Bach have envisioned for his music nowadays, in a contemporary world with new instruments such as the saxophone. Kivy (2002) makes an excellent point when posing the same question, as follows:

“Obviously Bach did not intend his music to be played on twentieth-century instruments any more than the framers of the US Constitutions intended private citizens of the United States to be allowed the possession of assault weapons to Franklin, Jefferson, and the rest. But what we mean to ask, when we ask what the framers intended about the right to bear arms, is what they would have intended now, today, given the existence of modern weaponry, and what they wrote in the Constitution. And what we ought to be asking about Bach’s intentions how we would want his music to be played, now, today, given that he had a choice between his instruments and ours. The assumption of the historically authentic performance proponents that we are necessarily carrying out Bach’s ‘real’ intentions by playing his music on his instruments is completely unjustified. What we should be asking about Bach, with regard to all aspects or performance, is not only what he intended but what he would have intended if…” (Kivy, 2002, p. 247).

One thing that we could ask ourselves is what is the final achievement of an authentic performance. The obvious question is that we aim at finding the musical sound the composer’s audience would have heard. “A historical authentic performance of a work by Bach, for example, will typically be designed to reproduce the ‘Bach sound’ by using only those physical means at Bach’s disposal: a relatively small orchestra, say, fifteen string players altogether, and the appropriate winds and brass instruments” (Kivy, 2002). Today all historic instruments would be replicas of the instruments employed
in Bach’s time, and the manner of performance as much like Bach’s as historical research, at its present stage, can determine. But still, we can ask if such a performance would produce the ‘Bach sound’, or what Bach had in mind for a particular composition. Kivy (2002) once more proposes a concise point of view that translates coherently my understanding.

“If you mean by the ‘Bach sound’ the physical vibrations of air - call it the ‘physical sound’ - that a performance in Bach’s day, under Bach’s direction, would have produced, then the historically authentic performance would, more or less, produce it. But if you mean by the ‘Bach sound’ the musical ‘object’ as heard by the listener, then it is quite another matter. For instance, a Bach-sized orchestra sounds very small and intimate to us, for we are used to orchestras of 100 players or more. And we hear historically authentic performances as reconstructions of a past tradition, whereas Bach’s audiences, obviously, did not hear them that way at all, but as the sounds of their times. Now which sound is the ‘historical sound’? Is it the physical sound or the musical sound? If you answer the physical sound, then the historically authentic performance method does produce it, or at least something like it. But if your answer is the musical sound, then it does not. And it is hard to find aesthetic reasons for wanting to produce the physical sound rather than the musical sound. For it’s the musical sound after all, that matters: that is the bearer of the music’s aesthetic and artistic properties. Thus we arrive at the somewhat paradoxical conclusion that the best way to produce the historically authentic ‘Bach sound’ may be not on Bach’s instruments in Bach’s manner but on our instruments in our manner” (Kivy, 2002, p. 248).

The two perspectives presented above can be summarized as acoustic and interpretative views concerning the authentic or historically informed performance. I shall reflect on this further on but, probably, more important than taking a position towards one or another definition of authentic, is to understand the implicit trends of meaning.
5.9 Musical Platonism and the Role of the Score

In this section, I would like to start by giving an overview of musical Platonism and further with some considerations concerning Plato’s position towards music and the role of notation and the score nowadays. Musical Platonism derives from the mathematical Platonism, a higher doctrine than the recognizable empirical world.

Plato views about music can be found in multiple documents such as his famous dialogues, whose *Phaidros, Politeia*, and *Timaes* are the most important sources. In *Timaes*, Plato relates the doctrine of the soul with the musical harmony. Pythagoras claims the existence of three forms of music: *Musica Instrumentalis, Musica Humana*, and *Musica Mundana*. The *Musica instrumentalis* is conventional instrumental or vocal music; the *Musica Humana* defines the resonance of the harmony between soul and body; and the *Musica Mundana* is the music of the cosmos.

The instrumental music has a certain influence in the body and soul, through harmony. Plato’s types of music had a different reaction on the human soul depending on the concrete stage of its realization. The music that humans hear was suspicious, because it could create disorders in the human soul, and the music we do not hear, which is the music that restores the soul into the perfect harmony. This last, was the highest form of consideration amongst the philosophers.

The musical Platonism can be a useful concept in order to understand our position towards the transcription of the score. We ask ourselves what is the status quo of a score. We shall understand the idea that a score is far beyond the initial musical idea that was notated into paper. Clearly, during this process an insubstantial and abstract part of the composition is lost because there is the need to transform it into musical signs. So, in fact every score is already an interpretation of an abstract idea. Not even any specific musical score can be referred to as a “musical work.” (Cook-Everist, 2001).
The idea that there is a musical realization that grasps the essence of a composition begs a lot of questions, because we can ask ourselves if there is such a thing as an abstract sound structure. We may look at it as we, the human race, are not allowed to fully grasp the music in its entire essence.

Even composers in their moments of grace will just receive a damaged impression of the whole quintessence of music, because we are confined to a mortal and human existence, and limited to attempt to understand the musical archetypes (Vente, 2005).

In early times, notation was a mere supporting guide for performance. According to Kelly (2001), there are traditions of polyphonic songs in the 14th century that were based on pieces and melodies of the 13th century. The musical sources provide only a vocal melody in chant notation. From this basis, an instrumental accompaniment was commonly added (Kelly, 2001, p. 46).

Don Franklin has suggested while analyzing the *Missa* of 1733 (*Mass in B minor BWV 232*) that Bach’s system of tempo relationship might share something with the proportional system of the Renaissance era. According to Johann Philipp Kirnberger, one of Bach’s pupils, the tempo should be based primarily on the choice of time signature and the notational values used. “Each signature relates to a ‘normal tempo’ (tempo-giusto) as held by its principal beat, and this is modified by the predominance of shorter or longer divisions (with more shorter divisions it would thus be slower, with longer notes it would be faster)” (Sherman, 1997 p. 126).

However, some centuries later, from the 19th century onwards, the role of notation has gained a greater status in itself. This period conveys extreme importance to the interpreter and to the “correctness” of the interpretation, concerning the information present in the score. A score becomes frozen in time, like a footprint in the snow.

Music scores are a particular type of written document, whose realization implies human action; otherwise, it constitutes a mere list of instructions without concrete realization. The realization of a score implies necessarily a temporal dimension inherent to the performance act. Time is an
overwhelming feature of this world, which recalls and keeps track of all its history. A fossil, a used match, the annual rings of a tree, a gray hair or a creased shirt shows us that the past, the witness of a particular moment in time is irreversible. The very same fossil can be seen as an engraved score, which freezes a particular idea and encodes it as musical symbols in a music score.

I would like to conclude this section by quoting the contemporary composer Giorgio Battistelli, in an interview made for the Dutch newspaper *Nieuwe Rotterdamsche Courant* (NRC), which attests the distance between the sound-image of a work in the composer's imagination and its concrete realization, either in the score or during performance. "In the first place, imagination evades when I start making my choice during the composition process. Then, I represent this sound with notation, and, subsequently, there is an experience of failure when this sound is being sung or played. In short, composing is a fight against those three stages of loss" (Battistelli; quoted in De Vente, 2005)

5.10 The Musical Emotion as a Goal

Music has a strong association with emotions. It can express and arouse emotions. Therefore it is important to describe emotional reactions that occur in particularly strong experiences of music, and further to explore which factors can provoke such reactions.

Several experiences in the domain of social sciences have been carried to understand strong experiences on individuals (Maslow, 1954; Laski, 1961). As Laski (1961) states, “[t]riggers of such experiences includes nature, sexual love, childbirth, religion, art, science, creative work, beauty and others” (Laski, 1961). Classical music was the most frequently mentioned trigger among arts.

Another perspective on the subject is from a physiological perspective. In other words examining physical responses, such as thrills, shivers, and changes in heart rate while individuals are exposed to strong emotional
arousal (Goldstein, 1980). Sloboda (1991) obtained reports from 83 respondents various physical responses (e.g. shivers, tears, lump in the throat, goose pimples, racing heart) that they often experienced while listening to music.

This scientific knowledge shows strong evidence on the power of music to arouse and express emotions. This is clearly inseparable from the mastery of technical and interpretative features of music. For that reason I decided to finish this chapter by showing the need of the interpreter to be aware of this dimension of the music.

The score is a repository of ideas and expressions that must be prepared and offered to the listener with the conscience that it should touch their emotional responses. In every performance my only and single goal is restricted to offer the audience an intelligible emotion. Through the music of J. S. Bach this is even more notorious given its recognition. As verified in experiences with patients with memory loss, that somehow only recognizes Bach’s music from a myriad of songs (Cavaco, Feinstein, Van Twillert & Tranel, 2012).

There are many descriptions of what is emotion, and more specifically what a musical emotion represents. We may understand how the mood of a listener influences the way he/she receives music as well as other factors such as the influence of the ambience, the people around you, what happens just before the concert, if somebody is irritated, or if somebody has a positive approach. Many circumstances may influence the reception of a performance.

According to Susanne Langer (1951), the musical elements do not represent anything of their own, it is the context which stipulate the impact of the musical elements to the listener. However, other mental dispositions have a big contribution in music, but it is the intentions of the composer and the consideration of the listener, which give the most relevant contribution to the creation of meaning. The intentions of the composer providing certain mental states are representations of the music, and the listener has to be capable of catching these symbolisms. Music is not the stimulation of feelings, but the expression of feelings.
A criticism on Langer’s idea is presented by Kivy (2002) and Levinson (1990), which claim that music is expressed by its form, and not by its contents (impact) (Kivy, Levinson). Kivy criticizes Langer on her use of representation; he suggests the use of analogy. Levinson also states that some contrary emotions can have a common form, in a way that every arbitrary musical passage can represent any emotion. A very important basis of Levinson (ibid.) is that an emotion may be expressed through a musical passage and is a function of several factors.

For now, let us have a look to the idea that music is a medium for representation. The structure of the music is represented in an abstract form; in baroque music we can observe some good examples, and Johann Sebastian Bach can be seen as the grand master of the musical representation. We may understand the following illustration: Christians who are following the Lord, are depicted by themes following each other, like a canon, and the cracking of the curtain of the Temple depicted by rising and falling scales. Besides that, there is a representation in music which is striving for a more adequate imitation of non-original musical sources, of which some of the most common ones are bird sounds, storm, thunderstorms, sea sounds, and water sounds.

It is not exclusive to music the capability of touching the human soul. When music is not performed, music will be a sterile phenomenon, because of its most essential quality; the emotions that it transmits will not be effective.
Conclusion

“There is so much talk about music, and so little is said”.

Felix Mendelssohn, in Lieder ohne Worte

This Doctorate Thesis reunites a steady body of knowledge regarding the interpretation and analysis of Bach’s Cello Suites. A particular focus is given to the study of the existing manuscripts and its saxophone transcriptions. A transcription of Bach’s Cello Suites for baritone saxophone is provided along with detailed observations on the practice of baroque music on the saxophone. In short, this study correspondingly fills a gap in the repertoire for this instrument and establishes a deeper knowledge on the interpretation of early music practices with saxophone.

Baroque music has an important position in the saxophone repertoire. Marcel Mule, the founder of one of the most traditional schools, made hundreds of transcriptions of baroque repertoire and even played with Pablo Casals and Otto Klemperer some illustrations of the baroque music repertoire for ensemble. Many saxophonists followed Mule’s path, such as Eugene Rousseau and Jean Marie Londeix, mainly because given the late creation of the saxophone (around 1840), there was a lack of repertoire for the instrument.

In 2000, I made the first integral recording of Bach’s Cello Suites on baritone saxophone. As far as I know, until now it remains the only integral recording of the Suites on the baritone saxophone.

A secondary objective of this research, which is directly related with the main question, is to understand how the articulation can help the communication of emotions in baroque music. I posit the hypothesis that
emotions can be activated by someone’s interpretation. Therefore, it is investigated how the articulation can reveal the details of the structure and consequently expose to the listeners a line of thought, so to speak, which conveys the creation of meaning, as was discussed in chapter 4.

Another important issue raised in the elaboration of the baritone saxophone transcription is the choice of the manuscript that serves as a basis for the baritone saxophone edition. In particular this issue poses some important decisions concerning the notes used. In particular the so-called “wrong notes” by some cellists and editors. An example is the various A flat in the 4th Suite that are commonly changed in various editions, which remain in the baritone saxophone transcription presented here and that conform the Anna Magdalena Bach manuscript. In chapter 5, section 7, several of these changes is documented. It supports many decisions present in the transcription. However, every choice is an interpretation, every performer should be informed in order to be able to make his/her own decision. What I can hope for is that this thesis can help him/her in their path.

The three seminal documents that are essential for this study are Ernst Kurth’s Grundlagen des Linearen Kontrapunkts: Einführung in Stil und Technik von Bachs Melodische Polyphonie (1917), which was a principal reference for another book Hulshoff’s De Zes Suites voor Violoncello (1962), along with the annotated score that followed me throughout the last decades. Somehow, these references synthesize the idea behind this thesis, to provide an edition of the Bach’s Cello Suites for baritone saxophone along with the guiding principles for interpreting it.

The thesis starts by providing some historical remarks and introducing the various manuscripts of the Suites that are unavoidable sources. The manuscripts are compared according to different topics, especially in terms of articulation.

Through the comparison of different sources of the Sei Solo for Violin libro primo such as Bach’s autograph and the manuscript by Anna Magdalena Bach, I concluded that source A (Anna Magdalena Bach manuscript of the
Cello Suites) is the most complete and closest manuscript to Johann Sebastian Bach.

Examination of the autograph of the Lute version of the 5th Suite also points source A as the most correct manuscript.

In chapter 2, I made a deeper research concerning the footprints of Anna Magdalena Bach and her contributions, namely as a copyist. This chapter presented the material that was analyzed extensively in Chapter 3 and 4. In order to support a view of the Suites, and in general the solo music of J. S. Bach, as a three-dimensional melodic elaboration, many examples were provided in Chapter 4. Also, its interpretation, namely with the baritone saxophone edition, is already touched upon throughout these analytical comments.

Chapters 3 and 4 presented a theoretical and practical discussion about fundamental elements of Bach's Cello Suites that support the elaboration and discussion of its transcription for baritone saxophone, which is presented in Chapter 5. Besides relying on the Anna Magdalena Bach's manuscript, and the various analysis presented, there are also many more adaptations that take into account the nature of the instrument, namely concern breathing, fingerings, open strings (and its analogous effect on the baritone saxophone), dynamics, and the interpretation of chords or double notes.

As already mentioned one of the crucial discussions of the thesis is related to articulation, the use of vibrato and dynamics (Chapter 5, section 2, 6, and 7, respectively), as a mean to define and enlighten the language of the composer. Despite Anna Magdalena's manuscript is by far the most reliable source of Bach's Cello Suites; it is very inconsistent in terms of articulation and dynamics.

Bach's Cello Suites are an example of imprecise notation concerning articulation. We shall understand that the style and language that was clearly learned by Bach's contemporaries, suffered later an important decline in understanding, given the huge amount of suggestions that emerged on
posterior publications. Thus, a gap started to emerge and grew tremendously in the following generations on this matter.

I strongly believe that it is our duty to rely on Bach’s notation articulation-wise, and follow his strategies, when articulation is clearly missing. It is also pointless to copy literally the articulations of the manuscripts to a baritone saxophone transcription because the baritone saxophone and the cello have distinct natures, as does the Lute, hence the “transcription” for Lute. When using different instruments, one has to apply different forms of articulation due to the specifics of each instrument, namely to use the possibilities of each instrument.

Many topics such as the use of dynamics and vibrato are demystified by concrete historical facts. Some proofs were given that confirm Bach worked closely with Gottfried Silbermann, the German organ maker who invented the swell flaps, which ultimately expanded the dynamics tremendously. Besides, Bach was always trying to find new registers in the organ, like the Corneta de Eco, the Vox Humana, Gemshorn, and the Viol di Gamba, (Wolff, 2011, p. 165).

Some other references that should not be left out are some remarkable performers such as Gustav Leonardt, Frans Brüggen and Piet Kee my colleagues Anner Bylsma and Eugene Rousseau, my brother Willem van Twillert and Marcel Mule. The interest that their music and their interpretation created in my spirit aroused a wish to pursue their path and interpretations. Also of note is that these performers had a huge impact on my training given their importance in the historically informed movements of early music interpretation that started around the same time. Therefore, I started to rework and incorporate all those interpretations and music practices within my own playing. Mainly listening to their concerts and recordings and emulating their style learned the idiosyncrasies of these references. By that time I did not give too much attention to abstract thinking.

This research allowed on the other hand giving a broader sense to baroque music and particularly to Bach’s Cello Suites. Through the analysis of the structure of Bach’s Cello Suites I think I was able to provide a deeper
understanding of the structure of the music, which can be ultimately transferred as emotional narrative during performance. As Lerdahl and Jackendoff (1983) points “like most contemporary theorists, we have shied away from affect, for it is hard to say anything systematic beyond crude statements such as observing that loud and fast music tends to be exciting.” (Lerdahl and Jackendoff, 1983 p. 8). To approach any of the subtleties of musical affect, we assume, requires a better understanding of musical structure. Heinrich Schenker (1906) gives also the same perspective when commenting on C. P. E. Bach’s descriptions of how the improviser is to excite or soothe the passions: “One must seek in Bach’s word ‘passion’ [Leidenschaften] what certain aestheticians of the doctrine of affections bring to it … [Bach] means by it simply the consequences of a change in diminution: pure musical effects which have nothing in common with the amateurishly misunderstood and so grossly exaggerated ideas of the aestheticians” (Schenker, 1906 p. 5). Still, we should not disregard some simple, yet effective dichotomies in music such as the major/minor relation that can be translated into happy/sad emotions.

It is mandatory for performers to feel conditioned by factors such as harmonic functions, step lines, melodic relationships and textural aspects. Understanding the ways composers use musical gestures seems to be the key to suggest meaning and emotion, and help listeners to perceive and appreciate them.

In conclusion, every Bach performance is an aural analysis of the work. In this exact moment is certainly possible that Bach’s work is being played, listened or analyzed – each of them using mind, body and interpretation to discover, experience and express the magnificence, enchantment and spiritual nourishment of these magnificent works. Any interpretation of Bach’s Suites will not succeed or fail because of a choice of edition, ornaments, style, bowings, breathing, and slurring. Instead, character, energy, tempo, rhythm, phrasing, timing, and flow are the imperatives of the excellence of a performance. Musicality prevails over dogma.
The linear polyphony expressed in the Suites is a key element of Bach’s writing. One of the most important elements that the interpreter should be aware of is to emphasize the clarity of the discourse and to be able to guide the listeners though the harmonic and melodic structure.

In their various dimensions, Bach’s works are indisputably compositions. However, it is the duty of the interpreter, I think, to understand the subtle line between a well-balanced interpretation and a caricature that can be easily produced when we are not aware of the poetics of the discourse. The listener should be able to have the freedom to make his own interpretation according to the text that is presented by the composer, and re-created by the performer. As Winold states “all performers, listeners, and analysts can be active participants in the process of music-making, music-receiving, and music-analyzing, and they can all actively pursue their own processes of meaning-making, meaning-receiving, and emotion-experiencing.” (Winold 2007, p. 92).

These results are interpreted as evidence of a widespread cognitive skill that interprets tonality as a system of tonal relations rather than just an abstracted collection of tones or a system governed by the psychophysical attributes of tones (Butler and Brown, 1984, p. 6).

“Actual music, that is, does not provide listeners with a suitable kind of tuition; then, in turn, they may develop further tonal intuitions. All musical ideas arise with listening – a merging of ideational and sensory activity, thinking and perceiving – whose special mode of attention should be informed and cultivated far from sheer intellectual, abstract theory: i.e. as a mother tongue, instead of a second language” (Pereira, 2005, p. 55).

A true understanding of artistic expression, and its implicit notion of harmonic, melodic and rhythmic counterbalance will unfold the hidden subtleties of works. There are different approaches and models to enhance the linear polyphony. It is not possible to present a solution that is valid for
every, and single phrase or motivic elaboration. Also, for the same excerpt a
variety of expressive strategies can be applied successfully, as shown in the
chapter Examining Baroque Music; section Articulation and Polyphony on
page 77. The projection of the third-dimension in terms of performance should
be quite clear by now, hopefully. Still, I should mention another author, who
makes the same reference towards a third-dimension.

While referring to Hulshoff (1962), Manfred Wagner states that it is not
a coincidence the parallel between the elaborations of Bach’s solo music with
Leonardo da Vinci’s *regular Polyhedrons* in music two exact dimensions, pitch
and durations, together with the implied harmony can establish a suggested
third dimension (Wagner, 2000, p. 1)².

There are several problematic issues concerning the manuscripts of
Bach’s Cello Suites, although, agreeing with the point of view of Anner
Bylsma, I also follow the text from Anna Magdalena Bach with great fidelity.
The performer should be skillful enough to achieve the proper interpretation,
even without any slurs, bowings, and in my edition breathing and dynamics.
However, I consider various approaches to performance practices that follow
the analysis of the Suites.

During the period in which this research took place, I realized that all
the reading, study, and theoretical foundations that I have acquired started to
have a strong effect in my playing. The depth of such a study took me so far
away from my usual approach to performance that I started to realize
unconsciously that I was putting the emotion and intuition apart and basing
my playing uniquely on rationality. There was a dramatic decrease with the
emotional part. A balance between theory and practice is important however.
Performers should be aware that all this work is a preliminary basis for a
deeper understanding of the score, only supporting the interpretation and not
fully guiding it.

The ultimate point is to be able to grasp the unlimited dimensions of the
music structure that are enclosed in the beliefs, emotions, music structure,

ak.ac.at/culture/wagner/articles/wag00-Cello.html
soul, and hundreds of other influences. The third dimension is a summary of all these subjective elements and it is guided by definite musical parameters from the first two dimensions (melody and harmony).

Given the nature of a study such as the one reported here, I needed to necessarily confine and restrict my methodology and object of study to a very small portion of the universe. In other words, I limited my approach to a rather analytical strategy. However, the object of study, Bach’s Cello Suites, may be analyzed from many other viewpoints, which I still find essential for performance, analysis and a full comprehension of the music and its structure.

The unity of a performance is achieved by merging knowledge from many disciplines and different perspectives that are not possible to encompass in a single thesis. As a future project, it would be interesting to have studies that provide a more of the trans-disciplinary, triangulating different views of the whole phenomenon, than such a compact and detailed approach. Now that I have finished this document, I feel the need to go back to the beginning of the study that led me to this path. The initial focus on music and emotions and its consequent replacement by a rather analytical approach had a sudden effect on me at the end of this research, by showing the necessity closing the circle and the cycle by going back to those commentaries I sketched in the early phase of the research.

My major goal with this thesis is to wrap up a long route that starts with an abstract musical concept in Bach’s idea, up to a decoding process that passes from the several manuscripts, musical analysis, performance dimensions and all of the technical idiosyncrasies of his writing. This valuable knowledge, supported by thousands of experts, and revised repeatedly throughout time, lead us to a point in which the incorporation of such knowledge must be filtered through the stage and performance. We shall assimilate and understand all history and the specifics of the footprint, whose musical score is a clear example, and go through this process in order to grasp its essence. However, we shall never forget the ultimate goal of this practice, which is also the ultimate goal of performance: the expression and
communication of an initial idea, the inception of musical thoughts, or the dream that once inspired someone to face the blank page and turn it into signs and symbols.

Although it is essential to understand in detail the footprint, we must not forget that we should be aware that time passes and we must evolve with it. The concrete realization of this footprint regarding the baritone saxophone must be screened through a contemporary vision, and the needs of our culture and society.

As Anner Bylsma once said in a lesson I took with him, while teaching at the Conservatory of Amsterdam in the Van Baerlestraat, room 0.34, while playing the Allemande from the 6th Suite from Johann Sebastian Bach… “Do not try to imitate the violoncello, give your values as a saxophone player.”
**Bibliography**

This bibliography is arranged in alphabetical order by the author’s surname. When there are two authors or more, the order goes by the first author mentioned in that particular publication.


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