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rotterdam

Artistic Research Report

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Research domain: Performance Practise

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Title of the research: From the pit to the stage: a comparative approach to solo bass playing.

Artistic Research Question: How can I improve my solo playing by carrying out a research that relates double bass technique with lyrical singing?

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***We had the experience but missed the meaning,
and approach to the meaning restores the experience
in a different form.***

T. S. Eliot

NOTE

My musical training involved many people across different countries, without whom I wouldn't be the performer I am today. I owe everything to them, and therefore I'm dedicating both this report and final MA recital to:

-my Grandparents

-My main Advisers: Daniel Baños, Haydée Schvartz, Inés Natalucci, Ingrid Zur, Nicanor Suárez, Martín Rosso, Stanimir Todorov.

-my friends from Teatro Colón & SHMF: Andrecito, Denu, Gepo, Julián, Julita, Marimar, Mati L., Mati Y., Katia, Paolo, Pedro, Rodri, Santis.

& from Buenos Aires conservatory: Ale, Ari O., Elias, Juan, Julieta, Manu, Martín E., Mauri, Leo, Oli.

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-the bass section of Teatro Colón Orchestra: Adrián, Carlos, Daniel, Horacio, Marian, Mati C., Riky, Pastor.

&, of course, my Teachers: Edgardo Vizioli, Elian Ortíz Cárdenas, Yann Dubost and Luis Cabrera.

I hope their spirit arises in those brief and sudden sparks of happiness that I often experience during live performance.

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1 Abstract

This research is an attempt to translate technical skills and concepts from lyrical singing to double bass playing. A work committed to performance practice, this idea was highly motivated by translation concepts developed by writers Walter Benjamin and Ricardo Piglia, and by the willingness to improve my solo playing throughout this master program. In this sense, all translations were achieved by comparing *bel canto* repertoire shared by bassists and singers, based principally on the Bottesini-Donizetti partnership. Research strategies included expert feedback, working side by side with tenors, experimenting with my own instrument and, of course, an extensive recording analysis.

Indeed, careful listening to different sources is never less important than training technique. This complex relationship, deeply analysed by French cellist Xavier Gagnapain, has enlightened all intervention cycles of this work. In addition, artistic research has also succeeded in summarizing strong concepts from some of the most prominent musicians engaged in my musical training. All together are meant to design a basic strategy to enrich solo performance. As explained at the beginning of this thesis, the strategy is meant to be applied while preparing my final recital, scheduled on May 25th, 2020. It is also likely to be applied to any similar repertoire by any bass player who reads this report.

2 Introduction

*¿Cómo convertir toda una literatura
en un acontecimiento personal?*

R. Piglia

Over the last years, I've been constantly submitting my artistic interests to the standard goal conceived for most classical bass players: *to get a job*. Based on this purpose, I've always set up specific targets regarding the achievement of orchestral auditions. I don't particularly regret this, considering that such a quest gave me not only the possibility of earning a living, but also (and principally) led me to great musical experiences and friendships in many different locations.

Indeed, auditioning took me to Buenos Aires' most outstanding epicentre, the Teatro Colón, and later to Schleswig Holstein, in the far north of Germany, where I decided to continue my training in Europe. Paris came first, with its beautiful conservatory at 14 rue de Madrid, with its magnificent factory-phantasy-like Opera Bastille, and then came Rotterdam. By that time, having already *got the job* in Brussels, I conceived my master studies as an opportunity to reshape my performing skills without necessarily developing the sport-like practice of auditions.

Following this idea, and reconciling my goal with the specific demands of Codarts' artistic research department, it was wise not to forget that, as a bassist, my musical education had always involved an important percentage of transcriptions, both in methods (like Sevcik and Flesch) and recital repertoire. Certainly, playing music that is not originally written for my own instrument always motivates the same kind of question: how can I make my musical speech more relevant than my own instrument?

Due to its string length, double bass has very clear limitations in terms of agility and volume. The willingness to speak ourselves out forces us to minimize many technical difficulties. For this purpose, we are continuously looking for inspiration in other instrumental sources, implying at least two *translations* while playing bass. First of all, performing standard repertoire requires a basic translation from written scores. On the second place, most of the music we play is related to non-bass-sources. Unconsciously, we are, in terms of Walter Benjamin, translators, as we *serve the purpose of expressing the innermost relationship of different languages*¹ through musical speech.

Translation, wrote Benjamin once, *is a form. To comprehend it as a form, one must go back to the original, for the laws governing the translation lie within the original, contained in the issue of its translatability*. Considering this statement, it wouldn't make too much sense to keep playing Bottesini without really understanding some fundamentals of *bel canto* style. Occasionally, we need to establish a very conscious relationship with those different sources that enrich ourselves not only as bass players, but also as "general musicians". This idea, which seems superficially obvious, was fully developed by French cellist Xavier Gagnepain, who clearly understood the dialectics that operates between internal singing and instrument playing, and whose work enlightens all intervention cycles of this report.

After all these considerations, the idea for this research is rather simple. It looks forward to enriching performance by adapting external skills from lyrical singing. The whole process required not only an attentive analysis on different performances by great opera singers, but also a constant relationship with individual and group lessons led by Luis Cabrera. In consequence, the artistic result is meant to be expressed during the final recital and, of course, further individual performances. For this reason, I found

¹ Walter Benjamin, "The task of the translator". In *Selected Writings: Volume 1 (1913-1926)* (Cambridge: Harvard University Press, 1996), 255.

it necessary to conclude this research by defining a practise strategy that summarizes main translations and concepts developed in all intervention cycles, and that is likely to be applied by any bass player who reads this report. By doing this, I hope these ideas help us understanding the translatability² of the music we perform in bass recitals, as usually *the basic error of the translator is that he preserves the state in which his own language happens to be instead of allowing his language to be powerfully affected by the foreign tongue*³.

As Argentine writer Ricardo Piglia once stated, a good strategy for any artist involves a good amount of stealing. That means that quality writing goes far beyond writing, the same way quality playing exceeds the outlines of our instrument. Writers steal from other writers, bass players steal from all musicians.

Ixelles, april 10th, 2020.

² "Translatability is an essential quality of certain works, which is not to say that it is essential for the works themselves that they be translated; it means, rather, that a specific significance inherent in the original manifests itself in its translatability. It is evident that no translation, however good it may be, can have any significance as regards the original. Nonetheless, it does stand in the closest relationship to the original by virtue of the original's translatability". Walter Benjamin, "The task of the translator". In *Selected Writings: Volume 1 (1913-1926)* (Cambridge: Harvard University Press, 1996), 257.

³ Benjamin, *The task of the translator*, 258.

3 Research findings

3.1 Presentation of the artistic result

General results of this research are developed both in the introductory conclusion (3.5) and at the end of every intervention cycle (including annotated scores). Specific artistic result is shown in different final recordings as follows:

Intervention Cycle #1:

[Live recording](#) on Bottesini's *Lucia di Lammermoor* during Codarts 1st year MMus exam.
Rotterdam, june 22nd, 2019.

Intervention Cycle #2:

[Homemade recording](#) on Donizetti's aria *Una Furtiva Lagrima*.
Brussels, november 21st, 2019.

Intervention Cycle #3:

[Homemade recording](#) on Bottesini's excerpt from *Passione Amorosa*
Brussels, april 12th, 2020.

3.2 Documentation of the artistic result

All intervention cycles involved different repertoire on common topics. Therefore, conclusions tend to be complementary.

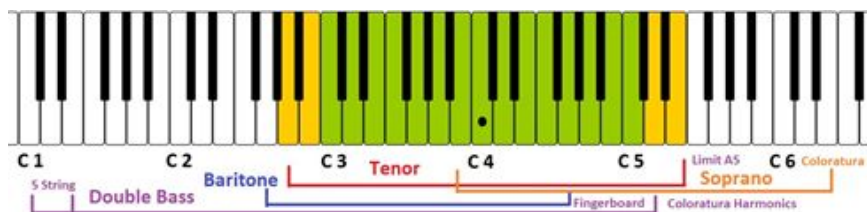
Intervention Cycle #1

Main piece: Bottesini's *Luca de Lamermoor*.

This intervention aimed to understand the piece by relating Bottesini's work with Donizetti's homonymous opera. This was the first step to approach solo playing to bel canto.

Data collection included:

1. An extensive recording analysis of the opera (music and libretto), identifying those quotations and transcriptions in Bottesini's piece.
2. An analysis of Bottesini's piece in terms of structure. The organization required a very specific designation of register in order to approach string bass colours to singer's voices. The comparison resulted as follows:



3. A series of recording analysis on *Chi mi frena in tal momento* sextet, literally transcribed for double bass from the opera's 2nd act.
4. A series of recording analysis of Bottesini's piece played by other bassists.
5. A short analysis of the reference recording.
6. Literature research to develop translations, quoting Xavier Gagnepain (*Du musicien en général... au violoncelliste en particulier*) and Giovanni Lamperti (*The Technics of Bel Canto*).

Artistic conclusions were specified in annotated scores and during live playing of the piece, but were also developed as different *translations* that propose:

1. Developing sound quality and contrast based on the piece structure.
2. Keeping the quality tone of coloraturas (natural string harmonics excerpts) with bow pressure.
3. Using portamenti only as an expressive skill.
4. Producing register changes with ease and body relaxation.
5. Linking phrasing with words.
6. Linking bow attacks with syllables.
7. Linking expressions with the original libretto (non-musical context).
8. Developing recitativo playing.
9. Linking vibrato quality with bow speed (air production) and register.

Intervention Cycle #2:

Main piece: Donizetti's *Una Furtiva Lagrima*

This intervention aimed to deepen skill translations from lyrical singing to bass playing. For this purpose, and summing up previous register considerations, it was useful to work on an aria for tenor that had been previously transcribed for double bass.

Data collection included:

1. A short analysis on Donizetti's aria.
2. A series of recording analysis on tenors Plácido Domingo, Luciano Pavarotti, Roberto Alagna, Juan Diego Flórez and bassist Gary Karr.
3. Expert consultation and side by side session with tenors Francis Ka-Foon (Codarts) and Juan de Dios Mateo (Opéra de Paris).

New contributions were made to previous translations, resulting as follows:

1. Linking vibrato quality with bow speed (air production) and producing intense vibrato of wider extent, particularly on high cadential notes.
2. Increase legato and hide shifts by changing fingerings and using harmonics.
4. Linking phrasing with words by organizing musical speech with "word slurs".
5. Marking bow attacks only with strong syllables.
7. Using portamenti by anticipating upper notes before the beat.
8. Connecting the music with the text by pre-establishing a non-musical context or mood (use of "concept slurs").

Intervention Cycle #3:

Main piece: Bottesini's *Passione Amorosa*

This intervention aimed to understand vibrato in terms of bass technique. In this case, a "lyrical excerpt" from an instrumental piece was chosen in order to focus research on string playing.

Data collection included:

1. Theoretical research based on contributions by bassist Mark Morton and cellists Xavier Gagnepain and Pablo Ferrández, among others.
2. Analysis on different recordings of Bottesini's excerpt.
3. Analysis and commentaries on tenor's vibrato and comparison with double bass vibrato.
4. Summary of all contributions made by experts during interviews/feedback requests. Experts include former teachers Luis Cabrera, Yann Dubost, Elian Ortiz and Edgardo Vizioli, Paris Opera bassists Thierry Barbé and Dominique Guerouet and great cellist Stanimir Todorov.
5. Developing vibrato exercises based on previous recommendations and comments.

New contributions to develop a lyrical vibrato resulted as follows:

1. Playing legato and "fulfilling" notes are equally important while playing vibrato.
2. Playing medium rate and wide extent vibrato (big tenor vibrato - B.T.V.) on important notes.
3. Applying B.T.V. and bow pressure on major and minor 3rd and 6th intervals.
4. Applying bow pressure and intense vibrato (or no vibrato at all) when playing *appoggiaturas*.
5. Playing fast rate and narrow extent vibrato (violin vibrato - VI. V) on a very high register.
6. Playing VI. V also in piano espressivo notes or intimate excerpts.
7. Applying a clear way of going from non-vibrato to vibrato (NV-V).
8. Playing no vibrato at all on selected notes.
9. Applying vibrato to help big shifts or glissandos.

3.3 Explanation of progress during the research process

I personally believe that it is not possible to ponder on any progress made during artistic research without considering its relationship with the main subject lessons. These last were fundamental to grow my technical and musical exigences and ambitions. On the other hand, the beginning of this research was quite sinuous as it was really hard to find a concrete topic that matched with both bass lessons and the fact of working full time in Brussels opera. Indeed, the very first idea was to extend the idea of *translation* to different instruments such as violin, cello and oboe. This ambition was based on the selected repertoire for my first year recital, which included, of course, Bottesini's *Lucia de Lammemoor* and, far more demanding, Mozart's oboe-flute concerto and Vilmos Montag's sonata for piano and bass.

Finally, time limitation and ensemble activity settled the main theme on lyrical singing. This is a very common topic in bass playing, since the only remarkable bass-composer during the XIXth century was the Italian virtuoso and opera conductor Giovanni Bottesini. Nevertheless, most visited researches that related bass playing with opera were saturated with clisés, and therefore quite disappointing and anodyne. In addition, Bottesini's repertoire tends to be simple and reiterative, exploiting similar resources and skills throughout his work. This is why I decided to develop general concepts on general playing rather than spending two years writing on a single piece.

In this sense, the aim of the first two cycles was to recognize those concepts that were translatable from two "technical languages"⁴: singing (particularly *bel canto* style) and string playing. In both cases, I analysed a repertoire that easily matched singing with bass, as both pieces had been originally adapted or transcribed by Bottesini. Following this idea, the first cycle developed a deep analysis of *Lucia de Lammermoor* phantasy, based on Donizetti's homonymous opera, a piece whose understanding was enriched by this research and finally performed in my first year recital. During the second cycle, I decided to pick an aria for tenor (written also by Donizetti) in order to simplify these translations and the interaction with well-trained experts. Needless to say, it was much simpler to work side-by-side on a piece that had been written for singers, even if I was not looking forward to including this music to my recital repertoire. On the contrary, it was quite disappointing to understand that many singers from my network were not able to discuss these issues. This didn't prevent me from acquiring valuable knowledge of singing technique, replacing interviewing with an attentive recording analysis of the aria.

Both first cycles involved different types of research strategies, leading to general conclusions or translations on different techniques. Basically, those included:

RIGHT HAND:

1. Tone and volume (linking bow with air: analysing tone production and sustain).
2. Bowing (linking bow attacks with syllables and words, contrasting strong and soft consonants, developing legato).

LEFT HAND:

3. Vibrato (linking vibrato quality with bow speed -air production- and matching its quality with original opera recordings).

⁴ "Translation thus ultimately serves the purpose of expressing the innermost relationship of languages to our answer. It cannot possibly reveal or establish this hidden relationship itself; but it can represent it by realizing it in embryonic or intensive form". Walter Benjamin, "The task of the translator". In *Selected Writings: Volume 1 (1913-1926)* (Cambridge: Harvard University Press, 1996), 254.

4. Portamento (use of anticipated shifting, delaying bow change).
5. Shifting (producing register changes with physical ease, including breath control).

INTERPRETATION:

6. Phrasing (using rubato copying opera recordings, exaggerating high notes on cadenzas).
7. Meaning (connecting music with a pre-existing text, organizing the score with concept slurs -to give a general idea of character of each "sentence" or phrase).

Third cycle was a consequence of outlining a more concrete research topic. Taking in account the quantity of data accumulated in the first cycle, this was a rather accurate decision. Indeed, this "limitation" helped me to develop a theme that is usually ambiguously explained. Consulting former teachers on this technique added a biographical value to the research. It also forced me to focus on what I have always considered a major difficulty and concern of my playing. In terms of progress, there is a remarkable difference of vibrato quality between these recordings and the very first reference recording from intervention cycle #1.

3.4 Assess and expert feedback

CODARTS *Master of Music* program is the last step of the formal education I came looking for when I decided to temporarily leave Argentina. During these four years I've had remarkable experiences that helped me to grow up both as a person and as a musician. This training was guided by Yann Dubost in Paris and by Luis Cabrera in Rotterdam. Their feedback on recordings from the third cycle were much more positive than those from the first one. Progress in sound quality and expression are evident to them. In the words of Luis Cabrera, "the evolution of your playing is really good: everything is more open: you have acquired different rates and intensities on vibrato, your pinky isn't automatically attached to other fingers. I think you're opening yourself: there's a wider deployment of your arms that allows more vibration". Nevertheless, Luis is quite precise when expressing what's left to work out. "Now we must continue finding space in the posture: opening both arms: finding and creating space while playing and developing the connection with the music from within and no longer from the hands. You must now concentrate on emotions and details".

I believe this report has settled a good base to work on my repertoire in the immediate future. All further considerations exceed artistic research. On the contrary, they are meant to be explored by developing internal singing within performance *praxis*.

3.5 Conclusion

*Creo que en la formación de todo escritor
hay una universidad desconocida que guía sus pasos,
la cual, evidentemente, no tiene sede fija...
Es una universidad móvil, pero común a todos.*
R. Bolaño

Framed by the research domain of performance practise, this work looks forward to answering in full detail and extension the AR question chosen at the beginning of this master. *How can I improve my solo playing by carrying out a research that relates double bass technique with lyrical singing?* The answer to this question involves specific procedures that concern many translations and technical topics analysed throughout the report. Indeed, a main concern was to organize this information as a practice strategy that leads to a more lyrical way of playing. My proposal is to apply this strategy as follows:

1- DELIMITATE CANTABILE EXCERPTS

Recognize those particular excerpts that are likely to express full lyricism and protagonism. Instrumental playing alternates different types of textures. During the first intervention cycle, comprehension of Bottesini's *Lucia de Lamermoor* implied understanding the piece as a structure. In this case, the immediate link with Donizetti's opera made this step easier and more objective.

2- APPLY CONCEPT SLURS

A risky "innovation", previously criticized during AR feedback, it is of great importance to relate instrumental playing with a non-musical meaning. While singing, the meaning of a text defines character, dynamics, etc. Instrumental playing shall interact with meaning in a similar way. Therefore, it is quite useful to define *concept slurs* or sections with single words, short ideas or images that help us *restore the experience* of playing music. Lyrical and protagonic excerpts always demand a meaning in order to reinforce character.

3- APPLY WORD SLURS

Working side by side with tenors revealed some strong concepts about lyrical singing. On one hand, connecting notes (singing legato) is a major concern. On the other hand, it is quite hard to concentrate on articulation considering isolated notes or syllables. For a singer, it is way easier to concentrate on *words*. I propose developing legato and articulation using *word slurs* that organize musical speech in groups of 2 or more notes. Bowing shall result from syntactic organization.

4- APPLY REAL BREATHING

Recognize and notate on the score those points in which it's possible to match bow pauses with real breath.

5- DEVELOP MOST IMPORTANT NOTES

Recognize and notate on the score those notes that require special hierarchy. Take time to engage with these notes and to develop them with vibrato and bow air.

6- DIFFERENCE SOFT AND STRONG CONSONANTS

Bow attacks shall always consider notes hierarchy. It's useful to define bow pressure and speed by the type of "consonant" (D - T) a note requires.

7- PLAY ORNAMENTS AND PORTAMENTO

In instrumental playing, ornaments are vocal. They replace coloraturas among other valuable singing procedures. Ornaments must not be underestimated or *underplayed*. On the other hand, portamento shall be played clearly and intentionally. As expressed during the second intervention cycle, glissandos must not be a consequence of random shifting. The correct way of "singing" these is to anticipate higher notes with the left hand, just before the bow changes.

8- PLAY SMART VIBRATO

One of the most interesting cycles of this research is fully dedicated to vibrato. After technical domain, vibrato may arise "naturally" as an expressive skill. Nevertheless, it is always related to aesthetics, harmony, hierarchy of notes and dynamics. Specific vibrato can be notated on certain notes to internalize its playing. A full treatment of this technique is developed in the 3rd intervention cycle. Notation is summarized as follows: BTV (for big tenor vibrato), Vibrato Slurs (for major and minor 3rd and 6th intervals), VI. V (for violin type of vibrato), NV-V (for non vibrato to vibrato), RV (for resonance vibrato) and WV (for walking vibrato).

9- DEVELOP INTERNAL SINGING (ALWAYS)

All previous steps are conceived to develop internal singing. Instrumental playing without this development becomes weak and technical.

This strategy condenses the main ideas that are fully developed in this report. I haven't conceived this research with the aim of playing one particular piece of music, but as a complementary practise for my main subject. I strongly believe that this strategy organizes a better understanding of the standard repertoire for solo bass. Following this idea, practise scores for my final recital can be annotated as follows:

Beginning of Bottesini's *Allegro di Concerto "Alla Mendelssohn"*

Allegro di Concerto „Alla Mendelssohn"

operistico

Allegro

[mf]

D

legato

inquieto

p

BTV cellisto

T

narrativo

D legato

tormentoso

BTV

T

ECO

2- Concept Slur

3- Word Slur

4- Breathing

5- Important Note

6- Type of Consonant

7- Ornament

8- Vibrato

Taking in consideration both a different piece and style, the same strategy can be applied while preparing Carlos Guastavino's *Rosita Iglesias*:

Nº7 - "ROSITA IGLESIAS"

Adaptación y edición: Martin Rosso

Contrabajo

Molto cantabile ed appassionato

nostalgico

f sonoro

apasionado

less V

S.V.

p

2- Concept Slur

3- Word Slur

4- Breathing

5- Important Note

6- Type of Consonant

7- Ornament

8- Vibrato

Carlos Guastavino

or Astor Piazzolla's cantabile from **Kicho**:

1- Excerpt from Piazzolla's "Kicho"

2- Concept Slur

3- Word Slur

4- Breathing

5- Important Note

6- Type of Consonant

7- Ornament

8- Vibrato

The image shows a musical score for a bass instrument, likely a double bass, with various performance annotations. The score is written in bass clef and 4/4 time. The tempo starts with 'Lento' and 'Cantabile', then changes to 'Allegro' at the end. The score is divided into measures, with some measures containing multiple notes. Annotations include: 'Cadencia Piano' above a measure, 'Lento' above a measure, 'Cantabile' below a measure, 'mf' below a measure, 'confesión - buenos aires' above a measure, 'BTV' (Breath Technique) above a measure, 'bow pressure' below a measure, 'melancólico' above a measure, 'nostálgico (acompaña violín)' above a measure, 'develop vib' above a measure, 'visceral' above a measure, 'VIV' (Vibrato) above a measure, 'BTV' above a measure, 'melancólico' above a measure, 'visceral - tango' above a measure, 'BTV' above a measure, 'Allegro' above a measure, 'al' above a measure, 'y a' above a measure, and 'f' below a measure. The score also includes various slurs, accents, and other musical symbols.

Even if this strategy is motivated by personal goals, I believe it may be of particular interest to other bassists. What's left to do from here, exceeds artistic research as a discipline. Indeed, a career in musical performance implies perpetual learning through praxis and sharing. Of course, *praxis* requires moving from the score to the meaning, from the meaning to the emotion, from the academic ground to the *unknown university* that guides every performer throughout different musics and countries.

4 Documentation of the intervention cycles

4.1 First intervention cycle

4.1.1 Overview of first intervention cycle

The goal of this intervention cycle is to establish a clear relationship between a solo piece for double bass and the original material of the opera in which the piece is based. The main idea is to enrich my interpretation of Bottesini's fantasia on *Lucia de Lammermoor* by relating technical and expressive aspects to lyrical singing.

The piece itself reflects very different ways of approaching the instrument at its full range. Desktop research will include:

1. An analysis of the relationship between Bottesini's piece and Donizetti's opera (both in terms of music and libretto).
2. An analysis of Bottesini's piece in terms of structure and organization.
3. A series of recording analysis on those arias transcribed by Bottesini considering important features of lyrical singing (*bel canto* style, in this case).
4. A series of recording analysis of Bottesini's piece played by other bass players.
5. A short analysis of the reference recording pointing out those aspects that could be enriched as a result of the previous steps.
6. Reflecting on literature research.

The conclusions of this intervention cycle shall express a translation of different techniques from lyrical singing to bass playing. A new notated bass score of the piece shall include these translations in order to improve the performance. A new reference recording of a selected fragment shall demonstrate these reflections.

4.1.2 Reference recording

- Reference homemade Recording on work-in-progress Bottesini's Fantasia on *Lucia de Lammermoor*. The piece has been selected because it clearly requires different kinds of instrumental skills (articulation on both hands, wide range virtuoso excerpts) and singing skills (vibrato, character, colour, phrasing). It is a very demanding piece and a clear example of solo bass repertoire.
- Giovanni Bottesini: Lucia di Lammermoor (no piano, orchestra tuning).
- Homemade recording, Brussels, 15-11-2018. Duration: 9 minutes (approx).
- <https://www.youtube.com/watch?v=2YhtkkajYLO>

4.1.3 Reflect & assess

Feedback summary from Luis Cabrera (Main Subject teacher), Martín Rosso (Brussels Opera) and Julián Medina (Buenos Aires Philharmonic).

Rhythm: Julián Medina points out that ritenutos between transitions are sometimes not clear enough: there's not a clear subdivision of tempo while trying rubatos or accelerandos. There's also a tendency of being too lax in the slow melodic lines that follow fast-demanding sections: *the tempo lacks stability in those sections, even if the music is supposed to imitate opera singing.*

Intonation: No comments about this, despite the fact of numerous accidents that can be related with fatigue and lack of practise.

Sound Quality: Great positive feedback about the sound, but also considering, like Martín Rosso has pointed out, that this recording has been made in a small space where big differences of volume and dynamics cannot be appreciated.

Vibrato: Considering the recording quality, Martín Rosso finds difficulty in noticing a wide proposal of different vibrato's qualities. Luis Cabrera is even more critical and believes that still different types of vibrato should be explored in direct connection with the emotional meaning of the music.

Articulation: Lack of direction and engagement in really fast excerpts, as Luis Cabrera's noticed.

Bow use: More weight could be dropped from the back and arm to the bow.

Phrasing: Sometimes directions are not clear enough or do not follow "what the music is really asking for" (Luis Cabrera dixit).

Musical intention: This is the main aspect criticized by Luis Cabrera. There's a lack of intention and density in some notes (like harmonics) where the dramatism or tenderness should be exploited. Luis insists on listening to recordings of opera singers like Caruso or Pavarotti to fully understand how the sound could be guided.

4.1.4 Data collection

1. RELATIONSHIP BETWEEN BOTTESINI'S and DONIZETTI'S *LUCIA DE LAMMERMOOR*

The selected piece is part of the canonical repertoire for solo bass that was developed by Italian composer and virtuoso Giovanni Bottesini during the XIX century. Despite its simplicity in terms of composition, the piece itself is useful for this research as it gathers different elements that are clear transcriptions or adaptations from the original opera in which the piece is based. Indeed, Bottesini, a celebrated opera conductor of his time, would usually play variations of the operas he was conducting during intervals. By doing this, the composer developed and exposed the ductility of the instrument in

terms of register, articulation and phrasing. In order to enrich these aspects, I believe that it is worth to analyse the original sources of the piece.

Considering that this intervention cycle shall reveal how my own performance can be enriched by the inspiration of lyrical singing, we should also consider other parameters of expression such as the original libretto that is linked to the piece. Indeed, the way other musicians play or sang Donizetti's opera cannot be considered without taking in account the context and meaning the music implies. In order to achieve this, [a recording of the original opera](#) has been carefully listened to. This version was performed in 2015 at the Gran Teatre del Liceu (Barcelona) under Marco Almiliato's conduction. Main roles are sung by Elena Mosuc (Lucia), Juan Diego Flórez (Edgardo), Marco Caria (Enrico) and Simon Orfila (Raimondo).

Donizetti's *Lucia di Lammermoor* is a tragic opera organized in three acts. The libretto was written in Italian by Salvatore Cammarano, based on Sir Walter Scott's novel *The Bride of Lammermoor*. The piece represents one of the composer's major works, and it was premiered after Rossini's retirement and Bellini's death, expanding the popularity of its author.

The story itself is set in Scotland in the XVIIth century and it summarizes the tragedy of Lucy Aston, who dramatically falls in love of her family's enemy, Edgardo Ravenswood. Not being able to concrete this love and being forced to a fixed marriage, Lucia murders his husband before falling into complete madness and death. Her fatal destiny causes a deep sorrow and depression on his original lover, Edgardo, who commits suicide at the end of the piece. In this sense, the original Libretto contains lots of excerpts that expose a high level of melodrama.

The beginning of the first act is already signed by tragedy. Lucia's brother, Enrico, is willing to engage her sister with an influential man in order to protect his family's interests. Despite this wish, someone informs Enrico that Edgardo, his enemy, is actually trying to seduce Lucia. Even if this information unleashes Enrico's anger, Lucia cannot help being absolutely in love with Edgardo. As a consequence, both lovers set up a meeting before dawn. This encounter, developed as a beautiful duet, is one of the most important points of the opera. The desperate love they confess to each other makes us think of similar cases in which secret couples meet in the middle of the night, such as Wagner's *Tristan und Isolde* second act, Verdi's *Falstaff* (*bocca baciata non perde ventura*) or even Donizetti's comedy *Don Pasquale*. During this encounter, Edgardo asks Lucia's engagement and, in exchange, she begs him to keep the relationship in secret. The tragic end is clearly suggested in the duet when both of them sing *Ah! Soltanto il nostro foco / Spegnerà di morte il gel!* meaning that only the ice of death can turn off the fire of their feelings.

After this episode, Edgardo leaves full of happiness, but Lucia is quickly bamboozled by his brother. Indeed, Enrico and his partners show a fake letter to Lucia that proves Edgardo's infidelity. Donizetti's music suggests a tragic climax when Lucia is coerced to sign a marriage with a man she doesn't love (*La mia condanna ho scritta!*). In the middle of this ceremony, which takes place at the half of the opera, Edgardo appears to witness what he considers an act of betrayal. It is here (1.16'31" of *Liceu's* recording) when the famous sextet that Bottesini has transcribed for the end of his fantasy (m. 127-160) takes place. The original sextet is written in Db Major the original score, but the bass version features in D (E major) to fit the instrument register and natural harmonics. The melody is taken from the beginning by Edgardo (tenor) and Enrico (baritone) while exposing different lyrics and a 6th distance between their voices. As shown in the score, the melody is also doubled by the flute. It is interesting to notice the content of the libretto in the first progression, as well as the extreme use of rubato that may enrich the end of the phrase. It is remarkable that Donizetti chose simple major melodies when expressing heavy amounts of sorrow. On one side, Enrico regrets having cheated her sister (*Da' miei lumi cadde il velo... / Mi tradì la*

terra e il cielo!... / Vorrei pianger, ma non posso... / Ah, mi manca il pianto ancor!): he sees her under threat and regret fulfils his heart. On the other side, Edgardo is really confused: the anger that Lucia's betrayal wakes up does not prevent him to express the love he still feels for her (*Io son vinto... son commosso... / T'amo, ingrata, t'amo ancor!*).

This contradictory feeling of hate/love may explain why Donizetti wrote this simple major melody in order to express tragedy. At the end of the first duet, Lucia di Lammermoor takes the leading voice of the same melody, developing a counterpoint with Enrico, Raimondo, Arturo and Edgardo's interventions. The parallelism with Bottesini's fantasy is clear, as the same melody is repeated in a higher octave that matches a soprano's register. At this moment, Lucia's pain is beyond words: I want to weep and I cannot, she sings, even the tears are abandoning me (*vorrei pianger, ma non posso... / ah, mi manca il pianto ancor!*). Before retaking the section, the soprano's voice starts alone developing a typical cadenza full of coloraturas and rubatos, a resource that is very common in all belcantic arias and that Bottesini imitates at measure 160 of our piece.

As far as we can see, the central episode that wreaks havoc in the story is Edgardo's intervention at the wedding. The plurality of voices and misunderstanding is well expressed in the sextet. A canonic theme of XIX century romanticism, the tragedy of Lucia and Edgardo is due to the impossibility of their love. After the sextet, Lucia's answer to Edgardo confirming her signature at the marriage certificate provokes a fast excerpt (1.23'50'') that could be easily be matched with some of the fast transitions that Bottesini uses in his phantasy (i.e. measures 61-65). This kind of fast transition is very common in bel canto repertoire whenever a shocking statement is revealed. As a consequence, Edgardo accuses Lucia of betrayal, but her vulnerability awakes the compassion of the other characters. Edgardo is therefore threatened and leaves in anger.

The beginning of the third and final act of Donizetti's opera (1.27'30'') matches perfectly the instrumental beginning of Bottesini's phantasy (m. 1-19, in G minor). The diminished minors arpeggios and tremolos suggest a storm. The act itself is entitled *La ragion smarrita* which literally means "the loss of reason". The introduction gives place to Edgardo's recitativo. In fact, this section could be matched with the recitativo indicated in Bottesini's phantasy (m. 21) despite the fact that both melodies are different. The character of the scene combines an awful amount of solitude and deep sorrow: horrible is this night, sings Edgardo, as my own destiny (*orrida è questa notte / come il destino mio*). While Bottesini develops a beautiful and melancholic aria that could match Edgardo's register as a tenor, the original opera maintains the tension that augurs his meeting with Enrico. During the encounter, both of them set up a duel before dawn.

In the following scene, the terrible murder of Lord Arturo by Lucia is gossiped by Raimondo (1.40'). Lucia's reappearance (1:47') causes a deep impression on the crowd: she has completely lost her mind. It is worth mentioning the interaction between the flute and the soprano in *Pargi d'amaro pianto*, one of the most famous arias of the Opera. Even so, Bottesini doesn't quote this section in his fantasy. The aria resumes Lucia's love towards Edgardo, to whom she wishes to meet in heaven, announcing her own death. This could be considered another culminating point of the opera ("the mad scene") and it shows extensive skill (coloraturas, ornaments and cadenzas) of bel canto style. Due to its demanding register, sopranos may transpose this aria down a tone.

Towards the end of the opera, Edgardo's sorrow (*l'universo intero è un deserto per me senza Lucia!*) is exacerbated in two different moments. On the one side, Edgardo tortures himself imagining the contrast between Lucia's happy marriage and his unrequited love. In the sublime aria *Tombe degli avi miei*, he announces his upcoming death. His sorrows are similar to those of young Werther and Julien Sorel. Later

on, he's informed about his old lover's condition. Indeed, he's told that Lucia has never stopped loving him and that, as consequence, she has gone mad and sick, murdering her brand new husband. This particular moment (2.19'33'') matches another transcription of Bottesini's phantasy (measures 88-102), which is by far the most peculiar: the men choir (doubled in B major by the piccolo) is reproduced in the phantasy in a super high register for the bass (D/E major). While suggesting an ambiguous "a tempo" mark, the melody is sung at Donizetti's opera with parsimony and languor.

The intervention of Edgardo is clearly marked in the phantasy (m. 95-99) and shall be played considering a contrasting and deep chant. Immediately after this part, the sound of bells inform Lucia's death. In desperation, Edgardo runs to meet her. His final aria *Tu che a Dio spiegasti l'ali* (written notably in the 2nd person, as speaking to Lucia) exposes once more his unconditional love before committing suicide. At the end of the opera, there's a peculiar cello solo that reproduces the melody from the aria. It is very peculiar that this solo is not suggested at all in Bottesini's piece.

To summarize, it can be easily argued that Bottesini's phantasy on Lucia di Lammermoor is not a literate transcription of Donizetti's opera, but a solo piece that seeks to reproduce the structure of an opera by condensing three different elements (arias, recitatives and orchestral transitions) in one solo instrument. In the fantasy, the double bass reproduces the starring role of the tenor (Edgardo), the soprano (Lucia) and the orchestra (different instruments, depending on the register). Even if the transcribed arias do not follow the chronological structure of the story, an approach to the libretto by the player shall restore the meaning of the melodic lines. Taking in account the original opera, it would be most useful to indicate in Bottesini's piece which section corresponds to an aria, a recitativo, an orchestral transition or even a concertante variation of a theme (as measures 161-191).

In general terms, and considering the register that distinguishes solo bass playing, it is reasonable to suggest that Bottesini's fantasy exposes, above all, the character of the main tenor. Edgardo's super romantic role summarizes sorrow, pain, nostalgia, melancholy, anger, and an immense and quite exaggerated amount of love. An attentive listening to his arias (by different singers) may expand the colour and density of this piece's solo lines. In this sense, it is also useful to summarize the original arias transcribed from Donizetti's opera:

1. · Chi mi frena in tal momento" (Sextet, 2nd act)
2. · Introduction of the 3rd act.
3. · "Orrida è questa notte" (Recitativo of the 3rd act)
4. · "Tombe degli avi mie" (3rd act)

2. ORGANIZATION and ANALYSIS OF BOTTESINI's LUCIA DE LAMMERMOOR

As previously expressed, it is worth organizing the fantasy for a clearer approach of those sections in which Double Bass technique can be compared and matched with lyrical technique and resources.

The organization will consider the following parameters: Title and measures – Section Type (recitativo / aria / orchestra section / variation) – Relationship with the original opera (ROO) - Tempo mark - Character (considering the original opera, articulation and harmony).

1- INTRODUCTION (m. 1-20)

ST: Orchestral Prelude or Introduction

ROO: Beginning of the 3rd Act. The introduction prepares the declamation of the tenor, in this case Edgardo.

T.M: Allegro

Character: Stormy (m. 1-5, diminished Gm scale over string tremolo) and declamatory (m. 5 presents sixteenth notes motivy. Continues in D major till a II-V-I cadence in Bb major at m. 21).

2- BbM RECITATIVO (m. 21-29).

ST: Recitativo, as indicated in the original score.

ROO: maybe related to the aria *Orrida è questa notte*.

T.M: Recitativo (ad libitum: the accompaniment makes V-I in tremolo, so the timing and phrasing of the solo part is quite flexible).

Character: Passionate and declamatory. The lines explore a 3-octave register. Focus on vibrato and projection of sound.

3- Gm RECITATIVO "A TEMPO" (m. 39-36)

ST: Recitativo

ROO: None

T.M: A Tempo Moderato (the accompaniment keeps the tremolo).

Character: Introspective and nostalgic (m. 29-30). Furious and Melancholic (m. 31-32).

Declamatory (m. 32-37). Focus on vibrato and variation of colours in piano dynamic.

4- MODERATO ARIA (m. 37-44)

ST: Aria

ROO: None

T.M: Tempo Moderato (accompaniment switches from tremolo to eighth notes, making the pulse more static).

Character: Dolcissimo (m. 37-41, in Bb major). Grave (m. 41-44, in G minor). Declamatory (32-37). Focus on vibrato and line phrasing.

5- 1st ORCHESTRAL ALLEGRO (m. 45-50)

ST: Orchestral Transition

ROO: None

T.M: By tradition, Allegro Giocoso (accompaniment makes I-V-I by measure, in eight notes).

Character: Giocoso. Focus on articulation (legato-staccato alternation) on the high register (natural harmonics).

6- CADENZA TRANSITION (m. 51-54)

ST: Recitativo

ROO: None

T.M: Ad libitum: no accompaniment.

Character: Solemn and declamatory. Focus on projection of sound.

7- DRAMATIC ADAGIO (m. 55-61)

ST: Recitativo

ROO: None

T.M: Adagio (accompaniment makes eight notes, then tremolo).

Character: Introspective (m. 55-56) then Declamatory, Sorrowful and desperate. Focus on harmonic transition (EbM/Bb7/Cm/Bb7=Iib/A7/Dm), projection of sound and fast vibrato on the higher G.

8- 2nd ORCHESTRAL ALLEGRO (m. 61-67)

ST: Orchestral Transition

ROO: Remains of similar transitions and Motive of the introduction of the 3rd. Act).

T.M: Allegro (accompaniment makes eight notes)

Character: Virtuoso. Focus on left hand articulation and bow contact point.

9- 1st LUCIA'S RECITATIVO (m. 68-75)

ST: Recitativo

ROO: Compare to Lucia's recitatives and cadenzas in the original.

T.M: A Piacere (accompaniment makes the harmony in chords following the melodic line).

Character: Dolce, fragile, ethereal.

10- 3rd ORCHESTRAL ALLEGRO (m. 76-88)

ST: Orchestral Transition.

ROO: None

T.M: Allegro (accompaniment makes eight notes).

Character: Virtuoso. Focus on articulation of the left hand and bow contact point.

11- EDGARDO'S LAMENTATION (m. 88-103)

ST: Aria / Choir

ROO: Men Choir response after *Tombe degli avi miei* Aria.

T.M: A tempo and Espressivo (accompaniment in eight notes).

Character: Lugubrious and Distant (m. 88-95) while the choir sings *The marriage was a tragic blow for her / love robbed her of her reason / she is near her last hour / and moans and asks for you*. Desperate (m. 95-99) as Edgardo sings: "Ah, Lucia is dying! Lucia, ah!" and then "*Will my Lucia never see the close of this dawning day? (Questo dì che sta sorgendo tramontar più non vedrà la mia Lucia?)*". Focus on contrasting colours between the piccolo/choir playing with Edgardo's lamentation.

12- LUCIA'S DEATH (m. 103 - 110)

ST: Orchestral Transition

ROO: Dramatization of Lucia's death announcements by Lammermoors' dolls.

T.M: A tempo (the Bass line is very vertical, the accompaniment in triplets).

Character: Stormy and Furious. Focus on sound projection and bow contact as the arpeggios grow higher.

13- 4th ORCHESTRAL ALLEGRO (m. 111 - 120)

ST: Orchestral Transition

ROO: None.

T.M: Allegro (accompaniment makes eight notes).

Character: Ethereal (m. 111 – 112) and growing Solemn (113 – 120). Focus on left hand and bow articulation.

14- 2nd LUCIA'S RECITATIVO (m. 121 - 126)

ST: Recitativo

ROO: None.

T.M: A Piacere (accompaniment makes the harmony in chords and then disappears).

Character: Dolce and ethereal, as a memory (m. 121 – 126). Present and Declamatory (m. 125 – 127). The last part of this section is instrumental rather than vocal. Focus on sound projection and articulation of the left hand.

15- SEXTET (m. 127 - 160)

ST: Recitativo

ROO: Literal transcription of *Chi mi frena in tal momento* sextet. Crucial point of the opera.

T.M: Andante (accompaniment imitates string's pizzicatos).

Character: Declamatory and Sorrowful (m. 127 – 143) despite the “piano” dynamic written in the score and D major tonality. The original score and libretto settles a polyphony of declamation as the result of Edgardo's interruption at Lucia's wedding.

Edgardo sings:

*Who curbs me at such a moment,
who stemmed the flood of my anger?
Her grief, her terror, are the proof,
are the proof of her remorse!
But like a withered rose, she hovers
between death and life!
I surrender, I am touched, I love you,
heartless girl, I love you still!”*

*Chi mi frena in tal momento,
chi troncò dell'ira il corso?
Il suo duolo, il suo spavento
son la prova d'un rimorso!
Ma, qual rosa inaridita, ella sta
fra morte e vita!
Io son vinto, son commosso,
t'amo ingrata, t'amo ancora.*

Enrico sings:

*Who checks my fury and the hand
which darted to my sword?
I heard within me a plea
for the unhappy girl! She is my kin!
I have betrayed her! She hovers
between death and life!*

*Chi raffrena il mio furore, e la man
che al brando corse?
Della misera in favore nel mio petto
un grido sorse! È mio sangue!
L'ho tradita! Ella sta
Fra morte e vita*

and Raimondo sings:

*What a terrible moment! I cannot find words to say! / A dense cloud of terror seems to dim the
sun's rays! / Like a withered rose, she hovers between death and life / whoever does not feel for
her, has the heart of a tiger.*

The sorrowful that awakens Lucia's happiness is quite clear. The character shall remain the same during Lucia's entrance at Bottesini's transcription, an octave higher. In this part, Lucia sings:

*I hoped that terror would
cut short my life,
but death will not help me...
I must live on in anguish! T
he veil fell from my eyes.
I was betrayed by earth and Heaven!
I would weep, but I cannot,
even tears have forsaken me.*

*lo sperai che a me la vita
tronca avesse il mio spavento,
ma la morte non m'aita –
vivo ancor per mio tormento!
Da' miei lumi cadde il velo,
mi tradì la terra e il cielo!
Vorrei piangere e non posso,
m'abbandona il pianto ancor*

Focus on phrasing (use of rubato as the singers use at the originals, breathings), style resources (portamento), vibrato (colors on both registers) and sound projection.

16- FINALE (m. 161 - 170)

ST: Variation

ROO: It can be considered an instrumental variation of the sextet.

T.M: By tradition, Allegro molto (accompaniment makes eight notes).

Character: Virtuoso. Focus on left hand articulation and bow articulation (staccato in high and medium register). The piece ends in G major, in clear contrast with the beginning.

3.A. RECORDING ANALYSIS ON “CHI MI FRENA IN TAL MOMENTO” SEXTET

Considering the goal of this intervention cycle, which is to enrich the playing of a bass piece with the contribution of opera singing influence, it is more convenient to focus on one of the previous sections. In this case, the chosen one is section no. 15, which Bottesini has developed towards the end of the phantasy. This section is considered as it represents one of the two only excerpts that were literally transcribed from the original opera.

The original sextet opens with a duet between Edgardo (tenor) and Enrico (baritone), in which Edgardo (tenor) expresses sorrow and love for Lucia (soprano), and Enrico expresses remorse for having betrayed her sister. As far as we can see, the double bass offers a quite extensive register that can match both tenor and baritone range.

Briefly, it would be useful to consider this helpful comparison (see appendix):



Indeed, our “Section 15” (Sextet) from the fantasy starts in a D3 (E3 in Solo tuning), just a 4th lower than Edgardo’s line (Ab3). The lowest note in the Bottesini’s Aria is a B2/C3. When Lucia’s section begins

(m. 145 of the Phantasy), the solo Double Bass matches the soprano lower range starting with a D4/E4 (the original Lucia line sings Ab4, an octave higher than Edgardo) going up to a F#5 (G#5 in Solo tuning). Needless to say that comfort range of the bass is the baritone/tenor's one, being Lucia's part usually played with natural harmonics.

After having considered this comparison in terms of range, it would be useful to carefully listen to different recordings of the sextet considering parameters of

1. **Tempo (BMP, subdivision and rubato)**
2. **Colours (Dynamics and Vibrato)**
3. **Phrasing (breathing and articulation)**
4. **Ornamenting (Glisandi, Portamenti, Coloraturas)⁵**

In any case, it is mandatory to consider that bel canto singing tradition (and instrument playing as well) surpasses 150 years of history, showing distant examples in terms of these parameters. Having made these considerations, the following recordings include two cases of 'old' singing (E. Caruso, M. Callas), two cases of modern tradition (influenced by "the three tenors", in this case Pavarotti and Domingo) and a case of contemporary singing (Teatro del Liceu, 2015 recording).

1st Recording (E. Caruso)

Edgardo (tenor): Enrico Caruso
Enrico (baritone): Giuseppe De Luca
Lucia (soprano): Amelita Galli-Curci
Alicia (mezzo-soprano): Minnie Egner
Arturo (tenor): Angelo Bada
Raimondo (bass): Marcel Journé
Orchestra: Unknown
Victor Recording, Camden, New Jersey, January 25, 1917.
<https://www.youtube.com/watch?v=14tdvxUvxFU>

Edgardo (Caruso):

Tempo (subdivision and rubato):

BPM: 55

Tenor's tempo is quite stable. At descending lines of m. 11 and 13, Caruso holds up the tempo producing a clear rubato before retaking tempo. The higher note of m. 16 is maintained with full air, stopping the tempo completely. M. 17 shows a clear accelerando before he repeats the stop at m. 18, just before Lucía enters.

Dynamics, Colours (Vibrato):

The dynamics goes from *Mf* to *F*. Caruso's voice has an outstanding quality. His vibrato is continuous; it grows significantly wider and slower at high notes of m. 11, 13, 16 and 18.

⁵ We understand Glissando and Portamento as a slide that conducts from one pitch to another. In string playing, glissando is usually defined as a musical effect in which the whole chromatic scale can be listened to. Differently, portamento is the result of expressive shifting and connecting two different notes.

Phrasing (breathing and articulation):

In general terms, Caruso draws the melodic line with a super legato. A few notes are clearly over articulated (eighteenth notes of m. 6 and 7, matching syllable “Spa”). The first “Chi me frena in tal momento” has a phrasing that seems like the result of Italian accent. The syllables “in tal momento” seem to be conducted with some glissandi that exaggerates the legato. Eighteen notes of m. 15 are not equal, precipitating the 8ve jump to m. 16.

Ornamenting (Portamento, Coloraturas):

Caruso singing shows and extraordinary use of Legato. The use of descending portamento is quite clear when he connects the Pause notes (m. 16, syllables “mos-so” and m. 18, syllables t’a-moan). An ascending portamento is heard at m. 10 (“mor-so”) but Caruso does not use this kind of resource with big ascending intervals: his technique is really neat while singing major 6th and 8ves.

During the development of the sextet, the lack of quality of the recording makes it difficult to distinguish the qualities of the soprano’s voice. Tempo ends up being more unstable.

2nd Recording (M. Callas)

Edgardo (tenor): Giuseppe Di Stefano

Enrico (baritone): Tito Gobbi

Lucia (soprano): Maria Callas

Raimondo (bass): Raffaele Arié

Arturo (Baritone): Valiano Natali

Alicia (mezzo-soprano):

Anna Maria Canali (Alisa)

Coro e Orchestra del Maggio Musicale Fiorentino

Conductor: Tullio Serafin (<https://www.youtube.com/watch?v=zv79r-rp6Oo>)

Giovanni di Stefano (Di Stefano):**Tempo (subdivision and rubato):**

BPM: 56/60

Tenor’s tempo is stable. At descending lines of m. 11 and 13, Di Stefano holds up the tempo producing rubato but not as pronounced as Caruso’s version. The higher note of m. 16 is, of course, accentuated, but there’s no stop of tempo, just a little rubato.

Dynamics, Colours (Vibrato):

Di Stefano’s sound quality is really neat and stable. He’s got a tendency of highlighting high notes-syllables (“in-tal”, m. 3) changing the dynamic to forte. It is evident that this is the result of a wider amount of air used at an specific note, that could be emulated with bow speed. Vibrato is clear only in long notes. In general, the character of Di Stefano’s is really solemn and serious, matching perfectly with the character of the libretto.

Phrasing (breathing and articulation):

Shows a steady quality in each phrase.

Ornamenting (Portamento, Coloraturas):

Di Stefano uses less portamento that Caruso, but is clearly heard in ascending intervals in m. 3 (“in-tal”), 6-7 (“il-suo-duo-lo”), m. 8 (“ven-to”). As Caruso, an exaggerated glissando in the last descending 4th interval of m. 18 is used before Lucia’s entry.

In general terms, we can notice that the use of portamento to link notes depends on the syllables: those who begin with vowels are usually a continuation of the previous notes. In terms of sound, Di

Stefano attacks some notes with a tight sound (m. 15) that could be translated into less bow speed, closer vibrato and a contact point closer to the bridge. On the contrary, he attacks some intervals (m.7, 8, 16) with a significant amount of air; this last effect could be translated by increasing the speed bow on some important notes.

Maria Callas (Lucia):

Tempo (subdivision and rubato):

BPM: 56/60

Soprano's tempo is stable. Due to the fact that the soprano voice is sung with three other voices, it's understandable that Callas doesn't take so many liberties while singing her line. She definitely does it at m. 32, where she stands alone sustaining a long calderon which is not written in the score. Rubato is again coordinated in m. 34 with Edgardo's line: this resource is frequently used in the last measure of a phrase, and it usually involves a big sustain of the last note before a V-I cadence.

Dynamics, Colours (Vibrato):

Callas voice quality is outstanding. The dolce character of his line is perfectly equilibrated with a sound full of presence; her entry switches the protagonist line from Edgardo to Lucia. Her vibrato in high notes is extremely stable and fast (m. 19, 23, 24, 25, 27). Her vibrato quality changes dramatically in the higher note of the aria (Bb6 of m. 32), maybe as a consequence of the combination between air and register. Indeed, this note is attacked with a very wide-audible vibrato (it is possible to listen to the oscillation of the pitch) and is combined by an immediate decrescendo that follows the descending notes. This last effect is impressive in terms of colours (1:40). It could be translated matching a high bow speed with a wide vibrato and then a slower bow speed before attacking the following syllables with different bow changes. The vibrato Callas uses on m. 34 calderon is also remarkable: it matches Stefano's Tenor vibrato while singing the same note. It is possible to say that the colour she uses to sing this note depends on the interaction and sound quality of the Tenor, and does not necessarily respond to her tesitura.

Phrasing (breathing and articulation):

Her phrasing shows a clear (and successful intention) of producing a legato that maintains the sound quality in long lines. In m. 23, for example, she chooses not to profit from the eight note silence to breath, maintaining a straight line from m. 22 to 24 ("ma la morte non m'aita"). On the contrary, she breathes clearly to attack the high A of m. 32. The use of breathings to guarantee a good sound from the beginning of a note should be considered while playing the transcription of Bottesini's fantasy.

Ornamenting (Portamento, Coloraturas):

As a result of the style, the use of ascending and descending glissandos is audible in m. 20 (exaggerated), m. 22 (major 6th) and m. 26 (major 3rd).

3rd Recording (L. Pavarotti)

Lucia (soprano) Joan Sutherland

Alicia (mezzo): Huguette Tourangeau

Edgardo (tenor): Luciano Pavarotti

Enrico (tenor): Rylan Davis

Arturo (baritone): Sherrill Milnes

Raimondo (Bass): Nicolai Ghiaurov

Orchestra of the Royal Opera House, conducted by Richard Bonynges

Decca Music Group Ltd (available on Spotify).

Pavarotti (Edgardo):

Tempo (subdivision and rubato):

BPM: 57/62

The orchestra begins around 61/63 BPM, but Pavarotti sets up the tempo immediately around 57 BPM. He's got a tendency of making last notes much longer, using extreme use of tenuto. He clearly turns the eight notes of m. 4, 6 and 8 into, at least, quarter notes. He doesn't "sing" the silences; he just uses them for short breathing proposals.

Dynamics, Colours (Vibrato):

The imposture of Pavarotti's voice is outstanding, and we could easily set the initial dynamic as forte. Indeed, he's singing is clearly above Rylan Davis', and is characterized by a constant tenuto that makes some notes last longer. He's vibrato on the high notes is extremely steady and fast.

Phrasing (breathing and articulation):

The breathing is reduced to the minimum, linking each sentence with strong tenuto. Very vertical accents on m. 16-17, making profit of the strong consonant "T".

Ornamenting (Portamento, Coloraturas):

Unlike Di Stefano's and Caruso's recording, the use of glissando to connect notes is less extreme. It is just clearly used in m. 3 (major 3th) and at the calderon of m. 18.

Joan Sutherland (Lucia):

Tempo (subdivision and rubato):

BPM: 57/62

Dynamics, Colours (Vibrato):

Sutherland's dynamics are quite flexible: we can listen to a clear diminuendo at every descending scale and a subito crescendo at when she sings ascending intervals (major 3ds and 6ths). Her vibrato is wider than Calla's and less penetrating. It could be considered a medium stage between Calla and Mosuc's recording.

Ornamenting (Portamento, Coloraturas):

There's no use of exaggerated glissandos as in Calla's recording. Unlike other sopranos, she keeps the same colours at m. 33's calderon.

4thst Recording (P. Domingo)

Lucia (soprano) Cheryl Struder

Alicia (mezzo): Jennifer Larmore

Edgardo (tenor): Plácido Domingo

Enrico (tenor): Juan Pons

Arturo (baritone): Fernando de la Mora

Raimondo (Bass): Samuel Ramey

London Symphony Orchestra, conducted by Ion Marin. Available on Spotify.

Domingo (Edgardo):

Tempo (subdivision and rubato):

BPM: 52/64

The orchestra begins around 61/64 BPM. Domingo holds the tempo till' descending scales of m. 11 – 13, when tempo drops to 52 BPM. This is a consequence of extreme use of rubato, notably in m. 15, unlike other singers. The calderon of m. 16 is almost as extreme as Caruso's version, but Domingo balances the ritenuto in two notes (mos-so). He respects eight notes and silences as a feature in the score.

Dynamics, Colours (Vibrato):

Unlike Pavarotti's version, which aims sound projection, Domingo's version is richer in dynamics (he begins piano) and use of crescendos and diminuendos (notably m. 11 and 13), giving Aria more personality. His vibrato is quite slower than Pavarotti's.

Phrasing (breathing and articulation):

Domingo has a softer attack in strong consonants. Indeed, his accents (even in isolated notes as m. 26, while Lucia's singing) tends to be horizontal.

Ornamenting (Portamento, Coloraturas):

In the case of Domingo, we can notice a difference between the concepts of Portamento and Glissando. Indeed, we can barely notice the use of this resource as it's used in a very subtle way. We notice a slight descending portamento in m. 16 (at the two syllables calderon "mos-so") and at the usual descending 5th interval of m. 18, before Lucia's entry.

5th Recording (J. D. Flórez)

Lucia: Elena Mosuc

Edgardo: Juan Diego Floréz

Enrico: Marco Caria

Raimondo: Simon Orfila

Arturo: Albert Casals

Alisa: Sandra Ferrandez

Orquesta del Gran Teatre del Liceu, Barcelona, December 2015

Conductor: Marco Armiliato (<https://youtu.be/qiS8vrOZvKo?t=4574>)

Juan Diego Flórez (Edgardo)

Tempo (subdivision and rubato):

BPM: 55/64

As usual, the orchestra begins 61/64 BPM but the singers hold the tempo from the beginning. The tempo is really stable. As, Plácido Domingo, Juan Diego Flórez separates the calderon of m. 16 in two notes (mos-so).

Dynamics, Colours (Vibrato):

The dynamics of these recordings go from mf. to f at every ascending wide interval. It is possible that the recording doesn't really capture the dynamic range of the Tenor. J. D. Flórez vibrato has a regular speed, more similar to Domingo's than Pavarotti. As every version listened, it is quite audible at the higher pitches.

Phrasing (breathing and articulation):

The articulation of this tenor is really neat, and it's visibly influenced by his acting performance.

Ornamenting (Portamento, Coloraturas):

Unlike the previous versions, there is almost no use of portamento to connect notes. This feature can be easily related with contemporary bel canto's practise. A descending one is applied at m. 18.

Elena Mosuc (Lucia)

Tempo (subdivision and rubato):

BPM: 55/64

Usual rubato (combined with changes of colours and dynamics) at the end of the whole phrase. As Pavarotti's, there's a lot of tenuto in short notes, suppressing the eighth note silence of m. 23.

Dynamics, Colours (Vibrato):

Elena Mosuc's vibrato seems to be at the other extreme of a case like Calla's. The projection of air at her voice works differently, producing a wider vibrato that varies depending on the pitch' range. When she sings a cappella, she uses a resource that was also noticed at Calla's recording. It consists of changing the colour of the same note resulting from changing the speed or amount of air she uses (1.18'18" of the recording). The result is a fade out-fade in effect on one or two notes that increases the dramatic effect of the singing.

Her full strength and characteristic wide vibrato is clearly shown at the very last note of the sextet.

Phrasing (breathing and articulation):

Elena Mosuc's legato is outstanding. There is a clear draw that shapes each sentence.

Ornamenting (Glissando, Portamento, Coloraturas):

There's a clear use of glissando at the major 6th jump of m. 28-29. The use of glissandos is still much less audible than in older recordings.

3.B. GENERAL CONCLUSIONS ON THE ORIGINAL RECORDINGS

TENOR VOICE:

Tempo (subdivision and rubato):

BPM: 55/65

The use of rubato is common on descending lines, accompanied by a decrescendo.

There's a non written calderon at m. 16. Some separate this suspension in two notes.

M. 17 is played on accelerando in combination of repeated accents.

Considering subdivision of 18th notes, some accentuated high notes demand subtle accelerando.

Usual rubato (combined with changes of colours and dynamics) at the end of the whole phrase. As Pavarotti's, there's a tendency of singing tenuto in short notes, suppressing the 8th note silence of m. 23.

Combination of a very stable tempo matches tenuto lines sung with excellent legato. The subdivision may help to maintain the same sound quality during long sentences.

Dynamics, Colours (Vibrato):

Vibrato of all analysed tenors is extremely stable at high notes.

Vibrato is considerably more audible and colour-shaping at high notes, probably as a consequence of using more air.

At older recordings (Caruso and Di Stefano), vibrato tends to be slower, with a bigger oscillation that shapes high pitches.

In general terms, change of dynamics is never extreme as it is submitted to the projection of sound.

In some cases, high notes that are the consequence of a major 3rd or 6th imply a quick crescendo.

Phrasing (breathing and articulation):

In all cases, the willingness to project the line of long sentences is really clear. The main articulation is always legato. This is achieved by keeping the same sound quality at each pitch.

The use of breathing is minimum and it just helps to keep a continuous line.

The attack of the notes is really soft in general and full of sound.

The attack of some notes is articulated with accent, matching strong consonants (like in m. 17 every "T'a" syllable is accentuated).

Ornamenting (Portamento, Coloraturas):

The use of exaggerated portamento is less common in contemporary recordings.

The use of portamento usually anticipates important notes of the line.

The use of descending portamento is more common.

Some portamentos are usually used for the sake of connecting notes, but some may result from the willingness of its effect (like at the end of the phrase of m. 18).

The use of coloraturas in this aria is not frequent at the tenor voice, possibly due to the fact that one single voice never stands alone. It's still of big use at the end of phrases as listened in the recording of the whole opera.

Larghetto. Edgar. (aside.) *p*

Pavarotti
Domingo
Caruso
Di Stefano
Flórez

Chi mi fre - na in tal mo - me - to? chi tron-
What from ven - geance yet re - strains me, Words suf-
p. mf. gliss. gliss. f. cresc. slow vib. special phrasing

co del-l'i-re il cor - so? Il suo duo - lo, il suo spa - ven - to son la
fice not to up - braid thee. E'en the ter - ror that thus en - chainst thee. Proves that
more air more air extreme tenuto legato more air more air

pro - va, son la pro - va d'un ri - mor - so! Ma, qual ro - sai - na - ri -
false - ly, proves that false - ly thou'st be - tray'd me! As a rose - 'mid tempest
exaggerated pronunciation extreme tenuto a tempo ff. ritenuto, decre. ritenuto.

di - ta, el - la sta - fra mor - tee vi - ta! Io son vin - to, son com -
bend - ing, Grief and guilt thy heart are rend - ing, Thy des - pair - ing looks dis -
pp. ff. rit. dec. almost a tempo p. rit.

Lug. a. port. affrett.

mos - so! ta - mo, in - gra - ta, t'a - mo, t'a - mo, in - gra - ta, t'a - mo an -
arm me, Faith - less maid - en, faith - less maid, a - las, I love thee
cald. cald. cald. vertical accents accel. vibrato accents gliss. dimi. port. gliss. only gliss.

extreme cald no rit. less vib. strong accents

SOPRANO VOICE:

Tempo (subdivision and rubato):

BPM: 56/60

Tempo is usually stable (in the sextet, the entrance of the soprano voice is simultaneous to the other lines).

Combination of a very stable tempo matches tenuto lines sung with excellent legato. The subdivision may help to maintain the same sound quality during long sentences.

Rubato is at the last descending scale of a phrase (m. 34) that anticipate a big sustain of the last note, before a V-I cadence.

Dynamics, Colours (Vibrato):

Soprano's voices vary between a superfast and stable vibrato (as Maria Callas) and a longer one that sounds less sharp and more rounded and legero like Elna Mosuc.

Sound projection is huge in all cases.

Dramatic vibrato quality change in m. 32. It becomes wider and the pitch oscillates more. This is the moment in which Lucia stands alone, and therefore is plausible that the colour changes.

In m. 32, two of the sopranos make a fast change of dynamics on a single note.

Vibrato in high notes is extremely stable and fast, producing a full sound. (m. 19, 23, 24, 25, 27).

Vibrato of m. 34 is wider in Callas' recording.

Phrasing (breathing and articulation):

As the tenors, Lucia's phrasing shows a clear legato that maintains the sound quality in long lines.

The use of breathings guarantee a clear and neat sound from the beginning of each note.

Ornamenting (Glissando, Portamento, Coloraturas):

The use of ascending and descending glissandos is audible in the case of Callas.

Since there's almost no moment for Lucia to stand alone in the sextet, there is no use of coloraturas. However, there are plenty of them at each Lucia's aria. Mosuc's recording at Teatre del Liceu is an outstanding example of this resource.

4/5. RECORDING ANALYSIS ON BOTTESINI'S *LUCIA DE LAMMERMOOR* FOR SOLO BASS

After having considered the context and style in which this piece was conceived, it is worth to analyse a few recordings of Bottesini's *Lucia de Lammermoor* before making a new reference recording. As far as the theme of this cycle is concerned, it is better to focus on those sections that have been previously marked as arias and recitatives. The goal of this analysis is to understand the way these players manage to translate the singing style to the instrument.

The chosen recordings are those of Rinat Ibragimov, Alberto Bocini and Francesco Siragusa. The following notes indicate general impressions, while the marked score of the analysis is shown on the [appendix](#).

Rinat Ibragimov: <https://www.youtube.com/watch?v=ERX2a3VsnKU> (studio recording).

Alberto Bocini: <https://www.youtube.com/watch?v=X9ldM3zDOy8> (live recording).

Francesco Siragusa: <https://www.youtube.com/watch?v=nNFz6u5FpNo> (studio recording).

1- INTRODUCTION (m. 1-20)

2- BbM RECITATIVO (m. 21-29).

Ibragimov: Heroic and Melancholic Character. Very audible vibrato, particularly on higher notes. The sound is not dense but wide. Last note is played by tenuto.

Bocini: Vibrato and high notes but less tenuto in shorter ones. Use of glissando in minor 3rd of m. 23. Vibrato is very audible and beautiful on certain high notes. Phrasing ad libitum.

Siragusa: Very intense and huge sound. Lot of air on shorter notes. Very slow vibrato on lower notes (bass range).

Reference Recording: The vibrato could be wider in high notes. Should play with more air. The rest sounds Ok.

3- Gm RECITATIVO “A TEMPO” (m. 29-36)

Ibragimov: BPM: 50. Immediate change of colour. All the staccato marks are played really softly, as bowels.

Bocini: BPM: 60. Wide vibrato on long notes. The attack of 16th notes of m. 32 is unuqual and horizontal. Bow speed is audible in some notes. Accents on m. 35 are vertical.

Siragusa: BPM: 60. Vertical attack of the first note. Horizontal attacks later. From m. 34, the colour begins to be less aggressive. No diminuendo towards the end.

Reference Recording: BPM: 55. Should stay more time on m 34's D (singing the note).

4- MODERATO ARIA (m. 37-44)

Ibragimov: BPM: 50/47. Use of Vibrato and then No Vibrato on a single long note. The colour is really dolce and piano. Fast vibrato on m. 40 A. Change of colour in M. 42. The sound gets more dense and the vibrato is faster. M. 44 reaches ff on high G, a very fast soprano-like vibrato.

Bocini: BPM: 60. Piano sound. Fast vibrato on m. 40 A. The sound is in general less tenuto than Ibragimov's version. Soprano fast vibrato on high G of M. 44.

Siragusa: BPM: 56: Accelerando on 16th notes. Fast vibrato on m. 40 A. Big breath in m. 39.

Reference Recording: BPM: 56. The vibrato could be more intense. The beginning of each phrase could be more piano.

5- 1st ORCHESTRAL ALLEGRO (m. 45-50)

Ibragimov: BPM: 78/80. The first note of each arpeggio is well attacked.

Bocini: BPM: 68.

Siragusa: BPM: 58. It is remarkably played lyrical, with legato articulation.

Reference Recording: BPM: 82. Maybe play slower but more articulated.

6- CADENZA TRANSITION (m. 51-54)

Ibragimov: Diminuendo after each calderon.

Bocini: Tenuto in each calderon. Diminuendo at the last note.

Siragusa: No diminuendo at the last note.

Reference Recording: Do more crescendo and diminuendo on long notes. Long notes are also an opportunity to experiment with colour change.

7- DRAMATIC ADAGIO (m. 55-61)

Ibragimov: BPM: 65. Fast soprano vibrato at every High G.

Bocini: BPM: 98. No dramatic character. Fast tempo and MF dynamic. Fast soprano vibrato at every High G, use of descending glissando for the 8ve jump.

Siragusa: BPM: 88. Soprano vibrato at every High G. Less tense vibrato on the last one.

Reference Recording: BPM: 70

8- 2nd ORCHESTRAL ALLEGRO (m. 61-67)

Ibragimov: BPM: 116/120

Bocini: BPM: 150

Siragusa: BPM: 98. Very well articulated.

Reference Recording: BPM: 130

9- 1st LUCIA'S RECITATIVO (m. 68-75)

Ibragimov: Use of harmonics. Accelerando on repeated notes and ritardando on the long notes. 32th Notes (coloraturas) are very articulated. The sound is not cut but continuous.

Bocini: Use of harmonics. The sound is cut with lots of breathings, which is unlikely in a soprano voice. Use of a beautiful soprano resource at m. 73: High D is played with a progressive vibrato that becomes faster and more expressive, changing the colour.

Siragusa: Played on the fingerboard. Use of fast vibrato. Vertical accent on high G of m. 73. No vibrato on higher note of m. 75.

Reference Recording: The sound is too choppy. Whether played on harmonics or fingerboard, the line should be kept the same. The 32nd notes (coloratura notes) should be neater and better articulated.

10- 3rd ORCHESTRAL ALLEGRO (m. 76-88)

Ibragimov: BPM: 126

Bocini: BPM: 152. Very vertical accents on m. 86.

Siragusa: BPM: 110.

Reference Recording: BPM: 130

11- EDGARDO'S LAMENTATION (m. 88-103)

Ibragimov: Forte dynamic on the Man Choir part. Use of natural Harmonics. Edgardo's part is really lyrical, beautiful colour with intense vibrato. An exaggerated reverb is noticed in the recording.

Bocini: Dolce character on the Man Choir. Played on the fingerboard with fast vibrato. This results in less contrast with Edgardo's part.

Siragusa: Played on the fingerboard. Articulation of 8th notes on m. 97 (check text).

Reference Recording: The character is too cantabile and has nothing to do with the text. The expressive vibrato should be kept for Edgardo's line. At m. 96, the vibrato is too poor and the bow speed and quantity dies on the important note.

12- LUCIA'S DEATH (m. 103 - 110)

Ibragimov: Full sound on low notes but no intense vibrato. Diminuendo at the end.

Bocini: Full sound on low notes with expressive vibrato. Crescendo in each arpeggio.

Siragusa: Full sound on low notes with expressive vibrato. The solfege of the triplets is strange. Crescendo in each arpeggio

Reference Recording: Out of tune. Not articulated. No crescendo at the end.

13- 4th ORCHESTRAL ALLEGRO (m. 111 - 120)

Ibragimov: BPM: 94. Very legato articulation, special phrasing on lower ascending notes. At m. 118, articulation is clear staccato. The end is not FF but MP on the harmonic, anticipating the character of the next section.

Bocini: BPM: 143. Very vertical articulation. Makes the whole section have a very shocking character. At m. 118, articulation is clear tenuto. The end is FF in crescendo, making a bigger contrast with the following section.

Siragusa: BPM: 120. Dramatic change of character. The change of octaves is considerably clear. Ends with a steady forte.

Reference Recording: BPM: 115. A stronger crescendo should be forced in m. 118.

14- 2nd LUCIA'S RECITATIVO (m. 121 - 126)

Ibragimov: 32th Notes are very articulated. Airy sound in 8th notes. Soft attack on open string. The sound is generally full of air. It becomes dense at the high F of m. 125. Horizontal accents at the last 8th notes. High D of m. 126 is played with hair, on natural harmonic.

Bocini: The first three repeated notes are played differently. Articulation on the 32th is quite vertical. High F of m. 125 is played short. High D of m. 126 is played with fast vibrato, on the fingerboard.

Siragusa: Use of similar harmonics on the first three notes. Soft attack on open D. Use of harmonics in the high D of m. 126. The phrasing of the 16th notes is strange.

Reference Recording: Again, coloratura notes are not well articulated and neat.

15- SEXTET (m. 127 - 160)

Ibragimov: BPM: 65. Extreme legato and tenuto sound. The sound quality is superb, but the phrasing is much steadier than what was listened to in tenors' recordings. Soprano's part is played extremely ethereally, as an echo, with natural harmonics. No major ritenuto.

Bocini: BPM: 56/62. Beautiful sound quality. More breathings in the middle of the phrases. Like Ibragimov, when a phrase is repeated, Bocini plays more piano. Very lyrical vibrato but instrumental articulations. At the end of Soprano's part, use of fast vibrato on very high notes. Use of accelerando in m. 143 and m. 159 as at the opera recordings.

Siragusa: BPM: 65. Very good quality of sound but no special phrasing features. 16th notes are very articulated, producing an effect of breath. M. 139 is played more forte than 137, as indicated on the score. The Soprano's part is played on the fingerboard, with fast bowing, producing a sound full of air. The articulation on the higher register is extremely good. Dramatic change of colour in m. 158 as a result of vibrato.

Reference Recording: BPM: 70. The tempo is way too fast after the analysed version. A slower tempo enables a more cantabile line and the possibility of using more bow and sound on each note. The notes that are highlighted by the tenors need more weight and projection. There's no ritenuto at all in m. 142 and no accelerando in m. 143. The Soprano's part shows a really cut sound that is only valuable in the attacks but not in the sustain of the each tone. The general sustain should keep a longer line. There's no ritenuto in m. 159. The text could be considered for the sake of the attack of each note.

16- FINALE (m. 161 - 170)

Ibragimov: BPM: 68. The tone quality of each 16th is absolutely outstanding.

Bocini: BPM: 66/72. There is an excellent contrast between vertical articulations and legato notes.

Siragusa: BPM: 65. Very steady articulation.

Reference Recording: BPM: 68. Practice. Revise contact point and attack of staccato depending on the register and watch out the flexibility of elbow and fingers.

4.1.5 Intervention

6.TRANSLATION FROM SINGING TO INSTRUMENTAL PLAYING

As far as instrumental playing is concerned, it is necessary to recapitulate some concepts developed by cellist Xavier Gagnepain in his book *Du musicien en général... au violoncelliste en particulier*. A priori, Gagnepain explains that the quality of the playing depends directly on the quality of internal singing of the player⁶. In some cases, the instrumental work demands a series of repetitions, pondering on physical work and risking the link with the mental singing. In some other cases, the technical work seems so hard that one may unconsciously renounce the initial ambitions of our internal singing⁷. À *quelque niveau qu'il soit*, he says, *le musicien doit avant tout se poser la question de la réalité et de la qualité de son de chant intérieur*. In other words, we need to establish the quality of a phrase (tempo, colour, ornamenting) before even playing it. In addition to his contribution, it is also good to revise some of the concepts that Giovanni Lamperti, a highly reputed teacher of his time, revised in his treaty *The Technics of Bel Canto*. Despite the fact of being a very old publication (1905), some of the outlined concepts help to link lyrical singing with bass playing.

- **Concentrating on tone production and sound sustain (*filare il tuono*)**

The previous recording analysis and the revisiting process of the reference recording makes us reflect on the necessity of producing a good attack and keeping the quality of the tone. In Italian, the expression *filare il tuono* (to spin out the tone) resumes the fact that *the act of tone-production is in "contrary motion" to that of breathtaking*⁸. Indeed, each and every tone must have steady support: *the vocal point of support must be carefully distinguished from the points of resonance mentioned further on*. About the sustain of the sound, this author reflects *that beauty and power of tone depend, not simply upon a correct tone-attack, but also on the resonance of the voice both in chest and head. With a well-opened throat, the tone should sound out steady, free and sonorous, like that of a violin or violoncello*⁹. The link with string instruments is an outbound trip from both sides. As observed on the recording analysis, there's an incredible sustain of the sound from the singers. The breathings are only used when necessary, sometimes even suppressing written silences for the sake of the melodic line.

Translation: A similar result shall be achieved with bow playing. It is impossible to keep long lines on a single bow (which is shorter and slower in double bass) but "sung breathings" should be written on the score in order to keep this idea. Indeed, tone-production is the contrary motion of "bow-breathing". The result shall be expressed in longer phrases, based on the principle of maintaining a good contact point and bow speed (equal to air quality).

- **Developing a sound quality for a particular excerpt**

*Posare (appoggiare), Builuppare, eguagliare la voce (to place, develop, and equalize the voice), these are now and always the fundamental ideas of the techniques of the belcanto*¹⁰.

⁶ Xavier Gagnepain, *Du musicien en général, au violoncelliste en particulier* (Paris: Cité de la Musique, 2001), 17.

⁷ Gagnepain, *Du musicien en général...*, 20.

⁸ Giovanni Lamperti, *The Technics of Bel Canto* (New York: G. Shirmer, 1905), 10.

⁹ Lamperti, *The Techniques of Bel Canto*, 19.

¹⁰ Lamperti, *The Techniques of Bel Canto*, 24.

Regarding the beauty of the tone, we must now, unfortunately, in contrast with former times, strive to reproduce the ideal tone of violinist and violoncellist; whereas these latter used to imitate the tones of great singers. The tones of the tenor voice should resemble the high tones of the violoncello. In the analysed arias, the voice timbre and quality of some tenors is similar. Gagnepain says that *toute recherche du son doit devant se plier au service d'un contexte musical*¹¹. Even if the player has always a «son de base », it is worth looking for a sound quality that matches the lyrical singing.

Translation: As Gagnepain remarks, the string instrument has the possibility of drawing a sound curvature after the attack of each note. Getting the correct sound for this repertoire could be acquired by practising range scales (as in Flesch method), separating bass sound from tenor's sound and soprano's sound. The sound quality of the analysed Aria implies horizontal attacks, immediate stable vibrato on higher and important notes, sustain and legato in long sentences.

- **Keeping quality tone of coloratura (natural string harmonics) excerpts**

As far as my reference recording on *Lucia de Lammermoor* is concerned, one of the weakest points are the coloratura excerpts that demand a particular line on a natural-harmonic register of the instrument. Even if the string reacts slower at this point (as the string length is shorter), the coloratura notes should sound really neat. On the reference recording, there's a tendency of passing up these lines (as a result of string crossing) and therefore breaking the melodic line. As Lamperti expresses, *when the training is insufficient, coloratura-passages are often slurred over, or delivered jerkily (cavallina). Each individual tone must sound full and round. This, however, will be the case only when the singer's delivery combines the legato with the detache-when her tone-production is at once well-supported and light. The mode of breathing remains unchanged; even in rapid passages no essential alteration in the bodily attitude and so forth should occur. The above-noted style of tone-production might most aptly be termed sostenuto, a style which excludes from the outset the so-called "bleating" tone. Coloratura-passages must be sung strictly in time, and never rapidly, but rather slowly*¹².

Translation: This last reflection rejects the idea of playing Bass natural harmonic lines releasing pressure of the bow. On the contrary, the ideal combination of full bow weight and speed should be applied to harmonics in order to produce a melodic line that results from neat tones.

- **Using portamento as an expressive skill**

Lamperti remarks *that the opposite of the portamento (which adds great charm to the style, if not too often employed) is the Direct Attack of the higher or lower tone (di slancio or di posto).* As a result of the recording analysis (i.e., measures 3 and 14 of tenor's annotated score in p. 33), it is possible to say that portamento is a frequent and inherent skill of lyrical singing. Its use has become less exaggerated towards the years. It happens exactly the same at string playing, normally as a result of legato playing.

Translation: When used in a piece, its intention should be clarified as part of our internal singing and shouldn't be the technical consequence of shifting positions.

¹¹ Gagnepain, *Du musicien en général...*, 56.

¹² Lamperti, *The Techniques of Bel Canto*, 30.

- **Producing register changes with ease**

While doing the recording analysis of the aria, it is remarkable to notice how big intervals are produced without the trail of an outstanding effort. Despite the fact that position changes in Bass playing are physically highly demanding, these should imitate the similar process singer's use *at a change of register, especially, the breathing must be calm and easy. When it is so, and when the body is in a normal position, with mouth and pharynx suitably opened, no one will experience difficulty at a change of register*¹³.

Translation: Big register changes that are played without portamento should be achieved by soft movements of both the left (notes) and right hands (contact point) and not the other way around. The big intervals that are played without portamento shouldn't show the trails of an outstanding effort in the middle of the line.

- **Linking phrasing with words**

Considering the previous recording analysis, it was interesting to notice how singers' privilege sound sustain in a sentence. Breathing is used only when it's necessary, and the attack of the notes depends not only on the meaning of the text but also on the type of syllables that is pronounced. Considering text, breathings and direction, phrasing is a matter of punctuation. *Correct musical accentuation depends, firstly, on the rhythmic phrasing, and secondly, on tone-accent and word-accent (...) Phrasing is simply musical punctuation, which frequently coincides with that of the words*¹⁴.

Translation: Whenever is possible, it would help to match the melodic line of Bottesini's phantasy with the text. At any case, it is worth to high light important words/notes and to establish the beginning and end of a sentence to organize the melody. The bow changes in the middle of a sentence could be "hidden" or "pronounced" if a "strong syllable" requires so.

- **Linking bow attacks with syllables**

Translation: players should establish a relationship between attacks (articulation of the beginning and end of the note –push/release-) and the use of onomatopoeias (vowels/strong and soft consonants). *Redoutablement précise, l'onomatopée peut devenir un modèle exigeant pour la technique d'archet. Les qualités d'attaques doivent répondre à des variations finales fort bien exprimées par le consonnes T ou P ; les résolutions finales sont bien rendues par le M de « pam », le Y s'avérant utile pour le rythme « Yatata ». Quant à la couleur de son et à l'art de connecter les notes (avec ou sans glissando), c'est également la voix, exempte de préjugés instrumentaux, qui es la plus à même de fournir le modèle impartial*¹⁵.

- **Linking the way of expressive playing with the text**

As fast as this intervention cycle is concerned, the analysis of the libretto in which the piece is based has enlightened the meaning of the music. Indeed, the famous sextet transcribed by Bottesini shouldn't be played without considering the dramatic situation of the story (a priori, the major tonality may suggest an opposite meaning). As Lamperti says, *the climax of the action*

¹³ Lamperti, *The Techniques of Bel Canto*, 22.

¹⁴ Lamperti, *The Techniques of Bel Canto*, 24.

¹⁵ Gagnepain, *Du musicien en général...*, 132.

*ought to be critically examined. The text, in this case the original libretto, sets up the character of what we are playing. What the poet and composer felt while creating the composition, must be felt (or, better, re-created) by the singer, says Lamperti. No interpretation can rightly be called perfect until the poetical and musical conception is exhaustively set forth*¹⁶.

Translation: This was already conceived after analysing the libretto and its relationship with Bottesini's piece, organising the last one in different sections that imply different characters. The original reference recording shows many mistakes (maybe as a result of fatigue, as expressed in the feedback) in those sections that actually require more focus as they resume the narrative climax.

- **Developing a style of recitativo playing**

*In the Recitative (from recitare, to narrate), singing most nearly approaches ordinary speech. The chief requirement for this vocal style is that the singer's imagination should be fired by the given situation. One of its forms, the so called recitativo secco, with a rather sketchy chord-accompaniment, was formerly employed to hasten the course of the dramatic action, and as a means of joining the principal numbers of the opera, or to put the epic (narrative) element in musical shape, more especially for narrating previous occurrences, It represents the light and easy conversational tone of everyday life. What an evolution, that of this simple musical form into the recitatives of a Verdi, and yet more into the recitative-style of Richard Wagner, in which tone-accent and word-accent coincide and blend in a manner unknown before*¹⁷.

Translation: Again, it would be extremely useful to consider that recitativo sections (like m. 21-29 of the fantasy) are linked with a text or with a specific "narration". The phrasing and direction can be a consequence of the context (action and meaning) but mainly of the hierarchy of notes/words.

- **Linking vibrato quality with bow speed (air production) and register**

In opera singing, vibrato is the result of the vocalis muscle and the diaphragm reacting from air production. As it also happened with string instruments, vibrato techniques and tendencies have changed a lot over the years. As far as the recording analysis is concerned, Tenor's vibrato tends to be really audible on higher notes. The feature that highlights this skill is the fact that the vibrato is extremely stable from the beginning till the end of the note. Its oscillation range only changes in some cases in which the singers seek a colour inflexion in the same note.



Translation: Producing a convincing and beautiful vibrato in bass playing has been my concern over the last years. The first variable I consider to use this skill is range and then character. Listening to the previous recordings motivates a reflexion about air production, which is translated, in this case, in bow speed and weight. Indeed, it is not possible to define the quality of vibrato without considering bow speed and sustain. In order to achieve a stable and immediate vibrato on the higher notes of *Chi mi frena in tal momento*, I think it is recommendable to organize breathings while playing with the bow. In singing, tone producing is the releasing of air. In string playing, it is not possible to subordinate breathing to phrasing all time, either because playing a bow instrument requires different muscle movements from the whole body or because string players are not trained in breathing as singers do. Nevertheless, it turns out to be quite useful to match breathing with bowing in the where we want to achieve an immediate highlight of a note.

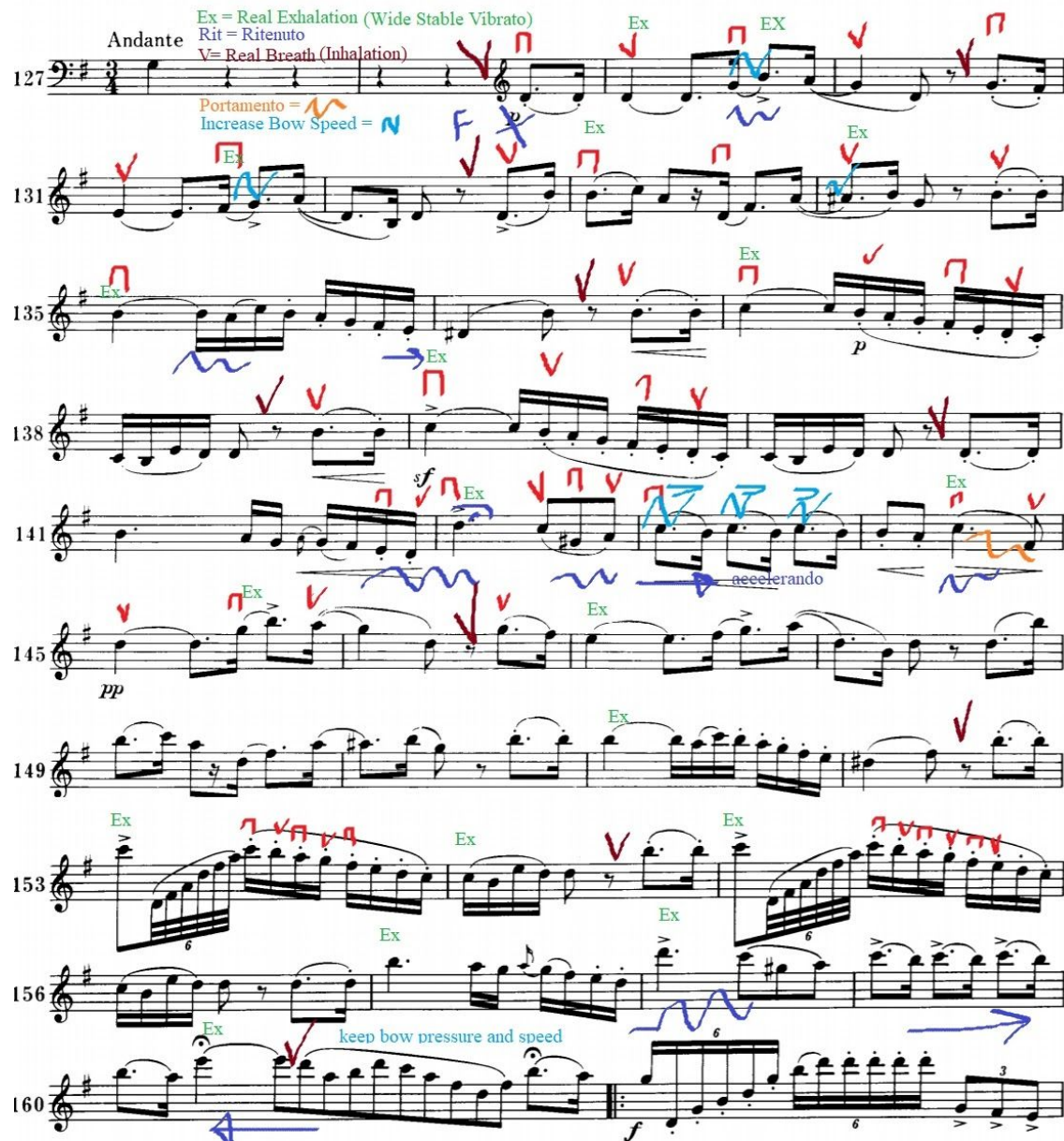
¹⁶ Lamperti, *The Techniques of Bel Canto*, 32.

¹⁷ Lamperti, *The Techniques of Bel Canto*, 40.

The connection between air release, sound producing and vibrato could be organized in the score after these considerations. Indeed, air release implies a distention of the body that is quite useful to produce bow speed and an immediate stable vibrato.

Considering these translations, an annotated score of the sextet would result as follows:

Ex = Real Exhalation (Wide Stable Vibrato)
 Rit = Ritenuto
 V = Real Breath (Inhalation)
 Portamento = 
 Increase Bow Speed = 



Andante

127

131

135

138

141

145

149

153

156

160

pp

f

accelerando

keep bow pressure and speed

4.1.6 New reference recording, assess and expert feedback

New reference recordings:

Homemade recording on *Lucia di Lammermoor* sextet, according to the previous annotated score.
<https://www.youtube.com/watch?v=3Uy8QCOLf0I&feature=youtu.be>

Live recording of *Lucia de Lammermoor* played on 1st year Main Subject exam at Codarts
<https://www.youtube.com/watch?v=3bYodLbLGCU>

Luis Cabrera's Feedback (on homemade recording)

"I think it's better than the previous version; the vibrato seems to be more relaxed here than last week during Wies de Boevé's masterclass. You were playing with a tight vibrato and now as change for better, maybe because of your observation. This also results in a wider sound and you are clearly taking risks while playing. Nevertheless, you have some notes out of place and the sound may break if you play that much. I don't know if this is a consequence of not playing with your bass.

There are a few things you should definitely consider: you are still changing the contact point of the bow in the middle of a phrase, and this provokes some kind of "sub-phrases" that are not recommendable. You can also make a bigger difference of colour between the soprano and the tenor part, even if you're already changing the octave.

You should continue developing this vibrato and kind of sound and be aware of the contact point of the bow."

Luis Cabera, 21/04/2019

Personal Assessment:

Due to a problem of my own bass, I was not able to make a new home recording with my instrument. This lack of comfort may be the cause of some imprecisions that were not in the first reference recording. Anyway, I think the tone quality has improved a lot, even if it's not quite noticeable due to audio recording quality. In the near future, I shall concentrate on controlling the bow speed, as it should still be much more stable. Luis' observation about the contact point is very accurate; I wasn't aware of this while practising the aria.

4.1.7 Reflect on progress made since the previous reference recording

The whole intervention cycle was really enlightening not only about the piece itself, but also to clarify the common skills that opera singers develop in this repertoire despite the different times and tendencies they represent. Some of the reflections made during the cycle had a big influence in the way I'm thinking about this music before even playing it on the instrument. I'm convinced that this progress involves a development of tone quality and musical character that was somehow demonstrated during the live performance of this piece, on June 22nd 2019, during the first main subject recital.

4.2 Second intervention cycle

4.2.1 Overview of second intervention cycle

The second intervention cycle seeks for a more accurate and precise relationship between lyrical singing and solo bass playing. Indeed, it is necessary to work with clear transcriptions from voice scores in order to detail those translations that were made in the previous cycle. The newness in this cycle combines the previous type of desktop research based in recording analysis with co-working with a trained lyrical tenor (also called expert consulting).

In straight relation with Bottesini's fantasia *Lucia de Lammemoor*, it is useful to select a transcribed aria in order to achieve the same kind of recording analysis that was made in the previous cycle. In this case, we will only focus on some technical aspects of lyrical singing, especially on:

1. Sound production
2. Vibrato
3. Breathing (inside and outside the score)
4. Phrasing (use of rubato and melodic direction/relationship with harmony)
5. Syllable articulation (use of strong and soft consonants)

These technical aspects were already translated in the previous cycle, resulting in the following propositions:

1. Concentrating on tone production and sound sustain (*filare il tuono*)
2. Linking vibrato quality with bow speed (air production) and register
3. Producing register changes with ease
4. Linking phrasing with words and using portamento as an expressive skill
5. Linking bow attacks with syllables

Bottesini himself wrote a *Technical Method for Double Bass* that is exemplary for this research. The whole [method](#) ends with a series of transcriptions of tenor's arias which are proposed as "exercises" to develop lyricism in bass playing. These transcriptions are extremely useful for this cycle. For personal reasons, I have selected another aria by Donizetti, this time taken from *L'elisir d'Amore* (1832). I had the opportunity of playing this opera at the beginning of my orchestral career at Buenos Aires' Teatro Colón, and I find *Una furtiva lagrima* extremely suggestive in terms of expression.

The recording analysis shall focus on tenors from the late XXth century (Plácido Domingo and Luciano Pavarotti) and the XXIth century (Roberto Alagna and Juan Diego Flórez). On the other hand, a recording analysis on Gary Karr's version of Donizetti's aria will contribute as a clear example of translating lyrical singing to bass playing. Indeed, Gary Karr is the first acclaimed performer of the instrument who has established a clear relationship between singing and playing ([see appendix](#)), having been strongly influenced by lyrical singing from the first half of the XXth.

The last strategy of this intervention cycle consists of expert consulting with one or more well trained tenors, relating feedback with data collection.

4.2.2 Second reference recording

[Homemade recording](#) on Donizetti's *Una Furtiva Lagrima* (Bottesini's transcription in D minor)

4.2.3 Reflect & assess

The reflection of this recording depends mainly on the first feedback given by experts, in this case Hongkonese Tenor Francis Ka-Foon (Codart's former student) and Spanish Tenor Juan de Dios Segura (Paris Opera Academy's alumni). Next to the reference recording, the following questions were asked to these singers (see appendix):

1. What is your first impression about this Aria being played on a String instrument?
2. What do you think I should improve for the next recording?
3. What do you think about Double Bass vibrato compared to a Tenor Vibrato?
4. What do you think about the connection between notes (syllables) in this first recording?
5. Do you think there's a relationship between the playing and story Nemorino tells in this Aria?
6. How would you usually work on a new Aria?
7. What are your favourite versions of Donizetti's Una Furtiva Lagrima and why?

I've aimed to organize a very specific feedback with questions 1 to 5, while questions 6 to 7 may be considered closer to interviewing. All answers were very different in terms of quality to those feedbacks given by bass players in my first intervention cycle. Indeed, these tenors were very specific regarding technique topics such as articulation (legato and word connection) and vibrato.

Juan de Dios Mateo insisted on studying the text and the meaning of the words. In his opinion, the connection of the words in a whole phrase should be clearer. In terms of vibrato, he made a difference between dramatic and leggiero tenors. In this sense, vibrato technique is not only linked to register but also to a voice type (double bass = dramatic tenor). This tenor highly recommends connecting my playing with the meaning of the text, and he also recommends avoiding melodic variations (as the ones written by Bottesini).

Francis Ka-foon developed a very specific feedback, considering all kinds of points. He found it really interesting comparing the transition of registers in singing with the way big positions and strings are changed in bass playing. He strongly recommended to revise:

1. Execution of ornaments: Ornaments should neither rush nor sound structural. I should try to find crispiness and clarity in the ornaments. "For example, around 0:22-24 at the phrase "Quelle festose giovani" the little turn is to me too heavy and too legato. There are other instances in the recording that have this problem" (see appendix). He recommends avoiding Bottesini's transcription in terms of ornamentation and going back to the original score for voice.

2. Use of *Portamenti*: Quoting Francis, "in vocal world, *portamenti* were executed in a clear manner, from one note gliding to the anticipation of the next note, and then the attack of the next note". Portamento should not be confused with "scooping", which is something really common in bass playing because of the extraordinary string length. "Either you do a proper portamento, or you do nothing at all". Francis recommends to anticipate the second note of the portamento, before attacking in this note on the beat.

3. Phrasing: As Juan de Dios, he really recommends going back to the meaning of the text. He suggests to change the articulation between minor and major part, following the meaning of the text: "Nemorino gathered the evidence and realised eventually that Adina loves him. Is there a change of intention or is there an intensification of emotion between the first "m'ama" and the second one? Likewise for "lo vedo". Regarding words and phrases, he finds it more useful to consider whole "words" rather than concentrating in the way different syllables are connected. This should lead to a clearer way of phrasing. As Juan de Dios, he strongly recommends going back to the meaning of the text.

4. Vibrato: Francis notes that I often do not vibrate on the first few milliseconds of the pitch, developing vibrato later on the note. This is a very common technique fault in string playing. He's very technical about this concept, considering that vibrato "at least in operatic singing, is not something I would use for expressiveness: it is a tool for me to deliver the voice and give the voice a direction and warmth." He finds the vibrato rate too slow and too narrow in a vocal sense. In general terms, vibrato for this kind of music should be wider in terms of pitch and faster in terms of speed.

4.2.4 Data collection

1. UNA FURTIVA LAGRIMA": DONIZETTI'S ARIA SHORT ANALYSIS

Written in the bel canto style, *L'elisir d'amore* is considered a comic opera, since it has a romance as its central plot, and has a happy ending. Legend tells that Donizetti wrote the opera in only a few weeks, since he was in great demand after the success of his 1830 *Anna Bolena*. The opera takes some facts from the composer's personal life; like the lead of the opera, Nemorino, Donizetti had his military service purchased by wealthy female patrons. *L'elisir d'amore* is the most popular of Donizetti's works and was first performed in 1832 in Milan. Regarding the plot, the poor Nemorino pines for the lovely Adina, who shows him nothing but indifference. When he hears the story of *Tristan and Isolde* and the love potion that causes the title characters to fall madly in love, Nemorino wonders if such a thing exists, and finds a con man who gladly sells him something quite similar. Immediately, Nemorino thinks the potion has made him more desirable to Adina, despite the fact that she has had feelings for him all along. Nemorino sings *Una furtiva lagrima* in the opera's second act when he discovers that Adina cares for him after all. He sees what he thinks is a tear in her eye (the name of the aria translates to "a secret tear").

Una furtiva lagrima
negli occhi suoi spuntò,
quelle festose giovani
invidiar sembrò.
Che più cercando io vo?
Che più cercando io vo?

M'ama, sì, m'ama, lo vedo, lo vedo!

Un solo istante i palpiti
del suo bel cor sentir!
I miei sospir confondere
per poco ai suoi sospir!
I palpiti, i palpiti sentir,
confondere i miei coi suoi sospir!

Cielo, si può morir...!
Di più non chiedo, non chiedo.
Ah! Cielo, si può, si può morir...!
Di più non chiedo, non chiedo.
Si può morir...Si può morir d'amor!

A single secret tear
from her eye did spring:
as if she envied all the youths
that laughingly passed her by.
What more searching need I do?
What more searching need I do?

She loves me! Yes, she loves me, I see it

For just an instant the beating
of her beautiful heart I could feel!
As if my sighs were hers,
and her sighs were mine!
The beating, the beating of her heart I could feel,
to merge my sighs with hers...

Heavens! Yes, I could die!
I could ask for nothing more, nothing more.
Oh, heavens! Yes, I could, I could die!
I could ask for nothing more, nothing more.
Yes, I could die! Yes, I could die of love

The aria is written in Bb minor for tenor; orchestral accompaniment is led by harp and bassoon (who introduces the main melody line). Bottesini's transcription adapts the aria to the lower and more "comfortable" D minor key, adding different coloraturas and ornaments that are mainly instrumental.

2. RECORDING ANALYSIS

1st Recording (P. Domingo)

Nemorino (tenor): Plácido Domingo

London Symphony Orchestra (Sonny Classics) - No date

<https://open.spotify.com/track/7MPUIe6KVy0vhtu2IUnz0I?si=-z8K6tyyToiGQWp3rWiddg>

Tempo: BPM: 72/75

- 1. Sound production:** In terms of sound and articulation, Domingo's legato is astonishing; every note seems to lead to the next one. He highlights notes with accents ("Sto" in m. 6) or in particular moments (calderon of m. 16 or added a high note in m. 37 "chie"). The "attack" of every note is really soft and usually led by the precedent note.
- 2. Vibrato:** Very wide and steady vibrato on high notes. The first measure starts with almost no vibrato in "Una furtiva lagri-" and adds a wide vibrato in the longest note "ma". The second part of the phrase sustains the "ne" (almost a glissando is heard) and "to" vowels with vibrato. Domingo makes it again really wide and noticeable at m. 6, on the "sto" syllable and then in the other accentuated "in". Half notes from m. 8 are very expressive, with a faster vibrato. Again, on long notes like "vo" from m. 11, vibrato turns wider. The long "vo" from m. 13, in crescendo, is always sung with steady vibrato. Same speed during measures 15-17 (dramatic peak of the phrase). The colour he gets in the last note "do" from m. 17 is amazingly dolce. With the beginning of the second stanza, vibrato gets smaller and less dramatic; it goes up again in m. 23. On the major part (m. 32) the accentuated note gets a narrower vibrato, with a less dramatic effect. We can then establish a difference between the colour of a major and minor chord. The added higher note of m. 37 and the cadenza get a notorious super wide vibrato.
- 3. Breathing (inside and outside the score):** Remarkable breathing that enables to attack a new syllable (not considering breathing that matches rests of the score) are noticeable on: "Chi" (m. 4), "Sto" (m. 6), "in" (m. 7), "sem" (m. 8), "do-io" (m. 12), "M'a" (m. 14), "Si" (m. 14), "ve" (m. 16), "spir" (m. 23), "co-a" (m. 25, creating empty space in the line), "sen" (m. 27), "cie" (m. 31), "di" (m. 32), "di" (m. 36), "non" (m. 37).
- 4. Phrasing (use of rubato and melodic direction):** His phrasing is marked from the beginning by the intensity of his singing, even in the piano phrases. He does typical rubattos at the end of the phrase, before the orchestra takes the tempo back. He tends to use glissandos to go to higher notes, sometimes, changing the pitch before the previous note, as notated in the analysed score.
- 5. Syllable articulation (use of strong and soft consonants):** No remarkable accents or attacks.

2nd Recording (L. Pavarotti)

Nemorino (tenor): Luciano Pavarotti

English Chamber Orchestra (Decca). No date.

https://open.spotify.com/track/3i1hilkhPq8ZdaTdaCnebs?si=c8wE_UQESxSVZG66Hpe_pQ

Tempo: BPM: 69

- 1. Sound production:** Pavarotti's recordings show a remarkable concept of sound that keeps the same quality (strong and continuous) from the beginning to the end of each phrase. The volume and sound projection he acquires is usually more powerful than his contemporaries.

- 2. Vibrato:** Pavarotti's vibrato tends to be super wide and pitch-changing (with super stable speed) as Domingo's. It is a distinctive characteristic of tenor's singing from the last part of the XXth century. As notated in the score, I've marked the most noticeable utilisation of short vibrato (SV, with less variation on the pitch), medium vibrato and wide vibrato (WV). The last one is a signature colour in Pavarotti's voice: he usually attacks the most important and usually higher long notes with a super wide vibrato that oscillates the pitch of the note, setting a very specific colour from the beginning to the end.
- 3. Breathing (inside and outside the score):** Pavarotti's breathing between syllables is remarkably less noticeable than Domingo's version, resulting in a clearer legato in each phrase. Clear breathings to clarify attacks are made in "sto" (m. 6), "do-io" (m. 12), "io" (m. 16), "spir" (m. 23), "a" (m. 24). "Di" (m. 32), "di" (m. 36).
- 4. Phrasing (use of rubato and melodic direction):** The beginning is both super soft and steady. He does usual *rubatti* but keeps the tempo between mm. 12-13. He does a considerable diminuendo with an astonishingly beautiful change of colours and dynamic at the end of m. 16. He uses glissandos sometimes, particularly on descending intervals in m. 37. In the major section of the aria (m. 31) he phrases pushing the tempo a little bit back.
- 5. Syllable articulation (use of strong and soft consonants):** Nth. remarkable.

3rd Recording (L. Pavarotti)

Nemorino (tenor): Luciano Pavarotti
 Metropolitan Opera Orchestra (NY). No date.
https://www.youtube.com/watch?v=LGy_w6hCL7E

Tempo: BPM: 70

- 1. Sound production:** Same as previous recording.
- 2. Vibrato:** Similar to the previous recording. Notations on the score.
- 3. Breathing (inside and outside the score):** Same legato than in previous recording. Always, an intentional breath marks syllable "du-io" (m. 12), "si" (m. 14), "a", (m. 24), "di" (m. 32), "rir" (m. 36).
- 4. Phrasing (use of rubato and melodic direction):** It is slightly different from the previous. He starts the first two phrases with a more vigorous singing, making the vowels a little bit longer. These first two phrases, in this recording, seem a wider texture, making them less intimate. He does the usual rubattos. At the end m. 16, the change of colours he acquires is insanely beautiful. He does a super long calderon in this same m. The re-exposition of the theme (A') is marked by a considerable change in the colours of the first two phrases (mm. 19-22): Pavarotti sings super pianissimo, super intimate. The typical glissando in m. 30 is used to attack the major section. Unlike the previous recording, this section is phrased towards and not backwards.
- 5. Syllable articulation (use of strong and soft consonants):** Accentuation of finale of syllables which are the Forte notes. This is probably due to the stage adrenaline we can notice in this recording.
- 6. Acting Expression:** He's acting expression is quite steady, both in body and facial expression. His eyes are usually wide open; sometimes, this steadiness contrasts with the super dramatic musicality he achieves in this recording.

4th Recording (R. Alagna)

Nemorino (tenor): Roberto Alagna

London Philharmonic Orchestra, conducted by Evelino Pidó (Decca). No date.

<https://open.spotify.com/track/2u2S68sEUv8sRjC9aMYIeV?si=v33yCox-RcaZhPe2YgmHtA>

Tempo: BPM: 68

1. **Sound production:** In general, the sound that Alagna produces in each phrase is less tenuto than in Pavarotti's. There's a significant change of quality between his generation and the Three Tenors. Alagna adds colour variations that come more likely from popular traditions; sometimes he affords the limits between lyrical and gypsy/flamenco singing.
2. **Vibrato:** Alagna's voice quality set up a different paradigm to the previous recordings by Pavarotti and Domingo. The same thing happens with the vibrato, which tends to mix with colour and phrasing and it doesn't necessarily affect the sound the same way it does in Pavarotti. The piano phrases from the beginning of the aria don't abuse this technique. He does produce a super wide vibrato in the higher and "important" notes, the same way Pavarotti and Domingo do.
3. **Breathing (inside and outside the score):** Before "lo" (m. 16), "a" (m. 26).
4. **Phrasing (use of rubato and melodic direction):** Alagna's phrasing is really neat and precise. His tempo tends to be stable with obvious *ritardandi*. He uses a noticeable glissandi in some descending intervals such as "lo-ve" (mm. 15-16). His phrasing is a little bit weird when he changes phrasing and notes (pitch) in mm. 19-22; it seems like he was improvising. Sometimes the melody is vulnerable to theatrical performance, as explained in point five.
5. **Syllable articulation (use of strong and soft consonants):** Theatrical accent in "pal" (m. 27) and accentuated articulation in f of "Cie" (m. 31).

5th Recording (R. Alagna)

Nemorino (tenor): Roberto Alagna

Opéra National de Lyon, conducted by Evelino Pidó. No date.

https://www.youtube.com/watch?v=_OhzmoTpM64

Tempo: BPM: 68

1. **Sound production:** Much clearer and "cleaner" version than the previous one.
2. **Vibrato:** Same than the previous recording.
3. **Breathing (inside and outside the score):** Similar to the previous recording. The mixture between legato, exhalation and colour's flexibility in Alagna's recording is remarkable. He elaborates a super legato. No breathing nor rest between "ni-in" (m. 7). Breathing in "sem" (m. 8) (usually, strong consonants like S and T are profitable situations to breathe during a phrase with no rest), "co" (m. 29), "si" (m. 35) and before cadenza in "non" (m. 37).
4. **Phrasing (use of rubato and melodic direction):** As the previous recording, his phrasing is super steady, except when he does a variation of the melody in mm. 19-22.
5. **Syllable articulation (use of strong and soft consonants):** The attacks on each phrase are remarkably soft.
6. **Acting expression:** His facial expression is much more flexible than Pavarotti. Alagna's performances tend to be theatrical, sometimes to the point of accentuating some point of the melody.

6th Recording (J. Florez)

Nemorino (tenor): Juan Florez

Orchestra of The Scala, conducted by Plácido Domingo. No date.

<https://www.youtube.com/watch?v=MBbT0BErnWY>

Tempo: BPM: 70 orchestra/62 when at the Tenor's entry

- 1. Sound production:** His sound is usually less remarkable than Domingo's and Pavarotti's in terms of volume, and less mysterious of Alagna's in terms of colours.
- 2. Vibrato:** Florez' recording is the less remarkable when it comes to analyse vibrato as a distinguishable mark of bel canto singing. In piano phrases, as indicated in the score, his vibrato tends to be super short and less noticeable. Of course, he does produce a wider pitch range in the typical highlighted notes of the aria. In the longest note from the cadenza (m. 37), his vibrato is less steady than the previous recordings. It is, by far, the most atypical recording of this analysis.
- 3. Breathing (inside and outside the score):** The legato sustained by the lack of additional breathing is pretty amazing considering the slow tempo Flórez has taken in this recording. Usual breathings are used, as his colleagues, in "do-io" (m. 12), "lo" (m. 16), no breathing and full legato in "a" (m. 25), unlike Pavarotti and Domingo, again breathing in "co" (m. 29), "si" (m. 35), and, of course, the "non" (m. 37) before the cadenza.
- 4. Phrasing (use of rubato and melodic direction):** As indicated in the score, Florez phrasing tends to be backwards, with a langsam feeling of tempo. He does some remarkable dynamic change in mm. 6, 12 and mainly the diminuendo of m. 16 in the descending interval. Sometimes, he tends to change the colour in a long note that is affected with a crescendo (m. 30), going from a fat colour to a sharper type of sound.
- 5. Syllable articulation (use of strong and soft consonants):** Theatrical accent on "pal" (m. 19).
- 6. Acting expression:** Flórez interpretation is the most theatrical one. His facial expressions cover a wide range of muscular flexibility (both eyes closed and open). His body accompanies the drama with his hands, resulting in this aspect of the performance as one of the most important.

7th Recording (G. Karr)

Double Bass: Gary Karr

Piano: Harmon Lewis

From the album *Basso Cantabile* (1992).

<http://youtube.com/watch?v=V0MIzoPonql>

Tempo: BPM: 65

Note: remarkably, this version is in the same Bb minor tonality.

- 1. Sound production:** While most classical bassists look forward to achieving the technical and musical flexibility violin and cello have, Gary Karr has built his whole concept of sound in straight relationship with lyrical singing (see appendix 2, critical media review). This is clearly noticeable in this recording of the aria, which is not a transcription but a performance of the same music (both in register and key) performed by the tenors. His concept of maintaining full sound 'till the end of each phrase clarifies Karr's understanding of lyrical singing.

2. **Vibrato:** While sometimes criticized for being exaggerated or overwhelming, Karr's vibrato in this recording is much closer to lyrical vibrato than other string instruments. This is noticeable in long, high notes, where he achieves an oscillation of the pitch that is wide and steady in both directions (up and high).
3. **Breathing (inside and outside the score):** The incredible tenuto use of his bowing creates a perfect illusion of continuous exhaling in each phrase, which is only interrupted in some notes where he abuses bow speed. Typical breathing before "lo-ve" (m. 16), "a" (m. 24), "di" (m. 32, with change in dynamics).
4. **Phrasing (use of rubato and melodic direction):** Karr's phrasing matches the singer's versions in terms of rubattos and dynamics (for example, he matches Florez dynamics at mm. 6-7). His phrasing is only cut by bow changes, but shows a full understanding of Aria performances.
5. **Syllable articulation (use of strong and soft consonants):** Karr's accents in this recording may only be criticized by the bow-speed he uses on some soft syllables such as marked in score (see appendix) in mm. 2, 4, 21 and 28. His interpretation is full of bow accents that don't contribute to legato.
6. **Acting expression:** Despite the fact of this being an album recording, Karr's live performances are widely acclaimed by his theatrical facial expressions while playing; as a player, he always looks forward to achieving a very dynamic performance.

3. EXPERT CONSULTATION

A crucial part of this intervention cycle was working side by side with a tenor. Due to the lack of feedback from other consulted experts, I decided to deepen Francis Ka-Foon remarks on my reference recording by meeting him and working specifically those aspects that would approach my playing to lyrical singing. Working side by side was extremely useful in order to match different sound qualities and phrasing on this Aria. This expert consulting requires a further recording analysis of this session (<https://www.youtube.com/watch?v=ctV3KKZle4c>), which can be resumed in several points:

1. **Vibrato:** This is one of the main points discussed with the tenor. In general, as he expressed in his feedback, vibrato doesn't seem open enough in order to match lyrical singing. We worked together with a spectrogram application in order to understand the great pitch oscillation that lyrical singing produces. On higher notes (such as the first and final notes of the cadenza), Francis suggested to exaggerate this oscillation (i.e: 35:15 or 36:40). Indeed, this fluctuation is produced by the amount and way air is used (bow speed and contact point in string playing) and the correct use and relaxation of muscles (back and left arm, hand and fingers in string playing). The combination of these two aspects define the quality and wideness of vibrato. On higher notes, the amount of air (bow speed) tends to be higher (faster). Vibrato is also used to chain faster notes in cadenzas, producing coloraturas. In *Bel Canto*, Francis considers it adds warmth to the sound.
2. **Portamenti:** Francis explained in several excerpts how portamenti worked in *Bel Canto* style. In every case, he would anticipate the upper note before the beat; this seemed to be very difficult to imitate immediately with bow playing. Indeed, anticipation is a crucial point in portamento; as an expressive technique, it should be really noticeable and intentional.
3. **Connection of notes/phrasing:** Linking notes with *portamenti* as consequence of shifting position is not recommendable. Francis suggested closer shifting in order to link notes. He wouldn't consider each syllable at each time, but instead would have a clear idea of each word

he's communicating through singing. **Legato is a main technique concern of a lyrical singer.** In this sense, Francis would suggest to use less shifting position to unify the register and don't expose the change (i.e: 54:00).

4. **Matching bowings with syllables:** In the forte excerpts, he suggested not to match each syllable with a different bow, as strong bow changes are too strong for diphthongs, cutting the legato that make each phrase clearer and creating a flat texture. Bow linking enables the possibility of drawing the connection of each note in a better way (i.e: 38:12), adding more weight to some specific syllables.
5. **Meaning of the text:** During the whole session, he was extremely aware of the content of the text. He suggested saving energy and sound to specific points of the Aria (i.e: 36:40). Indeed, the text was previously analysed but I was not fully aware of the meaning of each different phrase while playing.
6. **Taking time on a note when necessary:** In solo singing or playing, we should specially focus on taking the time of developing some particular note (i.e: 50:00).
7. **Reflections on lyrical exercises and posture:** Relaxation is crucial to produce a good sound quality. While singing, Francis concentrates in posture and, of course, the muscles involved in singing.

4.2.5 Intervention

The main goal of this intervention cycle was to further clarify those technical aspects that can be translated from lyrical singing to double bass in order to improve my playing. Considering all data collection, I have enough elements to set the parameters for a new interpretation that brings my playing closer to singing. It is necessary to consider that I'm not planning to add this Aria to my recital repertoire: the whole point of this intervention is to define a method that I could use for similar pieces.

In the previous intervention cycle, some translations were already achieved, mainly 5:

These technical aspects were already translated in the previous cycle, resulting in the following propositions:

1. Concentrating on tone production and sound sustain (*filare il tuono*)
2. Linking vibrato quality with bow speed (air production) and register
3. Producing register changes with ease
4. Linking phrasing with words and Using portamento as an expressive skill
5. Linking bow attacks with syllables

These translations should be more developed with the contribution of new data collection of this second intervention cycle, resulting in a new annotated score of the Aria with indications that could easily adapt to another piece of repertoire. From the translations mentioned above, it is necessary to define new contributions

1. **Linking vibrato quality with bow speed (air production):** As explained in the summary of the recorded side-by-side-session with a tenor, vibrato cannot be dissociated with bow speed. Some notations will be made on the score in order to precise those particular notes that require more

speed and wider/faster vibrato. While experimenting on this, *I've realised that my vibrato is not wide enough in higher positions because of the position of the left hand*. I have a tendency to oscillate the pitch in narrower movements that at the medium register of the bass. The focus on this intervention requires a wider oscillation in high notes (as observed in the recording analysis of tenors' Pavarotti and Domingo).

2. Producing register changes with ease: Legato is a main concern for Singers. Register changes should be achieved in a way they don't become heavy and imprecise. Francis Ka-Foon has suggested the use of harmonics or avoiding big change positions in order to make the connection between notes more compact. On the new notated score, closer positions will be considered.

3. Linking phrasing with words: It was very revealing to consider words as units for phrasing and not focusing on syllables. Indeed, in the previous intervention cycle a new annotated score of *Lucia's de Lammemoor* sextet was introduced with the Italian text on the bass part. This notation was not 100 percent useful, as it is quite hard to think of individual syllables while playing. On the new annotated score of this Aria, I will use three different kinds of slurs: 1 slur for bowing, 1 phrasing slur for sentences and 1 phrasing slur that group notes as words (2 or more syllables).

4. Linking bow attacks with syllables: Concentrating now on words (bigger units), this translation shall now consider the aim of reducing bow attacks in order to create a longer sense of phrasing (especially in forte excerpts). Indeed, bowing shall follow a clever organization of musical speech.

5. Using portamento as an expressive skill: Portamento should now be precise in the score and exaggerated, trying to anticipate the upper note before the beat, and should be avoided as a natural result of shifting positions (scooping).

6. Connecting the music with the text: in the previous intervention cycle, it was already a concern to give the music a particular textual content, that is extremely precise in those cases where the melodic elements are transcribed from singing. It is still very difficult to link playing with a story when this is only given by the text of the Aria. Indeed, while playing, the instrument is an intermediary of expression for language: notes are still notes when playing, but are also words when singing. This aspect, that could easily turn into a case study of semiology, should be resolved by making a general notation on each phrase or motive that gives a general idea of the text in order to specify colour and intention. This method of notating can be implemented in any kind of score for double bass.

The general idea of the following score notation is both precisising and simplifying the amount of information that would bring bass playing closer to singing.

"Una furtiva lagrima" Notated Score 2nd Intervention Cycle

53

image: heart beatings of beloved (passionate

p Un so - lo i - stan - te i pal - pi - ti

and intimate) W.V. image: physical reunion

del suo bel cor sen - tir, i miei so - spir con -

(intimate and intense) W.V. *pp* smorzando

fon - de - re per po - co oo' suoi so - spir, i

same image W.V. same 2nd image W.V.

pal - pi - ti, i pal - pi - ti sen - tir, con - fon - de - re i miei co' suoi so -

W.V. all notes idea of love dead Maggiore (dramatic joy)

(more intensity) spir, cie - lo, si può mo - rir, di più non

W.V. falling in love W.V. confirmation of love

chie - do, non chie - do, ah! cie - lo, si può si può mo - rir, di più non

same very W.V. very W.V. in higher notes of the end. portamenti in last 3 notes

chiedo, non chie - do.

4.2.6 New reference recording, assess and expert feedback

New Reference Recording:

Homemade recording of *Una Furtiva Lagrima* (November 21th, 2019)

https://www.youtube.com/watch?v=bbdO_aWrLfi

The goal of this second intervention cycle was to approach my playing to lyrical singing. As an experiment, I have chosen a well-known repertoire aria for tenor that had been previously transcribed for bass, retaking the duo Bottesini-Donizetti from the first cycle. As Gagnepain explains in his book *Du violoncelliste en particulier au musicien en général*, the act of playing cannot be conceived without the singing voice that the instrumentalist must develop in order to discard any kind of automatism during the performance. The act of playing can be explained as four different actions that take place at the same time: the reading (which is fundamental in all genres of music in which notation plays a main roll), the understanding (which is the interpretation of different elements of the score that are translated into internal singing), the playing and, finally, the listening. The *understanding* of the elements specified in the previous paragraph and notated in the new score were those considered in order to achieve a better recording of this aria.

In general, the process of data collection has provided a lot of useful information to understand and interpret this translation from singing to string playing. However, I personally consider that not all the elements were fully “played” (in terms of Gagnepain) in this new recording. I will therefore try to specify those positive and negative asses from this new recording, retaking those concepts acquired during the data collection.

Positive asses:

Linking vibrato quality with bow speed/developing vibrato: I believe that vibrato is one of the main improvements in this new recording. Working side by side with a tenor and making new recording analysis helped me to understand the quality of this technique in bel canto style. In general, the sound sustain is better and the vibrato got more intense in higher and more important notes. This could still be developed in order to match singing.

Producing register changes with ease: The idea of avoiding glissandos as a consequence of shifting positions is better expressed in this new recording. In some cases, I had chosen new fingerings in order to keep the notes closer and increase legato, which is a major concern in lyrical singing.

Using portamento as an expressive skill: The understanding of portamento is much better. Side by side working helped me to develop a portamento that anticipates the upper note as a typical element of this style. The critiqued “scooping” from the first recording is now less noticeable.

Negative asses:

Linking phrasing with words: This is one concept that was not fully developed in this cycle. The idea of notating the score with “word slurs” is a major concept achieved as a result of data collection. However, not all my bowings or phrasings matched these slurs, which are conceived for a better understanding of the phrases. Also, the interpretation of this aria combined Donizetti’s original version for Tenor with some

minor arrangements that Bottesini did in his transcription. This hasn't enriched the version of the aria; instead, it made it more difficult when consulting experts who knew the original piece very well.

Linking bow attacks with syllables: I think bow attacks could still be softer. In *Bel Canto*, legato is as important as sound production; I should have used more bow slurs to avoid fake accents in soft syllables, even if using separate bows increase volume.

Connecting the music with the text: The idea of notating and organizing the score with *Conceptual Slurs* (to give a general idea of character to each "sentence") is another major concept achieved in this cycle. This would be the "last" and less technical element to be developed while playing this piece. It could still be better developed in a new recording.

EXPERT FEEDBACK

Short feedback given by Cordart's Tenor Francis Ka-Foon Ng

1. Vibrato: "I like it very much, especially how you enhanced them in the major sections and on the high notes and the contrast with the minor sections and phrase ends."

2. Legato: "I think this is very legato and I have no addition."

3. Portamento: "Most of them are quite good. One spot is a bit doubtful, it is in the second major section around 2:36. That's an ornament to me, at least an ornament to the original aria. I would keep portamento in longer lines, but not in this small spot. And ornaments should still then remain clear."

4.2.7 Reflect on your progress since the previous reference recording

I personally believe the new recording shows a clear progress as a consequence of better understanding those techniques analysed in this cycle. Still, not all these elements were fully developed in this cycle. A new cycle should focus on one or two techniques in order to obtain better results with less information. On the other hand, I consider that new concepts like word slurs and concept slurs are vital for a better organization and understanding of this kind of music.

4.3 Third intervention cycle

4.3.1 Overview of third intervention cycle

It is time to devote an intervention cycle to a fundamental technique of expressive solo playing: vibrato. If we compare the original reference recording of *Lucia de Lammermoor* (september 2018) with the last recording of *Una Furtiva Lagrima* (november 2019), there's a significant evolution in the quality of vibrato at both high and medium registers of the instrument. The last recording shows a particular use of wide (in terms of pitch) and stable vibrato, which is a crucial concept to approximate string playing to lyrical singing. This time, the aim is to develop this technique on a piece that was conceived in the same style as Donizetti's aria but was exclusively written for double bass. Therefore, it will not be possible to imitate any original recording performed by a singer.

Indeed, the following cycle represents the last step of this research, which looks forward to applying and developing those techniques on any given excerpt for solo double bass that I may perform in the future. It also involves a major topic on string playing, as vibrato defines sound quality and expression. In this case, the chosen excerpt is the main solo of 2nd movement in Bottesini's *Passione Amorosa* for two basses. The excerpt itself is written in full belcantistic style and the piece is part of the chosen repertoire for my final MA recital. The goal of this cycle is to ponder on vibrato as usually conceived for string playing and to approach this technique to modern bel canto style as it was previously tried with expert assistance during the second cycle. Desk research, expert consulting and self-experimenting are the main research strategies.

4.3.2 Reference recording

[Homemade recording](#) on Bottesini's *Passione Amorosa*.

Bass solo from 2nd movement.

Recorded on mars 12th, 2020.

4.3.3 Reflect and assesses

In this cycle, expert consultation is crucial and combines both specific feedback on the previous reference recording and general advising and ideas to develop this technique. Feedback was requested to all my former main teachers (Luis Cabrera, Yann Dubost, Elian Ortiz and Edgardo Vizioli) and also to former colleagues and teachers from Paris Opera (Thierry Barbé, Dominique Guerouet) and Teatro Colón orchestras (Stanimir Todorov). Some specific comments on my playing are considered part of these assessments, and other general ideas are summarized as part of data collection.

In general, all feedback on this recording was quite positive and enthusiastic concerning general playing. I'm very grateful for this, considering that all experts were involved in my musical training over the last years. Nevertheless their "corrections" regarding vibrato could be summarized in the following score:

90 *Andante*

dolce

look for an evolution of this note

shall not highlight

more intensity

super intense

apogg.

not same Vibrato

end of semi phrase

do not apply intense vib on ending notes

no vib. is welcomed on harmonics

less intense

change fingerings to 1 position

try to apply walking vib

use vibrato for crescendo feeling

highlight apogg and resolutions

f espr.

Intensify Bow pressure

4.3.4 Data Collection

The following data collection involves different kinds of research strategies. We should still consider that all conclusions from this thesis are likely to be developed in general solo playing in the immediate future. That is to say that all considerations about vibrato and the relationship between string playing and singing exceed the final recording meant to improve the previous reference recording. In this cycle, the fact of interviewing different string players is of great importance, concluding the final report with the point of view of players (as opposed to the previous cycle). Therefore, data collection shall be organized as follows:

- 1- Theoretical considerations on vibrato as a technique in string playing.
- 2- Analysis on different recordings of Bottesini's excerpt.
- 3- Analysis and commentaries on Tenor's vibrato and comparison with Double Bass vibrato.
- 4- Summary of all recommendations made by experts during interviews/feedback requests.
- 5- Developing exercises out of recommendations.

1- THEORY AND TECHNIQUE

Vibrato is a musical effect consisting of a regular, pulsating change of pitch, used to add expression and colour to vocal and instrumental music. While the vibrato occurs spontaneously through variations in the larynx, in string playing it's the result of a careful imitation of that vocal function¹⁸. In addition, slight variations in pitch would cause large changes in the directional patterns of the radiated sound, adding shine and shape to the sound.

Of course, the use of this technique has changed over the years. It is now acknowledged that vibrato in string playing used to be condemned till the settlement of late romantic music and XXth century practice. Some argue that the use of continuous vibrato to enrich tone was developed by players like Fritz Kreisler and not earlier. In this sense, it is of general knowledge that orchestral players would use this technique only when indicated in the first decades of last century while, in opera stages, a lot of acclaimed tenors like Ricardo Stracciari and Joseph Kaschmann were criticized by the exaggerated oscillation of their tone.

Nowadays, vibrato is an invaluable technique that all advanced string players shall dominate and reshape depending on the repertoire. Its influence on sound quality and aesthetics is determinant and it is impossible to dissociate it from finger pressure. "Only because of vibrato, we are capable of transforming a neutral mezzo piano in a brahmsian poco forte" states cellists Xavier Gagnepain¹⁹. "Most beautiful sonorities are usually those which are the result of good balance between left and right hands. Of course, the kind of vibrato always plays a preponderant role, but also the quality and articulation of finger pressure which are intimately related with this motion". A similar consideration about finger pressure is made by young Spanish cellist Pablo Ferrández, who also urges us to look for different vibrato qualities depending on the repertoire.²⁰

Despite its physical requirements regarding left hand pressure, double bass is not an exception to Gagnepain's and Ferrández statements. In his Phd thesis *Double Bass Technique: Concepts and Ideas*, Mark Morton states that "vibrato is the most important expressive tool a string player possesses"²¹. As he points out, there are basically three dimensions of vibrato: pitch, intensity (volume) and timbre. Each of these dimensions have two sub-dimensions: rate (speed) and extent²². In string playing, the performers have only full control over the rate and extent of the pitch (movement of the left hand), since intensity and timbre depend also on the movements of the whole instrument.

While playing solo bass repertoire in this period, a main question arises on the oscillation that each pitch should have. In this sense, oscillations that define the quality of vibrato were susceptible to different changes and opinions throughout the XXth century. Around 1932, for example, the average rate of oscillations for string instruments was between 6 and 7 Hz (cycles per second). Vocal vibrato was around

¹⁸Wikipedia Article, *Vibrato*. https://en.wikipedia.org/wiki/Vibrato#Vibrato_and_tremolo. Accessed 13/04/2020.

¹⁹ "Pour la seule action du vibrato, on peut transformer un mezzo piano neutre en un poco forte brahmsien (...) Le sonorités parmi les plus belles sont souvent celles qui résultent d'un bon équilibre entre main gauche et main droite. Le type de vibrato, bien sur, mais aussi l'articulation et la qualité de l'appui du doigt qui lui sont intimement associées jouent un rôle prépondérant". Xavier Gagnepain, *Du musicien en général, au violoncelliste en particulier* (Paris: Cité de la Musique, 2001), 43.

²⁰ Pablo Ferrández. *Tutorial*, 2018. <https://www.youtube.com/watch?v=7oZN9Wqk6Rw> (5:33). Accessed 13/04/2020.

²¹ Mark Morton, *Double Bass Technique: Concepts and Ideas*, (Texas: Basso Profondo Publications, 1991), 83.

²² Louis Cheslock, "Introductory study on violin vibrato" in *Research studies in music* (Baltimore: Otto Ortmann Editors, Peabody conservatory, 1931), 60-70.

7Hz²³. Apparently, a “good medium” rate of vibrato on string bass shall be around 4.8Hz (between 3.3Hz and 6.5Hz). In terms of extent, Mark Morton suggests that “it is best not to vibrate any wider than a quarter-tone, since anything wider begins to produce the sensation of two different pitches”. Because of the string length of a double bass, there is almost no danger in crossing this limit by moving both arm and left hand on the same pitch. In this sense, applying vibrato on bass playing requires a physical effort, as the movement must be exaggerated. As Morton explains, “fortunately for singers, and unfortunately for double bassists, the ear cannot hear or perceive the full extent of the pitch or intensity vibrato. When the amplitude of either of these vibrato dimensions is small, the hearer can perceive most of the extent of the fluctuations, but the wider the amplitude the less of the full extent of the oscillation the mind perceives. For the bassists, this means that he must exaggerate the vibrato for the audience to perceive a vibrato of comparable width to the other stringed instruments”.

In terms of physical movements, “the arm should remain as a single unit from the elbow to the tip of the finger”. In medium and low registers, Morton also suggests to directly oppose the thumb to the finger that’s stopping the string, which is not necessarily useful when trying to develop a sense of “walking vibrato” (a non-stop movement of the left arm *axis* that cannot be achieved by relocating the thumb at each note) or vibrating double stops (which require the absence of the thumb in order to transform the three dimensional rotational *axis* back into a two dimension one). While going to the up registers, “vibrato becomes less efficient as vibrato motion does not as effectively shorten and lengthen the string for an equivalent amount of arm movement in lower positions”. Luckily, since the string length gets shorter as the hand gets higher, the vibrato motion does not have to be as wide to cover a similar percentage of the total string length. Because of this, Morton suggests to have a narrower vibrato in higher pitches and the opposite on lower ones. He also develops the idea of “finger” vibrato, which consists in using a higher finger to make the oscillation point even wider, conceiving the pitch between the two fingers in touch with the strings.

In general terms, vibrato is a technique that instinctively relates string playing with lyrical singing, but it has a very independent and large development which changes both on instruments and repertoire. The goal of this cycle is to point out those characteristics that would approach this bass technique into bel canto style in order to perform an excerpt like *Passione Amorosa*’s bass solo.

2- RECORDING ANALYSIS OF BOTTESINI’S *PASSIONE AMOROSA*

As part of this intervention cycle, in which I’m trying to find a quality of vibrato that approximates my playing to lyrical singing, it is appropriate to analyse the way this piece is played by other performers. In many senses, most of the interpretations I have found in Youtube are quite disappointing when it comes to vibrato. As Stanimir Todorov pointed out in his feedback ([see appendix](#)), it is acknowledged that developing a non-stopping and lyrical vibrato on bass is extremely hard due to its physical demandings (string tension, above all). Nevertheless, I’ve selected some performances by great players which I find of great interest:

1- Minje Sung and Mikyung Sung

May 2007, Kumho Art Hall, South Korea.

[Link of recording](#).

2- Boguslaw Furtok and Johannes Stähle

²³ Joseph Tiffin and Harold Seashore, “Summary of the established facts in experimental studies on the vibrato up to 1932” in *The vibrato* (Iowa City: Carl Seashore, 1932), 363.

2007, Frankfurt, Germany.

[Link of recording.](#)

3- Luis Cabrera and Olivier Thiery

2017, Blue note, Amsterdam Conservatorium

[Link of recording.](#)

4- Ovidiu Badila - Bass and Catalin Ilea - Cello

Emil Simion - conductor

1993, National Radio Orchestra of Bucharest, Romania

[Link of recording.](#)

Considering the main patterns that define the physical quality of vibrato, I've indicated which kind of extent and rate defines, approximately, the type of colour that each player decided to use. Needless to say, it is quite hard to focus only on the type of vibrato since this technique is in deep relationship with other aspects that define final phrasing, such as bow playing, dynamics and harmony.

First recording summarizes the best performance I've found of this piece so far. Siblings Sung from South Korea show an incredible sense of technique and lyricism throughout the whole piece. In this solo, I've defined Sung's vibrato as narrow and fast. The result of this is a very nitid and focus sound. Details like the C# of m. 97 point out the quality of her playing.

Second recording represents both the great playing of German Johannes Stähle and Polish Boguslaw Furtok. In this case, the ability of playing two different notes and maintaining the same vibrato is clear from the beginning. His tremolo-vibrato of m. 97 is quite amazing. In general terms, the extent of his vibrato is quite wide and therefore lyrical.

Third recording shows two different French bow schools based in The Netherlands. In this case, the solo is played by Olivier Thiery, which develops a slow-rate vibrato that is really audible. I believe this is the less automatic playing, since he tends to develop vibrato with bow crescendos in longer notes. The slow rate vibrato makes this interpretation closer to bel canto.

Fourth recording is quite notorious, since the analysed excerpt is played on a cello. Both the change of octave and instrument show a substantial change in vibrato quality, which is in this case very typical with the kind of string playing that was popular in the 80s and 90s. Indeed, his vibrato reminds of Mischa Maisky or Rostropovich. It was quite disappointing to find out that this recording is much less interesting than the previous ones. Cello playing, in these measures, seems a little bit plain and automatic. There is no walking vibrato or legato between some crucial notes. Needless to say, both time and context are quite different: the cellist is playing with a big orchestra in a big hall in the early 90s. This recording is still of great interest as it features the great and admired bassist Ovidiu Badila.

90 **Andante** SuperFWV
 NFV + WFV FV too N + + contrast
 legato V
 dolce no legato V
 WF no walking vib. too fast
 NE WF WS
 senza V
 WFV WSV WS WF
 very WS TremV!!
 rit
 too NFV
 WFV V
 rit. on Fs WS beautiful V
 senza
 WS
 f espr.
 NS WFV S WS

3- TENOR VIBRATO AND BASS VIBRATO: COMPARISON

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“Vibrato of all analysed tenors is extremely stable at high notes.

Vibrato is considerably more audible and colour-shaping at high notes, probably as a consequence of using more air.

At older recordings (Caruso and Di Stefano), vibrato tends to be slower, with a bigger oscillation that shapes high pitches.

In general terms, the change of dynamics is never extreme as it is submitted to the projection of sound.

In some cases, high notes which result from a major 3rd or 6th interval imply a quick crescendo.”

Second intervention was even more precise, as it was focused on an specific aria written for tenor, dismissing an exhaustive analysis like the one dedicated to the full opera *Lucia de Lammermoor*. The recording analysis also focuses on vibrato by different tenors. Their general characteristics were described as follows:

Domingo: Wide and high vibrato in high register. Super flexible idea of vibrato: it changes depending on dynamics or dramatic effects. Develops notes from no vibrato to wide vibrato. Use of both narrow and wide vibrato. Changes vibrato between minor and major chords (harmony).

Pavarotti: Super wide and stable vibrato; pitch-change (extent) is very audible. Very specific colour from the beginning to the end of important notes.

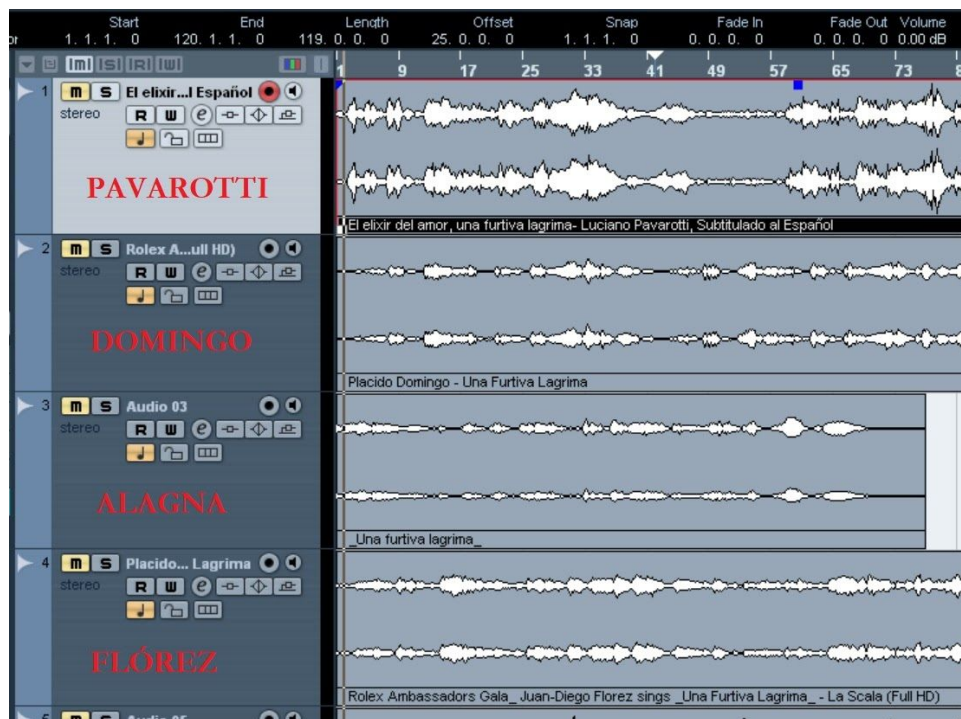
Alagna: Piano phrases expose a less exaggerated extent of vibrato. Extent becomes wider and rate slower at higher important notes in cadenzas.

Flórez: In piano phrases, vibrato extent is super short and less noticeable. More atypical than previous singers.

Considering the feedback obtained by singers in the second intervention cycle, we had concluded that “vibrato for this kind of music should be wider in terms of pitch and faster in terms of speed”. The previous summary adds very valuable information.

1. In bel canto, a type of vibrato may be characteristic but this never means to be automatic. Domingo is the best example: extent and rate changes depending on notes, dynamic and meaning of the text.
2. When dynamic indicates piano or intimate, narrow extent is used. On higher and forte notes, a wider extent is used.
3. Vibrato can develop from none with a crescendo on a single note. On 3th and 6th intervals, a wide extent and intense rate is required on higher notes.
4. Fundamentally, when vibrato is not developed on purpose, both extent and rate shall be clear and stable from the beginning to the end of the note (which is also the beginning of the next note).

Regarding point 4, it is of high interest for this cycle to visualize how stable and wide is the vibrato of these great tenors. Audio software *Cubase 5.0* enables us to clearly recognize both rate and extent of each pitch. In this case, we are again taking in account those recordings of *Una Furtiva Lagrima* analyzed for the second cycle:



The vibrato extent that shows *Cubase* is quite accurate; it clearly demonstrates how stable and wide is tenor's vibrato on high notes. In order to “rescue” those notes which are not accompanied and therefore are recognized by software as clean pitch, I have decided to exemplify the rate and extent of vibrato with the last syllables of this aria, just before the orchestra reenters.

In the case of Pavarotti, vibrato is absolutely outstanding. In this recording, he does a final crescendo opening both rate and extent before the audience begins the applause:



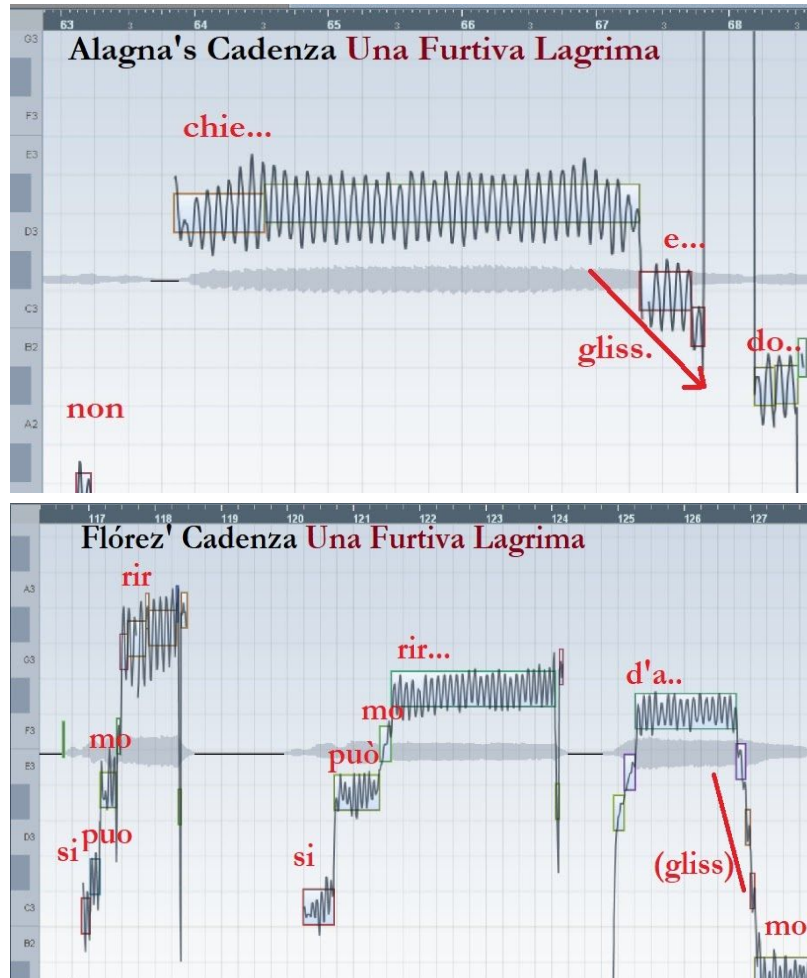


The stability of the pre-last note, which lasts at least three seconds, is quite shocking. This software also recognizes that vibrato conducts the descending glissando to the last note. The same way, even if Domingo's voice has a very different colour (more nasal, so to speak) it also results in a similar rate.

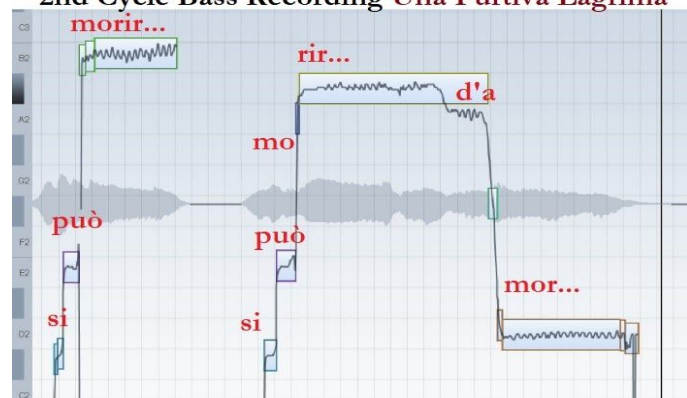
The "d'a" note also shows a very stable rate, with a fluctuating pitch just before the glissando. Surprisingly, Alagna does the original version (with the original text). He gives the pre-last note even a wider extent than Pavarotti and Domingo. In all cases, we can clearly appreciate that pitch extent easily surpasses the semitone. In the case of Alagna, it surpasses a whole tone. The same happens with Diego Florez in his higher notes, whose vibrato extent goes up to one tone and a half.

Indeed, all these graphics are not meant to translate the same quality of vibrato to string playing, since it would be physically impossible to imitate the extent. Nevertheless, it is extremely useful to recognize how tenors use a stable vibrato from the very beginning to the end of each note, connecting each note with this technique. Indeed, vibrato and legato are not dissociable in lyrical singing. This is a very important concept that should always be translatable to string playing.

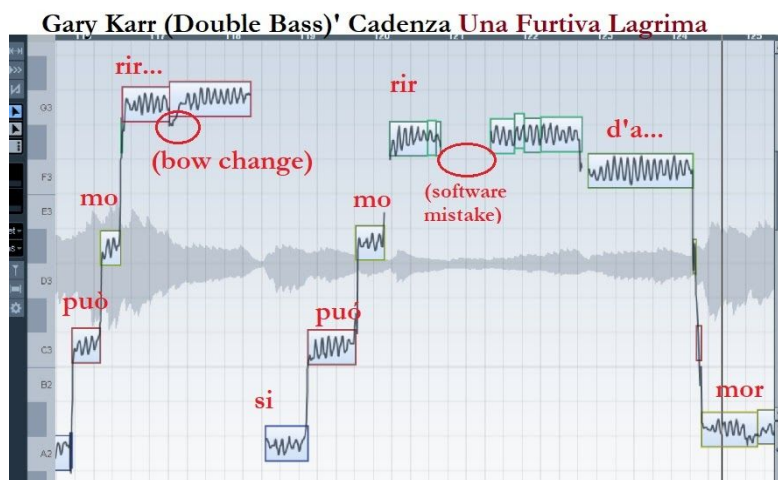




2nd Cycle Bass Recording Una Furtiva Lagrime



After these considerations, it would be useful to compare these patterns by analysing double bass playing. Recapitulating once more some recordings from the 2nd intervention cycle, we can appreciate a huge difference in terms of extent and rate between my second recording of *Una Furtiva Lagrime* and Gary Karr's version (played on the original tonality, a 4th higher than my version).



Comparing both “bass” graphics with “tenors” graphics, we can immediately recognize that double bass vibrato extent stays under the semitone. Gary Karr's graphic is shocking: he has managed to reproduce a similar rate and proportional extent that imitates very accurately the singer's vibrato. On the contrary, my own graphic is quite disappointing. Even if I'm playing a 4th lower, the vibrato extent is very narrow, making it less audible. The pre-last note also shows a lack of stability throughout the tone. This “mistake” was clearly corrected in the last note, which shows stability in its oscillation.

Summarizing this point of data collection, we have demonstrated that tenor's vibrato is proportionally “translatable” to bass playing. Indeed, it is not possible to imitate the extent, but it is so in terms of rate. Also, the conception of stable vibrato from the very beginning to the end of the notes is extremely useful when it comes to legato and sound production. Indeed, it is always necessary to establish a correct amount of extent and rate to every note, which always depends on dynamic, register, harmony and, of course, style. It is also necessary to “take time” to play each short note the way Gary Karr has accomplished. Summarizing, what makes string vibrato closer to opera vibrato is its role to connect notes and its continuous stable rate. Of course, string vibrato develops differently on each instrument depending on their own technical reality and their own, particular colour.

4- SUMMARY OF CONTRIBUTIONS FROM CONSULTATION

Of great importance for this intervention cycle was the collected opinion by string musicians that I admire and have been influential in my career. Their contribution clearly surpasses normal feedback on my reference recording. They have enlightened this part of my research by reflecting on technical and musical issues concerning vibrato ([see appendix](#)). In order to improve vibrato in the selected solo of *Passione Amorosa*, their main ideas have been summarized as follows:

Stanimir Todorov (Principal Cello Teatro Colón, Monte-Carlo Philharmonic, Laurate 1994 Rostropovich Competition)

- Apply different techniques from different schools, taking the best of everything, just like Henrik Szering did.
- Consider all natural issues of your instrument technique, especially those physical aspects that distinguish Double Bass from other string playing.

- Think of vibrato not as an automatic motion, but something is in deep connection with aesthetics, intonation and sound.
- Concentrate vibrato on one note, avoiding exaggerated extent in order to focus sound.
- Interact with different vibrato qualities as a game: dissociate playing forte with the left hand and forte with the right hand.
- Develop an “emotional lab” by playing scales and changing extent and rate at each finger.
- Change vibrato quality according to dynamics and register.
- Sometimes, it’s also useful not to “overthink” these techniques.
- Influences: Great Violinists such as Szering, Heifetz, Menuhin, Grumieux, Milstein, Oistrach, Ferras and Stern.

Luis Cabrera (Principal Bass, Netherlands Philharmonic – Main Teacher at CODARTS)

- Apply more “walking vibrato” in the semi-quavers.
- Apply good balanced speed and pressure of bow at the top of F#.
- Take good care of upbeat D harmonic semiquaver.
- Apply no vibrato to some notes deliberately (but never because of lack of time).
- Apply contrasting speed between Bow and Vibrato, I.E. slower on the bow and faster on the left hand.
- Apply a relaxed contact point with intense vibrato to show the softer dynamics as well.
- Influences: Former teachers. Luciano Pavarotti, Joan Sutherland, Plácido Domingo, Cristina Gallardo Domas and other lighter singers as Ian Bosdrige, Natalie Dessay, Phillipe Jarousky, baroque singers.

Yann Dubost (Principal Bass, Orchestre de Radio France - Former Main Teacher at CRR de Paris)

- Apply vibrato not only as an ornament of long notes, but as an active part of musical action (evolving within the phrase or within the notes).
- Apply vibrato to play legato between notes or to conduct one note to another.
- Apply vibrato to produce a crescendo feeling in the note (highest F#).
- Use vibrato to “draw” appoggiaturas and resolutions as a whole *gesture*.
- Apply vibrato to prolong resonance (even when the bow is already off)
- Apply vibrato to highlight and conduct big intervals (2:11).
- Watch out vibrato on fingers 3 and 4, which may interrupt too early.

Yann Dubost has also done important observations regarding the relationship between vibrato and harmony, hierarchy of notes and phrasing:

- Do not miss the hierarchy of the first phrase: Si is the most intense note, then the Sol shall not be highlighted, and final Re is the resolution.
- Think of the evolution of the first La towards Si.
- La and Lab from m. 92 could be different (Lab is an appoggiatura, following Sol is a resolution and cannot be played the same with the following Sol).
- Try not to vibrate so intensely on notes which are the end of phrases (like lower La at m. 96). The same applies to notes that begin a crescendo phrase (lower Re of m. 98).

Thierry Barbé (Principal Bass, Opéra National de Paris – Professor at CNSMDP)

- Take care of those notes of the melody which are minor or major “appoggiaturas”: apply a faster vibrato and also intensify the pressure of the bow.
- Link vibrato between notes without stopping the movements.
- Apply no vibrato to those notes which are natural harmonics, in order to release pressure.
- Apply fingerings that reduce too many shiftings (like in a violin or cello).
- Bow movement cannot be reduced to up-bow/down bow. Find a specific quality in different bow changes depending on colours, sentiments, etc.
- Influences: Plácido Domingo, David Oistrakh, Misha Maiski, Jacqueline DuPré, Rostropovich.

Dominique Guerouet (Opéra National de Paris – Professor at CRR de Paris)

- Apply the same colour no matter fingers from the left hand (right now, amplitude and intensity of vibrato –oscillation- changes between fingers).
- Apply always a similar feeling of open and free vibrato to the sound (now it changes).
- Apply a clearer difference between notes with and without vibrato, consciously selecting those moments of increasing intensity.
- Apply a clearer way of going from non-vibrato to vibrato.
- Do not close the sound with bow; by doing this, vibrato begins to shorten (watch 00:15 at the tip of the bow).
- Work on the following exercise: change fingerings on the same vibrato speed, only releasing the previous finger after the second one is already moving (see appendix).
- Apply more sustain/pressure to the thumb so it balances the movement of the whole hand.
- Influences: Among greatest cellists, singers, violinists, former teacher Jean-Marc Rollez.

Edgardo Vizioli (Co-Principal Bass, Teatro Argentino de La Plata – Former Main Teacher)

- Apply a stable and constant movement of the forearm in order not to stop vibrato.
- Do not stop vibrato just before and after shiftings; combine shifting movements with vibrato.
- Apply fingerings that reduce too many shifting (like in a violin or cello).
- Prepare big shiftings (1:32) moving forward both elbow and shoulder to anticipate this movement.
- Do not rise the elbow while doing big shifting to higher positions.
- Apply a clearer way of going from non-vibrato to vibrato
- Apply more “walking vibrato” in the semi-quavers.
- Mind fake accents on short notes (m. 96) and end of phrases.
- Apply softer bow attacks in some phrases (m. 131), maintain bow air and speed between consonants.
- Think of ornaments as coloraturas in Bel Canto Style: take time to pronounce these notes.
- Breath both physically and with the instrument when you can (m. 92).
- Influences: besides great singers and former teacher Enzo Raschelli De Ferraris, friend and violinist José Bondar.

Elian Ortíz (Principal Bass, Teatro Colón – Former Main Teacher)

- Consider that vibrato extent and rate always depend on the quality of vibrato we develop in our “internal singing”.

- Sustain melodic tension both through different fingers and internal singing.
- Apply fast “coups” of vibrato when it comes to really short notes.
- Apply vibrato to give “life” to musical speech.
- Influences: bassists Streicher, Ibragimov, Martin and Badila. Former teacher Anthony Bianco.

5- TECHNIQUE AND MOTION EXERCISES BASED ON EXPERT CONSULTATION

It is imperative to achieve a flexible mastery of this technique in order to enrich musical playing.

Stanimir Todorov and Dominique Guerouet were very clear about technical considerations and “exercises” that can be used in order to develop both flexibility and stability in finger and arm motions. Self-experimenting during practise shall include:

1 - Playing scales or melodies with four basic types of vibrato:

- a- Slow rate, narrow extent
- b- Fast rate, narrow extent
- c- Slow rate, big extent
- d- Fast rate, big extent

2 - Playing chromatic scales in order to unify extent and rate in all three fingers (1, 2 and 4 in normal register / 0, 1, 2 and 3 in high register). The first finger shall be alternated with second and 3rd in order to move positions.

3 - Developing the following exercise suggested by Guerouet: playing half notes as follows: 1st note (ex. La) with 1st finger, then 2nd immediate note (Sib) pressing with both 1st and 2nd finger (keeping the same kind of vibrato) and finally playing the 2nd note (Sib) only with 2nd finger, realising 1st finger.

4- Previous exercise proposes a mechanic training for walking vibrato. Cellist Xavier Gagnepain has a very interesting thought about this. “As vibrato has not the only fonction of adding sensibility to one note” he says “we shall concentrate on connecting one note to another one (...). Indeed, all discontinuity of vibrato provoke a feeling of a sonorous hole” . Surprisingly, the reason that might explain this failure isn’t necessarily mechanical. “This problem reveals a difficulty at following ‘sound thinking’ of the left hand in a continuous way. What we lack is what we could call ‘left hand legato’”. According to this thought, Gagnepain proposes playing a scale with continuous vibrato in the left hand while releasing the bow a beat in between. This exercise clearly contributes to dissociating walking vibrato from bow changes.²⁴

The aim of previous exercises is to develop both stability and flexibility in vibrato motion. Needless to say, it is necessary to keep a correct and constant amount of bow pressure throughout each note: as it was explained in previous cycles, bowing equals to air release in lyrical singing. Of the same importance is to maintain only one type of extent and rate from the beginning to the end of each note. Recapitulating concepts of Mark Morton and remarks by Edgardo Vizioli, it is extremely important *to settle the vibrato*

²⁴ “Comme le vibrato n'a pas pour seule fonction de sensibiliser une note, on mesure l'intérêt de savoir l'enchaîner d'une note à l'autre: puisqu'il change la nature et la puissance du son, toute discontinuité du vibrato provoque une sensation de trou sonore. Cependant, enchaîner le vibrato paraît beaucoup fort difficile. La cause n'en est pas toujours celle que l'on croit. À tort, on rejette exclusivement la faute sur des déficiences d'ordre physique. En réalité, le problème révèle souvent une difficulté à suivre la pensée sonore de la main gauche dans sa continuité. Ce qui manque, c'est ce que l'on pourrait appeler le legato de main gauche”. Gagnepain, *Du musicien en général, au violoncelliste en particulier*, 59.

axis by the correct position of the left forearm at each note. According to main teacher Luis Cabrera, the whole motion shall require engagements from the whole back of the body.

4.3.5 Intervention

Data collection provided a wide panorama on how vibrato is conceived by great bassists and cellists. It was also useful to recapitulate those qualities expressed by major tenors in the repertoire of *bel canto*. Following these ideas, intervention requires two basic steps. On the one hand, it is necessary to experiment on the series of exercises developed during data collection (point 5). Indeed, matching rate and extent in different fingers is crucial to connect one note to the other and therefore develop a lyrical legato (walking vibrato). On the other hand, it is necessary to systematize some basic rules in order to develop a smarter and more lyrical vibrato depending on harmony, dynamic and hierarchy of notes. A new annotated score and recording shall result from this second step, hoping that these new concepts and “rules” can also be applied to my final recital repertoire.

Indeed, after developing a good mechanical technique, vibrato shall be played smartly. Frequently people would argue that vibrato must arise naturally from each player and that expressive playing is the opposite to mechanical playing. Nevertheless, it is possible to consider standard concepts of this technique as colour is never defined without considering aesthetics (style), harmony (notes hierarchy) and dynamics. The following tips summarize the experience of this 3rd intervention cycle and are liable to be applied in every repertoire related somehow with lyrical playing.

1. Keep in mind that connecting and “fulfilling” notes are equally important while playing vibrato.
2. Play medium rate and wide extent vibrato (Big Tenor Vibrato - B.T.V.) on top notes. Make the extent audible in these notes (i.e: F# in m. 99 of first solo).
3. Apply B.T.V. and bow pressure on major and minor 3rd and 6th intervals (i.e: A-F# in m. 99).
4. Apply bow pressure and intense vibrato (or no vibrato at all) when playing *appoggiaturas* (i.e: A-F# in the last m. of the 2nd solo).
5. Play fast rate and narrow extent vibrato (Violin Vibrato - VI. V) on a super high register. (i.e: D-G-F#-E in 9th m. of 2nd solo).
6. Play VI.V also in piano espressivo notes or intimate excerpts.
7. Apply a VERY clear way of going from non-vibrato to vibrato (NV-V). (i.e: first B of 2nd solo).
8. Play no vibrato at all on selected notes.
9. Apply vibrato to help big shiftings or glissandos.
10. Apply resonance vibrato (RV) on certain final notes. (i.e: Bb-A before 2nd solo).
11. Finally, apply fingerings that help walking vibrato (1-2 in high register instead of 1-3). Use an active thumb when using 3rd finger in a high register (0 - 3).

An annotated score of *Passione Amorosa* main solo would result as follows:

1st Solo:

90 **Andante**

VI-V legato 0+3 dolce

legato BTV 0+3 3 + BTV

NV-V VIV

BTV 2 BTV 1 3 + 1 4 4 f espr.

140 112 12

2nd Solo:

RV NV-V BTV sustain rate BTV

pp f espr.

conduct rate BTV

sustain rate

BTV BTV sustain rate BTV BTV

Apply VI-V at this register VI V

f etc...

4.3.6 New reference recording, assess and expert feedback

This intervention cycle required developing a very high quality technique in a short period of time. The recording process involved different attempts to reach a better extent and rate of vibrato in all phrases, and shall be listed as follows:

[Day 1](#) - First recording attempt.

[Day 2](#) - Including bow changes and developing a better relationship between vibrato and bow speed.

[Day 3](#) - Developing vibrato through longer notes.

[Day 4](#) - Developing similar rate between different fingers).

[Day 5](#) - New reference recording.

Due to different reasons, all recordings present different positive and negative features. While comparing the reference recording with the last one, Luis Cabrera has expressed that “the sound generally is way better, more focused and intense” even if I have to “keep watching these for the future.” About first solo, he’s stated:

“Well done; there is clear evidence of progress and assimilation of some discussed concepts. There is a sense of longer line and smoothness in the left hand and vibrato connectivity. There is now a variety of vibrato resources, like in the main notes of the theme or the climax top F-Sharp in contrast to the A in 00:25, which starts without vibrato and develops through the length of the note.”

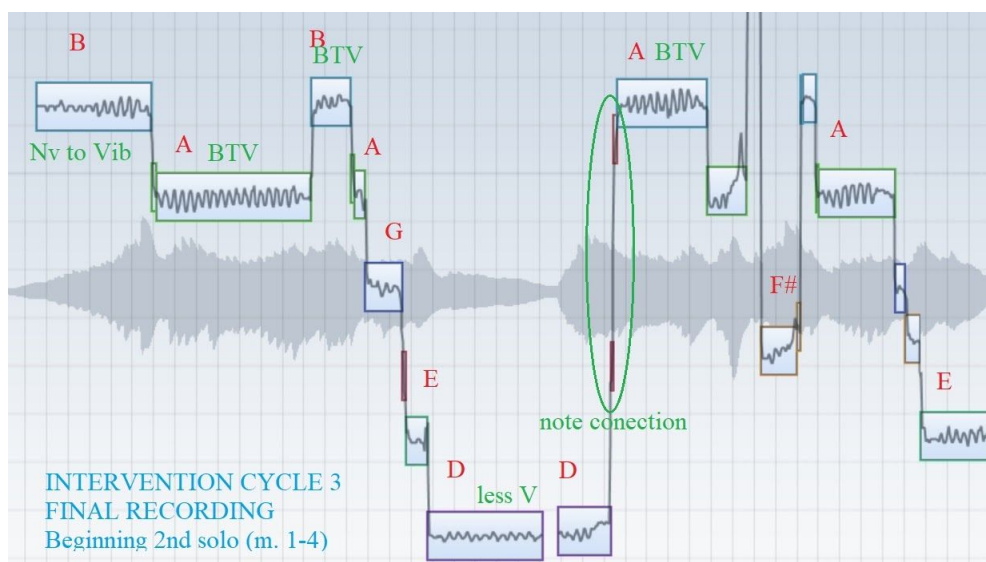
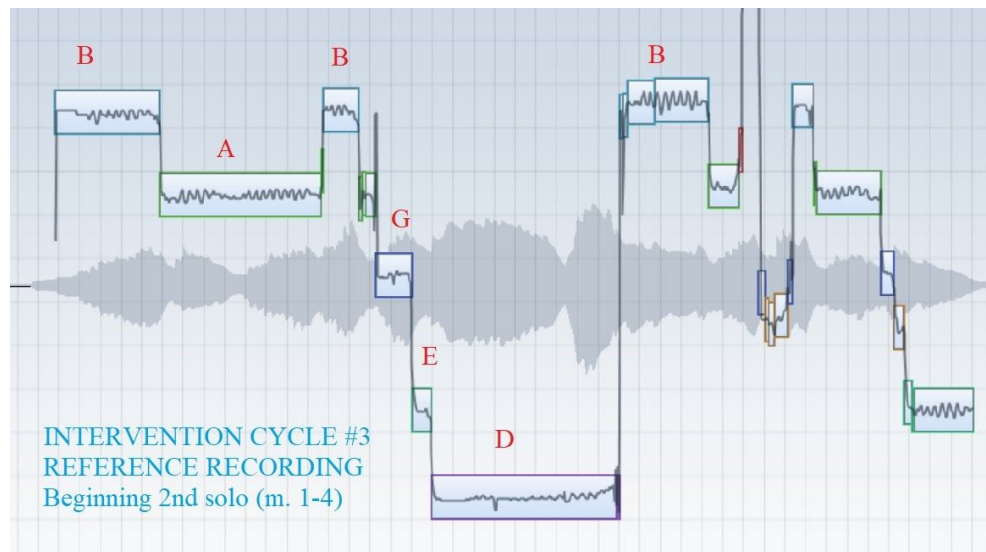
About the second solo, he has said:

“1’36” requires intense faster vibrato like the note at the top register in 1’45”. Generally there is now a good interconnection between the main thematic notes, the passing notes, the connecting notes and the ascendant/descendant phrases. The change of position is done in a more belcantistic manner, taking more time and sustaining the tone while shifting. On the other hand, at 2’20” and 2’30”, I find that those Gs and F#s could have more beauty and more human voice resolution and answer to the previous phrase. Indeed, the 3rd and 4th fingers still lack the presence of the 1st and the 2nd. Also I observe different tendencies in the vibrato depending on the direction of the bow: I would still appreciate more sustain in the down bow towards the tip; in the up bows, there is usually a slight swell crescendo arriving into the frog. This is still something to improve but well done in going this long way. I hope that you can apply this process to all the other repertoire and incorporate this method of analysis/improving into your own practice.”

4.3.7 Reflect on your progress since the previous reference recording

There is now a better understanding both in theory and practise on how vibrato works and how it shall be played in this kind of repertoire. Anyway, I personally believe that developing this technique exceeds the limits of this research. Comparing all videos, I realize I prefer [recording from day two](#) or even the original reference recording in terms of musical flow. Indeed, these videos show a more spontaneous way

of playing, which I prefer. On the other hand, it is true that vibrato has increased quality on the last recording. It still doesn't happen all the time or among all fingerings but, when it does, it makes a real difference. In order to demonstrate this improvement, final recording was made in similar conditions to the first one. By comparing the first measures of the second solo, it is possible to visualize how extent became wider and rate became more stable in the last recording. This last attempt also features some qualities expressed in the new annotated score, like the transition from non-vibrato to vibrato (1st note of the 2nd graphic), the rate stability of all notes marked "BTV" and the decreasing vibrato intensity in low Ds (end of phrase notes). In the near future, I believe that further improvements can be achieved by developing internal singing and paying extreme attention to the relationship between the left hand and the forearm axis. This line, which connects the fingers to the elbow around the vibrato axis, is crucial.



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2. Recordings

1. **Donizetti, Gaetano.** *Lucía di Lammermoor*. Orchestra and Choir of [Gran Teatre del Liceu](#), Barcelona. Almiliatio. With Elena Mosuc (Lucia), Juan Diego Flórez (Edgardo), Marco Caria (Enrico) and Simon Orfila (Raimondo). Recorded 2015.

2. **Donizetti, Gaetano.** “Chi mi frena in tal momento” in *Lucia di Lammermoor*.

1. Unknown orchestra. With [Enrico Caruso](#). Recorded 25th January 1917. Candem, New Jersey: Victor Recording, 1917.
2. Coro e Orchestra del Maggio Musicale Fiorentino, Teatro Comunale. Tulio Serafin. With [Giuseppe di Stefano and Maria Callas](#). Recorded 1953.
3. Orchestra of the Royal Opera House, Covent Garden. Richard Bonyngue. With Luciano Pavarotti. Decca Music Group Ltd, 1986.
4. London Symphony Orchestra. Ion Marin. With Plácido Domingo. 1994.

3. **Bottesini, Giovanni.** *Fantasia Lucia di Lammermoor*.

1. [Ibragimov, Rinat](#) and Filonova, Elena. *Bottesini*. Unknown date of recording. Slavartis, 2013.
2. [Bocini, Alberto](#) and Chernousova, Maria. From a recital performed at the IV International Music Festival “Planeta Contrabass”. Jaani Kirik Hall. St. Peterburg, 07/12/2015.
3. [Siragura, Francesco](#) and Paruzzo, Roberto. *Bottesini: Works for bass and piano*. Naxos, 2009.

4. **Donizetti, Gaetano.** *Una Furtiva Lagrima*

1. London Symphony Orchestra. With [Plácido Domingo](#). Sonny Classics, no date.
2. Metropolitan Opera Orchestra. With [Luciano Pavarotti](#). New York, no date.
3. English Chamber Orchestra. With [Luciano Pavarotti](#). Decca, no date.
4. London Philharmonic Orchestra. Evelino Pidó. With [Roberto Alagna](#). Decca, no date.
5. Opéra National de Lyon. Evelino Pidó. With [Roberto Alagna](#). Decca, 1997.
6. Orchestra of Teatro alla Scala. Plácido Domingo. With [Juan Flórez](#). Milano, no date.
7. [Karr, Gary](#) and Harmon, Lewis. *Basso Cantabile*. 1992.

5. **Bottesini, Giovanni.** *Passione Amorosa*

1. [Sung, Minje](#) and Sung, Mikyung. Kumho Art Hall. Recorded May 2007. South Korea.
2. Furtok, Boguslaw and [Stähle, Johannes](#). Recorded 2007. Frankfurt.
3. Cabrera, Luis and [Thiery, Olivier](#). Recorded 2017. Amsterdam Conservatorium.
4. National Radio Orchestra of Bucharest. Emil Simion. With [Ovidiu Badila](#) Catalin Ilea. 1993.

6 Network

- Alessandro Prattico (singer coach, pianist – Opéra de Paris)
- Dominique Guerouet (double bass - Opéra de Paris)
- Edgardo Vizioli (co-principal bass - Teatro Argentino)
- Elian Ortiz (principal bass - Teatro Colón)
- Francis Ka-foon Ng (tenor - Codarts)
- Inés Natalucci (singer coach, pianist - Teatro Argentino)
- Juan de Dios Mateo Segura (tenor – Opéra de Paris)
- Julián Medina (principal bass – Buenos Aires Philharmonic)
- Luis Cabrera (main teacher – principal bass – Netherlands Philharmonic)
- Martín Rosso (double bass – Brussels Opera La Monnaie / De Munt)
- Stanimir Todorov (principal cello - Teatro Colón)
- Thierry Barbé (principal bass - Opéra de Paris)
- Yann Dubost (principal bass – Orchestre Philharmonique de Radio France)

Appendices

Appendix 1: List of all recordings included in report

Intervention Cycle #1:

Giovanni Bottesini. *Fantasia Lucia di Lammermoor*.

Homemade [reference recording](#). Brussels, 15-11-2018.

Homemade [new recording](#) on excerpt. Brussels, 22-04-2019.

Live [recording](#) during Codarts 1st year MMus exam. Rotterdam, 23-06-2019.

Intervention Cycle #2:

Gaetano Donizetti. *Una Furtiva Lagrima*.

Homemade [reference recording](#). Brussels, 11-09-2019.

Side-by-side [session](#) with tenor. Rotterdam, 20-11-2019.

Homemade [new recording](#) on excerpt. Brussels, 21-11-2019.

Intervention Cycle #3:

Giovanni Bottesini. *Passione Amorosa*.

Homemade [reference recording](#). Brussels, 12-03-2020.

Homemade [recording](#). Brussels, 06-04-2020.

Homemade [recording](#). Brussels, 07-04-2020.

Homemade [recording](#). Brussels, 08-04-2020.

Homemade [recording](#). Brussels, 10-04-2020.

Homemade [final recording](#). Brussels, 12-04-2020.

Appendix 2: Critical media review

1.

This first critical media review refers directly to the book *“Du Musicien en général... au violoncelliste en particulier”* by Xavier Gagnepain, published by Cité de la Musique, Paris, 2001. I have chosen this book for my desktop research because it goes through the fundamental aspects of performing an instrument, both considering technique and other generalities of a classical musician formation. It is well organized and the book summarizes some fundamentals the author has developed during his career both as teacher and performer.

Source:

Gagnepain, Xavier. *Du Musicien en général... au violoncelliste en particulier*. Paris: Cité de la Musique, 2001.

Review:

In his book *Du Musicien en general... au violoncelliste en particulier*, Xavier Gagnepain has summarized the fundamentals of music performance through a career of both an instrumentalist and a teacher. An acclaimed performer and pedagogue, currently teaching at Boulogne-Billancourt conservatory, Gagnepain has achieved a compendium that stills gravitates heavily in the French musical field. The main interest lies in the fact that few string performers are capable of explaining with such clarity the act of playing, considering its physical and psychological implications but also its relationship with written music. The book itself is aimed a priori to an audience composed of professional musicians who are also developing a teaching career and, of course, any cellist or string player who is breaking through his/her studies.

Indeed, Xavier Gagnepain introduces these thoughts by the act of breaking some of the prejudices that have always delimited classical music education. The author considers the etymology of the word “doué” (“gifted”, “talented”) as someone who has “received” or inherited knowledge. This thought leads to a first statement: the failure of a student in achieving or developing musical skills should be also considered the failure of a teacher who hasn’t found the way of transmitting this knowledge with the proper clarity. Paraphrasing the pianist Gyorgy Sebok, *someone who makes progress is someone that becomes more talented*. From the beginning, Gagnepain will put aside the eternal debate of what is “innate” and what can be developed through a conscientious effort. Indeed, this statement is strongly related with the aim of my artistic research.

Organized into different chapters that separate and explain the different themes that constitute the art of cello playing, the book begins with several considerations of the *“Internal Singing”* (“Le chant intérieur”). The author cannot conceive the act of playing disregarding the singing voice that the instrumentalist must develop in order to discard any kind of automatism during the performance. The act of playing can be explained as four different actions that take place at the same time: the reading (which is fundamental in all genre of music in which notation plays a main roll), the understanding (which is the interpretation of different elements of the score that are translated into internal singing), the playing and, finally, the listening (this last one being worth of consideration, since the deep listening of the performer is usually subjective and interrupted, producing a similar result to our own voice differing from our expectations

once is listened in a recording). The main role of a teacher, argues Gagnepain, is to guide this internal singing and to reconstruct the listening (“l’écoute”) of the student.

In this sense, Gagnepain presents a second chapter in which the “*Rhythmical Sense*” is described as an essential component of every musician. Having a developed perception of tempo is the skill that allows the instrumentalist to “socialize” with others. This chapter includes already precise excerpts from the cello repertoire that exemplify the difference between *pulsation* (which the performer feels and transmits) and tempo (as indicated in the score) as well as the use of subdivision, harmonic pulsation and a very interesting paragraph that describes the phenomena of “summed rhythms” in a chamber music group.

A third chapter is dedicated to the “*Sound Quality*” (“le son”). This complex concept (that may be translated as tone quality) is developed by Gagnepain as a quality that the instrumentalist must develop a priori any context or indication required by the written music. The “sound” is generated considering some fundamentals elements that the author explains in detail, such as the placement of the bow (“to play inside the string the same way tennis players “transverse” the ball with the racket”), the *Attacks*, the *Vibrato* produced by the left hand, etc). Having a good sound (“Avoir du son”) is the base that every musician has to communicate the text the same way an actor looks for a good “*Tone*” of his voice.

The following chapters describe very precisely different aspects of *Intonation* (something that is constantly looked for string musicians) and, most interesting or, at least, less considered, the physical functioning of the body while playing. Those actions that are considered or regarded as “natural” while listening to a soloist are, mainly, behaviors that must be carefully looked for during our education. The *Way of Sitting*, the demystification of relaxing or practicing in front of a mirror are some of the paragraphs that condensate the longest chapter of this book. A special section is dedicated to carefully explaining, from the perspective of the cellist, the *physical mechanic* of the entire back, arms and articulations of the body while using the bow. This information is not easily found in such clear words in musical methods or even taking regular lessons with renewed teachers. Even if lots of instrumentalists may differ the way in which Gagnepain explains this aspect of playing, putting into words a phenomena of this complexity is a decision as risky as fructiferous. Indeed, the way the right arms communicate the information of our brain and the strength of our body with the bow and the string is hardly expressed in a single and clear way by teachers worldwide.

More subjective are those chapters dedicated to the “*expression*” and the “*style*” and “*taste*” (“Gout” or musical preferences). These paragraphs explain the development of a musical sense in relationship with the music itself. The “*harmonic listening*”, the employment of adjectives of expression and even the choice of a specific repertoire are some of the actions that cannot be taken without shaping a musical expressiveness. Some other considerations are taken in account considering the act of performing different styles of music. Gagnepain is clear about the posture the performer may take at any situation: “Tout musicien apprend à lire entre les lignes et relativise la notation qu’il a sous les yeux”²⁵. The perspective of the editors is usually taken as definitive while constructing an interpretation of a piece. The author considers this a mistake, since it’s the performer who must judge and construct an active relationship with the repertoire and the style. The “faithfulness” the instrumentalist has with the text cannot disregard the fact that editors also notate music under subjective decisions.

The last chapter is dedicated to the interaction of the musician as a part of a chamber group. Different aspects shape the “chamber’s musician ear”; Gagnepain develops then concepts as the “Hauptstimme” and “Nebenstimme” as well as the “Polyphonic ear”, the “*body language*” and “enchainment of voices”, etc.

A short consideration serves as closing of this compendium by sharing the main objective of both a performer and the pedagogue: “to transmit” (“transmettre”). The author simplifies the development of a

²⁵ “Every musician learns how to read between lines and to relativize what is written under his eyes”. Gagnepain, *Du musicien...*, 2001. 144.

musician by considering the “*willingness of change*” (recognizing what is not working while performing), the willingness of listening (training the ear) and, of course, the willingness to transmit.

Essentially, we can easily argue that *Du musicien en general...* is part of the recent bibliography of what we call “performance studies”, or at least a book that cannot be disregarded in the field due to the impact produced among performers (mainly teachers and students) in France. The book itself was commissioned as a pedagogical work by the foundation of “Cité de la Musique” and, even if susceptible to be devalued by its profound subjectivity, it certainly synthesized with clarity and conviction some fundamental aspects of the act of performing. Despite the fact that Gagnepain has not produced an “academic work” (but a personal summary of his experience and considerations as a teacher and cellist) this kind of publication should be taken into account both in the career of a young performer as in the field of “performance studies”. Some of the chapters could be easily solidified with larger bibliography and references in order to narrow the borders between performing and research.

2.

The second critical review is a short interview made to contemporary double bass soloist Gary Karr.

Source:

Duffie, Bruce. *A conversation between Gary Karr and Bruce Duffie*. Chicago, 1993.
<http://www.bruceduffie.com/karr.html>. Accessed 12/10/2018.

Review:

It would be almost impossible to talk about the development of solo double bass without mentioning Gary Karr's outstanding career and contributions. Karr himself became the first (and one of the few) bass players that enjoyed a full time solo career. Anticipated by a family of seven generations of bassists, he made his breakthrough debut in his 20s accompanied by Leonard Bernstein and the New York Philharmonic at the Carnegie Hall. Since then, he's been performing recitals for more than forty years, leaving behind a significant number of albums.

In this interview, made in 1993 by Bruce Duffie, an enthusiastic interviewer of different kinds of musicians, Karr goes through his main influences and concepts that configure his artistic profile. Anyway, the first part of the interview reveals a rather uninteresting consideration about the capacities of the bass to project sound better than the cello. Karr's considerations are arbitrary, though he is well known for achieving an extraordinary big sound while playing. The most useful part of this conversation comes towards the second part, where Karr defines his playing as “lyrical” and when he compares the bass to an opera singer. He points out his past will of becoming a singer before a bassist, and the way some teachers like Jenny Tourel, a lyrical singer, influenced his musical education. In a similar way, Karr was educated by different instrument players, including cellist Grebor Retjo, who also points out as a significant source of information. Afterwards, he makes some personal consideration about the role of music, which he defines as the most honest way to communicate the emotional state of the human being.

To summarize, this short interview reflects a bass soloist who cannot talk about his playing without mentioning the influence of other instrumentalists and singers and the definition of a lyrical way of playing. However, the interview is full of deviations and megalomaniac thoughts about Karr's career. A better guided interview could have achieved more concrete information.

Appendix 3: Full feedback on reference recordings

3rd. Reference Recording (Intervention Cycle #3)

Stanimir Todorov (Principal Cello Teatro Colón, Monte-Carlo Philharmonic, Laurate 1994 Rostropovich Competition)

I'd like to begin my feedback by quoting Pau Casals, who once said that "the best vibrato is the one that we cannot listen to". Some days ago I read some publication about Henrik Szering where his whole amazing career was analysed in the context of a golden generation of violinists such as Heifetz, Menuhin, Grumieux, Milstein, Oistrach, Ferras and Stern. Why did I find this post so interesting? Because of his artistic path and his way of playing with such a perfect technique, Szering was compared to a chameleon. Indeed, he was an artist that was capable of learning from different schools, combining the best of each. I think this answers one of your main questions: I have personally learnt from many of these great violinists. I admire Szering the most because of his rhythmical rigor, his intonation, his musical culture, the knowledge he had of each piece and the depth of his interpretations.

Indeed, violin is technically superior in terms of sound flexibility, vibratos, bow technique and articulation. Considering these great violinists, I always looked forward to turning my cello into a grand violin. Our instruments are far larger than violins: we have bigger strings both in terms of length and diameter. Naturally, the physical reaction of rubbing the bow and producing the sound with larger instruments is very different. We could easily argue that difficulty increases proportionally with size. In violin, a single position between first and fourth fingers comprises a fourth interval. With the cello, this is reduced to a minor third. With a double bass, if I am right, a position spans a single tone. These differences are crucial, because they imply the fact of having less fingers for the same amount of notes and arpeggios in a family of instruments whose contact is very abstract, meaning that notes are not determined by keys, but by muscle memory and good listening. Physically, we can also say that there's a major difficulty compared to violin playing since we are required to use extensions, larger shifting, heavier thickness and tension in strings and, no less important, a bigger effort to reach high positions, where the strings usually accumulate both tension and height.

Going back to your first question, after having considered all these technical issues, which are fundamental to dominate vibrato, when a very good musician like you reaches a level of control in which both vibrato and relaxed hands come out naturally, I believe that the most important thing is the "artistic game" that you can develop between the two components of vibrato: rate (speed) and extent (amplitude). In this sense, I would like to quote Menuhin to develop this idea. I was once practising vibrato with a super low rate and big extent and, of course, with a metronome. This is a very standard exercise. The extent was so big that I would play both immediate higher and lower notes that preceded and forwarded the principal note. I was doing this just before playing in a Master Class when Yehudi passed next to me and asked: "Why are you losing time practising something so exaggerated that you'll never do playing vibrato in a real musical context?"

It's an interesting observation, isn't it? These words were very important to me. They made me realize that vibrato is not just physical motion and relaxation of fingers. It is something else, which is in deep connection with aesthetics, intonation and the ability to listen deeply. Sometimes I compare vibrato with a

pair of binoculars: you need to adjust the lenses in order to focus and obtain a good view from far away. When the finger that is playing vibrato doesn't play both immediate notes, I think that the instrument begins to vibrate in a better way, releasing harmonics and projecting more, particularly if we don't press the bow and we let the sound go. I think the same thing applies to intonation; sometimes I listen to singers that exaggerate the extent and we get three notes instead of one. In this sense, I believe that it's super important to develop a sense of strength dissociation between both hands. In this way, one could experience playing forte and intense with the right hand and very soft and piano with the left one (less hiding speed). On the contrary, you can try to play piano and soft with the right hand and produce an intense vibrato with the left one in order to project the piano sound; that is, to create a very soft sound that is also able to get to the last chair of the hall.

Following these ideas, one can really develop an "emotional lab" by practising scales changing the quality of vibrato at each finger. In the case of the cello, you would use four different combinations with four different fingers:

- 1- Slow rate, narrow extent
- 2- Fast rate, narrow extent
- 3- Slow rate, big extent
- 4- Fast rate, big extent

After developing this idea, I should reply to your questions 2 and 3. If your vibrato suits the Style already, you could do some research and experiment by using different types of vibrato between each finger (creating this idea of independence) and by changing vibrato according to dynamics and, above all, register of your instrument. When register gets higher, you can play a vibrato of narrower extent. This helps to focus each note and to avoid playing other notes at the same time. This, of course, is just an idea. Sometimes, if you think too much about these ideas (enroscarse con este tema) you may complicate an interpretation in which The Simplest is always the shortest path.

Luis Cabrera (Principal Bass, Netherlands Philharmonic – Main Subject Teacher)

1. What's your general impression on my vibrato in this excerpt?

It's very good and varied in terms of speed and intensity, showing several moods in the music. Sometimes, it could lead the line a bit more by having a progression in the speed of an ascending line of the tessitura, and perhaps applying more "walking vibrato" in the semi-quavers and the top f sharp (Sharp sounding), which is choked by unbalance of pressure and bow speed in the middle of the bow.

2. Considering both the style (Bel Canto) and harmony changes, do you think this type of vibrato is suitable to this piece?

It is beautiful and singing. If anything, the passing notes (semiquavers) could have vibrato too (some of them) and the semiquaver upbeat D harmonic which comes after a dotted quaver is usually not well taken care of, or could be more sophisticatedly connected with a different fingering/vibrato. As well, leave some notes without vibrato deliberately but not by lack of time!

3. What do you think I can improve in terms of mechanical technique (left hand, left arm, relaxation)?

Some fingerings and walking vibrato could make it completely interconnected. And *the balance of vibrato speed and bow pressure/speed at times could be different, slower on the bow and faster on the left hand, or the opposite*. Also, you could develop the feeling applied to each harmony: in my opinion, D Major is nice and tender and could increase the tension towards the B minor harmony (when the same D for you instead of being I-V-I, becomes I-V-VI in harmony). This is a little detail but a different approach to make vibrato choices. *You can also do more use of a relaxed contact point with intense vibrato to show the softer dynamics as well*.

4. Who were the main influences you had in order to develop this expressive technique (singers, cellists, violinists, etc)?

Visually, I always have the image of good cellists. Among other students and my bass teachers, I always saw a good and expressive vibrato since I was 10 years old. I am very grateful to them for that, since that grew in me very strongly (the urge to vibrate, and also to not vibrate in some cases). Once I had a technical base to it, I discovered the possible association with great singers; *Luciano Pavarotti, Joan Sutherland, Plácido Domingo, Cristina Gallardo Doms and other lighter singers as Ian Bosdridge, Natalie Dessay, or Phillipe Jarousky. The baroque singers use of vibrato influenced me later on my approach to modifying the plane note in a more directioned and alive way*.

Any other comments are welcomed.

It is about the space between the body and the music, as well as the connection between the two of them. That is the search we are all at; as paradoxical as it may seem, we have to find space in our body, in our openings and distances, in our lines, yet connecting the notes and then making a line, and so expressing the music we perform. You should lead this technique by finding the connection with ourselves: that means our feelings, the image of sound which exists both in our minds and our hearts.

Yann Dubost (Principal Bass, Orchestre de Radio France - Former Main Teacher at CRR de Paris)

1. Quelle est votre impression générale sur mon vibrato dans ce morceau?

Très beau, large et libre. Peut-être un peu systématique et uniforme. Conçu ici comme une couleur, un ornement (très beau) des longues notes uniquement, il pourrait participer davantage de l'action musicale, suivre l'évolution de chaque phrase, de chaque note, voire servir à relier parfois les notes entre elles...

2. En considérant le style (Bel Canto) et les changements d'harmonie, pensez-vous que ce type de vibrato convient à cette pièce?

Le type large et assez lent (comme un chanteur) : oui ! Cela correspond au style et unifie le discours. Mais il peut néanmoins être modulé par endroits, afin de dessiner davantage... Quelques exemples:

Conduite de notes :

- le vibrato pourrait mener de la première à la 2e note par exemple, connecter... Comme tu le fais très bien à 0:15 :-)

- note en forme de cresc 0:44 ~ 0:45, exponentielle !

- 0:50, forme de vibrato qui pourrait plus "dessiner" l'appogiature et la résolution, dans un même geste

- 1:01 et 1:57, le vibrato pourrait remplacer la réverbération et prolonger la résonance; comme tu le fais pour le pizz de la fin.

- à partir de 1:45, manque de ligne, le vibrato peut aider...

- grands intervalles, le vibrato peut aider à le rendre, 2:11

Harmonie, hiérarchie, phrasé :

- 1ère phrase : si (intense) -> sol (ressort trop) -> ré (résolution)
- première note (la), versus si (2 mes plus tard) : quelle évolution ?
- les deux la (0:18 et 0:19) pourraient être plus différents (le 1er est la 7e normale, le second est vraiment en appoggiature). Le sol qui suit (0:21) est résolution, trop intense...
- les deux sol de 0:21 ~ 0:22 ne peuvent pas avoir le même vibrato ! L'un finit, l'autre commence quelque chose...
- Attention fins de phrases ou notes de moindre importance harmonique trop intenses (vib): 0:25, 0:31
- le ré de 0:39 n'est-il pas un départ de cresc ? En ce cas, trop vibré...
- à partir de 2:23, coda, peut-être calmer aussi le vibrato ?

3. Que pensez-vous que je peux améliorer en termes de technique mécanique (main gauche, bras gauche, relaxation)?

Mécaniquement très bien. Peut-être sur les doigts 3 et 4, le vibrato est parfois moins expressif et s'interrompt rapidement (0:48 et 1:39 par exemple).

4. Quelles ont été les principales influences que vous avez eues pour développer cette technique expressive (chanteurs, violoncellistes, violonistes, etc.)?

Nombreuses et variées : pour n'en citer que quelques-unes, les chefs MW Chung, Mikko Franck, Ivan Fischer; les violoncellistes Jacqueline Dupré, Yo-Yo Ma, Truls Mork, Steven Isserlis; les violonistes et altistes Christian Ferras, Julia Fischer, Isabelle Faust, Tabea Zimmermann; les chanteurs Dietrich Fischer-Dieskau, Christoph Prégardien, Bryn Terfel, Maria Callas... Mais peut-être aussi la fréquentation de la musique de Giacinto Scelsi et son travail sur l'amplitude du vibrato, si particulier...

Thierry Barbé (Principal Bass, Opéra National de Paris - Professor at CNSMDP)

1. Quelle est votre impression générale sur mon vibrato dans ce morceau?

2. En considérant le style (Bel Canto) et les changements d'harmonie, pensez-vous que ce type de vibrato convient à cette pièce?

Le vibrato techniquement est correct, bravo. Très beau son chantant bel canto, comme un ténor; donc l'impression générale est bonne. Mais aussi comme un ténor, parfois cela force un peu. *Harmoniquement, il faut repérer les notes de la mélodie qui sont des appoggiatures supérieures ou inférieures. Celles-là doivent être très expressives avec un vibrato un peu plus rapide et plus appuyé main gauche ainsi qu'un archet plus appuyé que les autres notes.* Il faut donc varier l'intensité du vibrato pour ne pas lasser avec toujours le même quelle que soit les notes. *Le vibrato doit s'enchaîner d'une note à une autre doucement, sans s'arrêter. Les notes harmoniques non vibrées sont bienvenues, elles relâchent la pression dans le chant. Les doigtés ne doivent pas se faire forcément sur la même corde (doigtés trop "contrebasse")* et peuvent se faire en face pour améliorer la facilité de jeu et imiter les positions facile du violon, et les démanchés expressifs seront donc mis en valeur musicalement là où il le faut, cela évite la banalisation du démanché.

3. Que pensez-vous que je peux améliorer en termes de technique mécanique (main gauche, bras gauche, relaxation)?

4. Quelles ont été les principales influences que vous avez eues pour développer cette technique expressive (chanteurs, violoncellistes, violonistes, etc.)?

Je vous laisse des vidéos des influences préférés: David Oistrak, Jac Dupré, Rostropovitch, Misha Maisky.

Le vibrato doit être créatif (Placido Domingo est mon préféré), en constante relation avec la nuance, les sentiments, et pas automatique (Pavarotti et Alagna parfois me semblent un peu trop physique: ils cherchent la puissance tout le temps). *L'archet doit être subtil et pas se limiter à poser et tirer*, mais à porter aussi, selon les sentiments, c'est pourquoi il ne doit pas être trop lourd dans notre main, afin qu'elle puisse dominer l'enfoncement, pour être en bonne relation avec la main gauche et le vibrato.

Dominique Guerouet (Double Bass, Opéra National de Paris – Professor at the CRR de Paris)

1. Quelle est votre impression générale sur mon vibrato dans ce morceau?

En premier lieu, je dois dire que la qualité de l'enregistrement, ou plutôt de la vidéo YouTube n'est pas top chez moi, et donc la perception de quelque chose d'aussi subtil que le vibrato n'est pas simple, mais je vais quand même te donner quelques impressions et répondre à ton questionnaire. Tu as un vibrato très présent et efficace qui te permet de faire des phrasés expressifs et denses, c'est un point extrêmement positif.

Après une écoute plus attentive, je me rends compte qu'il y a quelques différences de couleur en fonction des doigts d'appui, car l'amplitude du vibrato n'est pas la même ainsi que la fréquence d'oscillation.

Quelquefois, ton vibrato projette le son de façon libre et ouvert, et quelquefois le son reste un peu en dedans (cela s'entend si on se concentre sur l'enveloppe sonore de la note).

2. En considérant le style (Bel Canto) et les changements d'harmonie, pensez-vous que ce type de vibrato convient à cette pièce?

Tout à fait, tu peux peut-être aller plus loin et plus clair dans certains contrastes « son vibré, son neutre », en choisissant des instants très expressifs avec une intensité de vibrato, et des instants plus neutres avec une absence de vibrato au début et un crescendo de ce même vibrato, tu le fais quelquefois, mais cela manque un peu de conviction.

3. Que pensez-vous que je peux améliorer en termes de technique mécanique (main gauche, bras gauche, relaxation)?

Je pense à deux choses,

1. Il y a une interaction entre la tension exercée par le bras droit sur l'archet, et la souplesse du vibrato. *En gros, plus tu serres le son avec l'archet, plus ton vibrato se ferme, cela s'entend par exemple quand tu fais un crescendo et que tu arrives à la pointe (00 :15) le vibrato est moins ouvert et libre.*

Je t'invite juste à faire attention à la relation entre les tensions de la main et du bras droit, et les conséquences sur la souplesse et la facilité de mouvement de la main gauche.

2. Concernant l'homogénéité de ton vibrato, c'est-à-dire l'amplitude du vibrato et fréquence d'oscillation égale sur chaque doigt, je te propose d'essayer, au moins pour le 1^{er} et 2^e doigt en position du pouce, de travailler le vibrato comme ça : *d'abord, sur une note longue (ronde ou blanche) avec le 1^{er} doigt (par ex : la) et enchaîner avec le 2^e doigt (sib) en gardant le 1^{er} appuyé, le vibrato se fait avec les deux doigts sur la touche, et à un moment, soulever le 1^{er} en gardant le même vibrato.* L'idée est d'unifier le geste du 1^{er} et 2^e dans un même geste global. In fine, le vibrato sera plus homogène. C'est plus compliqué avec le 2^e et 3^e, mais le principe est le même.

Dernière chose, *essaye de donner plus de densité d'appui sur le pouce tout en soulageant l'appui du doigt qui vibre*, cela équilibre le mouvement global de la main gauche, et libère le geste, c'est assez bluffant comme sensation...

4. Quelles ont été les principales influences que vous avez eues pour développer cette technique expressive (chanteurs, violoncellistes, violonistes, etc.)?

Difficile de répondre à cette question.... Bien sûr l'écoute de grands musiciens, violonistes, cellistes, mais peut-être avant tout, mon maître au conservatoire, Jean Marc Rollez qui avait une sonorité, un phrasé et un vibrato unique... Et aussi, l'idée que le vibrato, avant d'être un geste, est une façon de donner une couleur et une résonance à une note, et par conséquent, c'est déjà un choix expressif et musical qui est acté dans ce geste.

Edgardo Vizioli (Co-Principal Bass, Teatro Argentino de La Plata – Former Main Teacher at Buenos Aires' Conservatory)

Primero debo hacer la siguiente aclaración: mis respuestas van a verse teñidas de una gran subjetividad, ya que estoy analizando un fragmento musical totalmente fuera de contexto (en cuanto a la unidad discursiva de la obra, la ausencia de la orquesta o piano y el otro contrabajo solista y fuera del ámbito de concierto) de manera que uno no puede analizar minuciosamente ciertas cosas que no pasarían desapercibidas en una situación de concierto "real".

Habiendo hecho esta aclaración, también me gustaría aclarar que te conozco desde tus comienzos en el estudio del contrabajo y conozco tu altísimo nivel como instrumentista; estos comentarios y aportes estarían siempre dirigidos a poder desarrollar un nivel de excelencia.

Me gustaría contestar las tres primeras preguntas de manera entrelazada. Mi impresión en general sobre el vibrato es muy buena, en cuanto a la amplitud e intensidad. Este tipo de vibrato es lo que nos permite realizar un fraseo con direccionalidad, sobre todo en un estilo como éste, cuyas frases suelen ser muy largas y sumamente melódicas. Así y todo, pienso que algunas cosas se podrían modificar. En el primer "solo", por ejemplo, podría lograrse un movimiento uniforme del antebrazo, a fin de no dejar notas "muertas", es decir sin vibrar, que es lo que está ocurriendo antes de algunos cambios de posición o mismo posterior a los cambios. Un recurso que optimiza y soluciona este problema es utilizar el propio movimiento del vibrato para realizar los cambios de posición de la mano izquierda. Otra solución sería evitar, en este estilo, el uso de posiciones con extensión, sobre todo en estos movimientos lentos y expresivos, ya que nos dificulta la continuidad del vibrato.

En los saltos de intervalos más grandes, como en el caso del minuto 1.32, podría prepararse el movimiento adelantando el codo y el hombro hacia la posición a la que nos dirigimos, aprovechando la oscilación del vibrato cuando la mano va hacia adelante. Habría que evitar subir el codo para preparar el salto, ya que esto genera un corte en la frase y frena el vibrato, cosa que de todas formas resolvés con gran habilidad. En la zona del capotasto el vibrato está más desperejo, dejando notas directamente "lisas" o comenzando un poco después de tomar la nota, primero lento y luego acelerando, que es un buen recurso expresivo siempre que uno no abuse de él o lo haga por incomodidad técnica. Lo dejaría para lugares particulares, elegidos deliberadamente. Un ejemplo es la escala ascendente de 0.37 a 0.43,

en la que directamente se interrumpe el vibrato para retomarlo en la nota larga. No dejaría de lado vibrar también los armónicos, que podrías lograr sin demasiado esfuerzo.

Me gustó mucho el trabajo hecho con el arco, aunque se pueden cuidar las dos semicorcheas del compás 96, que cierran esa frase y están un poco acentuadas o fuertes. En ese lugar, podrías probar menos velocidad de arco o menos peso en ese cambio. Lo mismo ocurre en el compás 130: el mi está un poco fuerte y queda desbalanceado en el fraseo.

En el compás 131, el comienzo de la frase en capotasto, si bien el matiz indicado es forte, valdría la pena bajar un poco la intensidad, buscando un sonido más dulce, suavizando los ataques. Si uno hace la analogía con el canto, esto consistiría en sostener la línea sin ataque glótico en el cambio entre notas, manteniendo la columna de aire sin que las consonantes interfieran en el flujo del mismo, lo que para nosotros se traduce en sostener el peso y la velocidad constante del arco en todo el trayecto, sobre todo en los cambios de dirección en el talón y la punta. En la repetición se podría hacer un crescendo, cuidando el final de frase de 135, sin acentuarlo.

Un tema aparte son los adornos, grupetos, etc, que habría que tratarlos como las coloraturas del Bel Canto. Sería bueno tomarse más tiempo para decir o pronunciar todas las notas y que no suenen apresuradas. En otras palabras, no hacerlos estrictamente a tempo, ya sea robándole a la nota anterior o reteniendo el tempo en general para poder tocar con tranquilidad. Algo similar ocurre con las respiraciones, entre frases o semifrases. Parafraseando nuevamente a los cantantes, podrías tomarte el tiempo físico de la respiración que permite realizar la misma (aunque en la escritura se vea apretada) como ocurre por ejemplo en el compás 92, antes del adorno de la escala ascendente.

Respondiendo a la última pregunta, me formé Enzo Raschelli De Ferraris. Fue sin dudas un gran Maestro, pero tanto él como sus colegas contemporáneos (en Argentina) pensaban que el vibrato no debía ser estudiado por tratarse de una herramienta expresiva. En otras palabras, a uno le tenía "que salir". Esta visión me acarreó frustraciones durante varios años. Con el tiempo y la ayuda de algunos colegas pude desentrañar este misterio y aprender los movimientos técnicos que a uno le permiten dominar y utilizar el vibrato a voluntad. Obviamente, en este tipo de música, es decir el Bel Canto, uno siempre recurre al ejemplo de los cantantes para poder imitarlos.

Otra gran influencia para mí fue un gran maestro y colega violinista, José Bondar, que en la época "analógica" analizó con un grabador de cinta abierta (bajándole la velocidad) a todos los grandes violinistas de su época, llegando a la conclusión de que todos hacían el vibrato con una subdivisión acorde al compás que estaban tocando, ya sea binario o ternario, sin importar la cantidad de oscilaciones que utilizaran en cada tiempo.

Elían Ortiz (Principal Bass, Teatro Colón – Former Main Teacher)

¿Cuál es su impresión general sobre mi vibrato en este pasaje?

En general me parece que tu vibrato conecta bien con la expresividad y el fraseo que propones, lograr que el vibrato se mantenga vital y direccionado es un desafío importante, ya que se trata de fusionar este recurso expresivo con las otras variables que se encuentran en juego (tiempo, emisión del sonido, afinación), cuidando la naturalidad del canto y su conexión con el discurso musical.

Considerando el estilo (Bel Canto) y los cambios de la armonía ¿cree que este tipo de vibrato es acorde a la pieza?

En mi opinión es correcto abordar este estilo desde la vocalidad y los recursos expresivos del canto lírico, la velocidad y/o amplitud del vibrato dependerá de las características que le otorgamos en nuestro "canto interno" a éste elemento expresivo, basado en nuestro conocimiento de las sonoridades características del Belcanto.

¿Qué piensa que podría mejorar en términos de técnica (mano izquierda, derecha, relajación)?

En cuanto a técnica me parece que algo muy importante es lograr un vibrato que, al sustentarse en el canto interno, se puede oír a través de cada dedo o digitación, sosteniendo la tensión melódica y nuestro sonido que, como la voz, tiene personalidad única y vida propia.

¿Cuáles fueron sus principales influencias a la hora de desarrollar esta técnica expresiva (cantantes, cellistas, violinistas, etc.)?

Para comprender el Belcanto he escuchado a Donizetti, Bellini, además de tocar varias piezas para Contrabajo de Bottesini, donde he intentado desarrollar un tipo de vibrato adecuado a este estilo especialmente lírico. En ese sentido me valen mucho de ejemplo contrabajistas como Streicher, Ibragimov, Martín y Badila.

Otros comentarios son bienvenidos.

El vibrato es una forma de acompañar y también de generar expresión, junto con una buena afinación y una buena emisión del sonido, se puede intentar el desafío mayor de dar "vida" a un discurso musical que trascienda a la mera ejecución instrumental.

2nd. Reference Recording (Intervention Cycle #2)

Juan de Dios Mateo's Feedback (Spanish Tenor - Académie de l'Opéra National de Paris)

What is your first impression about this Aria being played on a String instrument?

Beautiful, it gives a familiar music a new approach and makes you eager to listen to the whole piece.

What do you think I should improve for the next recording?

I would say, study the text and the meaning. Sometimes I can't hear the connection of the whole phrase (according to the text). It would also give the idea of a longer musical phrase. Also, I hear a mix between the rhythm of both parts. It changes slightly according to the words said.

What do you think about Double Bass vibrato compared to a Tenor Vibrato?

Difficult to say. Nemorino is a role that can be sung by almost every kind of tenor. Leggero tenors have a faster vibrato than lyric tenor, for example. I would say the Double Bass vibrato is closer to a more dramatic tenor.

What do you think about the connection between notes (syllables) in this first recording?

It's mostly what I think could improve, answered in the second question.

Do you think there's a relationship between the playing and story Nemorino tells in this Aria?

This is a very difficult question. The thing is that the music is so melancholic, but the aria is not sad at all. Actually it speaks about love. Corresponded love, so it has joy. A singer can express this in an easier way I think (with body language or face expressions, for example). For now I can't hear the real meaning of the aria, maybe in the second recording? For now it's a bit "cold".

How would you usually work on a new Aria?

After checking by myself and with my teachers if it fits me, I try to listen to many different versions to have many ideas but I don't listen to one many times to avoid copying. I analyse text (translating if needed) and context of the aria to have the right feelings when developing my interpretation. Then I run it on the piano to be sure about intonation. After I sing it once or twice to see how I feel about it. Then I work on it without vowels to work on the legato. Then add consonants trying not to lose it. I work on the difficult bits and then put everything together (roughly, that's it).

What are your favourite versions of Donizetti's *Una Furtiva Lagrima* and why?

I wouldn't be able to choose. I really like many different versions. Some of them are better in a technique way, others in a "feelings" way.

Any additional tips or comments are welcomed.

Everything I said is obviously subjective, of course. In my opinion, with such a known aria, I wouldn't do many variations. This kind of Donizetti is not like Rossini, which leaves you more freedom to improvise. I would respect what's written and then add my personal touch from it.

Francis Ka-foon Ng's feedback (Hongkonese Tenor - Codarts Master Student)

What is your first impression about this Aria being played on a String instrument?

This is a "vocalised" rendition and the sound of the instrument and the vibrato technique suit the type of the aria well, i.e. Romance, which is a type of aria depicting sorrow, tenderness etc, as described by Czerny in his School of Compositions, volume II. One thing that strikes me is the resemblance of the usage of vocal registers and, in this case, choice of strings and position. You can check out some vocal literature for more details about vocal registers, like those by Manuel Garcia, LaBlache, or recent pedagogues and singers, like Richard Miller and Jerome Hines (The Four Voices of Man). I would describe the transition of registers and strings/positions is always almost a sensual feeling for me, which makes the music so human and intimate, and I think string instruments have the advantage built in themselves to mimic these characteristics of human voice.

What do you think I should improve for the next recording?

Several things.

1. Execution of Ornaments

If you listen to the recordings of old masters, I mean the ones made in the early 20th century, you will always find crispiness and clarity in the ornaments. They are not rushed. They don't sound structural. That makes an ornament an ornament. For example, around 0:22-24 at the phrase "Quelle festose giovani" the little turn is to me too heavy and too legato. There are other instances in the recording that have this problem. I don't know if you have done this for this aria already, but I would definitely return to the original music to see the original melody and the structural melody, so I can analyse the melodic structure better, then I know how to frame my ornaments.

2. Use of Portamenti

It is always so tricky about portamenti. Not many people talk about it nowadays and many singers give it too liberally. Perhaps you can tell me if the portamenti you used are of your own creation, or of the indications by Bottesini. In the vocal world, portamenti were executed in a clear manner, from one note gliding to the anticipation of the next note, and then the attack of the next note. And do not confuse portamento with "scooping", which is. I would describe it as a fat glide. Watch this:

https://www.youtube.com/watch?v=CZ_c559EVu4. Maria Callas reminded students not to scoop; either you do a proper portamento, or you do nothing at all. If you are trying to do it in a more "authentic" old school operatic style, be more aware of it. I know there are limitations on the string instrument, as I could observe that for the first 2 notes of the aria "una", A and D are quite far away on the string; and probably Bottesini indicated a slur, I don't know. But I think if you go into this direction, it will be even more vocal, and authentic. Plus if the choices of portamento (like where to execute it) are yours but not Bottesini, I would think about where I want to do it. We can experiment more tomorrow.

3. Phrasing

Do go back to the text if you want to be more vocal. In the first maggiore, the text goes / m'ama, si, m'mama, lo vedo, lo vedo./ Now I hear almost all in the same weight and same articulation, probably indicated by Bottesini. I would think twice about it. This phrase is a moment of realisation; Nemorino gathered the evidence and realised eventually that Adina loves him. Is there a change of intention or is there an intensification of emotion between the first "m'ama" and the second one? Likewise for "lo vedo".

What do you think about Double Bass vibrato compared to a Tenor Vibrato?

There is no such thing called a tenor vibrato, all singers have the same type of vibrato, ideally it is manageable, in terms of rate and magnitude. I think the rate of vibrato is a topic of interest in this recording. Sometimes you did not vibrate in the first few milliseconds of the pitch and then you went. This is not very operatic. Example is at around 2:40. I totally understand the intention to create intimacy in that moment. But vibrato, at least in operatic singing, is not something I would use for expressiveness, it is a tool for me to deliver the voice and give the voice a direction and warmth.

In general I think the vibrato rate is sometimes a bit too slow for me, and too narrow, in a vocal sense. In singing the ideal vibrato is around 4-7 oscillations per second, let us take a middle, like around 6 is the average. And the magnitude is around a semitone. If you play some recordings of the operatic singing in 0.5 speed you will notice how big and intense the vibrato in operatic singing is. I can work with you tomorrow with a software/app where you can see how the singer's vibrato actually works.

What do you think about the connection between notes (syllables) in this first recording?

I think I noted this in early sessions. And there is apparently a problem for me in your question. It is not about the connection between syllables, it is about words, and within the word itself you organise the stress of syllables. So the scope should be about the words, not the syllables. Because by analysing the words and phrases you will find what to stress and what not to. It will be too micromanaging for me to care about every syllable.

Do you think there's a relationship between the playing and story Nemorino tells in this Aria?

I am sorry to say, but to be honest I cannot, maybe my ears for strings playing are not well-trained :p This area is full of developments and fluctuations, as you can see from the change of tonality. I would look into the use of colour and tempo freedom to see if I can bring out the moments of doubt, realisation, fragility and affirmation, for example. Let's discuss more tomorrow.

How would you usually work on a new Aria?

I am of the audible learner type so I will listen to it a lot first. And then I will stop listening and will study it technically for a very long time. Many arias are technically demanding. So it is dangerous for me if I know the story and emotions and draw my interpretation too early. Then I will look into the text, see the rhetorics, the relationship between music and text and I will go back to recordings to observe how other singers do it.

What are your favourite versions of Donizetti's Una Furtiva Lagrima and why?

My personal favourite is Fernando de Lucia, Tito Schipa, Pavarotti.

This aria is not intellectual to me, it would be absurd to have shallow mannerism in the interpretations. These singers sang it delicately, but at the same time simplistically.

1st. Reference Recording (Intervention Cycle #1)

Luis Cabrera's Feedback (Main Subject Teacher, Netherlands Philharmonic Principal Bass/Recital Player)

Felipe plays with a big tone, good technical control of the instrument in terms of intonation and bow distribution and speed, and a general well established organisation and structure of the piece. There are moments of really excellent playing, with beautiful emotions and virtuosity and others, specially towards the end, where the fatigue of the hard work pays

The feeling of Operatic colours (dynamics changes, speeds of vibrato and development of the long notes) and the sense of timing is not always actively exploited and often we lack the full direction of the line and drive.

The faster, articulated passages are slightly played without importance and direction of both the rhythm and the melodic line. The same occurs in the natural harmonics passages, the line is fragmented by the change of strings and by the use of vibrato/non vibrato, at times not done to provoke

This piece has to be played, sung, conducted and narrated simultaneously, like a full opera synthesised in these ten minutes, where all the elements of Drama, joy, love, voicing, characters and harmony are deeply felt from inside.

There are moments where I would expect by the tension of the harmony, dynamics and texture a feeling of pause, tenderness and calm, and there is a more rough and forced expression, and vice versa some very passionate and explosive climaxing episodes where there is an unexpected containment.

Great playing, potential and facility to play the piece, just needs to go even more in the direction of the opera singing, expression and freedom, the tools are there to open the sky and reach the soul.

Martin Rosso's Feedback (Brussel's Opera -La Monnaie- Double Bass/Recital Player)

Main Parameters: Intonation, Rhythm, Sound Quality.

Intonation: what is your general impression of intonation? Is it stable? Precise?

Yes.

What is your general impression of Sound Quality?

Considering the quality of the audio recording and the size of the room, I think the sound is loud enough and has a beautiful timbre and color. Sometimes it breaks but very briefly.

What is your general impression on internal rhythm and phrasing?

I can understand the intentions behind the phrasings but many times it feels in contradiction to what the music asks for.

Left hand:

Vibrato: Do you perceive a clear speed of vibrato? Do you notice different qualities of vibrato depending on register and emotion? Any recommendation?

Vibrato is clear enough, especially the fast and wide. In such recordings it is very hard to notice very well different qualities of vibrato, so it is hard to judge.

Articulation: Do you find that fast articulations of the left hand are well articulated? Do you find the change of positions is smooth/aggressive/precise or imprecise?

Yes.

Change of positions are smooth and precise.

Bow:

Do you think bow speed is well connected with phrasing? Any comments on bow distribution and placement on the string?

In general, yes. It could be more sustained sometimes.

What do you think of the bow hold and how the weight of the arms drops on the string? Are fast articulations (staccato, spicatto) clear enough?

I see the axis back-shoulder-arm-wrist-finger seems to work very well. Still could drop more weight in a more flexible way.

Do you generally appreciate different Tone Qualities (as a result of different bow speed, vibrato, bow placement, dynamics) depending on the specific moments of the music?

Yes.

Julián Medina's Feedback (Buenos Aires Philharmonic Principal Bass/Recital player)

Bravo Feli, muy bueno el video. No me acordaba que fuera tan difícil esa obra. Realmente estás teniendo un toque muy lindo y vengo viendo, en las últimas cosas que me mostraste, que se nota mucho tu personalidad. Bueno, siempre la tuviste, obvio, pero me parece que ahora estás centrado en mostrarla. Tu tipo de cuidado, los lugares donde te gusta más conectar, a nivel personal, todo eso tiene tu firma y está genial. En principio la crítica que puedo ver es una cuestión de pulso y de transiciones. Yo sé que es Bottesini, o sea que es ópera, pero creo que el pulso no está muy claro a veces. Los ritenutos quizás podrían ser más orgánicos. Entiendo que es difícil tocarlo sin piano, pero en cuestiones de pulso hay cosas que no están firmes. Tratá de ver el video como si fueras alguien que no conoce la obra: fijate si se entienden las secciones, los cambios súbitos. Creo que cuando tenés un "tema" lento (el recitativo del inicio también) te tomás demasiada libertad. Me parece lógico que después de tocar pasajes tan

exigentes quieras descansar, pero si te ponés a marcar con la mano el pulso mientras escuchás tu video, el tempo se corre un poco. El resto me parece muy bueno.

Appendix 4: Transcription of interviews

4.1 Network Interviews:

These standardized interviews were made at the very beginning of the research to three different musicians that have an interesting gravitation in the hermetic world of solo Bass playing. All of them develop a rather intense activity performing solo recitals besides their career as orchestral musicians, so they have a wide experience regarding the preparation and performing of solo repertoire and mixing different influences and technical knowledge that may go beyond this instrument.

To summarize these interviews, it is interesting to notice all these musicians have reached to similar conclusions while answering the following questions:

When you are developing your repertoire as a solo Double Bass Player... Who are your principal influences?

During your musical education... Did you take individual lessons with other musicians besides Bass players?

In which way these musicians have influenced your education?

When practicing a new piece... Do you define before performing different types of articulations, couloirs and emotions in relationship with the written music?

Do you think it would be useful to establish a specific list of articulations, couloirs and emotions to apply directly to the piece you're playing?

In all three cases, all of them agree having been strongly influenced by their main teachers but also to have developed a musical sense while observing and working with other musicians such as violinists, cellists and conductors. They also agree that the act of performing is a combination of organized knowledge of the music and intuition: the study of a piece cannot be separated from the experience of practicing.

Luis Cabrera (Main Teacher, Principal Bass of Netherlands Philharmonic, Professor at Codarts and Guildhall S of M & D, soloist)

When you are developing your repertoire as a solo Double Bass Player... Who are your principal influences?

Normally, I really try to get more knowledge about the composer; his life, his context and other compositions. Watching and listening to my Double Bass teachers has always been useful to me, especially while preparing a repertoire and establishing the character of the pieces. It's always been really useful assisting at different concerts, watching and listening to other performances and analysing what they approach to different pieces: the colours, the emotions, the different sounds that they use.

During your musical education... Did you take individual lessons with other musicians besides Bass players?

It was my father the one who taught me the first guitar chords I've ever played, learning different songs and serenades by Neil Young, The Beatles and Bob Dylan. My father has always been my first and major inspiration song; he's one of the most "natural" musicians I've ever met. On the other side, I've had several individual lessons with the cellist Anner Bylsma and violinist Gordan Nikolic. These lessons helped me a lot. Gordan has always been a permanent inspirational source during the last years. I've not only played for him, but I've also had the opportunity of working with him in different countries (the UK, the Netherlands, Germany, Spain), at different stages, with different ensembles. His way of understanding music in general as an Art and human expression and his creative exigencies were always a major example for my career.

In which way these musicians have influenced your education?

These musicians changed my way of perceiving music and gave me the chance of escaping from the quarter notes, from the easy parameters such as "good or bad", "better or worst", "more or less", "a lot or little", etc. They've helped me to reach my way to the heart of the music itself, to be able to see what really matters and what doesn't. In a way, they've taught how to get to the essence of things; to change your life by listening, feeling and loving what you do.

When practicing a new piece... Do you define before performing different types of articulations, couloirs and emotions in relationship with the written music?

Theoretically, I could say that, first of all, I try to think as a composer; how he uses some articulations, harmonic sequences, effects, etc. Then I try to highlight each of these elements the same way a cook would organize different ingredients in different plates. The combination of these ingredients could be considered the magic of music. Anyway, no one cooks the same way: each human being, with his own experiences, knowledge and natural or acquired sensitivity may show either obvious or indescribable differences.

Do you think it would be useful to establish a specific list of articulations, couloirs and emotions to apply directly to the piece you're playing?

It is always useful to make any analysis or exhaustive observation of a piece. Anyway, experience has shown me to trust mainly my intuition. I think, explore and analyse, but eventually it is my heart that shows me different things that my mind and body try to achieve afterwards.

Martin Rosso (Musician at La Monnaie –Brussels Opera-, soloist, specialist in Argentine music)

When you are developing your repertoire as a solo Double Bass Player... Who are your principal influences?

My general influences are the Italian school and the American school (if there is any). During the years I lived in the US I got aware of the importance of precision in playing, meaning clarity of sound, perfect intonation, solid rhythm, etc. When I lived in Italy I learned to play with a stronger character, projecting the sound, etc.

My double bass teachers helped me to build up most of my technique, I'd say 60% of it, for the rest I either deduced myself by my own thinking process, or I took ideas from other people, mainly my classmates, colleagues, etc.

During your musical education... Did you take individual lessons with other musicians besides Bass players?

I've never had a bass lesson with other than bass players.

I must say though, that I had many chamber music coaching sessions with great musicians and I learned a great deal from them; especially the role of the different voices, ensemble, intonation, rhythm, etc.

I also learned a lot by listening to masterclasses of renowned violin and cello teachers, especially all the aspects of interpretation of music.

In 20 years of experience as orchestra musicians I had the opportunity to play with a wide range of different conductors. Many of them are great musicians and by listening carefully to their musical indications (interpretative and technical) I could also build knowledge. After all, a 4/4 classical measure is the same in a Haydn symphony and in the Dittersdorf concerto.

To build up my knowledge, form my own ideas and develop my personal taste in music interpretation, those non-bassists musicians influenced me the most.

In which way these musicians have influenced your education?

Articulations are already defined by the composer with different markings on the score. The ones that are not written down are derived from the style of the music. Emotions are sometimes also written in the score. However, in order to define colors and emotions I need to do at least a first reading of the score, only then I know how I will interpret it.

Do you think it would be useful to establish a specific list of articulations, couloirs and emotions to apply directly to the piece you're playing?

Every time I study a score I write down many indications to myself about articulations, fingerings, technique, interpretation, etc. It helps me to remember my insights for the next practice session. It turned out that those written indications are also helpful when I have to perform the same piece sometime later, let's say a year or more. It saves me a lot of time to have all those ideas already written in the score.

However, it is not possible at least for me to decide about all those aspects before I study the piece.

Julián Medina – (Buenos Aires Philharmonic Co-Principal Double Bass, soloist, friend)

When you are developing your repertoire as a solo Double Bass Player... Who are your principal influences?

My main influences as a performer have always been the main teachers I had and the previous musical concepts that I had acquired and developed myself. After that, one can really dig into the music of a particular composer, not only concentrating in a single piece but also listening to his symphonies or operas. I think this is the way one can really understand the character of a particular piece.

During your musical education... Did you take individual lessons with other musicians besides Bass players?

In which way these musicians have influenced your education?

I had individual lessons with pianists, violists and lots of cellists. In the near future I would really like to have some lessons with an Oboe player; I admire the capacity this instrument has to generate long phrases and extensive melodic lines. I think it's extremely important to learn from other instruments, mainly because Double Bass itself has a very hermetic history and the repertoire usually reflects personal traditions of Double Bass performers who played with older techniques. It is always good to have an

external opinion; other instrumentalists can visualize a Bass piece without the technical approach, and generally their opinions tend to be really accurate and musical.

When practicing a new piece... Do you define before performing different types of articulations, couloirs and emotions in relationship with the written music?

Do you think it would be useful to establish a specific list of articulations, couloirs and emotions to apply directly to the piece you're playing?

When working on a new piece, I think that articulations and couloirs are first set up by the Style and the Composer. Later, while practicing the piece, one can really modify those colours in order to personalize those elections. It is the performer who finally decides what colours and impressions he wants to transmit from the music. I think that you can set up or visualize the emotions of a certain piece before the performance, but you cannot really "establish" them as another technical skill. Besides that, I think that the emotions that a piece awakens can really change with the time; we are not always feeling the same, we are not always occupying the same emotional places.



María Inés Natalucci (Pianist. Singer Coach at Teatro Argentino de La Plata)

What can you tell me about the singer's strategy to develop a character and repertoire ?

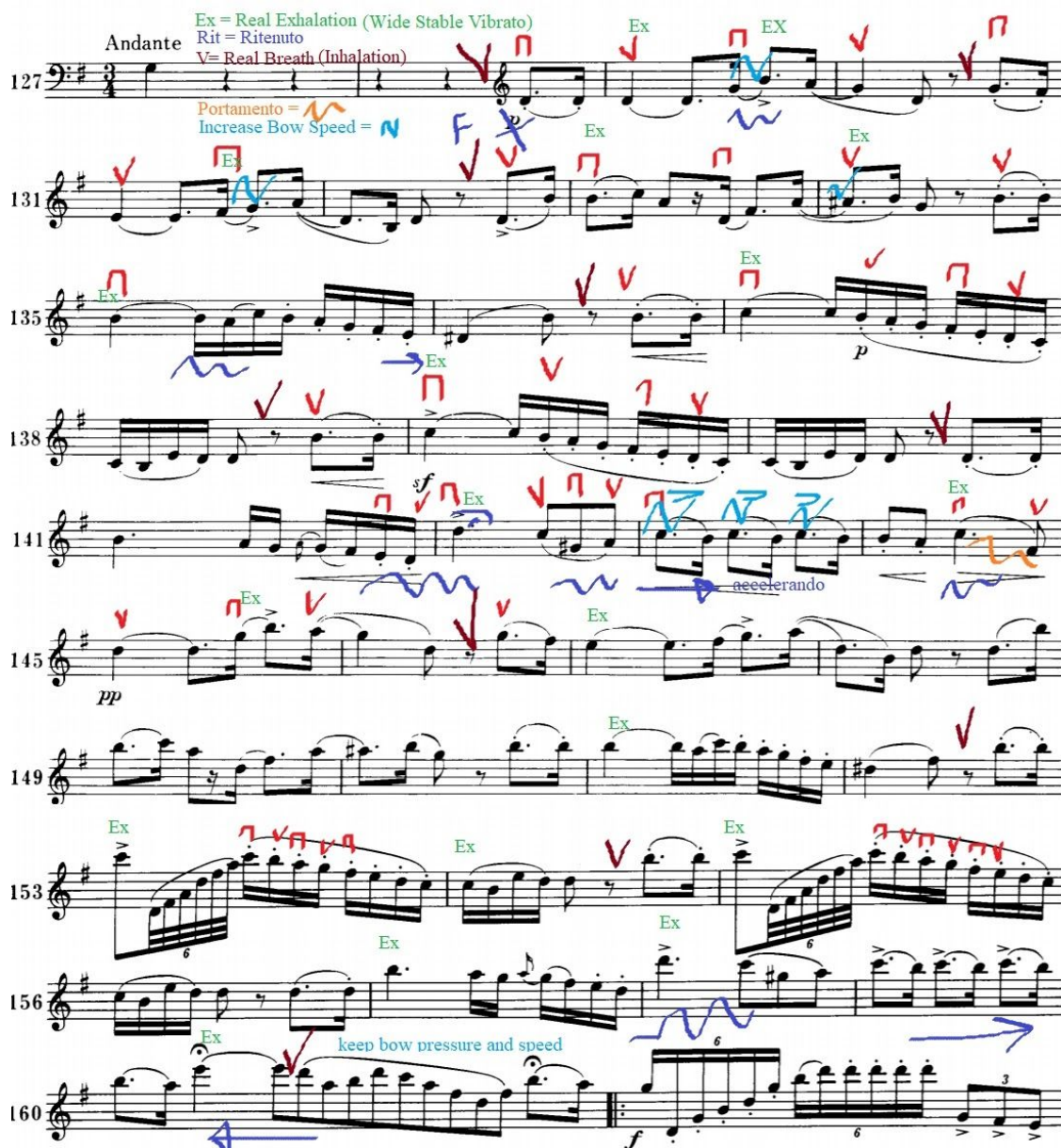
Regarding the way a singer begins to work on a piece or, mainly, on the construction of an operatic character, I usually distinguish two kinds of behaviors. There is a talented kind of singer who acts mainly by intuition; singing is in his or her nature so they just rest on the support and guidance of the conductor or the pianist who coaches them. Then there is a kind of "integral" musician/singer, who may I call an artist. What they do in order to construct a character is, first of all, to study the argument of an Opera. Some of them even study the book in which the libretto is based. They ask themselves what happens with the character, in a narrative meaning, not only during the opera but also before and after the piece. The knowledge of the argument is, therefore, exhaustive. From there, they usually try to read the piece in the original language, and they also inform themselves about the political, cultural and social context that surrounds the piece. After these considerations, they go to the score. A main principle is to ask themselves: from a dramatic and also vocal (technical) point of view: which excerpts ask for particular attention, also considering the accompaniment (orchestration) which is beyond them? The vocal characteristics, the colours, change depending on the musical context. From there, they arrive to a mechanization of the musical memory and later to a gestual memory.

Appendix 5: Transcriptions/annotated scores/analyses

ANNOTATED SCORE FOR INTERVENTION #1

Ex = Real Exhalation (Wide Stable Vibrato)
 Rit = Ritenuto
 V = Real Breath (Inhalation)
 Portamento = 
 Increase Bow Speed = 

Andante



127
 131
 135
 138
 141
 145
 149
 153
 156
 160

pp
 p
 f

accelerando
 keep bow pressure and speed

ANNOTATED SCORE FOR INTERVENTION #2

— portamenti
W.V.= wide/lyrical vib.

concept slur

word slur

bow slur

image of tear (secrecy)

same

"Una furtiva lagrima" Notated Score 2nd Intervention Cycle

The score is annotated with various musical techniques and their emotional connotations:

- Line 1:** "U - na fur - ti - va la - gri - ma" and "neg - li oc - chi suoi spun -". Annotations include "image of tear (secrecy)" and "same".
- Line 2:** "tò, quel - le fe - sto - se gio - va - ni in vi - di - ar sem -". Annotations include "her wanted joy (secret hope)" and "W.V.".
- Line 3:** "brò: che più cer - can - do io vo,". Annotations include "certitude of found love (suggestive)" and "W.V.".
- Line 4:** "che più cer - can - do io vo," and "m'a - - ma, sì,". Annotations include "Bottesini's Variation", "same (more suggestive)", and "confirmation of love (euphoric)".
- Line 5:** "m'a - - ma, lo ve - - do, lo ve - - do." Annotations include "same (euphoric)" and "(tenderness)".

image: heart beatings of beloved (passionate

p Un so - lo i - stan - te i pal - pi - ti

and intimate) W.V. image: physical reunion

del suo bel cor sen - tir, i miei so - spir con -

(intimate and intense) W.V. *pp* smorzando

fon - de - re per po - co oo' suoi so - spir, i

same image W.V. same 2nd image W.V.

pal - pi - ti, i pal - pi - ti sen - tir, con - fon - de - re i miei co' suoi so -

W.V. all notes idea of love dead Maggiore (dramatic joy)

(more intensity) spir, cie - lo, si può mo - rir, di più non

W.V. falling in love W.V. confirmation of love

chie - do, non chie - do, ah! cie - lo, si può si può mo - rir, di più non

same very W.V. very W.V. in higher notes of the end. portamenti in last 3 notes

chiedo, non chie - do.

[illegible]

ANNOTATED SCORES FROM RECORDING ANALYSIS ON *DONIZETTI'S UNA FURTIVA LAGRIMA*

Handwritten musical score for "Nemoriga" by Pavarotti. The score is written on three systems of staves. The first system is a piano introduction marked "calando". The second system features vocal entries for Nemoriga (Nemoriga), U-na fur-ti-va (Shy-ly and slow), and la-gri-ma (tear a-rose). The third system continues the vocal lines. The score includes various performance markings such as dynamics (p, mf, f, V.V., MV, NV, NV-SV), articulation (accents, slurs), and tempo/style changes (calando, largo). The lyrics are in Italian and English. The bottom of the page lists the performers: KARL DOMINGO, PAVAROTTI 1, PAVAROTTI 2, ALAGNA 1 & 2, and FLOREZ.

[illegible]

[illegible]

18

Other notes.

N.V. SV. SV. MV. MV. SV. SV.

Un so-loi-stan-tei pal-pi-ti
Ah, for one mo-ment, on-ly one,

(PP) (P)

21

low speed MV. SV. SV. N.V. MV. MV. SV. SV. MV.

del suo bel cor-sen-tir,
Pressed on her beat-ing heart!

(PP) different colour.

I miei so-spir con-
Might I once feel it,

24

fon - de-re — per po-co a' suoi so - spir,
 on - ly once, Her sighs of mine a - part!

27

pal - pi-ti, i pal - pi-ti sen-tir, con - fon - de-re i miei co'suoi so-
 Pressed up-on her heart, her beating heart, Once pressed up-on her heart, her beating

10263

30

spir... heart!
 Cie - lo, si può mo - rir, di più non
 Af - ter that mo - ment fond I will die

33

chie-do, non chie do ah! cie - lo, si può, si può mo -
 glad-ly, die glad ly, Ah! Af - ter that mo ment

36

rir, di più non chie-do, non chie
 fond I will die glad-ly, die glad

ANNOTATED SCORES FROM RECORDING ANALYSIS ON *BOTTESINI'S LUCIA DE LAMMERMOOR*

Giovanni Bottesini

IV fantasia 'lucia di lammermoor'

edited by Rodney Slatford

edited by Rodney Slatford

★ RINAT IBRAHIMOV V.
★ BOCINI
★ SIRAGUSA

① INTRODUCTION
Allegro

② 6/8m RECITATIVO
Recitativo
Very heroic & melancholic.
sf a piacere huge intense sounds
too fast
wide vibrato
tempo
very audible vibrato
Forte Vibrato
long vibrato
shorter
no vibrato
vertical forte
other colour
a tempo moderato
unequal attack
intense blast
cresc. begin to change colour
F REVISOR
no dim.

③ RE CITATIVO "A TEMPO"
Vertical forte
other colour
a tempo moderato
unequal attack
intense blast
cresc. begin to change colour
F REVISOR
no dim.

④ MODERATO ARIA.
Moderato
more w/ sound
change of colour
Vib. N.A.V.I.B.
more vib.
Very calm
mf + p.ano.
more here sound.

too short:
vib no audib.

navib/vib. Air.

Soprano FNT VIBRATO
SOPRANO
FAST VIBRATO

$\text{♩} = 58$ (LYRIC) no st.
 $\text{♩} = 68$
 $\text{♩} = 73/80$ $\text{♩} = 82$

15

5) 1st ORCHESTRAL ALLEGRO.

PAPER & DENSE
LAMPS.

43

46

48

50

52

54

57

59

63

64

stringendo e crescendo poco a poco

6) CADENZA TRANSITION

hace más

Adagio

7) DRAMATIC ADAGIO.

8) 2nd ORCHESTRAL ALLEGRO.

Allegro

9) 3rd ORCHESTRAL ALLEGRO.

Allegro

EXC. ARTICULATION.

PRECIPITATES.

YE 0045

⑨ 1st LUCIA RECITATIVO

68 *p a piacere* HALMONCS CONTINUOUS SOUND

71 *don't keep the sound* *warble on finger board* *Beautiful Vib of tone* *clearer on coloratura*

71 *clearer* *no vib.*

⑩ 3rd ORCHESTRAL ~~ALLEGRO~~ ALLEGRO

76 *Allegro* *pf.* *♩ = 126* *♩ = 110* *♩ = 130*

79 *8va* *sf* *vib.*

85 *8va* *sf* *diminuendo* *3 3 3 3*

⑪ EDUARDO'S LAMENTATION

88 *A tempo* *espressivo* *vib.* *Vibrato! fingerboard* *on fingerboard* *change character*

♩ = 96 *♩ = 102*

93 *different colour*
why vibrato *cresc.* *bow speed dies.*

98 *harmonic.* *p* *no Beatitude*

103 **12) LUCIA'S DEATH.** *change bow* *no good articulation.*
intense *full sound.*

107 *strange salp.*

110 **13) 4th ORCHESTRAL ALLEGRO.** *BPM = 94* *d = 115.* *d = 143.* *d = 120.*
very light *subito change pf character.*

113

115 *legato phrasing* *very clear change of actors.*

117 *f* *STACK* *mp.* *ff* *f*
tenuto/vibrato *make more easy f tenuto.*

YE 0045

Handwritten musical score with various annotations:

- 153:** *very dear.* *very articulated. MORE DENSE SOUND*
- 156:** *not steady.* *very dear.* *very articulated.* *HARMONIC*
- 160:** *flatter* *(16) FINGER* *on finger board.* *Vibrations to it.* *do music.* *d = 66* *d = 66 but unstable* *d = 65.*
- 162 (172):** *J = 66.*
- 164 (174):**
- 166 (176):** *cresc.*
- 168 (178):** *cresc.* *f* *PPP*
- 170 (180):** *2nd Piano*
- 182 (184):**
- 186:** *crescendo*
- 188:** *8va* *f*
- 190:** *YE 0045*

Appendix 6: Initial comparison between bass range and voices.

The following information, taken from wikipedia at the beginning of the research, was quite useful in order to understand double bass range in comparison with human voices.

Tenor range: “The tenor is the highest male voice within the modal register. The typical tenor voice lies between **C3** (one octave below middle C) to **C5** (one octave above middle C). The low extreme for tenors is roughly B \flat 2 (the second B-flat below middle C). At the highest extreme, some tenors can sing up to F5 (the second F above middle C).”

Baritone Range: “The vocal range of the baritone lies between the bass and the tenor voice types. The baritone vocal range is usually between the second G below middle C (G2) and the G above middle C (G4).”

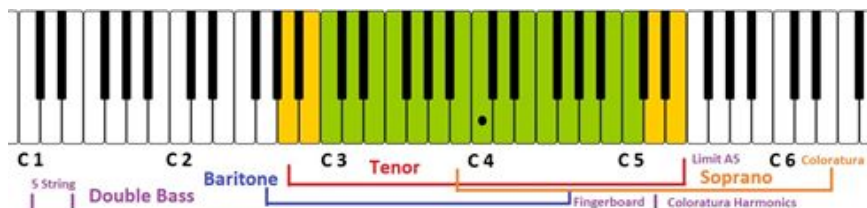


Soprano Range: “The low extreme for sopranos is roughly A3 or B \flat 3 (just below middle C). Within opera, the lowest demanded note for sopranos is F3 (from Richard Strauss's *Die Frau ohne Schatten*). Often low notes in higher voices will project less, lack timbre, and tend to “count less” in roles (although some Verdi, Strauss and Wagner roles call for stronger singing below the staff). However, rarely is a soprano simply unable to sing a low note in a song within a soprano role. Low notes can be reached with a lowered position of the larynx. The high extreme, at a minimum, for non-coloratura sopranos is “soprano C” (C $_6$ two octaves above middle C), and many roles in the standard repertoire call for C \sharp_6 or D $_6$. A couple of roles have optional E \flat_6 s, as well. In the coloratura repertoire several roles call for E \flat_6 on up to F $_6$. In rare cases, some coloratura roles go as high as G $_6$ or G \sharp_6 , such as Mozart's concert aria *Popoli di Tessaglia!*, or the title role of Jules Massenet's opera *Esclarmonde*. While not necessarily within the tessitura, a good soprano will be able to sing her top notes full-throated, with timbre and dynamic control.” (Source: idem)

Double Bass Range: “The lowest note of a double bass is an E $_1$ (on standard four-string basses) at approximately 41 Hz or a C $_1$ (\approx 33 Hz), or sometimes B $_0$ (\approx 31 Hz) (an octave above the lowest frequency that the average human ear can perceive as a distinctive pitch). The top of the instrument's fingerboard range is typically near D $_5$, two octaves and a fifth above the open pitch of the G string (G2), as shown in the range illustration found at the head of this article. Playing beyond the end of the fingerboard can be accomplished by pulling the string slightly to the side.”



This comparison results as follows:



***Quien tenga un bajo en la mano, por las dudas,
que lo ame. Porque por ahí le salva la vida.***

D. Arnedo