CELLO IN TANGO AS A SOLO INSTRUMENT

Artistic Research

Research domain: World Music / Crossover

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A. The story of my research

A1: What did I want to learn?

Goals and motivation

When I started my research, I wanted to learn how to play tango on the cello as a soloist. As a classical-trained cellist, when I started studying Master of Music at Codarts, I was used to play in classical ensembles. I also had an experience of playing in a cello cover music quartet back in Moscow where I am from, and I knew from that experience that playing different styles of music is beneficial for me both as a cello player and as a musician.

However, with that ensemble we tried going deep into the style with the help of intuition. We even played Piazzolla's "Libertango" back then, but I felt that I want to have means to be able to go deeper into a style, as I felt that intuitional approach, however good, works slow and can be superficial.

I started to go deeper in the style while studying at Codarts in the Tango Department and playing in various tango ensembles (*orquesta típica* OTRA, tango orchestra class TOC etc.). I noticed that since cello isn't one of the traditional instruments in tango (on the contrary to the bandoneon, violin, piano and the double bass, each of which have a clearly defined role in the music and a number of techniques which should be performed in a certain way), its role was mostly doubling other instruments. As for the tango techniques, a cellist who would want to play tango would mostly learn from the other instrumentalists, having to find out which techniques work on the cello.

When a cello would have a solo in an *orquesta típica*, it would be mostly very simple compared to the violin solos, barely a pair of long notes. One of the examples of that is «La tablada» by Francisco Canaro, on this recording by orchestra of Jose Basso from 19-04-1955: https://goo.gl/12P1aA

This example is a bit extreme, there are other arrangements which include longer cello solos, like, for instance, "A Evaristo Carriego " by Eduardo Rovira (the solo is sometimes played by viola, but in the orchestras with a cello is normally played by cello) or "Con Impetu" by Codarts tango department's piano teacher, Wim Warman. But they are generally more simple and less elaborated compared not only to big violin solos of some tango pieces (Astor Piazzolla's "Lo que vendra", "Melancolico Buenos Aires" etc.) but also to double bass solos ("Contrabajeando" by Astor Piazzolla, "De Tal Palo" by Leopoldo Federico).

Versions of tangos recorded in a duo formation, consisting of cello and piano, are mostly recorded by classical players, which make them sound completely out of the style for me. There is also a certain lack of repertoire for the cello in tango as a soloist.

All that was main motivation for my research, which led me to my research question.

The artistic research question

I wanted to define a role for myself in tango as a cellist, making it a more soloistic role, and I wanted to learn how can I go deep into the style so that I could reflect it in my performance. At first I thought I would do that through writing arrangements for cello in small ensembles (duets and trios), which was reflected in the research work shown in Appendix 1, and also in my initial question. However, later on I understood that writing arrangements is more an outcome than a mean of my research, and that a solo piece would better reflect what I wanted to achieve.

How do I learn a set of skills which would help me to play tango on the cello as a soloist by going deeper into the tango techniques and learning from tango instruments in order to create and perform my own arrangement of a tango piece for cello solo?

A2: What answers did I find?

My findings can be divided as follows:

Learning to arrange tangos

In the very first intervention cycle of this research I collected some general information about arranging in tango, mostly from Ramiro Gallo's book "The violin in the tango". Based on that I made an arrangement of "El Motivo (Pobre Paica)" by Juan Carlos Cobián for cello and piano, which is my first reference recording. I also made an arrangement of Julián Plaza's "Danzarín" for three cellos. I include the results of this intervention cycle in the Appendix 1. It didn't provide much direct information regarding my research question, as my focus on arranging changed near the end of that cycle.

Feedback from the jury in the AR2 exam was important for this change. They felt that I could make my arrangements more challenging for myself, so that it would better reflect my inclination to play tango as a soloist, and that the outcome of the information I collect could be more specific and more focused on the cello. The information I gathered about arranging during this first cycle could easily be applied to any instrument.

Learning to write a solo arrangement for cello

In the second intervention cycle, I wrote a solo arrangement of Astor Piazzolla's "Adios Nonino". In order to do that, I listed the ornaments and techniques I could use, analyzed the harmonic structure and thematic elements of the piece and asked for feedback from my network experts.

Improving my interpretation by going deeper in style

I expected to receive feedback on my arrangements, as I didn't have much experience arranging before, but instead I got more comments on my performance of tango. That made me realize that arrangement is interconnected with playing and that is I want to reach my goal of learning style elements I would do it by improving my performance, not by working on my arrangements. In order to improve it I did an intervention on learning from the piano, violin and the bandoneon, taking some aspects of their performance style and/or techniques and trying to adapt them to cello.

Adapting tango techniques from other instruments

This was a part of my second intervention cycle, and I did it along with writing the solo cello piece "Adios Nonino". I adapted some violin and double bass techniques.

A3: What did I develop?

I learned the important elements of the tango style, and how I can use them in my arrangements. Through research, what was alien to started coming as an intuitive knowledge. I especially notice that when I play with classical players and they ask me for guidance. I can give them some advice, because I trained myself to hear and distinct different tango elements. Another great outcome, which came to me, as it seemed, on its own, was the ability to write my own arrangements of tango pieces. As I made very few arrangements before this project, being able to write a solo cello piece at the end of it was a huge step for me.

I learned how to perform a solo tango piece on cello and going deep into the style. I worked on my performance of tango, learning from the other instruments and working on the adaptation of the techniques. That led me to a lot of experimenting and reflections on the cello techniques when I was trying to find out how I could adapt other instruments' techniques in the best way possible.

Another aspect of working on my performance was deeper understanding of the shape of the phrases and the execution of rubato and timing in tango.

B. Documentation and description of the artistic result

B1: What is the result?

The result of my research is annotated score and performance of an arrangement of Astor Piazzolla's "Adios Nonino" I made for cello solo. You can see the annotated score in Appendix 5. Here is the recording of it.

01 https://goo.gl/KFxTBc

B2: How do I document the artistic result?

The creative result of my research is documented in the annotated score of the arrangement of "Adios Nonino" for cello solo. The annotations and footnotes show the decisions I made and give references to the research report where I explain what I did thoroughly.

B3: How does my research relate to my final performance?

My result is both creation and performance of "Adios Nonino" piece for cello solo. When I have just started my first year of master and defined my artistic research question, Santiago Cimadevilla, my research coach, suggested that I should write a solo piece for the cello. At the moment that idea felt overwhelming, and when I look back I understand that without all the research I have done I wouldn't be able neither to create such a piece, nor to perform it in a convincing way.

Several things led me to this result. First of all it was the preliminary work to the research. I gathered information about writing arrangements and that gave me some idea regarding to which degree could I change the music in a way it still be tango and still be recognizable.

Second, I was constantly looking for a way to improve my performance of tango, and when I started to write the final piece and had to make interventions about adapting techniques and learning from the other tango instruments, I gathered information about timing and phrasing which was invaluable in the relation to my final performance.

Adaptation of the techniques from the other instruments and their use in the piece I wrote allowed me to master them and to gain a conscious understanding of them. Through research I was able to grasp them in a relatively short period of time, as otherwise I would have needed years of playing in tango ensembles in order to grasp the techniques (and the phrasing) on an intuitional basis.

C. Reflection on the process and the artistic result

C1: Artistic result

The final result is more than I have hoped for, so I am happy with it. However, it differs from the initial result I thought I would get (a series of arranged pieces for cello and accompaniment). The initial result, however, also appeared in a form of the pieces I arranged for my final exam and part of it is reflected in the final composition, solo cello piece "Adios Nonino".

Apart from gaining the experience and knowledge about writing arrangements, I arrived much further. I gained helpful skills on adaptation of other instruments' techniques and style-characterized phrasing on the cello through experiment, feedback from the experts and general data collection. I am interested in going deeper into other styles of music in the future, for instance, Irish folk music and jazz, and through this research I gained many skills which will be of help to me.

While I was working on my performance I learned to listen to my playing more attentively and determine what stylistic elements need to be executed differently – something I didn't possess in the beginning of my research. The feedback I got regarding my playing back then seemed puzzling to me as I couldn't hear in my playing what tango experts could.

While in the first year I felt I was mainly immersing into the style by gathering general information, the second year of research showed a more rapid progress. I could observe the changes the research process have made in my playing while playing in tango groups, where I could better blend with other instruments while executing my own role – the very thing I aimed for in stating of my research question – and while playing tango with classical players from ELLE trio, part of which I am. In that latter ensemble I could clearly sense the difference between my playing and that of my fellow musicians, who are, as I am, trained as classical musicians, but haven't conducted research on the topic as I did.

I feel that all the research process sent me in the direction of endless research with many possibilities, which I can continue doing after I graduate. Creating a role for cello in tango is a lifetime work and not a small task, so I definitely wasn't able to achieve that during my two years at Codarts as a master student. However, I feel that I achieved a role in tango for myself, a niche where I feel competent and confident and can continue to experiment.

One thing that could be researched further is the adaptation of the violin tango techniques to the cello, as there are many things that could be learned from there. I chose not to go into it as deep as I could because of the relative similarities between the violin and the cello and limited time I had to complete this project. Instead I chose to learn from the instruments which are less similar to the cello, like the piano, the double bass and the bandoneon, going into some technical means tango violinists use, but only slightly touching the phrasing and the use of vibrato and portamento.

Regarding the significance of the outcome of my research, the series of experiments I conducted regarding the adaptation of the violin and double bass tango techniques for cello and their description could be of use to other cellists. That could be of help to them when they are willing to add new techniques to their playing and blend better with a group of tango-trained musicians, providing a sort of a bridge for classical-trained musicians. The description of my experimentation could also shed some light onto the technical difficulties which may complicate execution of tango techniques for them. It could also give them an idea about experimenting in the direction of finding a way of executing said techniques for them. In order to facilitate that, I created a manual on playing tango techniques on the cello, which is provided in the Appendix 6.

The process of writing the solo piece and the interventions I did on performing it are, on the other hand, more personal, as I find that it is important to experience performing aspects first-hand, which would differ from one player to another depending on their background.

C2: The research process

I think that I asked the right research question, although was difficult for me to pick up the right words for it. I knew clearly what I wanted to achieve, but my idea about the means of achieving it changed half way during my progress, as I mention before, so I had to change that. I was also struggling with formulating the research question in such a way that it would be clear not only to me, but to others, including those not familiar with my work. In the end I think I found the right line up for my question and it definitely reflects my research process. In a way the struggle with the question helped me to determine the weak spots in my research planning.

What worked well?

Learning from other instrument by imitating them and recording myself, so the outline of the intervention cycle, worked very well, gave me a lot of material to work with and a clear way of documenting my findings, so that I could go back to them when needed.

The creation of a piece for the cello solo also worked very well, serving as both graphic and artistic way to present the outcome of my research. I learned many useful information while writing it and working on my performance of it, which provided a big addition to my research.

I feel that I made far more progress in the second year of my research than I have in the first one. Having said that, I must add that my research progressed in a sort of increasing motion rather than as a series of disconnected steps, where the information I acquired during the first year of it served as a logical first step on the way to the final result.

What did not work at all?

I thought at first that I can gather information and acquire a role for myself in tango as a cellist and a soloist through writing arrangements, as I was faced with very limited repertoire for cello in tango. I was also faced with absence of a good example in my own instrument, as Jose Bragato's playing (cellist who played with Astor Piazzolla and was his copyist for the most of Piazzolla's career) was not in the direction of what I was hoping to achieve. The recordings I was able to come across were recorded by classically trained players, which couldn't lead me to a deeper understanding of the style.

My limited arranging experience added to those problems, so I couldn't hope to start arranging right away and had to gather general information about arranging in tango, which as I found out had certain rules I was not aware of when I made the first reference recording. All that led to confusion and a feeling that my research is not developing as fast as I would like it to, but that all was rewarded during the second year of my studies. At that time I was immersed into the style, I played in various tango ensembles and I did some arranging, all of which made faster progress possible during the second year.

Another thing that didn't completely work was during the second year of my research, where from Santiago Cimadevilla's advise I, having already written part of the piece on "Adios Nonino" for cello solo, was going to send it to a pianist, a violinist and a bandoneonist. I wanted to ask them to play it as they would play a solo tango piece for their own instrument. Wim Warman kindly recorded the piece for me, so I was able to learn from the piano. However, I had to find other means to learn from the violin and the bandoneon, as due to the busy timetables of the musicians I wasn't able to find anybody who would record my piece with enough time for me to make intervention on it.

Intervention cycles structure

Once I determined which piece I will use for the presentation of my final results, I could divide my data collection and interventions into several cycles. All the cycles are directed towards the same result, so not every cycle has a separated artistic outcome of its own. At first, in December 2016, I documented my whole work as one cycle with several cycles inside it, but every one of the smaller cycles had a structure of a full intervention cycle, so here I document them as separate cycles. Therefore, the timeline of these cycles is sometimes interconnected, as I was initially working on some of them at the same time. They were only later documented in a different way to make it easier to consult.

Intervention cycle 1: learning from the violin.

Goal: Transcription and analysis of the violin solo of Fernando Suarez Paz from his recording of "Adios Nonino" with Piazzolla's guintet.

Main result: Determination of the elements I can use in my final result, the arrangement of "Adios Nonino" for cello solo.

Inspiration for the intervention cycle.

The arrangement I use for the final presentation of my results is based on the recording of "Adios Nonino" by Piazzolla's quintet. This version was broadcast 1997 by NHK and also released 2001 on VHS/DVD "Five Tangos", which was recorded April 4th, 1981.

https://goo.gl/yY1vfF

I go deeper into details of why did I choose this piece in the intervention cycle 3. Here I took the violin and bandoneon solos from this recording and transcribed them. My idea was to play them on the cello in order to learn from other tango instruments.

Reference recording

I made a recording of the violin solo from "Adios Nonino" as I would play at the moment, without further research.

02 https://goo.gl/YDG8vS

Feedback

I played this solo to Job ter Haar, Santiago Cimadevilla and Gustavo Beytelmann. My initial idea for this cycle was to learn from both bandoneon and violin solos from the recording of this version of "Adios Nonino", so I transcribed both of them. For the scores of the transcriptions see Appendix 2a and 2b.

I was also going to record the bandoneon solo, but when I played it to the experts of my network they agreed that it wouldn't work well on the cello if I just play the transcription, so I should find other ways to learn from the bandoneon. Here is the summary of the feedback I received.

- Bandoneon solo wouldn't work as well on the cello because of the technical aspects
 of the instrument. For instance, in bar 14 (3rd and 4th beat) and 15 (1st beat) Piazzolla
 uses octaves and repetition, which has a special effect of the noise of the buttons
 pressed; on cello this particular repetition isn't that interesting.
- I could take the violin solo as a base and start writing a cadenza over it, and use the bandoneon solo to learn about the ornamentation, which is normally less used on the violin.
- I could look into left-hand solos of the bandoneon, because they are in the cello register, unlike this particular solo.

Data collection. Desk research: analyzing the solo and creating an annotated score.

Following my network's advice, I focused on the violin solo. I have written down some markings over the transcription of the violin solo, so I could try to learn from the way Suarez Paz plays.

I paid attention to the bowings, the shifts and glissandos, but also to the vibrato, which appeared to be connected with the way Suarez Paz was phrasing the melody.

While marking the score of the transcription, I noticed that the way Suárez Paz uses vibrato is particularly interesting. He would vibrate some notes, letting other ones without vibrato. While that is, of course, a well-known thing in string instrument playing, it caught my attention that I was playing more in the "continuous vibrato mode", and my assumption was that it would affect the way I sound (so with the continuous vibrato I would sound more classical).

Apart from that I have also marked the string changes, bowings (where I could hear/see them), fingerings in a few places (when I saw they could be transferred to the cello from the violin) and the glissandos. The markings are in red.

For the annotated score see Appendix 2a.

I used the following symbols:

- v vibrato
- n non vibrato
- v + number (v2, v2,5) to indicate that vibrato starts on the beat corresponding to the number
- I, II numbers of the strings (numbered as on the cello)
- s string change (as an effect)
- 0 open string
- 1 1, 3-3 fingerings (where the "-" is an indication of a fifth played)
- 2t indication of the number of the turns in a trill or a mordent
- f for "fast", referring to the speed of mordent or glissando.

Intervention. 2nd recording.

I played the solo again, trying to be as close to the markings I have made in the score as possible. Still, I didn't do it as precise as I could, because my goal was to gather some information which I could think about, and not to copy the way Suárez Paz is playing.

03 https://goo.gl/usvWSY

Reflection

When I compared the first recording and the recording after the intervention, my impression was that in general the sound is nicer and the phrasing feels more measured, but my playing was a bit "flat", lacking emotion, as I was focused on the technical aspect of imitating the vibrato.

Intervention cycle 2: adaptation of tango instruments' techniques for cello

Goal: obtaining of a number of new technical skills I can later use in the arrangement which presents my final result.

Main result: series of videos showing the process and the final result of my experimentation.

Inspiration for the intervention cycle

At that point of the research I had a draft of "Adios Nonino" arrangement for solo cello, but it consisted only of the B-part based on the violin solo I worked with in the first intervention cycle. I was now going to write the A-part for "Adios Nonino" piece for cello solo, and as this part is more rhythmical than the B-part, I started looking to the more rhythmical tango techniques I could learn from other instruments, for instance, the violin and the double bass.

The idea came from Gustavo Beytelmann's feedback when I played a part of "Adios Nonino" arrangement to him. I asked him whether he knows any cellists in Argentina who could help me with tango techniques. He told me that there are many cellists who play in tango groups, but they learned by ear and nobody really sat down and experimented, and wrote down the process and result of this experimentation, as far as he was aware. It would be interesting if I could do some of this experimentation. When I asked him how could I do that, he said that I would have to listen to many recordings, experiment what sounds better when I play in tango groups. All that takes time and good ears.

Some weeks after, during a rehearsal with TOC (Tango Orchestra Class at Codarts), I received tips from Ruzana Tsymbalova and Kay Sleking about the execution of some tango techniques from the piece "Comme il faut" by Eduardo Arolas, which we were playing. I also played the double bass line in this piece, and Kay gave me tips about how it should be played. I thought it will be of use to dive deeper into these techniques and to join some more to them.

Intervention cycle structure

I divide this cycle in three parts, where first part is adaptation of the violin techniques, second is adaptation of the double bass techniques, and third one is about bandoneon ornamentation. I first include some data collection I used for all the techniques I worked on. This cycle doesn't have a specific artistic result, as it is directed to the final result of my research, "Adios Nonino" piece for cello solo. However, each part of the cycle has its own end result.

For the first and second part of this cycle I worked on a technique I was learning in a following way:

- Trying to play it intuitively;
- Determining what doesn't sound right to my ear, if necessary, checking it against the recordings of tango pieces, asking for feedback from the network;
- Discovering why it doesn't sound right from the technical point of view, see "reason";
- Experimentation made for searching the solution;
- Concluding example (the intervention).

Data collection part 1, quasi experiment: Adaptation of the violin techniques

Initially I was going to make an intervention cycle based on Ramiro Gallo's book "The violin in tango" and the exercises for the violin techniques which are listed in that book, but that was taking me further away from my result. I chose to focus on two violin techniques instead, which I later used in my arrangement: *triple pizzicato* and *tambor*.

Apart from getting feedback from Ruzana, Kay and other experts, I also looked into videos available on Youtube. I found this one particularly useful. Here Fernando Suarez Paz is showing the *chicharra*, *latigo* and the *triple pizzicato*:

https://goo.gl/97ZzJU

Here is another interesting article and series of videos about tango techniques for string players, sent to me by Santiago Cimadevilla. There are 12 videos, one for each technique.

https://goo.gl/ykoPMd

A. Tambor

I have decided to experiment with playing tambor on all strings, and here are the reasons for that:

The violinists play tambor on the G string, which is the lowest string of the violin. However, as
the violin is higher than cello and cello has bigger resonating body, I though higher strings on
the cello could make the tambor effect more similar to the one of the violin, which would allow
for interesting blending effects in ensembles.

• From my experience of playing the chicharra effect I found out that it works better on some strings than on the others, so I decided to see if that was same for tambor.

Reference recording

First attempt, tambor on A string:

04 https://goo.gl/60Cefl

Difficulty/why it doesn't sound right

Unwanted pitch produced.

Reason

- 1) Position of the nail related to the string plucked; if it is too far from the string, the string is not damped completely, which produces pitch (or traces of pitch).
- 2) Position of the nail related to the place of the finger on the fingerboard. If the nail is on a note, which has a harmonic, it produces an additional pitch. Some notes which don't have a harmonic also produce a pitch.

Solution

Trying out different angles of the nail positioning.

Example after the experimenting

Nail positioning A – The nail is placed close to the string. The string doesn't provide unwanted pitch but doesn't provide enough percussive sound. Example:

05 https://goo.gl/3XXM94

Nail positioning B – the nail is placed close to the string, but at an angle, so that the string has more space to bounce.

06 https://goo.gl/K41TVr

Reflection

I did not know which version was the right one because I heard people using and showing both of them. For instance, tambor as Caroline Pearsall shows it on one of the twelve videos, sounded more like the first version to me.

Tambor as Ramiro Gallo plays it sounded more like the second version to me. That was something on what I wanted to collect more feedback.

Tambor on the other strings, preliminary examples:

D string

07 https://goo.gl/AAKKIC

G string

08 https://goo.gl/432pN9

C string

09 https://goo.gl/mi1V3m

Feedback

After experimenting on tambor in the abovementioned way, I played it various times to Job ter Haar, Santiago Cimadevilla, Emma Breedveld, Gustavo Beytelmann, Kay Sleking and Ruzana Tsymbalova.

After listening to the various examples of tambor I showed them, they agreed that tambor on D string sound best.

Final recording, tambor on D string

10 https://goo.gl/MOfJpb

B. Triple pizzicato

I got an idea to work on triple pizzicato from a piece "Comme il faut" by Eduardo Arolas, which I played with TOC (Tango Orchestra Class). I saw Ruzana do it and asked her to explain to me how it has to be done.

At first it was difficult to translate what is done on the violin to the cello, as the instruments are held "upside down" in relation to each other, so the hand positions for the pizzicatos are different. Cello also has a bigger body, which requires some thinking in order to translate the violin techniques on it. As Ruzana was playing the triple pizzicato from the 3rd finger (right hand), first I thought that to do it the other way around I will have to start with the first finger, going 1-2-3 instead of 3-2-1. I was not sure what to do, so at first I tried both starting with the 1st finger and with the 3rd one.

To try to imitate and better understand how triple pizzicato is played on the violin, I turned my cello upside down:

11 https://goo.gl/UxfbOS

Reference recording

Then I got back to the normal cello-holding position. At first, I was trying it without the bow to get the feeling of the fingers.

12 https://goo.gl/cguu23

Difficulty/why it doesn't sound right

My fingers are too slow. Pizzicato sounds just like 3 notes on a good attempt, not as one effect.

Reason

The other strings get into the way, to avoid them I have to pluck upwards which doesn't work well. Starting with the 3rd finger (right hand) feels uncomfortable. Starting with the 1st finger (right hand) doesn't work as well.

Solution

After going for some feedback to Ruzana I've found out that triple pizzicato doesn't have to be played on 1 string, it can be done across all strings, but unwanted strings can be dampened, or a chord notes could be placed on them. The way of moving the fingers while plucking is more close to the way of playing the guitar (or, in case of the cello, more like a bass guitar), so the fingers are pressed against the string towards the right, not up, like I was doing before.

I also played triple pizzicato to my main subject teacher, Job ter Haar, when I was experimenting starting with 1st and 3rd finger. In the conclusion starting with the 3rd finger worked best.

Slow version:

13 https://goo.gl/HxhRQ4

Preliminary post-experiment example

With the start of the melody from "Comme il faut":

14 https://goo.gl/PhVSma

Feedback

I got feedback from Kay Sleking, Job ter Haar, Ruzana Tsymbalova and Gustavo Beytelmann. I played the triple pizzicato to them and I also played the version of it which I use in the solo cello arrangement of "Adios Nonino". This video shows triple pizzicato, as written in the score (Appendix 5, annotated score, bar 15) and is for now the final result of executing triple pizzicato on cello. The experts from my network agreed that it works well, Gustavo Beytelmann said that triple pizzicato as I have it written in my arrangement sounds well on the cello. This recording is the same as the recording number 01, but it starts from the moment where I play triple pizzicato.

Final recording, triple pizzicato from arrangement of "Adios Nonino" for cello solo 15 https://goo.gl/wOXQ42

Data collection part 2. Quasi experiment: adaptation of double bass techniques

Although cello doesn't always plays double bass lines if a double bass is present in an ensemble, that still happens sometimes. My goal was to try to adapt my playing in such a way that when playing together with the double bass I could blend my sound with that of the double bass. In order to do that I had to explore some double bass techniques. I wanted to include a walking base line in my final arrangement, so I focused on that.

Reference recording

I asked Kay Sleking to show me how he plays the walking bass line. I also asked some feedback to Alexander Vocking, tango double bassist and former Codarts tango department student. After getting some advice from them, I recorded myself attempting to play it.

16 https://goo.gl/WvUlkj

Difficulty/why it doesn't sound right

I was playing the arrastre on the 1st and 3rd beats instead of playing the accent on the 3rd beat. Or I played arrastre on the 1st beat and just short notes on the rest of the beats. I thought the sound of the arrastre was good, but when I went back to Kay for some feedback he told me it didn't sound quite right yet.

Reason

Kay explained that I should use more wrist movement and less arm, otherwise I don't get the right sound.

I recorded Kay playing the bass line on my cello from different angles. I then recorded myself at home, looked at the recording and noted the differences between my playing and Kay's.

As he is much taller than I am and his arms are longer, I lowered the endpin a bit to try to get the position of the arms as close to his as I could. It didn't need to be exact because everybody's hands are a bit different, but it worked as a step to a closer understanding of what he does.

Solution

His wrist was lower at the starting point, which provided more room for the following movement. More hair of the bow, more weight on the string at the beginning of the movement were used. After the movement fingers with the bow move downwards so the wrist goes up.

Preliminary example

17 https://goo.gl/iM6Aii

Feedback

When I played the double bass line at my AR3 exam in December, I got feedback from Santiago Cimadevilla and Barbara Varassi Pega. They said that walking bass should be played downbow, as it is usually done by double bass players. I was a bit confused by that, since Kay showed it to me up and downbow, and not only downbow. Job ter Haar, on the other hand, told me that maybe it doesn't have to be down-bow, as cello is not a double bass and that I would probably have to account for that in some way.

Santiago Cimadevilla suggested I check out the masterclass by Juan Pablo Navarro, double bass player and composer, who played tango with numerous tango orchestras. I based following experimentation on that video.

Mid-point reference recording

Before starting the following part of the intervention cycle, I am including a mid-point reference recording. It is a recording of the arrangement of "Adios Nonino" for solo cello which I wrote. The arrangement has a walking bass line in it and the recording of it was made before I made further experimentation on the double bass techniques, so it gives an impression of where I was in the middle of the cycle. It is a recording of the whole piece, but the video is starting at the point where I'm playing walking bass line.

18 https://goo.gl/RX3B68

Data collection part 2.1. Quasi experiment and desk research

This masterclass of Juan Pablo Navarro gave me many interesting ideas about bass lines in tango. Juan Pablo Navarro -The Tango - A Secret Code, published on 03-09-2013:

https://goo.gl/rl7oVu

After watching the masterclass, I determined which examples I could use in order to improve my bass line playing. I transcribed the examples, adding accents and sometimes, like in the first example, marking *arrastres*. That helped me analyze what exactly is Juan Pablo Navarro doing and how it is different from what I am doing.

Listening to him play convinced me I should try playing all the notes of a walking bass line downbow.

I made a reference recording over the first example Juan Pablo Navarro shows, a bass line from a piece by Astor Piazzolla "Kicho", recorded in 1970 (to listen the full piece see list of recordings in Appendix 9). He first plays it slowly, with a quarter note equaling 96 on the metronome. This is a link for that moment of the masterclass.

https://goo.gl/aTN9z6

This bass line, as many other bass lines in tango, consists of a combination of *arrastres* and *marcato*, so in order to get it right I had to work separately on those techniques. First, I made a score of what he plays. On the double bass it sounds one octave lower, and I had to lift it one octave up in order to be able to play it on the cello.



I marked the *arrastres* he plays and put accents on every 1st and 3rd beat.

Reference recording, marcato and arrastre combined

19 https://goo.gl/GI9oEy

Reflection

It was difficult to play the *arrastres* even though I marked them in the score, as in the previous experimentation on the bass line playing I didn't have a clear idea about the difference between *marcato* and *arrastre* and which of them should I play on which beat. I was pressing the string too much, which sometimes resulted in a sharp accent. That accent wasn't similar to a broader sound of the double bass *marcato*.

Intervention, marcato

When Navarro explains the way of playing *marcato*, he says it is important to let the instrument resonate after each stroke (precisely what I missed in my own playing), and that this bow technique should imitate pizzicato. So the instrument should resonate, but the note should also have an attack. I worked on that for some time, and when I was more comfortable with it, made a recording of my progress. Here, as in the first example, I'm playing every note down-bow and without accents, focusing on the execution of *marcato* stroke. I practiced the whole bass line this way for a while.

Video link marcato on one note, bass line every note marcato, slow

20 https://goo.gl/QYnyqE

Intervention, arrastre

I then started to work on the *arrastres*. Navarro explains two kind of *arrastres*, long one and short one. I was aware that they exist from hearing it in tango groups where I was playing, but wanted to play them more consciously. To achieve that I wanted to study them closely. First Navarro shows *arrastre* only with bow, without the glissando.

Long arrastre, bow only

This kind of *arrastre* is played on the last beat of the bar, anticipating the harmony change.



To my ears, the last note of the bar has a strong attack, which I would describe as a long accent. I never saw it written in a double bass part, so that accent is merely educational, in order to get the right attack on the fourth beat.

Apart from how it is written, on the following video I played the example from the score above one octave lower, so it sounded exactly in the octave where Navarro plays it. That helped me to relate to his sound color and quality.

Video link long arrastre, bow only

21 https://goo.gl/x5P8KP

Short arrastre, bow only

I did similar work on the *short arrastre*. The difference between them is that *short arrastre* starts later, not on the whole last beat of a bar, but on the half of it, as shown here:



Video link short arrastre, bow only

22 https://goo.gl/kW7UMa

Long arrastre, bow and left hand

Navarro explains that it is not important on which note the glissando starts, neither are pitch and beautiful sound on it, because it is leading to the first beat. The glissando part was the one that was the most difficult for me to get. It didn't sound right but I couldn't determine why, so I turned to my network for extra feedback.

Feedback

Alexander Vocking showed me a trick he uses for *arrastre* – a turn of the bow. He starts with the bow positioned on the edge of the hair, and turns it in a way that full hair is on the string in the

process of glissando and on the destination note. That helps to hide the beginning of the glissando so that the pitch where it starts is not clear.

Gustavo Beytelmann said that if the tempo is very slow, the passing notes will inevitably be heard, so I shouldn't worry about that too much. Having a crescendo on the glissando could help, or practicing shorter *arrastres* and then transferring what I learned to the long *arrastres*. After some practicing, I came up with a following result.

Video link long arrastre, bow and left hand

23 https://goo.gl/C0FKKp

I didn't record the long *arrastre* with glissando separately, as I play it on the last recording of the same double bass line I used for the reference recording.

As a last part of this intervention, I also worked on the kind of marcato where 1st and 3rd beat are accentuated, and 2nd and 4th beats are short. As Navarro says, the 2nd and 4th beats can be louder or more quiet depending on the music. I didn't arrive to the end result at that point of my research, so it is still ongoing.

Video first note marcato, second note short

24 https://goo.gl/Phl3ob

Something I didn't quite get yet about the glissandos is which fingering should be used. Navarro says that one is supposed to start a glissando with one finger, and then placement of the next finger marks the end of it. It didn't work for me on the cello, perhaps because the positions on the double bass are wider so there is more space for finger placement. Even though I am getting closer to the desired sound, but it is also an ongoing research.

Bass line, final recording

25 https://goo.gl/ExV66g

When we played for Gustavo Beytelmann with *Septeto Camaleón*, a tango group where I play, Gustavo complimented my bass lines and bow strokes in general. He said my sound blends well with the group.

The techniques I learned in this cycle all go into the final result of my research, so I don't have a specific artistic result of this cycle. However, it contributes to the final artistic result.

Intervention cycle 3: writing and performing an arrangement of "Adios Nonino" for cello solo

Goal: writing and performing arrangement of Astor Piazzolla's "Adios Nonino" piece for cello solo.

Main result: creation of an annotated score of the piece.

Inspiration for the intervention cycle

The feedback from my AR2 exam regarding too general and not cello-centered character of the information I gathered, was an inspiration for the creation of a piece for cello solo. That feedback made me revise my research progress at that point and I realized that if I write for cello and accompaniment instruments (see Appendix 1 for details), the writing of the accompaniment takes a lot of my time and attention, whereas it would be more beneficial for my research to focus only on the cello part. That would both make it specific and soloistic. At the same time, I already came across this idea earlier but discarded it, because I felt I needed more general information about tango in order to dig deeper into the style. At that point everything came together and I started working towards the arrangement of a tango piece for cello solo.

The research of Stephen Meyer ("The solo violin in Astor Piazzolla's tango: a comparative study"), whose performance of the "Fantasia sobre Nonino" I've heard on the AR festival in Codarts in March of 2016, was of help for me, and an inspiration source.

I divided this intervention cycle into two parts, first being my work on the B-part of the piece, and second work on the whole piece, so it reflects the order in which I was working on the piece.

Intervention cycle 3, part 1.

Preparation for the reference recording

In order to write an arrangement I had to choose a piece. At first I still didn't want to write a solo piece, so I started with an idea of writing a cadenza over some piece which I would play in an ensemble. I started a draft of a solo cadenza over "La cachila" because I liked the piece a lot, but I understood it would be beneficial to look into other tango instruments' solos in order to write an arrangement for the cello, so I needed to think of a way to do that.

I worked on the adaptation of double bass and violin techniques in the previous cycles, so I chose to focus on the other aspects I could learn from other instruments. I could look into phrasing with violin and piano and ornamentation with bandoneon.

Santiago suggested that to do that I could use a composition of Piazzolla, because in several of them the violin and the bandoneon played solo on the same theme. If I picked a piece where it would be so, it would help me to study the interpretation of the same material by different instruments.

I listened to several pieces and chose the video recording of "Adios Nonino" from Youtube, where first Fernando Suarez Paz and then Astor Piazzolla are playing a solo over the same part of "Adios Nonino".

Version was broadcast in 1997 by NHK and also released 2001 on VHS/DVD "Five Tangos", recorded April 4th, 1981.

https://goo.gl/yY1vfF

I transcribed both the violin and the bandoneon solos (see Appendices 2a and 2b), showed, and played them to Gustavo Beytelmann. I have also shown my transcriptions to Santiago Cimadevilla. Both of the solos are over B-part of the piece, the lyrical theme. I started writing my piece from that part, as initially I wanted to write a cadenza for "Adios Nonino" and to play it in an ensemble. Later on I settled with the idea of writing the whole piece for cello solo.

Feedback summary about the transcriptions

- The violin solo is a better base for writing for the cello. The bandoneon solo wouldn't work that well because of the technical aspects of the instrument. For instance, in bar 14 (3rd and 4th beat) and 15 (1st beat) Piazzolla uses octaves and repetition, which has a special effect of the noise of the buttons pressed; on cello this specific repetition isn't interesting.
- I could take the violin solo as a base and start writing a cadenza over it, and use the bandoneon solo to learn about the ornamentation, which is normally less used on the violin.
- I could look into left-hand solos of the bandoneon, because they would be in the cello register, unlike this particular solo.

Using the feedback I have received and after listening existing recordings of solos and arrangements of "Adios Nonino" for inspiration (see Appendix 9, recordings) I have made a draft version of "Adios Nonino", which wasn't a whole piece yet, but an arrangement of the B-part.

Reference recording

26 https://goo.gl/BqgHcN

Reflection

I have played the piece to Gustavo Beytelmann, Santiago Cimadevilla and Job ter Haar. I have also sent the recording and the score to Ruzana Tsymbalova, Leo Vervelde, Wim Warman, Emma Breedveld and Jan Willem Troost, cellist currently playing with Carel Kraayenhof. My main question to my network experts was: how can I make my playing sound more tango? Here is the summary of the feedback I got.

Own feedback

- To my feeling the piece had too many elements of a romantic cello solo piece (or a concerto cadenza) would have (for instance, Max Reger suite no.2 in d minor, (see Appendix 9, recordings).
- Initially I thought to write just a solo over the violin solo, just as an exercise for the research purposes, but at that point I started to see that I can make a piece out of it, in which case it would fit my final exam program.
- In general, the piece works fairly well and I was able to perform it, in spite of my initial
 worry that I would write something so complicated that it will not work.
- I should buy a Zoom to make better sound quality.

I first sent the score to the experts, and later the recording, as I wanted to have separate feedback.

Feedback: score

Summary of feedback from Leo Vervelde, Ruzana Tsymbalova, Wim Warman, Gustavo Beytelmann, Santiago Cimadevilla.

- The use of articulation, rubato, accelerando and dynamical use of the material is of vital importance for tango, and that is not clear from the score. The interpretation is the thing that will have to make the piece tango, because the ingredients are in the score.
- I used only second part of the piece, not the rhythmical first part, which would be interesting to include. I also didn't have the ending in the first score I made.
- I should look which rhythmical elements of tango I can include accents, pizzicato, I could
 make a list which elements from the piece I could use, where I would use which dynamics (I
 could use Gallo's book for tango violin techniques).

Feedback: playing

- The score looks good, but I when I play I should learn now how to sing it. My playing is too nervous.
- I should add an ending, because it cannot finish as it does now.
- Look for similar cadenzas or solos for a string instrument, and see if I can find similarities, and
 if so how to translate them to my arrangement. Violin pieces, but also double bass pieces. I
 should think of possibilities for mixed use of pizzicato and bow.
- I should be aware of the rhythmic function of the upbeat to bar 18 it might be better to either play that a tempo and also at least part of the next bar a tempo, or all freely.
- I could see how other players would approach this. For instance by creating transposed versions for other instruments, and seeing how a violin would play it, a bandoneon, a guitar.

Data collection. Quasi experiment: adaptation of piano phrasing for the cello.

I thought Santiago Cimadevilla's idea about sending the piece to other instrumentalists was interesting. I asked several people to record this part of my arrangement for me. Initially I asked a bandoneonist, a pianist and a violinist.

The violin is, of course, relatively close to the cello in technique, bandoneon is close in register in its left-hand solos, but piano is quite far from the cello because of its' big range, tradition of playing and technical possibilities. That is why I found it both challenging and rewarding to learn from piano.

Intervention

In the end I only got a version from pianist, Wim Warman, Codarts teacher from the tango department, so I worked on the adaptation of some techniques from other instruments by other means in cycles no. 1 and 2.

"Adios Nonino" solo cello piece recorded by Wim Warman on piano

27 https://goo.gl/4xdJSf

For the annotated score see Appendix 4b.

My first conclusion was that overall Wim played more rhythmical, in a sense of having stricter tempo, than I did it on the cello. The whole tempo is in concordance with the tempo of the 16th leading to the 1st beat (as for example in the last quarter of bar 15), whether I played more free.

I asked him not to add many notes as I wouldn't be able to try to copy in on the cello then.

I have tried to imitate Wim's playing on the cello. At first I didn't choose any specific criteria for to what exactly I was going to imitate, but after recording myself and listening back and comparing my recording to Wim's I saw that I focused on the phrasing. The summary of what I have learnt along with

the links to the audios are in the following table. What in Wim's playing was different from Bar number Link to the part recorded on my interpretation cello 1 Grace notes added to the lower voice. First 28 https://goo.gl/oP2cbw eight note is longer, eight notes after it are slow. In the second half of the bar there is an accelerando "La pelotita" fraseo. Second half of the bar is 1st half of the bar 3: 2 played cuadrado, with an accent on the first 29 https://goo.gl/fkLhBf eight note and a dot on the second one. The grace notes are played in tempo and on the 3 Same as the second half of the bar 2. 3rd and 4th quarters are legato and lead to the next bar. 5 Grace notes added. 2nd half of the bar 3 + bar 5 30 https://goo.gl/n60OVD 31 https://goo.gl/c2phfy The 16th are slow, 8th notes have accelerando, 6 leading to the next bar 7 Last note is 16th (notated 8th note). 2nd voice has a diminuendo Last note is 16th (notated 8th note). 2nd voice 8 has a crescendo 10 16th notes are in tempo, no rubato 32 https://goo.gl/TFa9JB 2nd and 3rd beat have stronger articulation. 13 33 https://goo.gl/bb2dM1 Last beat – dotted 8th note followed by 16th note 9, 14 (notated the other way around). I didn't do it in the recording. First 16th is longer, so that the other 3 16th 14 sound almost like a triplet Accent on the 1st beat. 34 https://goo.gl/QD4xZx 16 17 Added grace notes 19 Triplets (grace notes) added on the 1st and 4th 35 https://goo.gl/W6GUsc beat 20 Fermata on the 1st note In tempo. Fermata on the middle f of the triplet 21 36 https://goo.gl/Gh2p2f in the 4th beat. Grace note added. Last note of the 1st beat is 22 25 Fermata on the first eight note of the 2nd beat. 37 https://goo.gl/NgCq3C 28 Added phrasing in the second voice

31	Fraseo in the 2 nd half of the bar	38 https://goo.gl/3aljDs
33	Fast triplet	
34, 35	Added accents	As in my reference recoding I
35	Ritenuto in the second half of the bar	didn't play that part, I left work on
37	Rubato, slower	it for later.
40	Leads to a slower tempo compared to the	
	beginning	
43	Long chord; I played pizzicato.	

Own reflection

When I have first listened to the recording and wrote down what differences I have noticed, and before trying to play it on the cello, I had an impression that some things wouldn't work on cello. However, as soon as I started recording and playing back, I grasped a deeper understanding of the phrasing and discovered more details.

I'm not sure that this form of documenting is the best because the videos are short and it's not very comfortable to switch between them and the document. There could possibly be other way to document it.

Intervention cycle 3, part 2.

In order to incorporate some of the techniques from the intervention cycle 2 (adaptation of tango instruments' techniques for cello), I had to write the A-part of the piece, which is a rhythmical part in the original piece. That would give me possibilities to work on other aspects of my tango playing.

In order to write this part of the arrangement, I listened to various recordings of "Adios Nonino" again, but now I focused on ideas I could use for the A-part of the piece.

I analyzed the basic structure of the A-part and its characteristic elements in order to determine which of them and in which form will I use in my piece. I checked the basic score of the piece at todotango.com, and I listened to the double bass players for the inspiration for the rhythms I could use. With that I pinpointed the following motives:



I stick to the interval and rhythmical structure of the first element in my arrangement. For the second element, I took the idea of its placement as a countervoice to the first element and its rhythmical structure, although I used some variation for it.

After I determined them, I wrote the A-part, which provided me with a complete score of "Adios Nonino" piece for cello solo.

Choice of tonalities

The original score I consulted is in f-minor, and the video on which I based my work on the solos starts the first theme in a-minor. The tonality in my final arrangement comes from the opening phrase of the first draft I made (bar 1, page 46). Then it was only an introduction to the second theme, but I liked the elements of it, for instance, the double stops. So I decided to keep them and to use them as an introduction to the piece, which explains the c-minor at the beginning. I also wanted to save the modulation to E-major in the B-part, which is from the video recording I used for the reference, because I thought this part was beautiful.

As a result, in the end arrangement I have a sequence c-minor, C-major, E-major, cis-minor.

Preparation for the reference recording

I was initially going to record double stops, as written in bar 26 (see Appendix 4a) of the initial score of the B-part, but when I showed it to Job ter Haar, he said that it sounds too complicated and doesn't work well. I should look into safer fingerings in order to make that part easier for myself, not only there, but in the whole B-part.

He also suggested that I leave out the double stops. I felt that they were necessary when A-part of the piece wasn't there, but together with the A-part, apart from not working really well for me, they could be left out without harming the piece. Gustavo Beytelmann and Santiago Cimadevilla agreed that if it works better for me it is not a bad idea. That was the only change I made to the B-part for that moment.

Reference recording

Arrangement for cello solo of "Adios Nonino" by Astor Piazzolla, first recording of the full piece. For the score see Appendix 4c.

39 https://goo.gl/Ezhz1o

Feedback

I played this piece to Job ter Haar, Gustavo Beytelmann, Wim Warman, Leo Vervelde and Santiago Cimadevilla. I also sent it to Stephen Meyer, former Codarts tango department student.

- The fermatas as they are placed now (bars number 11, 13) are not very convincing. They also interfere with the rhythmical element of the following bar so that it becomes unclear which beat I'm playing on.
- Gustavo Beytelmann thought triple pizzicato, or la guitarrita, works well on the cello.
- The walking bass part is now too long. Perhaps I could make it more diverse by adding other
 rhythms to it. I should check out double bass lines from other Piazzolla pieces and the
 masterclass of Juan Pablo Navarro where he explains double bass lines (see intervention
 cycle 2)
- The playing was clear and controlled. Sometimes, however, it felt a bit too controlled; you shouldn't be afraid to add some "dirt" or grit to your playing, particularly when I want to emphasize an upbeat (for example: 4th beat of m. 61, 65). Also, the special effects I've added the glissandi, the pizzicati+gliss combos can be much more exaggerated.
- From bar 18 (0:58) I could make it a bit more aggressive groove, to really make a strong point there. Because it's nice to have that building up in layers from bar 10 to 29.
- The ornament I use in bar would be better on the ... 8th note.

Data collection: interviews

My main data collection source was feedback from network experts listed above. That helped me work on my performance. Another source of data collection comes from intervention cycle 2.

Network experts agreed that the walking bass part is now too long, so I was seeking their advice regarding to how I can make it sound more convincing.

Job ter Haar suggested I could use some of the techniques at that spot, as at the moment I didn't use, for instance, tambor.

Gustavo Beytelmann was skeptical about *golpe de caja* part (bar...). He said that it works well in the double bass because of its volume, so perhaps I should let it out. I however really liked the effect, and when I went to Santiago Cimadevilla, he said I could try to use different kind of *golpe*, maybe only using my fingers.

Alexander Vocking said that cellists normally play golpe de caja on the front part of the cello and not on the back one, so it sounds better.

I finally came up with a hit on the back part of the cello and the bow accent, something similar to *arrastre*, and when I showed it to Gustavo Beytelmann he said that now it sounds better.

Data collection. Desk study: bandoneon ornamentation.

I looked into Santiago Cimadevilla's research of the bandoneon ornamentation. Initially I was planning to find a way to "thin out" rich bandoneon ornamentation and try to apply it on the cello, and look into the left-hand solos for that, but faced with lack of time I had to abandon that idea. I spoke with Gustavo Beytelmann about how can I learn to make ornaments from the bandoneon. He gave me interesting guidelines.

He told me that I would of course do that on the B-part. He said he sees the theme in 2 and not in 4, and the second part of the bar is usually the one which is ornamented. I hope to experiment more with that in the future.

Another reason why I didn't add ornamentation from bandoneon solo was that I already wrote double stops and some scale-like ornaments on the B-part of my arrangement. It wouldn't be possible to add bandoneon style ornamentation on the cello during the double stops, because that would make the piece more complicated than I wanted it to be, so I would have to rewrite the B-part, which would take too much time.

What I did was adapting some of the ornamentation based on the information I got from Santiago's feedback and his research. I studied the examples of ornamentations Piazzolla played over "Adios Nonino" over the years, and tried to see which ones I could introduce into my score without changing it much.

All that brings me to the final result of my research. I present it in the annotated score and final recording of the piece.

Final result: annotated score.

Here are the commentaries to the annotated score you can find on *pages 54-56*. They show my artistic choices.

- 1. This opening resembles the opening of A. Agri's "Variaciones sobre Adios Nonino" and was inspired by it. Recording of Agri's piece: https://goo.gl/rdBFBI
- 2. One of the elements of the first theme of "Adios Nonino". I didn't want to start the piece with it because I felt it would give the piece, which is very famous, away too soon, so I started playing it *mp*. The opening brings the listener (and me) in the mood of it.
- 3. These 3 notes are the rhythmical response to the first element of the theme, while the long note of the first element is sustained. I wanted to experiment with different tango techniques, so I tried to play something between *latigo* and fast glissando there.
- 4. I switch to arco in bar 13, which applies to bar 14 too. Thematic element is the same, but I change octaves on the 3rd beat an go down on the f sharp instead of going up. That is an advice I got from Gustavo Beytelmann, he said that I can have a variety in my performance if I just change register in some places without changing written notes.
- 5. Second element of the theme, played in chords and with triple pizzicato stroke.
- 6. Bar 16 is a variation on bar 14.
- 7. Agri uses similar sequence of 16th in his "Variaciones sobre Adios Nonino".
- 8. See intervention cycle 2, double bass technique adaptation. I felt that in the end I could experiment with *arrastres* when I am playing bars 18-22, because at the moment of the final recording on the piece I mostly played *marcato* there. That is something to work on in the future.
- 9. Little variation added to the bass line.
- 10. Part of the bass line is omitted and replaced with *tambor* on the written rhythm. I was following advice of my network experts to make the bass line more diverse.
- 11. The ending of the bass line is written in chords and played with *triple pizzicato*. In fact, the whole bass line grows from the second element of the theme, and not from the original bass line of the piece. Bar 25 is a reminiscence of that resemblance.
- 12. It took some experimentation to find out a way to play that techniques, mostly used among double bass players (often together with the piano), but I think I managed to find a good way to do that.
- 13. Here the closing section of the whole A-part begins, based on the 1st element of the first theme. I saved the intervals, but added the next bar instead of holding the last note for one more bar. In bars 10-11, 12-13, 14-15 and 16-17 I use the same idea.
- 14. The answer or countermelody is added. Originally the first beat of the bar should have lasted for the whole bar, but I omit it and add another voicing to create an impression of polyphony or a kind of a dialog between two different instruments on the parts of a same phrase, which often happens in ensemble tango arrangements.
- 15. In bar 33 I initially had the ornamentation on the first 8th note of the 2nd beat, but Santiago told me that it would be more logical to have it on the second note.
- 16. Bar 34 is another variation of the first element of the theme, preparing the tonality change.

- 17. As this part is *pizzicato*, I didn't write the slur, but Santiago pointed out that it is the exact same phrase as in the beginning, so I added it.
- 18. I tried to use the kind of rubato that is called *pelotita* in tango. Perhaps it is not very clear in the context of the general *ritenuto* I make.
- 19. I used G. Beytelmann's advice to add counterpoints to the melody, namely in a form of an added second voice (double stops).
- 20. Variation of the added second voice.
- 21. Ornamentation I found in Santiago's research. In fact this ornament is from a recording from 1960 and the whole theme has fewer ornaments compared to the later recordings. As I didn't get a chance to go deeper into bandoneon ornamentation, this is the element I used
- 22. Another version of the second voice, this time going upwards instead of downwards.
- 23. Initially I had another figure written:



Santiago said that if he would play it on bandoneon, he would see the last three 16th of the first beat and the first two 16th of the second beat ad one ornament, *gruppetto*. I tried it and liked how it sounds so I kept it that way.

24. In the initial score there were 3 bars instead of one in bar 42, in the following way:



That didn't somehow sound logical. Santiago suggested I go directly to bar 44 after bar 42, which resulted in the changed last beat of bar 42.

- 25. Another variation of the second voice, this time in rhythm and interval structure.
- 26. That is the point where the second voice turns into double stops.
- 27. This ornamentation is taken from Suarez Paz's solo.
- 28. This is the first time I introduce that element, an upbeat consisting of four 16th. It is often played by double bass and piano, and, as Gustavo Beytelmann said, can be a sign of a start of another tempo or section of the piece. In my initial score I used it 5 times, and G. Beytelmann said that perhaps it is too much, both because of the function of this element (starting of a new section) and because it gets tedious if I use it 5 times and play it the same way. When I was writing the piece, I unconsciously felt this figure be a thematic element, which I used in different moments of the themes' development, but it is actually an element of tango language. In the end as I removed the double stops in the bars 57-36, I have it four times, which makes it a bit better. S. Cimadevilla noted that I could also play it in different ways, changing the rhythms and accents, and that could bring diversity.
- 29. Variation of bar 47 with the same upbeat, but scale-like passages of 16th added instead of quarter notes.
- 30. Sequence of harmonics, leading to the interconnecting bar.
- 31. Sequence of same notes with octave changes. Elements of this kind can sometimes be seen in cadenzas of romantic concertos for the cello or virtuoso solo pieces.
- 32. This kind of chromatic passages can also be seen in cello concertos' cadenzas.
- 33. Same idea as in 31 and 32, only here on an arpeggio on a diminished chord, which comes from Suarez Paz's solo but I added the group of 16th on the 3rd beat.
- 34. Variation on the first beat of bar 53.
- 35. Same idea as in 31, 32, 33.
- 36. Material from the solo of Suarez Paz.
- 37. Small melody added in the second voice.

- 38. Modulation to E-major comes from the recording by Piazzolla's quintet which I took as a reference and sort of a base for my arrangement.
- 39. Initially a passage with double stops, which were later left out.
- 40. Experimentation with a register change.
- 41. Variation on a *tutti* ending of the violin solo. Scale-like elements added on the 3rd beat of bar 65 and on the first 2 beats of bar 66.
- 42. Original melody from the ending of Suarez Paz's solo with added lower double stops.
- 43. Reharmonization preparing the tonality change to cis-minor.
- 44. First element of the first theme repeated.
- 45. Traditional tango closing bars, where the dominant is played loud and the tonic soft. To maximize that effect I played the last chord pizzicato.

Final recording

That is the recording of the end result of my research. It shows where all the information I gathered during the intervention cycles led me and how I applied it.

40 https://goo.gl/KFxTBc

Appendix 1: Preliminary work to the research

Reference recording of my first arrangement, "El Motivo" by Juan Carlos Cobian:

41 https://goo.gl/pQdTGT

Feedback:

The feedback I have received for this recording concerned both arrangement and performance. First, I wanted to focus only on the arrangement part, but as I continued with my cycle, I understood that arranging in tango is quite specific thing. I have had arranging experience before, but I never arranged tangos. I was quite confused, because by the feedback I have learned that there are certain rules there, for example, that you normally don't change the melody.

Another important thing was that I should use the original score. In the arrangement of "El Motivo I was inspired by the version of the piece by the orquesta of A. Troilo and took many ideas from there.

New arrangement: "Danzarin" by Julian Plaza.

As I continued thinking about the performing part, I thought it would be good to write my new arrangement not for the cello and piano (as in my reference recording), but for three cellos. The function of the cellos then would be melody (1st cello), rhythmical accompaniment and counter melody (2nd cello) and the base line (3rd cello).

This is the version of "Danzarin" by E. Francini. This version inspired me to make the arrangement of this piece. At the moment I had the idea of writing an arrangement of this piece, we were also playing Francini's version of "Danzarin" with OTRA.

https://goo.gl/WYtib5

The first arrangement of "Danzarin" I have made was a draft version. I have started from finding the original score. As I kept in mind that I cannot change the melody, I didn't change almost anything there. I have just moved some sections of the piece around. I don't have scores for this first arrangement because I have made it as a quick sketch, recording all three voices myself. If I could play all of them myself then I could learn to play all the different functions (that idea was also based on the feedback I received). The original score at the end of the document can be used as a reference.

First arrangement of "Danzarin", draft version. Reference recording for the first intervention cycle. 42 https://goo.gl/m8YOZN

This is a recording I have made recording myself over several times, so here I am playing all the voices.

The feedback I have received from my network:

- 1. I didn't really change much, so it is very similar to the existing versions of the piece.
- 2. The way I played it wasn't right, for example, the execution of the accents and phrasing of the melody.
- 3. I should listen to as many versions of the piece as I can find, and then take inspiration from there.

The feedback was from Santiago Cimadevilla, as my research coach and tango expert, Gustavo Beytelmann, as a tango expert and a composer himself, why I thought that he would have useful advise for me, and Tim Panman, 2nd year master student from Codarts, for whom arrangement is also part of his research. The feedback I received gave me a lot of material to think about and work on, so I haven't ask more feedback from the other members of my network. However, I'm going to ask more feedback at the end of my intervention cycle about the resulting recording.

Some other versions of "Danzarin" which inspired me:

1. "Carreon Tango": https://goo.gl/RSK4Hn

I was intrigued by this version because it has cello and clarinet in it. Gustavo Beytelmann said that if there are non-traditional instruments in tango, then it sounds like tango not only because of the instruments, but because of the efforts of the composer. I had this in mind as I was going to make my arrangement for three cellos, and that is not an original combination in tango.

2. A.Troilo: https://goo.gl/BerTm4

In this arrangement, as in many others, the piece starts with the second theme. I preferred to start with the first theme, as in the original score. I like the bridges, the piano solo. I find this arrangement very inspiring and creative. There is also a cello solo in this recording, which is, however not the reason why I chose to listen to it, is still interesting.

- 3. Leopoldo Federico and Roberto Grela: https://goo.gl/ZThrpU
 This version was interesting for me, because it was not for the whole tango orquesta, but for only a duet. As I was arranging for three cellos, I thought it would give me some ideas. It is also very nice arrangement.
- 4. Osvaldo Piro Danzarin: https://goo.gl/ZpPpKy
 I find this arrangement very creative and interesting. It is also curious because it has flute in it.

Data collection: literature research. Ramiro Gallo, "El violin en el tango". Julian Peralta, "La orquesta típica".

At that point, I have started my research, as planned, with Ramiro Gallo's book "El violin en el tango". I started with this book because violin is close to the cello in many techniques of playing tango. As I have been receiving feedback about my tango-performing skills, I decided that it is useful to work on my performing techniques. I am also working on them in my main subject, by studying existing arrangements for the cello, but I also wanted to briefly view the violin techniques and to see how exactly can I apply them on the cello. I thought that Gallo's book will mostly provide exercises for the techniques of playing tango.

As at the same time I was working on my arrangements, I started to read Julian Peralta's book, "La orquesta típica", which I was originally going to read later on. His book, being about arranging in general and orchesta typica, had some information, which was related to that in Gallo's book, but at the same time was different. The importance both authors gave to arranging (supposedly Gallo's book is for somebody who just wants to know the "rules" of playing tango) lead me to the understanding that in tango arrangement is closely related to the performance. That contrasted with my initial idea; I thought that I should learn how to make arrangements and how to play tango separately.

Data collection.

1. Literature research summary.

a) Julian Peralta: "La orquesta típica".

Information that I have found very useful for working with my arrangements. Some points of the adjusted description of the structure of tango may seem similar to a general structure of many other pieces, but the fact that many tangos have this exact structure makes it a useful general scheme. I have used this scheme as **an analysis scheme of the original tango score** before making my own arrangement. From the book of Julian Peralta "La orquesta típica". Structure of the melody:

- 1) Motive:
 - Imitating. Way of imitation: imitation of a motive; imitation of a part of a motive. Structure of the motive, intervals.
 - Contrasting.
- 2) Phrase consists of a sum of motives.
 - Often takes 8 bars.
 - Is closed by cadenza.
 - Can be divided in half phrases.
- 3) Section:
 - Consists of several phrases.
 - Often takes 16 bars.
 - Old tangos sometimes have 3 sections, where 3rd part is a trio, but from 1930th on there are normally 2 parts.
 - In the end of the part a full cadenza.
- 4) Introduction, bridge or coda:
 - Sections with less importance than the parts.
 - Often contains arpeggios, scale-like elements.
 - Sometimes there is a cadenza as an introduction.
 - Sometimes there is a cadenza between contrasting parts.

b) Way of interpreting the melody from Ramiro Gallo's book "El violin en el tango".

- 1. Choose an important or interesting note in a melody. To stress it, make the nearby notes, which are leading to or leading from the main note, shorter.
- 2. Changing the rhythm of the melody. Adding chromatic notes leading to the important notes of the melody.
- 3. Skipping some notes of the melody in such a way that it is still recognizable.

2. Feedback from experts.

I have shown my arrangement to an expert from my network, Gustavo Beytelmann. After listening to my first reference recording of "Danzarin", he showed me that it is very important to know the structure of the melody, its *most characteristic element*. I have analyzed the structure of all the main elements of the themes from "Danzarin".

I should mention that compared to the original score I have written my arrangement in 4/4 instead of 4/8. This is a tip Santiago Cimadevilla gave me; before many tangos were written in, for example, 4/8, and it is a common practice to write it in 4/4 nowadays, solely for convenience.

G. Beytelmann also showed me that when I know the structure well, I can make a **variation** on this melody, which I used in the intervention.

Another thing he said was that I can use more range difference. I have added a small solo for the first cello, where I try to use more range of the instrument.

G. Beytelmann also told me I should think of a way to rewrite the ending. I should arrive to a decisive ending, possibly by adding triplets or sixteens.

Performance research.

As a part of the research on performing tango, I had a lesson with Emma Breedveld to check what I have already learned playing in OTRA and from reading Ramiro Gallo's book, so to have a feedback about my playing. I have asked her to show me how she plays chicharra, tambor, accents, glissandos, as every tango musician has his or her own way of doing that. I have shown her the pieces I will be playing on my exam, "Le grand tango" by Piazzolla and "Graciela y Buenos Aires".

As I have recorded first draft arrangement of "Danzarin" myself, and then had to explain it to Ingeborg Skomedal Torvanger, who helped me to record it later, I had to learn how to play all three cellos myself. So that helped me to explore the function of the double bass (that's what the third cello's function mostly is) and the function of the rhythmical accompaniment of the second cello. As a part of that research, I have played the parts for Gustavo Beytelmann. Trying to explain it also helped me to understand it more clear.

3rd of May I will also have a lesson with Jan Willem Troost, the cellist who is playing with Carel Kraayenhof, so my research about performing tango will continue into the next cycles.

Analysis of the structure of the elements of "Danzarin".

Example 1 (first motive of the theme of "Danzarin"):



This is the first part of the first theme of "Danzarin". The most characteristic elements here are:

- 1. Regarding intervals:
 - the octave (d d);
 - the leading notes (16th c and c sharp).
 - the importance of the leading notes is emphasized by the appoggiatura (c sharp).
- 2. Regarding rhythm:
 - the sequence of two 16th (c and c sharp) and three 8th notes, first of which is accented.

Example 2 (second motive of the first theme of "Danzarin"):



Structure:

- 1. Intervals:
 - A chromatic line;
 - Starts and finishes with a fifth.
- 2. Rhythm:
 - Starts on the second half of the first beat, as a syncopation, and therefore receives and accent (by the tradition of playing tango, from R. Gallo's book).

Example 3 (second phrase of the first theme):



Structure:

- 1. Intervals:
 - A chromatic line;
- 2. Rhythm:
 - Accentuated quarters.

Example 4 (minor theme of the second section):



Structure:

- 1. Intervals:
 - Starts with the fifth, which is filled in with the seconds afterwards (a g a g).
- 2. Rhythm:
 - Starts on the second half of the first beat, so the first note receives a kind of an accent, more attention.
 - The melody has a written out "fraseo", which is also interesting. (Without this fraseo, a way of phrasing in tango, the second half of the first bar could have been written in eights instead of an eight note, a quarter and two sixteen notes. Then the performer could phrase it as written).

3. Project week with Carel Kraayenhof.

4th, 5th and 6th of April tango orchestra OTRA had rehearsals with Carel Kraayenhof as a part of the project week. Those rehearsals provided me with many ideas I find extremely useful in my research.

Execution of the accents, phrasing.

Tango is often written with accents. Sometimes there are accents in the accompaniment parts, sometimes there are on the melodic parts, either rhythmical of lyrical. Carel said, that those accents could be executed in several different ways.

One way would be, if, say, an accent is in the *forte* dynamic, to play it even louder, with a sharper attack, so that it will stand out from the surrounding material. Another way would be to treat the accents more like important notes. And, naturally, to give the accentuated note more importance could also mean to give less importance to the surrounding notes, surrounding materials.

Carel explained that on his arrangement of "Libertango".

This is the melody of the violins in Carel's arrangement of Piazzolla's "Libertango":

Example 1:



The unconscious tendency would be to play a thick line with lots of sound. However, what Carel offered could be depicted as following:

Example 2:



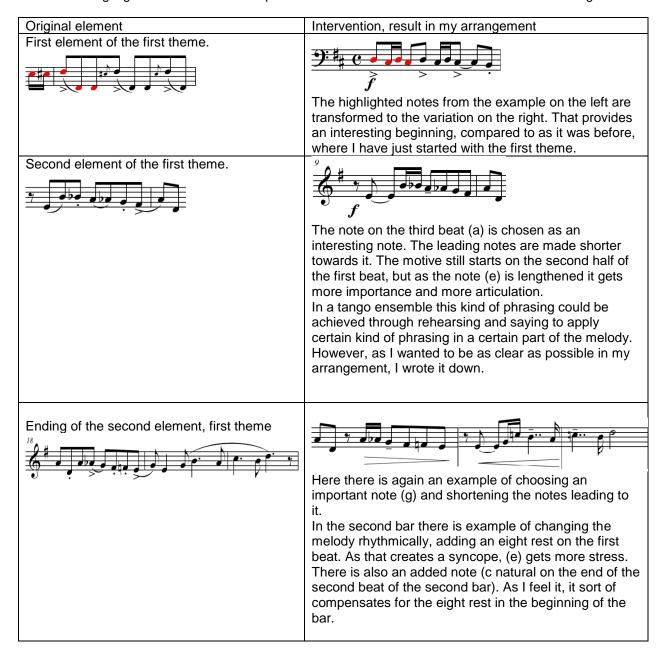
That example is more about important notes in the phrase than it is about accents, however, in the other pieces we played with Carel, he also showed us the diversity of accents which I found a bit similar to this dynamical phrasing idea.

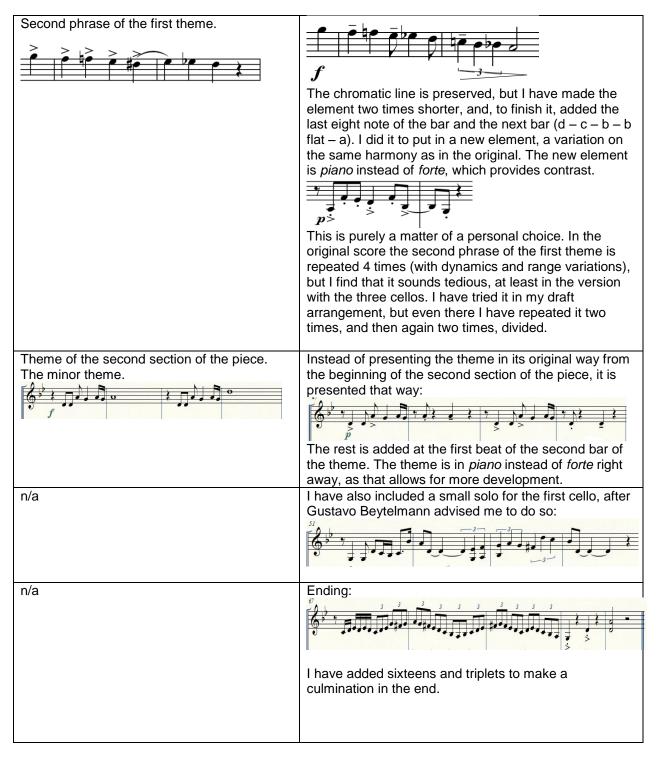
The problem is, if one is not consciously aware of the existence of different kinds of accents in tango, it's easy to misinterpret the accents. The tendency I have noticed on myself and other students, is to play accents as a loud, standing out kind of accent. I find that this limits the interpretation greatly.

Since I have learned this information, I'm struggling a bit with the depiction of the accents in my arrangements. I saw that Carel mostly writes accents, and then explains how they should be played to the people he is playing with. However, I often feel that way of stressing the notes more just like stressing an important note and not a real accent. That is why I'm sometimes using the tenuto sign, as in the example 2 on the above.

Intervention.

The highlighted notes in the example on the left are transformed to the variation on the right:





Final recording:

43 https://goo.gl/tBdweo

Recorded at Codarts with me, Job ter Haar and Ingeborg Skomedal Torvanger.

My feedback about the result.

- 1. I could change the range of the first cello even more. I could make the solo in the minor part longer.
- 2. Initially I had all the themes changed, so that they were never in their original state in my arrangement. Later I have added the original themes and parts of them, but the form of the arrangement suffered a bit. So I feel that now the arrangement starts too suddenly.
- 3. In general, regarding form, I feel that some parts of the arrangement seem too short.

- 4. Compared to the first reference recording, I find my last recording of "Danzarin" much more interesting. I feel that it is played better, more in tango style than the first recording. Also the way the arrangement is made is much more creative.
- 5. The arrangement is far from its final version, as I have received a lot of useful feedback and data from the data collection, but it was good to stop and record it at some point.

Feedback from the experts.

- 1. The arrangement sounds a bit "empty". I could organize the voices of three cellos differently.
- 2. I could lose the rhythm in the bridge between the first section and the second, minor section of the piece.
- 3. I could still use more range differences. I could do it without changing what I have already written, for example, by moving some notes up an octave. Not all the phrase, just some small parts of the phrase would already make a difference.
- 4. I could experiment with longer notes in the accompaniment cello parts.
- 5. Look for other ensembles that use the cello in a leading way (for example, Astillero).
- 6. The first part of the arrangement could use some more dynamics (in the recording).
- 7. I should make more use of the expression slurs, it makes the interpretation and the way the arrangements are supposed to sound more clear.
- 8. When arranging and thinking of the possible variations, consider the arrangement history of the piece.
- 9. Look into more ensambles, for instance Agri's string orchestra.

Ideas for the following cycles:

Working on "Danzarin" further:

- 1. The solo of the first cello could be longer. The whole arrangement seems a bit strange in sense of the form. I think, I could make it longer.
- 2. I could listen to the recordings which inspired me again and take more ideas from there, now on a different level, after all the research I have done.

Working on "El motivo":

- 3. I will continue to work on the arrangement of "El motivo". I have started to work on it, and I will include the arrangement as it is so far in this document, but as I was busy with the "Danzarin" I didn't have time to finish it.
- 4. Ramiro Gallo says, if arranging tango with lyrics, one can work with them in order to write musical arrangement. I want to do that with "El motivo".
- 5. I could take ideas from different recordings of "EI motivo", as I did with "Danzarin", not only for having ideas for the arrangement but also for having ideas about performing tango. For instance, I find this version of "EI motivo" very interesting for the future analysis in sense of rubato of the singer: https://goo.gl/Sk60fA

Phrasing in tango:

6. I would like to work on the ways of different phrasings in tango by analyzing phrasing of Carlos Gardel. I want to transcribe a part of a song he sings and try to play it on cello.

"Le grand tango" by Piazzolla:

7. As "Le grand tango" by Piazzolla is a great example of an arrangement for cello, I could make an intervention cycle on it by studying the elements of the melody and accompaniment and where it came from in Piazzolla's music. I'm going to make a recording of "Le grand tango" on my exam, then I could use it as a reference recording for an intervention cycle about it.

Scores

1.	"Danzarın" by Julian Plaza. Original		
	score	pages	30-31
	"Danzarin" by Julian Plaza. Final score. Result for now		
3.	"El motivo" by Juan Carlos Cobian. Work in progress	pages	39-42

DANZARIN JULIAN PLAZA Ediciones Musicales JULIO KORN Dte Mi Dte Sot



Danzarin



©

Danzarin Vc. II Danzarin





Danzarin 5





Vc. II

Vc. III

Danzarin

7

.

El Motivo





El Motivo 3



4 El Motivo



Adios Nonino

Astor Piazzolla



©

Adios Nonino

Astor Piazzolla



Appendix 3: Violin solo with markings

Adios Nonino Astor Piazzolla

Adios nonino



"Adios Nonino" piece for cello solo, first draft, page 2



Adios nonino cadenza







Adios nonino



© Elena Kopteva





Adios nonino







Appendix 6: Manual. Tango techniques and how to play them on the cello.

This is a short manual on how to play tango techniques on the cello. It consists of six short videos, where I explain those techniques. It can be of help to other cellist who want to learn to play tango.

- Tango techniques how to play chicharra on the cello.
 44 https://goo.gl/6HhglO
- 2. Tango techniques how to play tambor on the cello.
 - 45 https://goo.gl/Yiw9Cc
- 3. Tango techniques how to play triple pizzicato on the cello. 46 https://goo.gl/L0oVV1
- 4. Tango techniques how to play walking bass line on the cello 1. Marcato 47 https://goo.gl/XJsOMA
- 5. Tango techniques how to play walking bass line on the cello 2. Arrastre 48 https://goo.gl/HnXPlz
- 6. Tango techniques how to play walking bass line on the cello 3. Arrastre + glissando 49 https://goo.gl/tZtgit

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Appendix 7: track list of audio/video recordings on the USB flash disc
01 End result, 19-03-2017 - Astor Piazzolla's "Adios Nonino". Arrangement for cello solo by Elena
Kopteva; https://goo.gl/KFxTBc
02 Reference recording, 05-12-2016 - Astor Piazzolla, "Adios Nonino". Solo of F. Suarez Paz;
https://goo.gl/YDG8vS
03 Result of first intervention cycle, 05-12-2016; https://goo.gl/usvWSY
04 Reference recording, second intervention cycle; 06-12-2016; https://goo.gl/60Cefl
05 Intervention cycle 2, tambor - nail position A; 06-12-2016; https://goo.gl/3XXM94
06 Intervention cycle 2, tambor – nail position B; 06-12-2016; https://goo.gl/K41TVr
07Intervention cycle 2, tambor on the D string; 08-12-2016; https://goo.gl/AAKKIC
08 Intervention cycle 2, tambor on the G string; 08-12-2016; https://goo.gl/432pN9
09 Intervention cycle 2, tambor on the C string; 08-12-2016; https://goo.gl/mi1V3m
10 Final result - tambor on the D string; 18-03-2016; https://goo.gl/MOfJpb
11 Intervention cycle 2, triple pizzicato – violin position imitation; 08-12-2016; https://goo.gl/UxfbOS
12 Intervention cycle 2, triple pizzicato – reference recording; 08-12-2016; https://goo.gl/cguu23
13 Intervention cycle 2, triple pizzicato – slow version; 08-12-2016; https://goo.gl/HxhRQ4
14 Intervention cycle 2, triple pizzicato – preliminary example; 08-12-2016; <a href="https://goo.gl/PhVSma">https://goo.gl/PhVSma</a>
15 Intervention cycle 2, triple pizzicato – final recording; 19-03-2016; https://goo.gl/wOXQ42
16 Intervention cycle 2, bass line - reference recording; 08-12-2016; https://goo.gl/WvUlki
17 Intervention cycle 2, bass line - preliminary example; 08-12-2016; https://goo.gl/iM6Aii
18 Intervention cycle 2, bass line - mid-point recording; 10-03-2017; https://goo.gl/RX3B68
19 Intervention cycle 2, bass line - marcato and arrastre combined; 19-03-2017; https://goo.gl/GI9oEy
20 Intervention cycle 2, bass line - marcato, intervention; 19-03-2017; https://goo.gl/QYnyqE
21 Intervention cycle 2, bass line – long arrastre, bow only, intervention: 19-03-2017;
https://goo.gl/x5P8KP
22 Intervention cycle 2, bass line – short arrastre, bow only, intervention; 19-03-2017;
https://goo.gl/kW7UMa
23 Intervention cycle 2, bass line – long arrastre, bow and left hand; 19-03-2017; https://goo.gl/C0FKKp
24 Intervention cycle 2, bass line - first note marcato, second note short; 19-03-2017;
https://goo.gl/Phl3ob
25 Intervention cycle 2, bass line -final recording; 19-03-2017; https://goo.gl/ExV66g
26 Intervention cycle 3 – reference recording; 04-12-2017; https://goo.gl/BggHcN
27 Wim Warman "Adios Nonino" solo cello piece played on the piano; 04-12-2017;
https://goo.gl/4xdJSf
28 Intervention cycle 3 – intervention 1; 06-12-2017; https://goo.gl/oP2cbw
29 Intervention cycle 3 - intervention 2; 06-12-2017; https://goo.gl/fkLhBf
30 Intervention cycle 3 – intervention 3; 06-12-2017; https://goo.gl/n60OVD
31 Intervention cycle 3 – intervention 4; 06-12-2017; https://goo.gl/c2phfy
32 Intervention cycle 3 – intervention 5; 07-12-2017; https://goo.gl/TFa9JB
33 Intervention cycle 3 – intervention 6; 07-12-2017; https://goo.gl/bb2dM1
34 Intervention cycle 3 – intervention 7; 07-12-2017; https://goo.gl/QD4xZx
35 Intervention cycle 3 – intervention 8; 07-12-2017; https://goo.gl/W6GUsc
36 Intervention cycle 3 – intervention 9; 07-12-2017; https://goo.gl/Gh2p2f
37 Intervention cycle 3 - intervention 10; 07-12-2017; https://goo.gl/NqCq3C
38 Intervention cycle 3 – intervention 11; 07-12-2017; https://goo.gl/3aljDs
39 Intervention cycle 3 - reference recording of "Adios Nonino", full piece; 10-03-2017;
https://goo.gl/Ezhz1o
40 Final recording - research end result; 19-03-2017; https://goo.gl/KFxTBc
41 Reference recording, 20-11-2015 – "El Motivo" by Juan Carlos Cobian; https://goo.gl/pQdTGT
42 "Danzarin", first arrangement; 27-04-2016; https://goo.gl/pQdTGT
43 "Danzarin", final recording; 27-04-2016; https://goo.gl/tBdweo
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44 Tango techniques – how to play chicharra on the cello; 14-04-2017; https://goo.gl/6Hhql0 45 Tango techniques – how to play tambor on the cello; 14-04-2017; https://goo.gl/Yiw9Cc

46 Tango techniques - how to play triple pizzicato on the cello; 14-04-2017; https://goo.gl/L0oVV1

57

47 Tango techniques - how to play walking bass line on the cello 1. Marcato; 14-04-2017; https://goo.gl/XJsOMA

48 Tango techniques - how to play walking bass line on the cello 2. Arrastre; 15-04-2017; https://goo.gl/HnXPlz

49 Tango techniques - how to play walking bass line on the cello 3. Arrastre + glissando; 15-04-2017; https://goo.gl/tZtqit

Appendix 8: network

- **Job ter Haar.** Cellist, my main subject teacher and research coach at Codarts. He helped me numerous times with ideas about execution of tango techniques. I was also consulting him every time I had some results from the experimentation regarding adaptation of tango technique from other instruments.
- Santiago Cimadevilla. Bandoneonist and my research coach. He gave me various valuable ideas about direction of my research and information about tango I would otherwise not find, and providing ideas about experts I could contact for feedback. He also was giving me feedback regarding my performance of tango, which was extremely helpful.
- **Gustavo Beytelmann.** Artistic director of the tango program at Codarts. He gave me many insights about arranging and interpreting tango music, which I found inspiring. He was also the one who inspired me to experiment with adaptation of other instruments' techniques for cello.
- **Jan Willem Troost.** Cellist currently playing with Carel Kraayenhof. He gave me some insights about tango techniques and the way he plays them.
- **Emma Breedveld.** Violinist who played with Carel Kraayenhof. Emma is the leader of Trio Escapada which plays tango repertoire. I am very fond of her playing and her arrangements, so as I was asking her advice both about my arrangements and performing. She helped me to figure out how to play some of the tango techniques on cello.
- Ruzana Tsymbalova. Violin teacher at tango department of Codarts. Ruzana also gave me
 feedback about tango techniques violinists play, and was helping me during the two years
 we had rehearsals at OTRA and TOC together.
- **Kay Sleking.** Guitar teacher at tango department of Codarts, also double bass player. He gave me feedback about double bass techniques.
- Alexander Vocking. Double bass player and former student of the tango department at Codarts. Alexander gave me valuable feedback about double bass technique and its execution both from technical point of view and in tempo.
- **Stephen Meyer.** Former Codarts student, highly skilled classical violinist who also plays in tango ensembles. He gave me feedback about my playing and some tips on executing certain techniques on the cello, and also valuable advice about the musical part of my performance.
- Wim Warman. Pianist, piano and arrangement teacher at Codarts in the Tango department. Wim gave me valuable feedback about my arrangements and many advices on how I can play more groovy. He also recorded the arrangement of my piece so that I could make an intervention on it, which was a source of many insights.

Appendix 9: reference list

Literature:

- 1. Ramiro Gallo (2011). The violin in tango. G. Ricordi & Co. Munich.
- 2. Julián Peralta. La orquesta típica. Mecánica y aplicación de los fundamentos técnicos del tango.
- 3. Santiago Cimadevilla (2010). Improvisation on bandoneon solos in Argentine Tango. How is a bandoneon solo constructed? A study of the solistic language of Astor Piazzolla. Codarts.
- 4. Stephen Meyer (2016). The solo violin in Astor Piazzolla's tango: a comparative study. Codarts.

Recordings:

- 1. https://goo.gl/JggiFh Astor Piazzolla. "Adios Nonino". Version recorded live April 4th, 1981.
- https://goo.gl/vuBJ74 Astor Piazzolla. "Adios Nonino". Piazzolla with Cologne Radio Orchestra
- 3. https://goo.gl/4zkYiE Astor Piazzolla. "Adios Nonino" live in teatro Colón, 11.06.1983
- 4. https://goo.gl/rdBFBI Antonino Agri. "Variaciones sobre Adios Nonino", 1997.
- 5. https://goo.gl/lnaMcz Astor Piazzolla. "Adios Nonino" live in Montreal 1984.
- https://goo.gl/KjRXKG Max Reger-Cello Suite Nº2 in D minor-Praeludium-Pieter Wispelwey, cello.
- 7. https://goo.gl/MeZiMq Astor Piazzolla. "Adios Nonino". Arranged by Jose Bragato. Christine Walevska, cello. Akimi Fukuhara, piano.
- 8. https://goo.gl/ZnVdKz Astor Piazzolla. "Adios Nonino". Anibal Troilo y su orquesta típica, 1966.
- 9. https://goo.gl/n7npb4 Astor Piazzolla. "Kicho". Live at Regina Theatre, 1970.

Websites:

www.todotango.com