A TECHNICAL PREPARATION GUIDE FOR THE DRAGONETTI CONCERTO
IN A MAJOR FOR DOUBLE BASS AND ORCHESTRA

BY ÉDOUARD NANNY

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One of the essential difficulties encountered while preparing a piece for a pre-professional player is defining the piece's technical challenges and doing exercises or etude studies accordingly. Based on this fact, in my thesis, I described the technical challenges of Edouard Nanny’s Dragonetti A Major concerto under the headings and suggested technical studies suitable for these difficulties. The titles represented are string crossing, bow strokes, thumb position and vertical-horizontal approaches, harmonic arpeggios and horizontal playing in harmonics, intonation and shifting, and double stops. In the last step of each heading, I associate these technical studies with an excerpt from a more advanced piece than this concerto in the double bass repertoire. Accordingly, the thesis aims to define a working path for Nanny’s Dragonetti A Major Double Bass Concerto and, at the same time, to be a preliminary preparation for the more technically challenging works of the repertoire.
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Irmak Sabuncu
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES AND FIGURES</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF MUSICAL EXAMPLES</td>
<td>vi</td>
</tr>
<tr>
<td>CHAPTER 1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2. STRING CROSSING</td>
<td>3</td>
</tr>
<tr>
<td>CHAPTER 3. BOW STROKES</td>
<td>7</td>
</tr>
<tr>
<td>3.1  Detaché</td>
<td>7</td>
</tr>
<tr>
<td>3.2  Triplets and Sixteenth Note Bow Strokes</td>
<td>10</td>
</tr>
<tr>
<td>3.3  Bow Variations on Triplets</td>
<td>14</td>
</tr>
<tr>
<td>CHAPTER 4. THUMB POSITION AND VERTICAL-HORIZONTAL APPROACHES</td>
<td>15</td>
</tr>
<tr>
<td>4.1  Thumb Position</td>
<td>15</td>
</tr>
<tr>
<td>4.2  Horizontal and Vertical Approach</td>
<td>19</td>
</tr>
<tr>
<td>4.2.1 Horizontal Approach</td>
<td>19</td>
</tr>
<tr>
<td>4.2.2 Vertical Approach</td>
<td>20</td>
</tr>
<tr>
<td>CHAPTER 5. HARMONIC ARPEGGIOS AND HORIZONTAL PLAYING IN HARMONICS</td>
<td>22</td>
</tr>
<tr>
<td>5.1  Harmonic Arpeggios</td>
<td>23</td>
</tr>
<tr>
<td>5.2  Horizontal Playing in Harmonics</td>
<td>27</td>
</tr>
<tr>
<td>CHAPTER 6. INTONATION AND SHIFTING</td>
<td>31</td>
</tr>
<tr>
<td>CHAPTER 7. DOUBLE STOPS</td>
<td>35</td>
</tr>
<tr>
<td>CHAPTER 8. CONCLUSION</td>
<td>38</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>39</td>
</tr>
</tbody>
</table>
# LIST OF TABLES AND FIGURES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 7.1</td>
<td>Intonation Chart (Tunings in Cents)</td>
<td>36</td>
</tr>
</tbody>
</table>

## Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 3.1</td>
<td>Bozo Paradzik</td>
<td>9</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>String touch depends on length of finger</td>
<td>15</td>
</tr>
<tr>
<td>Figure 4.2</td>
<td>Shoulder and elbow positions</td>
<td>16</td>
</tr>
<tr>
<td>Figure 4.3</td>
<td>Palm and finger lengths affect angle of fingers on the string</td>
<td>16</td>
</tr>
<tr>
<td>Figure 4.4</td>
<td>Exercise to familiarize transition from neck position to thumb position</td>
<td>18</td>
</tr>
<tr>
<td>Figure 5.1</td>
<td>Third finger reaching third note of the arpeggio</td>
<td>24</td>
</tr>
<tr>
<td>Figure 5.2</td>
<td>Second stage hand positionings</td>
<td>26</td>
</tr>
<tr>
<td>Figure 5.3</td>
<td>Bow angle for two-octave arpeggio play</td>
<td>27</td>
</tr>
<tr>
<td>Figure 5.4</td>
<td>Preferred hand position for playing notes in top harmonic register</td>
<td>28</td>
</tr>
<tr>
<td>Figure 5.5</td>
<td>Unrecommended (a) and recommended (b) arm and hand positions for harmonics with string crossing</td>
<td>30</td>
</tr>
<tr>
<td>Example</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Example 2.1</td>
<td>Dragonetti, Concerto in A Major, I, mm. 1–14</td>
<td>3</td>
</tr>
<tr>
<td>Example 2.2</td>
<td>Irmak Sabuncu, Exercise for String Crossing</td>
<td>3</td>
</tr>
<tr>
<td>Example 2.3</td>
<td>Édouard Nanny, <em>Méthode Complète Pour le Contrebasse</em>, 118</td>
<td>4</td>
</tr>
<tr>
<td>Example 2.4</td>
<td>Kurt B. Möchel, <em>Zweck-Etüden für Kontrabass</em>, 10</td>
<td>5</td>
</tr>
<tr>
<td>Example 2.5</td>
<td>Johann Matthias Sperger, Concerto No. 15 in D Major, I, 290–95</td>
<td>6</td>
</tr>
<tr>
<td>Example 3.1</td>
<td>Dragonetti, Concerto in A Major, I, mm. 9-10</td>
<td>8</td>
</tr>
<tr>
<td>Example 3.2</td>
<td>Exercise for Bow Strokes</td>
<td>9</td>
</tr>
<tr>
<td>Example 3.3</td>
<td>Dragonetti, Concerto in A Major, I, mm. 42–45</td>
<td>10</td>
</tr>
<tr>
<td>Example 3.4</td>
<td>Exercise for Detaché</td>
<td>10</td>
</tr>
<tr>
<td>Example 3.5</td>
<td>Exercise for Triplets and Sixteenth Note Bow Strokes</td>
<td>11</td>
</tr>
<tr>
<td>Example 3.6</td>
<td>Exercise for Triplets and Sixteenth Note Bow Strokes</td>
<td>11</td>
</tr>
<tr>
<td>Example 3.7</td>
<td>Exercise for Triplets and Sixteenth Note Bow Strokes</td>
<td>12</td>
</tr>
<tr>
<td>Example 3.8</td>
<td>Kurt B. Möchel, <em>Zweck-Etüden für Kontrabass</em>, 8,9</td>
<td>13</td>
</tr>
<tr>
<td>Example 3.9</td>
<td>Nino Rota, Divertimento Concertante, Marcia, 7-8</td>
<td>13</td>
</tr>
<tr>
<td>Example 3.10</td>
<td>Dragonetti Concerto in A Major, I, mm. 96–97</td>
<td>14</td>
</tr>
<tr>
<td>Example 3.11</td>
<td>Exercise for Bow Variations on Triplets</td>
<td>14</td>
</tr>
<tr>
<td>Example 4.1</td>
<td>Dragonetti, Concerto in A Major, I, mm. 65–72</td>
<td>17</td>
</tr>
<tr>
<td>Example 4.2</td>
<td>Exercise for Thumb Position, Whole Note Range</td>
<td>18</td>
</tr>
<tr>
<td>Example 4.3</td>
<td>Exercise for Thumb Position, Mixolydian Scale on Note A</td>
<td>19</td>
</tr>
<tr>
<td>Example 4.4</td>
<td>Exercise for Thumb Position, Horizontal Approach, Inspired by Bradetich “Thumb Drill” Exercise</td>
<td>19</td>
</tr>
<tr>
<td>Example 4.5</td>
<td>Exercise for Thumb Position, C Major and G Major Scales</td>
<td>20</td>
</tr>
<tr>
<td>Example 4.6</td>
<td>Exercise for Thumb Position, Vertical Approach</td>
<td>20</td>
</tr>
</tbody>
</table>
Example 4.7: Exercise for Thumb Position, Vertical Approach, Inspired by Kreutzer Fiorillo
Exercise Book ............................................................................................................................... 21
Example 4.8: Johann Matthias Sperger, Concerto No. 15 in D Major, I, 111–115 ...................... 21
Example 5.1: Dragonetti, Concerto in A Major, I, mm. 108–115 ................................................ 22
Example 5.2: Harmonic Arpeggios ............................................................................................... 23
Example 5.3: Exercise for Harmonic Arpeggios ......................................................................... 24
Example 5.4: Harmonic Arpeggios with Positions Identified ...................................................... 25
Example 5.5: Exercise for Harmonic Arpeggios Transitions ....................................................... 26
Example 5.6: Exercise for Harmonic Arpeggios, First and Fifth Degrees of Two-Octave
Arpeggios ...................................................................................................................................... 26
Example 5.7: Exercise for All Two-Octave Harmonic Arpeggios ............................................... 27
Example 5.8: Dragonetti, Concerto in A Major, 2, mm. 53–60 ................................................... 27
Example 5.9: Exercise for Playing Notes in Top Harmonic Register .......................................... 28
Example 5.10: Exercise for Horizontal Study without String Crossing ....................................... 29
Example 5.11: Exercise for Horizontal Study with String Crossing ............................................ 30
Example 5.12: Exercise for Horizontal Playing, D Mixolydian Scale ......................................... 30
Example 5.13: Giovanni Bottesini Melody in E Minor mm 89-94 .............................................. 30
Example 6.1: Dragonetti, Concerto in A Major, 1, mm. 73–75 ...................................................... 31
Example 6.2: Dragonetti, Concerto in A Major, 1, mm. 73 ......................................................... 33
Example 6.3: Exercise for Intonation and Shifting ....................................................................... 32
Example 6.4: Dragonetti, Concerto in A Major, 1, mm. 1-13 ...................................................... 33
Example 6.5: Exercise for Intonation and Shifting, Single Finger on G String ......................... 34
Example 6.6: Exercise for Intonation and Shifting, Inspired by Bradetich Shifting Drill .......... 34
Example 7.1: Exercise for Double Stops, Scale of Fifths in C Lydian ......................................... 35
Example 7.2: Exercise for Double Stops, Practicing Lower and Upper Dynamic Limits .......... 36
Example 7.3: Exercise for Double Stops, Contributing to Continuity ....................................... 37
Example 7.4: Heinz Karl Gruber Cadenza for K.D. von Dittersdorf E Major Concerto............. 37
The purpose of this dissertation is to serve as a pedagogical method for the preparation and performance of the Dragonetti Concerto in A Major for Double Bass and Orchestra. It is widely accepted as an important milestone towards professional double-bass playing. The Concerto in A Major published under the name of Dragonetti was in fact written by the French double-bassist Édouard Nanny (1872–1942). The concerto, first published by Alphonse Leduc in 1925, is similar to the works of Nanny in compositional style and technical demands. While the technical demands of the third movement are much less severe, in this context the first and second movement of the Dragonetti Concerto in A Major are good examples to describe the main technical sources of difficulty.

One of the biggest challenges I faced during my teaching experiences was to choose exercises and etudes for my students as a pedagogical path to prepare for the study of any piece. Often, the most significant miscalculation that double bass students make during this or any piece is to begin the work directly without appropriate preparatory material. They cannot achieve the desired result by just repeatedly practicing the piece. Even if it is a preliminary study for the work, the way of practicing the existing study (etude, exercise, etc.) may be far from providing sufficient benefit. The main reason for this is that the player cannot perform the exercise or etude efficiently if unable to precisely define the technical problem. Therefore, in this thesis, the technical problems

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1 Jeff Bradetich, University of North Texas, interview with the author, 20 November 2020.
of the concerto are discussed under headings and defined, and exercises are listed from simple to complex.

The goal of this project is to offer a pedagogical pathway through technical exercises and etudes that will provide the maximum benefit for the preparation and performance of the Dragonetti Concerto in A Major as well as more advanced repertoire beyond this specific work. The problems and suggestions I put forward in this thesis are based on my teaching experiences at The Mersin University State Conservatory in Turkey and the University of North Texas, as well as my observations on the pedagogical approaches of Professor Duncan McTier, Professor Bozo Paradzik, and Professor Jeff Bradetich with whom I have had a privilege to study with.
CHAPTER 2
STRING CROSSING

String crossing is defined as moving the bow between two strings—in this example, two adjacent strings. This technique is employed most prominently between the G and D strings in mm. 13–14 of the opening of the concerto (see Ex. 2.1).

Example 2.1: Dragonetti, Concerto in A Major, I, mm. 1–14

The technical difficulty for the student is that the up- and downbow action is not applied on the same string but alternates between two strings, requiring harmonious right-arm movement in addition to the finger and wrist movement for that hand. However, it is common that bow transition is done only with the arm and causes a contraction of the right arm in a short time depending on the length of the passage. Accordingly, the exercises listed under this title are intended for the player to make the string crossing with the correct movement and to discover which muscles are used during this movement. The simple exercises given in Example 2.2 are designed to work on the up- and downbow motion between the G and D strings, “engraving” it in the muscle memory. During this exercise, the bow should not be lifted from the string.

Example 2.2: Irmak Sabuncu, Exercise for String Crossing
After this exercise has been mastered, the next step is to work on a study from Nanny’s method book (see Ex. 2.3). In this group of exercises, string crossings are in groups of sixteenth notes between the G and D strings, requiring and improving the flexibility of the right wrist and right-hand fingers. For this and the following exercise to be more efficient, it is recommended to do the same exercise on the bow’s tip, middle, and frog. It requires greater application of the right-hand fingers and wrist movement, especially when applied on the tip.

Thus, the player would feel and be more conscious of which muscles of the arm and wrist are active. The same motion on the D–A and A–E strings will enable the student to master string crossing between the thicker E and A strings.

**Example 2.3: Édouard Nanny, *Méthode Complète Pour le Contrebasse*, 118**

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Example 2.4, taken from studies by Kurt Möchel, is recommended as a final step. The purpose is to reinforce the movement of transition between the two strings already enhanced by the previous studies.

Example 2.4: Kurt B. Möchel, Zweck-Etüden für Kontrabass, 10

Example 2.5 is an excerpt from the first movement of Johann Matthias Sperger’s Concerto No. 15 in D major.

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5 Johann Matthias Sperger, Konzert D-Dur Nr.15 für Kontrabass und Orchester. Arranged for double bass and piano by Michinori Bunya. Leipzig: Friedrich Hofmeister Musikverlag, 1999
Example 2.5: Johann Matthias Sperger, Concerto No. 15 in D Major, I, 290–95

This example contains problems similar to but slightly more complex than the opening solo part of the first movement of the Dragonetti Concerto. The technical difficulties of this example can be resolved using the studies proposed in previous examples. Due to the solo tuning scordatura, the key of the piece is D major, but the solo part is notated in C major.
CHAPTER 3

BOW STROKES

3.1 Detaché

Detaché is one of the most basic right-hand techniques. A well-developed detaché technique serves as a foundation for more advanced bowing techniques. As Bachmann defined, the term detaché simply means “separated,” and it can be applied to any notes not linked by a slur.6

A common problem of detaché technique is the incorrect angle between the bow and the bridge while executing horizontal bow-strokes. Besides the importance of the bow angle (the linear motion of the bow parallel to the bridge), additional technical elements have a determining effect on sonority, such as bow placement (the contact point of the bow between the fingerboard and the bridge), speed (the speed of the bow’s linear movement), applied force (the applying vertical strength of the right hand to the bow), and proportion (the amount of bow strokes according to the tempo). In addition to the basic criteria mentioned above, it is necessary to be aware that the frequency of the string’s vibration determines the pitch, and the vibration amplitude of the string determines the dynamic of the sound produced. With this awareness, the amount of applied strength necessary in the right hand can be determined. In support of these five basic points, an exercise may be recommended to play open strings as close to the bridge as possible. This exercise, inspired by exercises in P. Tortellier’s cello method book How I Play How I Teach7 and by M. Eisenberg’s drills in Cello Playing of Today,8 will contribute to the mastering of the speed, strength, and bow angle required for the maximum vibration of the string. An important detail is

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7 Paul Tortellier, How I Play How I Teach (London: Chester Music, 1988), 38

8 Maurice Eisenberg, Cello Playing of Today (Great Britten: Lavender Publications, 1966), 26
that the bow change should be executed at the tip and to the frog. Thus, control throughout the whole length of the bow will be engraved into the muscle memory. It is also essential to provide a smooth sound and unbroken flow of the bow by using the fingers of the right hand on the bow changes as effectively as possible.

**Example 3.1: Dragonetti, Concerto in A Major, I, mm. 9-10**

In Example 3.1 there is the solo opening theme of the second movement of the Dragonetti Concerto. Although it may seem simple with its slow tempo and quarter detaché passages, it can often be problematic in terms of musical expression. The reason for this is the necessity of crescendo-decrescendo dynamics, which is not included in the music writing besides the sonority requirements mentioned above. Example 3.2 is a tailored preliminary exercise for this and similar passages. Note the tempo of the exercise must be slower than the original tempo of the second movement of the concerto. Points to be considered during the execution of Example 3.2:

- In order to achieve the desired crescendo, increase the usage of bow proportion. Point the bow tip down to ensure it gets closer to the bridge gradually with each bow stroke
- Lastly, pre-professional players usually apply excessive strength and ignore the use of speed in order to achieve the desired crescendo. This mistake should be avoided.

In accordance with what each student has learned from his teacher and based on his own body structure, in time he adopts a touch to the instrument and technique of playing. In this context, the technique I have adopted comes from the Bohemian tradition I experienced during my years working with Professor Bozo Paradzik (see Fig. 3.1).

In this technique recommended for the German grip, the right arm is bent at the elbow while the right wrist provides maximum contact of the bow hair to the string. This posture allows
optimum use of the shoulder, right elbow, and wrist joints.  

**Example 3.2: Exercise for Bow Strokes**

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\[ \text{Example 3.2: Exercise for Bow Strokes} \]
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* Each piano stroke must start at the middle of the bow

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Based on the technical factors above, the first movement of the Dragonetti Concerto passage is given in Example 3.3, which contains alternating groups of slurred and detached sixteenth notes. The basic principle is to create the most awareness and skill with as simple exercises as possible. For this reason, the player should only focus on the least number of problematic elements at a time.

**Example 3.3: Dragonetti, Concerto in A Major, I, mm. 42–45**

In this context, a simple preparatory exercise has been created for the problematics of the Dragonetti Concerto passage (Ex. 3.3). On the first note A of m. 43 (Ex. 3.4), bow variations of the concerto's relevant measures will be applied. The main point in this process is to place the bow in the right place and practice the application of proportion and strength at the optimum rate. In this way, the player will have mastered bow angle requirements, bow placement, speed, strength, and proportion, by focusing only on the right hand without thinking of the left hand.

**Example 3.4: Exercise for Detaché**

3.2 Triplets and Sixteenth Note Bow Strokes

The main difficulty of playing triplets is that the beat is divided into subdivisions of three, instead of two. The first note of each groups of triplets will fall on a different bow-stroke, the first group with upbow and the second with downbow. This may pose difficulties for the muscle memory of the player. The simple exercise below on the note A is recommended as the first-step exercise for the triplets in the concerto.

The principle of playing the two-slurred, one-separate triplet figure in the concerto is to play the third note off the string at the frog. In this context, as a pre-workout, Example 3.5 is
recommended to play the A close to the frog and only by an upbow.

Example 3.5: Exercise for Triplets and Sixteenth Note Bow Strokes

![Example 3.5](image)

The left hand can also be added in terms of step-by-step development. As the second step, the derivative of the tune called "Max’s Magic" from one of the J. Bradetich technical exercises\(^\text{10}\) is suggested in Example 3.6. This exercise will not only help the development of the triplet bow stroke and its variations, but also contribute to the development of right- and left-hand coordination. An important issue to be considered in terms of the left hand is the complimentary movement of the left wrist in accordance with the fingers. For example, while pressing the fourth finger after the index finger, moving the wrist downward to support the finger gesture. In this way, the left-hand finger movements are supported by the left wrist's movement, making the left hand more fluent.

Example 3.6: Exercise for Triplets and Sixteenth Note Bow Strokes

![Example 3.6](image)

After the above exercises are applied, the next step will be to incorporate the relevant note of the left hand into the process. Noting that the key of the work is G major, Example 3.7 will provide overall intonational benefits for the concerto in general. In terms of internalizing the scale, it is more efficient to work on each octave individually, rather than starting directly with two octaves. It should also be kept in mind that there is a natural decrescendo when playing an

\(^{10}\) Jeff Bradetich, The Ultimate Challenge (USA Idaho: Music for All to Hear, 2009)
ascending scale from the low register to the high register, if the bow proportion remains stagnant. Thus, ascending scales should be performed by increasing the bow proportion gradually.

Example 3.7: Exercise for Triplets and Sixteenth Note Bow Strokes

These four recommended exercises aim to assist in mastering the mechanics of the triplet and sixteenth note bow strokes. Example 3.8, taken from the studies by Kurt Möchel,\textsuperscript{11} is recommended as a final step. If this study is applied with variations, it serves as a complementary right-hand exercise.

Example 3.9 is a section of “Marcia” in Nino Rota’s “Divertimento Concertante,”\textsuperscript{12} 13 measures located between numbers 7-8.\textsuperscript{12} The recommended exercises and etudes are also beneficial for this section of this advanced level piece.

\footnotesize
\begin{itemize}
\item \textsuperscript{11} Kurt B. Möchel, \textit{Zweck-Etüden für Kontrabass = Etudes Pratiques Pour la Contrebasse = Special Studies for Double Bass} (Mainz: B. Schott’s Söhne, 1931), 8,9.
\item \textsuperscript{12} Nino Rota, \textit{Divertimento Concertante}, Milano: Carisch, 1973
\end{itemize}
Example 3.8: Kurt B. Möchel, *Zweck-Etüden für Kontrabass*, 8,9

Example 3.9: Nino Rota, *Divertimento Concertante*, Marcia, 7-8
3.3 Bow Variations on Triplets

In the mm. 96 and 97 of the 1. movement, there is a relatively different bow variation from the general texture. The main difference here is that the slur has hooked from the second note of the triplet to the next group's first note instead of the first note of the triplet to the third note of the same group. This is exemplified in Example 3.10 by the first and second beats of measure 96.

Example 3.10: Dragonetti Concerto in A Major, I, mm. 96–97

This difference causes a perception of rhythmical irregularity. The common mistake is to focus on the left hand, not the right, when these two measures or similar passages in the literature are encountered. The following segment, Example 3.11, is an exercise on this topic.

Example 3.11: Exercise for Bow Variations on Triplets
CHAPTER 4
THUMB POSITION AND VERTICAL-HORIZONTAL APPROACHES

4.1 Thumb Position

Having a correct left-hand thumb position is important not only for the Dragonetti Concerto in A Major, but for more advanced pieces from the repertoire as well. Failure to place the left hand at the right angle on the string and the difficulty of using the thumb as a support are among the most common problems. In addition to these, finger length and palm size can be determining factors for thumb position. To illustrate, the point where the thumb touches the string in thumb position (above the first joint of the thumb, from the first joint to the palm, or from the first joint to the fingertip) may depend on the length of the finger (Fig. 4.1). Furthermore, depending on the point where the thumb presses down the string, the reaching range of the third finger is affected.

(a) (b)

Figure 4.1: String touch depends on length of finger.

In addition to the issues mentioned above, the left shoulder and elbow positions may also be determinants for the thumb position. In this context, as the left hand moves away from the shoulder, the transmitted natural weight of the left arm at the fingertips decreases. In order to compensate for the lost weight of the opened arm, student-level players commonly make the mistake of raising the left shoulder and lifting the left elbow. To avoid this error, the left shoulder should stay in a low and relaxed position and the left wrist should be kept flat, as seen in the
differences between Figures 4.2 (a) and (b).

![Incorrect](image1) ![Correct](image2)

**Figure 4.2: Shoulder and elbow positions**

Palm and finger lengths also affect the angle of the fingers on the string. It is ideal for the fingers to press the string at a **perpendicular** angle to the fingerboard in a healthy thumb position [Fig. 4.3(a)]. However, players with long fingers tend to bend their index finger inward [Fig. 4.3(b)]. Due to this limited hand position, it may be difficult to press with the finger's fleshy part when bending it in. In the opposite case, the player presses by flattening and extending his fingers horizontally [Fig. 4.3(c)]. As the fingers' force cannot be used optimally, it may cause the left hand to contract.

![Incorrect](image3) ![Correct](image4) ![Correct](image5)

**Figure 4.3: Palm and finger lengths affect angle of fingers on the string.**

These problems, which can be experienced in the left-hand thumb position, may prevent the left hand's healthy movement and lead to right- and left-hand coordination issues. For this
reason, the player needs to acquire a functional and efficient thumb position, by considering his own physical characteristics (such as finger length, palm size, or arm length).

The Dragonetti Concerto includes multiple thumb position passages. Below is an excerpt from the first movement between measures 65-72, where this technique is extensively present (Ex. 4.1). It is useful to think of the thumb position as a natural continuation of the neck position to resolve the difficulties mentioned above related to the thumb position.

Example 4.1: Dragonetti, Concerto in A Major, I, mm. 65–72

The following exercise (demonstrated in Fig. 4.4) serves as an aid to familiarize the transition from the neck positions to the thumb position: on the G string, press the note D with the first finger and shift toward the note A in thumb position. While shifting with the first finger, keep the thumb underneath the neck as the first finger passes over the note E [Fig. 4.4(a)]. As the first finger passes over the note G [Fig. 4.4(b)] the thumb moves alongside the fingerboard as it prepares to support the first finger reaching the high A [Fig. 4.4(c)]. The purpose of this left-hand movement is to internalize that the thumb is a support finger in the thumb position and the neck position. While the first finger is on the note A, the point of contact for the thumb with the string should be placed according to what is outlined in Figure 4.1 of the thumb positioning according to finger length.
After taking into account these guidelines about hand position, it is preferable to play the whole note range with first and third or first and second fingers, depending on their length. More specifically, on the G string, as the thumb and first finger A and the third finger B, or the thumb and first finger A and the second finger B (Ex. 4.2). This preference can be made according to the tension created by stretching between the first and second fingers, depending on the finger length and the size of the palm of the left hand.

Example 4.2: Exercise for Thumb Position, Whole Note Range

However, the suggested fingering in this thesis is thumb with first and third fingers. This way, there will be a half note between the first, second, and third fingers. Therefore, as the tension decreases, the fact that the fingers are not opened too much will positively contribute to the intonation. In the exercise supporting the thumb position (Ex. 4.3), there is an example of a Mixolydian scale on the note A. While executing this scale, it is recommended to turn the left forearm in the direction of finger movement while pressing with the thumb, first, and third fingers. If extra strength is needed to press the third finger down, it is recommended to press the second
finger down along with the third finger, as if they were a single unit. In this way, the third finger will gain more strength on the string, especially in 1-3, 1-3 type vertical scales.

Example 4.3: Exercise for Thumb Position, Mixolydian Scale on Note A

4.2 Horizontal and Vertical Approach

4.2.1 Horizontal Approach

One of the main challenges for the pre-professional level player is the choice of an adequate fingering. In this context, if we define the scale patterns as horizontal and vertical on the instrument, it can benefit the fingering possibilities for the player. However, due to the fingerboard's curved shape, the passages played horizontally and in the same position may be misleading in terms of intonation. Based on the facts stated above for the thumb position, Ex. 20 is inspired by Jeff Bradetich's "thumb drill" exercise, recommended for the three basic finger combinations of the horizontal thumb position. It is recommended to think of the thumb as the home base and to lead to the string crossing motion.

Example 4.4: Exercise for Thumb Position, Horizontal Approach, Inspired by Bradetich “Thumb Drill” Exercise

In the next exercise (Ex. 4.5) there is a C major and a G major thumb position scale. The same fingering is used on both scales of the study. The point to be considered is to adapt to the hand position size in the register where the G Major scale is located.
Example 4.5: Exercise for Thumb Position, C Major and G Major Scales

4.2.2 Vertical Approach

Just like the horizontal approach, there are applicable finger combinations for the vertical approach. In Example 4.6, there are possibilities for one octave G major scale in the thumb position and one in the neck position.

Example 4.6: Exercise for Thumb Position, Vertical Approach

Example 4.7, inspired by the Kreutzer Fiorillo exercise book, serves as further application of these scale fingering pattern examples.\(^\text{13}\) It is a useful drill for mastering the scale-like patterns also present in the Dragonetti Concerto.

The suggested exercises can function as the basis for many other works in the repertoire. The section in Example 4.8 is taken from the first movement of J.M. Sperger's 15th Concerto.\(^\text{14}\) The proposed studies can also be a preliminary exercises for this excerpt.

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Example 4.7: Exercise for Thumb Position, Vertical Approach, Inspired by Kreutzer Fiorillo
Exercise Book

Example 4.8: Johann Matthias Sperger, Concerto No. 15 in D Major, I, 111–115
CHAPTER 5

HARMONIC ARPEGGIOS AND HORIZONTAL PLAYING IN HARMONICS

As indicated in the introduction, the Concerto in A Major published under the name of Dragonetti was in fact written by the French double-bassist Édouard Nanny (1872–1942). The structure of the concerto was mainly designed as a good work for the technical difficulty mentioned in this or similar titles. The structure of the concerto can be understood better when we have a closer look at the two double bass methods of Édouard Nanny. Therefore, the Dragonetti Concerto in A Major has an educational structure in terms of the technique of playing the naturally occurring harmonics in double bass literature. From this point of view, as a challenge for pre-professional level players, it also has the preliminary study feature for a more advanced repertoire in terms of harmonic arpeggios and harmonic scale performance. Below is the sample from the Concerto regarding this heading (Ex. 5.1).

Example 5.1: Dragonetti, Concerto in A Major, I, mm. 108–115

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In this section, it is more beneficial to consider the harmonic performance as two separate work titles: harmonic arpeggios and horizontal playing in harmonics.

5.1 Harmonic Arpeggios

The harmonic arpeggio is a two-octave arpeggio performed from the thumb’s first position on the G or D strings (rarely on the A string). Consequently, from low to high register, all other notes are harmonics except the second note of the first arpeggio (B on the G string or F# on the D string). In the performance of the first arpeggio, the note B is usually played with the first finger. However, playing the B with the first finger is often problematic. This problem can generally arise from two difficulties. The first of these is that the appropriate hand position for the first three notes of the arpeggio is difficult for the performer. The second is the first finger that hits the B should be lifted off the string to perform the D harmonic after the B. (If on the G string, (Ex.26)

Example 5.2: Harmonic Arpeggios

![Example](https://example.com/example5.2.png)

In view of these difficulties, some of the guidelines suggested for the hand position in Section 4.1, Thumb Position, can be applied here as well. The first of these is to play with the left hand and shoulder distance as short as possible without raising the left shoulder and keeping the left wrist flat, as shared in Figure 4.2. This way, the player will prevent left-hand contraction and can use the arm weight more efficiently. However, the situation of avoiding the inward bending of the finger shown in Figure 4.3 is the opposite here. It is recommended that the first finger is tilted in and pressed with the tip. This way, the third finger can reach the third note of the arpeggio more
easily, as illustrated in Figure 5.1. Another point that should be taken into consideration is that the movement of the left hand is supported by turning the left-hand movement in the direction of movement of the left wrist (toward the third finger), as stated under the previous two headings. Thus, the activity in the left hand will not only be the finger movement, but also the whole hand movement will provide speed and convenience to the player.

![Figure 5.1: Third finger reaching third note of the arpeggio.](image)

Example 5.3 is designed for showcasing the difficulty of playing B with first finger and the principles of hand position mentioned above. It would be more beneficial to study descending from D to B rather than working from the bottom G to B.

![Example 5.3: Exercise for Harmonic Arpeggios](image)
After briefly mentioning the performance of the first position of the arpeggio above (the first three notes), there are some basic propositions about the second position as well. Since the arpeggio's second position covers the double bass's highest register notes, it is also important to use the arm weight efficiently without raising the left shoulder, as mentioned above. Also, since all notes are harmonics in this register, only a single finger should touch the string when playing a note. The fingerings of this and the arpeggio notes in the first position can be observed in Example 5.4. It is suggested to study these two positions separately as the first step. This way, the player will focus on the exercise of these two positions separately without considering the transition between them and will be more easily adopted by the muscle memory. While working separately in both positions, the basic principles mentioned under the “Detaché” heading (basic rules, speed, strength, proportion, bow angle, and placement) should be taken into account. As with the discussions in the Detaché segment, the basic principle here is to clarify the learning process by focusing on as few points as possible in each exercise.

Example 5.4: Harmonic Arpeggios with Positions Identified

The next step after the internalization of these two basic positions will be the transition between them. This transition can be studied in two stages. The first step is to practice the first note of the first arpeggio and second arpeggio using just the thumb (Ex. 5.5). In this way, the player will commit the distance between two notes (G to G and D to D) to muscle memory. The second stage is hand movement, with hand positionings shown in Figure 5.2. Example 5.6 contains the
first and fifth degrees of the two-octave arpeggios. With this exercise, hand positions of each octave and the third finger's transition to the thumb will be mastered.

Example 5.5: Exercise for Harmonic Arpeggios Transitions

![Example 5.5](image)

Example 5.6: Exercise for Harmonic Arpeggios, First and Fifth Degrees of Two-Octave Arpeggios

![Example 5.6](image)

The last step will be to study all two-octave arpeggios (Ex. 5.6) in the method of the above suggestions. However, one of the important points to be considered is the bow angle, which is crucial for obtaining correct bow placement during the two-octave arpeggio play. If the bow's tip is facing downward, the bow will veer toward the bridge. If it is facing upward, the bow will veer toward the fingerboard. These phenomena are illustrated in Figure 5.3.
Example 5.7: Exercise for All Two-Octave Harmonic Arpeggios

\[ \text{Example 5.7: Exercise for All Two-Octave Harmonic Arpeggios} \]

\[ \text{Figure 5.3: Bow angle for two-octave arpeggio play} \]

5.2 Horizontal Playing in Harmonics

Whistle-like passages at the top harmonic register are frequently encountered, for example in the works of Giovanni Bottesini. The relevant passages of the Dragonetti Concerto and the exercises in this section will be preliminary preparations for further advanced repertoire. Example 5.8 presents the measures of the Concerto that are pertinent to horizontal playing in harmonics.

Example 5.8: Dragonetti, Concerto in A Major, 2, mm. 53–60
Common mistakes in passages performed horizontally (i.e., staying within the same position) in the harmonic register are as follows:

- The bow might not be parallel to the bridge (bow angle)
- The bow position might not be close enough to the bridge (bow placement)
- The left-hand position might not be stable, and therefore, problems often occur during string crossing

An unstable left-hand position is often caused by not knowing which notes are where in this register. This may cause even simple passages with a few notes to be perceived as difficult. To illustrate this challenge, Example 5.9 includes notes in the top harmonic register and Figure 5.4 displays the preferred hand position.

**Example 5.9: Exercise for Playing Notes in Top Harmonic Register**

![Example 5.9](image)

**Figure 5.4: Preferred hand position for playing notes in top harmonic register**

Example 5.10 is the harmonic study without string crossing. The points to be considered in this and the following exercises are that the bow should be close and parallel to the bridge, and that the bow's hair half touches the string rather than fully.
Example 5.10: Exercise for Horizontal Study without String Crossing

Example 5.11 sets up the second step as a harmonics study with string crossing. The point to be considered in this exercise is to protect the hand position by not lifting the fingers from the string in the repeating notes. Although it depends on the hand's size, the problem that is frequently encountered is the transition between the D note on the G string and the C note on the D string. In order to facilitate this transition and maintain the hand position, it is useful to hold the hand position as perpendicular as possible. It will also be helpful to keep the left shoulder and hand distance as close as possible, as stated previously. To illustrate, Figure 5.5 shows the unrecommended (a) and recommended (b) arm and hand position.
Figure 5.5: Unrecommended (a) and recommended (b) arm and hand positions for harmonics with string crossing.

Example 5.11: Exercise for Horizontal Study with String Crossing

For the last step, Example 5.12 provides a D mixolydian scale exercise consisting of notes in the same position.

Example 5.12: Exercise for Horizontal Playing, D Mixolydian Scale

Example 5.13 is a section from G. Bottesini’s Melody in E Minor. The suggestions and exercises above are also pre-working for this or similar passages.

Example 5.13: Giovanni Bottesini Melody in E Minor mm 89-94

CHAPTER 6
INTONATION AND SHIFTING

Intonation can often be problematic for the beginner or professional level performer. However, the intonation problems' source may vary depending on the player's level and perception. For the beginner or pre-professional level player, reducing the intonation to muscle memory only, lack of self-hearing, or most importantly, not knowing what to hear are common problems. The principles mentioned in this document with hand position also contribute positively to intonation. This is because these principles also aim to predict and sustain the player's right- and left-hand mechanics. However, there are many problem and solution approaches regarding the ability to obtain accurate intonation. The issues to be addressed for the performance of the Dragonetti Concerto are as follows:

- Hand position problems
- Problems caused by not listening during the practice or performance
- Not being sure of the correct intonation

Example 6.1 provides the measures of the first movement of the Dragonetti Concerto that are relevant to intonation and shifting.

Example 6.1: Dragonetti, Concerto in A Major, 1, mm. 73–75

The principles stated throughout this document regarding the hand position aim to serve not only the fluency and expression of the player's performance but also intonation. Problems can be experienced in the hand position by incorrect execution of the whole note-half note difference in thumb position. This is directly related to good hand position and listening to what is played.
The left hand should be as perpendicular as possible to the fingerboard at the neck and thumb position. This will provide the possibility to press the string with the same point of the fingertip.

A common mistake is to think of high notes as difficult and focus on them without paying attention to the low register notes. Most notes are played with reference to the next one, especially for string instruments. The passage below is an example of the common mistake to focus directly on the high register notes, B and C (Ex. 6.2 marked in blue), without paying attention to the intonation of the first notes of the passage, E and B (Ex. 39 marked in red).

Example 6.2: Dragonetti, Concerto in A Major, 1, mm. 73

As a result, the notes of E and B, which are played without any attention in terms of intonation, even if unnoticed, will be a reference to the notes to follow. Since G (the second note of the first triplet in the passage) is harmonic, the intonation of the previous notes will make the error even more noticeable. Example 6.3 is designed as a study for this passage to combat the lack of attention to intonation and assist in accurate shifting.

Example 6.3: Exercise for Intonation and Shifting

The aim of Example 6.3 is to study each note in the same bow without the original passage's rhythmic structure. The purpose of the staccato proposal within the same bow is to perform each note individually and be more aware of the intonation. The exercise is structured so that each note
played is accurate and serves as a reference for playing the next note correctly. It will also help obtain the optimal proportion for each note by performing them as staccato in the same bow.

Another problem that often occurs is not being sure of the right intonation, especially in the high register notes. For example, the first three notes G, B, D in the opening of the first movement of the Dragonetti Concerto can often be problematic in intonation (Ex. 6.4).

**Example 6.4: Dragonetti, Concerto in A Major, 1, mm. 1-13**

The common mistake when playing Example 6.4 is to try to perform these three notes with only muscle memory. To ensure the desired shifting, it is useful to have the notes' accurate intonation in the player's mind in advance instead of playing the notes only from muscle memory. For this reason, it is helpful to play this passage, namely these three notes, a few times, one octave below using the open string. In this way, the player will have a reference in his mind for the notes he will play. Even though it is not included in this concerto, passages in many low registers may also be problematic for intonation. For this, the suggestion is to perform the same passage one octave above several times. The arpeggio in Example 6.4 is also often challenging for the pre-professional player in terms of shifting. Taking the notes G and B as an example, the note G is the departure point, and the note B is the arrival point. Generally, the practicing method shifting from G to B is often encountered. However, shifting between departure point and arrival point without being sure of the arrival point is useless. Therefore, it is more beneficial for the player's muscle memory to perform the note B several times and then practice transitioning from B to G.

Finally, it is useful to list a few suggestions for practicing the G major scale in order to benefit the whole concerto. The first is to play the G major scale by using only a single finger on
the G string (Ex. 6.5). This way, the player will better internalize the notes’ distances on the fingerboard.

**Example 6.5: Exercise for Intonation and Shifting, Single Finger on G String**

![Example 6.5: Exercise for Intonation and Shifting, Single Finger on G String](image)

The next step aims to support shifting ability by centering the note G. This exercise is inspired by the "shifting drill" from J. Bradetich's technical exercises, such as in Example 6.6.

**Example 6.6: Exercise for Intonation and Shifting, Inspired by Bradetich Shifting Drill**

![Example 6.6: Exercise for Intonation and Shifting, Inspired by Bradetich Shifting Drill](image)

It is recommended to keep the eyes closed when performing Examples 6.5 and 6.6 or any other exercise intended for intonation. As a result, it will be possible to focus directly on the hearing.
CHAPTER 7

DOUBLE STOPS

Regardless of the interval, some elements can be problematic about double stops in general. Some of the general challenging aspects are to ensure that the two strings vibrate simultaneously, provide equal dynamics for the two strings played concurrently, and finally, the intonation. As the interval to the double stops performed increases (such as sixth and octave), the bow placement for two strings will differ, so there may be trouble for the right hand. The reason for this is that the bow placement and its speed can also impact the intonation. However, since the Dragonetti Concerto does not require this particular challenge, the related exercises will not be mentioned.

The trouble with the two strings vibrating at the same time is often the fact that the player has a limited experience with this technical demand. In order to gain the experience of playing two strings at the same time, it is not efficient to approach directly as a double-note playing regardless of the range. At this point, it is useful to play both notes separately and then combine them. Example 7.1 includes an exercise for scale of fifths in C Lydian. The aim of this exercise is to be a study for intonation and playing two notes at the same time.

Example 7.1: Exercise for Double Stops, Scale of Fifths in C Lydian

Applying a similar amount of strength to both strings and playing these notes at equal volume (especially the piano) can often be problematic. To assist, Example 7.2 is proposed as a study. According to this study, the notes are performed separately with crescendo and decrescendo,

18 Jeff Bradetich, Double Bass the Ultimate Challenge. (Denton, TX: Music for All to Hear, 2009), 83
so the lower and upper dynamic limits are practiced. It is then played together.

Example 7.2: Exercise for Double Stops, Practicing Lower and Upper Dynamic Limits

Finally, it is useful to mention the major third and minor third intonation. Major or minor third notes will not provide the desired crystal-clear double stops third intonation when the separate notes are individually in tune. An explanation for this is contained in J. Bradetich's book *Ultimate Challenge* as follows: 19

The chromatic tuner is an equal-tempered tuning device that does not necessarily function properly in a well-tempered or pure-tuning world. This is especially apparent on Major and minor 3rds. A musical step is divided into 100 subdivisions called cents. Each cent is 1/100th of a semitone (1/2 step). In the following chart [see Table 7.1] the minor 3rd (three half steps) is 300 cents, the Major 3rd 400 cents and the octave is 1200, etc. If an A is sounded with a M3rd must be played 14 cents (or 14%) lower to be perfectly in tune. When Playing M3rd double stops or passage work, it is vital for the top note to be played slightly lower…The opposite is true of the minor 3rd. According to the chart, the m3rd must be played 16 cents sharp in order to sound in tune…

Table 7.1: Intonation Chart (Tunings in Cents) 20

<table>
<thead>
<tr>
<th>Interval</th>
<th>Equal Tuning</th>
<th>Pure Tuning</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>P8</td>
<td>1200 cents</td>
<td>1200</td>
<td>0</td>
</tr>
<tr>
<td>P5</td>
<td>700</td>
<td>702</td>
<td>+2</td>
</tr>
<tr>
<td>P4</td>
<td>500</td>
<td>498</td>
<td>-2</td>
</tr>
<tr>
<td>M3</td>
<td>400</td>
<td>386</td>
<td>-14</td>
</tr>
<tr>
<td>m3</td>
<td>300</td>
<td>316</td>
<td>+16</td>
</tr>
<tr>
<td>M2</td>
<td>200</td>
<td>204</td>
<td>+4</td>
</tr>
</tbody>
</table>

19 Jeff Bradetich, *Double Bass - the Ultimate Challenge*. (Denton, TX: Music for All to Hear, 2009), 88
Example 7.3 is executed first, with the two separate notes played individually and in tune. However, when merged and played together, the upper note should be higher for the minor third and lower for the major third. The player is recommended to lower the bottom note on the interval of E G at the thumb position. The suggested fingering for the minor third double stops in the thumb position is the thumb and second finger and aims to contribute to the continuity.

Example 7.3: Exercise for Double Stops, Contributing to Continuity

Example 7.4 is the opening the cadenza of Karl Ditters von Dittersdorf’s E Major Concerto by H. Gruber. The above suggestions and exercises are also pre-working for this or similar passages.

Example 7.4: Heinz Karl Gruber Cadenza for K.D. von Dittersdorf E Major Concerto
CHAPTER 8

CONCLUSION

The Dragonetti Concerto in A Major is one of the milestones to becoming a professional double bass player. One of the main difficulties encountered during the preparation of this particular work or any other work is defining technical challenges and improving oneself in this direction. Thus, I present a pedagogic pathway designed for the potential problems that I foresee based on my previous experiences gained through both studying and teaching.

This document stands as a guide by presenting solutions and suggestions defined for this concerto's technical difficulties as well as the repertoire that reaches beyond this piece.
REFERENCES


Bradetich, Jeff. Double Bass—The Ultimate Challenge. USA Idaho: Music for All to Hear, 2009

Bradetich, Jeff. University of North Texas, Interview with the Author, 20 November 2020.


