The Lafayette College Concert Band

Kirk O'Riordan, conductor

Technique Development Manual

Tuba

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I. Introduction

The LCCB Technique Development Manual is a collection of technical exercises and excerpts from repertoire designed to help the members of the ensemble develop their individual performance abilities on their instruments. It is intended for use primarily during the summer and interim sessions, but its continuous use is highly recommended.

The Manual is not meant for mixed-instrument ensemble playing. Each book is specifically designed for its own instrument, and is meant to serve as a way to develop a practice routine that will allow players to improve as quickly as possible as efficiently as possible.

That said, there is no substitute for daily practice. I do not intend for students to get through the full book every day, especially at the beginning. Rather, the student will progress though the Manual as their technique permits with the goal of mastering everything in it. Once a student progresses to the point where the primary challenge is to build tempo, more of the book can be completed in any given practice session.

I have provided tempo and other performance metrics as a way of inspiring students to achieve higher levels of performance. These metrics are organized into tiers, each of which raises the difficulty of each exercise. Most students will begin at the upper end of Tier 3. Students who complete Tier 1 will be highly accomplished and able to play pretty much anything they will see in LCCB without too much difficulty. The tiers were designed to include players of all levels, and allow every player to measure their improvement in tangible terms. While the ranges of each instrument differ, the tempos for each tier are the same for every instrument.

In addition to a practice manual, I intend this book to serve as audition material for incoming members of LCCB. Incoming players should learn as much of it as possible before their audition. More specific information on the audition procedures will be posted on the LCCB website.

Detailed instructions on how to perform each exercise are given in each unit. Every exercise, though should be performed with both a metronome and a tuner. Perhaps the three most fundamental aspects of good playing are great tone quality, correct intonation, and technical clarity. Students should be focused on all three of these at all times while practicing, and should not progress into higher tiers until every exercise can be played beautifully, in tune, and without wrong notes or rhythms.

This is a lot of material, but noticeable progress can be made even by doing smaller portions of it on a regular basis. Daily practice, even for as little as 20 minutes, is going to result in improvement. This Manual will help you use your limited practice time wisely while at the same time it will give you something to strive for.

LCCB is always only going to be as strong as its players want to be. Taking lessons with an expert performer is always the best way to improve, but if that is not possible, this Manual will help.

II. Tone Quality / Breath Support

Begin each practice session with two or three minutes of casual, improvised playing. Do not try to perform Long Tones when your instrument is cold.

The purpose of the Long Tone exercise is to make a habit of playing with a good sound that is stable, reliable, and in tune. Take your time on these exercises: the longer you can hold a stable, pretty tone, the better.

Always use both a tuner and a metronome. Use the tuner to see where your intonation naturally lies: some notes will be naturally sharp, others flat—and this will vary by individual instrument and player. Do not try to adjust the intonation until you have thoroughly warmed up. At that point, use your embouchure, mechanical tuning adjustments (tuning slides, mouthpiece placement, etc.) to correct the tuning. Avoid using alternate fingerings, but do use the fingerings you use most.

Breathing is an important part of playing, and practicing your breathing should be an important part of your practice routine. To that end, I have copied some of the breathing warm-up exercises we do in rehearsal into this chapter. Your goals with the breathing exercises should be to expand your lung capacity and ability to control the rate of expulsion…in other words, your breath control. In these exercises, diamond-shaped note heads indicate inhalation; regular note heads represent exhalation.

If you are just beginning this kind of exercise, start by setting the metronome at about 60. Hold each pitch for a minimum of four counts. As you progress, begin adding beats, then slowing the tempo. A goal of 40 bpm for 8 counts per pitch is a good one.

Listen for your tone to be as beautiful as possible. You are as good an arbiter of that as anyone. Use an open “Ah” vowel, a big full breath, and be as relaxed as possible. Avoid breathing between pitches, and listen for the change of pitch to be as smooth and even as possible.

There are two variations of this exercise. The first is a simple chromatic scale, beginning on a comfortable note, progressing downward to the lowest note, then back up to the highest note, and finally back down to the starting note. In this exercise you will play each note on your instrument twice.

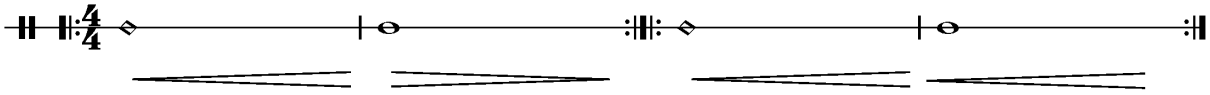
The second variation asks you to play the same two-note phrase in every octave available to you on your instrument. In this exercise, your goal will be to match the interval (tuning), balance (between notes and between octaves), and smoothness. Begin this exercise on your lowest pitch, then slur up one half step. Repeat that up one octave, and then a second. Go as high as you are able. The second phrase will begin on the pitch you slurred up to the last time…if you are a flute player, you would begin on B → C; the second phrase would be C → D♭, and so forth.

You do not need to perform both variations every day: alternating the two variants (performing one each day) will be sufficient. Try not to favor one variant over the other: spending roughly equal amounts of time on each will be most beneficial as they accomplish different goals.

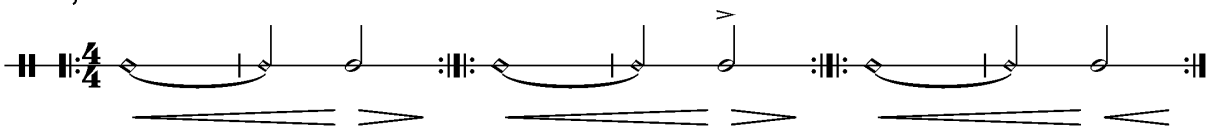
I. Breathing

♩ = 42, 50, 80, 112

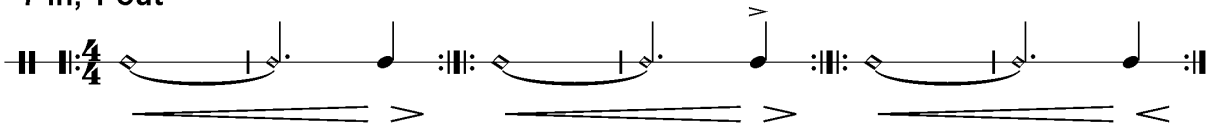
4 in, 4 out



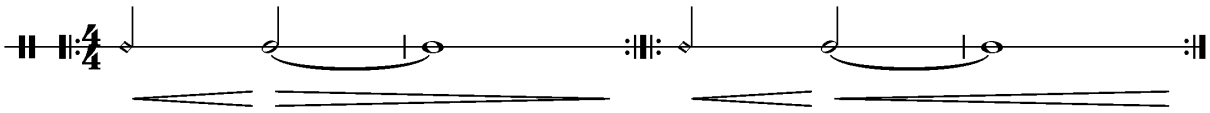
6 in, 2 out



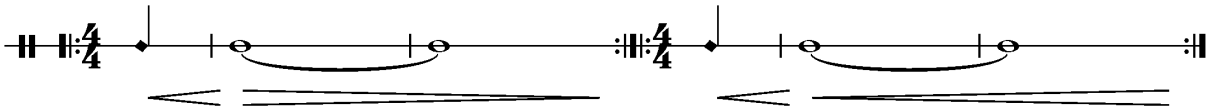
7 in, 1 out



2 in, 6 out

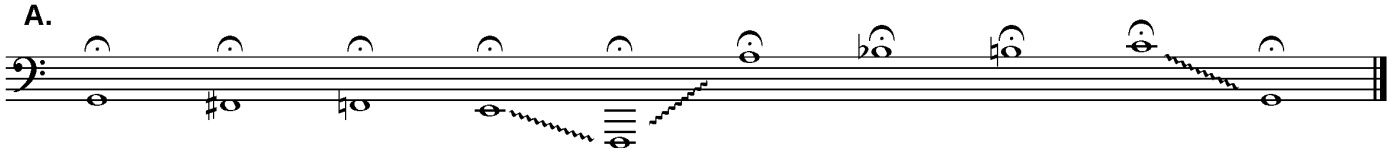


1 in, 8 out



II. Long Tones

A.



B.

Progress Table

Date	Tier	Tempo	Counts / Pitch
	3	60	4
			5
			6
			7
			8
	2	50	4
			5
			6
			7
			8
	1	40	4
			5
			6
			7
			8

III. Scales

Scales are the building blocks of technical facility. Not coincidentally, a great many melodies in tonal, Western musical styles are constructed with a variety of different scale types. Scales composers to construct fluid, lyrical melodies, and practicing scales allows you to play fluidly and lyrically. Melodies can happen in any range of your instrument, so it is important that your scale practice moves into the higher and lower ranges of your instrument. Performing the scales with the indicated articulations will improve your flexibility.

Below you will find all 12 major and harmonic minor scales as well as whole tone and chromatic scales. Your task will be to perform these at the fastest tempo possible while maintaining absolute rhythmic precision and clarity of technique. In order to progress to the next Tier, you must be able to perform all of the scales at the indicated tempo using all of the indicated articulations. Performing them from memory is a requirement for Tier 1.

Your practice routine should include playing through all of these scales, alternating articulations, every day. Some scales may require more time than others to perfect the notes. Keep all scales at the same tempo, using the difficult scales as a guide: you can use the easier scales to work on memory, fluidity, double tonguing, or any other additional technique.

If necessary, begin by setting the metronome to represent an 8^{th} note (you will play two notes per click). Once you have all the scales at the same tempo and comfortable, begin raising the tempo one or two clicks each day. Spend some time on the difficult parts of the scale, a few notes at a time: do not just start over when you make a mistake. Slow the tempo down, then rebuild it. You may need to do that a lot at first, but eventually the technique will solidify and you will be able to concentrate more on speed.

Always use a metronome, and always strive to be exactly with it at beats. If your metronome can give both quarters and eighths, do that, especially at slower tempos.

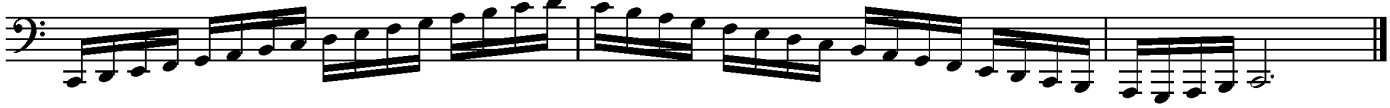
Remember: clarity, cleanliness (i.e. rhythmic precision and no note splices), and accuracy are the goals. Do not go faster until you have all three in place.

Use the following articulations when practicing:

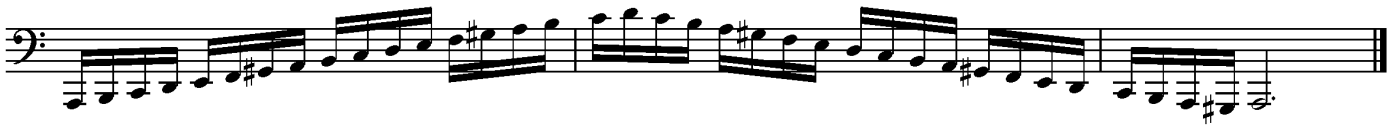
- All slurred
- All tongued (double tongue if possible, there may be an upper limit with tempo here)
- Slur 2, tongue 2
- Tongue 2, slur 2
- Tongue 1, slur 2, tongue 1

A. Major and Harmonic Minor Scales

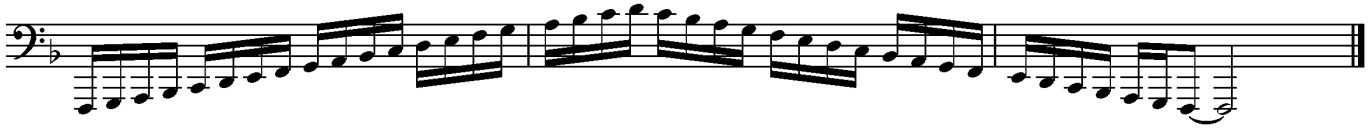
C Major



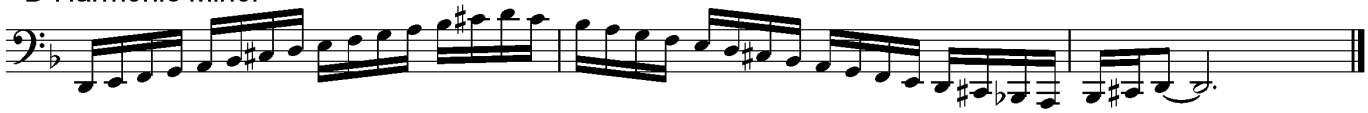
A Harmonic Minor



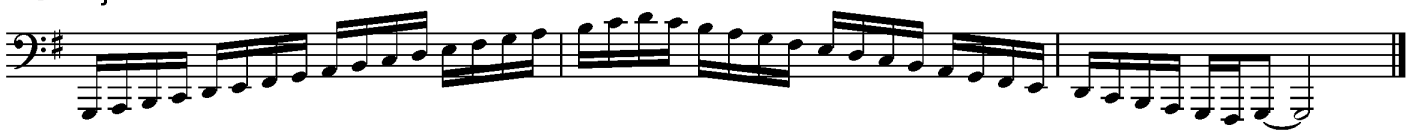
F Major



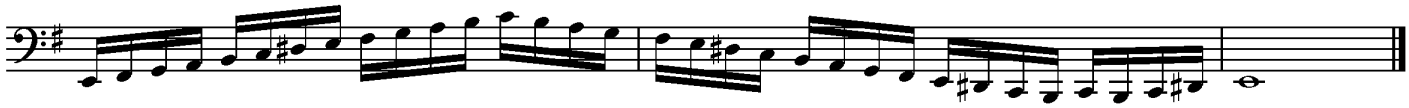
D Harmonic Minor



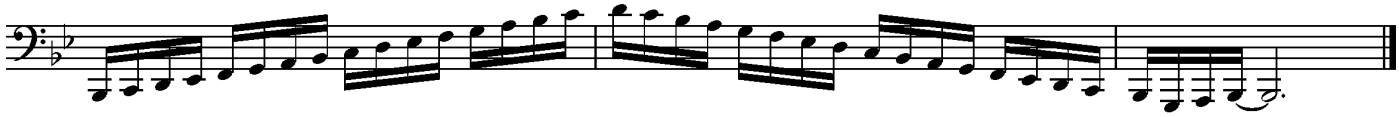
G Major



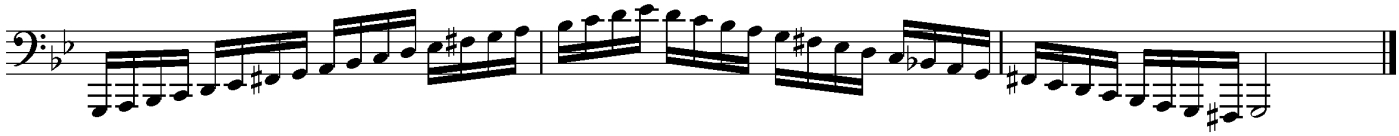
E Harmonic Minor



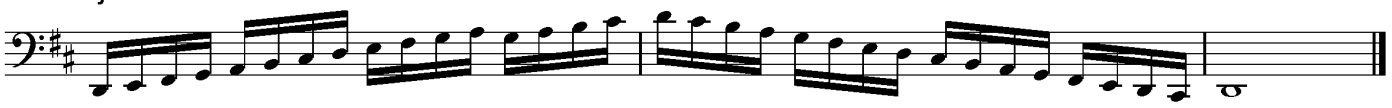
B♭ Major



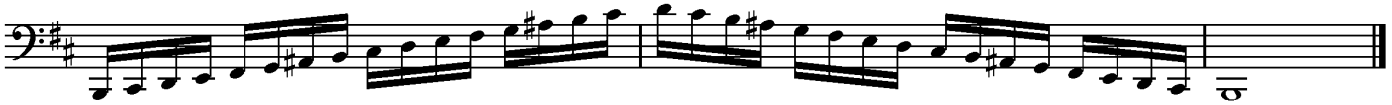
G Harmonic Minor



D Major



B Harmonic Minor



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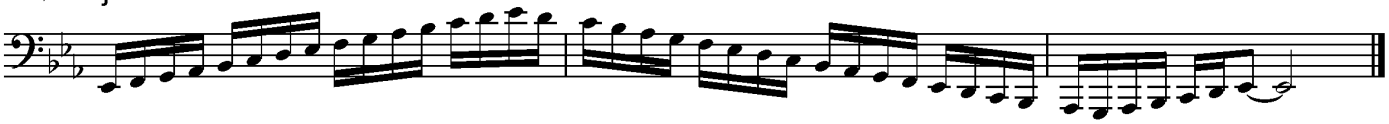
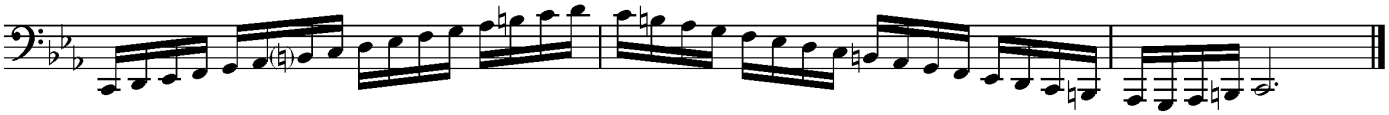
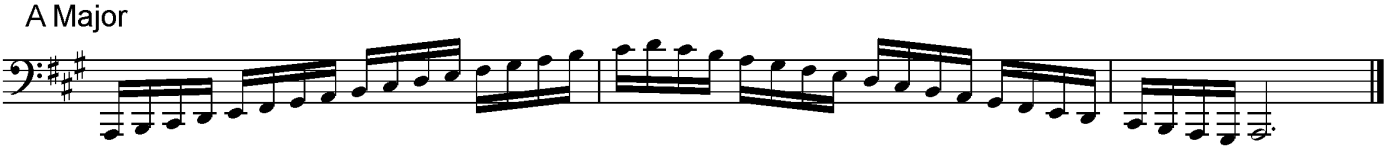


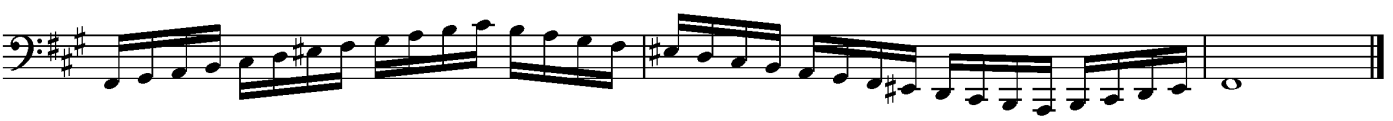
C Harmonic Minor



A Major



F♯ Harmonic Minor



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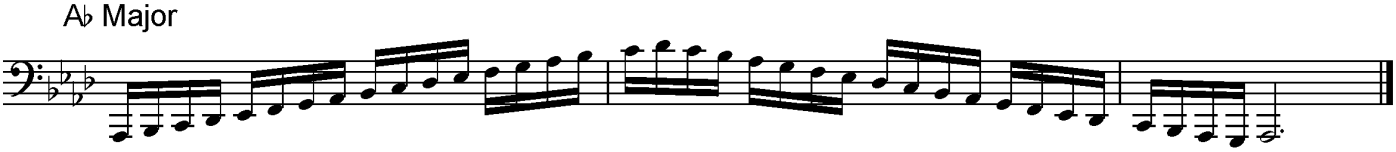

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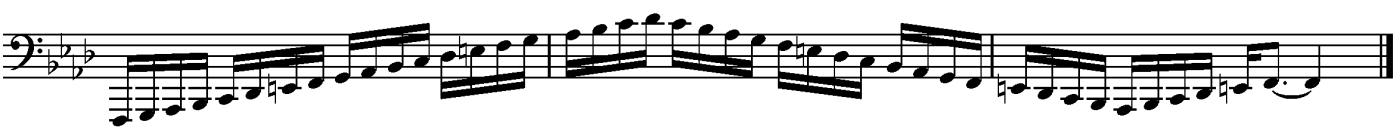
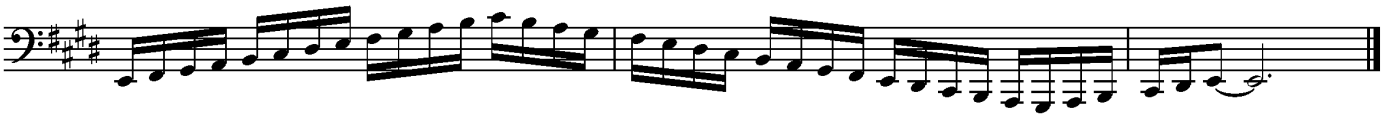


E Major



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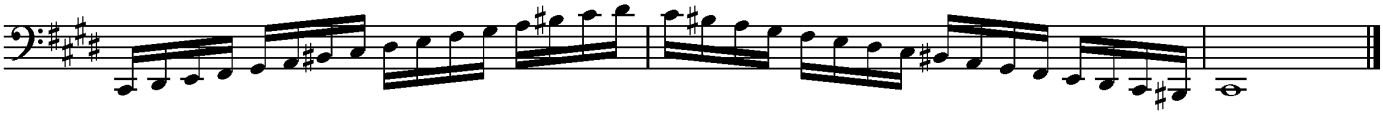

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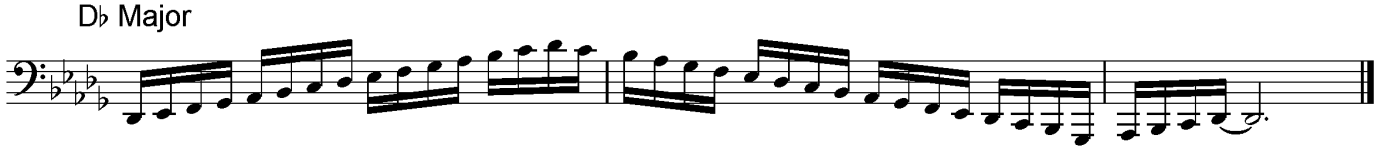

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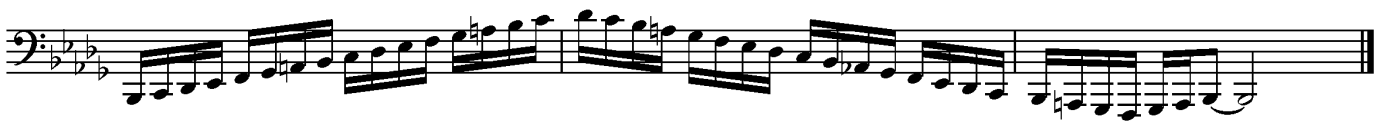

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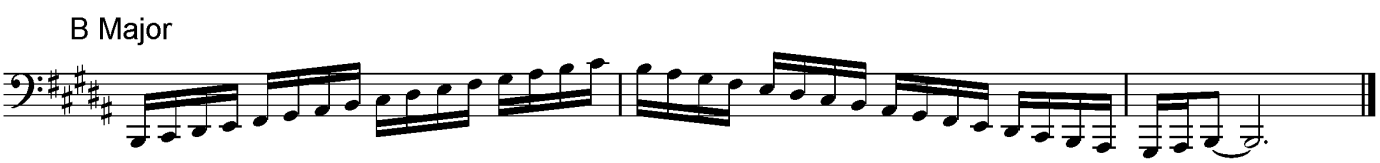
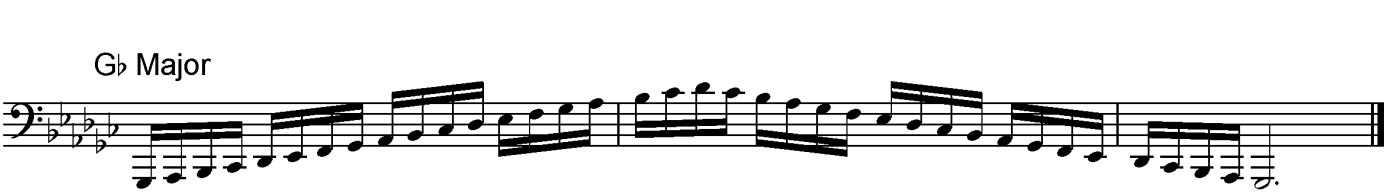


G♯ Harmonic Minor

G♭ Major



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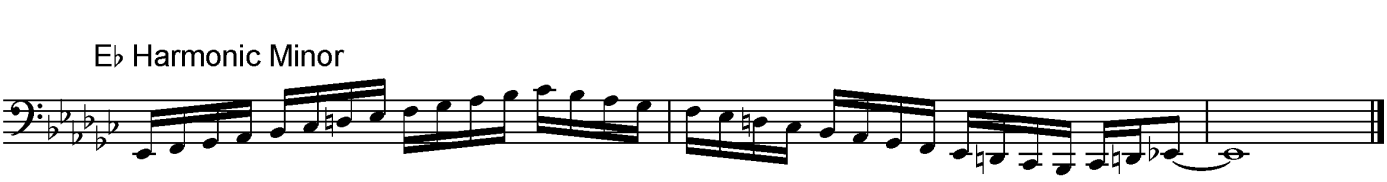

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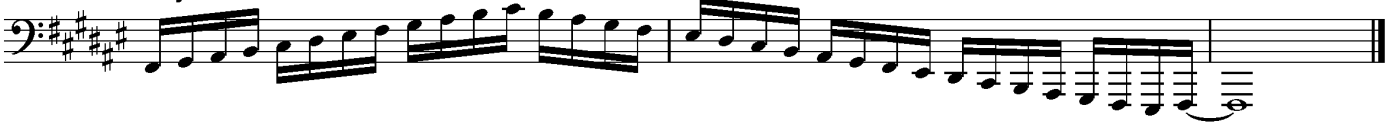

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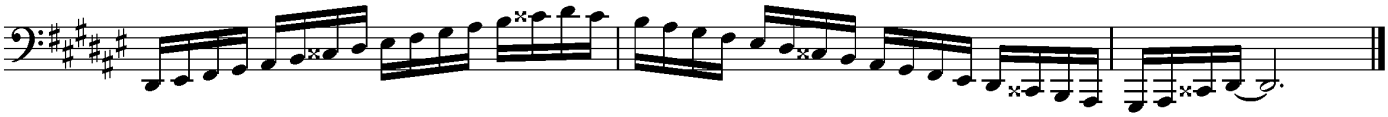

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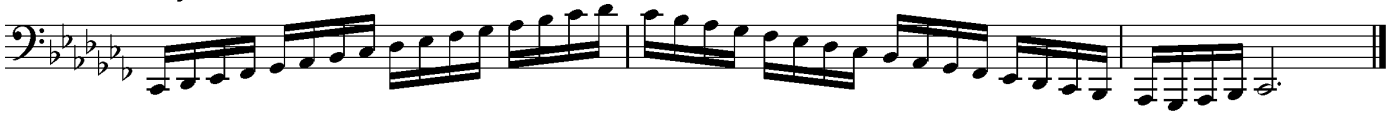

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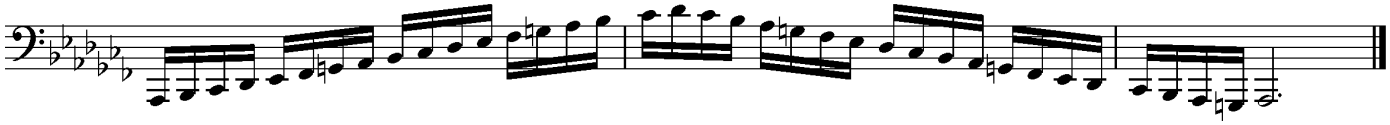

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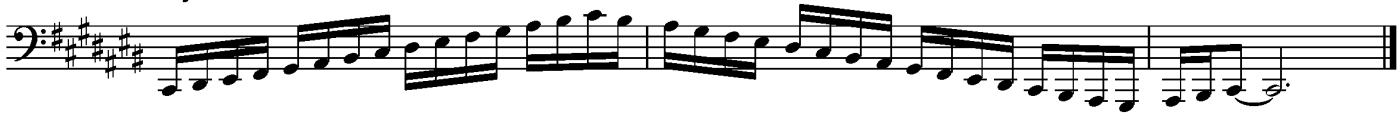

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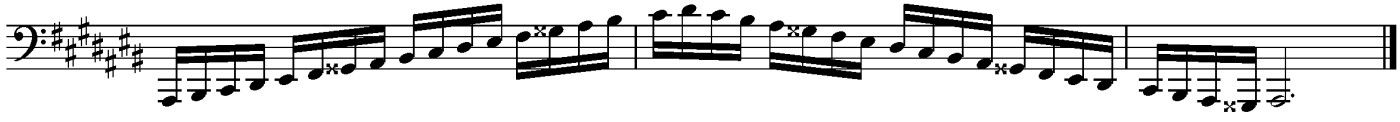
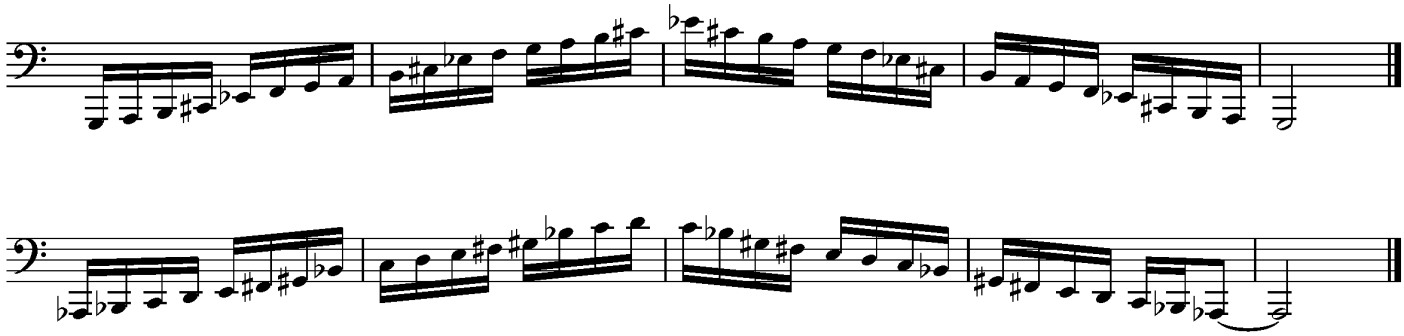
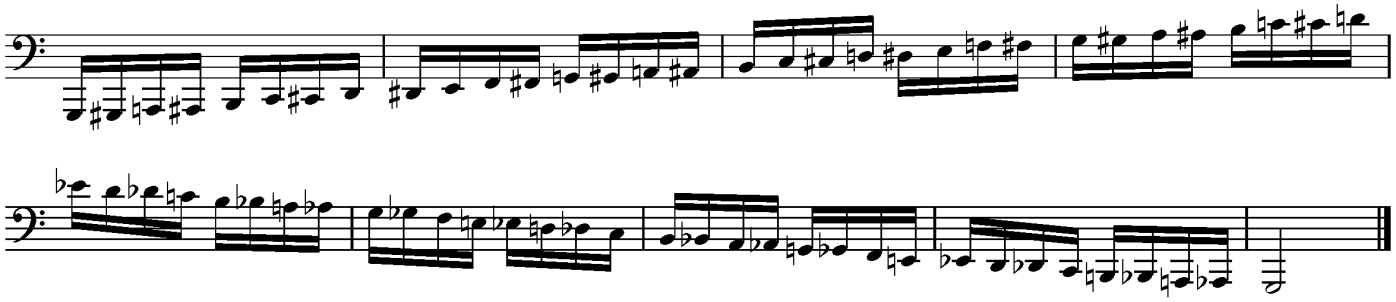


B. Whole Tone Scales



C. Chromatic Scale

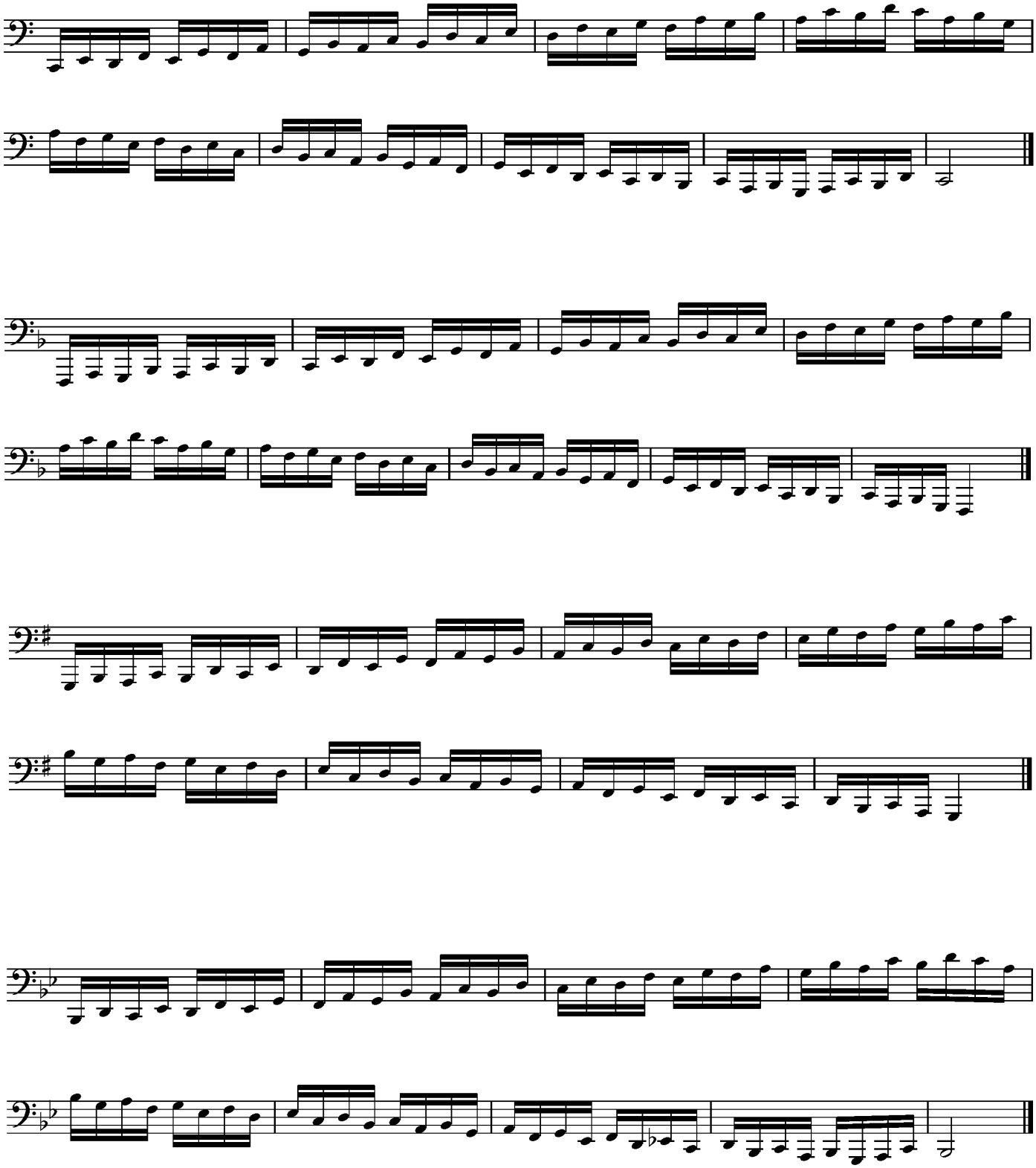


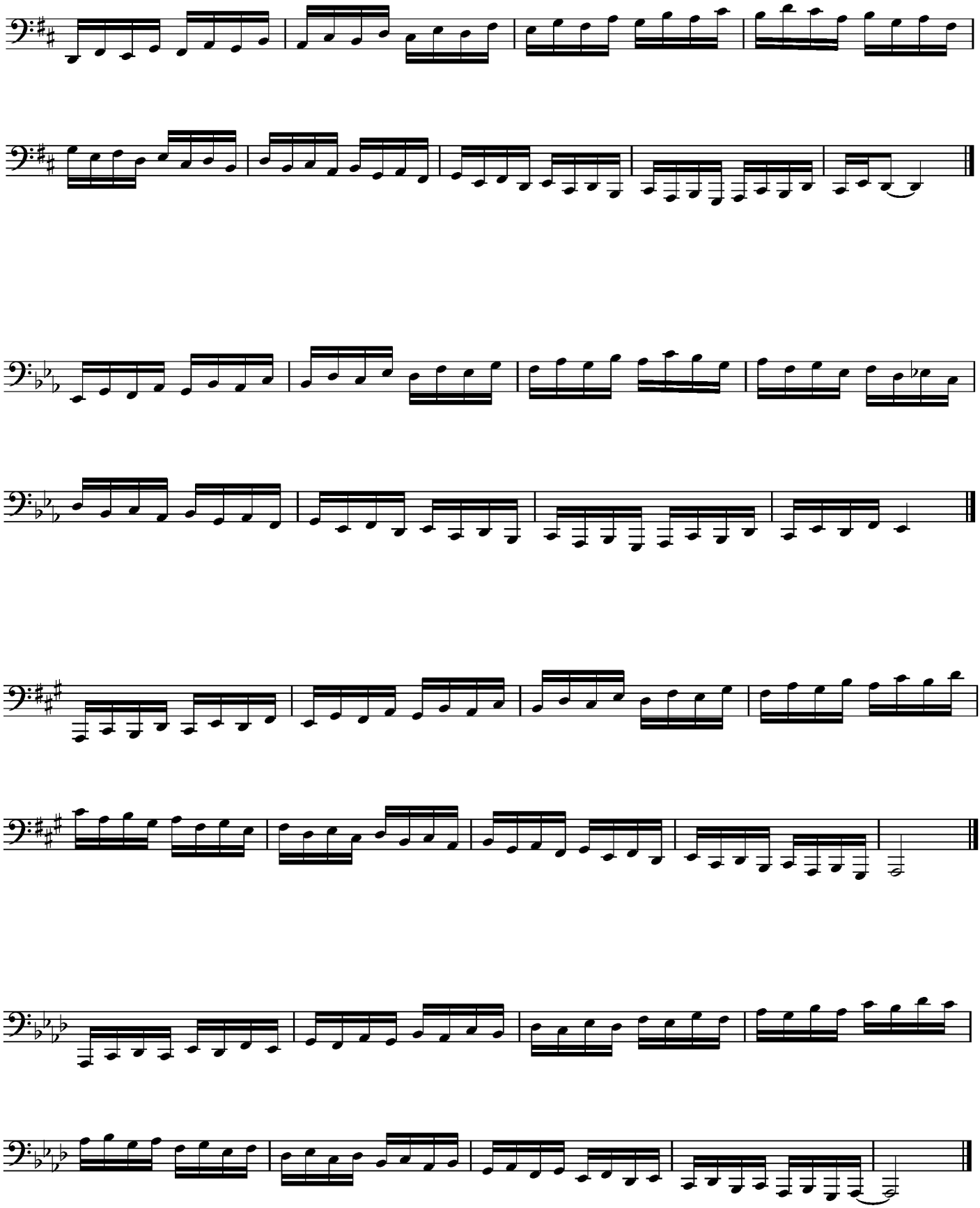
Progress Table

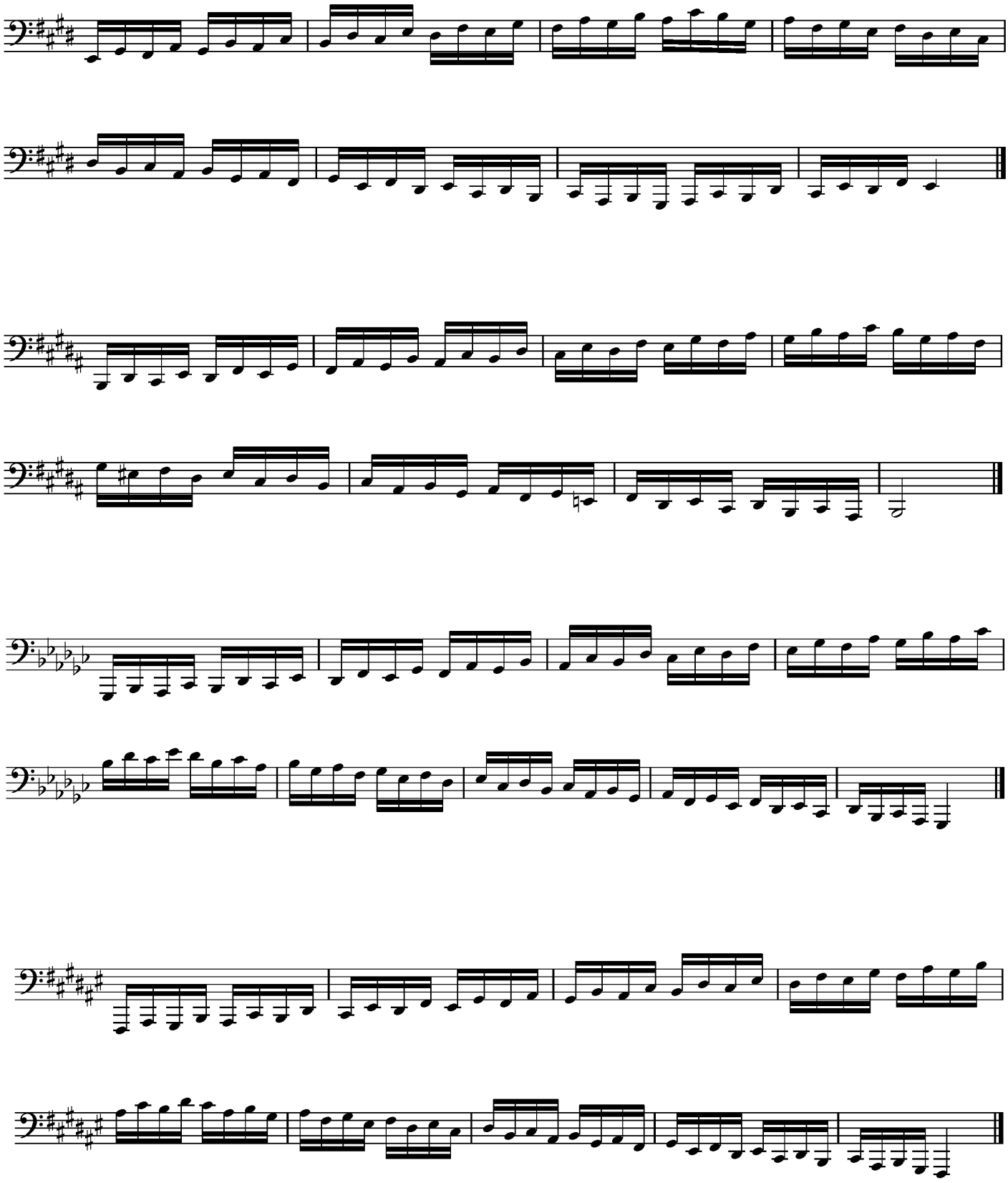
Date	Tier	Tempo
	3	50
		58
		64
		70
		76
	2	80
		86
		92
		98
		104
	1*	100
		106
		112
		118
		124

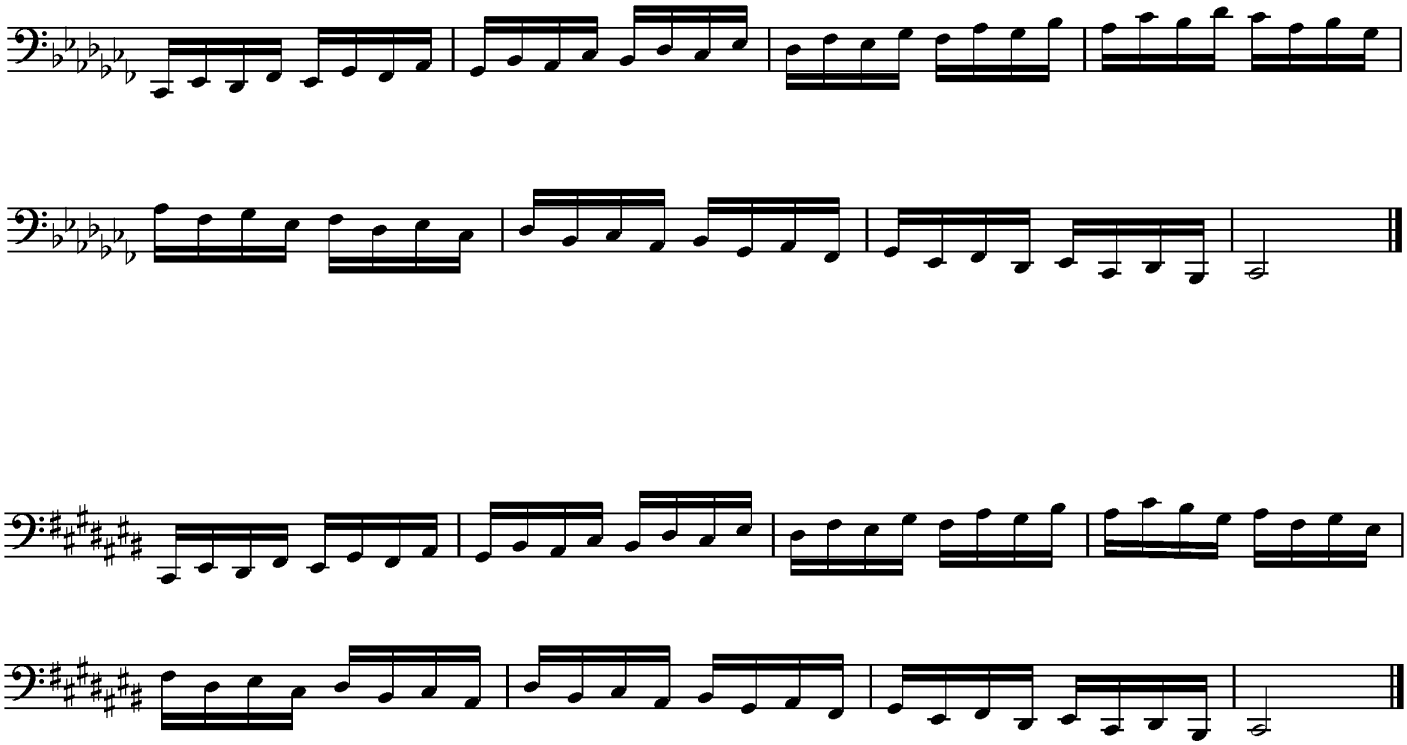
*Tier 1 Scales must be performed from memory.

D. Broken Thirds (Majors only)









Progress Table

Date	Tier	Tempo
	3	50
		58
		64
		70
		76
	2	80
		86
		92
		98
		104
	1*	100
		106
		112
		118
		124

*Tier 1 Scales must be performed from memory.

IV. Rhythms

Practice each of these rhythms until they are clean, accurate, and playable at any tempo. These should be practiced in the following ways:

- Sung, using beat numbers and divisions (1 + 2, 1 e + a, etc.)
- Played on one pitch (try varying the ranges of that pitch…articulation responses will be different in different registers of your instrument. You should learn to control articulations in all areas of your instrument.)
- Played on scale fragments (use the first octave of any scale, and 1) play one pitch per measure; 2) one pitch per note). Add the articulations used in the scales, modifying them as necessary.

Always use a metronome.

The rhythm exercises will come in two varieties. The first will be essentially an inventory of all possible rhythms. These will be organized by Simple and Compound divisions, and re-notated to use common note values as the beat. There will be a few examples of asymmetrical meters as well.

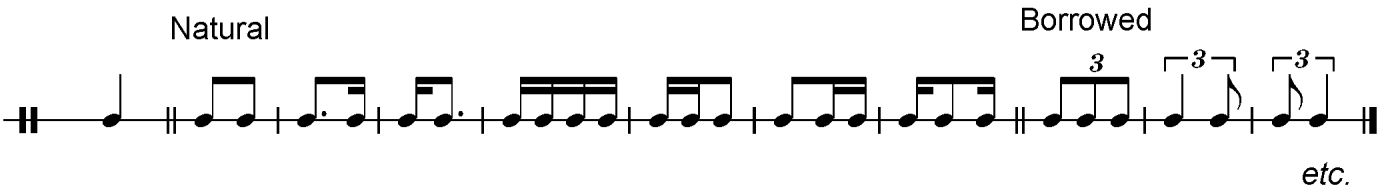
The second variety will be rhythmic etudes comprised of random combinations of these basic rhythmic patterns, in varying time signatures.

Use the instructions above to perform both varieties. Begin your practice of these with the Rudiments section. This will make the etudes section easier.

A. Rudiments

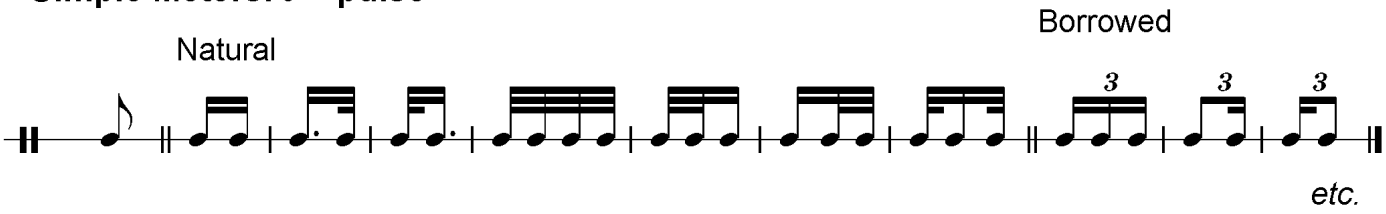
1. Simple Meters (Meters in which each beat is felt to have two equal divisions)

Simple Meters: ♩ = pulse



Simple Meters: 𝅗𝅥 = pulse

Simple Meters: ♩ = pulse

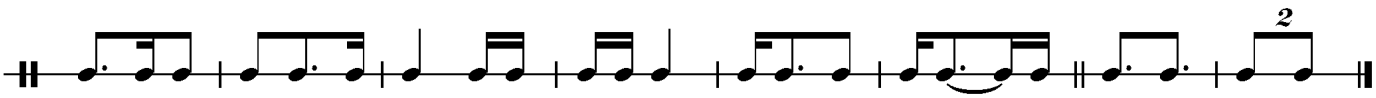


2. Compound Meters (Meters in which the beat is felt to have three equal divisions)

Compound Meters: ♩. = pulse

Natural

Borrowed

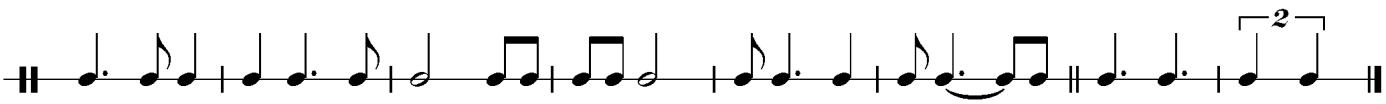


etc.

Compound Meters: 𝅗𝅥. = pulse

Natural

Borrowed



etc.

Compound Meters: ♩. = pulse

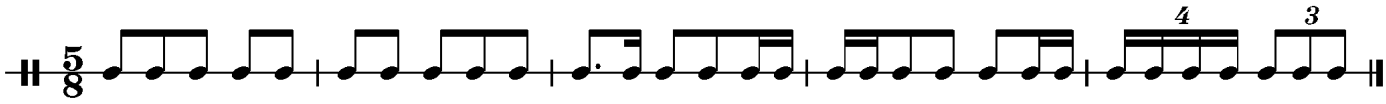
Natural

Borrowed

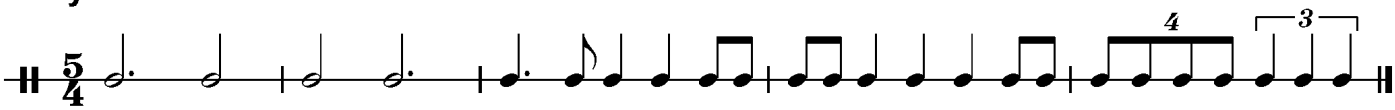
etc.

3. Asymmetrical Meters (Meters that have beats of different lengths. In these meters the divisions are all of equal length, but some beats have three and some beats have two divisions. These are commonly referred to as “mixed meter.”)

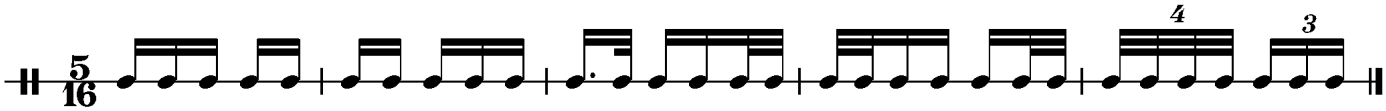
Asymmetrical Meters: ♪ = common value



Asymmetrical Meters: ♩ = common value



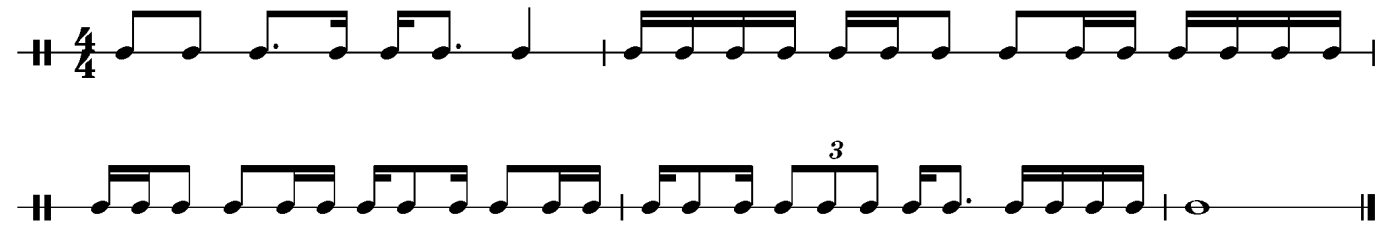
Asymmetrical Meters: 𝅘𝅥𝅯 = common value



B. Etudes

1. Simple Meters

1.



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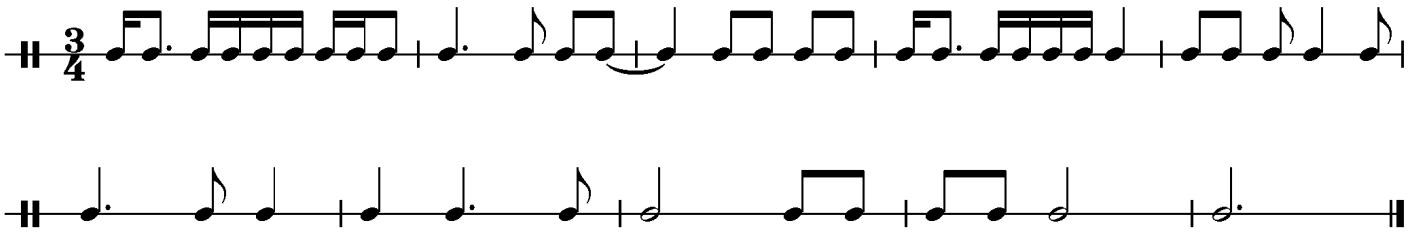

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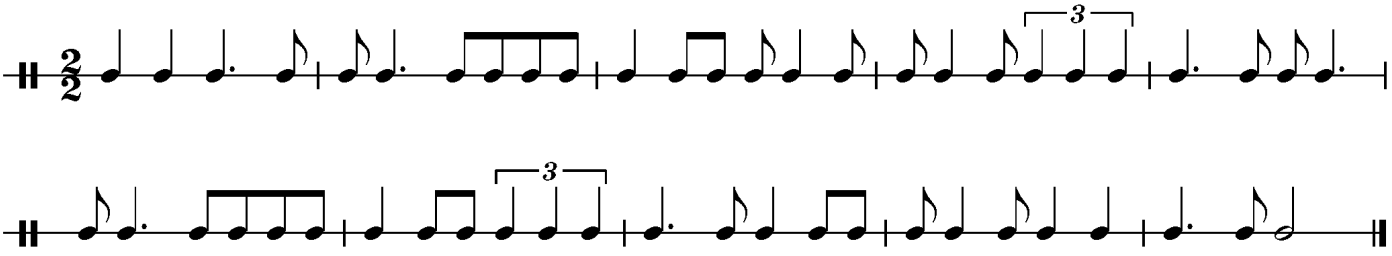

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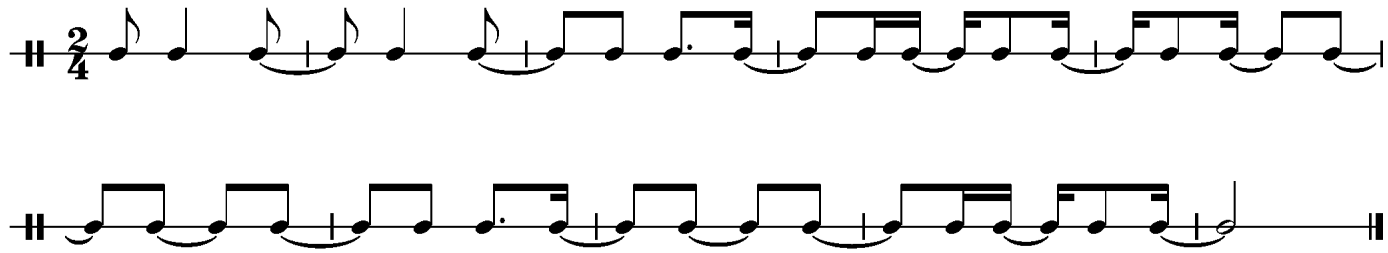

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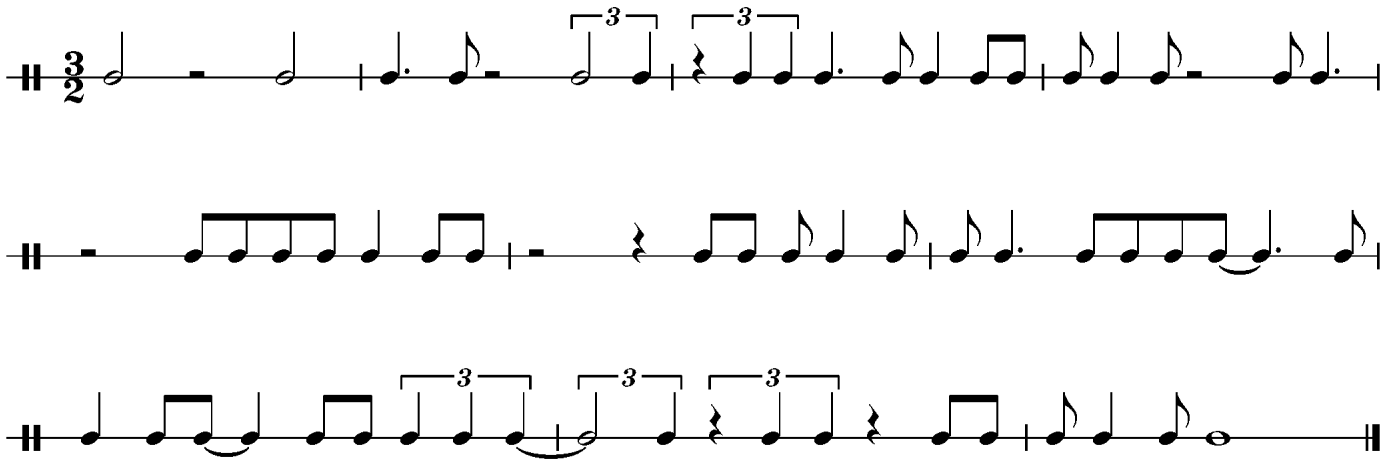
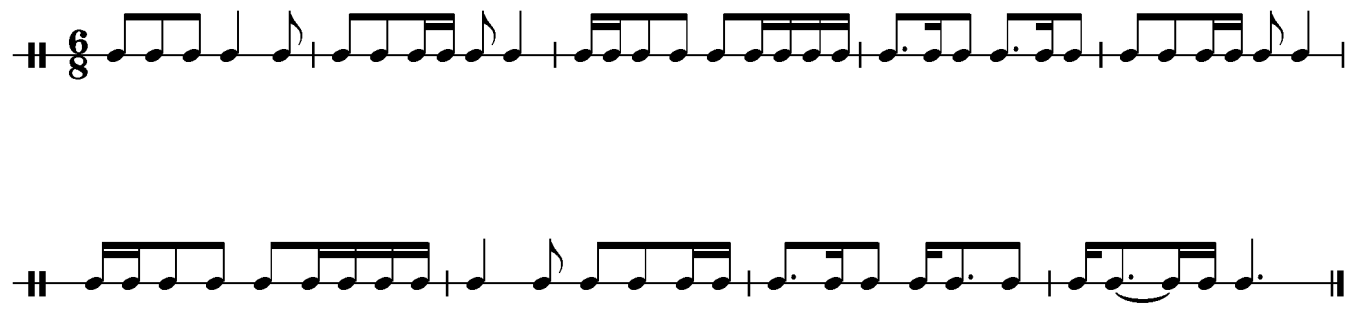


Progress Table

Date	Tier	Tempo
	3	♩ = 52 𝅗𝅥 = 40
		♩ = 60 𝅗𝅥 = 46
		♩ = 72 𝅗𝅥 = 52
		♩ = 84 𝅗𝅥 = 58
		♩ = 92 𝅗𝅥 = 66
	2	♩ = 102 𝅗𝅥 = 72
		♩ = 108 𝅗𝅥 = 80
		♩ = 114 𝅗𝅥 = 86
		♩ = 120 𝅗𝅥 = 92
		♩ = 126 𝅗𝅥 = 96
	1	♩ = 132 𝅗𝅥 = 106
		♩ = 138 𝅗𝅥 = 112
		♩ = 144 𝅗𝅥 = 116
		♩ = 150 𝅗𝅥 = 120
		♩ = 156 𝅗𝅥 = 126

2. Compound Meters

1.



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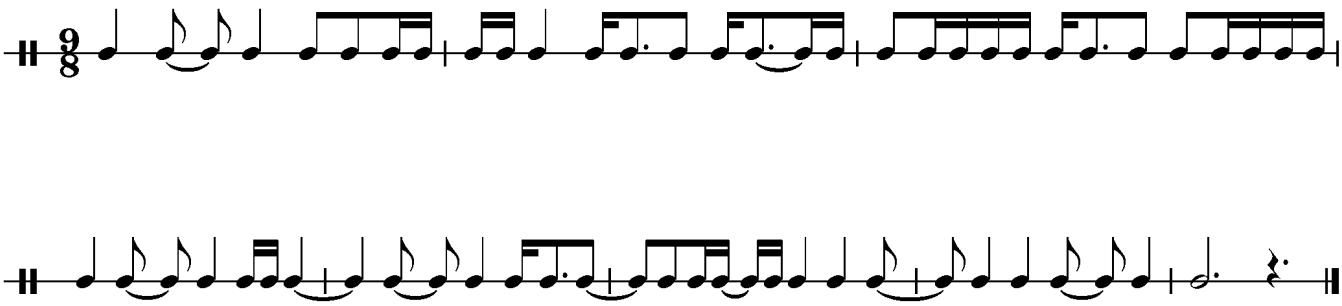

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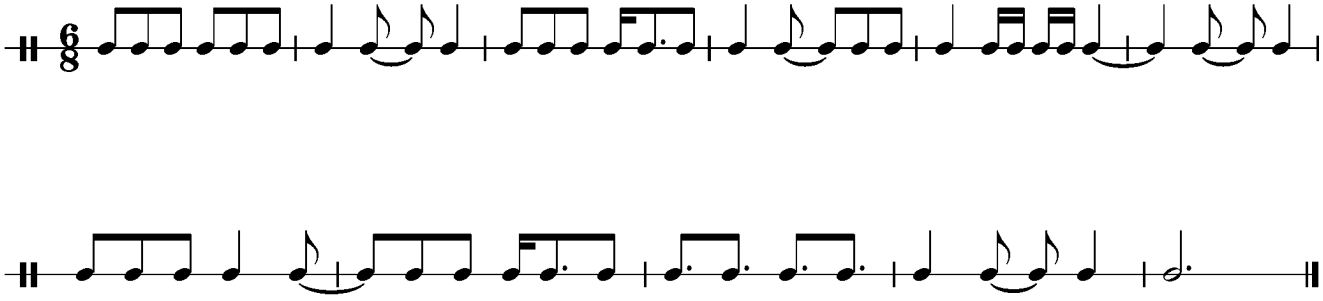

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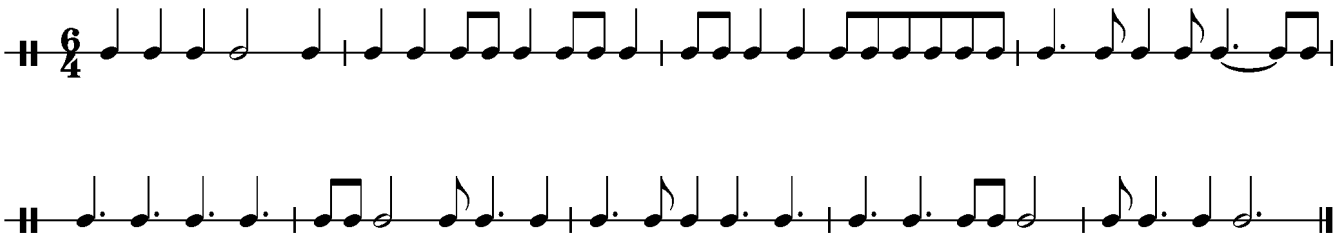

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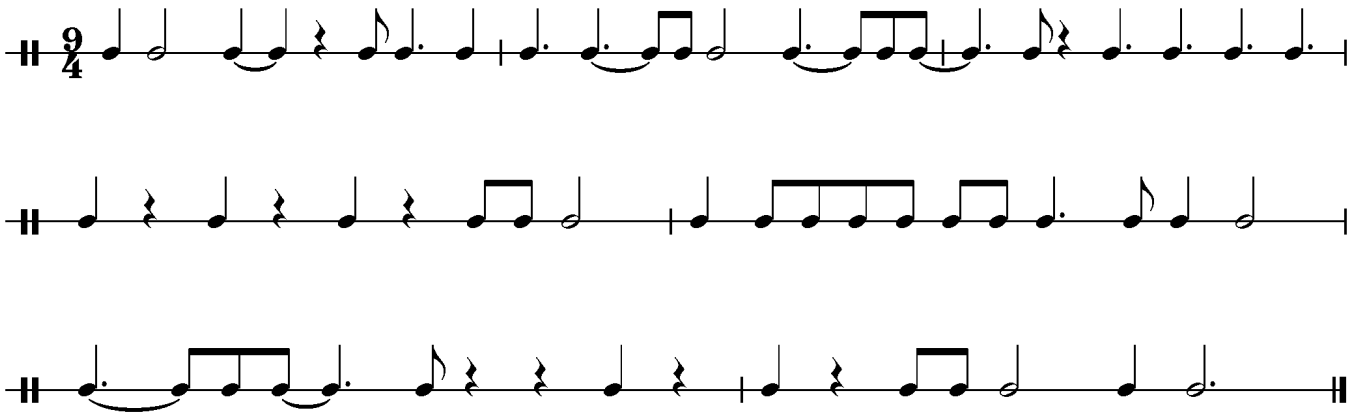

Progress Table

Date	Tier	Tempo
	3	♩. = 52 𝅗𝅥. = 40
		♩. = 60 𝅗𝅥. = 46
		♩. = 72 𝅗𝅥. = 52
		♩. = 84 𝅗𝅥. = 58
		♩. = 92 𝅗𝅥. = 66
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		♩. = 108 𝅗𝅥. = 80
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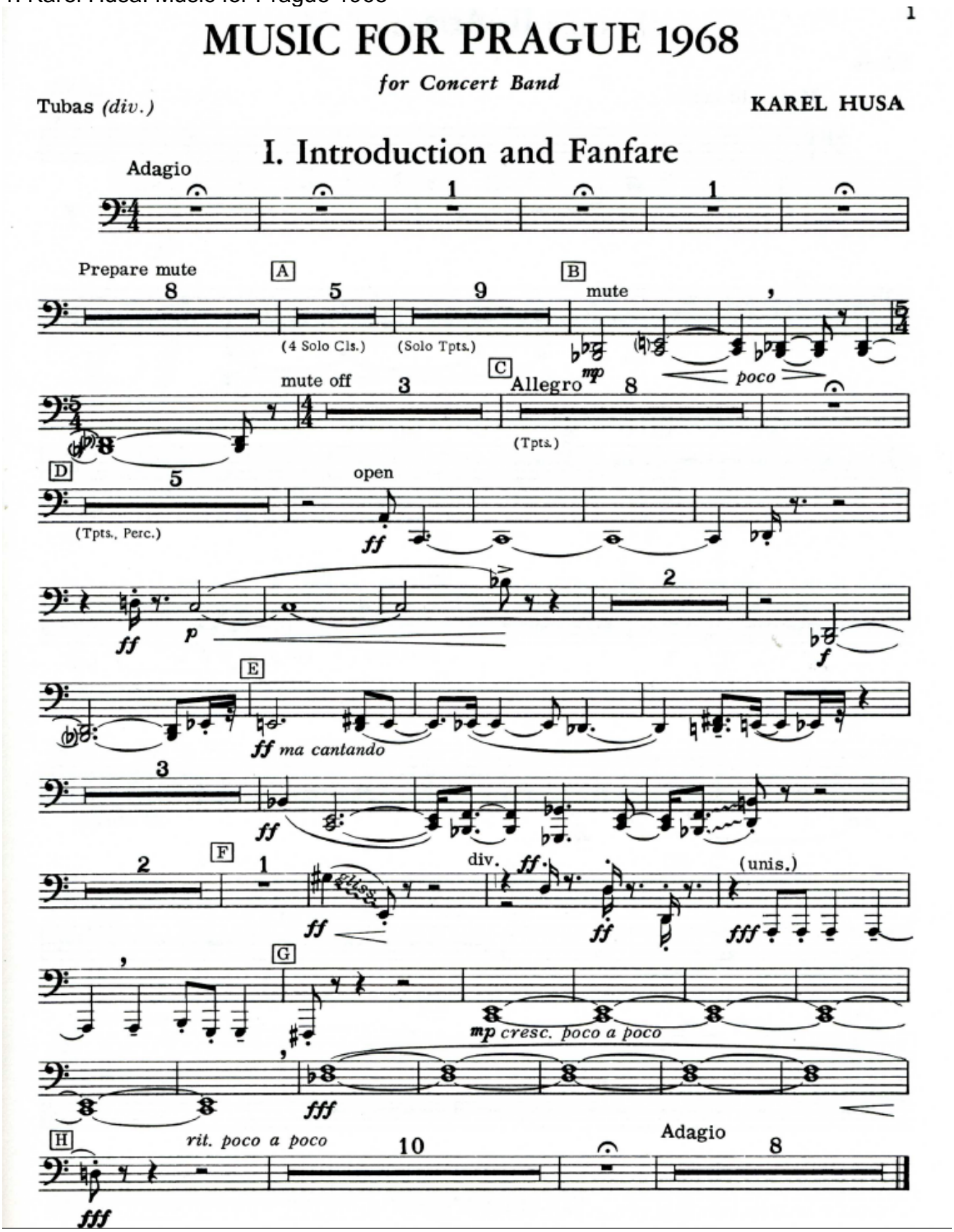
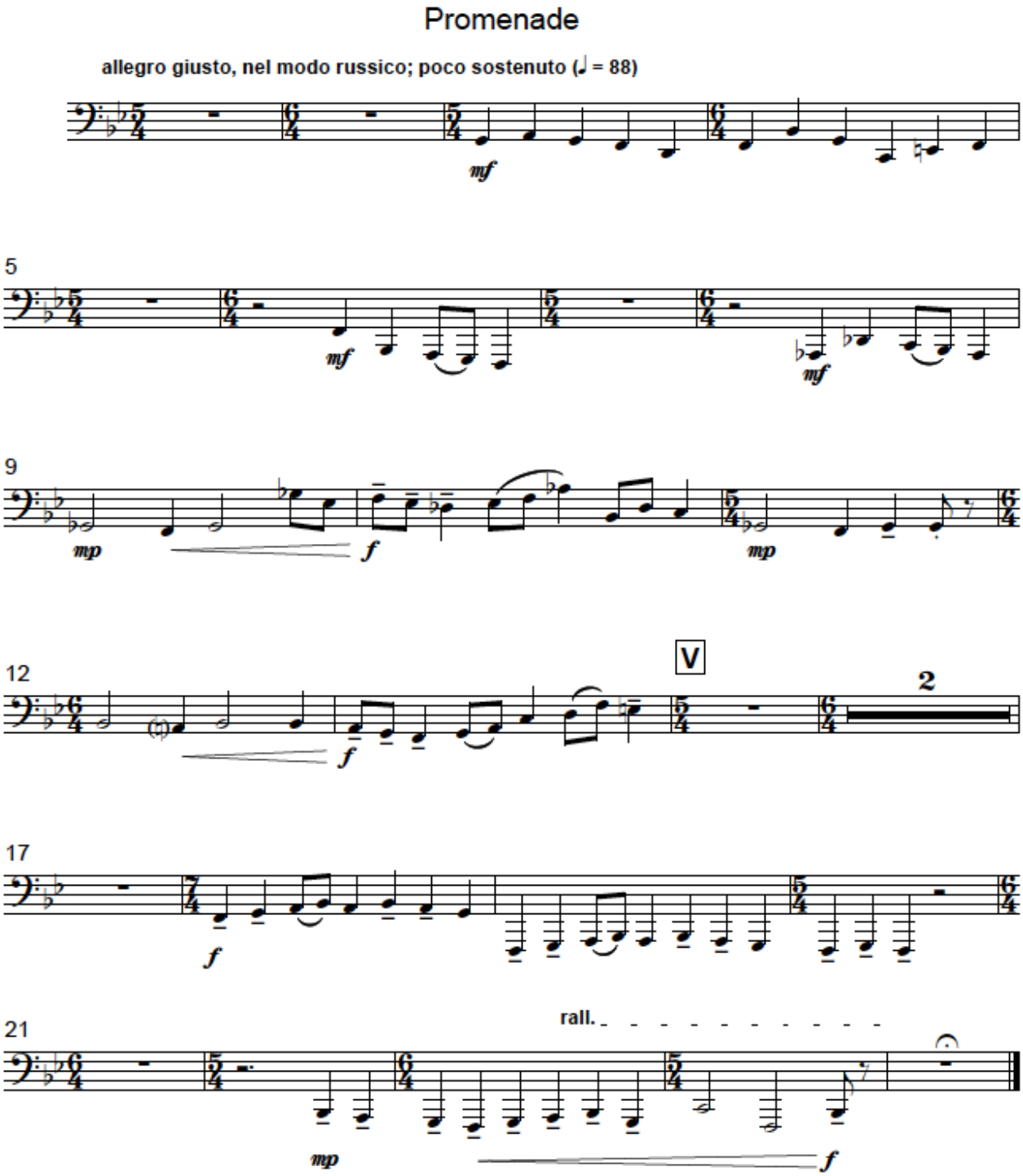
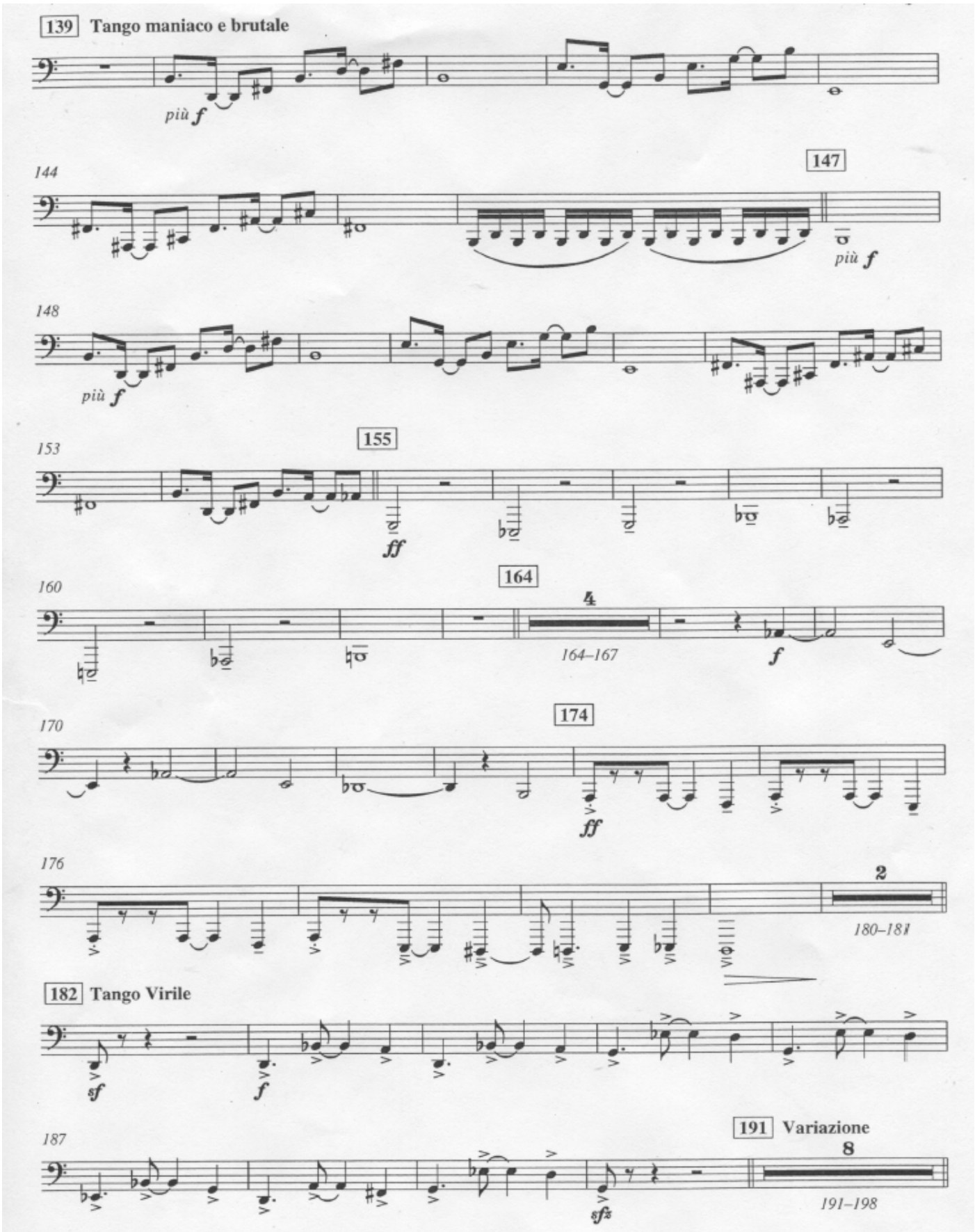
	1	♩. = 132 𝅗𝅥. = 106
		♩. = 138 𝅗𝅥. = 112
		♩. = 144 𝅗𝅥. = 116
		♩. = 150 𝅗𝅥. = 120
		♩. = 156 𝅗𝅥. = 126

V. Excerpts

1. Karel Husa: Music for Prague 1968



2. Mussorgsky / O'Riordan: Pictures at an Exhibition



3. Gandolfi: Vientos y Tangos