Bridging the Gap

A Book of Exercises for the Intermediate-Advanced Horn Player

Contains:

Harmonic Series
Valve Combinations
Articulation
Slurs and Starts
Melodic Fluency

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Foreword

This book seeks to provide intermediate to advanced level horn players a comfortable and approachable means to build healthy musical, physical, and mindful habits on their journeys with the horn. It can act as a supportive precursor to many of our more standard study repertoires, as well as a stand alone examining the instrument and its most fundamental aspects. In this book, students can approach horn playing using the harmonic series, creative usage of valve combinations, articulation, note starts and slurs, and healthy dynamic and range building through melodic means: all with the most ideal relaxation, tone, and musicality in mind. Each individual exercise is accompanied with some guiding thoughts and pedagogy, though the instruction of a great teacher can never be replaced by words on a page! It is the hope that one or more of the approaches presented will resonate with a student, allowing the teacher to more ably address any particular challenges. Ideally, students will want to work on each category simultaneously, providing special attention to that which doesn't come so naturally.

I would like to give thanks to my wonderful family who have given me their unwavering support and love throughout my endeavors. Additionally, a thank you to my professors: Alden Snell, Christopher Azzara, Peter Kurau, Maura McCune-Corvington, and Alexander Shuhan for their constant wisdom and inspiration.

I. Harmonic Series

Background:

The horn is a variety of different lengths of tubing, yielding seven different fundamental notes (for the seven different combinations of valves) for each side of the horn (F and Bb for those with double horns). Each of those seven has its own harmonic series following the same intervalic structure. Our fingerings are thus based on wherever our harmonics land in whatever range we are playing, and there are often multiple choices! This exercise utilizes the most common four of the seven F horn fingerings.

Approach:

"Always mezzo" (*sempre* for vocabulary) emphasizes for the student to play the most comfortable dynamically that they can. Included are the fingerings ideally used for the purposes of navigating "partials" or "harmonics" in the mid-range. The exercise can also be played all on the Bb horn with these fingerings transposing up a perfect fourth, as well as with standard fingerings, if desired. The glissando must include each harmonic in-between the two printed notes- they are not like slurs! Even if they sound rough and raucous, it is better for the student to know that all of the notes in-between exist rather than ignoring them. Sustained is always better than short when learning: have the student play each note for its full value while tapping their toe or playing with a metronome. The two measures of rest can, and initially should, be counted out loud in order to keep the pulse. This can be done by the teacher and student together or separately in combination with playing. Take advantage of that time to rest and reset the embouchure as well!

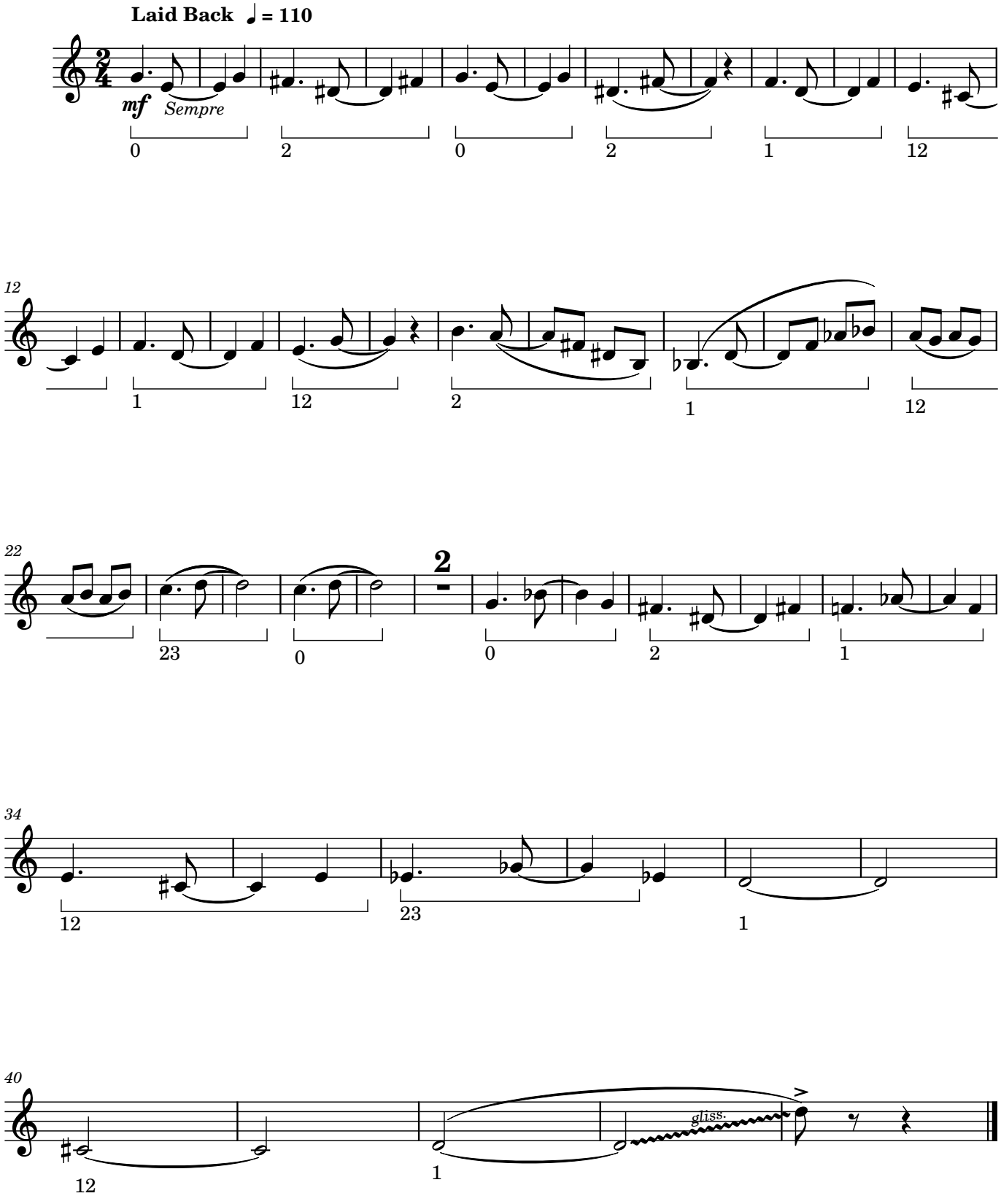
Potential Questions and Challenges:

• <u>How do I change between notes without valves?</u>
A combination of slightly more pressure of the mouthpiece on relaxed lips (never so much to hurt one's face or teeth!), the airstream moving a little bit faster, like blowing through a soda straw instead of a bubble tea straw, nice "AHHH" vowel will yield fine results in the mid-range, and connection with confidence, rather than hesitation! If there is a bump and the new note blasts its way out of the horn, this is okay! It will always be easier to refine a process that is done correctly than undoing unhealthy, overly muscular habits later. See the "valve combinations" etudes as well: they pair directly with harmonic series work.

• <u>What does the harmonic series look like?</u>
Many examples of this exist: one is included in the back of this book. A printed copy for the student to compare exactly which partials are being used can be helpful. Many mini-assignments, at a teacher's creative discretion, can branch from this line of questioning as well.

I.

Harmonic series



I. Valve Combinations

Background:

The valve combinations approach involves either 1) using the shortening of the horn (i.e. going from 1 to 2, or 2 to open) to make wider intervals easier, or 2) the learning of how to blow into a shorter fingering to smooth out an interval that involves moving to a longer tubing (i.e. 1 to 12, or open to 2). These offer a unique way of feeling how to traverse from one harmonic to another, and the opportunity to learn about alternate fingerings that can help the player navigate more difficult passages of music. This study uses open horn, or “Horn in F” and 2nd valve, or “Horn in E” in an alternating fashion.

Approach:

As written in the first measure, the student will only need to alternate open and 2nd valve for the entirety of the exercise, excluding in measure 9, 13, and 17, where both bracketed notes share open fingerings. The most important things to listen for are smoothness and connection (in addition to great quality sound!). The dynamics here should be helpful in creating a more melodic context, as well as influence the student to provide a more appropriate energy level for the range being asked. Rhythmic integrity should be kept throughout with use of a metronome. Using the metronome on the off-beats or upbeats causes the student to have to subdivide keenly, feeling twice the number of pulses in the same measure of time. This process can be challenging to feel at first, and can be practiced as an extra task away from the horn. Teacher and student can get up and move around/dance/tap/clap/stomp/etc. to also get the correct subdivision method ingrained.

Potential Questions and Challenges:

- Some of my notes sound really weird…

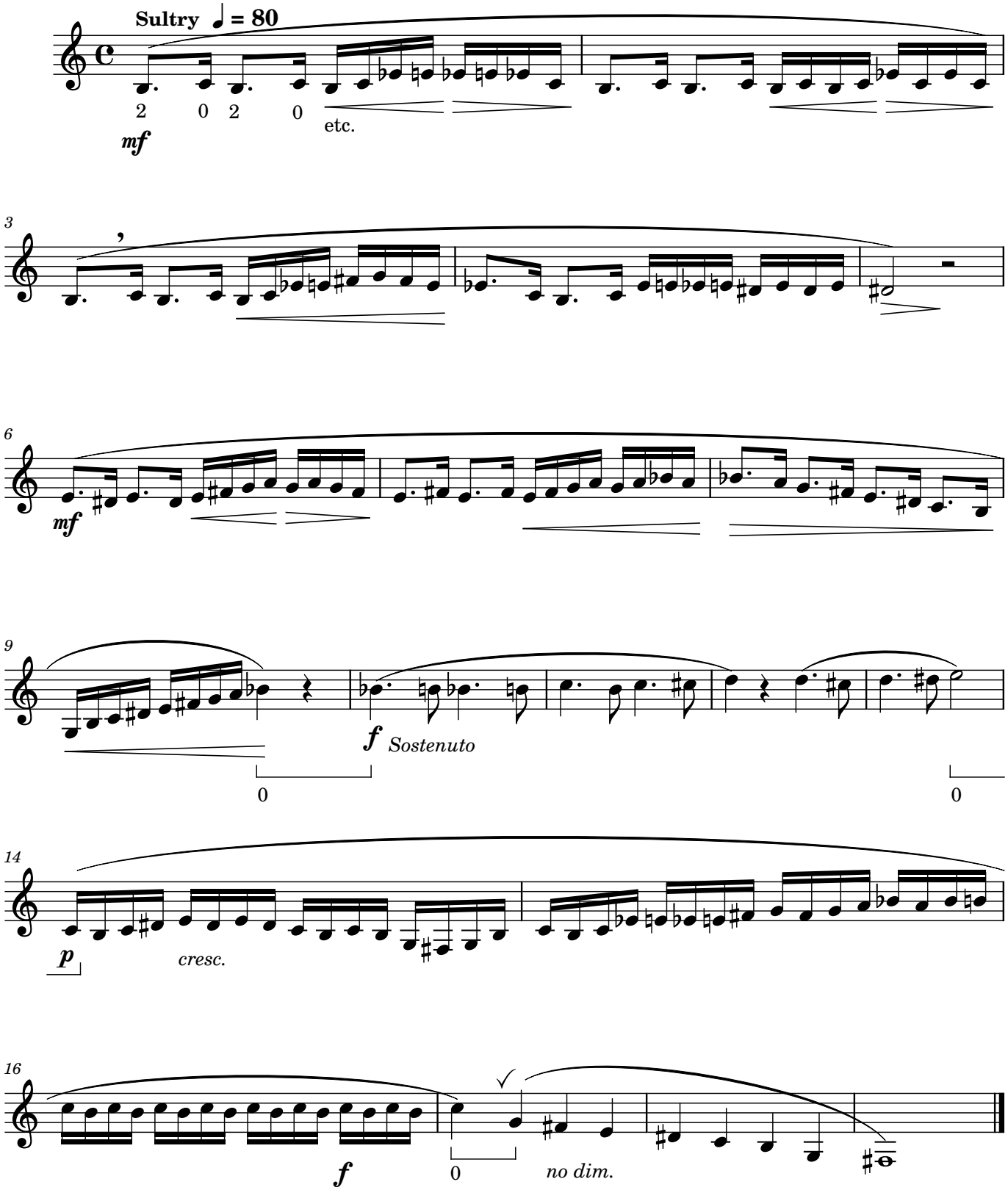
That is likely the natural pitch tendency of the harmonics! Some are in tune, but others can be really out of tune- a specific example is 7th partial (middle line Bb on open horn and its corresponding seven valve combinations) is incredibly flat. It is important to play into the tendencies of each note and find where the sound rings the most easily, even if it is out of tune. This is most easily recognized through teacher guidance, but it can also be heard if a student “plays the center up and down” to find where it really resonates the most easily.

- How do I get the notes to be smooth?

There can be a variety of solutions to this. Likely, it is some combination of 1) air not being consistent and relying too much on lip strength to make the changes 2) using too open of a vowel: “AHH” or “OOO” can work well for this exercise, but some students may need more of an “EHH” for the upper notes 3) fingers must move quickly and accurately enough 4) jaw position is too open for high or too closed for low.

I.

Valve Combinations



I. Articulation

Background:

Often for early students, the tongue becomes laborious and carries a great deal of importance in the sound production. This is particularly true when the airflow isn't moving as effectively as it needs to and other muscles have to compensate as a result. The tongue is an incredibly large muscle, and is capable of creating a great deal of tension if other fundamentals are out of balance. Students will begin to see how little motion and effort is necessary for fluid, clear articulation starting with this exercise. More specifically, the focus is on a soft, legato tongue.

Approach:

The motion for articulation only occurs at the top of the tip of the tongue. It has a kind of "retraction" up and down when we release the note. The terminology of "attack" for note starts is antiquated, and frequently is causative of excess muscling. The tongue places itself accordingly based on range, and then the tip flicks very minimally. The rest of the tongue should remain as docile as possible. As we ascend, the tongue's release point will slowly move up from the teeth for middle C range to the hard palette for things around the top of the treble staff. Where precisely this works the best changes from student to student, so they must experiment for where it feels and sounds great. Some students may find it the most comfortable to tongue out past the teeth on the lips for every range, and that is okay too, albeit less common. Ideal vowels for legato articulation are "Lohh," "Lahh," "Thohh," and "Thahh." "Taah" might be too hard of a start, and get heavy when increasing the speed. The tempo of this study should reflect the ease of the student. Practicing the sound and feel away from the horn can be very helpful here. As the student becomes more comfortable with the small motion that gives uninhibited results, speed can follow.

Potential Questions and Challenges:

- My fingers get tied up in measures 29-31…

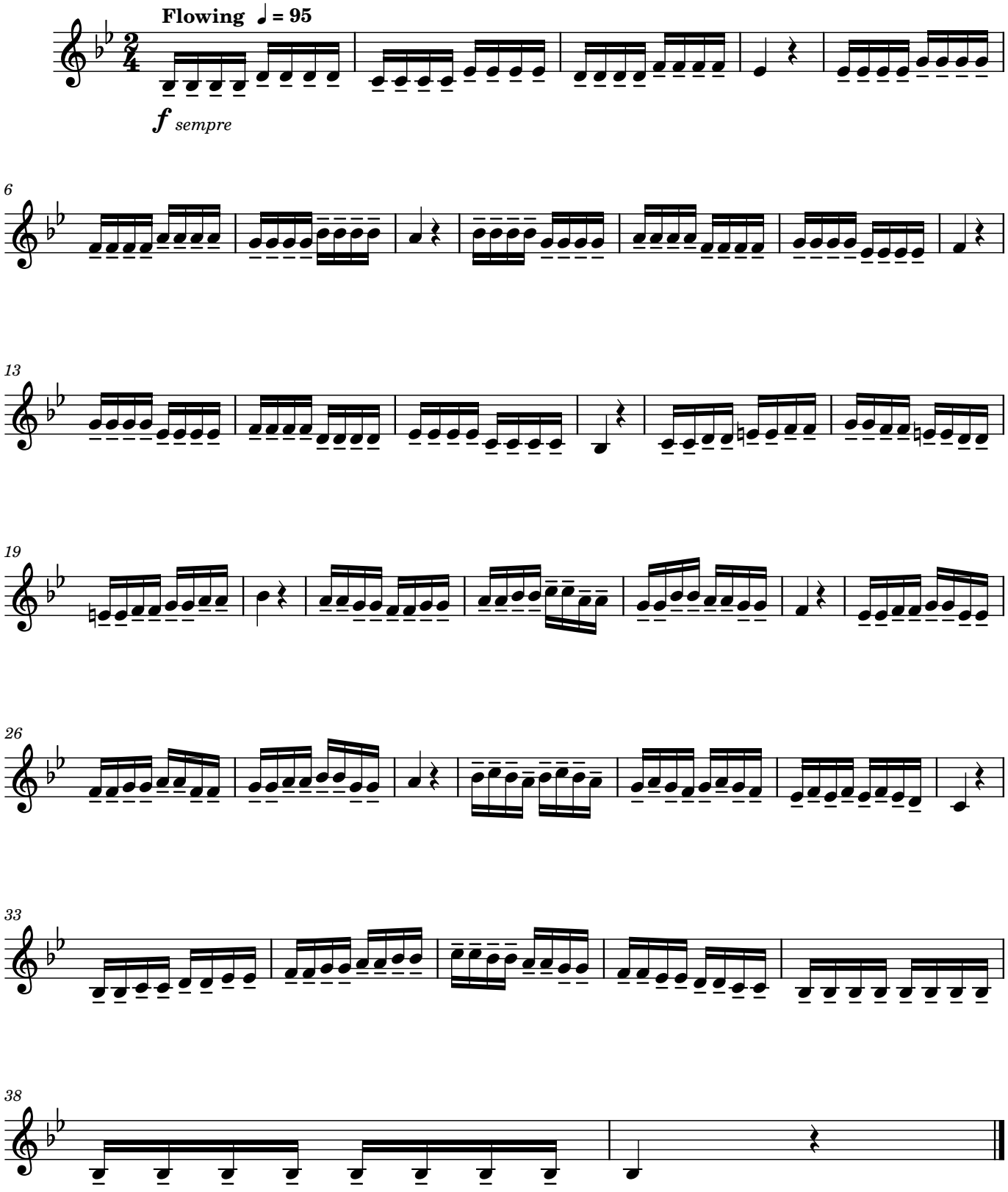
There shouldn't be anything about the notes that hinder a student, provided they know the Bb major scale! Speed is the key factor here: whatever tempo they are capable of playing the most challenging part is what the entire page should be. In this case, these few measures determine the choice of tempo. Fingers moving accurately will greatly improve the clarity of a faster articulated line.

- I haven't been able to make it through the last phrase on a single breath…

There are a few simple solutions to this: 1) **Take bigger breaths!** 2) breathe as often as necessary, not just where the rests are. Nobody wants their students to pass out from lack of air! 3) Play with less volume. 4) If possible, play the exercise slightly faster, automatically making our air slightly more efficient.

I.

Articulation



I. Slurs and Starts

Background:

Many of our common challenges playing the horn stem from inadequate preparation before beginning our first note. Additionally, when adding extra lip/tongue/throat tension whilst traversing slurs can quickly make the player too tight to have access to beautiful, easy production. There must be some change in our biomechanics in order to produce different ranges and different dynamics, but the changes are much more subtle than we might be led to believe. This section starts with a simple means of practicing our preparation with plenty of small rests.

Approach:

First, address the setup of the mouthpiece- a firm contact on both sets of teeth (but not painfully pressed in!) through soft lips. It is important that the environment of the mouthpiece and relaxed lips allow for the vibration to happen, NOT us making them vibrate with too much force. When practicing, the teacher can first ask the student to buzz the entire example on their mouthpiece. This is great for ear training, as well as maintaining vibration across the slurs, rather than the vibration petering out somewhere along the path between the notes. Modeling for and with the student can also be very helpful. The fundamental ability to hear these notes must be in place first, whether it is achieved through singing, buzzing, etc. is at the teacher's discretion. Another means of practicing this on the horn would be air starting each note. That is to say, without articulation. "HOO" or "HAHH" are good vowels to use, and this process will eliminate an extra element of technical skill to further isolate and improve quality sound and healthy playing mechanics.

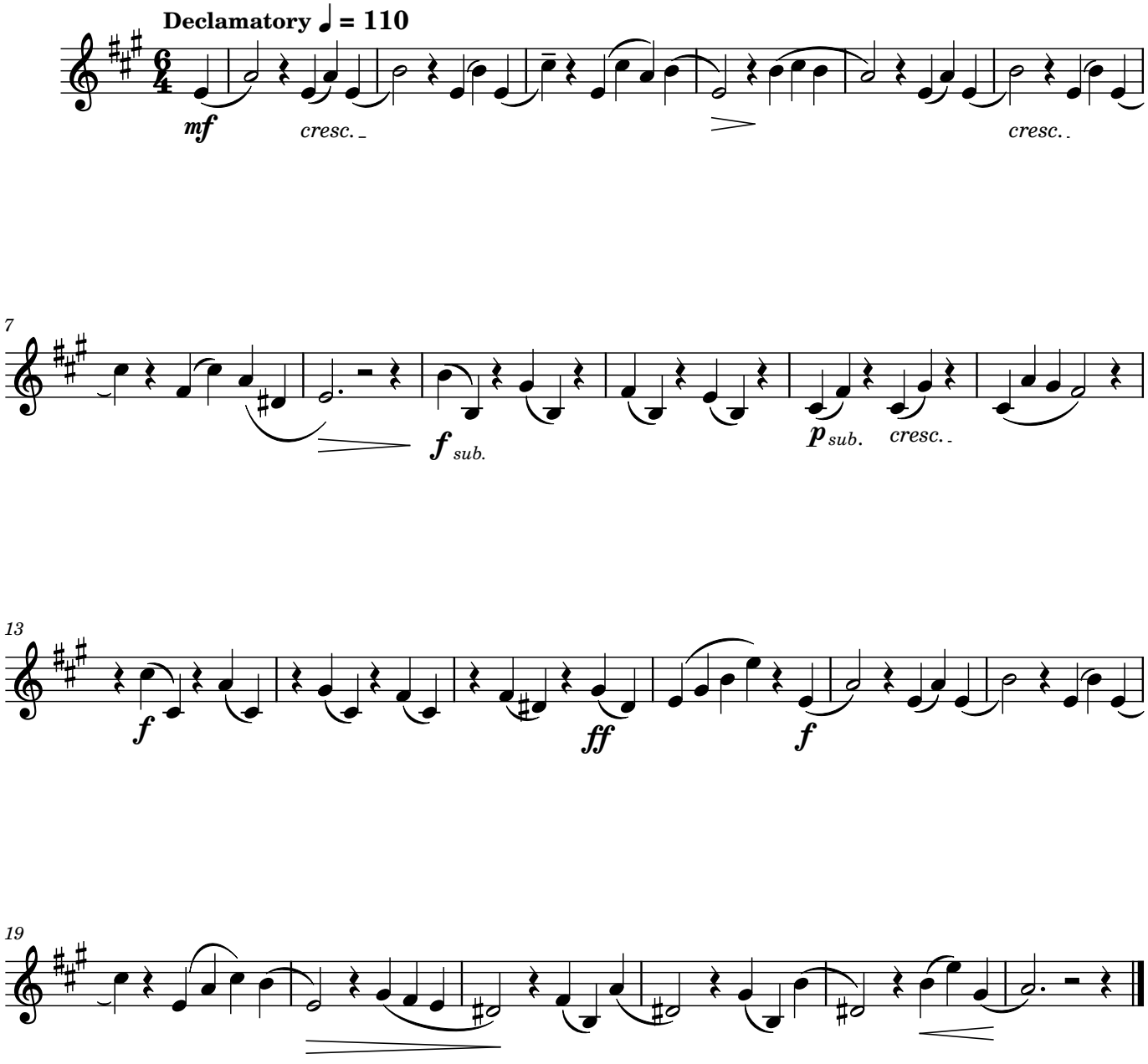
Potential Questions and Challenges:

• How do I get my slurs to be smooth playing the horn?
Smooth buzzing work prior will help immensely. A really connected buzz will cause us to catch harmonics in-between our starting and ending notes i.e. the octave B's in m. 9 have 3 harmonics between them. Encouraging the student by saying that this is a really healthy approach, and the glossing over of the other harmonics is okay to have. Over time, their bodies will learn how to traverse the wider intervals quickly enough that the extra partials are no longer heard.

• The notes that I play that are next to one another sound better than the others…
The student might be adding too much extra muscular effort ascending, or blowing too hard on the descents, preventing the destination notes from ringing in a healthy manner. Trying to fix a challenge like this can be tricky- one of the healthiest ways is to have them buzz slowly, nice and evenly.

I.

Slurs and Starts



I. Melodic Fluency

Background:

Every aspect of why we play in ensembles, take lessons, practice, and teach serves first and foremost to make beautiful music. Passing along this tradition isn't particularly one that can be expressed adequately in the text of a book. Rather, it needs to be felt through great guidance, experience, intelligent thought and approach, and reliable fundamentals. Our culmination of abilities is tested here, applying all of our technical understanding through the process of interpreting melodic material.

Approach:

Looking at the example, you will find many more dynamic markings than in the previous exercises. These are there to help guide student understanding of the give and take of beautiful phrasing. The two measures of rest are included to 1) allow the student more internal pulse practice through counting out loud, tapping a toe, subdividing, etc. 2) To remind them that in real music there is almost always something else happening when we are playing, and that applies also to our rests. This necessitates counting and good pulse/rhythm at all times. There are a great many ways to approach the exercise on the whole- be it buzzing, singing, student playing the melody while the teacher supports harmonically, attention to form influencing character, determining climax points within phrases as well as overall in the piece, moving/dancing to the ark of the music, drawing larger picture slurs on the page and circling important notes in the figures, etc. It is at the teacher's discretion to choose the best options for each student. Ideally, some aspects will come naturally and others may come with more fundamental practice. This is normal, as the process of learning is always continuous!

Potential Questions and Challenges:

- Why can't I just play the notes? It's so much more complicated this way…

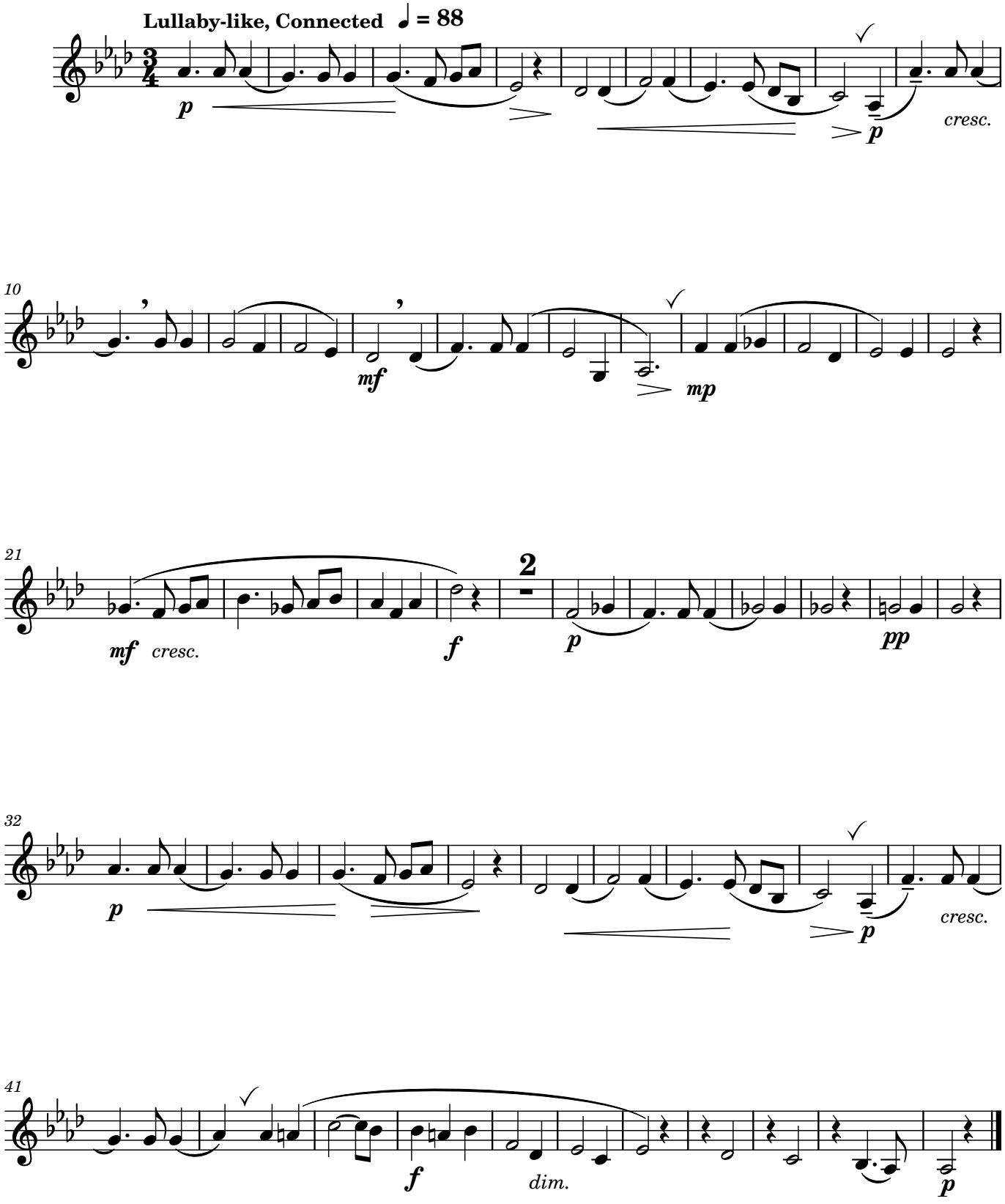
It can be a lot to multitask at first. However, with practice it all becomes much more subconscious/less cognitive. Positive encouragement and patience are key! Have the students go home and listen to great music- provide them with titles or famous artists and ask them to imagine just how different it all would be if there were no contrasts.

- I can hear the way you do it, but I'm not sure how to do it myself…

Playing together can be very helpful in this circumstance. Many students play much more confidently when they play with others- sitting to their left allows them to get the immediate influence of what is coming out of your bell. Remember, the airstream will respond very kindly to appropriate mouthpiece pressure on soft lips. Connect all sounds as much as possible and play notes for their full value!

I.

Melodic Fluency



II. Harmonic Series

Background:

More typical to the type of harmonic series work that is seen in brass books, this etude incorporates glissandi (good vocabulary word for young students). That is to say, glossing over each harmonic between the two written ones purposefully. As mentioned in previous examples, this is a healthy way of navigating around the instrument, and should not be treated like the cleanest slurs. Work on our effortless slides between notes in slower rhythm, then more freely with practice.

Approach:

Begin with the most comfortable dynamic for the student. This entire exercise is only using the first valve- a perfect time to talk about transposition if the teacher wishes. All the student would need to do is use a different fingering in order to succeed at their first transposition practice. As an extra means of learning, the student can rewrite the example in these new keys as well. Notice how the metric eighth note figures and the glissandi figures later are basically the same? The same amount of ease and "bump" between these slower figures will directly and positively influence the faster ones. Each gesture ends with staccato notes: maintaining the ease of arrival after the harmonic changes is very helpful for creating easy and beautiful articulation. More detail about staccato can be found in "Articulation II." Due to the simplicity of the exercise, the student may grow weary with playing it before long: the most important thing to do here if they aren't yet proficient enough to move on is encourage melodic shape by drawing bigger phrase slurs, circling important notes to shape to and away from, etc. Technical exercises such as these need not be monotonous, and can be practiced a small amount each day. Always encourage musicality!

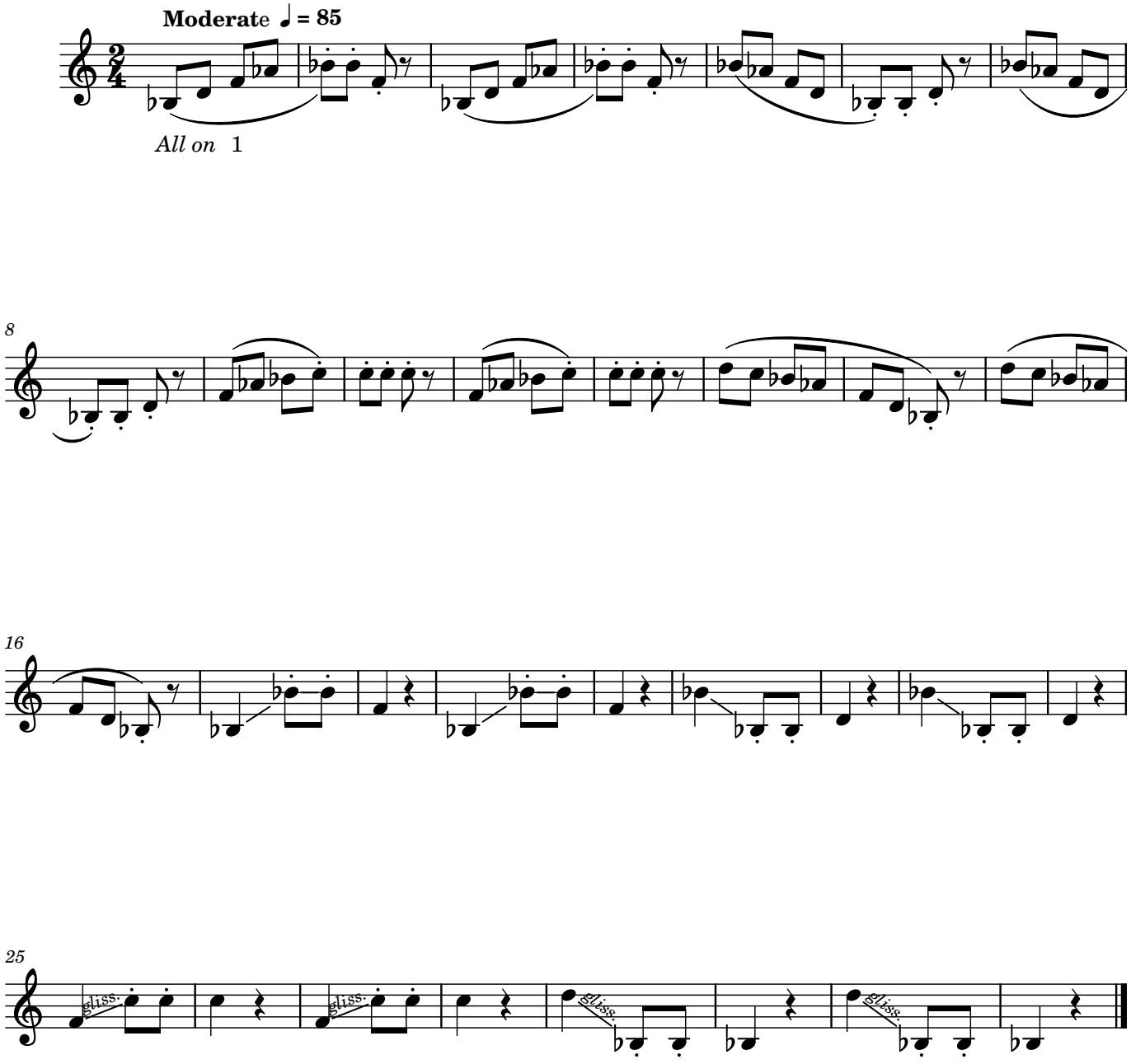
Potential Questions and Challenges:

How it feels to glissando properly will be slightly different for everyone. If a student is unable to make use of the model of a teacher, then these steps will help get them on the right path:

- Everything is progressive- small changes will yield the results with the least effort. Doing the motions faster is only a matter of familiarity/muscle memory from repetition.
- Even sound and dynamic due to consistent airflow and support keeps the face and other musculature as minimally involved as possible. Tiring out will hopefully stay at a minimum when practicing this exercise.
- As one ascends, the lips do not get tight, but the mouth corners may firm slightly. The minimal extra pressure required in contact with the teeth through soft lips will allow for the vibration to be small enough for the upper notes. "Taah" or "Taht" (for staccato) should put the mouth into an appropriate shape for this exercise.

II.

Harmonic Series



II. Valve Combinations

A big thank you to Alexander Shuhan and many years of his warm-up sessions!

Background:

Let's combine our valves and harmonic series by ascending while simultaneously lengthening the tubing. This type of approach provides the student with a unique kinesthetic learning for how to blow through any sort of valve and range change on the instrument. In fact, once these start to feel more natural, playing the same shapes on standard fingerings becomes significantly easier. In a sense, this exercise provides an alternative way of creating fluidity and similarity in range changes just like buzzing.

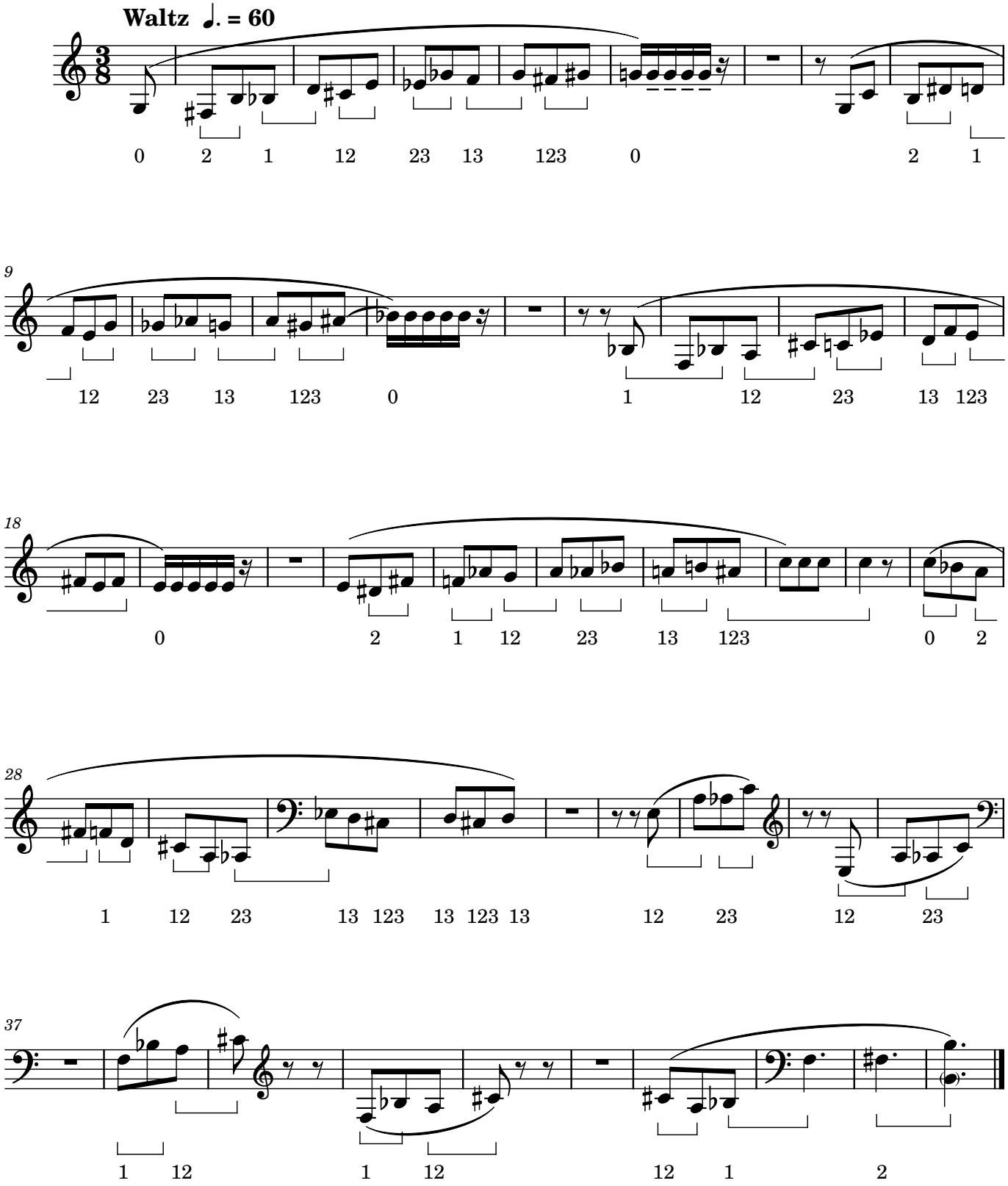
Approach:

- Compound meter- in a waltz feel. Being in an overall '1' rather than '3' can be easily practiced away from the horn with movement/tapping/clapping/stomping/ etc. This may be the first exposure for a student to this type of time signature, and should be addressed appropriately with full explanation before beginning.
- Bass clef- Again, if this is the first example where students experience bass clef, take the time to share how to read it with them. Visually is easiest and the most numerous in means of approach: using flashcards, staff reading drills, theoretical written work and/or homework, etc. For the auditory learners, the exercise is written in such a way that you can direct attention to the figures starting with the pickup to m. 34. Each slurred passage in bass clef is then exactly repeated in treble clef. This way, students can draw cognitive, auditory, and visual parallels between the two. In addition, the inclusion of the brackets with appropriate fingerings will allow the student to focus less on the individual notes, and work the sound of the specific harmonic series' into their ears. This is a crucial skill! To avoid it being potentially overwhelming, bring attention to this for the student right away.

Potential Questions and Challenges:

Low Range- addressed through 1) an open "Aww" vowel, placing the tongue very low in the mouth 2) jaw position opening more on the descent by coming down and forward 3) the angle of the mouthpiece can be lifted up as compared to mid-range (closer to 90 degrees with the chin) 4) the pressure on soft lips is more anchored on the lower teeth and less on the top in the lower range 5) the hand can be more open as well to help the longer vibrations from being impaired. Connect all sounds slowly at first! The tempo marking is only a suggestion or an end goal. See also the lesson plan for "Melodic Fluency III" for even more information about low range playing and healthy production.

II.
Valve Combinations



II. Articulation

Background:

The production of staccato on brass instruments has a certain stigma around it. Very often, the effort to create short, crisp articulation causes players to use a great deal of muscular agility that can quickly cause tension and sluggish/inflexible motion. The goal of this exercise is to dispel this approach with a jovial little tune focusing on the light and minimally invasive nature of staccato tonguing.

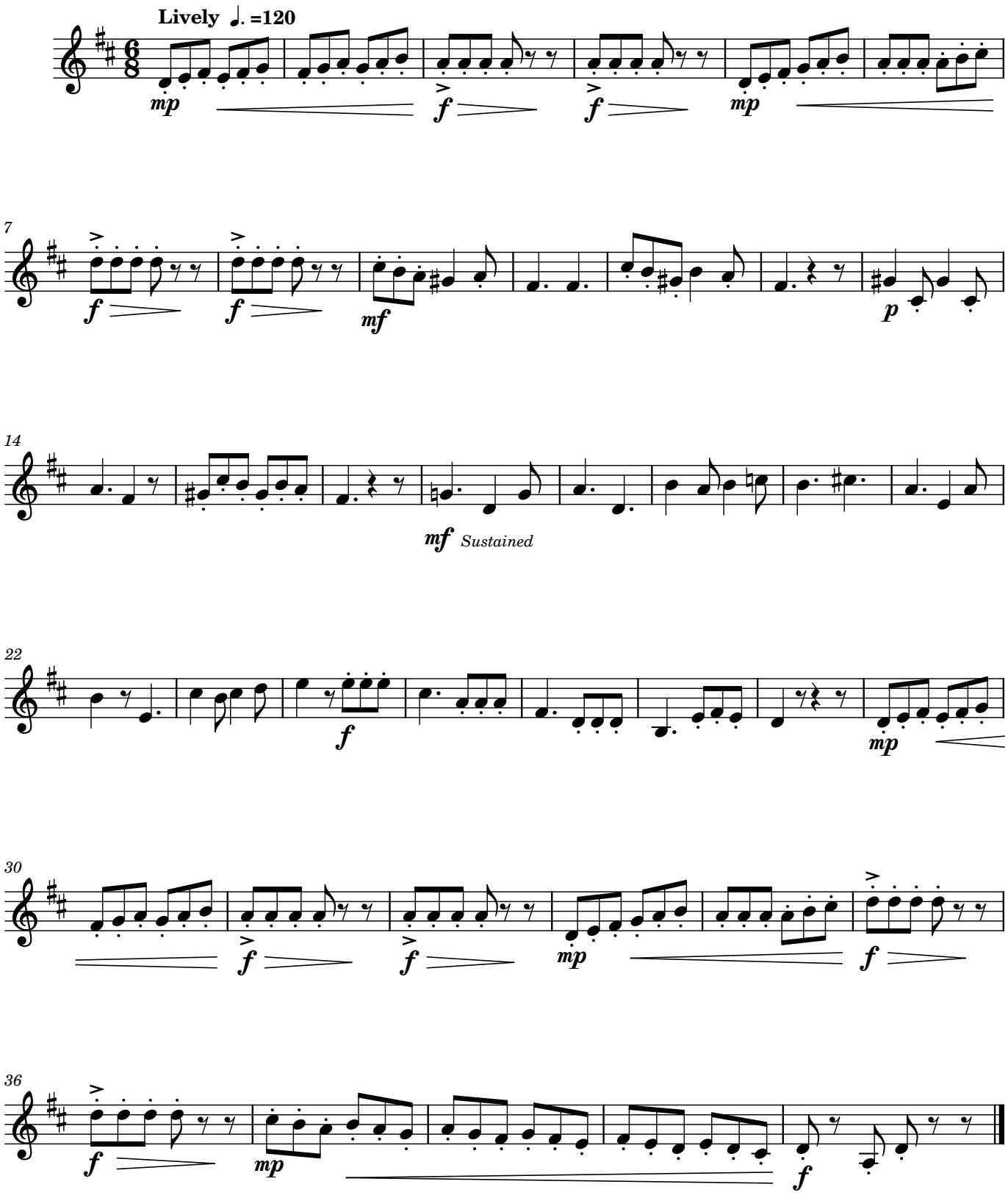
Approach and Method:

There are three main tones to this exercise: the galant A and A' sections, the slightly more mysterious B section, and the heroic C section. All of which can provide nice contrast in character. Open up the option to the student for theoretical analysis by dividing the page by these sections, or creating a separate graph/chart. The same goes for the musical phrasing- quite a few dynamics are written in to help influence a flowing line through the technicalities. For the staccato articulation, following these few steps will help put the student on the right track:

1. Picture a ping pong ball bouncing on a tabletop. That short, light pop it creates is the effect that good articulation should have.
2. The only difference between staccato and legato is how the tongue returns to its point of release. For legato,"Laah" or "looo" work well in most cases. For staccato,"Taaht" or "Toot" allow the tongue to reset back to the initial release point.
3. The point of release is slightly different for everyone: anywhere between the bottom of the teeth on the lip up to the hard palette behind the teeth can be used. In general, the release point of the tongue reflects the overall vowel and syllable used for the range. Cognitive experimentation is needed on the part of the student to feel where this lies for them, followed with many repetitions to create healthy habits.
4. When the tongue returns, it is acting like a valve, only briefly interrupting the air and building a slight amount more pressure behind it. For legato tonguing, the action is so soft and quick that the air barely gets grazed. For staccato, the action is still very fast, but slightly more involved and no more effortful. Just saying," Taht Taht Taht" away from the horn allows the student to feel the airflow being interrupted, but not restarting each time. Try putting a hand in front of the mouth to more easily feel what is happening with the airflow. The pressure behind each release inspires the air to want to continue moving forward- if this isn't felt, then there is a lack of air support influencing the proper flow.
5. The motion of the "release" should be quite small as well. Only the very top of the tip of the tongue should move, while the rest is relaxed and uninvolved. The movement itself is in an up and down kind of motion- forward and back can certainly work in many situations, but if the student isn't careful this will involve too much movement of the tongue. As a result, faster articulation will be more difficult and fatigue is sure to follow.
6. Speed is recommended for this passage- if we were to take a recording of music of similar character and slow it way down, the notes would get significantly longer: they wouldn't remain as short as they are up to speed. Therefore, playing this study at a slow tempo is likely going to produce incorrect, or significantly more labored results. Flowing at the marked speed will help counteract this tendency.

II.

Articulation



II. Slurs and Starts

Background:

Closer in style to something out of the Schantl *Grand Theoretical and Practical Method for Valve Horn (Ed. Yancich, 1981)*, this study exposes the student to diatonic expansion of a certain key. In this case, B major. The simplicity, speed, and amount of rest allow a slight increase in the ascending range, while its length won't highly contribute to fatigue during a practice session.

Approach:

Usage and application of musical terms:
Circle of Keys (5ths or 4ths, teachers choice)- Many images exist of the circle and explaining to the student how as we go around in either direction, each one adds a sharp or a flat until they cross over an enharmonic spelling. The process by which they are added can be written out in many ways at the teachers discretion.
Enharmonic- when two notes look different on the staff, but sound the same when played. Ex. In m. 22, F double-sharp sounds as a G would, and m. 35 with an E# sounding just like an F.
Double-Sharp- Acts just like a sharp, but raises the note 2 half steps instead of one. There are also double flats that lower pitches by 2 half steps.

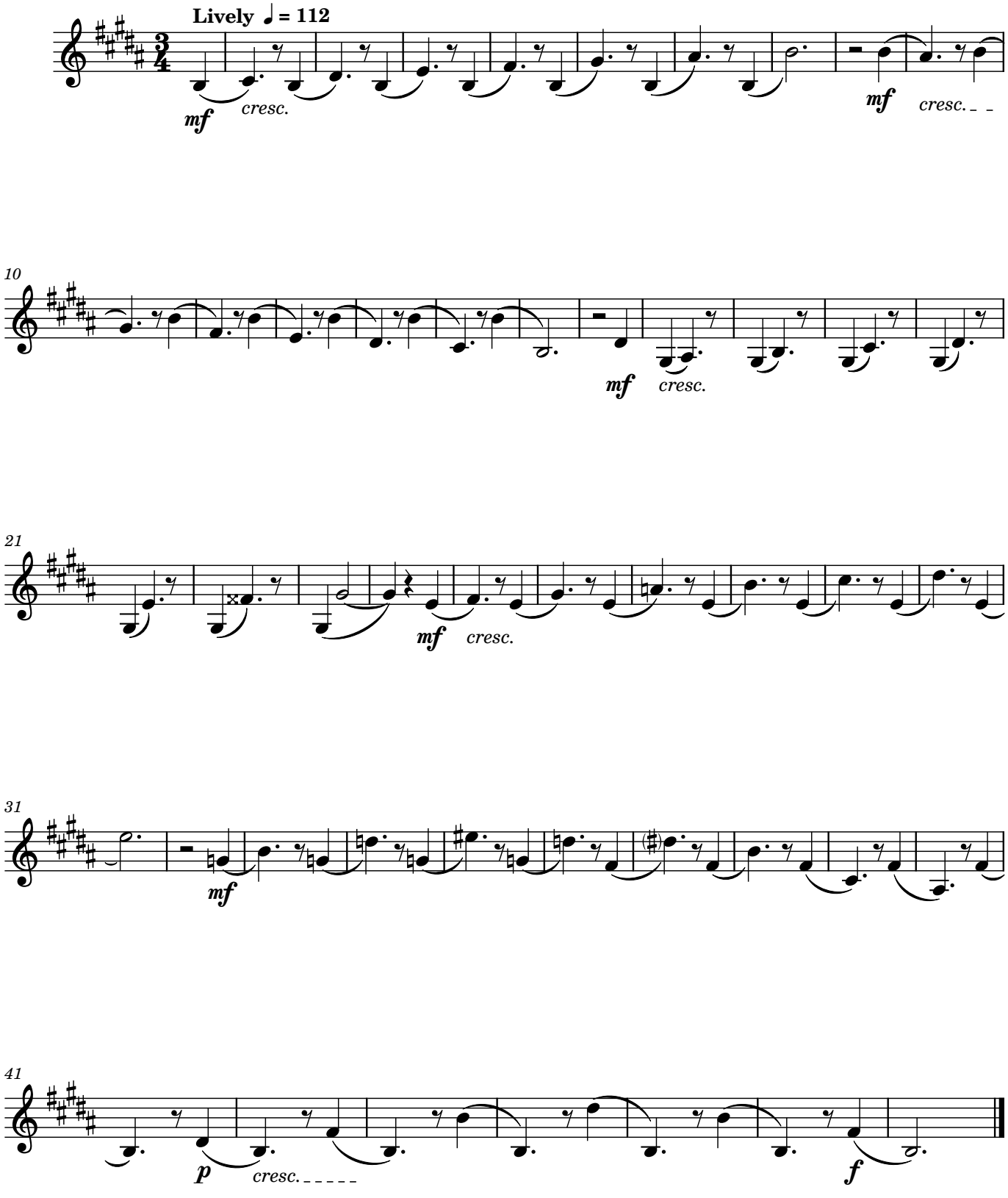
The primary purpose of putting this amount of rests into the exercise is to allow all of our playing muscles to rest and reset. Between each gesture, the student should ideally feel a lift off of the final slurred note, which caters to a relaxed breath. Maintaining good sound through the slurs and regardless of other harmonics glossed over within them allows the student to feel fully in control of the ranges written, as well as just how little change happens in the mechanics even with the wider intervals. The increased pressure and frequency of buzz at the top of the treble staff will likely feel unnatural compared to the mid-range. This is also a typical response, but when supported properly with airflow and trunk muscles i.e. abdominals and intercostals, the notes will ring just as beautifully as they do in the more familiar range.

Potential Student Questions:

I have a more challenging time playing the next notes after a rest accurately, especially if the jump is big**…**
While the embouchure itself can remain mostly in place during a rest or breath, it likely will not retain the exact shape necessary for the next note after the slurs until becoming more familiar through practice. This is a normal result to get initially, and very astute observation! Encourage both patience and mindfulness, as well as even more time between each individual gesture to fully set up the proper playing position for the range required. Speed and ease will come with time.

II.

Slurs and Starts



II. Melodic Fluency

Background:

Let's briefly discuss tonal compositions in minor: often, because of the theory behind progressions and associated keys, minor compositions can allow for a great deal of variation and color. For applied learning purposes, accessing minor mode pieces can be great for developing an excellent inner ear. This is of the utmost importance with horn because so many of our fingerings share the same notes, as well as so many different notes can be achieved with the same fingerings! With this lyrical passage, students can begin to hear and assimilate these sorts of non-typical tonal progressions.

Approach:

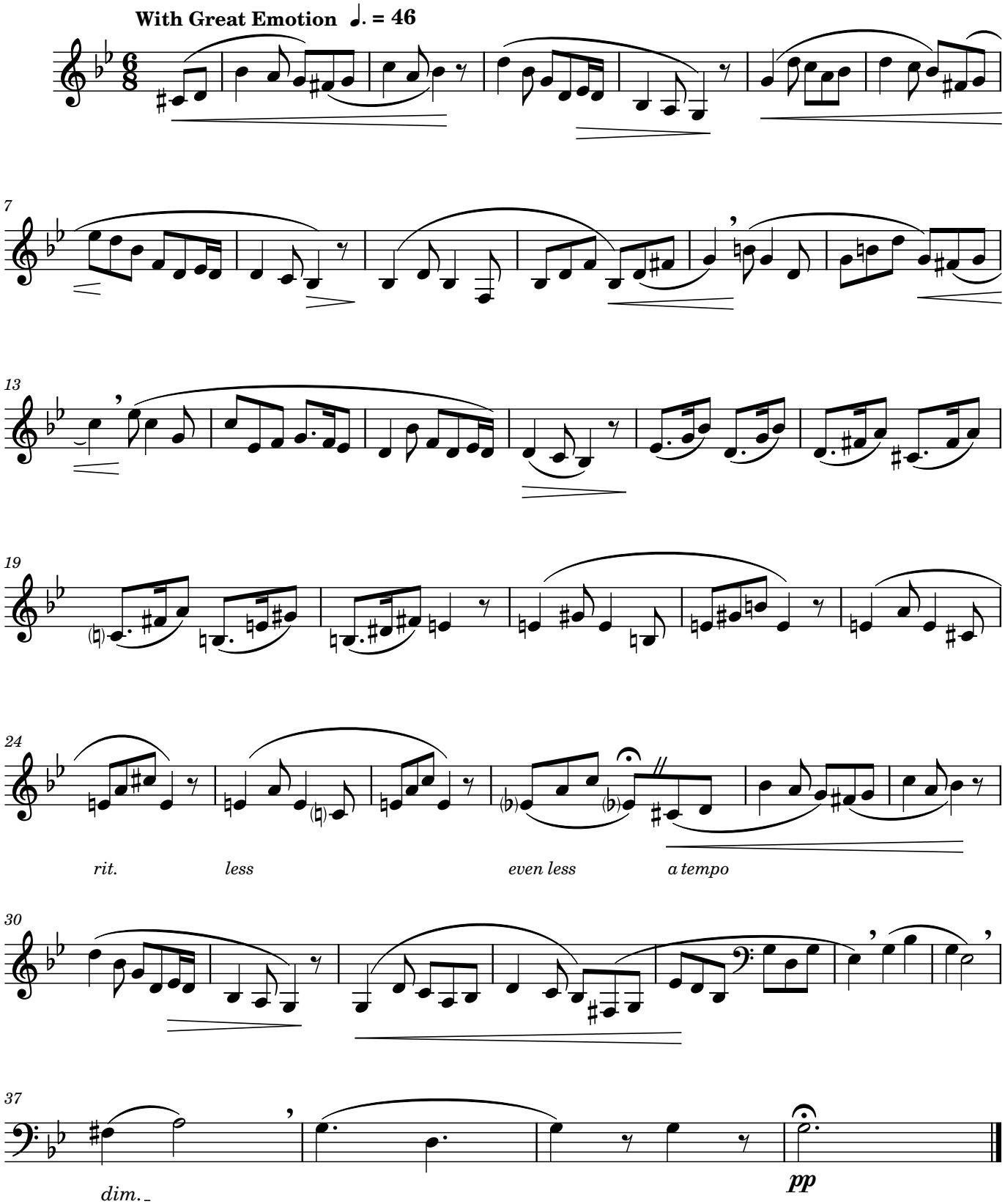
There are many ways in which the teacher can have the student practice this piece, including singing, buzzing, writing in note names and dynamics, separating sections, dance or movement while the teacher plays to discuss tonal characters, etc. Note that there aren't any specific dynamics written, excluding the last measure. The overall expression marking also says the piece should be emotional, but doesn't say what kind. This is because the sound, feel, and dynamic should reflect how the student is taken whilst playing. Do they hear this as very solemn? Or a bit curious? The lines are there for overall shape suggestion, but students and teachers can certainly deviate to accomplish more specific tasks. The most important aspect to the execution of this study is smoothness. Beautiful sound will influence the line and make all of the wider intervals seem much closer together. As for the bass clef towards the end, a more open vowel like "Laaw" or "Thaaw" will lower the tongue and jaw position, and the air must move more slowly overall. Mouthpiece pressure should still make contact with the teeth through soft lips, but to a lesser extent in the low range- the lips have to vibrate a bit larger, and the slight less pressure from the mouthpiece rim on the top lip will allow them to do so. There is no magic solution that works for everyone in finding the exact places where notes resonate the most ably, but the general principals allow students to experiment for themselves to find that answer. Mindfully practicing little bits every day is a very healthy way of approaching any sort of unfamiliar challenge.

A few words of wisdom:

Developing the inner ear is a life-long process. Some of the best practice that can be done for it is singing. While I understand that students may not be comfortable with their voices, encouraging them with this true purpose is helpful: to be so confident in the pitches written on the page that you can hear them very clearly in your mind's ear as you play the horn. This not only drastically improves our accuracy, but is directly transferrable to any sort of musical context on any instrument. It is an "overall musician" ability, not just specifically for horn.

II.

Melodic Fluency



III. Harmonic Series

Background:

The student will likely have a better understanding of the harmonic series by this point. Having already practiced using glissandi to help navigate partials, this exercise plays with a longer set of tubing as well as what would be our Ab crook, or trigger 1 on the Bb horn in a simple melody.

Approach:

The primary goal for the student is to approach the change of notes efficiently and beautifully. The longer horn, using 23 on the F-side, will likely feel more pressurized in the upper notes, and this is normal! Continuing proper support from the trunk muscles, as well as consistent airflow are key ingredients. If the student does not own or cannot practice this exercise on a double horn, then any of the brackets labeled “Bb1” can be played with other standard fingerings. However, if they do have a double horn, it opens up another realm of learning in that students may hear the timbral (good term to teach!) differences between the two sides of the horn. Specifically, F horn tends to be darker, more complex, while the Bb horn has a tendency to be brighter and more vibrant. As we practice the instrument, it is ideal to find a way to make the two sound as similar as possible: many professionals strive to match their Bb sound to that of the F, and this is a good goal to have.

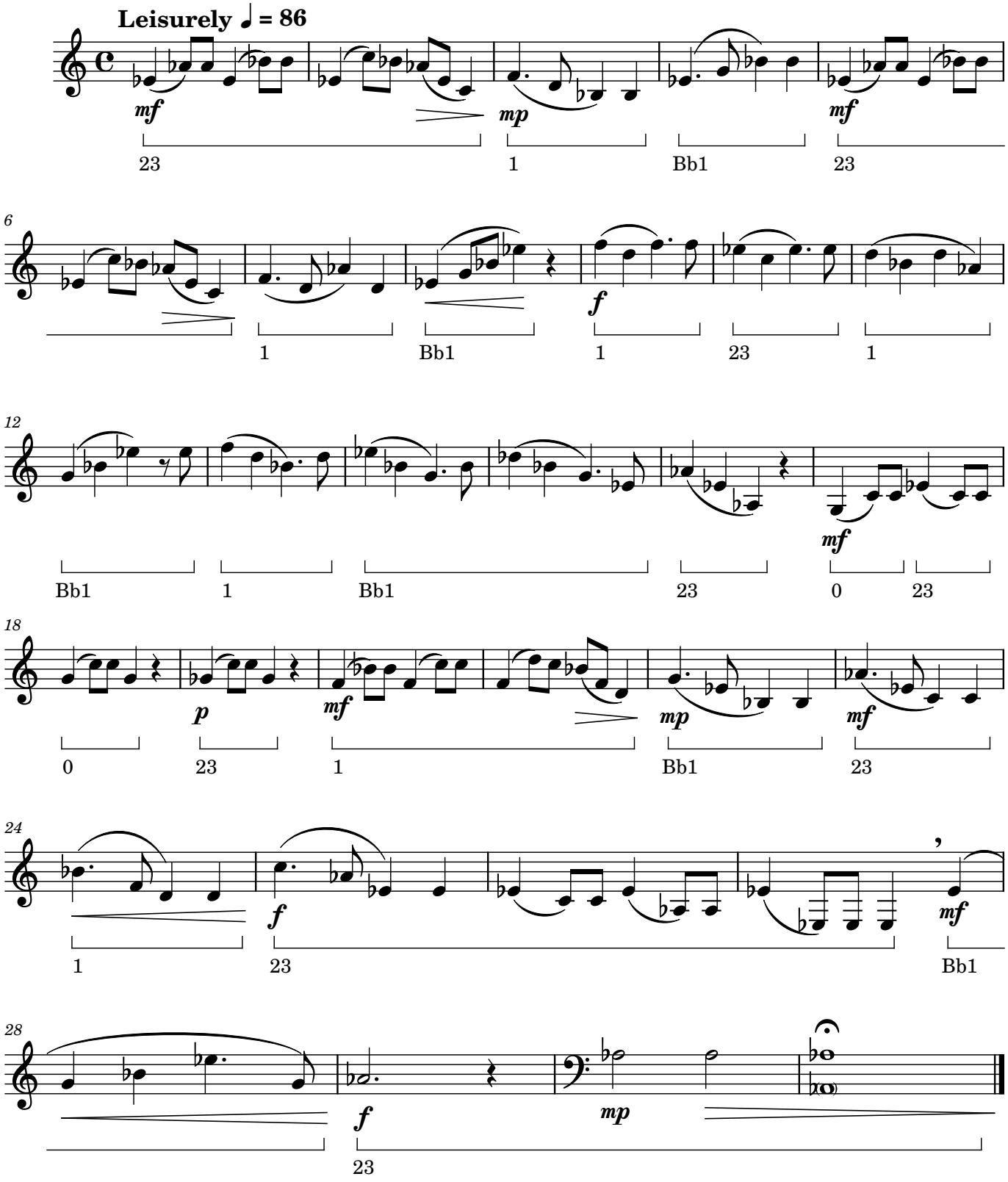
Potential Questions and Challenges:

• <u>The range gets tiring quickly with too much practice.</u>
For a student not used to playing in this range on the longer horn, this is completely normal. Plenty of rest in-between phrases, as well as breaks during practice sessions. It is quite healthy to put our instruments down, get up and move around, and re-approach things later with clearer minds and rested muscles! This is also an exercise where, if this ends up being a challenge, that the teacher may encourage the student to practice it every other day, or every three days, to allow the muscles to heal when building strength.

• <u>How do I make my Bb horn sound more like my F horn?</u>
This is a very good question, and one that many teachers do not address. The best way is to allow the influence of good F horn playing to become the model for the Bb. That is to say, use the great sound of m. 3 to apply to m. 4, regardless of the Bb horn. Exercises away from the horn can be as simple as slowly switching between an F horn fingering and a Bb fingering of the same note, encouraging good listening and mindfulness striving to match that dark, rich horn sound.

III.

Harmonic Series



III. Valve Combinations

Background:

Our last example used valve combinations that shorten the length of tubing while ascending. This tends to be the easiest on our playing mechanics because the natural amount of support and airflow required for the longer tube, when transferred to a shorter one, automatically instigates the elevated level of energy needed to go higher. With this example, the student will do the opposite: blowing over a lengthening horn while ascending.

Approach:

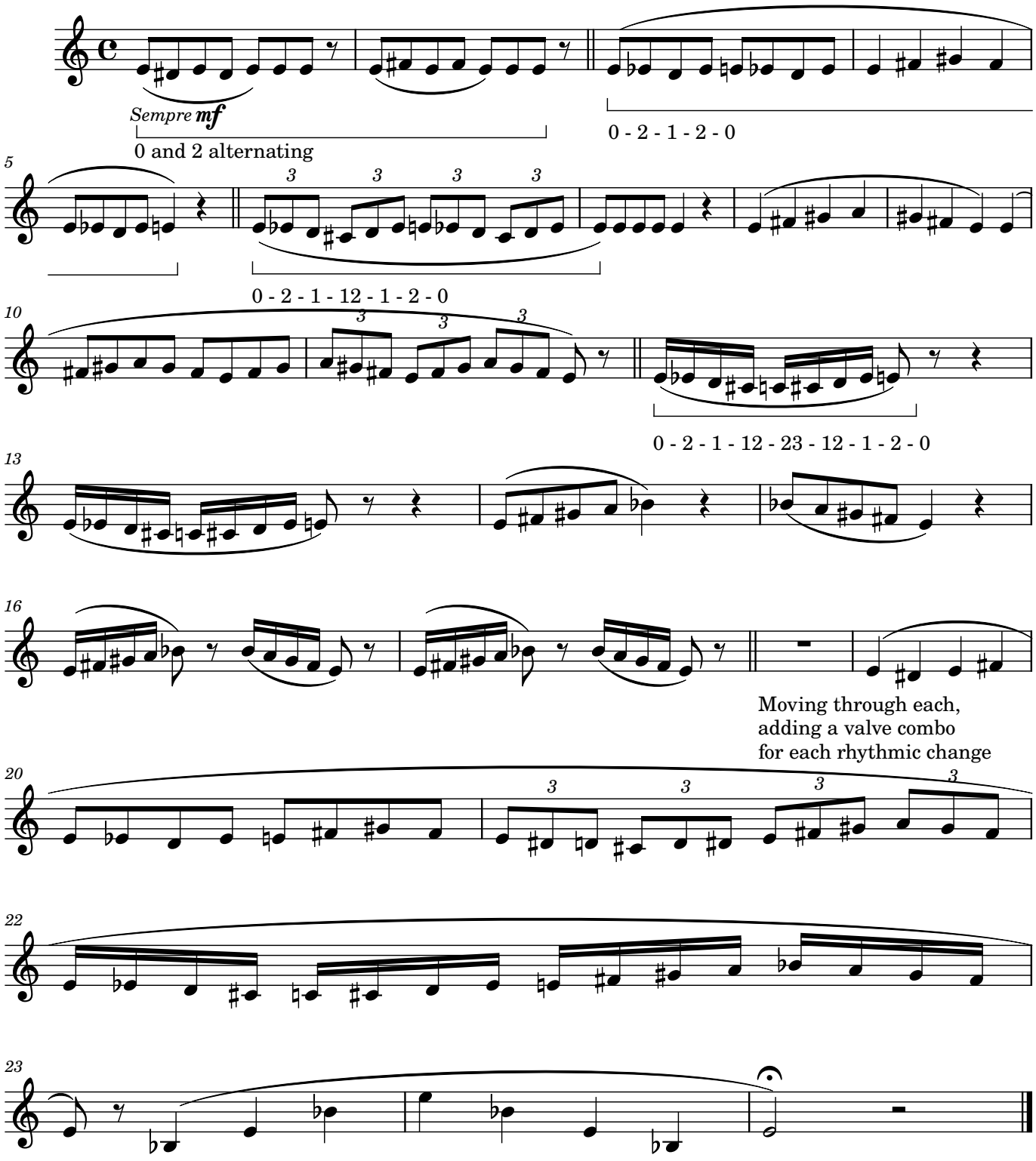
This exercise, while easier in terms of range, comes after the previous example because lengthening the horn while ascending can be quite challenging at first. It is a unique feeling when crossing these boundaries smoothly, and further influences connectivity when playing with standard fingerings. With each passage between double barlines, we add an extra fingering into the mix. The descending pattern always happens first to apply the proper fingering pattern- and those all remain on the same partial. The figures that follow require the same fingering patterns, but ascending a partial for each fingering. For example, m. 3 moves between E, Eb, and D, and these all use standard fingerings. M. 4 requires the same open- 2 - 1 - 2 - open, but ascends through F# and G# (E is 5th partial, F# 6th, and G# 7th). It is a strange concept at first, but once it clicks it is really quite straight forward- and each addition of a valve combination works the same exact way. Minus any repeated notes, which should maintain whatever fingering was just being used, the ascending direction and descending use the same exact fingerings. Practice this slowly at first: there is no indicated tempo value, and add in the changing rhythms later once the motions between the ascending notes feels more natural. 5th partial was chosen for this exercise's expansion point, but it can be played with any partial as the center. Keep in mind, however, that the ascending parts of the exercise will encompass more range when starting on a lower partial, and less when starting higher. So much less, if up high enough, that all of the valve combinations play different versions/intonations of the same couple of notes!

Potential Questions and Challenges:

• <u>You guessed it: how do I get the ascending parts to sound smooth?</u>
Feeling each change of note isolated would be a great first step: working back and forth between the two notes slowly will allow the student to feel the slight changes in air, pressure on soft lips, tongue position, and switching with their fingers on the keys. This coordination is as much a habit building exercise as anything else within these pages, so patience is key, and speed and fluidity will come with time.

III.

Valve Combinations



III. Articulation

Background:

This example is largely on par with the last in terms of its difficulty, but does traverse slightly more range on the lower end. It makes use of carrot style accents, as well as regular accents. The difference between the two is generally an audible one, and can be practiced using weight of the airflow.

Approach:

Weight of the airflow is an interesting concept- almost like a belly laugh. That little bit of extra emphasis at the start of a note will produce an intensity during softer dynamics, and a zing in the louder ones. The main difference between a carrot accent and a regular one is their length. To emphasize this, the exercise here has regular accents on longer notes, as well as the final stanza. The carrot accents, sprinkled within the entirety of the exercise, require a slight lift or space between it and the note to follow. The effect may come across as a little bit militaristic if done well. Pay particular attention to the feel within the core of the body i.e. the trunk muscles. With each accent of either type, there will be a little motion outward- this is the body working for you! Allow it to carry the weight of the passage and free the embouchure to vibrate freely and comfortably. For any notes that do not have any written articulations, they should be played for full duration. This provides some contrast musically, in addition to physically.

Potential Questions and Challenges:

- The sound of my accents in the loud dynamics don't sound quite right…

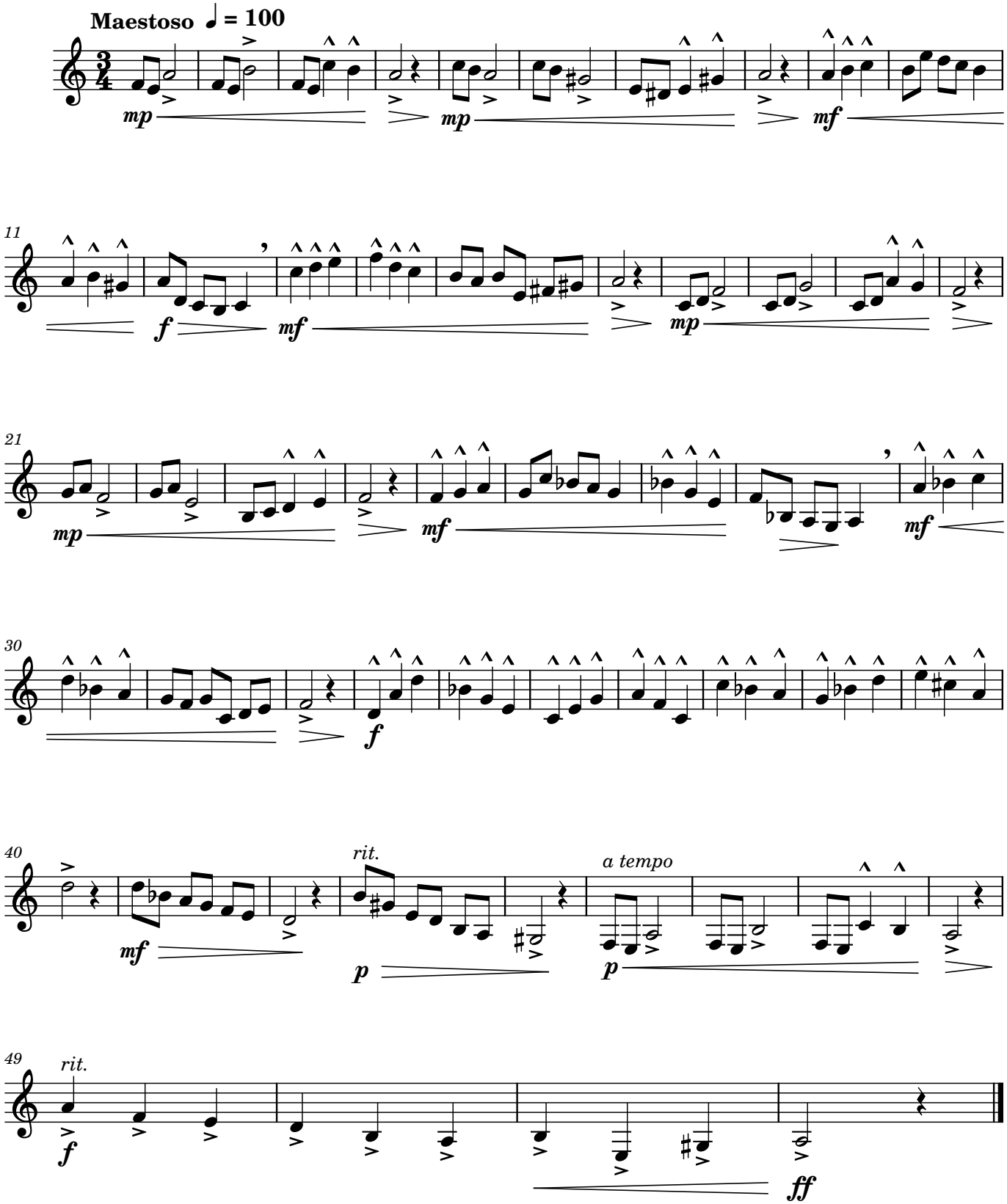
It is likely that the extra emphasis from the core muscles in the louder dynamics will require the corners of the embouchure to hold more firmly than they would in previous book examples, and that is ok. The student may be experiencing too much embouchure tension, which produces a brittle and edgy sound. As long as the lips remain free and the sound is rich and sonorous, then the embouchure can support however the individual needs it to- we are all different, and our faces when playing also all look different!

- The start of the notes is not clear/raspy/has burrs.

This can be either 1) the airflow isn't supporting the vibration well enough, and too much facial muscularity is in the mix 2) the release point for the articulation is yielding the wrong mouth shape or 3) the tongue is far too tense in its release of the note. A balance of all three is needed to get good articulation, especially at bigger volumes! A little more detail on articulation troubleshooting is in the lesson plan for the "scalar study."

III.

Articulation



III. Slurs and Starts

Background:

The past examples in this section have maintained reasonably small intervals within slurs, have had ample rest and reset time, and have incorporated increasingly more challenging rhythms. Following this trend, this exercise exhibits even wider intervalic slurs and alternating triplets with dotted eighth-sixteenth rhythms.

Approach:

For the wider slurs, keep in mind that partials in-between will likely be glossed over. Smoothness and speed can come with familiarity, and the tempo marking is only a suggestion. Included are a variety of dynamic markings to aid in the overall shape of the line and imply a proper means of production i.e. more volume and air support for the intervals reaching over an octave. Switching seamlessly between the triplets and dotted sixteenths will require accurate internal subdivision, which can be practiced away from the horn in times of rest. Rhythmic integrity informs beautiful phrasing! This exercise includes a great deal of chromaticism and a less conventional harmonic structure: it can also be aurally beneficial for a student to take each phrase and buzz/sing it before playing on the horn. Perhaps the most challenging piece in this book to play, slow work and patience are again very important- encouraging work on even just one phrase per week between lessons can be beneficial.

Potential Questions and Challenges:

- I have trouble getting good sound on the bottom notes of big descending slurs…

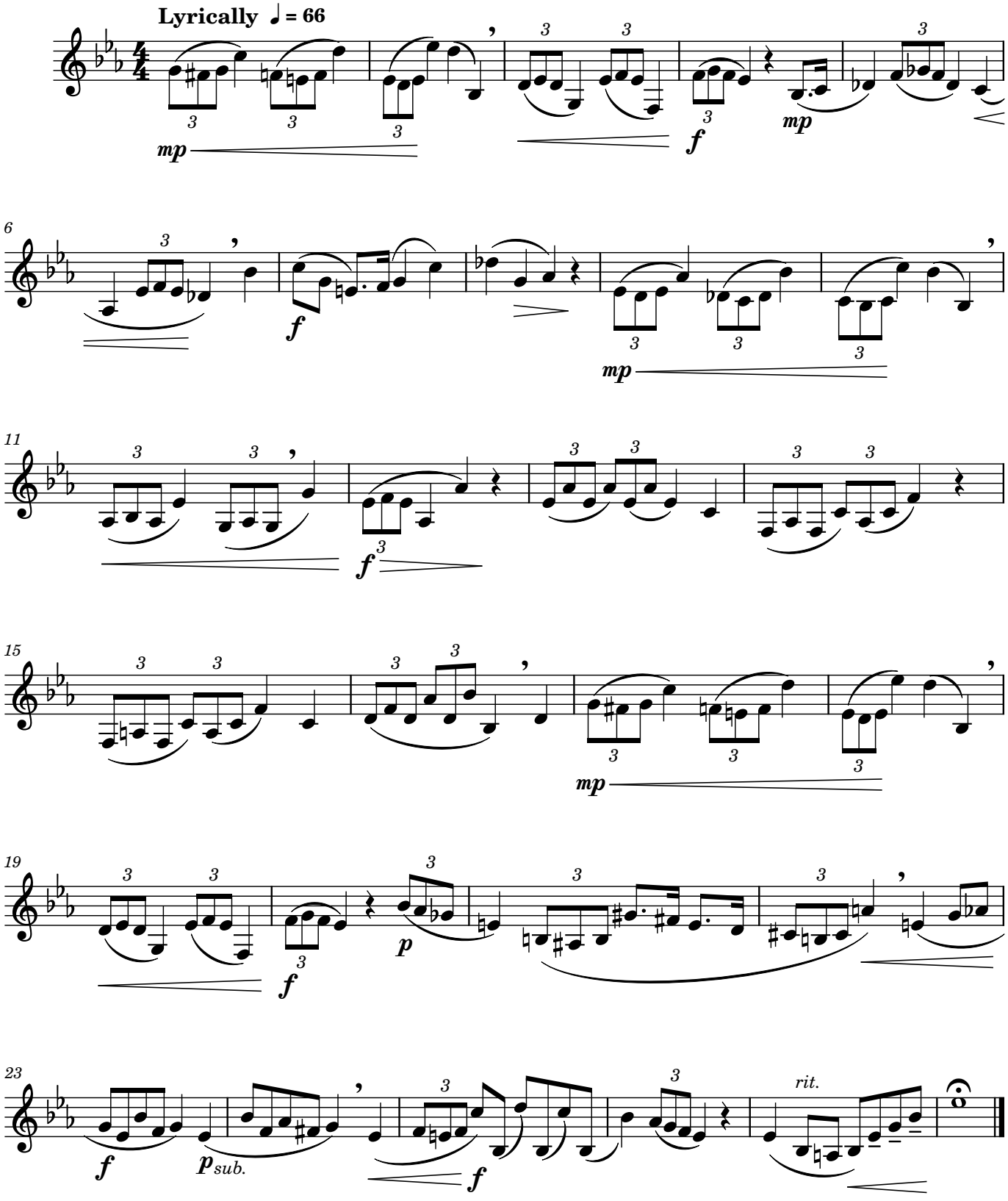
This is almost guaranteed a case of the oral cavity retaining its smaller size from the upper range after the leap down. This keeps the air moving too quickly for the lower notes to vibrate properly. Going from “Ahh” to “Ohh” or “Uhh” will automatically slow the air and create more resonance space. The extent to which a student will need to change their oral cavity and adjust the airflow/muscular support comes through experimentation finding the best possible sound, and that is slightly different for everyone.

- I tend to get stuck in one range and everything beyond that in either direction doesn’t sound as nice…

Be cautious if this is happening: it is possible that up to this point in the book, the student hasn’t been approaching the exercises with the healthiest means of production. Now the more demanding passages are pushing them beyond their capability. If needed, spend more time on previous examples that are less challenging and attempt to find a better balance of relaxation, quality sound, and healthy production!

III.

Slurs and Starts



III. Melodic Fluency

Background:

In true Rochut/Bordogni (c. 1926) fashion, this study is written in a vocalise style entirely in bass clef. The specific purpose is to address legato technique across a very open and lyrical range of the horn, as well as to clarify common challenges with said range.

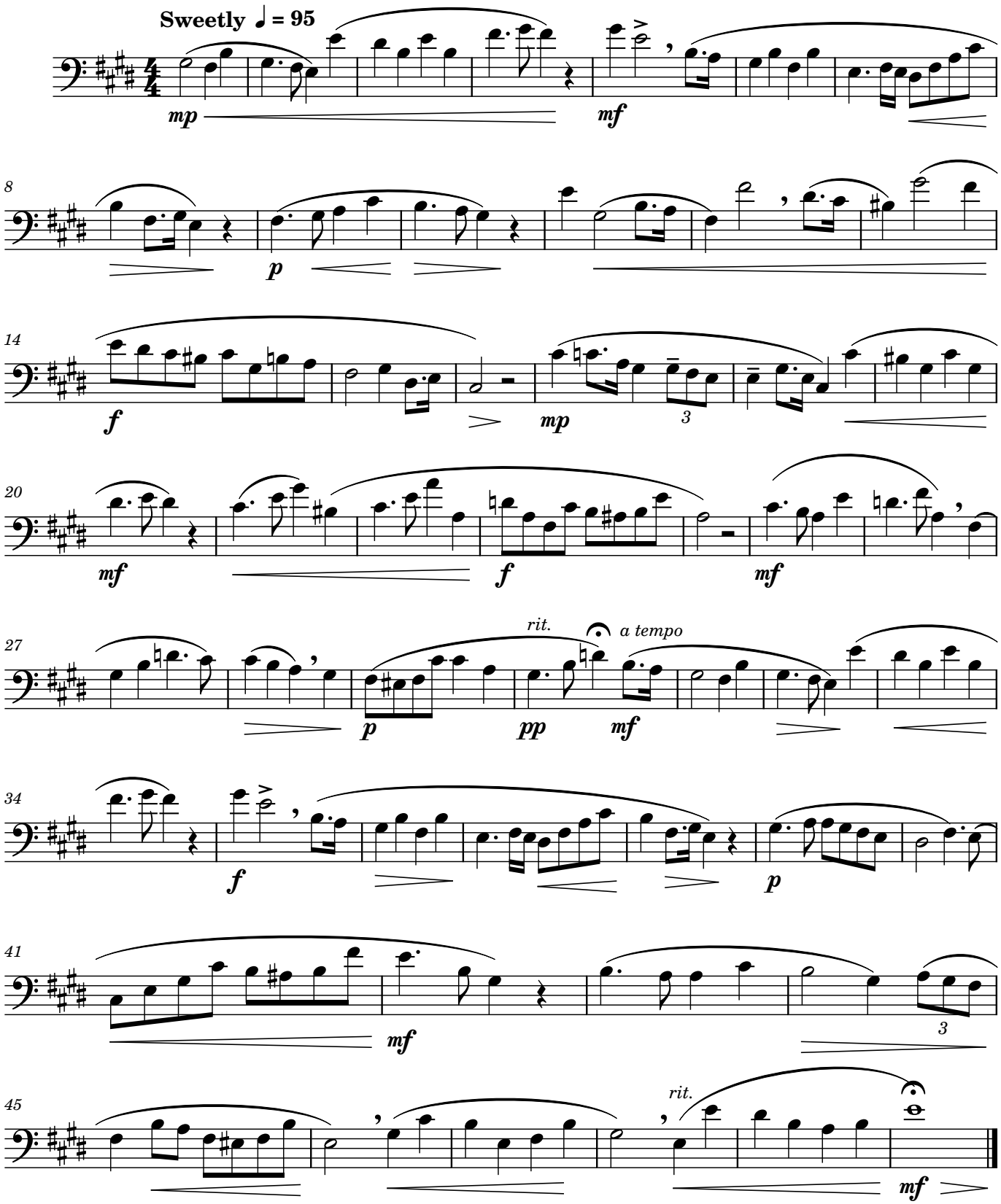
Approach:

At this point, the student will likely be more familiar with bass clef notation. A slower tempo and chunking the exercise out by phrase may be necessary, as well as writing in some critical note names. I would encourage the teacher to avoid having all of the notes written in because this takes away from the staff reading development. Additionally, buzzing this etude will be difficult due to the range unless a buzzing pipe is utilized. Therefore, singing in a preferred range is an optimum means of learning the music away from the horn. The technical aspects of playing in the low range are addressed briefly in “Valve combinations II,” and will be further explained here:

As we descend, the space in our oral cavity has to become larger. This allows the air speed to slow, but the amount/volume moving through the lips to increase, thus making the lips vibrate bigger and more slowly simultaneously. Contrary to the upper range that uses primarily tongue elevation and internal compression, the low range uses jaw position and full airflow. Previously mentioned was the vowel “Aww” or “Thaw” which sets the tongue very low in the mouth. Try picturing the fogging of a cold window- slow, warm air. From here, the jaw can extend down and forward slightly. The student may observe that their teeth become more parallel in this instance (especially if they have an overbite), and that is exactly what should happen! This jaw motion is what organically causes the horn’s lead pipe to become straighter/more perpendicular. As for most areas of the range, the lower notes still require some mouthpiece pressure on soft lips. The amount is much less on the top lip due to the size of the vibration- too much pressure won’t allow the lip to vibrate freely enough to attain the lower pitches without squeezing or doing a “pouty lip” or “kissy lip” shape. Structurally, the muscles in the face should still be engaged, but much more softly. Like a drawstring bag, the more loosely the string (muscles) holds the opening, the bigger (more relaxed) embouchure you will get. As for tonguing, because the tongue sits so low in the mouth, the area articulated has to be relatively close by. Otherwise, far too much movement is involved and the action becomes labored. In general, release points for the lower range will be far forward in the mouth around the bottom of the teeth. Some people even articulate beyond the teeth and release from the lips! It all depends on the student’s physiology and where the results work for them. If they are unable to start on a lower note clearly (probably clipping an upper partial), then the vowel is too closed and/or release point for the articulation are too high in the mouth.

III.

Melodic Fluency



Scalar Study

Background:

This study blends elements of fluidity and what one might encounter in a Kopprasch or Schantl study: each major scale is utilized in a progressive, diatonic pattern. While it is understandable that some of these scales may be new or daunting to an early learner, no typical major or minor scale should be an obstacle after practice. There are many ways in which one can practice this piece, positively influencing long-term practice.

Approach:

Observe that this is a scale exercise, but the main portion is written in big slurred phrases. Additionally, the dynamics have shape but no specific markings. These should support the student wherever their best sounds lie, and the shaping can follow suit. Ideally, there should be a natural crescendo following the rise in range, and decrescendo on the descents. This is an optimum way to begin a fluid and connected air stream with great sound before adding the use of the tongue. Buzzing is also a great way to feel the shape and range before having to consider any fingerings. Each phrase only encompasses three scales: plenty of time for rest and isolation of specific sections. If a student is challenged with one or more of the scales, stop and take the time to work them out! One can assign the student chunks, or parts of the exercise at first before being able to handle the entire thing. Tempo is also suggested to start more slowly than marked. Half note= 85 is a good goal tempo that flows quite nicely. The element of Kopprasch mentioned previously comes with the pattern variations on the bottom. There are 6 in total, and each can be applied to the entire exercise when chosen. Approach each with a light tongue and full values on final slurred notes.

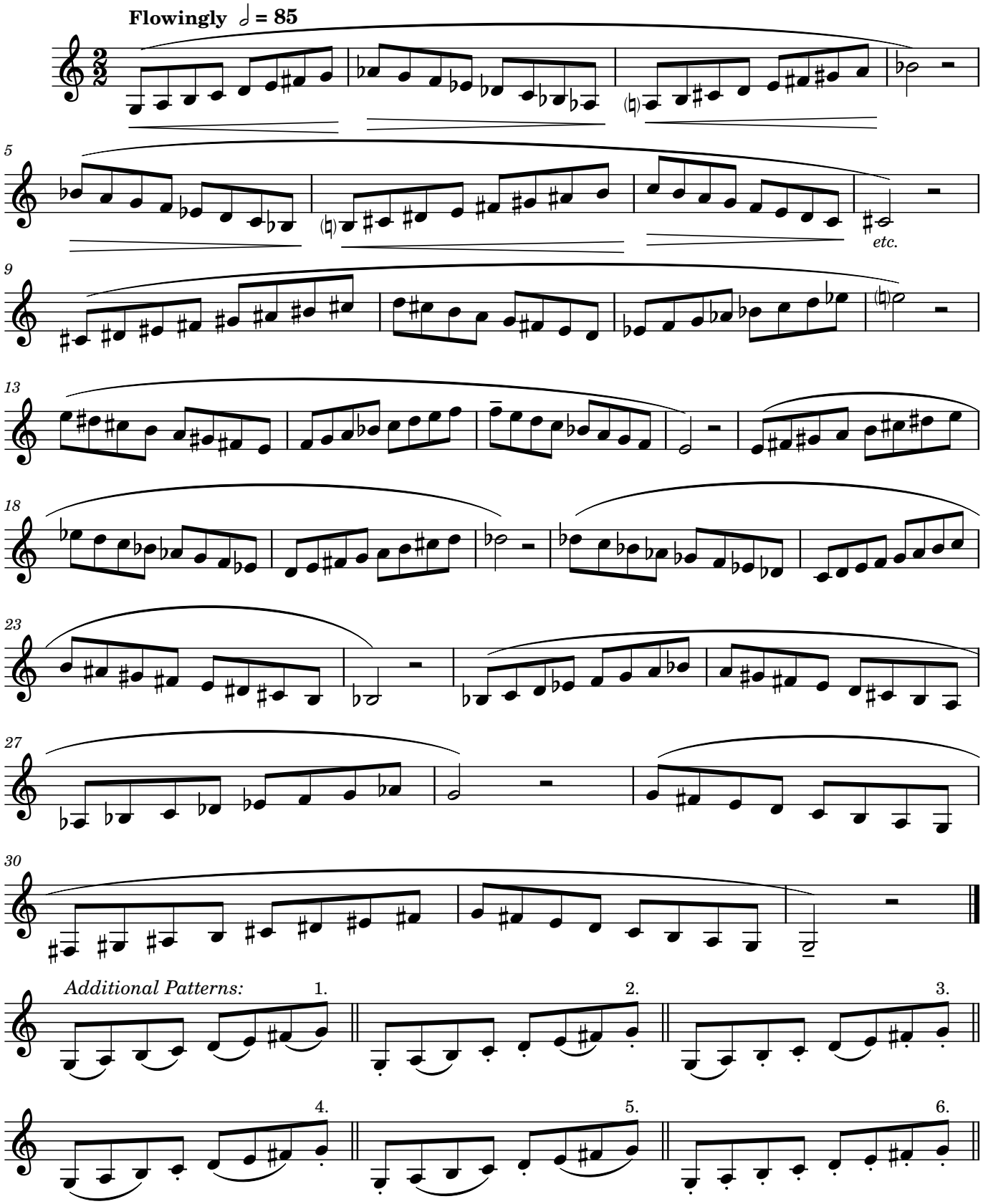
Potential Questions and Challenges:

- Tonguing becomes less clear or burred when ascending or descending out of student's comfort zone.

This is a very common challenge. If the airflow is already decent, try these fixes: one or more may help the student find the right path:

1) The vowel, or shape of the mouth and jaw isn't supporting the range. Are they playing too open and lip pinching the higher notes? Or, are they too closed and pouting the lips out for the lower ones? Remember, "Thaw" for low and "Taah" for mid and possibly "Teeh" for the upper notes will help.
2) Release points of the tongue: further up to the hard palette for the upper notes, further forward around the bottom of the teeth for the lower ones.
3) Effort of the tongue: The tongue is a large muscle, and using as little of it as possible will allow for the clearest and easiest results. Encourage "Laah" rather than "Taah" starts when possible. Only the top of the tip of the tongue has to be involved in the release of the notes. The rest only helps the vowel shape and remains out of the way.

Scalar Study



Assessment/Evaluation

For those in the position of requiring objective, quantifiable data in regards to student progress, the following rating scales for each exercise can serve as meaningful assessment tools. Each include some or all of the following musical dimensions: tonality, rhythm, expression, and executive skills. You will notice that for each of the 5 sections, the musical dimensions change according to what might be considered most important for learning. Being an etude book, all examples include the executive skills dimension. These scales are either additive (student meets or does not meet independent criteria) or continuous (student must achieve a level of related criteria in order to achieve a higher one). 5 being the highest score, 0 being the lowest, many students should ideally score a 3 or a 4. This leaves room on either end of the scale for outliers.

It is a very sustainable process to give students copies of these rating scales in advance to establish clear expectations for their performance assessment. It also offers students the opportunity to engage in formative assessment while practicing, asking pertinent questions to better their successive attempts. These are, of course, only suggested tools. I would encourage teachers with prior knowledge of student achievement to create their own, more individualized assessments to pair with these examples as well.

Harmonic Series I

Rhythm Rating Scale
(Continuous dimension 0-5)

Rhythm A: 

Rhythm B: 

(1) Student performs the exercise without a sense of meter.

(2) Student performs with a fluctuating tempo and meter.

(3) Student performs rhythm A or B correctly, elongated rhythms and/or rests are abbreviated.

(4) Student performs rhythm A and B correctly, elongated rhythms and/or rest values are abbreviated.

(5) Student performs all rhythmic ideas including rests in a consistent tempo.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student takes a full breath during each of the rests.

(1) Student uses all correct fingerings including alternates.

(1) Student employs vowels in the oral cavity to create sound depth.

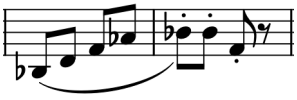
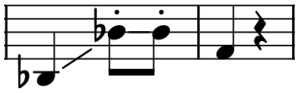
(1) Student sounds all notes within the glissando at the end.

Student	Score

Other comments:

Harmonic Series II

Rhythm Rating Scale
(Continuous dimension 0-5)

Rhythm A:  Rhythm B: 

(1) Student performs the exercise without a sense of meter.
(2) Student performs with a fluctuating tempo and meter.
(3) Student performs rhythm A or B correctly, descending patterns may be inconsistent.
(4) Student performs rhythm A and B correctly, descending patterns may be inconsistent.
(5) Student performs all rhythmic ideas, including rests and glissandi, in a consistent tempo.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student takes a full breath during each of the rests.

(1) Student creates a bounce in their sound for all staccato markings.

(1) Student employs vowels in the oral cavity to navigate range.

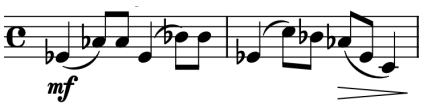
(1) Student sounds all notes within each glissandi.

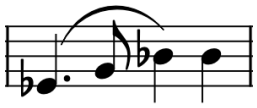
Student	Score

Other comments:

Harmonic Series III

Rhythm Rating Scale
(Continuous dimension 0-5)

Rhythm A: 

Rhythm B: 

(1) Student performs the exercise without a sense of meter.
(2) Student performs with a fluctuating tempo and meter.
(3) Student performs rhythm A correctly, similar rhythms may be inconsistent.
(4) Student performs rhythm B correctly, similar rhythms may be inconsistent.
(5) Student performs all rhythmic ideas in a consistent tempo.

Student	Score

Other comments:

Expression/Style Rating Scale
(Additive dimension 0-5)

(1) Student performs the written dynamics.

(1) Student performs with characteristic sound throughout the exercise.

(1) Student performs with an evenness of tonal quality in all ranges.

(1) Student shapes each phrase to its end; keeps the musical line moving.

(1) Student performs with intentional rubato, further deepening the exercise's expression.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.
(1) Student takes a full breath during each of the rests.
(1) Student maintains air support and compression for the B section.
(1) Student employs vowels in the oral cavity to navigate wider ranges.
(1) Student uses the appropriate fingerings marked on the page.

Student	Score

Other comments:

Valve Combinations I

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student performs valve changes on the same harmonic smoothly.
(1) Student performs valve changes across different harmonics smoothly.
(1) Student performs with characteristic sound in all ranges.
(1) Student performs with convincing dynamics in their melodic line.
(1) Student performs with precise finger motion on the valve changes.

Student	Score

Other comments:

Valve Combinations II

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student performs ascending harmonic slurs smoothly.
(2) Student performs descending harmonic slurs smoothly.
(3) Student performs with characteristic sound in all ranges.
(4) Student performs with a smooth, well supported airstream.
(5) Student performs with precise finger motion on the valve changes.

Student	Score

Other comments:

Valve Combinations III

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student performs across the 0-2-0 valve changes smoothly.
(1) Student performs across the 0-2-1-2-0 valve changes smoothly.
(1) Student performs across the 0-2-1-12-1-2-0 valve changes smoothly.
(1) Student performs across the 0-2-1-12-23-12-1-2-0 valve changes smoothly.
(1) Student performs with precise finger motion following the rhythmic changes.

Student	Score

Other comments:

Articulation I

Executive Skills Rating Scale
(Continuous dimension 0-5)

(1) Student performs the piece with inconsistent and uncharacteristic legato articulation.
(2) Student performs with consistent, uncharacteristic legato articulation.
(3) Student performs the A section with characteristic legato articulation.
(4) Student performs the exercise with characteristic legato articulation, tempo or range are inconsistent.
(5) Student performs all aspects of characteristic legato articulation correctly.

Student	Score

Other comments:

Articulation II

Executive Skills Rating Scale
(Continuous dimension 0-5)

(1) Student performs the piece with inconsistent and uncharacteristic melodic staccato articulation.
(2) Student performs with an appropriate articulation contrast between the A and B section, staccato sound is uncharacteristic.
(3) Student performs with consistent staccato articulation without melodic/ dynamic direction.
(4) Student performs the exercise with ease of staccato articulation in all but the most extreme dynamics and/or ranges.
(5) Student performs all aspects of melodic staccato articulation correctly.

Student	Score

Other comments:

Articulation III

Executive Skills Rating Scale
(Continuous dimension 0-5)

(1) Student performs the piece with inconsistent and uncharacteristic accented articulation.
(2) Student performs one type of accented articulation correctly in comfortable dynamics and ranges.
(3) Student performs one type of articulation consistently in all but the most extreme dynamics and/or ranges.
(4) Student performs all accented articulations with ease in all but the most extreme dynamics and/or ranges.
(5) Student performs all aspects of accented articulation correctly.

Student	Score

Other comments:

Slurs and Starts I

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student releases starting notes with ease and sonority.

(1) Student uses alternate fingerings to account for pitch tendencies.

(1) Student uses vowels supporting characteristic sound in all ranges.

(1) Student capitalizes upon the many rests with relaxed breaths.

Student	Score

Other comments:

Slurs and Starts II

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student releases starting notes with ease and sonority.

(1) Student uses the right hand to account for pitch tendencies.

(1) Student uses vowels supporting characteristic sound in all ranges.

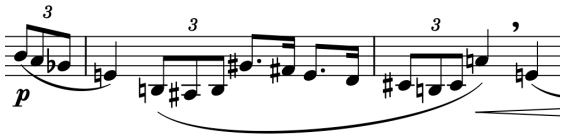
(1) Student capitalizes upon the many rests with relaxed breaths.

Student	Score

Other comments:

Slurs and Starts III

Rhythm Rating Scale
(Additive dimension 0-5)

Rhythm A: 

(1) Student performs beat-level functions correctly, tempo may be inconsistent.

(1) Student performs division-level rhythms correctly, tempo may be inconsistent.

(1) Student seamlessly switches between simple and compound rhythms.

(1) Student performs rhythm A correctly.

(1) Student performs with a consistent tempo in all dynamics and ranges.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student releases starting notes with ease and sonority.

(1) Student flexibly accommodates the more technical passages.

(1) Student uses vowels supporting characteristic sound in all ranges.

(1) Student plays with confidence the many notational additions e.g., dynamics and accidentals.

Student	Score

Other comments:

Melodic Fluency I

Tonality Rating Scale
(Continuous dimension 0-5)

(1) Student performs the piece starting and ending on the correct notes.
(2) Student performs each note after a rest correctly.
(3) Student performs the A section (Ab major) and each note after a rest correctly
(4) Student performs A and A' sections correctly, accidentals in B section (Db major) are inconsistent.
(5) Student performs all aspects of tonal accuracy correctly.

Student	Score

Other comments:

Rhythm Rating Scale
(Continuous dimension 0-5)

(1) Student performs the exercise without a sense of meter.
(2) Student performs with a fluctuating tempo and meter.
(3) Student performs beat-level functions correctly, tempo is inconsistent.
(4) Student performs beat and division level functions correctly, tempo is inconsistent.
(5) Student performs all rhythmic ideas including rests in a consistent tempo.

Student	Score

Other comments:

Expression/Style Rating Scale
(Additive dimension 0-5)

(1) Student performs with characteristic tone throughout the exercise.
(1) Student performs with dynamic contrast throughout the exercise.
(1) Student performs with a lilt and/or vibrato where stylistically appropriate.
(1) Student reflects changes in tonal centers by adjusting their sound concept.
(1) Student traverses all ranges with ease and smoothness.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student employs an embouchure that encourages relaxed lips.

(1) Student appropriately chooses alternate fingerings that reflect tonal centers.

(1) Student uses an “Ahh” or “Aww” vowel to create sound depth.

(1) Student maintains proper body posture while playing.

Student	Score

Other comments:

Melodic Fluency II

Tonality Rating Scale
(Additive dimension 0-5)

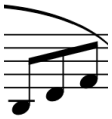
(1) Student performs A section melody correctly (G minor).
(1) Student performs B section melody correctly (Bb major).
(1) Student performs the transition section (mm. 17-20) correctly.
(1) Student performs B' transition section (mm. 21-27) correctly.
(1) Student performs seamlessly between the different tonal centers of the piece.

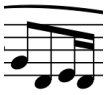
Student	Score

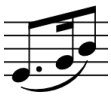
Other comments:

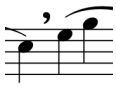
Rhythm Rating Scale
(Additive dimension 0-5)

Rhythm A: 

Rhythm B: 

Rhythm C: 

Rhythm D: 

Rhythm E: 

(1) Student uses rhythm A to drive the melodic phrase.

(1) Student uses rhythm B to drive the melodic phrase.

(1) Student uses rhythm C to drive the melodic phrase.

(1) Student uses rhythm D to drive the melodic phrase.

(1) Student uses rhythm E to drive the melodic phrase.

Student	Score

Other comments:

Expression/Tone Quality Rating Scale
(Additive dimension 0-5)

(1) Student performs with characteristic tone throughout the exercise.

(1) Student performs with dynamic contrast throughout the exercise.

(1) Student creates melodic intrigue when playing the pickup gesture.

(1) Student performs through each phrase, connecting larger melodic ideas.

(1) Student utilizes major and minor tonalities to vary sound concept.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student employs an embouchure that encourages relaxed lips.

(1) Student appropriately chooses alternate fingerings that reflect tonal centers.

(1) Student uses an “Ahh” or “Aww” vowel to create sound depth.

(1) Student maintains proper body posture while playing.

Student	Score

Other comments:

Melodic Fluency III

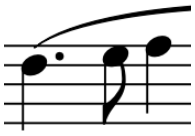
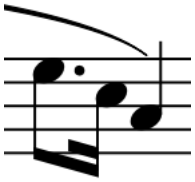
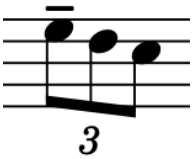
Tonality Rating Scale
(Continuous dimension 0-5)

(1) Student performs each note after a rest correctly.
(2) Student performs all tonic (E major) functions correctly.
(3) Student performs all tonic and dominant (B major) functions correctly.
(4) Student performs all tonic, dominant, and sub-dominant (A major) functions correctly.
(5) Student performs all tonal functions present in the exercise correctly.

Student	Score

Other comments:

Rhythm Rating Scale
(Additive dimension 0-5)

Rhythm A:  Rhythm B:  Rhythm C: 

(1) Student uses rhythm A to drive the melodic phrase.

(1) Student uses rhythm B to drive the melodic phrase.

(1) Student uses rhythm C to drive the melodic phrase.

(1) Student performs simple to compound changes with precision.

(1) Student maintains full values of all elongated notes.

Student	Score

Other comments:

Expression/Tone Quality Rating Scale
(Additive dimension 0-5)

(1) Student performs with characteristic tone throughout the exercise.

(1) Student performs with dynamic contrast throughout the exercise.

(1) Student performs through each phrase, connecting larger melodic ideas.

(1) Student maintains artistic independence of rhythmic speed and dynamics.

(1) Student sustains mid-phrase/phrase-ending slurs for their full values.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student employs an embouchure that encourages relaxed lips.

(1) Student appropriately chooses alternate fingerings that reflect tonal centers.

(1) Student uses an “Ahh” or “Aww” vowel to create sound depth.

(1) Student maintains proper body posture when playing.

Student	Score

Other comments:

Scalar Study

Major Tonality Rating Scale
(Checklist 0-12)

(1) Student performs C correctly.
(1) Student performs G correctly.
(1) Student performs D correctly.
(1) Student performs A correctly.
(1) Student performs E correctly.
(1) Student performs B correctly.
(1) Student performs F# correctly.
(1) Student performs C#/Db correctly.
(1) Student performs Ab correctly.
(1) Student performs Eb correctly.
(1) Student performs Bb correctly.
(1) Student performs F correctly.

Student	Score

Other comments:

Executive Skills Rating Scale
(Additive dimension 0-5)

(1) Student plays seamlessly across the phrase with consistent airflow.

(1) Student employs an embouchure that supports smooth, relaxing response.

(1) Student uses precise left hand technique to facilitate fast passages.

(1) Student uses vowels in the oral cavity to create sound depth.

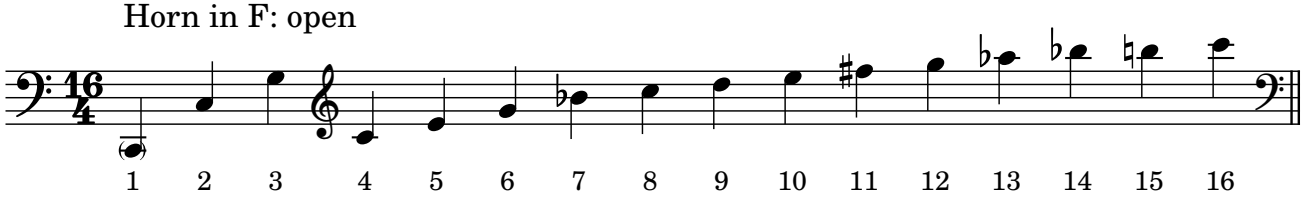
(1) Student maintains proper playing posture.

Student	Score

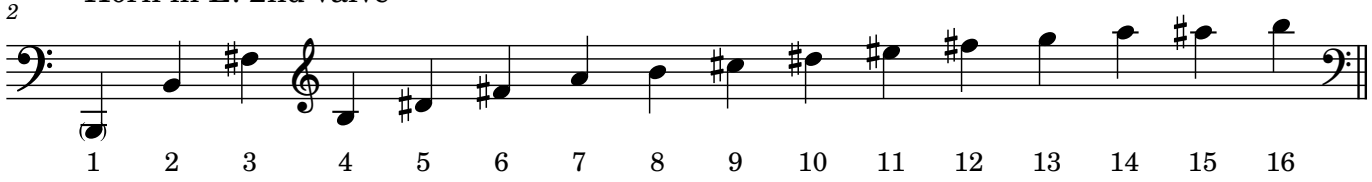
Other comments:

Harmonic Series Chart

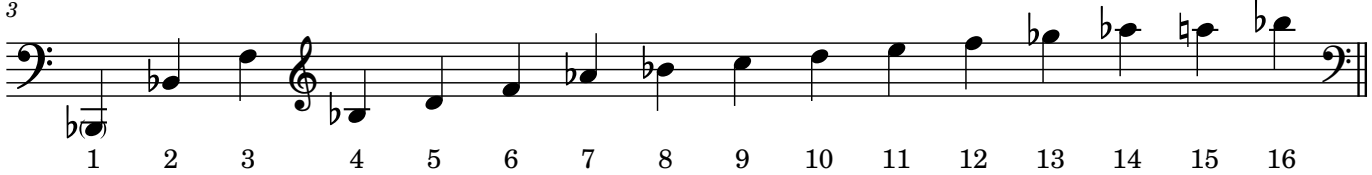
Horn in F: open



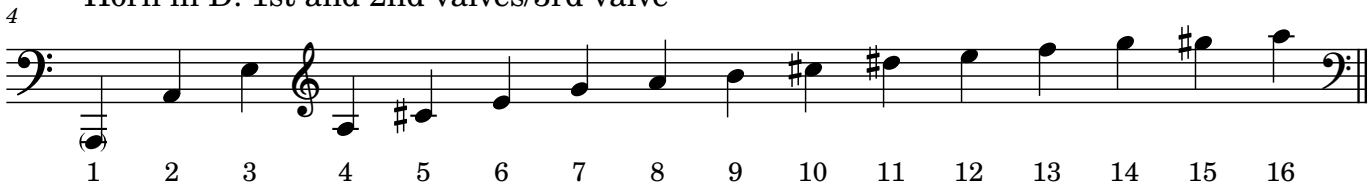
2 Horn in E: 2nd valve



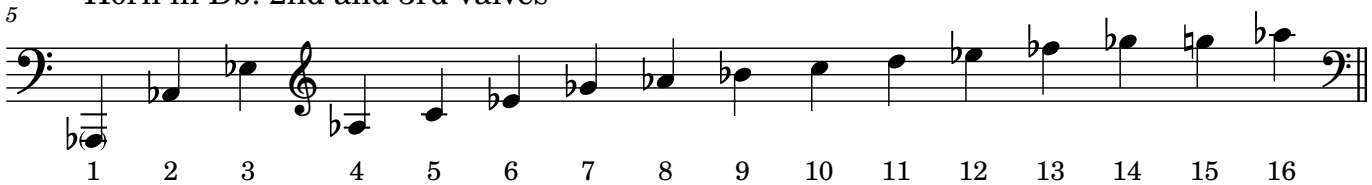
3 Horn in Eb: 1st valve



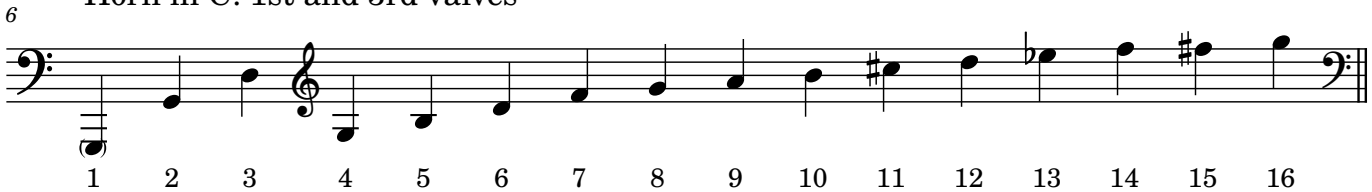
4 Horn in D: 1st and 2nd valves/3rd valve



5 Horn in Db: 2nd and 3rd valves



6 Horn in C: 1st and 3rd valves



7 Horn in H (B natural): 1st, 2nd, and 3rd valves