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Fundamentals for Horn Students

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This project is designed to help teachers with teaching their beginning horn students. When students are first learning to play the horn, they frequently find that they do not know what to practice nor how to practice. The teacher must be able to teach the students both of these things. Different types of fundamentals are listed and explained to provide a teacher with more insight as to how the exercises work. The importance of each exercise is also provided so that any teacher may know what to tell a student who asks why he must do these exercises on a daily basis. The fundamental areas covered by this project are: breathing, buzzing, long tones, flow studies, lip slurs, and pitch.

Breathing

Breathing is a fundamental part of playing wind instruments. In order for wind players to produce the best tones and extended phrases, they need to have control over their breathing. For this reason, breathing exercises should be included in a horn player's daily fundamentals. Students need to train their bodies to be able to take in large quantities of air and release the air over a period of time. The more practice a student does with breathing exercises, the better his/her breathing will become. Better breathing habits when playing the horn, usually leads to better tone quality and longer phrases. These longer phrases are necessary to complete musical ideas. According to the Band Director website, "Your goal as it relates to breathing, must be to learn how to exaggerate the "Natural Breath" so it becomes a voluntary or conscious process without sacrificing the relaxed physical condition it creates" (Downey). The control of breathing comes from actively inhaling and exhaling in a way that allows for enough airflow to play a musical instrument. Arnold Jacobs, a former tuba player for the Chicago Symphony Orchestra, was fascinated by human physiology and studied how the lungs work. In his studies he discovered ways to tell if students were breathing correctly and how to explain proper breathing.

One of the aspects from his studies is that the goal is to breathe with minimal friction (Frederiksen, 1996). The best way to get a clear understanding of a minimal friction breath is to yawn (Frederiksen, 1996). Using this analogy should help students understand the beginnings of how to breathe to play a musical instrument.

Students must be taught how to breathe appropriately to play the horn. Before learning how to breathe, students must first learn appropriate posture that will allow for the best airflow. Beginning horn students will be seated during almost all of their playing so it is important to teach proper sitting posture. While seated, the student should have his feet flat on the floor. The body should be on the front half of the chair with the student's back not in contact with the back of the chair. The back should be straight with the shoulders relaxed. The head should be looking forward and not tilted upward or downward. If the student has the correct posture, the student should not feel tension.

Once the proper posture has been established, the student can begin to learn how to inhale properly without the instrument. Philip Farkas, a former horn of the Chicago Symphony Orchestra and professor at Indiana University Bloomington, had written about breathing in his book *The Art of French Horn Playing*. Playing horn requires much more air than normal breathing (Farkas, 1956). First, the breath must always be taken through the mouth. Never while playing horn should the student take breaths through the nose. Deep breathing should be used, meaning that the air should be pulled downwards into the lungs right before playing, filling the lungs more than they would fill during a natural breath. According to Farkas (1956),

> Deep breathing, when it has become a smoothly functioning operation, is always done rather rapidly, in a sort of silent gasp. The feeling is rather similar to the breath that

> would be taken if one were to be unexpectedly doused with ice-water on a very hot day. (p. 28)

Jean-Baptiste Arban was also an important pedagogue who included information about proper breathing in his book, *Complete Conservatory Method for Trumpet*. Arban had been a cornet virtuoso in the 1800s. Arban (1936) explains that during deep breathing, the stomach should not swell, but the chest will expand. When teaching students to deep breath, it is necessary to make sure the student does not raise her shoulders or create any unnecessary tension in the body.

Exhaling must also be taught to the student. All of the muscles that expanded while inhaling will contract during exhaling. The air must be steadily pushed out of the body while playing a musical instrument in order to produce a good tone. As Farkas (1956) described exhaling,

> . . . we simply feel these essential muscles contracting steadily to the degree dictated by the mind, which is analyzing the sound as it is being produced. The ear and mind work together in directing force against the diaphragm in more or less intensity, depending on whether a crescendo, steady tone, or diminuendo is desired (p. 29)

This means that control, or pacing of the air, is required during exhaling to only allow the amount of air out that is desired. A horn player must not run out of air before a musical phrase is completed.

After correct breathing has been established without the horn, have the student learn to breathe with the horn. With the mouthpiece touching the student's lips, he/she must breathe through the corners of the mouth and pull the tongue back to allow the air to flow freely to the lungs (Arban, 1936). Everything else must remain the same when the horn is in the student's

possession. The head should still be looking forward and not tilted downward and there should not be tension lurking in the body.

Once the student has established proper breathing technique, breathing exercises must be done every day to help the student gain more control over breathing. Typical breathing exercises include inhaling for a certain amount of time, and exhaling for a certain amount of time. Sometimes, the breath will be held in between inhale and exhale. For example, a breathing exercise might consist of breathing in for four counts, holding the breath for four counts, and exhaling for four counts. Breathing exercises are to be done without the instrument so that the focus is solely on the breath and not on creating a sound. It is important to remember to use the breathing methods done during the breathing exercises when actually playing the horn.

Buzzing

Buzzing on the mouthpiece alone without the rest of the instrument helps student gain better pitch accuracy and improved tone quality. While not all horn pedagogues advocate for the teaching of buzzing, it can be used to improve at least eight areas of horn playing. These areas are tone quality, ear (hearing pitches before playing them), intonation, musical concept (a clear idea of how to sound on the instrument), range, breathing, articulation, and style (MacKay, 2012). According to MacKay (2012), "mouthpiece buzzing is one of the closest things to a shortcut we have to help young brass players develop accuracy and consistency." For this reason, it is important to have students do buzzing exercises every day. One must remember that the mouthpiece is the real instrument and produces the sounds while the actual instrument just amplifies the buzz (MacKay, 2012). However, when buzzing, it is essential to not allow the student to get into the habit of using a large amount of pressure. To help discourage the use of pressure, have the student hold the mouthpiece with his or her non-dominant hand at the end of

the shank furthest away from the cup (MacKay, 2012). It requires a large amount of air to buzz, so younger students need to be reminded to take as many breaths as necessary. After healthy buzzing has been established, not only should buzzing exercises be incorporated into every day, but students should buzz as a way of sight-reading or fixing missed notes during practicing. Buzzing can be used in many ways, but it is essential to buzz everyday.

Long Tones

Long tones can be defined as "slow, sustained notes held for an extended period" (Hembd, 2008). Long tones are very valuable for growth and development on the horn. As explained by the bass trombonist of the St. Louis Symphony Orchestra, Gerry Pagano (2014), "long tones are where we develop our sound, whatever it is, clear, bright, fat . . . Long tones turn out to be pretty important." Not only do they help with tone production, but long tones also help with endurance. The longer the long tone can be held, the more endurance the student will have while playing the horn. According to Bruce Hembd (2008) from the Horn Matters website, the goals of long tones are to produce the most beautiful sounds possible and play smooth transitions and even pitch through all dynamics and ranges.

First, a good breath must be used to play long tones. Long tones should not be mindless notes played for extended periods of time. They should receive as much, if not more, attention than the other aspects of the warm-up. The horn player must work to get evenness of tone, volume, and pitch while playing long tones. The student must also pay close attention to getting a clear articulation, by tonguing, when beginning each long tone. Again, a musical concept is necessary for this fundamental. The sound the student wants to get must be in his or her ear. If the student does not have a clear idea of tone quality or pitch, it will be difficult to get the characteristic horn sound with precision and accuracy.

There are a few different ways to play long tones. With beginners, it is best to have them learn to play long tones without trying to do dynamic contrast. Beginners have not developed the lip muscles and ear training skills to keep the intonation consistent when doing dynamic contrast. As Yancich mentions, "at the beginning stages of this warm-up the goal should be to hold the note steadily without any wavering of the tone. When this can be accomplished automatically, intonation and quality should be sought" (1971). Another aspect that can be added once the player has developed the necessarily skills is playing long tones with dynamic contrast. One of the most common ways to practice long tones is to start soft at the beginning of the note, crescendo into the middle of the note, and diminuendo into the end of the note (Hembd, 2008). This is illustrated in Exercise 4 of the appendix. Hembd also recommends doing variations on long tones to keep students interested (2008). One variation is to change the pitch by a half step using valves on the second whole note of the long tones. This example can be seen in Exercise 5 of the appendix. One of the reasons to practice this variation is that "changing notes at the peak of the crescendo is beneficial towards blowing smoothly through valve changes" (Hembd, 2008). Overall, long tones in any variation are great for everyday fundamentals.

Flow Studies

Similarly to long tones, flow studies also help improve transitions between valve changes. The phrase "flow study" was primarily brought to the forefront of brass pedagogy by the trumpet pedagogue and performer, Vincent Cichowicz. Vincent Cichowicz had been a trumpet player in the Chicago Symphony Orchestra and taught at the Northwestern University in Illinois. According to Cichowicz's publication, "these studies are an important medium in which to develop a free, flexible production of sound upon which all aspects of [horn] technique depend." The flow study can be varied in pitch in rhythm, but always includes slurs between the

pitches. This is because the flow study is designed to make brass players use airflow in between pitches and move valves slowly to get the cleanest slurs. The main purpose of the flow study is to use air. By avoiding having the player articulate any of the notes in the exercise, focus can be directed toward the airflow. Including flow studies in the daily fundamentals helps incorporate both breathing and long tones into a different exercise.

Lip Slurs

Lip slurs are a very valuable fundamental for a horn player's daily warm-up. "The exercises are not only designed to extend the range of the performer and improve the smoothness of his slur, but they are also designed to improve and lighten his tone quality" (Yancich, 1971). Any decent beginning to advanced warm-up will include lip slurs in some form. According to Bruce Gale,

> Playing lip slurs correctly involves: maintaining a steady airstream throughout the slur, ensuring that there is enough flesh of the lower lip in the mouthpiece to begin the slur, contracting the muscles at the corners of the mouth to obtain the upper note, arching the tongue upwards when moving to higher pitches and flattening it when moving to lower pitches, and ensuring that the tone does not become excessively pinched (Gale, 2010).

It is important to analyze and determine whether students are successfully playing lip slurs correctly and how to fix them if they are not.

One of the biggest things to remember when having students do lip slurs is that they should not be changing valves in between pitches. If a student presses down on valves when completing lip slurs, she is not truly getting the most out of the exercise. Lip slurs are built on the harmonic series of the instrument. In layman's terms, a harmonic series is comprised of all of the notes that can be played on one valve combination. For example, Figure A shows all of the

pitches that can be played on the open horn. This is the horn's open harmonic series. Lip slurs need to be played within the harmonic series in order to be the most effective.

Also, pay close attention when listening to students playing lip slurs to make sure they are not tonguing the upper notes. According to an article by Bruce Gale (2010), "exercises involving lip slurs are also among the most erroneously played! All too often, students who are asked to [practice] etudes involving lip slurs simply tongue the upper notes, thus negating the purpose of the whole exercise." If a student is tonguing the upper notes, emphasize that while it may be easier to do it this way now, it will make playing more challenging music in the future very difficult.

When students are first learning lip slurs, it is important to listen to them play individually to make sure they are developing correct technique. Lip slurs are a very important part of learning to play the horn and if a student begins by playing lip slurs poorly, it will take a large amount of time to fix. Remember, it is easier to establish good habits from the beginning than to fix bad habits down the road.

Pitch

For beginning horn players, one of the biggest struggles is playing the correct pitches. One of the biggest reasons for this relates back to the harmonic series. The middle range of the horn sits in the third octave of the horn's overtone series. On other brass instrument, the middle range is in the second octave of the overtone series. This means that the intervals between notes that are played with the same fingering are closer together on horn than on other brass instruments. For this reason, horn players need to be more aware of pitch and be able to hear the pitches before they play them. One way to work on this is to sing through exercises and etudes before playing them. If a student can sing through the exercise accurately before playing it, she

will be more likely to play the pitches accurately on the horn. This should not be a neglected part of the fundamentals. A horn player with a good sense of pitch and good ear training skills will sight-read better and be a better overall musician.

Conclusion

To many teachers, horn can be an intimidating instrument if they are not horn players themselves. The information and exercises provided in this project will supply teachers with clear exercises and approaches to horn fundamentals. The author hopes that the appendix will also be a great resource for horn students as they continue to grow as musicians. While every instrument is different and requires different attention and fundamentals, this project will provide information about horn to any teacher, young or experienced, that finds he or she does not know how to seek improvement in horn students.

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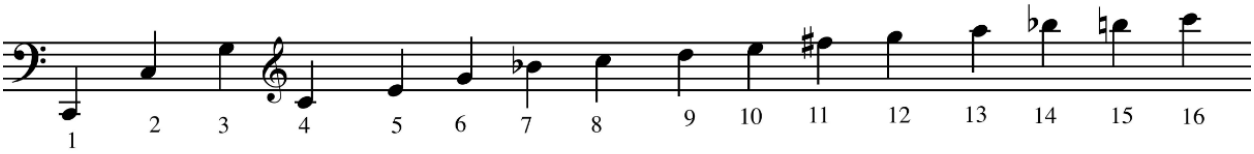
APPENDIX:

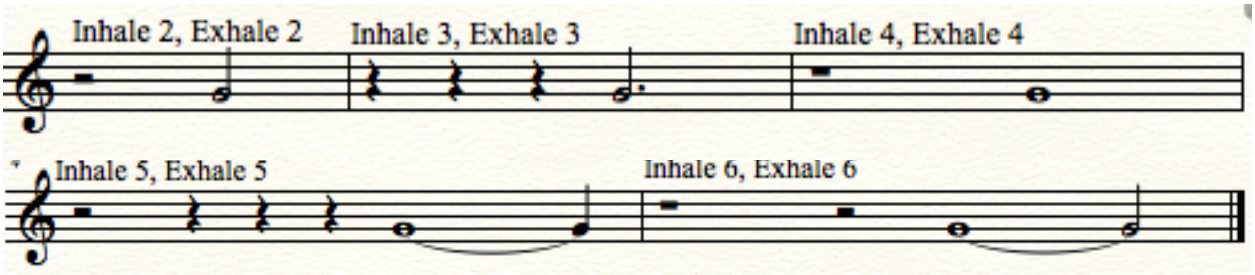
Figure A:

Harmonic Series of French horn



Exercise 1: Breathing

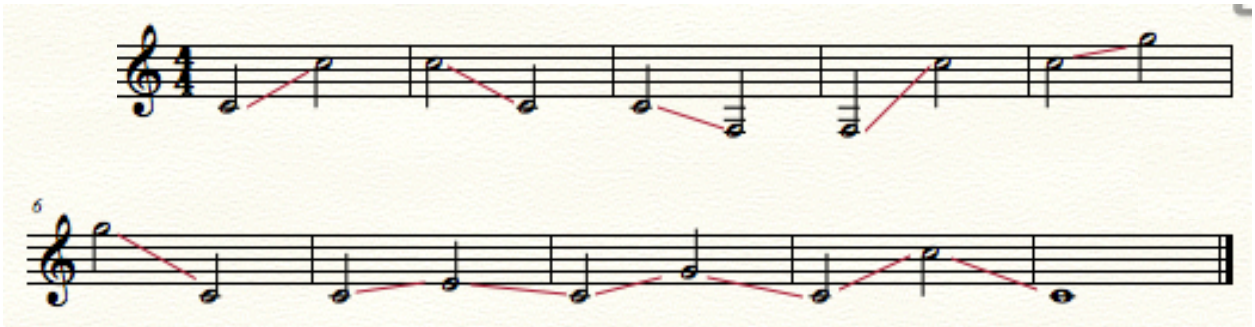
This breathing exercise can be expanded to more counts beyond 6 once 6 counts is accomplished.



(Common breathing exercise arranged by Kierstin Jenkins. Original composer unknown).

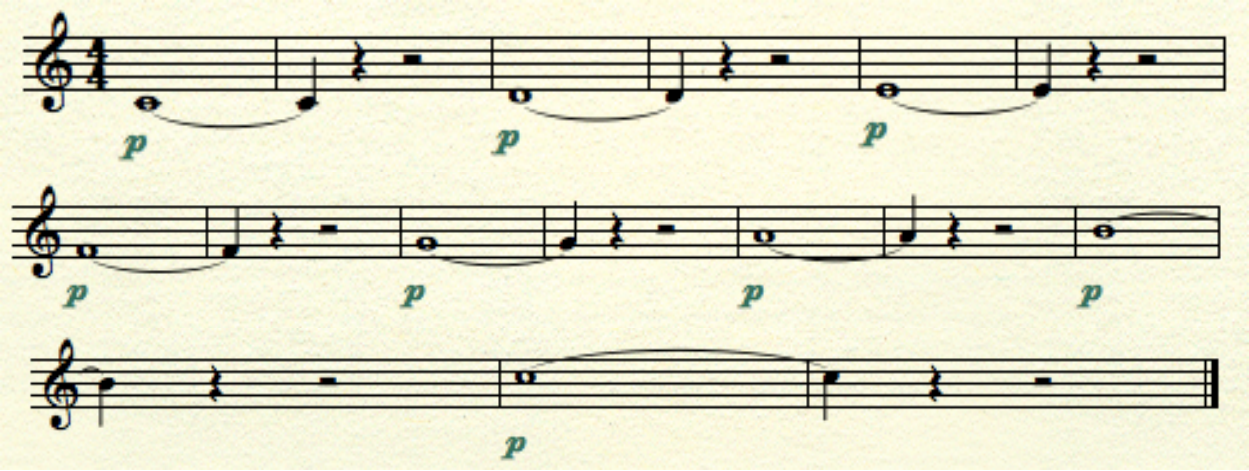
Exercise 2: Buzzing

Pitch does not have to be exact for this exercise. The contour and shape of the line should be the focus of this exercise.



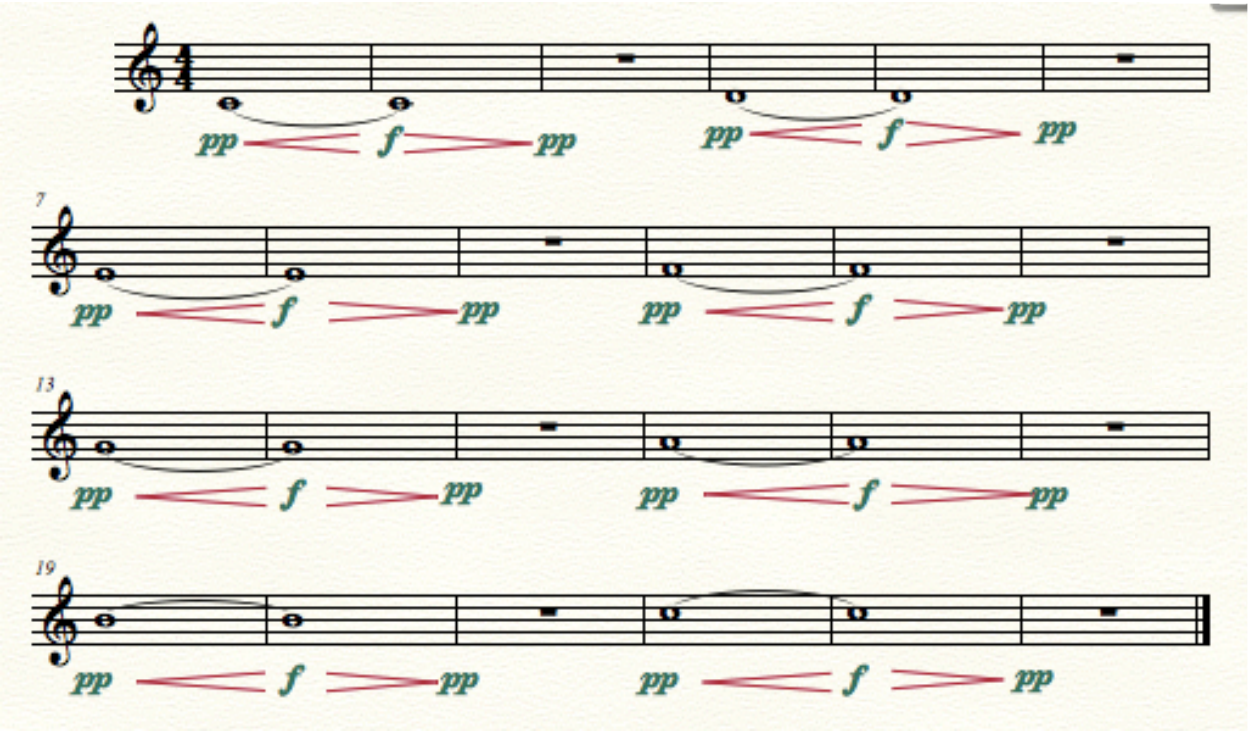
(Written by Kierstin Jenkins, 2016).

Exercise 3: Long Tones



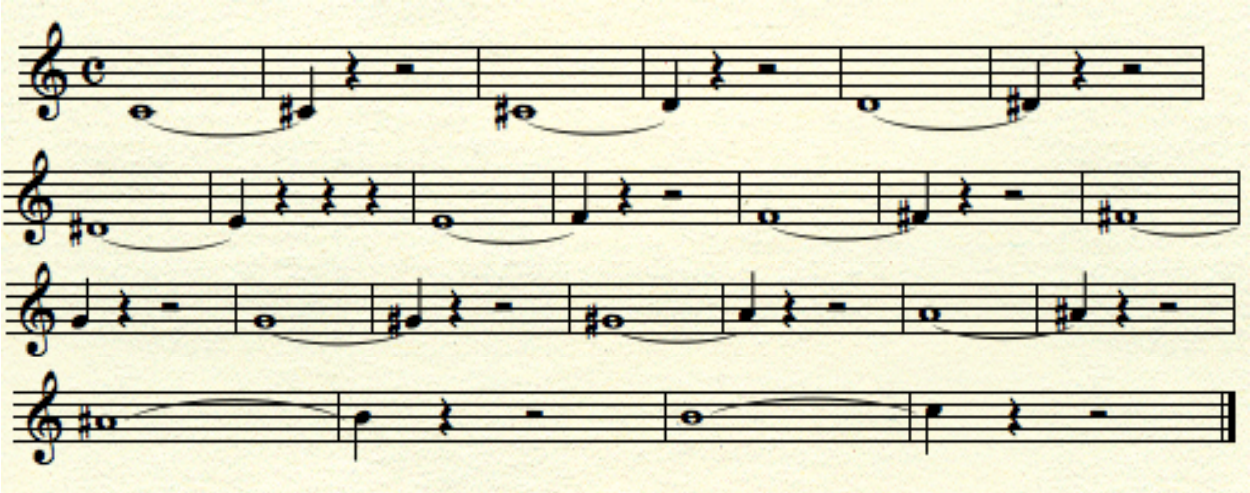
(Exercise from Yancich pg. 1, 1971).

Exercise 4: Long Tones Variation I



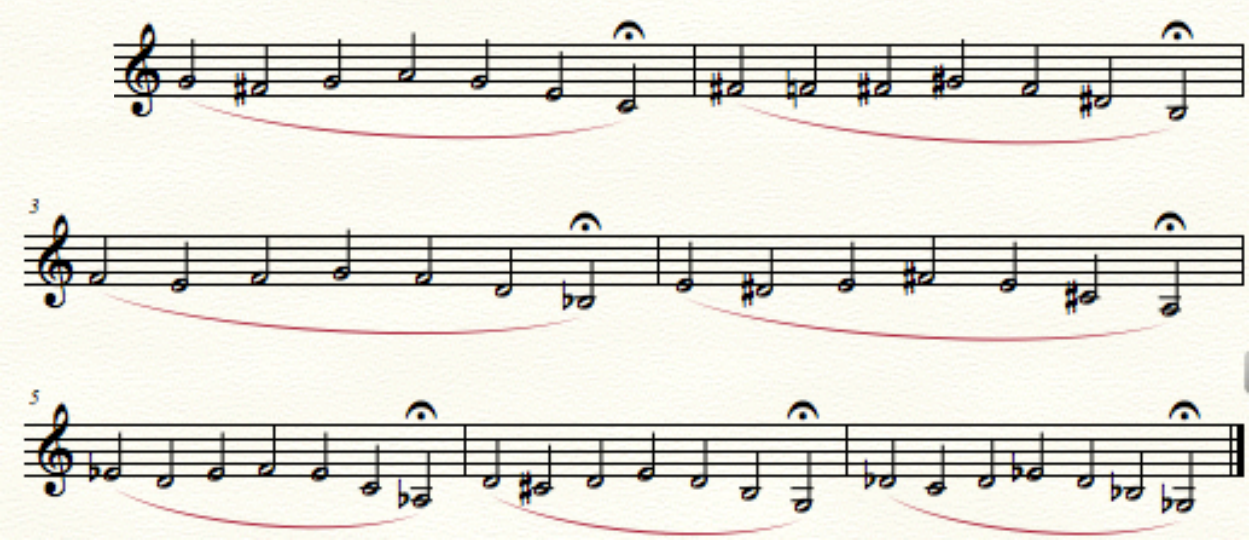
(Exercise adapted from Hembd, 2008).

Exercise 5: Long Tones Variation II



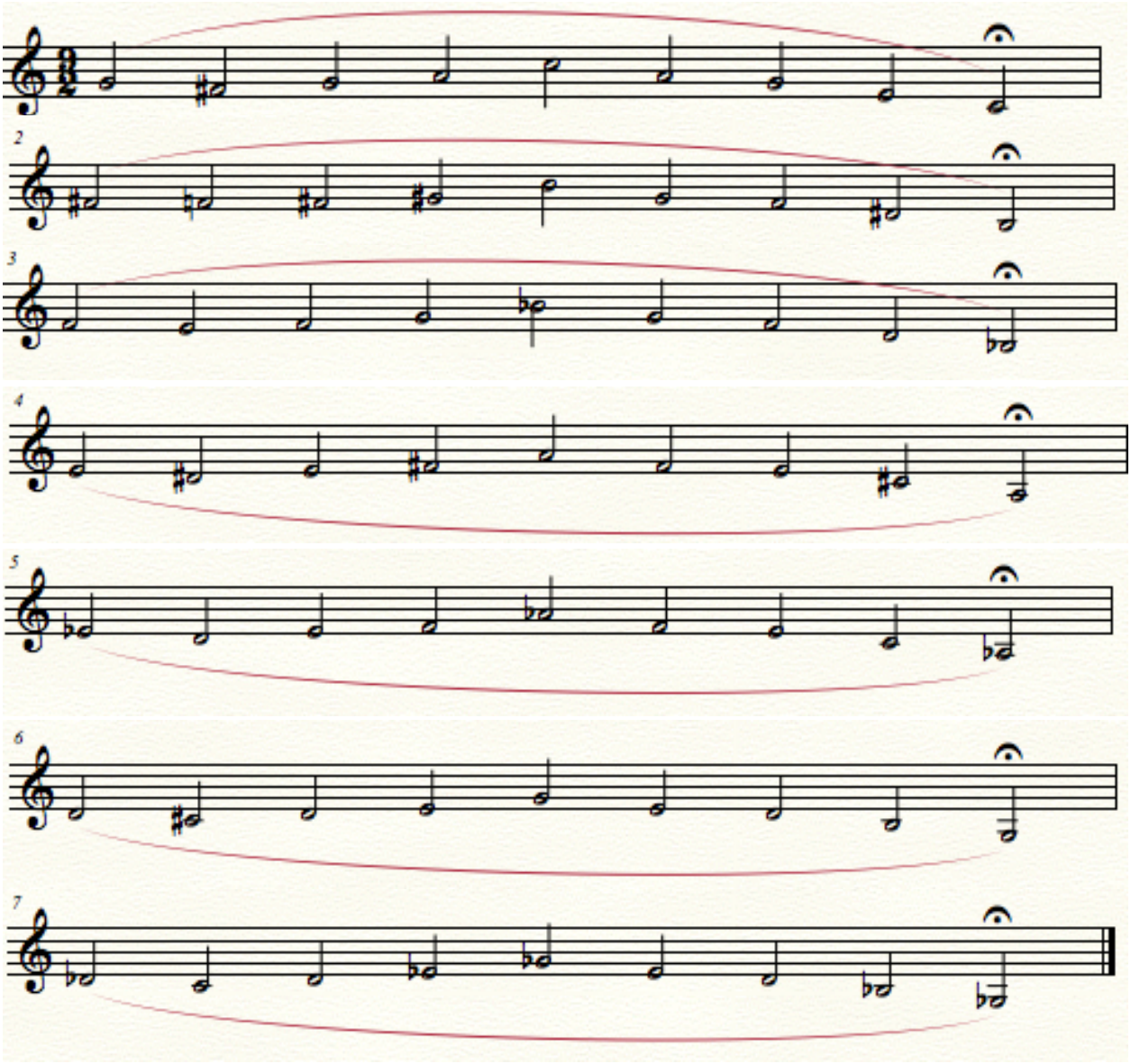
(Exercise adapted from Hembd, 2008).

Exercise 6: Flow Study I



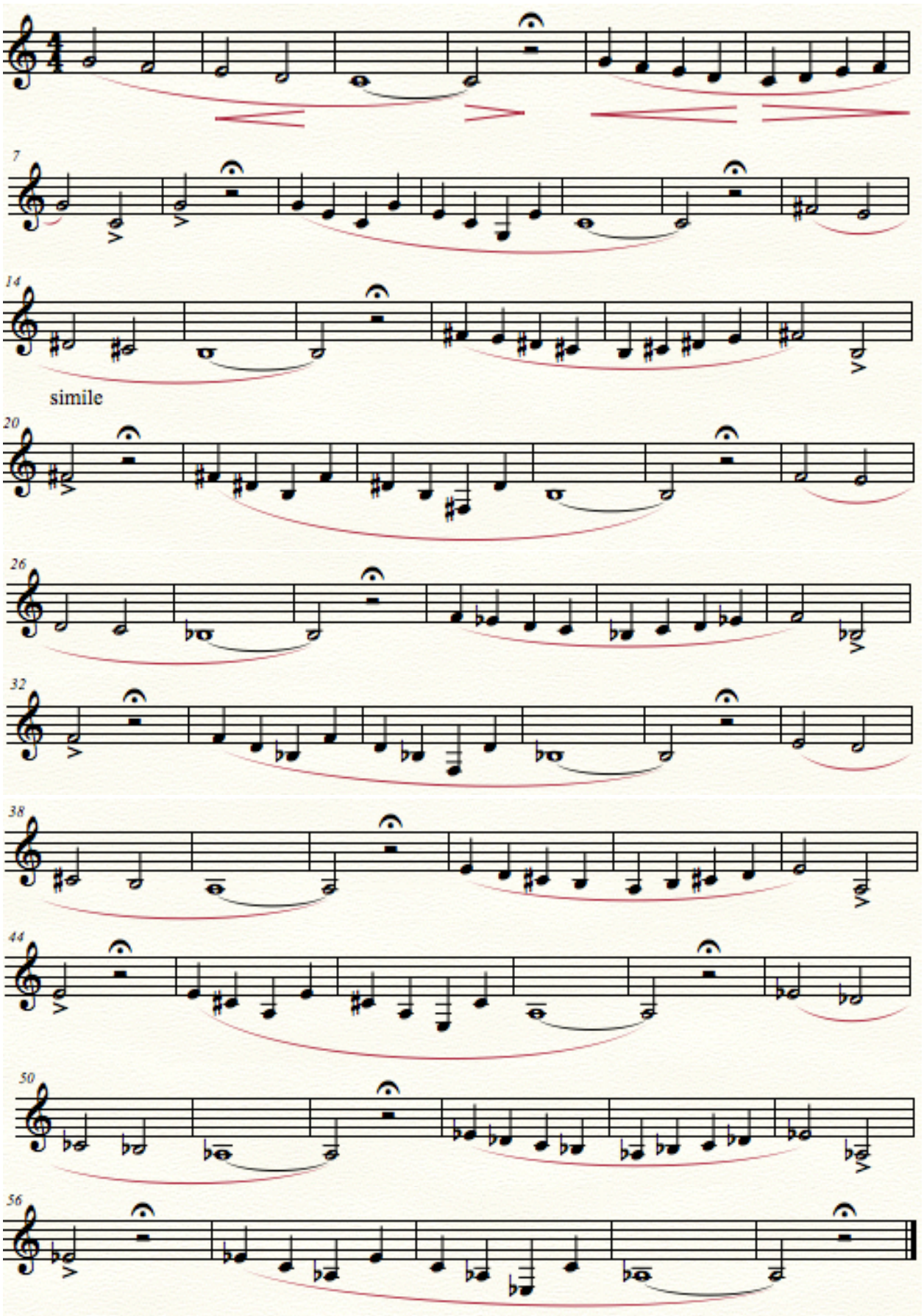
(Exercise from Cichowicz).

Exercise 7: Flow Study II

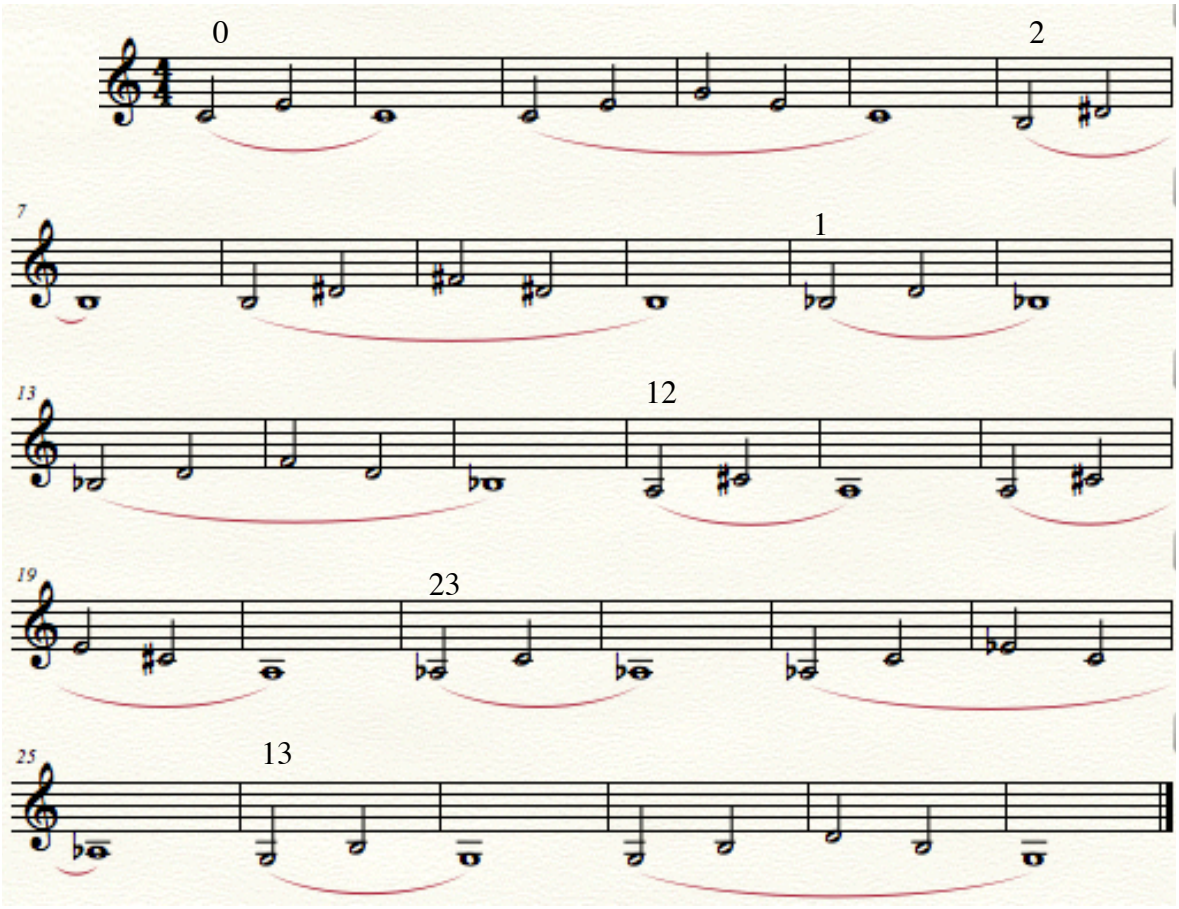


(Exercise from Cichowicz).

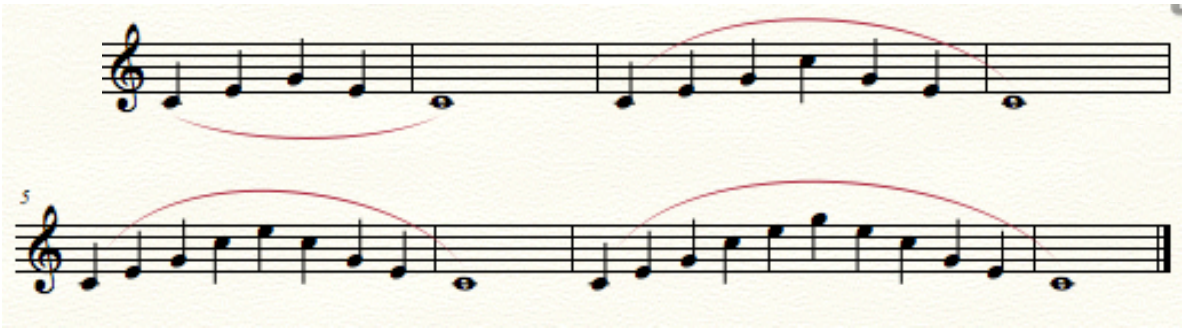
Exercise 8: Flow Study III



Exercise 9: Beginning Lip Slurs
Instructions: The fingerings seen above the measures should be used for all the pitches in that series.

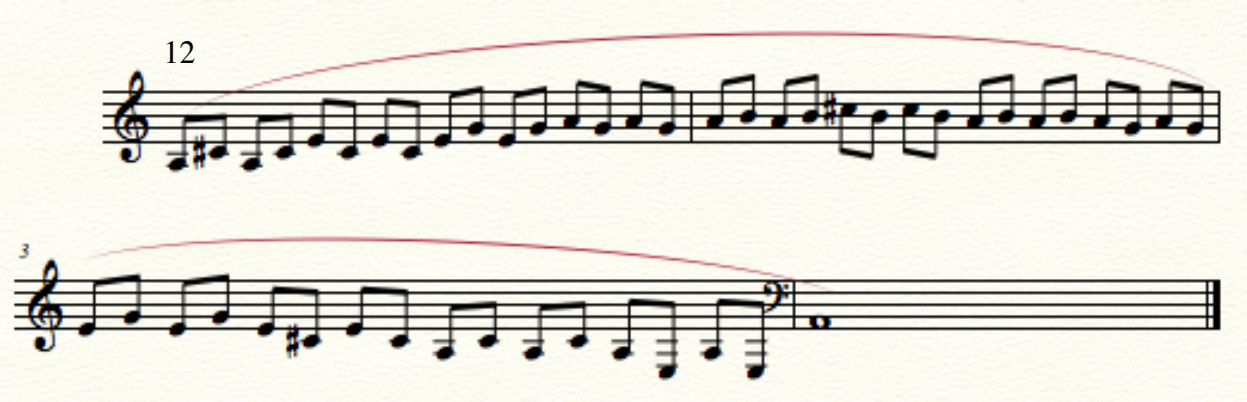


Exercise 10: Beginning/Intermediate Lip Slurs
This exercise starts on the open F horn. This exercise can also be done chromatically downward on the F horn on 2, 1, 12, 23 and upward on the Bb horn on 23, 12, 1, 2, 0.



(Exercise adapted from Pottag, 1939)

Exercise 11: Advanced Lip Slurs
Exercise can be played chromatically upward with F. horn 1, 2, 0, 23, and Bb horn 23, 12, 1, 2, 0. Though it is not common for lip slurs, the composer started this exercise on the F horn fingering 12.



(Exercise from Teuber, circa 1980).