

Bob McChesney
Technical Studies
for Trombone

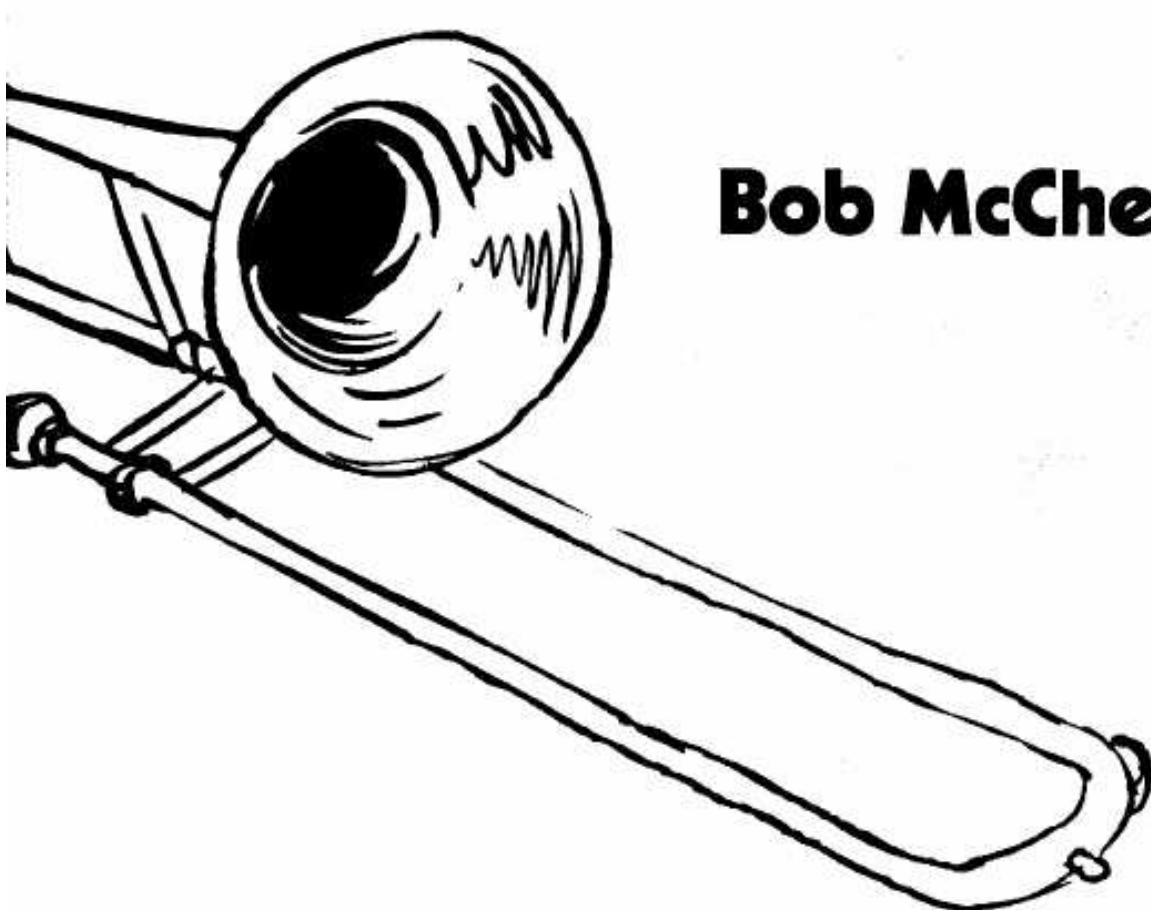
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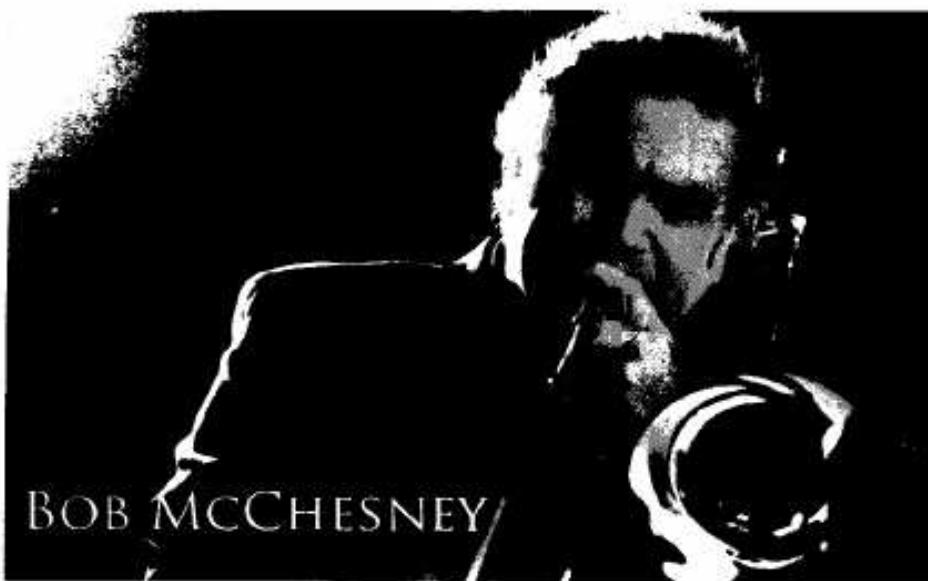


Bob McChesney

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Chesapeake Music



BOB MCCHESENEY

Bob McChesney was born in Baltimore, Maryland, and began playing the trombone in the fourth grade as part of his public school music program. He has since evolved into a world-renowned trombone soloist and an authority on trombone pedagogy. Bob McChesney's trademark as a trombonist is the beauty of his sound, a lightening-fast technique, and his emotional connection to the music. With complete mastery of the instrument and extensive knowledge of jazz harmony, McChesney has distinguished himself as one of the pre-eminent soloists in the world, not only in the realm of jazz and improvisation, but as an interpreter of the most difficult and highly technical Classical repertoire, as well.

Primarily self-taught, at a young age, Bob discovered a unique way of articulating on the slide trombone, called "doodle tonguing". He has since authored what is considered to be the definitive treatise on the subject, called, "*Doodle Studies and Etudes*". The method book has been critically acclaimed and endorsed by trombonists and music educators all over the world.

A resident of Los Angeles, Bob is a fixture in the recording studios, where he has enjoyed a long career with studio orchestras scoring hundreds of films and television shows. He can also be heard on CDs for Barbra Streisand, Shakira, Mary J. Blige, Michael Buble', Natalie Cole, Rod Stewart, Chicago, Michael Bolton, and Grammy-winning CDs: "Ray Charles: Genius Loves Company", Diana Krall's "When I Look in Your Eyes", and most recently, Arturo Sandoval's "Dear Diz", where he was a featured soloist. Legendary composer and conductor Lalo Schifrin exclaimed, "*Bob McChesney is a virtuoso and has the gift to bring us the joy of music at the highest level.*"

A pre-eminent jazz educator and clinician, Bob has been a welcomed guest artist all over the US and Canada. Bob has been featured twice with his Quartet at the International Association of Jazz Educators convention, and The International Trombone Festival, where he has spoken and performed for audiences as large as 5000 in attendance of his demonstrations, workshops and performances.

Bob is thrilled to have worked with legendary composer and entertainer Steve Allen before his death in 2000. McChesney and Allen co-produced what would be the last CD from Allen's prolific songbook, resulting in the highly acclaimed and perennial favorite on Top Ten Jazz CD Lists, "*No Laughing Matter - The Bob McChesney Quartet plays Steve Allen*".

ACKNOWLEDGEMENTS

I humbly thank my predecessors, teachers, and colleague who have contributed significantly to my musical education and to the methods shared in this book. Of special note are Roy Main, Jimmy Stamps, Ralph Sauer, Uan Racey, Bill Watrous, and Edward Kleinhammer. I am truly grateful to be a part of such a rich musical community of talented musicians and geneous human beings. My desire is to pass along this information to you.

A Personal Note

Thank you for purchasing this book. It is my sincere hope that it will be extremely useful to you. Please feel free to contact me with any questions or comments. I can be reached through my website. As a fellow trombonist and a cherished member of our musical community, I am here to help you with technical advice, musical or career issues, and generally support you any way I can. It is my pleasure to do so!

I respectfully request that you please do not share copies of my books and CDs. Not only is copying a violation of federal laws, copying my work directly hurts my livelihood and my ability to produce more study methods and recordings. I wish you all the success in the world, much enjoyment in your musical journey, and I thank you for honoring my request.

All my gratitude and best wishes to you,

Bob McChesney

www.BobMcChesney.com

Introduction

The material contained in this book is a compilation of technical exercises, general playing tips, and concepts for the tenor trombonist. Some of the exercises have been shared with me by my various teachers and colleagues in the trombone community, and some have been developed by me. Most of these are used routinely for my own personal practice and are the same exercises that I give to my private students. They should prove very helpful to you and will aid in all styles of music, whether your focus is on classical, jazz, or all-around commercial work.

This book offers material that can be used for daily practice. The material includes warmups, tonguing and slurring exercises, and a variety of other exercises to improve technique on the trombone.

GENERAL PLAYING TIPS AND CONCEPTS

Daily Routine / Schedule of Practice

A daily routine is a given set of warm-ups and practice exercises. The warm-up portion of a daily routine is played exactly the same way every day, and the practice exercises (being more numerous) are rotated in and out of the daily routine so that they are repeated every few days. Daily routines typically take 20 to 30 minutes to complete. Almost every professional brass player today has a daily routine. The daily routine helps both to maintain and to improve your technical skills. They also assure that you are always prepared for any playing challenges that may arise unexpectedly.

Each exercise is marked according to my recommendations as to how often it should be practiced. The markings are as follows: "DAILY", "EVERY THIRD DAY", "ONCE A WEEK", "AS NEEDED" and "SPECIFIC STUDY". The Warm-Ups are to be done daily. After the Warm-Ups, there are a few exercises that are marked "DAILY". Once these exercises have been thoroughly practiced, they can be rotated to "EVERY THIRD DAY". When approaching any exercise that is new, regardless of its marking, play it everyday until it is thoroughly learned.

In addition to your daily routine, other material must be practiced on a daily basis, including classical etudes, excerpts, ensemble and solo pieces, scales, and, if you are a jazz player, a multitude of harmonic material and tunes.

I recommend that your practice day be organized as follows:

- 1 Daily Routine (routine warm-up and technical exercises)
- 2 Rest
- 3 Classical Etude Practice
- 4 Rest
- 5 Practice Session: options: Jazz Harmony Practice /Tune Practice and/or Performance Preparation

It is also very important to spend time throughout the week listening to live performances and recordings. Listen for enjoyment, but also listen critically to details.

Goal-Oriented Practice

Of course playing music is fun, and you *should* play just for fun, however, playing is different than *practicing*. When practicing, always have a specific goal for each session. Choose an area of study where you desire to improve (i.e. tonguing, high register, scales, etc.). Instead of goal-oriented practicing, many players fall into the habit of playing just to hear themselves. With this approach you may be able to maintain your playing, but you won't improve.

Critical Listening and Self-Correction

Like goal-oriented practice, critical listening to your own playing is imperative. Simply playing for a specified period of time without listening closely to yourself will not be enough to improve. Ask yourself, "Could the note have been more in tune?", "Was the time good?", "Did the phrase flow without hesitation?", "Was the tone good?", etc., etc. All minute errors must be recognized and corrected immediately. Try not to repeat an error more than once. You must carefully repeat the material you are working on in various ways (i.e. slower, faster, partial execution, etc.), always listening carefully and making adjustments for improvement.

The Importance of Rest

Rest is a very important and often overlooked aspect of brass playing. The proper amount of rest is necessary for the embouchure, and resting can greatly improve your progress. After the warm-up, take at least 10 minutes off. After that, limit your practice sessions to about 45 minutes. If, at any time during a practice session you feel excessive strain or something unusual, rest for a few minutes before continuing. After a day of strenuous performing or excessive practice, it is a good idea to follow with a day of much lighter playing, giving the embouchure a chance to recover.

Legato Note Transitions

While many aspects of trombone technique are shared with the other members of the brass family, because of its slide, the trombonist's unique challenge is in mastering clean, smooth and consistent transitions between notes. Much time should be dedicated to mastering this skill.

Playing with unmatched and rough sounding note transitions, and with varying note lengths and volumes, will make the music you are trying to communicate much harder to perceive and understand by the listener. Also, trombone and other instruments that sound in the middle to lower registers, require especially clean and consistent transitions to help intelligibility. Generally speaking, the clearer and more consistent the articulation, the more understandable and enjoyable the music can be to the player and the listener.

The change between notes should be quick and smooth, much like the transition created by a valve or key being depressed on a trumpet or a saxophone. Whether the notes are transitioning across partials (across the harmonic series) or if the notes reside in the same partial (moving up and down the slide), the transitions between all notes should match. No matter how great a distance the slide must move, or whether or not there is a change of partial, the transitions between all notes should match. There should be no audible smear (no glissando or portamento), and at the same time, there should not be silent gaps in between the notes; the notes are long and connected.

The following is a description of the physical movements involved in legato when playing three notes in the same partial (harmonic series):

- 1) Sustain the initial note and hold the slide in position (for its duration, whether it is a long note or a short note),
- 2) Wait until the last possible instant and move the slide extremely quickly to the position of the second note - tonguing at the same instant. The movement, although very fast, should not cause the mouthpiece or the embouchure to move. Maintain a full and steady airstream.

The movement should be fast enough so that a smear (glissando) is not perceptible – i.e. the movement should take as little time as possible. (Typically smearing is undesirable and should be avoided.) The slide is “parked” in position for the duration of the second note, no matter how short the time.

- 3) Wait until the last possible instant and move the slide extremely quickly to the position of the third note - tonguing at the same instant.

If the slide is moved too soon or too slowly, a smear will be heard. If you attempt to hide smearing by shortening the note lengths (making gaps between the notes where the slide moves), the legato style is lost and the result is choppy. If you hear a smear and are trying to correct it, don't begin the slide movement sooner, rather, make the movement at the last possible instant, and faster. Always keep the airstream steady.

Slide movement should be like that of a hummingbird – darting lightly and effortlessly to the next position, pausing momentarily in position (“catching”, “parking”), then darting to the next position. It is best if the movement is accomplished mostly with the fingers and the wrist, with minimum movement from the elbow/forearm and other parts of the body. The more the forearm is in motion, the more mass is involved. This extra mass must be subjected to changes of direction and speed and can cause delay. Most importantly, if the elbow and forearm move too much, the bell section, mouthpiece, body and embouchure will also move, negatively affecting the smoothness of the sound. If you use your forearm less, the slide will move much faster and the sound will be more steady. See more on slide movement and the variable slide grip on page 49.

Try this Experiment: Hold a long tone steady while the slide is locked in 1st position (or held closed with the fingers of the left hand). While sustaining the note, make a fist with your right hand and lock your wrist. Now rapidly move the fist back and forth in the air as if you were moving the slide in and out from an imaginary 1st to 3rd position. Listen to the effect it has on the sound, how unsteady it is. Notice how much the bell section is moving.

Now do the opposite: lock the elbow and use only the fingers and wrist to make the same back and forth motion from imaginary 1st to 3rd position. Notice how the sound is much more steady. By using only the fingers and wrist, much of the mass has been removed. This demonstrates why the movement of the elbow and forearm should be kept at a minimum.

Breath Control

Many times missed and chipped notes are blamed on the embouchure, but in fact, are the result of mismanagement of the breath. Breathing should be natural and relaxed. The first point of resistance to the flow of air from the lungs should be the lips; the throat and vocal cords must remain completely open and without any constriction. The exhale should be smooth and steady without sudden changes in pressure. While dynamic level is controlled by the breath, changes in register should be handled by the embouchure and the mouth cavity. This is especially important to remember when playing difficult music. The techniques of practicing passages on a single pitch and buzzing troublesome passages on the mouthpiece (see page 5) will help improve the management of air flow.

Time and Rhythm

The most important aspect of any musical performance is time. It sits at the top of the hierarchy of music. No amazingly beautiful tone, incredible high range, fast execution, or any other musical skill will make up for a performance with bad time. Even rubato phrases require a good sense of time. Rushing ahead of the pulse (the most common error), dragging behind, or floating in all directions can ruin a performance. Some are born with a strong internalized sense of rhythm and time, others must work to develop it further.

A great tool for helping to improve your sense of time is a metronome. Use it often. The metronome should be used in the following different ways:

1- The first and most obvious way is to set the metronome rate to the basic pulse (i.e. quarter note, dotted quarter or half note, etc.) and practice with it. Try to play exactly with the beat at all times.

2- The second method is to set the metronome rate to half, or one-quarter, or one-eighth of the basic pulse. For example, if the tempo is quarter note = 120, set the metronome to 60 but play the music at the same tempo as you did before (at a quarter note = 120 but with the metronome click occurring half as often). Try to play exactly with the beat at all times.

Now try setting the metronome to 30 but play the music at the original tempo of quarter note = 120.

Now try setting it to 15 and play. At these lower settings the cues given by the metronome are much farther apart and your brain must calculate accurate time over a much wider interval. Patiently repeat sections where you get ahead or behind until you can stay exactly with the metronome. Jazz players may use this metronome technique when practicing scales and patterns, and when improvising over chord progressions.

3- In order to improve your time, you first must be able to immediately recognize what it feels like to be behind the beat or ahead of the beat. You must also be able to immediately recognize how much you are behind or ahead.

Set the metronome to the basic pulse. Practice playing very slightly behind the beat. See how long you can accurately stay that same slight amount behind the beat. Pay attention to how this feels and what effect it has on the music you're playing.

Next play further behind the beat and see how long you can accurately stay that same exact distance behind the beat. Again, notice how this feels and how it may effect the music.

Then do the same playing ahead of the beat – very slightly ahead and then more ahead. Do this every day for a month.

By practicing behind or ahead, you will improve your sensitivity to the time.

4- Feel the subdivisions when holding sustained notes. Some players have more trouble with time when encountering a fast note grouping after holding a sustained note. While sustaining a note, it is always a good idea to feel and imagine the pulse of the smallest subdivisions that might occur. For example, while holding a whole note, the player should be imagining and feeling the sixteenth notes that are about to occur.

Set the metronome to the basic tempo you are about to play. Look for the smallest subdivisions that occur regularly in the piece. (Jazz players who are improvising should predetermine the smallest subdivision they intend to play.) Begin by playing those small subdivisions on a single pitch for one measure. Then in the next measure, sustain a whole note on the same pitch. During the sustained note continue to feel and imagine the smaller subdivisions of the previous measure. Continue to alternate back and forth between the faster notes and the sustained note, always imagining the faster subdivisions while you are sustaining. Practicing in this way will help train you to be ready to play any subdivision instantly and precisely.

Practicing Passages on a Single Pitch

Here is a very helpful technique to sound better on a tricky or troublesome passage: Play the passage using the given rhythm but use the same pitch for all the notes. Be sure to keep a steady airstream and play accurate rhythm. Practice several times using the lowest pitch of the passage as your repeated note choice, and again several times with the highest (or near highest) pitch of the passage, using only that one repeating pitch.

Practicing on a single pitch often reveals problems in the airstream so that they can be immediately corrected. By temporarily concentrating only on the rhythm and the steadiness of the air, you will find that when you return to the original passage, it will sound much better.

Buzzing Troublesome Passages

A helpful technique to sound better on a troublesome passage: Buzz the passage on the mouthpiece only. Buzz the passage as accurately as possible, with good intonation, rhythm and steadiness of air. Buzzing often reveals problems with intonation or with the airstream so they can be corrected. The player should not rely on the harmonic series of the horn to "find" a note, but rather should be able to buzz it accurately on the mouthpiece. When reaching for wider intervals the airstream should remain steady and not "jerk". When returning to playing the passage on the horn, accuracy is usually improved.

Playing Fast

It is important to know that when attempting to play very fast legato, maintaining smooth articulations with even note envelopes (as the doodle tongue technique allows), and minimizing transfer of slide motion to the embouchure are of utmost importance. The ear is very sensitive to changes in uniformity and smoothness of the sound, but, because the note durations at fast tempos are so short, it is nearly impossible for the ear to detect minor intonation errors. Being accurate with intonation is, of course, very important, but when a certain velocity is reached, care must be taken to give priority to smoothness and uniformity of sound. This means that some slide positioning accuracy may have to be sacrificed so that transfer of motion is minimized. Playing with smooth and even articulations (as with the doodle tongue technique) will give the perception that the fast notes are being played in tune. For more, see the **Doodle Tongue Exercises** beginning on page 38 and **Variable Slide Grip** beginning on page 49.

Basic Slide Grip

I recommend the following slide grip: Touch the bottom slide tube below the slide brace with the lower side of the 2nd (middle) finger. The 1st (index) finger should rest on top of the 2nd, and touch the slide brace slightly above the slide tube at the first joint of the finger (the 1st finger is slightly higher than the 2nd finger and doesn't touch the bottom slide tube). The thumb should touch the other side of the slide brace opposite the 1st finger but slightly higher. (Alternate Grip: you may choose to use only the 1st finger instead of both the 1st and 2nd fingers. If you choose this alternative grip, the 1st finger will touch the bottom brace as the 2nd finger did in the other grip. The 2nd finger can be extended in to the air above the bottom tube, or it can be placed under the bottom tube, touching it with the top side of the finger opposite the first finger.)

Follow Through

Wind players must always be sure to maintain a good sound completely through to the very end of every note. Don't allow your air support to taper off in the middle or end of a note. Keep the tone, pitch and volume steady and unwavering to the end. (The only exception being on a decrescendo, which should still have good air support and maintain a good tone.) No matter how short a note is, it still has a measurable duration. Short notes must also be supported and sustained to the end. This concept of "follow through" will help you achieve a beautiful and confident sounding performance.

Improving Sight Reading Skills

Successful sight-reading involves a few different concepts.

They are:

- 1) Recognition of rhythmic patterns, recognition of harmonic patterns (such as scales, common chord arpeggios, etc.)
- 2) Reading ahead - the ability to process note information into a mental "buffer" during the performance of other notes.

To improve both of the above skills you must:

A) Practice varied and increasingly difficult music. The reason for this is so you will be exposed to, and feel familiar with as many kinds of rhythmic patterns, scales, arpeggios, key signatures and time signatures, musical styles, etc. as possible. It is important to challenge yourself.

B) Practice EASY music without stopping. The music should be simple enough so as not to cause any hesitation. Practicing easy music is very important for improving sight-reading as it will increase your ability to read ahead. The mental "buffer" that holds the notes you are about to play can be strengthened; – increased in size so that you are reading 1 to 4 measures ahead, depending on the music. This improvement occurs best when the material is not challenging, and the skill will transfer to more difficult music later on.

There is a hierarchy of importance that good sight-readers always adhere to:

FIRST: Time/Rhythm

SECOND: Correct Pitches

A good sight-reader may occasionally play a wrong pitch, but will rarely play a wrong rhythm or play with poor time.

Before playing a piece of music for the first time, study the key and time signatures. Look at the "roadmap" (i.e. look for any repeats, D.S.s, Codas, etc.). Also, scan for any areas in the music that might be more difficult and look them over closely.

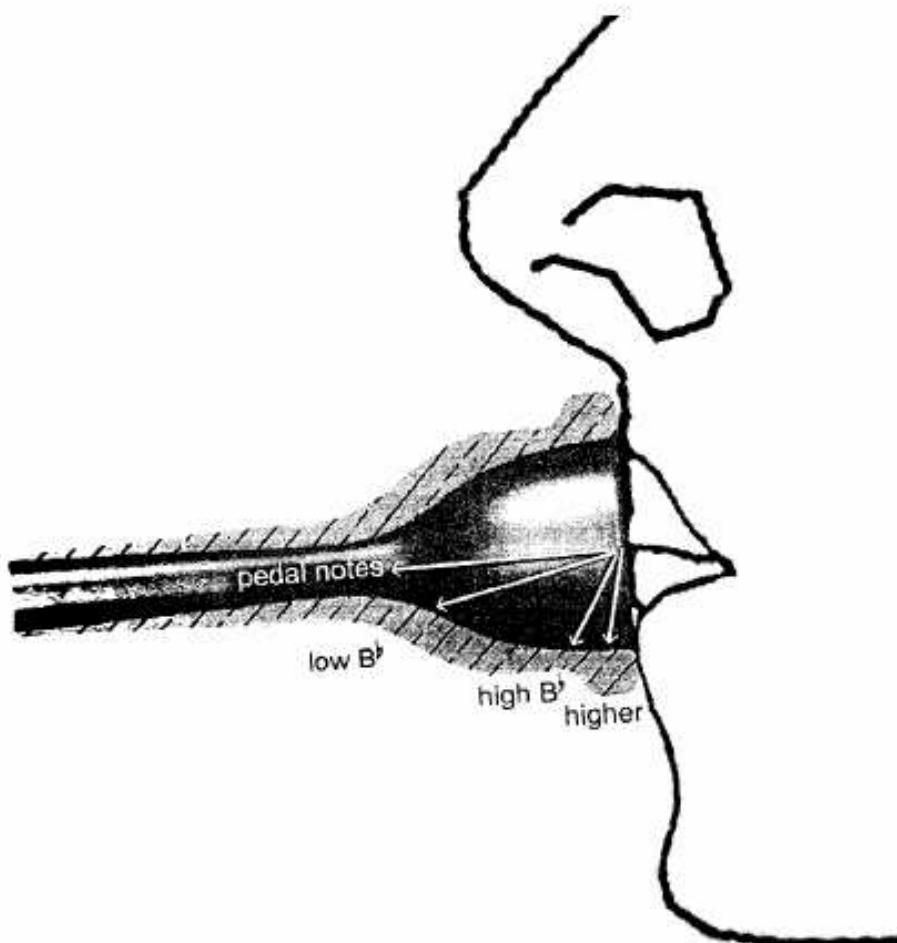
Playing High Notes

Upper Register vs. Lower Register

The upper and lower registers on the trombone should be executed in different ways. Just practicing the exercises in this book will accomplish much of the work needed for mastering extreme registers, but keeping the concepts below in mind may help as well.

In the lower register, the airstream is directed at, or just below the hole in the center of the mouthpiece (see diagram). The low register airstream may be considered "slower" and is wider and of a much greater volume than the upper register. The jaw is lowered, the tongue is low and the mouth cavity is enlarged.

Conversely, in the upper register, the airstream is narrowed and directed downward to the bottom side of the cup of the mouthpiece just below the rim (see diagram). (Directing the air in a downward direction applies to most trombonists, known as "downstream players".) The upper register airstream may be considered "faster" and is narrow and of a very small volume. The jaw is closed, the tongue is raised and the mouth cavity is small. Do not put too much mouthpiece pressure against the lips when playing in the upper register. Due to physics, it takes a much smaller volume of air to produce a note in the upper register at the same dynamic level as a note in the low register.



Use the correct airstream for each note. Do not make sudden changes in the overall air support from the lungs (i.e. the air support from the lungs is not "jerked" to reach the high notes). If the embouchure and mouth cavity do not narrow the airstream for the upper register, the higher notes will sound very strained and will be difficult to play.

If you feel that you are "jerking" the air pressure from your diaphragm to reach high notes, try practicing the high notes much softer than the others.

Tone

To get a clear tone on the trombone, be careful not to pinch the lips. Maintain good air support with an open throat (i.e. no tension, no engaged vocal chords).

If the lips are squeezed together while playing – called "pinching" – the sound can be nasal and/or foggy. With better air support, and with an open throat and mouth cavity, pinching the lips will not be necessary. The lips can relax allowing the production of a clear, brassy tone, even at a medium dynamic level. Sometimes a poor tone is caused by having the jaw too closed (which may pinch the lips together as well). If this is the case, try lowering the jaw slightly and add more air support. This will allow the lips to relax.

In addition, your tone can be greatly improved by finding the "center" of each note. Finding the center of a note means adjusting intonation up and down with the embouchure until the point of least resistance is felt. Some players may unconsciously play slightly above the center, but that does not produce the best tone. If this is the case, trying relaxing the pitch down with the embouchure. For more on centering, see the exercise **Bends** on page 31.

Relaxation

Always strive for a feeling of relaxation when playing. Relaxation helps remove tension. Tension is the enemy as it interferes with every aspect of good technique.

Incremental Practice Technique for Fast Playing

A helpful technique for learning a scale, a pattern or any difficult fast technical passage is to begin practice with only a few of the notes, and then add a note, one at a time to the group, until you are playing all of the passage. This is called "incremental practicing" or "chaining". The passage can be practiced at, or near the desired fast tempo since there is only one new note added each time to learn. The brain is able to thoroughly absorb the material when it is presented this step by step way. This is a more effective way of learning than the traditional method of practicing (playing an entire passage very slowly until mastered, and then incrementally speeding it up until tempo is reached). Slow playing is different in the brain than fast playing, and practicing at or near the desired fast tempo is the best way to prepare for performance.

Begin with the first two notes of a passage (scale or pattern) and repeat until mastered. Then add one more note and repeat those three notes until that segment is mastered. Then add another note and repeat that segment, etc., etc., continually practicing and adding notes until the entire passage is covered. Alternatively, you can start with the last two notes of a passage and add the notes that precede them one at a time. You may also want to start in the middle of a passage and add notes to either side, expanding in both directions until the entire passage is mastered.

Recommended Books

Below is a list of books that I recommend for practice material and for reference. Practicing etudes is essential for all trombonists, including jazz players. The careful practice of etudes improves sound, rhythm, reading, phrasing, intonation, range, familiarity with clefs, and a host of other skills. At least one etude should be prepared and mastered every week.

(Some of the books listed are written for Bb trumpet and must be transposed. The transposition is almost identical to reading tenor clef except that accidentals on B's and E's must be lowered by a half step. Much of the trumpet literature offers faster and more technical passages than typical trombone literature, and working on trumpet literature exposes you to a wider variety of musical challenges.)

Sixty Selected Studies for Trombone, Book 1 - C.

Kopprasch

Sixty Selected Studies for Trombone, Book 2 - C.

Kopprasch

Melodious Etudes for Trombone, Book 1 – Joannes Rochut
(Carl Fischer)

Melodious Etudes for Trombone, Book 2 – Joannes Rochut
(Carl Fischer)

Melodious Etudes for Trombone, Book 3 – Joannes Rochut
(Carl Fischer)

36 Studies for Trombone – O. Blume

Arban's Famous Method for Trombone – Joseph Jean Baptiste (Carl Fischer)

Clef Studies for Trombone – Vladislav Blazhevich

(Hal Leonard)

Concert Duets for Two Trombones – Vladislav Blazhevich

(Hal Leonard)

40 Progressive Studies for Trombone in the Bass Clef – H. W. Tyrell (Boosey & Hawkes)

Tommy Pederson Beginning, Intermediate, Advanced, Etudes for Tenor Trombone - Tommy Pederson (Belwin)

Aaron Harris Advanced Studies for Trumpet (Charles Colin)
Studies and Duets Book 1 - Mel Broiles (Trumpet)

(McGinnis & Marx)

48 Etudes for Trumpet - Verne Reynolds (G. Schirmer)

36 Etudes Transcendantes for Trumpet – Theo Charlier (Alphonse Leduc)

Reference:

The Art of Trombone Playing - Edward Kleinhammer
(Summy-Birchard Company)

The Trombonist's Handbook - Reginald H. Fink
(Accura Music)

Trombone Technique - Denis Wick
(Oxford University Press)

Additional Studies:

Doodle Studies and Etudes – Bob McChesney
(Chesapeake Music)

Jazz Etudes and Duets – Bob McChesney (Chesapeake Music)

Bob McChesney Solo Transcriptions – Rob Egerton
(Chesapeake Music)

28 Vignettes for Two Trombones – Richard J. Fote
(Chesapeake Music)

Warm-Up 1

(mouthpiece only)

DAILY

Buzz the notes on the mouthpiece only. Be sure to use an even airstream for all the notes. Do not pulsate the air (i.e. 'jerk' the air) as you change pitch, rather, use only the lips to distinguish each pitch from the previous one.

Strive for a thick, dense tone, with the top and bottom lips set fairly close together, but relaxed and not pinched together.

Initially, some students find it easier to buzz this warm-up by creating a little more resistance with the little finger of the right hand to partially block the end of the

mouthpiece. Ultimately, you should strive to buzz it without doing this.

For accurate intonation when first learning the exercise, it can be helpful to play along on a piano or keyboard.

In addition to the mouthpiece buzzing in this warm-up exercise, buzzing can be helpful in other musical situations. Difficult passages are often made easier by buzzing through them several times first, then playing them on the horn.

• = 60-66

BULL ON MOUTHPIECE ALONE

The image shows a page of musical notation for a single instrument, likely a bassoon or cello, spanning ten staves. The music is in common time and has a key signature of one flat (B-flat). The notation uses a bass clef. The music consists of eighth and sixteenth note patterns, with occasional quarter notes and rests. Several fermatas (dots above notes) are placed above notes in the first, third, fifth, and eighth staves. A repeat sign with a 'C' (circle) is located in the middle of the fourth staff, indicating a repeat section. The music concludes with a final fermata in the tenth staff.

Warm-Up 2

(on horn)

DAILY

Play this warm-up on the horn. Make each note long and smoothly connected to the next. All of the note transitions should match in character (i.e. the transitions to the changing pitches should match those of the repeated single pitches at the beginning of each line).

Try to keep each note steady and with a consistent volume, tone and pitch, especially at the very end immediately before the transition to the next note. (Be careful not to crescendo, pinch the tone, or "jerk" the air as you play.) Stay very relaxed.

For the "false tones" low Eb, D, Db, C and B, try using a slide position that is approximately one half a position

further out than the note would be played an octave higher. (i.e. flat 3rd for the low Eb, flat 4th for the low D, etc..) Do not tongue these notes. Many trombonists find it helpful to initially make a slow glissando to these low "false tones". After a period of time when the notes feel more secure, the glissando can be sped up to the point where no glissando is perceptible. If you are having trouble getting the false tones to appear, try buzzing them on the mouthpiece alone.

Note: The main purpose of playing these "false" notes is not to make them useable in a performance, but to exercise the embouchure in a specific way that will improve your performance in all registers.

PLAY ON HORN

d=60-66

VERY LIGHTLY TONGUED AND/OR SLURRED

The musical score consists of seven staves of music for horn. Each staff begins with a key signature of one flat (B-flat). The music consists of eighth-note patterns with various slurs and grace notes. Measure numbers 1 through 7 are placed above the staves to indicate the progression of the exercise.

1 2 3 4 5 6 7

Warm-Up 3

DAILY

The dynamic for this warm-up is forte. Play with strong accents and make each note as long as possible (without gaps between the notes).

d=72

STRONG AND CONNECTED

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

Warm-Up 4

DAILY

Make each note as long and smoothly connected to the next note as possible. All of the note transitions should match in character (i.e. the notes moving up and down should match those of the smoothly repeated pitches at the beginning).

Try to keep each note steady with consistent volume and tone, especially at the very end of each tone before the transition to the next note. (Be careful not to crescendo, pinch the tone, or "jerk" the air.)

Try to play to the low note in one breath. If at first this is not possible, breathe before the note ahead of the low note

(and again during the pause after the low note). After the high note and before the pedal Bb, breathe through the corners of the mouth without resetting (sliding) the position of the mouthpiece on the lips.

Each "Set" contains 3 lines of music, one in C, one in Db and one in D. The last note is always a pedal Bb regardless of the key. In the 1st group, the arpeggio ascends up the major triad to the 3rd of the key. In the 2nd group, the arpeggio ascends up the major triad to the 5th of the key. In the 3rd group, the arpeggio ascends up the major triad up to the root, and in the 4th group, up to the high third.

SET 1

1 *VERY LIGHTLY TONGUED OR SLURRED*

SET 2

2 *short pause*

SET 3 Repeat the previous set, but now play the arpeggio up to the root (up to high C, Db, and D)

SET 4 Repeat the previous set, but now play the arpeggio up to the 3rd (up to high E, F, and F#)

UP TO THE 3RD **do not reset the embouchure**

UP TO THE 5TH

Single Tonguing

DAILY

Use a "ta" syllable (a small point at the tip of the tongue) and play each note as long as possible. Each note is released (stopped) only when the next note starts (as in "**taa-taa-taa**"). (Do not stop each note with the tongue as in "**taat-taat-taat**".)

As you change from playing the repeated single pitches to the moving scale, the articulations should stay consistent and match in sound. Try not to move the jaw when

tonguing as it will disturb the sound. Use the metronome chart. Each day in the week is played a little bit faster than the day before. Each week begins at a slow tempo, but faster than the prior week by one metronome marking.

As an option, after the key of "E" is reached, you may wish to play the alternate pattern when practice in the lower register is desired.

d = SEE METRONOME CHART

ta ta ta

ta ta ta ta etc.

continue up in half-steps - all keys (up to high "F" if possible)

ALTERNATE PATTERN FROM THE KEY OF "E" AND HIGHER

A musical score for piano, featuring two staves. The left staff uses a bass clef and has a key signature of four sharps. It begins with a sixteenth-note pattern followed by eighth notes. The right staff uses a treble clef and has a key signature of one sharp. It features a series of eighth-note patterns.

METRONOME CHART

 =	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
MONDAY	84	88	92	96	100	104	108	112
TUESDAY	88	92	96	100	104	108	112	116
WEDNESDAY	92	96	100	104	108	112	116	120
THURSDAY	96	100	104	108	112	116	120	124
FRIDAY	100	104	108	112	116	120	124	128
SATURDAY	104	108	112	116	120	124	128	132

Increasing Single Tonguing Speed

AS NEEDED

This exercise should be practiced after a top speed has been established in the Single Tonguing Exercise. The concept here is that, because it is often easier to single tongue faster when there are fewer notes in a row, a player can learn to tongue faster by experiencing success on shorter groupings, thereby "getting over the hump". Practicing this way makes the tongue movement more

efficient and allows for greater speed. As in the Single Tonguing exercise, use a "ta" syllable (a small point at the tip of the tongue) and play each note as long as possible. Each note is released (stopped) only when the next note starts (as in "taa-taa-taa"). (Do not stop each note with the tongue as in "taat-taat-taat".)

YOUR FASTEST SINGLE TONGUE TEMPO

SLIGHTLY FASTER

This exercise can be repeated, ascending up in half-steps

EVEN FASTER

This exercise can be repeated, ascending up in half-steps

EVEN FASTER

This exercise can be repeated, ascending up in half-steps

EVEN FASTER

This exercise can be repeated, ascending up in half-steps

Progressive Slurs

DAILY

This exercise (see pages 16 and 17) is an excellent way to train yourself to easily play in all registers with the same embouchure setting. It is also good for improving the focus and accuracy of the embouchure.

As indicated each pattern is played 2 times, the 1st time tongued – ***ta-ta-ta-ta***, etc. and the 2nd time slurred.

Try to keep all notes the same volume (mp) and play with an even, accurate rhythm. Sustain each eighth-note "straight across" and not bend the pitches or change tone quality as the next pitch is approached.

Use the metronome chart. Each day the exercise is played a little bit faster than the day before. Each week begins at a slow tempo, but at a tempo faster than the prior week by one standard metronome marking.

Optional Intro: It is beneficial to occasionally precede each tongued portion of the exercise with a whole note followed by a series of tongued Bb's (see "Optional Intro" at bottom). This helps to establish a consistent rhythm and matching note envelopes before you start changing pitches.

METRONOME CHART

MONDAY	72	76	80	84	88	92	96	100	104	108	112
TUESDAY	76	80	84	88	92	96	100	104	108	112	116
WEDNESDAY	80	84	88	92	96	100	104	108	112	116	120
THURSDAY	84	88	92	96	100	104	108	112	116	120	124
FRIDAY	88	92	96	100	104	108	112	116	120	124	128
SATURDAY	92	96	100	104	108	112	116	120	124	128	132

OPTIONAL INTRO TO PROGRESSIVE SLUR EXERCISES

(even, long and smoothly connected)

$\text{♩} =$ SEE METRONOME CHART

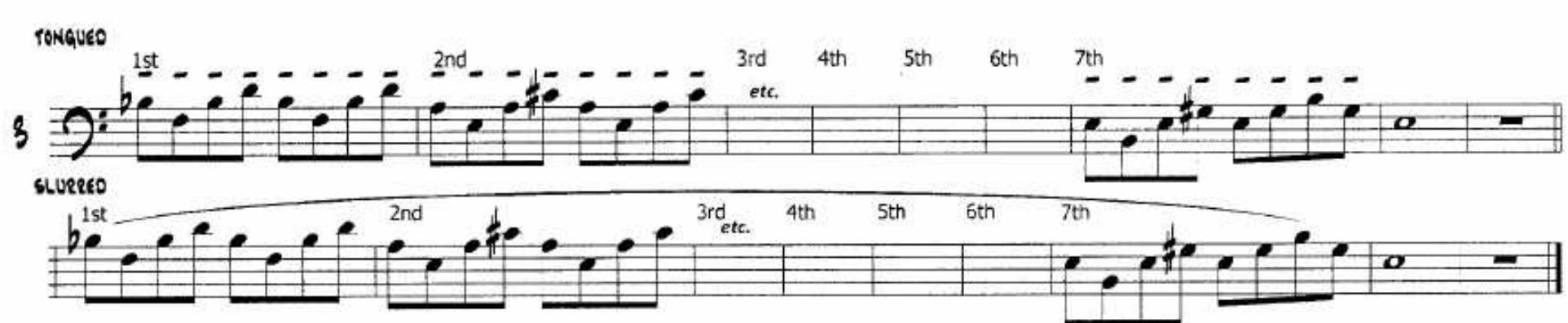
TONGUED 1st position 2nd pos. 3rd etc. 4th 5th 6th 7th

1. 

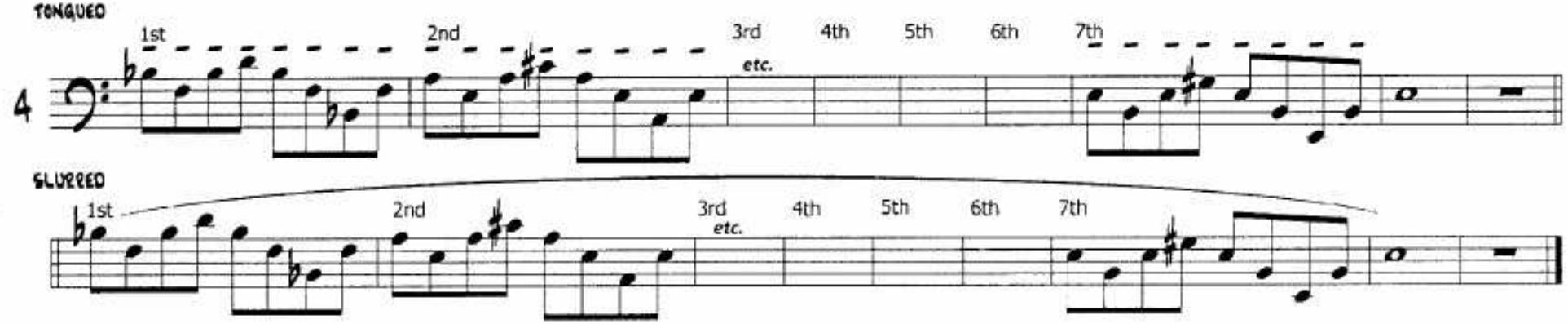
TONGUED 1st 2nd 3rd etc. 4th 5th 6th 7th

2. 

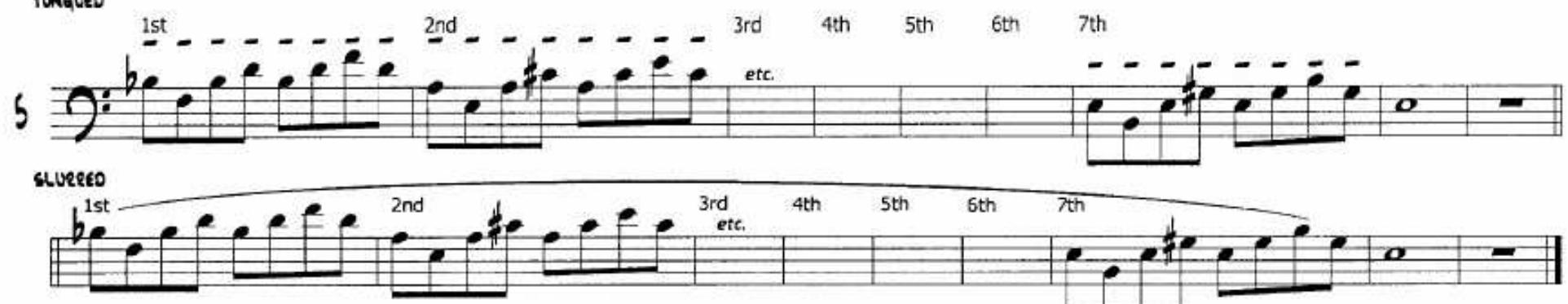
TONGUED 1st 2nd 3rd etc. 4th 5th 6th 7th

3. 

TONGUED 1st 2nd 3rd etc. 4th 5th 6th 7th

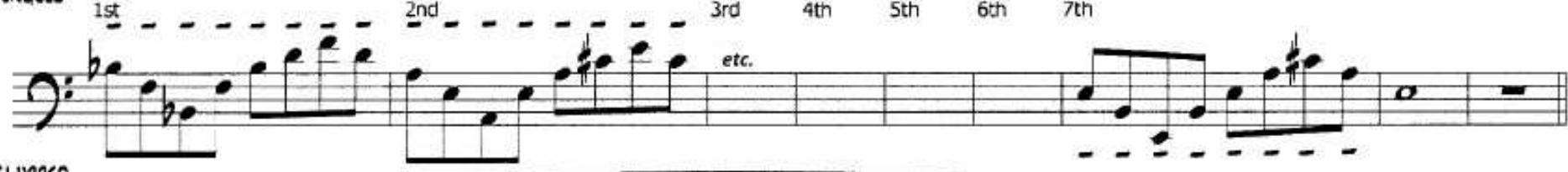
4. 

TONGUED 1st 2nd 3rd etc. 4th 5th 6th 7th

5. 

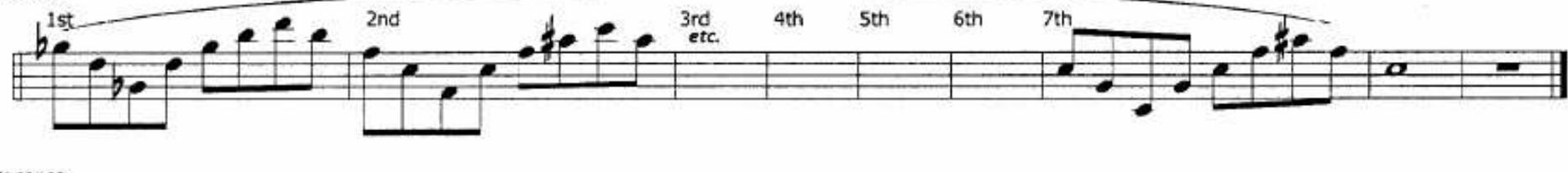
TONGUED

1st 2nd 3rd 4th 5th 6th 7th
etc.

6 

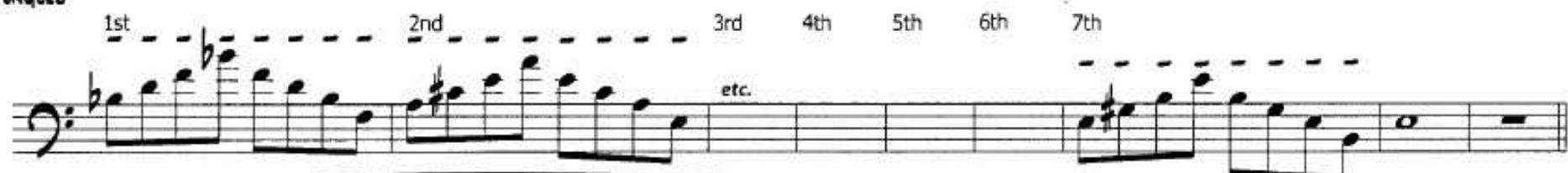
SLURRED

1st 2nd 3rd 4th 5th 6th 7th
etc.

7 

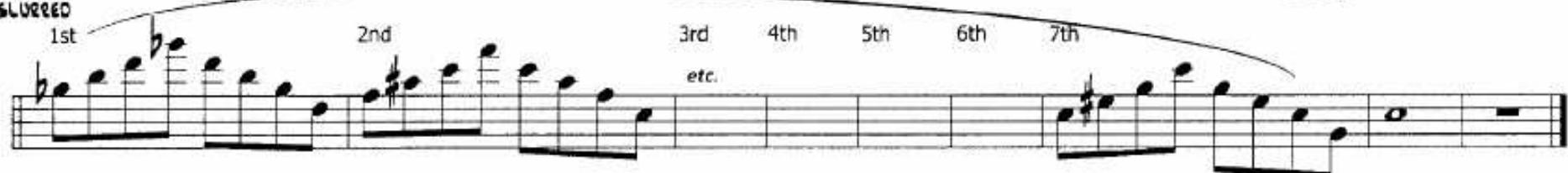
TONGUED

1st 2nd 3rd 4th 5th 6th 7th
etc.

8 

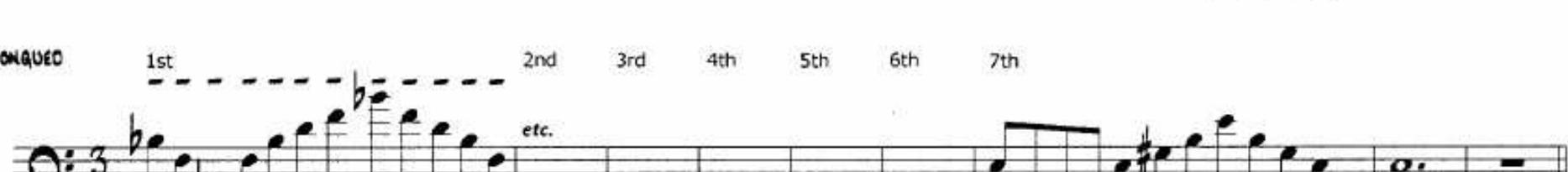
SLURRED

1st 2nd 3rd 4th 5th 6th 7th
etc.

9 

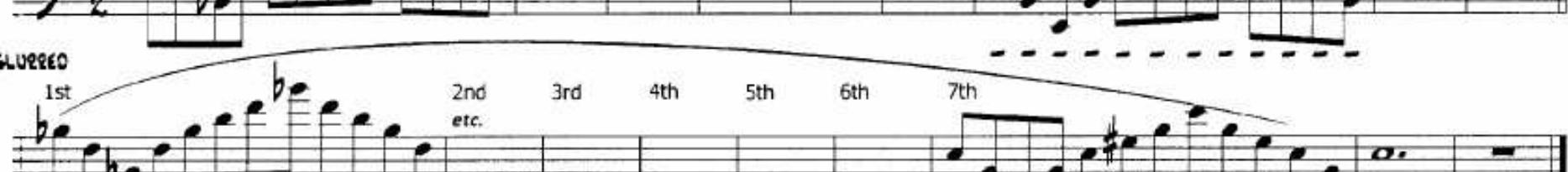
DO NOT RESET THE METRONOME, BUT AT THE SAME TEMPO
SLUR ONLY

1st 2nd 3rd 4th 5th 6th 7th 8th
etc.

10 

DO NOT RESET THE METRONOME, BUT AT THE SAME TEMPO
SLUR ONLY

1st 2nd 3rd 4th 5th 6th 7th 8th
etc.

11 

Intervals

EVERY THIRD DAY

Play the eighth notes short. Maintain a consistent volume and attack for each note. (Be careful not to fall into the habit of playing the lower repeated pitch (the 5th) softer than the other notes.

Commercial players may wish to stop the eighth notes with the tongue - "taaf". This is a common way to release notes in pop and jazz music. Classical players will prefer to release the notes with the breath as in "taah". The airstream from the lungs is stopped and the note is released.

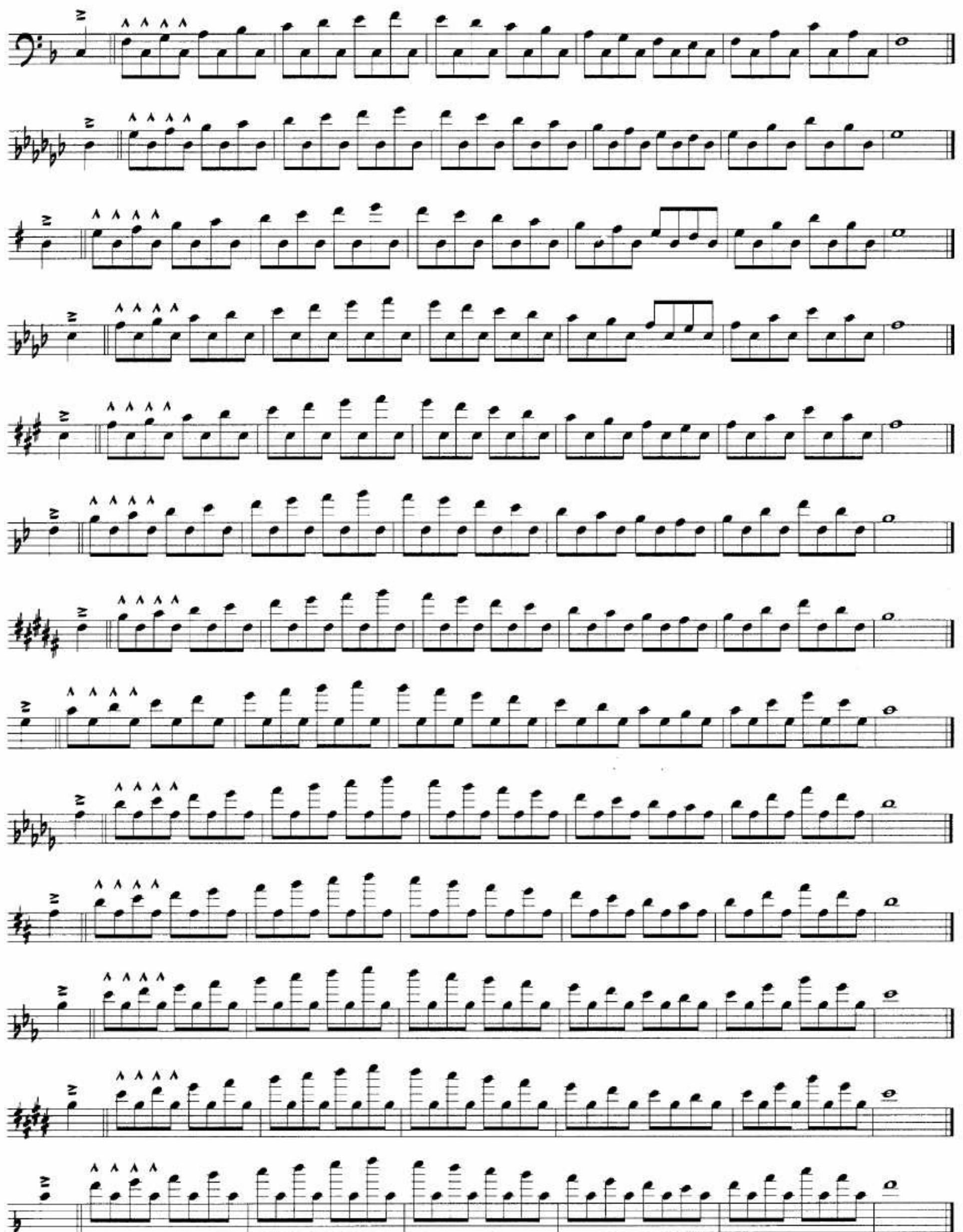
Do not squeeze the lips closed as the note is released. Do not "jerk" the air (a sudden increase in pressure from the lungs) to reach the higher notes but maintain steady, even air support and let the embouchure and mouth cavity do

the work. To improve consistency, try to play each line all the way through without missing a note before proceeding to the next key.

If the higher notes become too difficult, stop. Do not strain excessively. Rest for a moment and try the key again. If and when the upper notes become too difficult, suspend playing the exercise until another day. Improvement should be expected over time.

Some of the keys require many alternate positions. Using alternates will at first be more difficult than standard positions, but in time the alternates will yield better results. This exercise can be beneficial at a very slow tempo, or at any tempo up to very fast.

The sheet music contains ten staves of musical notation for bassoon. The tempo is marked as $d=54-144$. The music consists of eighth-note patterns primarily using the notes A, C, E, G, B, D, F, and G. The patterns involve various intervals such as major thirds (A-C, C-E, etc.) and minor thirds (A-B, C-D, etc.). The music is divided into sections by vertical bar lines and includes repeat signs and endings. The bassoon part is written in bass clef, with dynamics like "etc." and "z" indicating specific playing techniques.



Low Register Sound Development

AS NEEDED

The purpose of this exercise is to improve sound quality in the low register. As you descend, the airstream must be slowed, widened, and directed more toward the hole in the center of the mouthpiece in order to maintain a good sound. Many players think of using "warmer air" to accomplish this.

The exercise begins by establishing the best possible sound on a low Bb at a volume of forte. Use air support (open and unrestricted) and a relaxed embouchure to create a clear tone. Do not "pinch" the lips together as this makes the sound nasal. The more open and unrestricted the air, the more the embouchure is able to relax and

produce a clear tone.

After establishing your clearest tone, downward glissandos (smears) are introduced. As you glissando down, try to maintain the clarity and richness of sound you established on the Bb. Notice the increased volume of air, relaxation, openness, change in air direction and the slower speed of air that is necessary to maintain the same quality of sound as you descend.

The second part of the exercise is similar, but adds attacked quarter notes. Maintain the same quality of sound as you descend and attack each note.

1 *d=63 DESCENDING*

GOOD SOUND

EVEN BETTER SOUND

MAINTAIN SOUND

open & slow the airstream

GOOD SOUND

EVEN BETTER SOUND

MAINTAIN SOUND

open & slow the airstream

SLOW GLISS

<img alt="Musical staff 164: Descending glissando from Bb to G. Dynamics: forte, moderate

ASCENDING

GOOD SOUND

2

EVEN BETTER SOUND

2

MUSIC STAFF 3: Clef: F#; Key: C major. Measures 1-4 show a sequence of eighth notes. Measure 1: "Good Sound" (open circles). Measure 2: "Even Better Sound" (filled circles). Measure 3: "Maintain Sound" (open circles). Measure 4: "Even Better Sound" (filled circles). Measures 5-8 show a sequence of eighth notes. Measure 5: "Slow Gliss" (open circles). Measure 6: "Slow Gliss" (filled circles). Measure 7: "Slow Gliss" (open circles). Measure 8: "Slow Gliss" (filled circles).

2

2

SLOW GLISS

SLOW GLISS

SLOW GLISS

SLOW GLISS

SLOW GLISS

SLOW GLISS

GOOD SOUND

4

EVEN BETTER SOUND

MUSIC STAFF 4: Clef: F#; Key: C major. Measures 1-4 show a sequence of eighth notes. Measure 1: "Good Sound" (open circles). Measure 2: "Even Better Sound" (filled circles). Measure 3: "Maintain Sound" (open circles). Measure 4: "Even Better Sound" (filled circles). Measures 5-8 show a sequence of eighth notes. Measure 5: "Slow Gliss" (open circles). Measure 6: "Slow Gliss" (filled circles). Measure 7: "Slow Gliss" (open circles). Measure 8: "Slow Gliss" (filled circles).

2

2

2

2

MAINTAIN SOUND

SLOW GLISS

Triad Lip Slur

EVERY THIRD DAY

This exercise is excellent for focusing and strengthening the embouchure.

Slur all the notes. Try to get each note to "slot" into place in perfect rhythm. Start slow and increase speed gradually over time. Rest whenever needed between keys.

Use natural slurs for all note transitions.

6TH POSITION . . .



Repeat again a half-step higher (in 5th position), and continue to repeat, each time a half-step higher. After reaching and completing 1st position, continue up in half-steps using any slide position. If possible proceed up to high 'F'.

V Chord, I Chord Lip Slurs

EVERY THIRD DAY

This is another exercise that is excellent for focusing and strengthening the embouchure. The arpeggios move between the V chord and the I chord in a major key.

Try to get each note to "slot" in perfect rhythm. Start slow and gradually increase speed over time. Rest whenever needed between keys.

Use natural slurs for all partial crossings (no tongue)



Repeat again a half-step lower, and continue to repeat, each time a half-step lower. After reaching and completing Db7 to Gb maj, using the same pattern switch to Gb7 to Cb maj (beginning in 5th position). Repeat again and again, each time a half-step higher. If possible proceed up to high 'F'.

Low Register Articulation

EVERY THIRD DAY

In each of the following exercises play the notes very short and work to make each attack as fast and clean as possible. Strive to keep the attacks consistent, not allowing the attack speed to slow as you descend.

Commercial players may wish to articulate with a "**tat**" – a tongue stop release for the short notes. This is a common way to release notes in pop and jazz music. Classical players will prefer to release the notes with the breath as in "**tah**". It is wise to practice both methods of release. Be careful not to squeeze the lips closed at the end of each note.

In set 1 use steady air support and do not "jerk" the airstream when reaching for the upper notes. Let the embouchure and the mouth cavity do the work. Proceed down in half-steps until low 'E' is reached.

In set 2 proceed down in half-steps until low 'E' is reached.

In set 3 proceed down in half-steps until low 'F#' and low 'E' are reached. All notes should match in volume.

Play all three sets in the same practice session.

1 ♩=40-66

etc. down in half-steps to low "E"

2 ♩=80-132

etc. down in half-steps to low "E"

3 ♩=80-128

etc. down in half-steps to low "F#" and "E"

Major Scale With High Slur

EVERY THIRD DAY

This exercise helps to improve the focus of the embouchure in the upper register. At the top of the scale the notes are slurred (marked with *ah*). When descending,

use the syllables provided, or those of your own choosing. Strive to keep an even rhythm and a consistent volume throughout.

Slurring Two Partials Apart

AS NEEDED

When playing legato, we often encounter intervals that are more than one partial (harmonic series) apart. Sometimes it is difficult to do this cleanly because, when ascending to a higher pitch, there is a greater risk of an unwanted note sounding in the middle of the transition. While lightly tonguing each ascending note would help to avoid making unwanted sounds in the transitions, the following exercises focus on training the embouchure alone

to play the transitions using pure natural slurs.

Start slowly and keep the airstream steady as you change pitch. Do not make any sudden changes in the air flow from the lungs. Let the embouchure and the shape of the mouth cavity do the work.

d=54-92

SLUR ALL CONNECTIONS - NO TONGUE

1 C: *continue by repeating pattern down in half-steps - all 7 positions*

2 C: *continue by repeating pattern down in half-steps - all 7 positions*

3 C: *continue by repeating pattern down in half-steps - all 7 positions*

Soft Control

AS NEEDED

Having the ability to play extremely soft means you are less likely to miss or "clam" notes when playing at louder volumes. With the introduction of even the smallest amount of air, the embouchure should vibrate easily and instantly. However, when performing in real world situations where loud and strenuous passages are encountered, it is common to do some degree of damage to the embouchure. This exercise helps us to regain the focus and soft control that we desire.

Begin with either a breath or a tongued attack. Practice using both kinds of attacks. Remove and then gently reset the mouthpiece to the lips after each pitch is stopped. Repeat each pitch three times, each time trying to play softer and longer than the time before. Make the sound disappear seamlessly into nothing. Practice on all the pitches shown.

SLOWLY

3 TIMES

take the mouthpiece off the lips

note disappears seamlessly

3 TIMES

take the mouthpiece off the lips

note disappears seamlessly

PRACTICE ON THE FOLLOWING PITCHES

Octave Study

AS NEEDED

Play the upper notes in the same slide position as the lower notes. Practice with an even rhythm.

$\text{♩} = 100-168$

Triad Lip Slur Across Multiple Partials

AS NEEDED

Begin this exercise very slowly. Strive to cleanly slur across the multiple partial changes so that each transition is clean, and that no unwanted notes or sounds are heard between the notes.

$\text{♩} = 48-80$

SLUR ALL

etc., down in half-steps / all 7 positions

SLUR ALL

etc., down in half-steps / all 7 positions

Standard Double and Triple Tonguing

SPECIFIC STUDY

The double and triple tonguing techniques are used in detached and staccato playing and should only be used when single tonguing is not fast enough. Begin slowly and strive for evenness of rhythm. The syllable **ka** is executed the way it is pronounced – with the back of the tongue catching the back of the throat. This allows for a “to-and-fro” motion and great speed. Keep the airstream steady throughout the articulations. In the initial exercises,

multiple tonguing is compared with single tonguing. Strive to match the sound and rhythm of the multiple tonguing to the single tonguing. Alternate patterns where the **ka** syllable is in a different rhythmic position are presented. Practicing the alternate patterns improves control when executing the syllables in the traditional order. Also, practicing the **ka** syllable alone (as in # 4) can be helpful in becoming comfortable with the syllable.

J=54-66

BEGIN AT A SLOW TEMPO - STRIVE FOR AN EVEN RHYTHM - INCREASE SPEED GRADUALLY

ALTERNATE SYLLABLE ORDER - KA-TA-KA-TA

A musical score for two voices. The left voice part consists of a bass clef, a 'D' key signature, and a '2' tempo marking. The right voice part consists of a soprano clef, a 'B-flat' key signature, and a '♩' note value. The lyrics 'ta ta ta ta ka ta ka' are repeated three times in a call-and-response style between the two voices.

NORMAL

ALTERNATE

NORMAL

ALTERNATE

$$d=54-84$$

KA PRACTICE

A musical score for bass clef, 4/4 time, and B-flat key signature. The lyrics "ka ka ka ka ka" are written above the staff. The first measure consists of six eighth notes followed by a single eighth note. The second measure consists of five eighth notes followed by a single eighth note.

• 76-159

TRIPLETS

ALTERNATE SYLLABLE ORDER = TA-KA-TA- TA-KA-TA

NORMAL

ALTERNATE
ta ka ta ta ka ta ta

NORMAL

ALTERNATE
ta ka ta ta ka ta ta

A musical score for piano, page 7, featuring four measures of music. The key signature is B-flat major (two flats), and the time signature is common time (indicated by a 'C'). The music consists of eighth-note patterns in the right hand and sustained notes in the left hand. Measure 1 starts with a bass note G followed by eighth-note pairs (B-flat, A) and (D, C). Measures 2 and 3 continue this pattern. Measure 4 concludes with a bass note G followed by eighth-note pairs (B-flat, A) and (D, C).

$\text{♩} = 54-84$

ta ka ta ka ta ka ta ka ta ta ka ta ka ta ka ta ka ta ta ka ta ka ta ka ta ka ta ta ka ta ka ta ka ta ka ta
8 

etc.

$\text{♩} = 84-184$

ta ta ka ta ta ka ta ta ta ka ta ta ka ta ta ta ka ta ta ka ta ta ta ka ta ta ka ta
9 

etc.

$\text{♩} = 58-132$

ta ta ka ta ta ka ta ka ta ka ta ka ta ka ta ka ta ta ta ka ta ka ta ka ta ka ta ta ka ta ka ta ka ta ka ta
10 
 ta ta ka ta ka ta ka ta ka ta ka ta ka ta ka ta ka ta ta ta ka ta ka ta ka ta ta ka ta ka ta ka ta ka ta


etc.

$\text{♩} = 92-184$

ta ta ta ka ta ta ta ka ta ta ka ta ta ta ta ka ta ta ta ka ta ta ka ta ta ta ta ka ta ta ta ka ta ta ka ta
11 
 ta ta ta ka ta ta ta ka ta ta ka ta ta ta ta ka ta ta ta ka ta ta ka ta ta ta ta ka ta ta ta ka ta ta ka ta


etc.

$\text{♩} = 58-138$

ta ka ta ka ta ka ta ka ta ka ta ka ta ta ka ta ka ta ka ta ka ta ka ta ka ta
12 
 etc. up in half-steps - all keys

$\text{♩} = 92-184$

ta ta ka ta ta ka ta ta ka ta ta ka ta ta ta ka ta ta ka ta ta ka ta ta ka ta
13 
 etc. up in half-steps - all keys

Upper Register Builder

AS NEEDED

This exercise serves to improve range, focus, control and strength in the upper register over a period of time. Playing in the upper register requires that the airstream be narrowed and directed downward in the mouthpiece. (See Playing High Notes on page 7.) The speed of the air exiting the lips is much faster in the upper register. High playing should feel fairly relaxed and not overly strained.

The first note of each pair is attacked. The second note of each pair should be lightly tongued. Pause as long as

necessary between keys. Keep a steady amount of air pressure and do not "jerk" the air from the lungs to reach the higher notes. Let the embouchure and mouth cavity make the necessary adjustments. When you begin to feel fatigued, stop and rest before continuing. Do not strain excessively. If and when the upper notes become too difficult, suspend the exercise until another day. Improvement in range and control should be expected over time.

d=116

Continue up in half-steps - all keys
(if possible up to high 'F' or higher).
Rest when necessary.

Bends

ONCE A WEEK

This exercise is a great workout for the embouchure, and also helps in locating "the center" of each note, therefore improving your sound. To find the center of a note means the intonation is adjusted with the embouchure *only* until the least resistance is felt and the best sound is produced.

It is not uncommon that a player may be unconsciously playing very slightly above the center. If this is the case, when the embouchure is relaxed slightly down to reach the center of the note, a clearer sound results. Try relaxing the embouchure slightly and let the intonation fall. Once the center is reached, make any intonation corrections with the slide.

Note: The trombone is the only brass instrument that allows for infinite adjustment of the length of tubing. Unlike other wind players who must make fine intonation adjustments with the embouchure by playing "off center", trombonists can make those adjustments with the slide, allowing for the embouchure to stay on center and produce the best possible sound at all times.

In this exercise, the second note of each phrase is lowered with the slide to establish a pitch reference. The 2nd, 3rd and 4th time, the lowered notes are bent down with the embouchure only ("lipped" down without slide movement), to match the same pitch.

LEGATO $\text{d}=46-50$

1
1st 2nd 1st 1st - - - -
bend bend bend
3rd 4th 3rd 3rd - - - -
bend bend bend
5th 6th 5th 5th - - - -
bend bend bend

2
1st 2nd 1st 1st - - - -
bend bend bend
3rd 4th 3rd 3rd - - - -
bend bend bend
5th 6th 5th 5th - - - -
bend bend bend

3
1st 2nd 1st 1st - - - -
bend bend bend
3rd 4th 3rd 3rd - - - -
bend bend bend
5th 6th 5th 5th - - - -
bend bend bend

Clean Initial Attacks

AS NEEDED

A good, clean attack, whether it be a **ta** or a **da** (legato), requires the coordination of 3 things:

- 1) the tension and positioning of the lips/embouchure,
- 2) air speed/pressure (controlled by the lungs as well as the shape of the mouth cavity, and,
- 3) the action of the tongue.

All three require adjustments to suit each pitch you are trying to play. A high note requires a different adjustment than a middle register note.

Point of Contact: To cleanly start a note (the attack), the best point of contact for the tip of the tongue varies from player to player. This point may change depending on whether the note is to be sharply attacked or gently attacked. Soft legato attacks can be achieved by raising the point of contact higher in the mouth.

For most players the tip of the tongue contacts a point near the back of the upper teeth where they meet the flesh.

Avoid moving the jaw when tonguing as this can cause motion in the embouchure.

Attacking a "non accented" note: The tone appears almost instantly and at full volume. The attack portion of the tone is not louder than the sustained portion of the note. To create this kind of attack, care must be taken not to let significant pressure build up behind the tongue before the air is released.

For accented attacks: The first portion (the attack portion) of the note will be louder than the sustained portion of the note. The degree to which the attack is louder can vary quite a bit depending on the musical style. To create this kind of attack, allow slight pressure to build up behind the tongue before the air is released.

This following exercise focuses on a moderate attack - one that is not overly pronounced. Begin this exercise soft (piano). Later the volume can be increased gradually.

The exercises are on the opposite page.

Ex 1 begins by establishing a long tone with a breath attack - no tongue. The lips should be set so as to start vibrating immediately without delay as soon as the air hits them. This exercise may reveal improper adjustments to the embouchure and the air, without which a clean attack will be impossible. During the sustained portion of the notes, let the embouchure and air find the center of the pitch, feeling more and more relaxed. (See page 31 on centering.) The tones should be steady, and each one should sound better than the last.

Ex 2 begins by establishing a long tone with a **da** syllable. The tone is then interrupted by the tongue (**da**). After the tongue makes contact, try pulling it away slowly so the attack is firm and solid but not too strong. (Practicing pulling the tongue away slowly ensures that you can properly execute a moderate attack without too much air pressure bottled up behind the tongue before it is released.) After the attack, the tone should return instantly and be immediately steady in volume, tone and pitch. Do not move the jaw as this may negatively affect the attack. The notes should sound as long and as connected as possible.

Ex 3 After successful attacks in Ex 2, continue working with the same pitch. Practice so that the attacks after the rests (now "initial attacks") closely match the previous attacks. During the rests the lips must not be spread "open", but be slightly touching each other preparing to vibrate immediately - relaxed but not squeezed together.

Practice on the pitches indicated and at various dynamic levels. Also, practice Exercises 2 and 3 with the **ta** syllable.

$\text{♩} = 72$

BREATH ATTACKS ONLY - NO TONGUE

1

ah

ah

REPEAT MANY TIMES

TONGUED - CONNECTED NOTES

2

da (also ta)

!

da da da da

REPEAT MANY TIMES

pull tongue away slowly after each contact

KEEPING THE ATTACK CONSISTENT AFTER A SHORT REST

3

da

!

da da da da

da da da da

let the lips slightly touch together during the rests

da

Using both **da** and **ta**, repeat the 3 exercises above but with the following pitches.

C

B

G

E

D

B

Legato Articulation Study

SPECIFIC STUDY

When To Tongue and When To Slur

Unlike all other wind instrumentalists who use keys or valves, the trombonist must always "articulate" - using either the tongue or a natural partial crossing (slur) for every note in order to avoid smearing (portamento) when playing legato. For every note, the trombonist is faced with the decision to tongue or slur. I recommend the following:

1) Note transitions in the same partial – TONGUE. In this situation, no natural crossings are available to assist in separating the notes; the tongue is used to define each note so that smearing is not heard.

2) Note transitions that cross up over partials – TONGUE.

While these upward transitions could be naturally slurred without any audible smearing, in my opinion, adding the tongue gives additional control over the timing and also makes the transitions more secure and less risky. The extra security becomes more apparent as the intervals get wider and multiple partials are crossed. The added control over timing is more apparent at faster tempos and in longer note groupings.

3) Note transitions that cross down over partials –
Choice: SLUR OR TONGUE - dependent upon the number of partial changes and the structure of the line. Slurring down (no tongue on a single partial change)

will result in a smoother and more matched sounding legato transition - smoother than tonguing with the downward slur. This can be demonstrated by comparing the two articulation choices (slurring down vs. tonguing down) side by side in various registers and with various intervals. In addition, using a downward slur (no tongue) will allow for greater speed in note groupings as the tongue is able to rest momentarily.

Multiple Downward Partial Changes. When multiple downward partial crossings are encountered and playing speed is very fast, the tongue (**da**) is used on downward crossings to proceed subsequent downward crossings (see exercises 4 and 5 on page 36). When there is a choice, it is preferable to align the **da** syllables with the weak parts of the beat rather than with the strong parts of the beat, as the musical line will have a better feeling of forward motion and be more natural when a swing feel is desired.

The following exercises are dedicated to the articulation of partial crossings in legato. (As an option, these exercises include doodle syllables that may be used when increased speed is needed. The doodle tongue technique eliminates the occurrence of 3 or more adjacent *da* syllables which inhibit top speed. For more on this topic see Doodle Tonguing Exercises 14 through 17.)

$d=116-200$

Play Exercise 1 again, this time replacing the pair of pitches with the pairs below.

A musical staff in common time (indicated by a 'C') and a key signature of one flat (indicated by a 'F' with a sharp sign). The staff begins with a bass clef. It contains six notes: two eighth notes, one quarter note, one half note, one eighth note, and one quarter note.

MAKING THE NOTE TRANSITIONS MATCH IN SOUND, WHETHER TONGUED OR SLURRED

$d=116-200$

da ul la ul la ah da ul la ah da ul la ah da da ul la da ah ul la da ah ul la ul la
da da da da da ah da da da ah da da da da ah da da da ah da da da ah da da da da

The musical score consists of two staves. The top staff is for voice, featuring lyrics in black text. The bottom staff is for piano, with a treble clef, a common time signature, and a key signature of one sharp. The piano part includes eighth-note patterns with various dynamics like forte (f), piano (p), and accents (*). Some notes in the piano part are shaded black.

A musical score page featuring lyrics in black text at the top and musical notation below. The lyrics are: "da ul la ul la ul la ul la da ah da ah da ah ul la ul la ul la ul la ah da ah da ah da". The musical notation consists of two staves. The top staff is for soprano voice, starting with a C-sharp note. It has a key signature of one sharp and a common time signature. The bottom staff is for piano, with a treble clef and a common time signature. Both staves feature eighth-note patterns with some notes marked with asterisks (*). There are also several thick black horizontal bars spanning multiple measures.

MAKING THE NOTE TRANSITIONS MATCH IN SOUND - SCALAR MOVEMENT

$d=116-200$

A musical score for a single instrument, likely a recorder or flute, featuring four measures of music. The score is in common time (indicated by a 'C') but includes a '3' at the beginning, suggesting a triple time feel. The lyrics are: 'da ul la ul la ah da', 'da ul la ul la da ah', 'da ul la ul la ul la', and 'da ul la ul la ah da'. The notes are primarily eighth notes, with some sixteenth-note patterns and grace notes. Measure 1 starts with a grace note followed by an eighth note 'd'. Measures 2 and 3 begin with eighth notes 'a' and 'd' respectively, each preceded by a grace note. Measure 4 begins with an eighth note 'd'. Measure 1 has a fermata over the last note. Measure 2 has a fermata over the first note. Measure 3 has a fermata over the first note. Measure 4 has a fermata over the first note.

The musical score consists of four measures of music for a single instrument. The lyrics are as follows:

da ul la ul la da ah da ul la ul la da ah da ul la ul la ah da da ul la ul la ah da
da da da da da da ah da da da da da da ah da da da da da ah da da da da da da ah da

Below the lyrics are four measures of music on a staff. The first measure starts with a note on the first line, followed by a note on the third line, then a note on the first line, and finally a note on the second line. The second measure starts with a note on the first line, followed by a note on the third line, then a note on the first line, and finally a note on the second line. The third measure starts with a note on the first line, followed by a note on the third line, then a note on the first line, and finally a note on the second line. The fourth measure starts with a note on the first line, followed by a note on the third line, then a note on the first line, and finally a note on the second line.

DESCENDING OVER MULTIPLE PARTIALS #1 - NOTES IN 3 DIFFERENT PARTIALS

Slow Speed - all slurred *ahs*

Musical score for Exercise 4, page 10. The score consists of two staves. The soprano staff starts with a dynamic of f , followed by a measure of $\text{d} \text{a}$, another measure of $\text{d} \text{a}$, a measure of $\text{d} \text{a}$ (with a fermata), a measure of $\text{d} \text{a}$, and a final measure of $\text{d} \text{a}$. The alto staff starts with a dynamic of f , followed by a measure of $\text{d} \text{a}$, another measure of $\text{d} \text{a}$, a measure of $\text{d} \text{a}$ (with a fermata), a measure of $\text{d} \text{a}$, and a final measure of $\text{d} \text{a}$.

Medium Speed - still all slurred *ahs*

da ah ah da ah ah da ah ah da ah ah

Fast Speed - Rhythm #1 - because it is on the upbeat, *da* is used on the first downward partial change preceding the slur

A musical score page showing the beginning of the first movement of Beethoven's Violin Concerto. The score consists of five staves. The top staff is for the Violin, the second for the Cello/Bassoon, and the bottom three are for the orchestra (Flute, Clarinet, and Bassoon). The key signature is D major (one sharp), and the time signature is common time. Measures 1-2 are shown, featuring eighth-note patterns in the violin and sustained notes in the bassoon and orchestra.

Fast Speed - Rhythm #2 - because the 1st downward change lies on a downbeat, *ahs* are used for both descending notes

da ah ah da ah ah da

(With this rhythm, placing a *da* on the 2nd note of each group would emphasize the downbeat, making the line feel too "stilted".)

DESCENDING OVER MULTIPLE PARTIALS #2 - NOTES IN 4 DIFFERENT PARTIALS

Fast Speed - Rhythm #1 - *da* on the upbeats (every other note) preceding the *ahs*

A musical score page for the song "Dynamite" by Taio Cruz. The page shows four staves for vocal parts: Soprano (top), Alto, Tenor, and Bass (bottom). The vocal parts consist of single notes and short rests, with lyrics "da ah da ah" written above each group of notes. The bass part includes a bass clef, a key signature of two flats, and a 4/4 time signature. The page number "5" is located at the bottom left.

Fast Speed - Rhythm #2 - *da* on the 1st descending upbeat, *ahs* on the last 2 notes

A musical score for the song "Dynamite" by Taio Cruz. The score consists of four staves, each representing a different vocal part: Soprano (top), Alto, Tenor, and Bass (bottom). The vocal parts are harmonized, with the Alto and Tenor providing harmonic support to the Soprano melody. The lyrics "da da ah ah" are repeated in a loop across the four measures shown. The music is in common time and includes a key signature of one flat.

da da ah ah da da ah ah da

(With this rhythm, playing ***da-ah-da-ah*** on each group would emphasize only the downbeats and make the line feel "stilted".)

Expanding Intervals - Major Scales

EVERY THIRD DAY

This exercise helps train the embouchure to play in all registers with one setting (without having to take the mouthpiece off the lips and reset it in a different position).

Choose only one of the three sets to do per practice session.

Maintain a steady volume and rhythm. For sets 1 & 3, strive for a clean and consistent attack on every note.

Proceed up to high 'F' if possible. If the higher notes become too difficult, stop. Do not strain excessively. Rest for a moment and try the exercise in the same key again. If and when the upper notes become too difficult, suspend the exercise until another day. Improvement should be expected over time.

1 

etc., same pattern up in half-steps / all keys
(up to high 'F' if possible)

2 

etc., same pattern up in half-steps / all keys
(up to high 'F' if possible)

3 

etc., same pattern up in half-steps / all keys
(up to high 'F' if possible)

Doodle Tongue Exercises

SPECIFIC STUDY

The following exercises cover all of the various aspects of the doodle tongue technique.

"Doodle" tonguing is a multiple tongue technique that allows slide trombonists to articulate very fast, smooth and evenly where the note envelopes closely match each other, emulating the articulations of valve and key instruments. The "to-and-fro" motions of the tongue allow for great speed and smoothness. Natural downward slurs are incorporated when descending down across partials, resulting in various syllable patterns which gives the cleanest overall effect.

With enough practice, doodle tonguing can be learned by just about any trombonist. The exercises here cover most aspects of the technique, but do not include extended practice material. For thorough and comprehensive instruction with audio demonstrations, consult my method book and CD *"Doodle Studies and Etudes"* at www.BobMcChesney.com. You will find a multitude of exercises focused on each specific aspect of the technique, as well as etudes for practice.

All of the doodle tonguing exercises are to be played legato (smoothly connected without spaces).

IMPORTANT: In these exercises, always choose the slide position closest to 1st position unless otherwise marked. No unmarked alternate positions are to be used. (The use of unmarked alternate positions will affect where downward partial changes occur, requiring an alternate set of syllables.)

da = standard single tongue

ul (dle) = like the second syllable in "huddle", the upward movement of the tongue "bumps" the airstream to the insides of the back upper teeth. The motion is made with a long section of the tongue (not just the tip) up to the roof of the mouth and through the existing airstream. (It is not like the sound of "ul" in "ultimate". It is not like the hard "dee" sound in "dull".)

la = very much like **da** but smoother, a close match to the sound of the **ul** syllable. Executed with a downstroke of the tongue from the **ul** position (from the roof of the mouth). Always follows **ul** and always precedes **la**

ah = natural downward slur – no tongue (never used for upward changes of partial – only down to a lower partial)

NOTE: These doodle exercises can be played at any dynamic level, including very loud. However, as volume increases, it becomes more difficult to cleanly move across partials, whether slurring, single tonguing or doodle tonguing. This trade-off between clarity and volume has nothing to do with using doodle syllables.

Learning the doodle tongue technique is a gradual process and will take time. After a while, the various syllable patterns become "married" to the scales and patterns you are working on, and they begin feeling as if they are part of the musical lines and could not be articulated any other way. When fully mastered, the doodle tongue technique will be "built in" to your musical vocabulary and become "second nature". Your mental focus can be completely on the musical aspects of your performance with little or no direct attention on specific articulations.

Begin each exercise slowly. Work at the slow tempo for a while. As you become more familiar with each element of the technique, gradually increase the tempo in small increments. Eventually you will work up to playing them as fast as you can.

EXERCISES

Ex 1 Matching the Sound of Doodle Articulations to Single Tonguing. (on the opposite page) Begin by whispering the first two measures (vocally, away from the horn). Make the notes in the first measure (single tonguing) rhythmically even, very long and connected. Strive to match the articulations in the second measure (doodle tonguing) to those in the first measure.

Now, using the mouthpiece alone, buzz the syllables in the first two measures. Again, make the notes in the first measure (single tonguing) even, very long and connected. In the second measure (doodle tonguing), pay attention that the **ul** syllable makes a clear, defined articulation. If you do it correctly you will hear a nice "thunk" created by the **ul** as it bumps the airstream.

Now practice the entire exercise on the horn. Strive to match the sound of the doodle tongued groups with the single tongued groups. The articulations should match very closely. The difference between them should be nearly undetectable.

PRACTICE ALL OF THE EXERCISES AT ALL TEMPOS - SLOW TO FAST

MATCH THE SOUND OF THE ARTICULATIONS - SINGLE VS. DOODLE - ALL NOTES LONG AND CONNECTED

1

da da da da da da ul la ul la da da da da da da ul la ul la
da da da da da da ul la ul la da da da da da da ul la ul la
da da da da da da ul la ul la da da da da da da ul la ul la

Ex 2 Matching the Sound of Doodle Articulations to Single Tonguing in Longer Lines. Continuing on the horn, practice matching the sound of the articulations. The longer phrases should be rhythmically precise throughout.

MATCH THE SOUND OF THE ARTICULATIONS - SINGLE VS. DOODLE - ALL NOTES LONG AND CONNECTED

2

da da da da da da da da da ul la ul la ul la ul la da da da da da da da da da ul lu ul la ul la ul la
da da da da da da da da da ul la ul la ul la ul la da da da da da da da da da ul lu ul la ul la ul la
da da da da da da da da da ul la ul la ul la ul la da da da da da da da da da ul lu ul la ul la ul la
da da da da da da da da da ul la ul la ul la ul la da da da da da da da da da ul lu ul la ul la ul la
da da da da da da da da da ul la ul la ul la ul la da da da da da da da da da ul lu ul la ul la ul la

Ex 3 Tonguing Strength at Various Dynamic Levels.

Each dynamic level requires a different tonguing strength in order for the articulations to be clearly heard. The strength of the articulations must increase as the volume of sound increases. This is easily accomplished with stronger strokes of the tongue. Also, this exercise makes the player more aware of the tonguing strength needed to make clear, defined articulations at softer volumes. The exact length and number of notes played is not important. Repeat on different pitches in different registers.

TONGUING STRENGTH AT DIFFERENT DYNAMIC LEVELS

A musical score for soprano voice, vocal part 3. The vocal line is a continuous eighth-note pattern of the syllables "da ul la ul la ul". This pattern is repeated eight times. The dynamic is marked as piano (pp) throughout the entire line. In the middle of the line, there is a dynamic marking of forte (ff), indicating a brief increase in volume.

Ex 4 Triplets. The basic pattern for triplets is – *da-ul-la*, *da-ul-la*, etc. Practice so that all notes are at an even volume. Be careful that the first note of each triplet is not accented or louder than the others. (See explanation of adjacent strong syllables on page 41.)

TRIPLETS - PLAY ALL NOTES AT AN EVEN VOLUME

Ex 5 Beginning and Ending on the Weak Part of the Beat

Beginning on the Weak Part of the Beat. The first note following any rest is always articulated with *da*. When a note following a rest occurs on the weak part of the beat (i.e. an upbeat pickup), the following note is also articulated with *da*, starting the standard doodle pattern of syllables on the downbeat. (See measures 1 through 4.)

Ending on the Weak Part of the Beat. When the last note is on the weak part of the beat (i.e. an upbeat), *ul* is not used - *da* is substituted in its' place. There are two reasons for this: One, an *ul* syllable cannot be made short, but *da* can be played short with a "commercial" style tongue release - "**daat**". Two, if the ending note is long, it is uncomfortable to sustain the *ul* syllable (as the tongue would have to be held in place at the roof of the mouth). Practice Exercise 5 until you are accustomed to starting and ending on upbeats. (See measures 5 through 8.)

USING 'DA' WHEN BEGINNING AND ENDING ON WEAK PARTS OF THE BEAT

5

da ul la ul la da ul la ul la da ul la ul la da ul la ul la
da ul la ul la da(at) da ul la ul la da(at) da(at) da da ul la ul la da

Explanation of Adjacent Strong Syllables and Their Effect on Speed The number of adjacent *la* and *da* syllables (referred to as strong syllables) should be limited to two. When *la-da* or *da-da* occur (two adjacent strong syllables) top speed is not reduced. This is quite common in the doodle tongue technique and occurs in the basic triplet pattern and in figures that begin and end on weak

parts of the beat (upbeats). However, three adjacent strong syllables in a row (*la-da-da* or *da-da-da*) will slightly reduce speed and are avoided. Four or more adjacent strong syllables (*la-da-da-da* or *da-da-da-da*) will reduce speed significantly, slowing you down to, or nearly to that of your fastest continuous single tonguing speed.

Ex 6 Contrasting Upward Partial Crossing with Repeated Pitches. Doodle articulations aid note transitions nicely when ascending across partials. The result should be quite clean and clear, even for beginners. The syllables give the player much more control than if

these upward crossings were made with pure slurs (i.e. no tongue). Match the sound of the articulations of the upward crossings to the articulations of the repeated pitches.

CONTRASTING UPWARD PARTIAL CROSSING VS. REPEATED CONSTANT PITCH

6

da ul la da ul la da ul la da ul la da ul la da ul la da ul la da ul la
 da ul la la ul la da ul ul la ul la ul la ul la da da da da da da da

Ex 7 Upward Partial Crossing With Slide Movement.

This exercise adds slide movement while upward partial crossing is encountered. Coordinate the embouchure tension, syllable and slide movement for a clean sound.

UPWARD PARTIAL CROSSING

7

da ul la da ul la da ul la da ul la da ul la da ul la da ul la da ul la
 da ul la da ul la da ul la da ul la da ul la da ul la da ul la da ul la

Ex 8 Contrasting Upward Partial Crossing With Slide Movement in the Same Partial. While doodle tonguing up across partial changes can sound quite clean and clear, “doodling” lines in the same partial can be more troubling, especially for beginners. The lines articulated in the same partial have a tendency to be more “smeary” and less defined as there is no “break” to aid in the transition of

pitch. This "smeariness" can be corrected by stronger tonguing, and quick efficient slide movement. This exercise contrasts upward partial crossing with articulation in the same partial. Strive to make the movement in the same partial (indicated by the bracket) sound as clear and defined as the movement of the upward crossings - make "B" sound like "A".

CONTRASTING UPWARD PARTIAL CROSSING VS. SLIDE MOVEMENT IN THE SAME PARTIAL

Match the clarity and quality of the articulations - Make "B" sound like "A"

The image shows two staves of sheet music. The top staff is for 'Vocals 1' and the bottom staff is for 'Vocals 2'. Both staves are in common time (indicated by '8') and feature a treble clef. The music consists of eighth-note patterns. The lyrics are 'da ul la ul la ul la' repeated. The first section, labeled 'A', has four measures. The second section, labeled 'B', has four measures. The lyrics are grouped into pairs of 'da ul la' and 'da ul la' under brackets. The vocal parts are separated by vertical bar lines. The music ends with a repeat sign and a double bar line.

Ex 9 More Contrasting Upward Partial Crossing With Slide Movement in the Same Partial. As in exercise 8, both upward partial crossing and movement in the same partial are addressed. Here both occur within each note grouping. Strive to make all notes match in articulation and with clear and defined pitches.

CONTRASTING UPWARD PARTIAL CROSSING VS. SLIDE MOVEMENT IN THE SAME PARTIAL

Match the clarity and quality of the articulations

A musical score page for the song "Dynamite" by Taio Cruz. The page contains two staves. The top staff is for the voice, starting with a dynamic of 'Forte' (f). The lyrics are: "da ul la ul la ul la". The bottom staff is for the piano, showing a bass line and chords. The lyrics continue: "da ul la ul la ul la". The page number '2' is located in the top left corner.

Ex 10 Random Upward Partial Crossing in a Scale.

Here again both upward partial crossing and movement in the same partial are addressed in ascending scales. Strive to make all articulations clear and match in sound.

RANDOM UPWARD PARTIAL CROSSING IN A SCALE

10

da ul la ul la ul la ul la
da ul la ul la ul la ul la
da ul la ul la ul la ul la
da ul la ul la ul la ul la
da ul la ul la ul la ul la
da ul la ul la ul la ul la

Practice in all keys, up in half-steps

Ex 11 Single Downward Partial Changes on the Weak Part of the Beat

When encountering descending changes of partial, repetitive doodle tongue patterns will not sound clear. The syllables do more to interfere with clarity than to help, and they do not assist in making descending transitions. Single downward partial changes (i.e. one in a row) are best accomplished with a natural downward slur. For utmost clarity, this slur must be preceded by a strong consonant

syllable, either *la* or *da*, creating a pivot point to leap smoothly to the lower partial.

In exercise 11 the downward partial change always occurs on the weak part of the beat (i.e. upbeat). Because it is in this rhythmic position, the *ah* will always follow a *da* or a *la* in the basic doodle pattern. Strive to make the lines smooth and even.

SINGLE DOWNWARD PARTIAL CHANGES ON THE WEAK PART OF THE BEAT - AH, THE NATURAL DOWNWARD SLUR IS PRECEDED BY LA

11

da ah da da ah da da ul la ah da
da ah da da ah da da ul la ah da
da ul la ah da ul la ul la ul la ah da ul la ul
la ul la ah da ul la ah da ul la ah da ah

Ex 12 Single Downward Partial Changes on the Strong Part of the Beat

In a grouping where *ul* would precede an *ah* (i.e. when *ah* is on the strong part of the beat), *da* is substituted for the *ul*. Downward partial changes sound clearest when preceded by a strong syllable, either *la* or *da* to

pivot smoothly to the lower partial. The brackets indicate the *da-ah* - where *da* has been substituted for *ul* to precede the downward change (*ah*). Strive to make the lines smooth and even.

SINGLE DOWNWARD PARTIAL CHANGES ON THE STRONG PART OF THE BEAT - DA INSERTED TO PRECEDE THE DOWNWARD SLUR

12

da ul la da ah da ul la da ah da ul la da ah ul la da ah ul la da ah
da ul la da ah da ul la da ah da ul la da ah ul la da ah ul la da ah
da ul la da ah ul la da ah

Ex 13 Single Downward Partial Changes - Alternating Between the Weak & Strong Parts of the Beat

Here the rhythmic position of the downward partial change (*ah*) alternates between the weak part of the beat (upbeat) and the strong part of the beat (downbeat). In a grouping where a *da* or *la* is positioned to precede an *ah* (i.e. when *ah* is on the weak part of the beat), no substitution is

necessary. In a grouping where *ul* would precede the *ah* (i.e. when *ah* is on the strong part of the beat), *da* is substituted for the *ul* (so *da* will precede the downward change of partial). All of the downward transitions are indicated with the brackets (*la-ah* or *da-ah*). An asterisk indicates where *ul* has been replaced by a *da*. Strive to make the lines smooth and even.

SINGLE DOWNWARD PARTIAL CHANGES - ALTERNATING BETWEEN THE WEAK & STRONG PARTS OF THE BEAT

13

da ul la ah da da ah ul la ah da da ah
da ul la ah da da ah ul la ah da da ah
da ul la ah da da ah ul la ah da da ah
da ul la ah da da ah ul la ah da ul la

Ex 14 Two Adjacent Downward Partial Changes - the First on an Upbeat. In this exercise the first of the two changes begins on the weak part of the beat (an upbeat). Instead of **ah**, the first downward change is articulated with a **da**. This sets up the pivot to the final (second) downward partial change – **ah** – and the resulting pattern gives a very clean articulation and allows maximum

control and speed. Also, because the *upbeat* is securely reinforced with a **da**, the figure will have a feeling of forward motion and better facilitates a swing feel if desired.

Strive for long notes, a smooth feel and even volume between all notes.

TWO ADJACENT DOWNWARD PARTIAL CHANGES - THE FIRST D.P.C. ON THE WEAK PART OF THE BEAT (UPBEAT) - DA-DA-AH

14

da da ah da da ah da ul la ul la da ah da da ah da da ah da ul la ul la da ah
da da ah da da ah da ul la ul la da ah da ul la ul la da ah da

Ex 15 Two Adjacent Downward Partial Changes - the First on a Downbeat. In the descending note groupings the pattern **da-da-ah-ah** is used. Notice the “double **ah**” (two adjacent un-tongued downward partial changes).

Typically, it is preferable to tongue (**da**) at least every other note when descending as it allows for constant control of a line, however, in this situation where the first of the two downward partial changes begins on the strong part of the beat, the pattern using the “double **ah**” is preferable.

You may understand why the “double **ah**” is preferable if you look at the other possible ways to articulate the line. Look at the four notes starting on the 3rd beat of measure one. **Alternative #1:** Play **da-da-da-ah** (three **da**'s in a row). Using three **da**'s in a row will impede tonguing speed - not as much as four (or more) adjacent **da**'s, but they will slow top speed. Attempting to execute three

adjacent **da**'s very quickly will feel even more awkward when descending over partials. **Alternative #2:** Play **da-ul-la-ah** (using an **ul** preceding a downward partial change). While choosing **ul** will allow for fast speed, using an **ul** preceding a downward partial change sounds unclear. **Alternative #3:** Play **da-da-ah-da** (using a **da** to articulate the final downward partial change). There is no advantage to tonguing the final downward partial change in a series. It does not provide any forward motion to the line. It also has the disadvantage of being an unnecessary tongue stroke when the tongue could take advantage of a potentially valuable rest. The rest may be necessary to allow for adjacent **da**'s that may follow. (You will want to avoid three or more adjacent **da** syllables due to their speed limitations.) Clearly, using the “double **ah**” is the best option.

Strive for long notes, a smooth feel and even volume.

TWO ADJACENT DOWNWARD PARTIAL CHANGES - THE FIRST D.P.C. ON THE STRONG PART OF THE BEAT (DOWNBEAT) - THE “DOUBLE AH”

15

da da ah da da ah ah
da da ah da da ah ah da da ah da da ah ah da da ah ah da da ah ah da da ah ah da
da ul la ul la da ah ah da ul la ul la da ah ah da ul la ul la da ah ah da

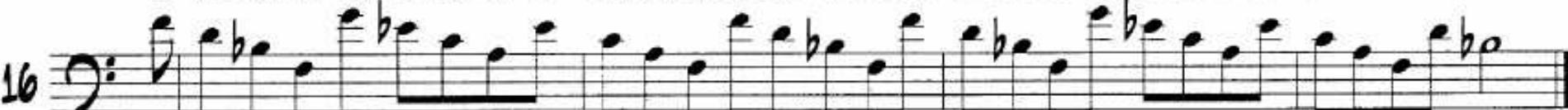
Ex 16 Three Adjacent Downward Partial Changes - the First on a Downbeat. In this exercise, the first downward partial change in each series of three begins on the strong part of the beat (i.e. downbeat). For the series of each four descending notes, the pattern **da-ah-da-ah** is

used. Notice that all of the **da**'s align with the *upbeats*. This gives the feeling of forward motion to the line, and also better facilitates a swing feel if desired.

Strive for long notes, a smooth feel and even volume.

THREE ADJACENT DOWNWARD PARTIAL CHANGES - THE FIRST ON THE STRONG PART OF THE BEAT (DOWNBEAT) - DA-AH-DA-AH

da ah
16



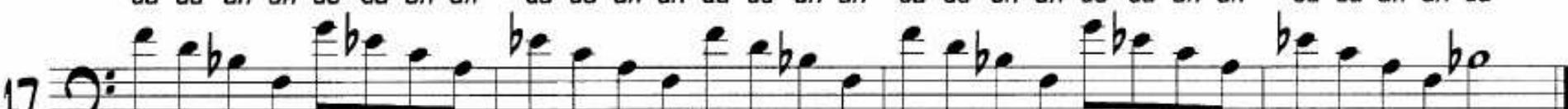
Ex 17 Three Adjacent Downward Partial Changes - the First on an Upbeat. In exercise 17, the first downward partial change in each series of three begins on the weak part of the beat (i.e. upbeat). Two options are available for articulating the group of four descending eighth-notes - **da-da-ah-ah**, or **da-ah-da-ah**. Both choices allow top speed, however, **da-da-ah-ah** reinforces an *upbeat* with the second **da** and offers the best feeling of forward motion. The second option,

da-ah-da-ah reinforces two *downbeats* and no *upbeats*, making the line feel more "square". This option may be suitable in some classical applications or where downbeat emphasis is desired. The exercise below uses the syllables in the first option - **da-da-ah-ah**.

Strive for long notes, a smooth feel and even volume between all notes.

THREE ADJACENT DOWNWARD PARTIAL CHANGES - THE FIRST ON THE WEAK PART OF THE BEAT (UPBEAT) - DA-DA-AH-AH (THE "DOUBLE AH")

da da ah ah da
17



Ex 18 II, V Chord Pattern - Varied Syllables. This exercise demonstrates the doodle tongue technique in a typical jazz / be-bop setting – chord outlining on a II, V. As the II, V pattern descends in half-steps, the syllable patterns change to accommodate different partial structures.

II, V CHORD PATTERN - VARIED REQUIRED SYLLABLES

18

Am7 D7 AbM7 Bb7
da da ul la da ah da ah ul la ah da da ul la da ah da ah ul la ah da

Gm7 C7 F#m7 B7
da ul la da ah ah da ah da da da da ul la da ah ah da ah da da da

Ebm7 Bb7 Em7 A7
da ul la da ah da ah ul la ah da da ul la da ah da ah ul la ah da

Ebm7 Ab7 Dm7 G7
da ul la da ah da ah ul la ah da da ul la da ah ah da ul la ah da

Ex 19 Scale Building - Varied Syllables. This exercise is another that demonstrates a typical setting – an ascending and descending major scale. Notice how the syllable chosen for each note is affected by the partial structure when descending. After mastering the scale as

Strive to make each key match in articulation. Smoothly connect all notes and let each note speak at the same volume.

SCALE BUILDING - VARIED REQUIRED SYLLABLES

19

da da ah da ul la da ah da ul la ul la da ah da ul la ul la ah da da ah
da ul la ul la ah da da ah da ul la ul la ul la ah da ah da da ah
da ul la ul la ul la ah da ah da da ah da ul la ul la ul la ah da ah da ah da ah

written here in the key of F, practice the same exercise in all other keys beginning a half-step higher in the key of F#. At first see if you can "feel" the correct syllables before analyzing too much. Lastly, work for mastery and speed.

Practice in all keys up in half-steps using the proper syllables unique to each key

Ex 20 Line Clarity Without Smearing. In this exercise, the "A" figures contain note transitions that cross between partials, and the "B" figures contain note transitions all sharing the same partial.

Strive to make the quality of the transitions in the "B"

figures match closely to those in the "A" figures. In order for the sound to match, the syllables in the "B" figures must be strongly tongued, and the slide movement must be fast and timely.

LINE CLARITY WITHOUT SHEARINESS - STRIVE TO MAKE FIGURE B AS CLEAR AND DEFINED AS FIGURE A IN EACH LINE

20 c) *da da ah da ah ul la ah da*
A *da ul la ul la ul la ul la*

da da ah da ah ul la ah da
A *da ul la ul la ul la ul la*

The image shows two staves of musical notation for voice. The top staff begins with a dynamic 'c)', followed by a melodic line consisting of eighth and sixteenth notes. The lyrics 'da da ah da ah ul la ah da' are written above the notes. The first ending, labeled 'A', consists of two measures of eighth notes followed by a fermata. The second ending, labeled 'B', consists of two measures of eighth notes followed by a fermata. The bottom staff is identical to the top one, with the same melody and lyrics. It also has two endings, 'A' and 'B', each consisting of two measures of eighth notes followed by a fermata.

Ex 21 Descending Scale Practice. Descending scales have the most varied syllable patterns due to the many downward partial crossings and their positions in the rhythm.

Begin slowly. Practice until the lines sound smooth and even, then gradually increase the tempo up to the fastest possible.

DESCENDING SCALE PRACTICE

21

da ah da ah da ah ul la

da da ah da ah ul la ah da

da ah da ah da ah da ah da

da ul la da ah da ah ul la ah da da ah ul la

da ui la da ah ah da ah da da ah ul la ah da

da ui la da ah da ah da ah da ah da ah ul la da ah

Variable Slide Grip

SPECIFIC STUDY

The faster legato articulations made possible by doodle tonguing create a need for fast slide movement that does not transfer motion to the embouchure. The variable slide grip technique will increase slide speed and will help minimize transfer of motion.

Opening and Closing the Grip

The hand's grip on the slide does not have to be constantly fixed. Slide speed can be greatly increased when opening and closing the grip between 1st and 5th positions. (The slide is more difficult to handle this way in 6th and 7th positions so I don't recommend it.) The exact degree to which the grip is opened can vary depending on how far the slide must move, the direction the slide must move or is about to move, and the combinations of notes/positions involved.

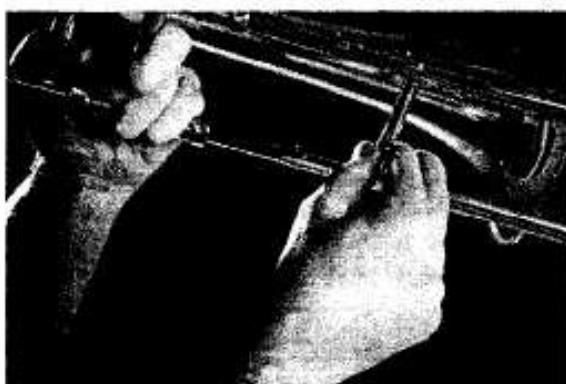
The faster movements possible with a variable grip, and the way the movements minimize transfer of motion to the embouchure, make a significant and obvious improvement to the clarity of legato lines. The improvement is especially noticeable in passages that have many note groupings in the same partial.

Exercises - pages 50-53:

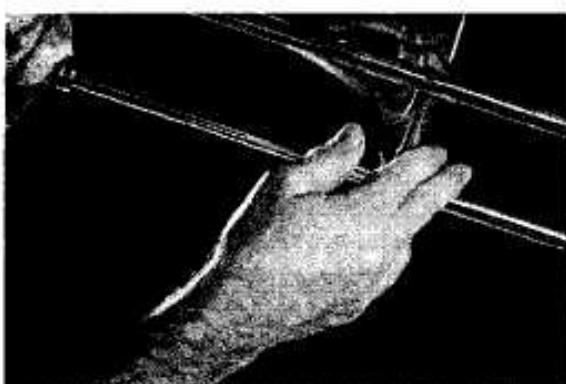
Focus your attention on the movement of the fingers, thumb, wrist and elbow. Practice to minimize the use of the elbow. The "ideal" fast slide motion is carried out with at least 80% of the movement from the fingers and the wrist, and only 20% from the elbow.

The markings underneath the staff represent the distance between the thumb and the slide brace when the target note is reached. The wider the bracket, the farther the thumb is from the slide brace and the more the 1st (index) and 2nd (middle) fingers are extended out. Although the degree the grip opens appears to be a precise amount in these exercises, in practice it is not an exact amount and may vary from player to player.

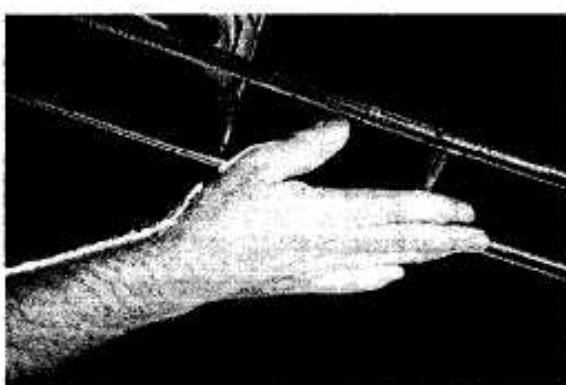
Moving the wrist is necessary and will aid in extending the fingers. The single line (closed bracket) with the "c" indicates that the grip is closed and both the thumb and fingers are touching opposite each other on either side of the slide brace. As you will see, the variable grip technique requires that you anticipate what direction you are about to move. Practice and until the motions feel natural. Gradually increase speed.



Closed Grip
Thumb on Brace



Slightly Open Grip
Thumb Slightly Off
Brace



Open Grip
Fingers Completely
Extended

Ex 1 Slide Direction – OUT

Start with a closed grip. As the outward movement is made, the thumb moves away from the slide brace and the 1st and 2nd fingers are extended out in the direction of movement. In the variable slide grip technique, the 1st and 2nd fingers should always stay in contact with the slide brace.

$\text{♩}=84-168$

SLIDE DIRECTION - "OUT" - AT INSTANT OF MOTION, SPREAD GRIP AND PUSH TOWARD EXTENDED FINGERS

The sheet music consists of five staves of musical notation. The first staff shows a series of eighth notes with grace notes, each followed by a bracket indicating the distance between the thumb and the slide brace. The second staff shows a similar sequence with five boxes below it, each containing a description of the grip: 'grip closed, thumb touching brace', 'grip slightly open, fingers slightly extended, thumb slightly off brace', 'grip slightly more open, fingers slightly extended, thumb off brace more', 'grip slightly more open than last, fingers slightly extended, thumb off brace even more', and 'fingers most extended & thumb furthest from brace'. The subsequent four staves show variations of this pattern, with the first three being identical and the last two being identical, all featuring eighth notes with grace notes and corresponding grip descriptions.

Ex 2 Slide Direction – IN

In anticipation of the inward movement, begin with the 1st and 2nd fingers extended and the thumb away from the slide brace. As the inward movement is made, close the grip, pulling the slide to the thumb.

J=84-168

SLIDE DIRECTION - "IN" - BEGIN WITH SPREAD GRIP AND EXTENDED FINGERS - PULL TO THUMBS AND CLOSE GRIP

2

fingers most extended & thumb furthest from brace

*grip closed.
thumb
touching brace*

Ex 3 Slide Direction – BACK and FORTH

Ex. 3 Slide Direction - Back and Forth
This exercise uses a basic back and forth motion. The grip opens as the slide is moved out and closes as it moves in. It may feel like you are "tossing" the slide between the fingers and thumb.

$d=72-708$

SLIDE DIRECTION - "SACK AND FORTH"

The image shows three staves of musical notation, likely for a three-part setting such as SATB or three voices. The top staff begins with a treble clef, a key signature of one sharp (F#), and a common time signature. It consists of six measures of eighth-note patterns. The middle staff begins with a bass clef, a key signature of one flat (B-flat), and a common time signature. It also consists of six measures of eighth-note patterns. The bottom staff begins with a bass clef, a key signature of one sharp (F#), and a common time signature. It consists of six measures of eighth-note patterns. Each measure is divided into two half-measures by vertical bar lines. Measures are further divided by short vertical lines into groups of two notes each. Measure numbers 1, 2, 3, 4, 5, and 6 are placed at the start of each measure on the top staff.

Exs 4-7 Notes In Between Extreme Positions

(pages 52-54):

The grip for notes occurring in between extreme slide positions in a group of notes must remain closed, or nearly closed, as the thumb and fingers need to remain near for both stopping and continuing the slide movement. A flexible wrist is required for these motions.

Note: There are obviously an infinite number of patterns, shapes and distances of slide motion that will be encountered, many more than has been presented here, but employing the variable grip and adapting it to each specific musical situation will result in the clearest sounding fast legato.

$\phi = 80 - 224$

NOTES IN BETWEEN EXTREME POSITIONS #1

4

furthest out open

Here the lowest note (D_b) has the open/extended grip. All the other notes are played with a closed grip.

furthest out open

Here the lowest note (G_b) has the open/extended grip. All the other notes are played with a closed grip.

$\text{♩}=80-224$

NOTES IN BETWEEN EXTREME POSITIONS #2 - CONTRASTING VARYING EXTREME NOTES

5

Here the lowest note (Db) has the open/extended grip. All the other notes are played with a closed grip.

Here the lowest note (Gb) has the open/extended grip. All the other notes are played with a closed grip.

Here the grip for the middle note (Eb) stays the same (closed) when the F becomes the extreme slide position.

Here again the grip for the middle note (Ab) stays the same (closed) when the Bb becomes the extreme slide position.

$\text{♩}=80-224$

NOTES IN BETWEEN EXTREME POSITIONS #3 - MORE CONTRASTING

6

Here the grip for the middle note (Eb) stays the same (closed) when the F becomes the extreme slide position.

Here the grip stays the same on the middle note when the extreme position changes to the Bb

J=80-224

NOTES IN BETWEEN EXTREME POSITIONS #4 - MORE CONTRASTING

The image shows four staves of sheet music, likely for a string quartet or similar ensemble. The top two staves are in common time (indicated by 'C') and feature eighth-note patterns. The first staff uses a bass clef, and the second staff uses a treble clef. The bottom two staves are also in common time and feature sixteenth-note patterns. The third staff uses a bass clef, and the fourth staff uses a treble clef. Each staff has a key signature of one sharp (F#). Measure numbers 1 through 10 are present above each staff. The music concludes with a double bar line and repeat dots at the end of the fourth staff.

Warm-Down

DAILY

Warming down at the end of your playing day is very important. It can significantly improve the condition of the embouchure the next day and should be included as part of your daily playing habits.

While the pedal register will help loosen the muscles of the embouchure (in exercise 3), it is important to return to the 2nd partial (low Bb and down - exercise 4). These notes

allow you to maintain a focused tone while relaxing the muscles at the same time. It is my recommendation that these notes be played last.

Play as correctly as possible during the warm-down. Rest between each set. As the embouchure relaxes, maintain a clear and focused sound.

The sheet music consists of four staves, each starting with a dynamic of $m\flat$. Exercise 1 has a tempo of $\text{♩}=69$. Exercises 2, 3, and 4 have a tempo of $\text{♩}=60$.

- Exercise 1:** This exercise consists of two measures of eighth-note pairs. The first measure starts on the second line of the bass clef staff and ends on the first line of the treble clef staff. The second measure starts on the first line of the bass clef staff and ends on the second line of the treble clef staff.
- Exercise 2:** This exercise consists of two measures of eighth-note pairs. The first measure starts on the second line of the bass clef staff and ends on the first line of the treble clef staff. The second measure starts on the first line of the bass clef staff and ends on the second line of the treble clef staff.
- Exercise 3:** This exercise consists of two measures of eighth-note pairs. The first measure starts on the second line of the bass clef staff and ends on the first line of the treble clef staff. The second measure starts on the first line of the bass clef staff and ends on the second line of the treble clef staff.
- Exercise 4:** This exercise consists of two measures of eighth-note pairs. The first measure starts on the second line of the bass clef staff and ends on the first line of the treble clef staff. The second measure starts on the first line of the bass clef staff and ends on the second line of the treble clef staff.

