



The United States Army Field Band

The Musical Ambassadors of the Army
Washington, DC

Trombone Clinic

by
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Playing up to one's greatest potential should be a common goal for all performers. Realizing that goal requires the integration of two elements: artistic interpretation and technical expertise. Artistic interpretation is a function of each individual's life experience, personality, and musical taste. The most effective way to enhance the player's concept of dynamics, articulation, rhythmic variables, and diverse styles is through many hours of careful listening. However, all this knowledge becomes meaningless if it cannot be translated into performance because of physical or mechanical limitations. Poor slide technique, a weak embouchure, or bad breathing habits can keep even the most knowledgeable player from becoming a good performer. The goal of this clinic, therefore, is to help improve the trombonist's physical ability, allowing better use of interpretive skills and putting this knowledge "through the horn."

MOUTHPIECE PLACEMENT

Of the many instruction books available today, some provide conflicting information in the most fundamental areas. Some books recommend a high mouthpiece placement, while others recommend a low placement. The primary factors for determining mouthpiece placement are the size and shape of the player's teeth, lips, and jaw, as well as general anatomy. Considering this, mouthpiece placement will vary from player to player.

There are two basic embouchure categories: upstream and downstream. Generally, the upstream player uses more bottom lip than top lip. The downstream player uses more top lip than bottom lip. Both high and low placements are acceptable; there are many successful players in each category. The occasional player who seems to balance equal top lip with bottom lip almost always has one lip predominate *inside* the mouthpiece.

There are many different embouchure types in both categories, with slight deviations in mouthpiece placement within each type. The specifics of these various types involve much more than can be covered here, but it should be obvious that there is no definitive "correct" embouchure for everyone to use. The best mouthpiece placement is the one that gives the individual the best results. Do not attempt

to duplicate someone else's embouchure simply because it works well for them.

TO SMILE OR NOT TO SMILE

Modern brass players are confronted with music that demands more range and endurance than ever before. Eighty years ago, it was common practice to stretch the lips or "smile" to ascend, as well as to press harder with the mouthpiece while in the upper register. This stretching embouchure was adequate for a time; however, a more efficient embouchure is necessary to cope with current musical demands. The best results will be obtained from a "compression" embouchure. It works by pressing the top and bottom lips together, more when ascending and less when descending. The muscles which compress the lips are stronger than those that stretch (smile). The mouth corners should remain firm, never squeezing inward.

Visually, the compression embouchure is the opposite of a "smiling" embouchure, since the mouth corners generally turn slightly downward while ascending. This embouchure, which works regardless of mouthpiece placement, is used by leading brass players from trumpet to tuba. It provides for a rich tone, good flexibility, consistent attacks, and wide range. By comparison, the smiling embouchure results in a thin, nasal tone, and limited endurance.

EMBOUCHURE DISTORTION

Probably the most common deterrent to consistent playing is embouchure distortion. Embouchure distortion is the accidental or deliberate sliding of the mouthpiece across the lips or unnecessary moving of the lip under the rim of the mouthpiece. The most likely cause of embouchure distortion is poor breathing technique. During inhalation, many players will drop the jaw, open the mouth (the vibrating point of the embouchure), and may even pull the bottom of the mouthpiece off the lower lip. In order to play the next note accurately, everything must snap back exactly into position; however, this does not always happen. The best method for inhaling is to open the mouth corners outside the mouthpiece rim and, at the same time, keep the embouchure closed (in playing position). With prac-

tice, a large quantity of air can be inhaled without disturbing the embouchure. Be careful not to stretch the mouth corners too far since this can pull on the embouchure under the mouthpiece. This stretching can be eliminated by pulling the tongue back to allow a more open air passage.

Another cause of embouchure distortion is placing the mouthpiece on an unprepared embouchure. Some performers place the mouthpiece on the lips and start a process of twisting, sliding, and winding-up while waiting for the correct “feel.” Players afflicted with this habit do not always get the exact placement in time to play. The result is a chipped note or missed entrance. This habit also encourages multiple embouchures and reduces range, endurance, and tone quality. Before the mouthpiece is placed on the lips the embouchure should be formed as if ready to buzz. This enables the player to quickly form a proper embouchure and consistently place the mouthpiece. To initiate a phrase, follow these five steps in exact order:

1. Wet the lips. Although a few players—usually trumpet players—play with one or both lips dry, saliva aids the player in finding correct mouthpiece placement, promotes greater flexibility, and reduces the friction that can contribute to lip sores.
2. Form the embouchure as if to buzz the lips.
3. Place the mouthpiece on the lips. Expect to make minor adjustments after the initial placement. Set the mouthpiece a little high and then slide it down into place. If the initial placement is too low, sliding the mouthpiece up can catch lip hair or whiskers and pull or distort the embouchure.
4. Inhale. Once the mouthpiece is on the lips, inhale through the corners of the mouth.
5. Begin playing immediately after inhalation, executing the phrase without delay. It is very important to time breathing exactly. Holding the breath even for a second before playing can cause neck puffing. This can strain or even permanently damage vocal chords.

BREATHING

Breathing is necessary for survival. Since the body was created with an efficient apparatus for breathing, the brass player’s goal should be to am-

plify and control the natural breathing tendencies. Remember that inhaling and exhaling are opposite actions and involve different sets of muscles.

Inhaling

The diaphragm sits like an inverted bowl on top of the stomach, liver, and intestines. To draw in air, the intercostal muscles raise the ribs and the diaphragm flattens out. Simultaneously, the abdominal muscles relax to allow the abdominal organs to move downward, due to the flattening diaphragm. This creates a vacuum in the chest. The lungs expand to fill this vacuum and air rushes in to fill the expanding lungs. Note that during inhalation, as the abdominal muscles relax to allow the organs to move downward, the abdominal area will protrude slightly.

Exhaling

While exhaling, the intercostal muscles and part of the abdominal muscles depress the ribs and contract the chest cavity anteriorly and laterally. Other abdominal muscles compress the abdomen and force up the diaphragm, which is now relaxed, lessening the depth of the chest. This pressure forces air from the lungs. The diaphragm plays no active role during exhalation. The abdominal muscles do the work by compressing the abdomen and forcing up the now relaxed diaphragm. To visually check breathing, watch the stomach move *out* while inhaling and *in* during exhaling. If the stomach motion is reversed, the two sets of muscles are being used against each other and serious problems can result. Hernias, hemorrhoids, and ruptures are not uncommon among those who push out against their belts while exhaling.

Try the following exercise to improve lung capacity and to develop breath control. As no horn is necessary, it can be practiced anywhere. While walking at a steady pace, breathe in steadily for seven steps and immediately exhale for the next seven steps. Strive to finish with the same amount of air as before beginning. The musical goal is to learn to inhale exactly the amount of air needed for a given phrase. Gradually increase the number of steps until able to inhale for thirty steps and exhale the next thirty steps. While this exercise expands lung capacity, the emphasis should be on breath control. An unnecessarily large breath for a short phrase can cause a tremolo (unwanted vibrato); if the phrase occurs in the upper register, dizziness or pain in the back of the head can re-

sult. Once the lung capacity is increased with the thirty step exercise, breath control can be further enhanced by reducing the number of steps taken during inhalation. The ultimate goal is to take one to four steps to breathe in, and to exhale for the next one to thirty steps.

TONE

After hearing many fine trombonists, a personal concept for tone can be developed. The first step is to realize that a physical or mechanical change is necessary to improve the tone. This can be accomplished by making changes in any or all of the three factors affecting tone. The first two, the instrument and the mouthpiece, are obvious and contribute the most toward improving tone.

The Instrument

Obviously, a different horn will change any player's tone at least slightly. Generally, a larger horn will produce a darker, warmer sound. A smaller horn will have a brighter, more distinct tone. The smaller horn also will respond a little faster in the upper register. Both sounds have a legitimate place in various types of music. The larger trombones are commonly used for orchestral styles, while smaller horns are probably more appropriate for jazz, rock, or commercial music. Smaller trombones are also easier to play in the upper register.

The Mouthpiece

Small mouthpieces usually produce an easier upper register, but not for all players. Too small a mouthpiece can give a dull, lifeless sound. On trombone, use the largest mouthpiece that can be handled with consistency, but give range and response more emphasis than tone. When trying a new horn, always use your own mouthpiece. When trying new mouthpieces, always use your own horn. If the mouthpiece or horn does not *immediately* sound better, it is not better. Good musicians can probably make anything work eventually, but time is better spent working on good equipment.

The Player

The oral cavity, jaw position, tongue size and shape, and lips combine to contribute to tone quality. While one's physical appearance cannot be easily altered, tone changes can be affected. For ex-

ample, while sustaining F above the staff, drop the tongue to the bottom of the mouth; slowly raise the tongue until it is almost against the roof of the mouth, as if making a long "e" sound. The tone quality should change from dull to bright. Remember to listen to many players as examples of various tone concepts; then utilize these variables to achieve an individual sound.

SLIDE TECHNIQUE

Though minor variations are all right, the following hand position should produce the best combination of slide control and speed. Start with the thumb and first two fingers above the slide, with the fourth and little fingers below. Hold the slide bar with thumb and forefinger for first through third positions, adding the middle finger for fourth and fifth positions. Use the middle and fourth fingers (no thumb) in sixth and seventh positions. While this sounds confusing, it allows for a smooth palm and "rolling" wrist motion. Starting in first position, the palm should face downward. As the slide moves out, the palm should roll to gradually face the performer by third and fourth positions. When sixth and seventh positions are reached, the palm should be facing upwards. As the slide is moved from first position (with the slide between thumb and forefinger, palm facing the floor) out to seventh position (with the palm facing upward), the finger positions should happen automatically.

Ideally, the slide should be in exactly the right position at the very instant of each attack. This is commonly referred to as "playing in tune." Those who embrace the techniques of fluid wrist or relaxed hand rarely address intonation or slide position accuracy. The benefit of accurate slide technique to improve intonation can be achieved through a drill called the *stopped slide technique*.

Using a slurred chromatic scale starting on middle B-flat at a moderate tempo, synchronize the tongue with the slide; meet exactly at the intended position with the slide *stopping* at each position the instant the note is tongued. With practice, speed can improve considerably and will enable not only fast playing, but better intonation. The short step from this to the rolling wrist discussed above will allow even more rapid technique, but will also keep accurate slide positions in perspective.

PRACTICE

Always practice with a specific goal in mind. This is the time to work on the weakest playing points, not to spend hours on material already learned. Divide practice time to cover several playing points rather than spending all the time working in one area. Spend time each day on tonguing,

slide technique, range, endurance, and breathing, since all of these things are fundamental to successful performance. After first working on weak points and the fundamentals, take a break. After returning, it is time to put it all together and aim for “performance level” practice. Remember to practice playing in both sitting and standing positions. Good luck!

RECOMMENDED RESOURCES

Method Books

- Arban's for Trombone* Joseph Arban (Fischer)
The Modern Universal Method Aaron Shapiro (Cundy-Bettony)
Melodious Etudes for Trombone Johannes Rochut (Fischer)

The books above are also available transposed for bass trombone.

Bass Trombone Methods

- The Double Valve Bass Trombone* Alan Raph (Fischer)
Bach Cello Suites J. S. Bach (Galliard)

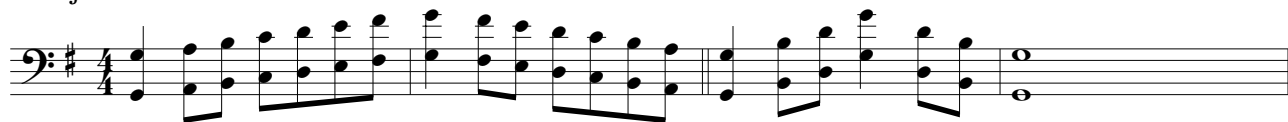
Recordings

- World of Trombones* Slide Hampton
Tiger of San Pedro Bill Watrous
Tutti's Trombones Tutti's Trombones

Many other great jazz albums and compact discs at reasonable prices can be found in the “Double Time Jazz” catalog available through Jamey Aebersold.

Scale Supplement

G Major



E natural minor

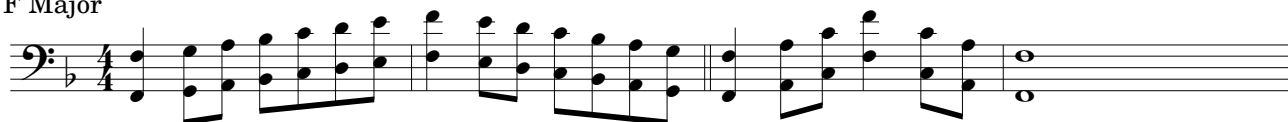
E harmonic minor



E melodic minor



F Major

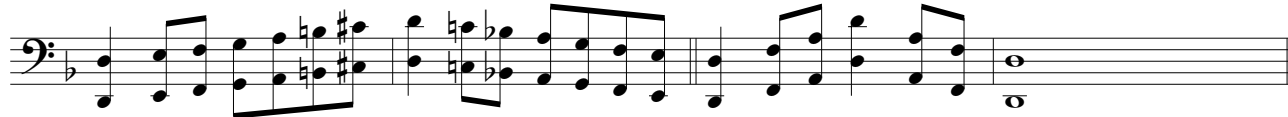


D natural minor

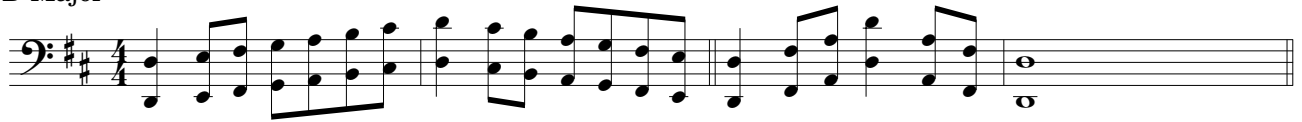
D harmonic minor



D melodic minor



D Major



B natural minor

B harmonic minor



B melodic minor



Bb Major



G natural minor

G harmonic minor



G melodic minor



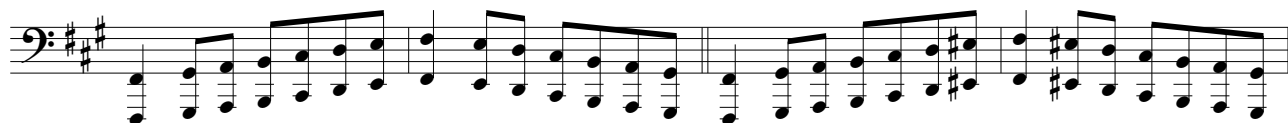
Scale Supplement

A Major



F# natural minor

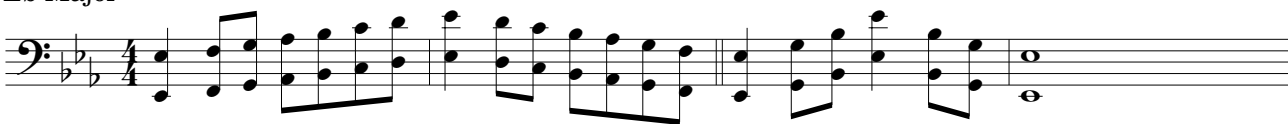
F# harmonic minor



F# melodic minor



Eb Major



C natural minor

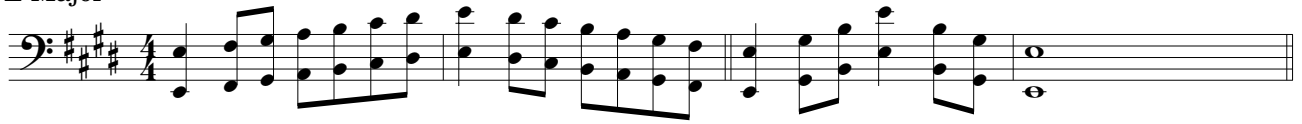
C harmonic minor



C melodic minor



E Major



C# natural minor

C# harmonic minor



C# melodic minor

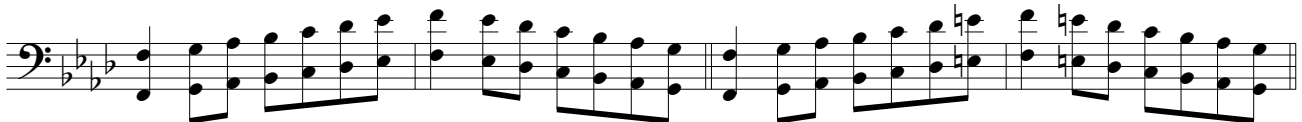


Ab Major

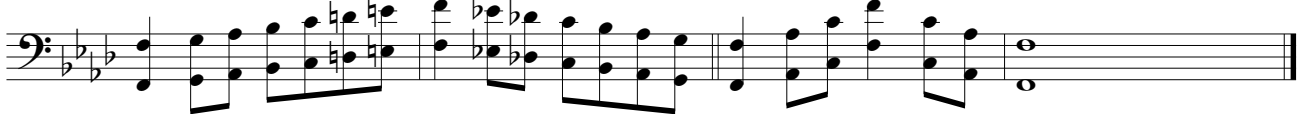


F natural minor

F harmonic minor



F melodic minor



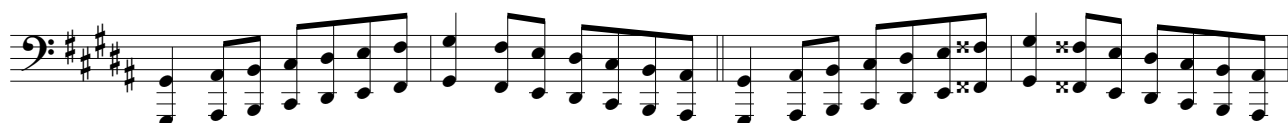
Scale Supplement

B Major



G# natural minor

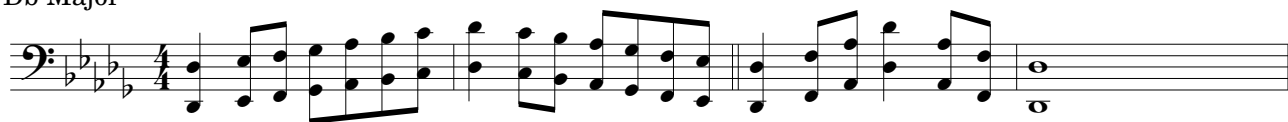
G# harmonic minor



G# melodic minor



Db Major



Bb natural minor

Bb harmonic minor



Bb melodic minor



F# Major

Musical notation for the F# Major scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on D2 and ending on D3. The notes are: D2, E2, F#2, G#2, A2, B2, C#3, D3. The notation includes a key signature of two sharps (F# and C#) and a 4/4 time signature.

D# natural minor

D# harmonic minor

Musical notation for the D# natural and harmonic minor scales in bass clef, 4/4 time signature. The natural minor scale is written in a single line, starting on D2 and ending on D3. The notes are: D2, E2, F#2, G#2, A2, B2, C#3, D3. The harmonic minor scale is written in a single line, starting on D2 and ending on D3. The notes are: D2, E2, F#2, G#2, A2, B2, C#3, D3, with a double sharp (x) over the C#3 note. The notation includes a key signature of two sharps (F# and C#) and a 4/4 time signature.

D# melodic minor

Musical notation for the D# melodic minor scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on D2 and ending on D3. The notes are: D2, E2, F#2, G#2, A2, B2, C#3, D3. The notation includes a key signature of two sharps (F# and C#) and a 4/4 time signature.

Gb Major

Musical notation for the Gb Major scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on Gb2 and ending on Gb3. The notes are: Gb2, Ab2, Bb2, Cb3, Db3, Eb3, Fb3, Gb3. The notation includes a key signature of five flats (Bb, Eb, Ab, Db, Gb) and a 4/4 time signature.

Eb natural minor

Eb harmonic minor

Musical notation for the Eb natural and harmonic minor scales in bass clef, 4/4 time signature. The natural minor scale is written in a single line, starting on Eb2 and ending on Eb3. The notes are: Eb2, Fb2, Gb2, Ab2, Bb2, Cb3, Db3, Eb3. The harmonic minor scale is written in a single line, starting on Eb2 and ending on Eb3. The notes are: Eb2, Fb2, Gb2, Ab2, Bb2, Cb3, Db3, Eb3, with a double sharp (x) over the Cb3 note. The notation includes a key signature of five flats (Bb, Eb, Ab, Db, Gb) and a 4/4 time signature.

Eb melodic minor

Musical notation for the Eb melodic minor scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on Eb2 and ending on Eb3. The notes are: Eb2, Fb2, Gb2, Ab2, Bb2, Cb3, Db3, Eb3. The notation includes a key signature of five flats (Bb, Eb, Ab, Db, Gb) and a 4/4 time signature.

Scale Supplement

C# Major

Musical notation for the C# Major scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on C#4 and ending on C#5. The notation includes a key signature of two sharps (F# and C#) and a time signature of 4/4. The scale is presented in a single line, with a repeat sign at the end.

A# natural minor

A# harmonic minor

Musical notation for the A# natural and harmonic minor scales in bass clef, 4/4 time signature. The natural minor scale is written in a single line, starting on A#4 and ending on A#5. The harmonic minor scale is written in a single line, starting on A#4 and ending on A#5, with a double sharp (x) above the 7th degree (F##) and a double flat (x) below the 6th degree (E##). The notation includes a key signature of two sharps (F# and C#) and a time signature of 4/4. The scales are presented in a single line, with a repeat sign at the end.

A# melodic minor

Musical notation for the A# melodic minor scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on A#4 and ending on A#5. The notation includes a key signature of two sharps (F# and C#) and a time signature of 4/4. The scale is presented in a single line, with a repeat sign at the end.

Cb Major

Musical notation for the Cb Major scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on Cb4 and ending on Cb5. The notation includes a key signature of seven flats (Bb, Eb, Ab, Db, Gb, Cb, Fb) and a time signature of 4/4. The scale is presented in a single line, with a repeat sign at the end.

Ab natural minor

Ab harmonic minor

Musical notation for the Ab natural and harmonic minor scales in bass clef, 4/4 time signature. The natural minor scale is written in a single line, starting on Ab4 and ending on Ab5. The harmonic minor scale is written in a single line, starting on Ab4 and ending on Ab5, with a double flat (x) below the 7th degree (Gbb) and a double sharp (x) above the 6th degree (F##). The notation includes a key signature of seven flats (Bb, Eb, Ab, Db, Gb, Cb, Fb) and a time signature of 4/4. The scales are presented in a single line, with a repeat sign at the end.

Ab melodic minor

Musical notation for the Ab melodic minor scale in bass clef, 4/4 time signature. The scale is written in a single line, starting on Ab4 and ending on Ab5. The notation includes a key signature of seven flats (Bb, Eb, Ab, Db, Gb, Cb, Fb) and a time signature of 4/4. The scale is presented in a single line, with a repeat sign at the end.