

Brass Notes

Trumpet & Trombone

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Trumpet

Holding the Trumpet/Hand Position

- Weight on left hand, ring on middle or ring finger
- Keep fingers curved on right hand and push valves straight down; this keeps valves from being pushed unevenly and affecting valve alignment. Pinky of right hand on top of or in ring on top of trumpet. Thumb under the lead pipe.

Posture

- Good posture allows free expansion of lungs during breathing
- Promotes overall relaxation to allow for better tone and overall playing
- Feel like you're more powerful and in control!!!

Lubrication

- Valve oil used to lubricate slides
- Slide grease used for tuning slides (thicker)
 - o Align valves before seating
 - o Work oil or grease in
 - o Be careful!!! It's not water soluble

Tips

- Watch for trumpet to go to the player; not the other way around
- Not perpendicular to the ground because of teeth and lips
- Keep the bell out of the stand!

Embouchure

- Frame around aperture
- Aperture is where vibration takes place and initial sound is created
- Don't allow air leakage from mouthpiece
- Mouthpiece isolates oscillation/vibrating portion of lips from ends which do not move
- Mouthpiece frames embouchure which frames aperture

Vowel shape of mouth: OH - - - UH - - - EED

Sound/Pitch desired: Low —————> High

- Bring lower jaw forward so they are aligned
- Sat "pu" (parsed lips)
- Don't overstretch lips, keep corners firm and unmoving. DO NOT SMILE!

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- Corners are against teeth, not puffed out, not too spread, not too narrow
 - o Narrow = unresponsive embouchure
 - o Wide = brittle, bad sound

Thorax (throat) – use it!

- Close lips, form letter “m”
- Tighten corners
- Blow through thinking syllable “pu”
- Air passing through should create a vibration

Mouthpiece should be 60%/40% on upper and lower lips

On brass instruments, sound is created by buzzing and the buzzing is amplified by the tubing of the instrument.

Buzzing is wind moving past the lips to create vibration

Making a note:

- Form letter “m” (embouchure)
- Establish a tempo
- Inhale in time
- Exhale in time and buzz a note

Changing pitch:

- Change velocity of air (higher = faster, lower = slower)
- Change volume of air (higher = more, lower = less)
- Change pressure of instrument against embouchure

Teaching in classroom setting:

Small class size is best; not always possible due to budgets

Private lessons are best and much preferable to class/group lessons in many ways through class lessons can be helpful for sectional playing and in appropriate ways.

First Lesson:

- Keep it simple!
- Don't get bogged down
- If there is a problem: find the root cause and explain problem to them so they know why it's happening.

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Common Problems:

1. No sound: (If buzz doesn't happen)
 - a. No sound – lips too far apart, nothing for air to vibrate
 - b. Show student how to make lips “supple” raspberry sounds
 - c. Move that sound to mouthpiece. Any sound produced is improvement!
2. Only high notes come out:
 - a. Lips are too tight
 - b. Have student reform embouchure
 - c. Relaxed middles
 - d. Think different vowel sound... ee vs. oh
3. Only low sounds:
 - a. Corners are too tight
 - b. Wrong vowel
 - c. Center is too loose

Priorities for beginning lessons:

1. Create a sound
2. Match pitch when provided
3. Change pitch when asked

Articulation:

- Time is the most important element in effective articulation
- Air not started by tongue, they are not related though they work together.
- Use syllables “ta – tu – to – da – do – du”
- Jaw should NOT move when articulating (put fingers on chin to verify movement)

Breath attack can be used as an exercise or to isolate problems. “Poh” can help get buzz started, “Hoh” very useful for tuba players.

- Use only the tip of the tongue
- Strike at space where teeth and gums meet on upper row of the teeth
- Tongue doesn't stop air, it just interrupts it.
- DO NOT TONGUE BETWEEN TEETH OR LIPS

Note Shapes: beginning, middle and end should all match (like a rectangle)

Range and Endurance:

1. High notes: faster vibration, higher air speed, more pressure, higher vowel sound
2. Expand register upward gradually with scales and slurs

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3. "USE IT OR LOSE IT" on brass instruments, maintain your range.
4. Fatigue is okay but do not play through pain; DO NOT OVERUSE!

Harmonic series is based off of length of tubing/pipe used

1st, 2nd, 4th and 7th partials are in tune
3rd and 6th are high
5th is low

Sight singing and buzzing helps develop ear

- If you hear the pitch correctly, embouchure may compensate
- Use tuning slides for other bad valve combinations. Make it part of the fingering and time it very quickly

Before valves, trumpets were limited in the notes they could play

Natural trumpets used to be longer to push the high end of the harmonic series to a useful part of the range so more notes could be played. Valves invented in 19th century. 3 valves, 7 combination:

0,2,1,12,23,13,123

Valves:

Two types – rotary and piston

Only two positions: fully opened and closed

3rd valve rarely used alone because of intonation, 12 used instead

Warm-up:

Goals:

1. Get air moving
2. Embouchure easily responding
3. Clear tone throughout the register

Two approaches: flexible and set approach

Set approach:

1. Buzzing
2. Long tones
3. Lip slurs
4. Articulations on scales, patterns, etc.

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Sound Concept:

Developed through listening:

“Great model leads to great sound concept”

Give students great examples, play along with them (kids are good at imitating or copying)

Play great recordings (gives kids something to aim for in terms of great sound)

Teach them to use mental imagery to “hear what they will play” before they play it

Vibrato – Used to color brass sound, not as a staple of it

Types of Vibrato:

1. Hand – move thumb slightly to move horn – trumpet only
2. Diaphragm
3. Slide – Trombone only – usually jazz playing (wide and slow)
4. Jaw – wiggle jaw little “wawa” subtle up and down jaw movement

Lip slur: changing notes from one partial to another without the tongue or valves

- Improves flexibility
- Increases endurance
- Increases accuracy and efficiency

Practice in a mirror to minimize movement

Maintenance:

- Maintain instrument or grime and dents distort the integrity of the harmonic series of the horn
- Premature wear on valves and seals if neglected

Take trumpet apart, use mouthpiece brush and flexible snake for leadpipe

1. Take valves and slides out and wipe with lint-free cloth or a cheese cloth
2. Use valve brush for valve casings
3. Put in tube of luke warm water, not hot, and scrub with brushes in the water with dish soap
4. Grease slides to prevent air leaks or sluggish movement (1-2 times per week)
5. Oil valves (lubricated & seals) 1-3 days

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Transposition

Trumpets – Bb, C is most common

D, & Eb – higher

Piccolo – Bb or A

C horn more common in orchestra, Bb more common in band or jazz band

Different keys put higher notes lower in the harmonic series so the notes are more stable and in tune on those different instruments.

Transposing – composers wrote parts in the key of the orchestra because of lack of valves. Trumpets were limited to the notes in the harmonic series.

Two methods:

1. By Interval
2. By Step

Study Materials:

1. Arban's Book
2. Clark Technical Studies
3. Schlossberg
4. Rubank, Stamp, Concone Vocalises

Solo Repertoire:

1. Haydn – 1796
2. Hummel – 1804
3. Artuni
4. Temassi
5. Enesco – Legend 1906
6. Honneger Contrafe
7. Hindemith Sonata

Virtuoso Solos – Theme and variations usually. Often played on cornet instead of trumpet (Carnival of Venice)

Orchestral Repertoire:

- Pictures at an Exhibition
- Mahler 5, 7 and 3

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- Pines of Rome
- Petrushka
- Ravel Piano Concerto in G
- Quiet City
- Brandenburg Concerto

Solo Artists:

- Rafael Mendez – Born in Mexico – greatest of all time
- Louis Mandre – Baroque and piccolo
- Winton Marselis – Jazz and Classical
- Hochen Hardenberger
- Phil Smith
- Adolf Hersef
- Maurice Murphy
- Miles Davis
- Louis Armstrong
- Maynard Ferguson

History of the trumpet is on page 124 – 129 in Brass Book.

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Trombone

Holding the Trombone/Hand positions

- No weight on right hand (slide hand). This protects slide alignment
- Don't remove grip
- Don't wrap fingers around
- Don't touch the bell!!!
- Move relaxed but quickly
- Don't fumble for positions
- 1st, 3rd, and 4th position are very concrete positions
- 6th is in the middle
- 5th and 7th are very abstract positions

Positions

- 1 – Closed
- 3 – Fingers are at the bell but not touching the bell
- 4 – End of outer slide just past the bell
- 6 – Arm out
- 7 – Wrist extended

Trombone legato technique requires combination of three types of legato:

1. Lips slurs
2. Natural slur or “across the partial”
 - a. Used for ascending notes when the slide goes out
 - b. Descending notes when slide goes in
3. Legato tongue – meant to approximate sound of 1st two types “la” tongue
 - a. Tongue moved to edge of hard pallet away from gum line

Tips for legato:

- Don't move slowly or early. Move slide precisely
- Tongue and slide must hit at the exact same time
- Use steady air. Don't slow or stop the air.

Multi-Tongue:

TKTK or TKTTKT

Double and triple tonguing

Triple can be either TKT or TTK

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Equipment:

- Don't be afraid to upsize mouthpiece for students with larger lips
- Move advanced level mouthpieces are larger

Bach – smaller number = bigger mouthpiece

Schilke – larger number = bigger mouthpiece

Encourage students to stick with one mouthpiece instead of constantly switching

Beginner – 1st-2nd year

Intermediate – 3rd-4th year

Advanced – 5+years

If you start a player on an extremely small mouthpiece (12C or 7C) switch them within a year.

Two shank sizes for trombone – small and large. Student trombones are smaller.

ALWAYS AVOID ANY FORM OF CHINESE INSTRUMENTS!

Repertoire:

Methods: Arban's, Schlossberg, Remington

Beginner methods: Rubank, Voxman, Beeler

Etudes: Rochut Melodious Etudes for Trombone, Kopprasch, Herring Book

Orchestra excerpts:

Bolero – Ravel

Mahlers 5th

Scheherazade

Bass Trombone: All of the above & Fink – Studies in Legato for Tuba and Trombone, Ostrander Method for F attachment and Bass Trombone

Solos:

Concertino by Ferdinand David

Grondahl Concerto

Leopold Mozart Alto Trombone

Hindemith Sonata for Tenor trombone

Virtuoso Solo: Blue Bells of Scotland by Arthur Pryor

Warm-up:

Buzz, Long tones, lip slurs, articulation

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A brief history of the Trombone:

1. Renaissance
 - a. Trombone develops from slide trumpet (now obsolete) circa 1450. Double slide tubes significant in that they allow early trombones (sackbuts) to use all the chromatic notes in the range. This instrument differed from modern trombone in bell size (smaller) and mouthpiece (shallower). Had a very mellow, somewhat covered sound ideal for blending with choirs and wind instruments. By 1540, the standard Alto, Tenor, Bass (generally Eb, Bb and F) consort solidified. Continued to be used in collaboration with voices and all types of instrumental ensembles in sacred and court music through the end of the 17th century. Giovanni Gabrieli is an especially important composer for the trombone in this period.
 - b. Also used prominently in opera, such as Monteverdi's L'Orfeo (1607, thought of as the first "real" opera) and dramatic music.
2. Classical
 - a. Diminished use, except in Austria where the alto trombone developed as a solo instrument with concerti by Wagenseil, Albrechtsberger, Michael Haydn and Leopold Mozart.
 - b. Historical sacred and dramatic associations cause composer like WA Mozart and FJ Haydn to begin using trombone section (alto, tenor bass) in their operas, oratorios, etc. By 1780s, the trombone becomes a standard member of opera orchestra.
 - c. Trombones make first appearance in a symphony in 1808, Beethoven's 5th.
3. Romantic
 - a. Alto Trombone gradually replaced by a tenor trombone, bass in F also gives way to large bore Bb (tenor). Trombone retains its position in orchestra.
 - b. 1839 Sattler adds a valve (F attachment) to the large Bb tenor which was then named "tenor-bass posauene." Easier to use than unwieldy bass in F, very popular.
 - c. German trombones develop larger bells and bore, modern trombone standard in Germany by 1850. Smaller bore and bell sizes remain standard in France.
 - d. Americans play smaller French trombones in bands. Soloists like Arthur Pryor (late 19th/early 20th century) also use small instruments. American orchestral trombones start to develop, taking the best of the German and French designs and combining them. Makers include Vincent Bach and CG Conn.
4. 20th Century
 - a. Ca 1939 Trombone gains wide popularity through band leaders like Glenn Miller and Tommy Dorsey.
 - b. 1950s American bass trombonist Kauko Kahila and others add a second valve to the F attachment tubing, creating the dependent double valved bass trombone. 1965-1970 the second valve is moved to the gooseneck in line with the F

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attachment (called the in-line bass trombone). Now both valves can be used independently. Bass trombone valve development continues in an effort to make the valves feel like they aren't there.

Trombone Artists and VIPs:

1. Arthur Pryor:
 - a. Early 20th Century Bandleader and virtuoso soloist
2. Kauko Kahila & Edward Kleinhammer:
 - a. Bass Trombonists in Boston & Chicago Symphonies.
 - b. Both developed modern bass trombone sound, style and instrument.
3. Emory Remington:
 - a. Longtime teacher at Eastman School of Music.
 - b. Re-imagine vocal trombone style and through his students reshaped the American orchestral trombone sound.
 - c. Most current trombone pedagogy can be traced to Remington
4. Christian Lindburg:
 - a. Currently the only full time trombone soloist
5. Joseph Alessi:
 - a. Principal trombone in NY Philharmonic
 - b. Soloist
 - c. Has reset the standard for trombone playing world-wide
 - d. Higher, louder, faster personified