

**A “SOUND” Approach to STELLAR CLARINET TECHNIQUE:  
Improving the Technical Command of Your Band/Orchestra Clarinet Section**

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Sound production is at the heart of every successful performance and is key to consummate technical command. While there are different types of clarinet sounds which vary from French, German, British to American, there are key elements in a sound that are common to players of all regions and countries. Every successful clarinetist is looking for a sound that is focused, clean, clear, even, rich, and has a warmth and depth that will resonate and project to the back of the hall. Most importantly, effective sound production will enable the performer to execute all technical elements with ease and aplomb. Without serious attention to quality sound production, the clarinetist has little chance of presenting a stellar performance that will achieve the ultimate goal.... communication of musical thoughts and ideas. This clinic is designed to demonstrate how technical deficiencies can be overcome by focusing on quality sound production. If the sound is produced efficiently and effectively, the result is excellent technique on all levels, including: finger facility, articulation, intonation, rhythm and most importantly, musicianship and expression.

- I. Embouchure- A functional embouchure is the basis for all aspects of performance and is “mission control” for the clarinetist. Embouchure influences all aspects of playing including sound, control, response and intonation. The major function of the embouchure is to facilitate the air stream and to prevent pinching and biting, thus enabling the reed to vibrate freely. Young players and even some advanced players use a direct pressure on the reed which will close the tip and keep the reed from vibrating.... creating the dreaded vise-like embouchure grip. This dreaded problem is a serious issue that diminishes sound control, function, tonal beauty and resonance. It also contributes to the lack of technical facility. If there is no wind, there is no sound. When students feel the sound diminish, they often pinch and bite rather than allow the wind to vibrate the reed. Ultimately, this causes a lack of tonal command and notes become smaller and smaller with less sustain and hold to the sound. This contributes to a medley of problems that may be masked as other playing issues such as lack of technical facility, poor rhythm (rushing), and tension in hands, fingers and body, to name a**

**few. In a wide number of cases, the technical deficit is actually a manifestation of a tonal dysfunction.**

- A. Embouchure Formation- The lips have one primary function and that is to seal the air and to serve as a cushion to control the reed. They should never pinch, but should gently hug the mouthpiece. Lip pressure must be constantly regulated by the player, as too little or not enough pressure will diminish optimum sound production. Lip pressure is a necessary component for sound production and should not be confused with biting.
- a. Upper Lip- Should cushion and hug the mouthpiece firmly inward and forward. This prevents the corners from leaking air and will contribute to a focused sound.
  - b. Lower Lip- The lower lip serves as a cushion and must allow the reed to vibrate without constricting or pinching. The lower lip needs to be firm enough, but not overly tight and care must be taken not to let the entire lower lip force its way into the mouth. If too much lip is in the mouth, the sound will become less resonant and the student will pinch and bite the sound out rather than producing it with air support. A good ratio to strive for is 1/3 of the reed of the lower lip to be over the bottom teeth using the bottom teeth as a structure upon which to rest, enabling optimum vibrations.
  - c. The corners- The corners provide major embouchure control and must be utilized effectively to prevent air from leaking and to keep the jaw relaxed. This helps to diminish the possibility of biting.
  - d. Chin/V bone structure- Cheekbones and face come to one point and that is the chin. One can think of lengthening the face or opening the teeth slightly to achieve the optimum V bone structure position and flat chin. If students bunch the chin, it is difficult if not possible to maintain the correct tongue position. Often the chin is described as being flat. If it is too flat however, this can create tension in the lower lip and increase biting.
  - e. The right thumb- Is also part of the embouchure and is important in balancing the clarinet. Its primary function is to keep the mouthpiece and reed firmly hugging against the lip. This requires a certain amount of pressure. This kind of pressure is necessary and is much different than the force of biting which is a destructive pressure in terms of achieving tonal resonance and control.
  - f. Syllable voicing for correct embouchure formation- “oooo eeee”

- B. Vertical or Direct Pressure always hurts the sound and causes biting. The negative effects of biting/pinching the reed include:
- a. Creates a shrill, bright, uncontrolled tone that is small and pinched and lacks focus, warmth and depth
  - b. Creates tension in the hands, embouchure, body and limits technical facility
  - c. Limits and shortens the playing life of a reed
  - d. Causes inflexibility in tuning and perpetual sharpness
- C. Double-Lip Embouchure can enhance Single/French style embouchure playing:
- a. Prevents players from biting and pinching and is a terrific remedy for eliminating or easing tone production problems
  - b. Provides an excellent means for warm-up and practice whereby the player can successfully transfer physical benefits to single-lip playing
  - c. Helps to develop the lip and facial muscles
  - d. Greater relaxation in the face and jaw muscles thereby creating a warm and round sound.
  - e. Naturally lifts the tongue higher and allows the wind to travel
  - f. More secure high register
  - g. Better intonation because the reed is vibrating at optimum frequency
  - h. Better articulation
  - i. Encourages students to feel the reed and the partials
  - j. Improves finger legato and lighter finger technique as it allows for relaxation of the facial muscles thereby reducing hand and finger tension.
- D. Potential problems in initial phase of learning Double-Lip....benefits far outweigh any difficulties
- a. Endurance can be an issue especially for those who are used to pinching and biting
  - b. Student must find the proper angle of the instrument and the head must be lowered slightly to find the fulcrum
  - c. Difficult to balance the instrument especially when using fewer fingers such as left hand first finger etc., but a good remedy is to rest the instrument on/between knees
  - d. Unless reeds are well-balanced the sound may be difficult to focus
  - e. Upper-register is difficult to play initially
  - f. Difficult to stand and play so best to practice sitting
  - g. May present a slight projection problem initially

E. Starting beginners on Double-Lip??

- a. Should not be taught to beginners unless an experienced clarinet teacher carefully supervises from the start. If they can achieve the following, then they may become double-lip players at an early age:
  1. The lips must snuggle or hug in toward the mouthpiece, and beginners tend to let the lips sag and the pitch will sag/drop as well.
  2. The jaw must stay down and flat
  3. The tongue must remain high and back

F. Instrument angle and how it affects volume and technical command

1. Head position-keep erect allowing the air to flow freely. Beware of tipping the head down or having it too high which will create tension. Simply stay in natural position, chin parallel to the ground. Be sure music stands are adjusted properly as to encourage proper head angle.
2. Body position
  - a. Balancing the instrument-hold with left hand head and body as well as right thumb.
  - b. Root the body like a solid oak tree from the lower part of body, waist down.
  - c. Standing/Sitting for optimum technical/tonal command-increase comfort both standing and sitting and understand how to set-up properly for each
  - d. When to sit/stand-chamber/band/ orchestra/ solo
3. How to find the correct instrument angle

G. How much reed/mouthpiece to take in-finding the proper ratio

- a. Proper upper to lower lip ratio-1/3 upper teeth on the mouthpiece to 2/3 lower lip.
- b. Finding the fulcrum of the mouthpiece-also known as the resistance curve of the mouthpiece, where the facing breaks away from the table. To illustrate this to a student, one can take an index card and insert it carefully behind the reed at the tip until it stops. This is a rough guide at best and can provide an approximation as to where the lower lip should be placed. Let the ears be the ultimate judge.

- c. The open G tells all-a test to find the right lower lip position
  - 1. Encourage students to experiment with physics of sound and physical changes which will train them to hear subtle timbre changes and nuances.
  - 2. If they “Can’t hear it”....very difficult to “Teach it”
  - 3. Lengthening the reed
  - 4. Shortening the reed

#### H. Voicing of Oral Cavity/Tongue Position

- a. The inside of the oral cavity is like a concert hall.... correct tongue/throat position will make the concert hall vibrant, warm and resonant or dead and dry...
- b. What’s happening on the outside is a good indicator of what is or isn’t happening on the inside....if there is motion on the outside a correction needs to be made on the inside
- c. Creating a venturi which enables the wind to move swiftly and efficiently
- d. Tongue position high/back
- e. Finding the soft and hard palates
- f. Throat position....can’t be too open or tight in order for it to work properly, a distinct balance must be achieved
- g. Eeee gliss can help students to feel the correct tongue position

## II. **Air Support/Breathing- Excellent sound quality and technical command depend on solid breath support as air enables the sound to sustain and hold**

### A. Double Breath from abdomen and chest

- a. Relax body
- b. Exhale completely
- c. Do not move shoulders when breathing
- d. Sideways Accordion

### B. Wind Speed is essential

- a. Wind should always be fast and low
- b. Don’t let the air go up with the sound, especially in high register
- c. Voicing the correct syllable when inhaling, voicing “whee” “eeee” helps to get the tongue high/back and allows the air to travel fast creating a natural venturi
- d. Noise when breathing indicates tension
- e. Let the wind guide the tongue high/back
- f. “Spin” the wind at all times

- C. How wind affects dynamics
  - a. How the air/embouchure functions in forte vs. piano dynamics
- D. The importance of tongue position during inhale/exhale-keep the tongue high enough at all times avoiding lazy tongue that drifts downward
- E. Let the wind guide the tongue high and back
- F. How effective wind usage affects reed strength and mouthpiece selection and instrument resistance---Hold the Sound!!
- G. Long tone exercises to develop breath control

**III. The Chromatic Scale and Partial of the clarinet-Chromatic Scale is key to understanding and achieving maximum tonal control and resonance**

- A. Partial of the Clarinet
  - a. Chalumeau-Fundamental-First Partial
  - b. Throat register
  - c. Clarion-Solo-Third Partial
  - d. Altissimo-Fifth Partial
- B. Finding the Nodes on the Reed for optimum tonal control and resonance
- C. Harmonics/Overtone on the reed and how they can enhance tonal security
- D. Double-Stop and fake fingering exercises for control

**IV. Finger Facility.... slow facility is not always due to faulty hand and finger position...sound production is key to excellent facility/technique**

- A. Blow THROUGH and BETWEEN EVERY note
- B. Do not change the wind when moving fingers...fingers must be independent of the air stream and air stream must be continuously maintained
- C. Constant wind speed creates seamless and facile technical command
- D. If you want to play fast, practice S-LO-W
- E. Covering the tone holes
- F. Legato in the fingers-match the style of the work
  - 1. fast legato
  - 2. slow legato
- G. Coordination of fingers and tongue
- H. Bumping the air stream with the fingers

**V. Articulation- Wind the tongue....don't tongue the wind!**

- A. Let the wind guide the tongue for optimum control.... when tongue is in correct position, articulation is easy!
- B. Tongue position and voicing.... "Tee" vs. "Ta"
- C. Attacks and note beginnings... and excellent sound quality
  - a. The sound is only as good as the preparation breath
    - 1. The prep breath tells all and just like a fine conductor the upbeat indicates much information, i.e. tempo, color, sound, dynamic, style
  - b. Breathe in the time of the music
- D. Where on the reed does the tongue really touch
  - a. Tip to tip is ideal, let ear be ultimate guide
  - b. Limit tongue motion when tonguing and keep tongue pointed for clean articulation
- E. Think of the tongue as being at a piano dynamic most of the time
- F. Moving the jaw when articulating/tonguing and how to prevent it
- G. How to prevent the dreaded grunt/undertone
  - 1. Exercises for practicing double-stops for control
  - 2. Other exercises to remove the grunt
  - 3. Register key may opening too far
- H. To produce seamless intervals-speed up /maintain wind speed especially over large intervals
- I. For a fast and clean staccato....practice legato and don't stop the wind
- J. Practice methods to develop fluid tonguing and articulation

**VI. Rhythm/Tempo- Are they rushing or simply not sustaining the sound?**

- A. How to identify a rhythm versus a sound issue
- B. Pitfalls of the metronome and how to use it more effectively
- C. Practice methods to sort out rhythmic difficulties
  - 1. Sub-division is key to holding and sustaining the sound
  - 2. Rebeaming exercises to help to sustain the sound throughout the entire beat
  - 3. "Rushing" often occurs during long, sustained notes

**VII. Intonation.... Sound quality is key to great intonation**

- A. How to get the instrument to vibrate properly and in tune
  - 1. Given satisfactory equipment.... there is much more to intonation than pushing in or pulling out

- B. Tuning Strategies to prevent pinching/biting which causes extreme inflexibility of pitch
  - 1. Becoming less co-dependent with the tuner
  - 2. Lip off reed
  
- C. Why the tuner is not always the answer
  - 1. Good intonation depends on good tone....when the player enables the instrument to vibrate acoustically correct, intonation is readily improved
  - 2. Beware of the pitch changing from the initial attack (release) of note....if wind and embouchure are working in synchronicity, the pitch will be accurate, speak on time, and tone will be full and round at the beginning, middle and end of note.
  - 3. Don't change tongue or jaw position after the note begins
  
- D. Steps to tuning your Clarinet
  - 1. Tune the third space C by pulling out at the barrel until in tune
  - 2. Carefully tune open G by pulling at the barrel
  - 3. Tune low C by pulling at the middle
  - 4. Go back to tuning third space C by pulling out the bell
  - 5. Tuning barrel, middle joint and bell is essential as the entire length of the tube must be measured equally.
  - 6. LISTEN WITH MICROTONAL EARS! It's not the instrument that plays in tune...it's the player
  
- E. Voice and hear the pitch before it sounds!
- F. Singing intervals can make tuning easier and the sound more acoustically efficient....singing is especially useful in a woodwind choir sectional
- G. Encourage students to first play in tune individually and tune intervals and half and whole steps without extensive physical movement. Care must be taken not to move corners for every note in an effort to "work with" others. This is of course essential, but players must first find stability and control within their own sound and production.
- H. Oral cavity/tongue position and how it affects sound and intonation
- I. Practice methods to improve intonation and sound control

### **VIII. Production Noises and why they are a sure sign of tonal dysfunction**

- A. Air Leak and why it is extremely detrimental to players of all levels
- B. Noises when tonguing-grunts, tongue noises
- C. Exercises to help eliminate production noises
  - a. Double-stops
  - b. Beginnings exercises



**IX. Let the ear be the ultimate guide**

- A. Encourage students to regularly attend concerts and listen to recordings of model clarinet sounds
- B. Students must learn to listen with micro-tonal ears and be able to identify subtle timbre changes when physical and/or equipment adjustments are made
- C. If the ear is well-trained in identifying outstanding quality sound, it will guide technical elements such as embouchure and articulation to develop properly and may bypass many grueling hours of inefficient and frustrating practice enabling talent to flourish and fully develop, making playing enjoyable....when students are having fun and are enjoying their sound....they readily improve and love to make music...a key element!!
- D. Encourage students to work on sound rather than find their own quick-fix solutions to playing problems, such as cheating with equipment or using an inaccurate reed strength that “APPEARS” to make playing “EASIER” in the short-run !! There is no substitute for solid sound production training!
- E. Once students understand the concept of sound production as it relates to their own personal physique and circumstances, they will become accountable for producing a sound that is healthy and consistent and will be able to go to the next level and find their own “unique voice” regarding sound quality. Most importantly, they will be free to develop high level musicianship....the ultimate goal!!