# TMEA Clinic Presentation 2002

## Clarinet A"tone"ment: Practical tips and Diagnostic Tools to Improve the Tone of Your Clarinet Section

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1. There are three important factors in teaching a good clarinet tone.

   - First, insist on a good tone always. Never let the student become unaware of their sound.
   - Second, tone needs to be incorporated into all areas of playing. When talking to a student about technique, dynamics, articulation and phrasing, tone needs to be a significant component of this discussion.
   - Third, understand the basics of tone production and improve diagnostic skills.

2. Reeds

   - Teachers should treat students' choice of bad reeds as an equivalent to being unprepared to play. Bad reeds affect tone, technique, articulation and all areas of clarinet playing. Do not accept bad reeds, and bad reed excuses. If you are consistent with this attitude, students will learn to be more selective in their reed choice, perhaps even buying a new box on occasion.

   - Reed selection can be difficult. Unfortunately, better players find good reeds more easily, whereas younger players who need good reeds in order to become better players have the most difficulty.

   <u>Reed Facts:</u>

   - Reed Fact: Less than 50% of reeds in a box are useable, the rest should be discarded. For beginners who are using soft reeds, the figure may be closer to 75%. As one becomes more advanced, fewer reeds in the box will be acceptable. Advanced high school students, college students and professionals are more likely to find about 30% of the reeds acceptable, and that is in a good box!

   - Myth 1: If I play a hard "airy" reed long enough it will break in and be good. Wrong. A bad reed will always be a bad reed. All good reeds should produce a good sound immediately. A good reed might be slightly harder than ideal, but one should feel as if they could get a good sound and play on it if they had to.

   - Myth 2: If I sand the back or make other adjustments to a hard "airy reed", or if I clip the tip of a reed that is too soft it will become a good reed. Wrong. If you know what you are doing (which most college students do not, let alone high school students) you can make them usable, but they will rarely be good. Bad reeds are not badly cut; they are simply made from bad cane, which is what ultimately determines the quality of a reed.

- Myth 3: An important performance/audition is in a week; I have a good new reed now so I want to save it. Saving reeds doesn't work. It is necessary to play on it 30 minutes or so every two or three days. Otherwise the reeds dry out. If you think a new reed will be used up within a week by doing this, it is not a good reed to start out with.

- Myth 4: I will practice on bad reeds and save my good ones for important things. For students learning how to produce a good sound, the reed needs to be of a quality that when they use the correct combination of air speed, embouchure pressure and voicing, that they are rewarded with a good sound. Perfect tone production skills don't sound different than poor production skills if the reed is bad. One can use an older reed or one that is not quite right for performing for practicing, but it still needs to encourage proper tone production.

- Myth 5: "I am all of sudden squeaking and notes don't feel right, I have become a bad player this week." I am always amazed at young students who think they can wake up one morning and completely lose all of their skills. Usually, these problems started when the student put on a new reed that happened to be a bad one.

<u>Reed adjustments</u>

Reeds can be adjusted with sand paper or a reed knife, but this is difficult for most high school students to do. Instead, you can alter the way a reed plays by moving it slightly up, down or from side to side on the mouthpiece. These adjustments will help one find the sweet spot of the reed. They will not transform a bad reed into a good reed but will greatly enhance an acceptable reed.

- Move the reed up on the mouthpiece to make it play a little harder (i.e. take the edge off of the tone and give the reed more stability). This is one of the most common things I do as a teacher with my students.
- Move the reed down if the reed is a little hard and you want quicker response.
- Try moving the reed slightly to the left and to the right and see if the reed plays better slightly off center. Most do. Go ahead and play with the reed off center. I rarely perform on a reed that is exactly centered.

<u>How often should you buy a new box of reeds</u>?

For most students, a new box of reeds every month is a good general rule. For advanced students who are studying privately and actually practicing for an hour or so a day, a box every 2 to 3 weeks might be necessary. I myself open up a box every 1 to 2 weeks (every week when I am in the middle of a heavy performance stretch).

<u>What Strength Reeds Should My Students Use</u>

Preferred reed is Vandoren V-12 (Gray box, not Blue Box).

- For beginners, I recommend starting them on 2 1/2 strength reeds, and for the first couple of months really any brand of reed will do. Reeds of a softer strength such as 1 1/2 or 2 are not necessarily easier to play because they often close up too easily or are very unstable. Within a couple of months, you should be able to move your students up to strength 3. The difference between 2 1/2 and 3 is not very great. Of course these numbers may have to be adjusted because of a student's mouthpiece.

- For middle school students, who have been playing for a year or two, try to move them up to 3 1/2 strength reeds when they seem to be getting the hang of playing. Your first clarinet section will probably be the first to move up. By 8th or 9th grade, all of your students could probably handle 3 1/2 strength reeds.
- High School should use reeds of strength 3 1/2 – 4. Your stronger players should be playing on strength 4 reeds. If these are too hard, try 3 1/2 strength reeds.

When is a reed ready for performance?

I usually will not perform or rehearse on a reed unless I have had two good 30 – 45 minute practice sessions on it. Ideally I perform on a reed that is about one to two weeks old and has survived 2 or 3 hard practice sessions.

4. Equipment

In order to have a good tone, an instrument must be in good working order. Leaky pads, broken springs all need to be repaired as quickly as possible. The instrument should probably be overhauled every four years or so

Wood instruments are always preferable to plastic, and professional lines are preferable to intermediate and beginner lines. Be wary of old instruments resurrected from relatives closets. These instruments might be fine but have them thoroughly checked by a repairperson. An overhaul is strongly recommended for older instruments.

Mouthpieces

Mouthpieces are the key component for producing a clarinet tone. They are similar to the speakers in a stereo system, and you know the old adage, "the stereo system is only as good as the speakers." Mouthpieces come in a large variety of styles (and unfortunately colors nowadays) ranging from resistant to free blowing.

Characteristics of a resistant mouthpiece

Examples: Gigliotti, Vandoren 2 RV, Pyne Mouthpieces

Benefits
- A dark full sound, particularly noticeable in the throat tones and high notes
- The tone is controlled more by the mouthpiece than the embouchure and reed
- Will instantly fix a thin edgy sound, creates a nice blend in your clarinet section
- Easier to play a smooth legato line with a homogenous sound

Problems
- Articulation becomes sluggish, usually resulting in a more spread sound, particularly when articulating above the staff
- Students may not develop a proper embouchure, causing a limit to how far the tone can be refined
- Hard to find good reeds that feel comfortable to play on

Characteristics of a Free Blowing mouthpiece

Examples: Larry Combs, Hite Premiere, and Vandoren M13

Benefits

- Easy to play, tone responds more directly to the freedom of the air stream.
- Good for beginners who need to have equipment that is easy to play.
- Articulation is cleaner
- Tone can be more focused and clean
- Reeds are much easier to find

Problems

- Sound can be thin and edgy
- Tone quality can waiver more easily within a phrase
- Can be harder to blend

Recommend Balance

With my students, particularly with pre-college level, I recommend a middle of the road mouthpiece that will incorporate some benefits of both styles of mouthpieces. This will help insure that work on clarinet tone fundamentals will be noticeable by the student. As the student becomes more advanced, experimentation on a more resistant or free blowing set up can be done depending on what the student's tonal tendencies are.

Examples: Vandoren M13 lyre, M15, M30,

5. Tone Production Pyramid

There are three primary factors in producing a good clarinet tone. I like to think of these elements as forming a pyramid which I call the tone production pyramid. The pyramid looks like the following:

65% Air
25% Embouchure
10% Tongue Position

6. Air

A free and proper use of the air stream is the most important component of good tone quality.

Problems in the use of air generally stem from a lack of understanding and misinformation about air support.

What is air support?

"Many people make the mistake of assuming the muscle contraction [firming up the diaphragm for example] is what gives support. The blowing of the breath should be the support, not tension in the muscles of the body, but the movement of air as required by the embouchure or the reed."
– Arnold Jacobs (Kevin Kelly, *The Instrumentalist*, December 1983, pg. 10)

"You should not use any muscles to produce a sound that you do not use when you are breathing normally" - Larry Combs, ICA 2001

Air support does not involve firm stomach muscles pushing in and not even pushing out. Some people teach air support by tightening the diaphragm muscle inward, thus creating a comfortable firmness with which one can control the sound. This information has been scientifically proven wrong, and I don't know of a single professional clarinet player who believes in this approach.

Many teachers teach pushing the stomach out, which is useful to teach students not to let their diaphragm tighten in, and to be aware of the role of this muscle. However, if the diaphragm is pushed out too hard as many teachers encourage, the same problems arise as pushing the diaphragm muscle in.

I usually instruct my students to take a complete full breath and exhale keeping the stomach out but in a relaxed and natural fashion.

Think of air support in terms of air speed that is free from tension combined with the firmness of embouchure. The two of these elements create a comfortable pressure that will enable a player to produce a tone with maximum depth and resonance with maximum response. When working with a student on the airflow component of air support, encourage them to use a faster air stream. I have found that describing the air stream as moving faster is much more effective than telling them to use more air. The latter works okay but can also produce excess back pressure which causes tension in lungs and throat thus reducing response and resonance.

One way to experience the power and effect of this concept of air support is to use a breathing bag.

<u>Some common problems which prevent the fast free flow of air:</u>

- Tension in the diaphragm.
- Tension in the throat and upper chest. This can be caused by too much air trying to be pushed through a resistant setup and not allowing the air to be free. Usually it coincides with tension in the diaphragm muscle and embouchure.
- Tension in the embouchure, usually a reaction to tension in the rest of the air production process.

<u>Some tips for reducing tension and improving airflow:</u>

- Constantly emphasize freedom of the air in tone production, especially in technical passages.
- Take large full breaths and let the air flow fast and freely.
- Practice long tones and scales at a very good forte level. Listen to the sound and make sure that volume and tone quality remain consistent from the beginning to the end of each breath.
- Think of keeping your stomach out and relaxed to the end of each breath.
- Also keep the upper wind pipe open through the entirety of the breath.

7. Embouchure

The next item in the tone production pyramid is embouchure. Embouchure needs to be taught and understood in the context of using proper airflow. This is a common mistake many teachers make. Many embouchure problems fix themselves if the air is used properly. This is not to say that teaching embouchure is not important or necessary but sometimes we are too quick to start

making adjustments. Of course, if a student has no embouchure at all, one must start with the basic concept of squeezing the mouthpiece with the lips.

Once the airflow is working satisfactorily, some basic embouchure tips can make a big difference in a student's tone.

Some things to consider for proper embouchure formation:

- Instead of telling students to push the corners in, tell them to concentrate on where the top and bottom lips come together with the sides of the mouthpiece. Push this area of the lips firmly in towards the mouthpiece.
- Do not allow air leak. Some professionals excuse air leaks in their own playing, and many teachers allow it. However, it is easy to fix, and I have yet to meet a player who sounds better with an air leak than without. It is truly a matter of will power. I have been able to rid air leak with every student I have ever had, usually in a period of a couple of weeks. Persistence as a teacher is the key.
- Think of pushing the sides in and more forward than you would normally do. Think of a whistle, blowing cool air or saying a firm "ooo".
- Do not emphasize a flat chin until you get the sides forward!! This is one of the most common mistakes in teaching embouchure. If you start with the flat chin, the sides go back and form a smile type embouchure. This type of embouchure is one of the main causes of air leak and a bright sound. Start with a firm "ooo" shape and then point the chin down. This is how a flat chin fits into the embouchure equation.
- If the tone is loose and airy sounding, make sure there is enough jaw pressure. I actually have students bite a little bit if they tend to get an unfocused and/or "spitty" sound.
- If an embouchure has too much jaw pressure, the resulting sound will be pinched and forced. Try separating the teeth a little more with the lips forward and firm.

8. Tongue Position

The final piece in the tone production pyramid is tongue position. The clarinet is one of the few instruments that does not follow the conventional voicing that is so common with the other woodwind instruments, i.e. an "ah" vowel for low notes and an "eee" vowel for high notes. The clarinet needs to be played with an "eee" vowel throughout the entire range of the instrument. An "eee" tongue position will give a uniform focused and projecting sound in all ranges of the instrument.

Tongue position should only be worked on after the air stream and embouchure are being used correctly. One will usually find that if the air and embouchure are being used correctly, often the tongue position will be about right.

Some tips for teaching tongue position:

- Think of blowing cool air through the instrument.
- Say the letter "e" and notice where the sides of the tongue come in contact with the molars. As you play, make sure this contact does not separate.
- Think of channeling the clarinet tone into the front of your face, inside the mouthpiece or up in the nasal cavity. Don't let the tone be generated in the back of the oral cavity or throat.

9. Tone Colors – Advanced adjustments to a good tone

Once a good basic sound has been established, more advanced students can learn to manipulate various tone colors to match a variety of musical contexts. To do this, one can use adjustments in the tone production process to darken a sound or to add more focus and zing to the tone.

Darkening agents

To darken a tone, use the following tools:

- Push the sides more forward than usual with a firm "ooo" embouchure
- Separate the distance between the front teeth slightly.
- Keep the throat relaxed. Avoid using the term opening the throat because that will generally cause students to drop their tongue. Instead, tell students to relax and expand the upper portion of the lungs near the collarbone. I often describe the upper part of the lungs as being balloon-like, not rigid but firm and flexible.

Focusing agents

To add more focus and zip to the tone, try making the following adjustments:

- Make sure you are using an "eee" vowel tongue position
- Lip contact point with the sides of the mouthpiece needs to be firmer.
- Think of firm hard lips around the mouthpiece. Firmness can be generated with a firm “ooo” position while pointing the chin down.
- Blow a faster air stream through a smaller hole.
- Use more jaw pressure, i.e. bite slightly more
- Push the tone to the front of your face and squeeze the lips more firmly around the mouthpiece.

10. Tone Building

Once one understands the basics of tone production, one can start a routine of tone building. Tone building involves a daily routine that must be maintained over a long period of time.

In addition to the routine, tone needs to be discussed every day in rehearsal and/or private lessons in all musical contexts, especially technically difficult passages, articulated passages and high register playing.

As far as a tone building routine, teachers can create any system that requires students to spend 10-15 minutes every practice day on long tones and slow scale or arpeggio work.

An example of such a routine to build tone could be as follows:

- Do a chromatic scale in whole notes, slurred, quarter note equal to 60 – 72. Try to breathe after every four notes. At first, it is okay to breathe after three as long as the tone is consistent and full to the very end of the last note. Play the notes with a healthy forte with a slight crescendo. Concentrate on fast air speed and all of the fundamentals discussed above. Start on low E and go all the way to high G (do not go back down). The last four notes are a good test to see if the air is fast enough and if the embouchure is correct. These notes should be loud and stable.

- Next, play through as many scales as you can with the metronome set to 60, and play them from memory!! Keep in mind that you are still practicing long tones at this point except that the fingers are moving a little faster. Keep the air support constant and blow through the notes with a slight crescendo. Keep the volume strong and monitor the fundamentals above. Students can use this exercise to increase their scale vocabulary. For the first few weeks, students can do the scales they know. After the routine gets familiar, a new scale can be added each week. Since this is intended as a long-term exercise, there is no reason over the course of a year that students couldn't have all of their major scales and even some minor scales memorized.
- Do any arpeggio exercise at a quarter note equals 60. Two octave slurred triplet patterns are fine

Again all of these exercises are done with a long tones mentality with no articulation and done from memory so students can think about tone and not notes on a page.

This routine should take anywhere between 8 to 15 minutes. To build tone it is imperative that it is done everyday. I tell my students that I would rather have them not play their lesson music and do this routine. If a choice has to be made between the two due to time restraints, always work on fundamentals.

Students will notice a big improvement over the first month or two, but the real benefits come if students stay with this routine over a semester, year and years.

After this warm up is completed than ideally a student would move on to technical work, while always keeping tone production in their mind, as the technique is more difficult.

11. Common Problems – How to fix a..

<u>Thin reedy sound</u>

- Check the reed. If the problem seems to continue over several reeds or boxes of reeds, increase reed strength. The student is probably attracted to the wrong type of reed, mainly because they don't know anything else. Go through many reeds until one that produces a good tone is found. Often times the student will say the reed sounds fuzzy to them and is a little more work, even though it doesn't sound fuzzy or labored to the listener. Tell them to practice on reeds like this and they will begin to change their perceptions of what a good reed feels and sounds like.
- For more advanced and aggressive players who are playing on acceptable reeds, have the student relax the jaw grip slightly. Do this by telling them to separate the distance between their front teeth as they play and to blow a faster air stream. If the student is not biting, the problem most likely is a tight throat. Tightness in the throat can result from a student trying to overpower the resistance in the mouthpiece or hardness of a reed. Tell the student to let the mouthpiece and reed do more of the work. The pressure created by the air stream should lean up against the resistance of the mouthpiece but not overpower it. Also, the student should feel like the upper part of their lungs, at and just below the collarbone area, needs to be relaxed and somewhat expanded. I sometimes refer to this as clarinet chest voice.

Dark unfocused/unstable/airy sound

- Check mouthpiece and reed to make sure the setup is adequate.
- Embouchure is probably too loose. Squeeze the embouchure into a firmer smaller hole and use a faster air stream. Push the sound to the front of the face and maybe try using more jaw pressure.
- Tongue position is wrong, make sure student is playing with an "eee" vowel.

Different tones for slurring and tonguing

- This is a very common problem that is usually caused by a loosening of the embouchure while articulating. Have the student slur the passage with a good firm embouchure. Next, have them tongue as legato as possible keeping the same tone and firmness. Gradually shorten the length of the articulation while maintaining a good sound until the appropriate length is achieved. Often times I will instruct the student to have harder lips and a firmer embouchure while articulating.
- There may be too much tonguing motion. Keep an "eee" vowel and have the tongue touch the reed, not push off of it. Think a “knee, knee or thee thee tonguing stroke, not a too too stroke” Also, keep the embouchure firm. A loose embouchure enables the tongue to move more than it should.

Different tones for technical and lyric playing

- A loose embouchure is the most common reason students lose their tone in technical passages. Keep the embouchure in a small firm “ooo” shape.
- Make sure the diaphragm muscle isn’t too tight review practice of fast effortless air speed
- Insist on a good tone always during technical passages!!!!

Sudden timbre shifts within a line

- Lack of concentration on a stable good sound. Usually this occurs when students are not listening to what they are doing while changing dynamics, accents and other markings. I usually refer to this as playing with the eyes and not with the ears.
- Reed is too light and /or unstable. A loose embouchure often accompanies a reed like this

If you have any questions or comments on today’s presentation, please feel free to contact me at Texas Tech University.

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