Better Saxophone Sounds, Classical and Jazz:
Advanced Techniques for Beginners and Fundamental Techniques for Professionals

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The factors that determine sound quality can be grouped into three categories. In order of importance they are: 1) concept defined as a clear aural image of what we want to sound like acquired through repeated listening, 2) how we play including embouchure and airstream focus based on the oral cavity (tongue position), and 3) equipment, primarily the mouthpiece and reed combination. There is not much to say about categories 1 and 3. So, we can dispense with them first.

Concept

The only way to sound like the players we admire is to listen to them enough so we immediately recognize when we are getting close to that sound and that any other sound concept is unacceptable. Like "the force," the concept must be strong.

Equipment

Regarding equipment, there are too many choices available to make a short list of recommendations that would be the best choice for everyone. The list that follows are "safe bet" recommendations based on my own experience with them and the fact that they have proven to be successful for many players. Other choices may work just as well or better for you. Consultation with a teacher is highly recommended. Regarding the sax itself, it is more important that the sax be in good adjustment with no air leaks and no unusual intonation characteristics than that it be an expensive professional model.

Mouthpiece: Classical - Vandoren Optimum AL3 (alto), (SL3 for soprano, TL3 for tenor, and BL3 for bari), Selmer S - 80 w/C* Tip opening , or Theo Wanne "Water" (only available for alto)
Jazz Alto - Meyer 6 or 7, medium chamber

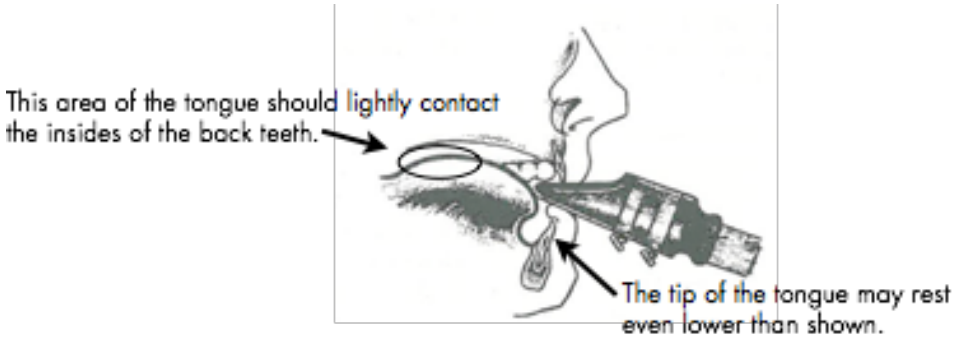
Jazz Tenor - Vandoren V16 T7 (hard rubber or metal), Jody Jazz HR 6, 7, or 7*, or Otto Link 7* (HR or metal)

Reed: Classical – Vandoren V12 strength 3, or Vandoren "blue box" strength 3 1/2.
Jazz - Vandoren Java 3 (A wider tip opening on the mouthpiece requires a softer reed than a closed tip opening.)

How We Play

Focusing the Airstream with the oral cavity:

The throat must be relaxed and allowed to stay open. The tongue must be relaxed wide and allowed to remain in its natural arch while playing. You should feel the insides of your upper molars on the sides of your tongue while playing. Imagine you are making the
vowel sound "EE."



Embouchure:

Variables we can control

1) Amount of mouthpiece taken into the mouth.

   Aim the lower teeth at the "fulcrum" (the point where the reed separates from the mouthpiece).

2) Amount of lower lip rolled in over the teeth.

   Say "VEE." The point on the lower lip that is touched by the upper teeth should touch the reed first.

3) Amount of pressure against the reed.

   Not too much, and not too little. Experiment to find the amount of pressure that yields the greatest resonance and a centered pitch.

Of course, changing the embouchure results in changes in sound and pitch. Less obvious is how the tongue position affects both.

<u>Intonation</u>

On most saxophones the following tendencies exist:

1) Middle register (B, C, & C#) is relatively flat.
2) Middle D is relatively sharp.
3) High register (high C# & above) is relatively sharp.
4) Low D is relatively flat

Learn to compensate for these by pushing the mouthpiece in enough to keep the middle register up to pitch. Then, bring the sharp notes down by slightly relaxing jaw pressure and/or the embouchure, and/or adjusting the tongue position down and back. (The mouthpiece and overtone exercises described below are a great aid to adjusting intonation.)

Classical Sound versus Jazz Sound

Besides using different mouthpieces and reeds, there is much we can change about "how we play" to make our sound conform to our "concept" of a characteristic jazz or classical sound. It's an oversimplification to say that a jazz sound is louder and brighter than a classical sound, but that's a good place to start. Assuming we have established a good, basic classical embouchure, the following changes can create a "jazzier" sound:

Embouchure:

1) A bit less pressure. This will allow the pitch to drop so we must push in.
2) A little more lower lip rolled out. This allows the reed to vibrate more freely.

Tongue position:

This could vary depending on the sound we're going for. But, generally, the flatter, less arched tongue position creates a "honkier" sound. I use this technique if I'm going for a more commercial or funkier sound.

Gaining control of all the variables in embouchure and tongue position can be facilitated by a few exercises. These can be done by beginners, but are also great for experienced players to continue to refine and maintain control of the instrument.

Mouthpiece Exercises

Any deficiencies we may have on the saxophone become much more obvious when playing the mouthpiece by itself. If we can learn to control our sound, pitch, and articulation on the mouthpiece, all those things become much easier and are much improved on the saxophone.

1) Learn to produce a big, steady, and clear sound playing only the mouthpiece.

2) Produce a desired pitch on the mouthpiece. (Concert C for soprano, A for alto, G for tenor, and D for bari, or slightly lower for each when using a jazz mouthpiece.) Start with an arched tongue position, as if making the vowel sound "EE." If the pitch is higher than desired, relax the jaw pressure but maintain the "EE" vowel sound.

3) Learn to articulate clearly without changing the pitch. This is usually a matter identifying and eliminating any motion of the jaw and minimizing unnecessary movement of the tongue.

4) Learn to move the pitch down and back by changing (independently) the tongue position and jaw pressure. The pitch is changed the same way we change the pitch while whistling. At first you may barely be able to move the pitch at all. Eventually, you will be able to play scales and melodies.

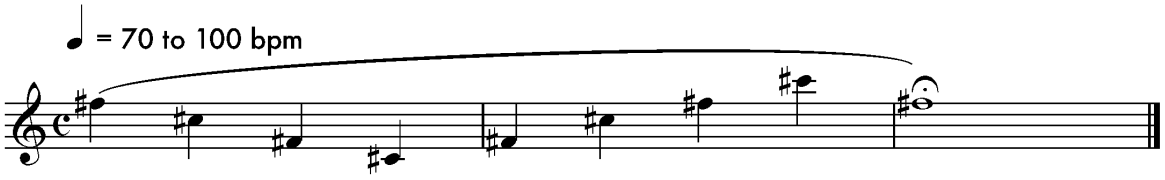
Tuning

1) Tune a written, fifth line F#. Be sure to play just as you did on the mouthpiece, with the same amount of pressure, air support, tongue position, etc.

2) Check the middle, open C#. If it is flat, push the mouthpiece in just enough to bring it up in tune. Recheck the F#. If it is sharp, relax jaw pressure slightly.

3) Check all F#s and C#s on the horn. These are good notes to check due to the tendency of the middle C# to be flat and the higher C# to be sharp. The intervals of 4ths and 5ths are good intervals to hear intonation. We must push the mouthpiece in enough to bring flatter notes up and learn to bring the sharper notes down by the way we play them.(Relaxing jaw pressure and/or changing tongue position.)

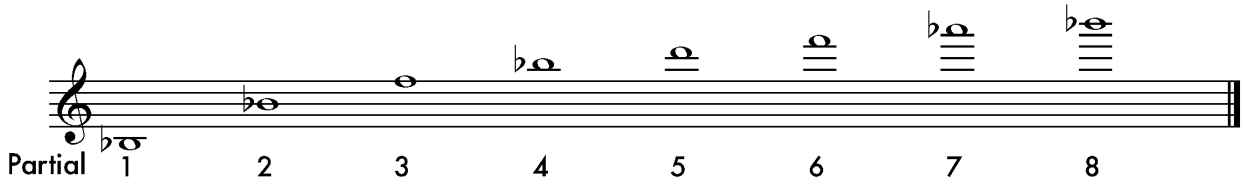
4) While sustaining the concert A and E (for alto) or E and B (for tenor) on a keyboard, slur through the sequence below. Listen not only for intonation, but also for complete connection from note to note and a uniform tone quality. The high F# could also be included.



Overtones

Countless books and internet videos address playing overtones on the saxophone. Rather than a lengthy discussion on the topic here, I will present the basics and a couple of exercises to get started.

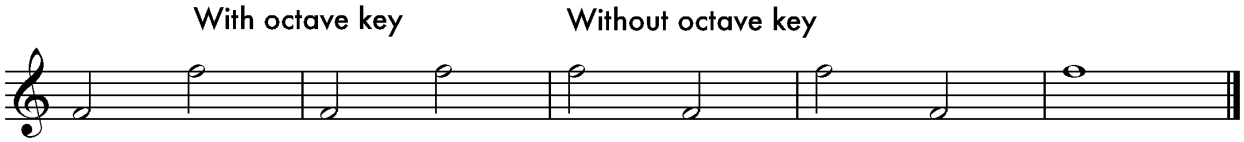
All sounds produce a fundamental pitch and a series of overtones referred to as partials. Brass players must learn, very early, to select among several partials available with each valve combination or slide position. We can do this on the saxophone as well, with tremendous benefits to all elements of our playing, including learning to play in the altissimo register.
When fingering a written low B-flat, the following overtone partials are created and available to be selected for emphasis.



Virtually all beginners play an overtone the first time they try to play a note in the lowest register. For example, fingering a low C usually produces a third space C. Gaining control of this phenomenon is our goal.

In his book, *Voicing: An Approach to the Saxophone's Third Register*, Donald Sinta recommends an introductory exercise in which we alternate between low and middle F without using the octave key. A

good approach to this, one that even beginners are able to do, is to alternate playing a low F and middle F several times, with the octave key, then repeating the upper F without using the octave key. It is very important to avoid using extra jaw or embouchure pressure to produce the upper octave.



When you can do this comfortably, move to the nearby notes (the E below, the F# above) until you can do it on every note from low G down to low B-flat.

Next, work on gaining control of the third partial. Start by playing a fifth line F with the normal fingering, including the octave key. Continue holding the F as you close additional keys in the following order until you are fingering a low B-flat with the octave key while continuing to sound the middle F.

1) Close the low B-flat key.
2) Close the low C key.
3) Close the other right-hand keys.

The next step is to be able to select between the low B-flat and the middle F, the same way you did between the low and middle Fs. Keep all the keys closed and move between the 1st and 3rd partials. If you need to use the octave key for a while, that's fine. But, if you do this regularly, soon you will not need the octave key. Remember not to add pressure for the upper partials.

Do the same using low B and Low C as the fundamental. (It gets more difficult with D-flat and D, but the same principles apply.) Take a similar approach to getting control of the 4th, 5th, and higher partials.

There are many exercises utilizing overtones including:

1) Matching the sound characteristic of the regularly fingered note with the overtone on the same pitch. (Often called "tone matching")

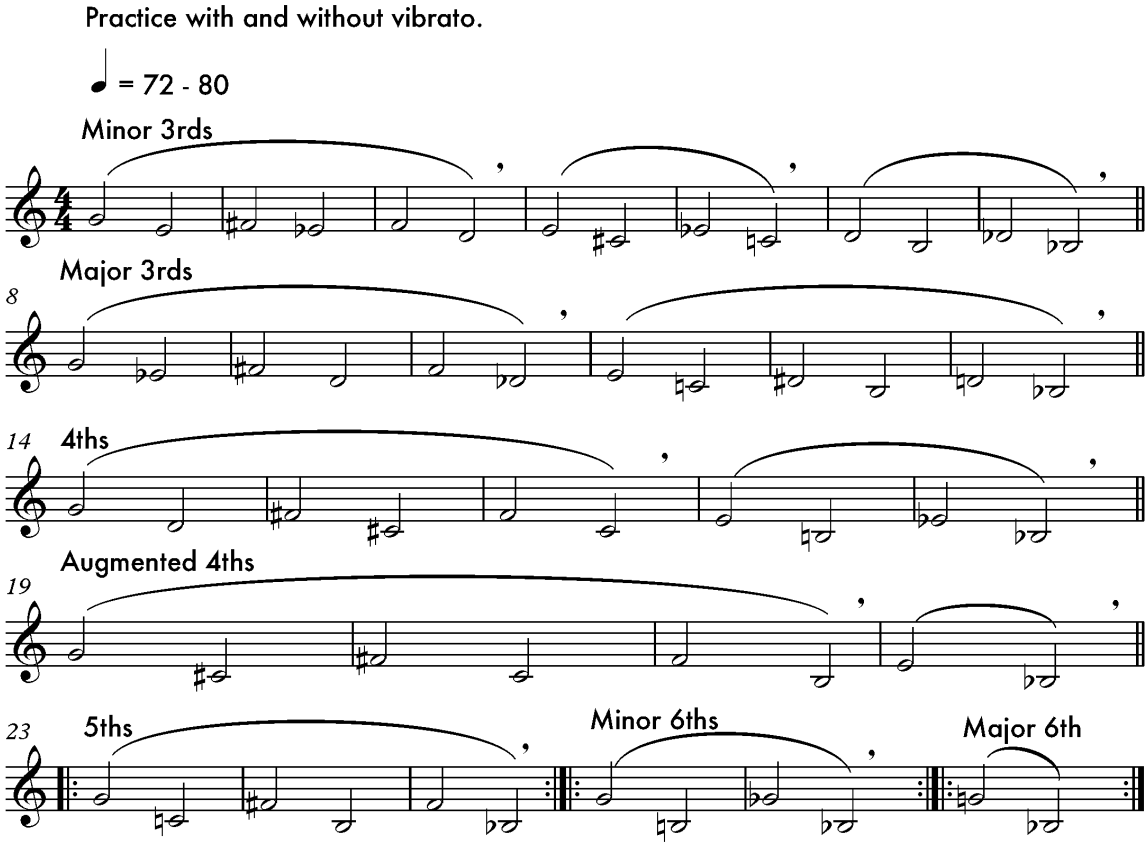
2) Playing the third partial, relaxing the upper lip and letting the fundamental sound, without dropping the jaw. This is a good exercise to help correct a bunched chin.

These two exercises were introduced to me by my teacher at the University of Northern Colorado, Roger Greenberg. He credits Joe Allard for emphasizing the importance of overtones to him as he did with so many students who went on to great success including jazz tenor sax greats, Bob Berg and David Leibman. In fact, Bob Berg once told me that he owes finding his own sound to Joe Allard.

Of the many excellent books addressing overtones on the saxophone, I recommend starting with *Top Tones for Saxophone* by Sigurd Rascher.

Low Register Development

Perhaps because of the fact that the saxophone is a conical bore instrument, the low register can be particularly challenging for many. The exercise shown below can be helpful. DO NOT drop the jaw to try to help low notes speak easier. It doesn't work. Maintain a constant, moderate jaw pressure. Work to focus the airstream so it is efficient and makes the reed vibrate. As the interval expands, it may become harder to make the low note respond without a break in the sound. Repeat those intervals, making adjustments to embouchure and air support until the connections are seamless. Remember not to change anything as you go to the lower note. We are looking for that way of playing the horn that makes it respond the same in all registers.



Summary

Producing a quality of sound that is pleasing and appropriate for the style of music is very achievable if we understand the three main factors that affect our sound. First, we must develop a strong concept of what we want to sound like. This, of course, is achieved through repeated critical listening. Then, through deliberate exercises such as those presented here and others, we can learn to shape our sound with adjustments to the embouchure and by the way we focus the airstream. Finally, we must select the right equipment (mouthpiece and reed combination) that gives us the best chance of producing the sound we want. The saxophone is one of the most sonically flexible instruments. The adventure lies in acquiring the tools to explore its vast array of sonic frontiers.