

Sound Concepts for the Saxophonist

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The saxophone, unlike other instruments did not evolve, but rather was invented. It is a hybrid that possesses characteristics from both the woodwind and brass families. Because of its construction, the saxophonist can potentially produce a sound as powerful and dynamic as a brass instrument while matching the sensitivity and technical facility of other woodwind players.

Sound - The Foundation

Whether one is a beginner or advanced player, basic fundamentals are necessary. This entails the two "T's" – Tone and Technique. In many instances the "T's" are inter-related and are directly dependent upon air support. Air support is the instrument's lifeline, and how it is used determines sound quality. Further, and arguably just as important, it is the means to shape the sound and musically express through the instrument. In the development of a good foundation, however, there are other areas of attention to consider.

1) Assembly - A routine is important. This begins with putting on the neckstrap and installing the mouthpiece on the greased saxophone neckpiece. Place the ligature and reed on the mouthpiece, making sure that the reed is flush with the rails and tip of the mouthpiece. Once the reed is correctly secured in place, the player can do a blow-check to make sure the sound and resistance are correct. The last step in the assembly of the instrument should be aligning the mouthpiece apparatus on the body of the saxophone.

2) Posture (sitting, standing, expressive movement) - Good posture optimizes airflow, reduces neck or back tension, and acts as an agent to heighten on-task behavior. Good posture includes: sitting alert without slouching, paying attention to head position (centered to the upper torso and without abnormally tilting or protruding forward or backward), and an adjusted neck strap so that the mouthpiece can be placed in the musician's mouth without adjusting the head up or down or from side-to-side to accommodate the individual's natural posture. Whether sitting or standing, the position of the saxophone should remain relatively the same to the player so that the hand, head, and body positions do not change whatsoever. If and when the saxophonist moves as a part of emoting in a musical way, the head and upper torso and hand positions should remain relatively the same. Expression should generally be the result of moving or pivoting at the waist.

3) Hand/Finger Position - The left and right hands should each be formed similar to holding a baseball, and because of this, the hands will not inadvertently depress the palm (left hand) or side (right hand) keys. The fingers should not be acutely curled, but naturally curved and available to depress the keys like little levers. The left thumb should be planted on the backrest and operate like a hinge when depressing and releasing the octave key. The right thumb

guides the position of the saxophone to the player, and should be placed under the curved thumb rest approximately at the middle of the individual's thumb joint. The little finger of the left hand should gently touch or barely hover over the G# table key while the little right finger should be similarly positioned at the Eb or low C key. The fingers of both hands should gently touch or barely hover over the pearl keys (fingerings for B, A, G with the index, second, and third fingers respectively of the left hand and F, E, D with the index, second, and third fingers respectively of the right hand).

4) The Breath - Inhaling should be done through the corners of the mouth. The throat must remain open and relaxed, allowing one to feel the coolness of the air at the back of the throat, similar to yawning. Fill the lungs with air like a glass of water, from the bottom-up. Exhaling should be immediate with no stoppage or air lock-up in the lungs. Through the inhaling/exhaling process, the shoulders should remain relaxed while avoiding vertical movement. Helpful hint: visualize the lungs, windpipe, and instrument as one air-column.

5) Air Usage - Hot or cold? Set the oral cavity using a hot air approach similar to fogging up eyeglasses. Support and sustain by blowing with degrees of coldness or air speed.

6) Oral Cavity - The tongue must remain down at the back of the throat. "AH" or "OH" is desirable and not "EH" or "EE". Form the middle and the front of the tongue like a chute for the air to pass directly to the tip of the reed. Imagine the instrument as an external voice box; similar to speaking, the tongue/throat position determines tone quality and timbre.

7) Embouchure Formation - A good embouchure allows one to play with a full and steady tone in all ranges with minimal effort. The standard rule is avoiding puffing cheeks and chin muscle dimples. The muscles of the mouth should surround the mouthpiece like a rubber band or drawstring, providing equal support to the reed and mouthpiece, similar to whistling or saying "DOO" or "OOO". Too much or too little bottom lip over the teeth will unfortunately form chin dimples. While maintaining an "OOO" embouchure formation, the bottom lip should be slightly stretched against the bottom teeth, not just folded over them. To accomplish this, maintain a pointed chin ("ski slope") similar to sucking on a straw in a thick milkshake. The bottom lip not only serves as a cushion but also supports the reed.

8) Mouthpiece Placement - Even if the embouchure is set correctly, too much mouthpiece and the tone will "spread" while too little and the tone will be small, thin, and fuzzy. Sometimes a mouthpiece placement problem arises when the student switches back and forth from a classical to a jazz mouthpiece, or from a larger to a smaller saxophone (or vice-versa). For correct placement, the top and bottom teeth should be aligned and positioned at the point where the reed separates from the table of the mouthpiece (see Figure 1). In all instances, the top teeth should be firmly anchored on top of the mouthpiece.

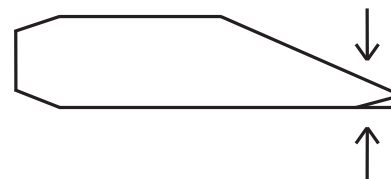


Figure 1 - arrows indicate correct top and bottom teeth placement

9) Embouchure and Reed Strength - If there are issues with embouchure pressure (too loose or tight), mouthpiece placement, and/or reed strength (too soft or hard), this will negatively affect responsiveness and/or pitch. Figure 2 is an example of a quick check exercise to assess if all areas are correct.



Figure 2 - octave response exercise

SOUND CONCEPTS FOR THE SAXOPHONIST

10) Mouthpiece Pitch - Figure 3 below indicates concert pitches. Match at a *f* - *ff* dynamic level.



If the mouthpiece pitch is too high, relax the embouchure and/or the throat. Once the desired pitch is attained, then tongue repeatedly with the goal to maintain the same steady pitch.

11) Long Tones and Sample Exercises - Long tones are like "Getting to Know You" from the musical, *The King and I*, where there are opportunities to become intimately acquainted with the instrument's tonal/pitch tendencies and idiosyncrasies. Work with a tuner and sustain pitches through gradual dynamic changes; pay attention to the embouchure and what subtle adjustments are necessary to maintain a steady pitch (see Figure 4). Work for an open resonating sound in all ranges, and strive to maintain equal tone color from pitch to pitch (see Figure 5). For the extreme ranges start on the lower pitches: D below the staff, then Db, C, B, and Bb (see Figure 6). Similarly explore the higher part of the range starting on D above the staff, then D#, E, F, and F# (see Figure 7). While working on long tones, it is essential to use lots of air support and shape them to give meaning in a most fundamental way. Avoid the one-note-at-a-time syndrome that creates abrupt or uneven musical lines. Learning to blow through the lines or phrases smoothly is an important step, and moving from range to range on the instrument should not impede airflow. Through this process, one can experience the feeling of connecting the notes together, like beads on a string represented as notes linked by a strong air column. Chromatic scales/patterns are particularly useful and can be considered like a "multi-vitamin", to be taken daily. A 1-2 minute chromatic workout at the beginning of the practice session is helpful to: reinforce note connection with the sensation of playing long tones and shaping of lines, reinforce fingers to play evenly (muscle memory), and develop consistent tone color throughout the ranges of the instrument.



Figure 4 - tuning and control of long tones through dynamic changes



Figure 5 - sample tone and tuning interval/range control exercises



Figure 6 - low register control exercise

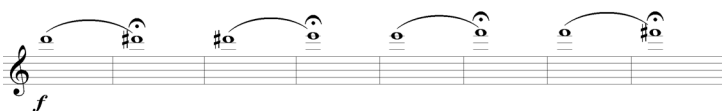


Figure 7 - upper register control exercise

12) Vibrato and Pitch Control - Emulate the vibrato of an accomplished vocalist or string player. Practice blowing with the mouthpiece and neckpiece alone, striving for a clear, full, and steady tone. Repeat the exercise with vibrato, concentrating on uniform speed and depth of each undulation (see Figure 8). Acceptable vibrato speeds are between a quarter note = 60 – 80 in 16th notes. Practice with a metronome using the syllables "VU-VU-VU-VU" or "WU-WU-WU-WU", similar to the concept of chewing gum. In the early stages the vibrato may sound choppy (see Figure 9) and/or uneven (inconsistent depth and width undulations) (see Figure 10). With time and practice, strive

to produce a "spinning" vibrato and independent from the pulse of the music (see Figure 11). The bottom lip should press into the reed as much as pulling away from it. Just pulling the bottom lip away from the reed will lower the center of the pitch (see Figure 12). Slightly playing on top of the pitch is a technique to avoid playing flat in any register, particularly at louder dynamics. Through the process of mastering vibrato, the student will discover that some pitches are easier to control than others. Thus, it is critical to spend quality time producing vibrato on pitches that are more difficult. The ultimate goal is to produce an even and controlled vibrato in all ranges of the saxophone along with the ability to change width and speed according to the dynamic and style changes of the music. Aesthetically, a controlled vibrato also becomes another means to enhance musical expression.

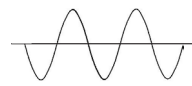


Figure 8 - even vibrato around pitch center



Figure 9 - choppy vibrato (early stages)



Figure 10 - uncontrolled vibrato

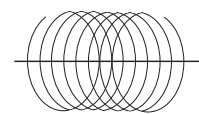


Figure 11 - "spinning" vibrato around pitch center (preferred)

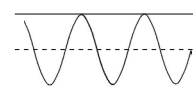


Figure 12 - vibrato below pitch center

13) Articulation - A simple exercise is to start the tone with the air. In slow motion stop the sound with the lightest tongue possible and then release it. Keep continuous air pressure behind the tongue (see Figure 13).

Figure 13 - air stream interrupted by tongue



Repeat this cycle several times while gradually speeding up and maintaining the same audible attack and release. Note: the tip of the reed should come in contact slightly back from the tip on the upper side of the tongue. If the attack and release are correctly executed, the student will potentially tongue as fast as he/she can repeatedly say the syllable "TOO" or "DOO". A simple but effective tonguing exercise includes fast repeating notes, concentrating on clarity and evenness (see Figure 14).



Figure 14 - sample tonguing exercise with repeating notes

It is crucial to differentiate between articulation styles, and be able to produce them without "popping" the notes. The tongue releases in the same manner whether playing staccato, marcato, legato, tenuto, neutral, etc. Thus, style is created through the control and shaping of the air immediately after the tongue releases from the reed. Emulate the articulation style and approach to that of a bowed string instrument, i.e., attacks and releases. String instruments are acoustic and constructed with a hollow body, allowing the sound to resonate naturally unlike wind instruments. When the wind player stops the air, the sound abruptly stops. Thus, learn to subtly taper pitches by artificially inducing sound decay at the ends of phrases and articulations to match an acoustical sound.

14) Tongue/Finger Coordination - Combine tone and technique development through the use of scales and scale-related exercises (chromatic, major, harmonic/melodic minor, etc.), utilizing the full range of the saxophone and the use of a metronome at various tempi (see Figure 15). It is helpful to memorize scales and/or related exercises so that full attention can then be placed on sound and coordination. An excellent exercise includes practicing slurred scales/patterns, and then applying a variety of articulation patterns (see Figure 16).



Figure 15 - sample tongue/finger coordination exercise 1



Figure 16 - sample tongue/finger coordination exercise 2

15) Alternate Fingerings for Venting/Tuning - Alternate fingerings can serve three functions to: provide the desired timbre change, adjust for blending/tuning, and sometimes allowing the player to play with improved technical fluency in a given musical passage. Pressing key(s) will either vent (to raise the pitch) or lengthen the air column (to lower the pitch). An excellent resource is *Hello! Mr. Sax.* by Jean-Marie Londeix (Alphonse Leduc) (see Figure 17).

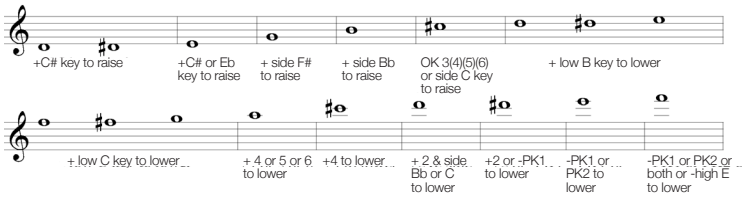


Figure 17 - common notes to alter for blending/tuning

16) Practicing - A productive routine can include: long tones (10%), scales with a variety of articulations (25%), studies/etudes (25%), repertoire (30%), and sight-reading (10%). Quality practice in an environment without distractions is key. Attention to sound and awareness to all nuances of one's playing can be educational. When appropriate, try practice episodes in a quiet dark room so more attention can be shifted to the senses of touch and hearing. Audio and/or video recording sessions are useful to provide objective feedback. A helpful mindset: while practicing/performing also be the listener/audience.

When approaching new music, theoretical, historical, and aesthetic inquiries should be a part of the learning process. Where necessary, systematically work through the music slowly with a metronome. An established system of marking the music is helpful to expedite progress. Trills, turns, grace notes, mordents, and any other ornamentation can be initially left out (unless it does not interfere with the rhythms) and then added later. Technical challenges within the music should be isolated and played through slowly, but evenly. Correcting uneven 8th and/or 16th rhythms, can be accomplished by incorporating alternate fingerings (where applicable) that idiomatically make sense. Consideration should be made also to practice these problematic sections to other rhythms in a slurred fashion such as triplets or double-dotted rhythms, and then back to the original as a means to gain dexterous control. As one progresses, it is also helpful to "finger practice" with the use of a metronome both slowly and up-to-tempo, concentrating on precision. At the same time, speak the articulations to coordinate with the fingers. Strive to play true dynamics, and only produce *f* and *ff* levels as control of pitch and tone will allow. Dynamic contrast is not only gauged by how loudly one can play, but also the ability to control the softest area of this spectrum. As dynamics decrease, intensity should increase to maintain pitch and connection through the musical line. Properly connecting notes at *p* and *pp* levels can be experienced like the sensation of a "screaming whisper".

17) Standard Repertoire - There are several resources available to guide the classical saxophonist in choosing repertoire such as *A Comprehensive Guide to the Saxophone Repertoire* by Jean-Marie Londeix (Bruce Ronkin Books). This resource is a compilation of all pertinent solo and chamber literature written for the saxophone from 1844 to 2003.

18) Aural Sound Concept - Listen-Absorb-Emulate! Whether pursuing classical or jazz, the student who studies with a qualified instructor has the opportunity to model their mentor's sound. Recordings of professional players are also very helpful. With the use of the Internet, downloads are readily available. A resource site for the classical saxophonist is <http://www.saxalliance.org/discography.html>.

The "jazz" vs. the "classical" sound not only involves differences of approach (articulations and timbre variations), but use of different mouthpieces. Generally jazz musicians play on mouthpieces with a longer lay (the distance between the point where the reed departs from the table of the mouthpiece to the tip) and/or a larger bore. The longer the lay, an increased mouthpiece placement is needed and generally the need for a softer reed strength. A longer lay in combination with a larger bore allows the player to produce a bigger sound.

19) Ensemble Role - The saxophone with its unique tone color and capabilities can project through an ensemble when needed, such as in solo passages. It is important for the saxophonist/section to balance with other players/sections, but generally not to dominate unless clearly indicated. As the "mediator" (hybrid) of the ensemble it is the role of the saxophonist/section to support other instruments/sections and "get into the sound colors" of the other instruments whether playing accompaniment or melodic lines.

20) Equipment - Decent equipment is paramount including a standard and reputable name brand mouthpiece, ligature, and instrument in good playing condition. Be vigilant because trendy brands, products, and accessories do not address the saxophonist's needs. Purchase the highest quality saxophone one can afford, particularly when upgrading. If one cannot upgrade due to financial reasons, purchasing a professional model mouthpiece is an acceptable compromise. Good equipment also includes reeds. The best option is choosing a professional brand name that has an established reputation. It is crucial to purchase several reeds at a time. Equally important is rotating at least four reeds at a time in one's practice/performance routine. This is important as it not only avoids the embouchure conforming to one reed in any given time period, but one then has several back-ups. Reeds will eventually lose strength and sound quality over time, but not as quickly when rotating them. When reeds get soft they tend to produce a "buzzy" sound making it difficult to blend with other instruments. Most beginning players start on a 2-strength reed and as they advance, reed strength should be increased. Most professional players settle around a 3 - 3.5 strength reed. Specific information concerning reed adjustments can be found in *The Art of Saxophone Playing* by Larry Teal (Alfred Music Publishing).



Glen Gillis, Associate Professor of Music, teaches Saxophone and Music Education, and directs the Concert Band at the University of Saskatchewan. As an Associate of SOCAN (Society of Composers, Authors, and Music Publishers of Canada), his diverse musical career has spanned over three decades. In 2009 he released *SaxSpectrum* through *MSR Classics* (MS1328), displaying many of his compositions and commissioned works, all world premiere recordings. Dr. Gillis has performed at numerous national and international saxophone conferences, recorded for CBC Radio, and frequently served as artist-in-residence at The Banff Centre in Alberta. His articles on saxophone pedagogy, music education, and wind/orchestral conducting can be found in the *Canadian Music Educator* and *Canadian Winds*. His compositions are published through Eighth Note Publications. Other information and sound clips can be found at www.glengillis.com.

Dr. Gillis is sponsored by *Conn-Selmer*



Sample Reputable Saxophone Mouthpieces

Classical

Soprano

Selmer S-80 - C*, C**, D, (rubber or metal)
Bamber 5, 6
Rousseau 3R, 4R, 5R
VandorenV5 S15
Vandoren Optimum SL3, SL4

Alto

Selmer S-80 - C*, C** (rubber or metal)
Selmer S-90 - 180, 190, S125 (160)
Larry Teal (Selmer)
Vandoren A27, AL3, V5 A28
Rousseau 4-R, NC4
Meyer 5 medium
Bamber 5, 6
Bilger-Morgan M2, R3

Tenor

Selmer S-80 - C*, C**, (rubber or metal)
Selmer S-90 - 180, 190, 200
Larry Teal (Selmer)
Meyer 5 medium
Rousseau 4-R
Bamber 5, 6
Bilger-Morgan M2, R3
Vandoren T20

Baritone

Selmer S-80 C, C*, C**, D
Selmer S-90 - 180, 190, 200
Rousseau 4R, 5R
Bamber 5, 6
Vandoren V5 B25, B35

Jazz

Selmer S-80 - D, E, F
Bamber 6, 7
Meyer 6 medium
VandorenV16
Otto Link Tone Edge 5*, 6, 6*

Selmer D, E, F, rubber or metal
Couf 6, 7
Meyer 6, 7 both medium
Beechler M5S
Lakey 6*
Otto Link 6, 6*, 7, 7*, 8, 8*
Brilhardt 6, 6*, 7, 7*
Vandoren V16 A5, A6, A7, Java A35

Selmer D, E, F metal
Otto Link 6, 6*, 7, 7*, 8, 8*
Berg Larsen 90, 95, 100, 105, 110, 120, 130
Meyer 6, 7, 8
Vandoren T45, T55, T75
Brilhardt 7, 7*, 8, 8*, 9, 9*
Dukoff 7, 7*, 8, 8*, 9, 9*, 10
Lakey 6*3, 7*3, 8*3, 9*3

Berg Larsen 110
Otto Link 8, 8*, 9, 9*, 10, 10*
Rouseau JDX 5
Meyer 7, 8 both medium
Brilhardt 7, 7*, 8, 8*, 9, 9*

Sample Reputable Ligatures

Selmer Stock or Inverted, BG (Standard, Revelation, Super Revelation, Metal), Bonade, Vandoren Optimum, Winslow, Bay

