

Extended Techniques for Saxophone

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Basic Techniques for Saxophone Overview

- In order to perform extended or advanced techniques, the saxophonist should have command and control of the following:
 - Breath support and air usage
 - Hand position and finger movement
 - Embouchure
 - Articulation - using tongue

Extended Techniques For Saxophone

- Extended techniques involve the manipulation of pitch, air column, fingering combinations, and articulation to create a wider palette of colors, tones, and sounds.

List of Various Extended Techniques for Saxophone

- Pitch bending - scoops, falls, and “doits”
- Vibrato - wide vs narrow, fast vs slow
- Altissimo - Extending the higher range of the saxophone
- Circular Breathing - Taking a breath without stopping the sound while playing
- Double/Triple Tonguing
- “Muffle” Tonguing - used a lot in jazz and bebop
- Slap Tonguing - using the breath and tongue to create a “popping” sound
- The “Growl”
- Subtone and Multiphonics

Pitch Bending - Scoops, Falls, and “Doits”

- Adds character to notes
- Useful in improvisations and in reading jazz ensemble parts
- Overuse can sound immature or inexperienced

Pitch Bending - Primer

- Pitch bending is a result of the manipulation of:
 - Air column
 - Embouchure
 - Lip/Jaw pressure

Pitch Bending - Primer

- First attempt bending the pitch using just the mouthpiece and reed
- Start by blowing through the mouthpiece to create a high pitch sound
- While continuing to blow, open the jaw slightly while maintaining lip contact with the reed and mouthpiece
- Also while blowing, slowly form the syllable “ahhh” with the back of the tongue. This opens the throat (air column) and allows for the pitch bend to happen gradually.
- This should make the pitch “bend” lower. Doing the opposite will make the pitch “bend” higher
- *See masterclass video for demonstration*

Pitch Bending - 1. Scooping

- With the saxophone assembled, try bending the pitch down on one of the upper register notes (G, A, B, C with the octave key pressed)
- Have a tuner in front of you and see if you can bend the pitch by one half step. Then by one whole step.

Pitch Bending - 1. Scooping

- To scoop the pitch up, start with the lowered pitch. (Opened jaw and throat)
- Relax the embouchure just a bit. Have a tuner in front of you.
- Try to play one of the pitches “bent” and then bring your embouchure and jaw pressure back to normal.
- This is how you “scoop.” Indicated by an upwards curved line before a note on sheet music

Pitch Bending - Addendum to Scooping

- To really master pitch bending and scooping, a good thing to practice is to attempt: 1. A Siren noise, and 2. Playing a major scale.
- 1. Siren - Start high (or low) and gradually bend the pitch in the opposite direction (demonstration on video)
- 2. Major Scale - Start at a very low pitch and attempt to play an ascending major scale. Using a tuner will assist you in accurately hitting each pitch.
 - Moving from pitch to pitch requires control and very subtle movements with your embouchure, jaw/lip, and air column.

Pitch Bending - 2. Falls

- A fall is a short pitch bend or a long “glissando”
- Using the same technique to bend the pitch down, a fall can be short or long.
- Short fall - bend pitch down quickly
- Long fall - bend pitch down over time
- Both fall types can be used in combination with fingers pressing keys down rapidly to help bring the pitch down more significantly
- *See demo in video*

Pitch Bending - 3. “Doits”

- A “doit” (pronounced “doh-eet”) is creating an ascending pitch bend which can be short or long.
- Use the same starting point for a scoop, but add the lifting of fingers and tightening of the throat and jaw/lip pressure.
- *See video for demonstration*

Vibrato

- Vibrato is the bending of pitch while staying on one single note.
- Think of an opera singer or a classical flute or string player. They create vibrato on held out notes to add character.
- Vibrato can be used in multiple styles of playing. Players from the early jazz period and swing era used a lot of vibrato
- Vibrato became more reserved for jazz saxophone players as time passed and players would use a variety of types of vibrato

Vibrato

- Create vibrato by doing small pitch bends. Usually controlled by opening and closing the jaw rapidly.
- Doing the exercises for pitch bending will assist in creating various degrees of vibrato

Vibrato

- Wide vs Narrow
 - Wide vibrato indicates a great variation in pitch bend
 - Narrow vibrato has very little pitch bend
- Fast vs Slow
 - Fast vibrato indicates more vibrato “pulses”
 - Slow vibrato indicates less vibrato “pulses”
 - *See demonstrations in video*

Altissimo - Primer

- Altissimo refers to the extended upper range of the saxophone (notes above written high F)
- Altissimo is used extensively among professional players of all styles including: classical, jazz, rock, funk, R&B, fusion, etc.
- Can be performed on all saxophones: alto, tenor, baritone, soprano

Altissimo - Primer

- Most altissimo practice begins with the study of “overtones”
- Here is a good article on overtones to get you started: <https://tamingthesaxophone.com/lessons/tone-sound/harmonics-overtones>
- I will scratch the surface for the purpose of this masterclass

Altissimo

- Practice the overtone series on your saxophone, starting with low Bb and chromatically making your way to low D.
- This is more difficult on the higher pitched saxes (alto, soprano) than the lower pitched ones (tenor, baritone)
- The overtone exercises train you to open and close your air column (throat)
- Being able to control the air column is key to getting these altissimo notes to speak

Altissimo

- Special fingerings are required for each altissimo note.
- These fingerings can vary depending on not only the type of saxophone (alto, tenor, etc.) but also the make of saxophone (Selmer, Conn, Yamaha, etc.)
- For some altissimo notes, there are multiple fingerings for the same note. Experiment and find what works for your horn. (A simple google search nowadays will give you a myriad of fingerings)
- *Note - Altissimo notes are harder to produce using a more closed mouthpiece or when using a softer or worn out reed. A harder or stiffer reed will assist in getting the altissimo register to speak.
- *See video for demonstration of altissimo notes*

Circular Breathing

- Circular breathing can be used as a way to keep the phrase going uninterrupted by breath or as a “parlor trick” in improvising.
- This technique involves “storing” spare air in your oral cavity, closing off your throat, and using your nose to inhale while at the same time expelling the stored air out through the mouth into the instrument.

Circular Breathing

- To understand the mechanics of this, begin by filling your oral cavity with air while pursing your lips (puff your cheeks!)
- With your cheeks puffed, you should be able to breathe through your nose.
- With no one else around, expel the air through your pursed lips using only your cheek muscles which should make a weird noise (like a slow leaking balloon). While expelling the air, try to breath in through your nose. This may take practice.
- Another experiment to try is using a glass of water and a straw. Try to blow bubbles in through the straw and keeping the bubbles going while attempting to breathe in through the nose
- *See video for demonstration*

Circular Breathing

- This technique relies on tight lipped embouchure and resistance.
- It is easier to perform this technique on higher resistance horns (alto, soprano) and on softer reeds.
- Here is a brief lesson from a sax player most known for circular breathing... :)
 - https://youtu.be/bkA_pxHaNZQ

Double and Triple Tonguing

- Double tonguing is a common extended technique used when needing to articulate many “fast” notes (smaller rhythmic value notes, i.e. 16th and 32nd notes)
- I also use what I call “triple” tonguing which involves a unique tongue movement on the mouthpiece.

Double Tonguing

- Double tonguing is performed by using the syllables “tuh - kuh”
- The “tuh” is the tongue on the reed while the “kuh” is the back of the tongue on the upper palette
- Start by slowly articulating “tuh” and “kuh” while playing a lower resistance note like B or C.
- This takes some practice, especially for the “kuh” syllable, as more air is needed to produce a tone with this syllable.
- *See video for demonstration*

Triple Tonguing

- I will sometimes utilize triple tonguing as an effect on a single note
- 1. I start with the initial contact of the tongue and reed and instead of retracting the tongue, I extend it forward and above the mouthpiece.
- 2. The second attack is made with the underside of the tongue as I bring it down over top of the mouthpiece/reed.
- 3. The third attack is a normal tongue attack on the reed.
- Repeat steps 1-3 quickly to produce the “triple” tongue.
- This is similar to the brass player technique of doodle/duddle tonguing, which can also be performed on the saxophone.
- *See video for demonstrations*

Muffle Tonguing

- Muffle tonguing is used a lot in jazz and bebop playing.
- The technique consists of placing the tongue on the reed while playing, essentially “muting” or “muffling” the sound.
- Many jazz saxophonists use this technique in order to bring out well-timed accents in improvised lines by muffling certain tones (Charlie Parker, Sonny Rollins, John Coltrane, Dexter Gordon, Cannonball Adderley, etc.)

Muffle Tonguing

- Start by playing a note on the saxophone and slowly bringing the tip of the tongue to the reed.
- Do not allow the reed to stop vibrating! You may need to use more air at first
- Some players choose to use the tip of the tongue to the tip of the reed.
- Other players (myself included) prefer to use one side of the tip of the tongue to the side of the reed.
- I use the left side of the tongue to the right side of the reed.
- Charlie Parker would use this technique in various 16th note and fast note passages, giving the effect of muffling the notes ascending to the goal note of the phrase. This can also be used as a “ghost note” effect for certain notes to create interesting and characteristic jazz accents in a phrase or line.

Slap Tonguing

- Slap tonguing is a technique that produces a “slapping” sound from the saxophone.
- There are two types of slap tongue: Open Slap and Closed Slap
- The Open Slap produces a loud popping sound with some pitch tone
- The Closed Slap produces a “plucking” and “muted” type of sound that sounds similar to a guitar or bass

Open Slap Tonguing

- To produce an open slap tongue effect:
 - Start with the tongue on the reed in normal playing position.
 - Use a quick burst of air into the mouthpiece while also opening the jaw bringing the bottom lip completely off the mouthpiece.
 - This will create the loud popping noise for the open slap tongue. Use different fingerings to vary the timbre of the tone.

Closed Slap Tonguing

- To produce the closed slap tongue effect, start again with the tongue on the reed in normal playing position.
- This time, press the tongue hard against the reed, closing off the opening. The sides of the tongue should also cover the sides of the reed.
- With a burst of air, forcefully pull the tongue down and away from the reed, allowing the air to flow briefly through the mouthpiece. The effect should sound similar to a guitar or bass tone.
- Continue to blow through the horn after releasing the tongue to produce a “muted” type of tone.
- This is a trickier technique to master and will take some practice.

The “Growl”

- The growling technique is used to add character and excitement to your improvisations.
- Saxophone players that used this technique a lot are: Junior Walker, Illinois Jacquet, David “Fathead” Newman, King Curtis, Gato Barbieri, Clarence Clemmons (Bruce Springsteen), many others

The “Growl”

- Growl #1 - Vocal
 - Using the voice while playing can produce a growling effect.
 - The trick is to not vocalize too close to the pitch you are playing.
 - To demonstrate this, try vocalizing the same note you are trying to play...
 - There's no specific rule here except your voice should be further enough away from the pitches to not clash with the frequencies of the pitches. Experiment to see what you like.
See video for demonstration

The “Growl”

- Growl #2 - Flutter tonguing
 - Using the tip of the tongue to create the growl.
 - Use the “rolling R” sound against the reed. If you’ve taken a foreign language, you will know what a rolling R is.
 - This technique is prone to lowering the pitch so be aware.

The “Growl”

- Growl #3 - Guttural R technique
 - This utilizes the guttural R which is produced by slightly closing the throat and allowing your uvula (dangly thing in the throat) to slightly touch the back of the tongue while you exhale through the instrument.
 - The German language and many European language dialects use the guttural R sound. It's almost like a “dry” gargle.
 - *See video demonstration*

Subtone

- Subtone is creating a breathy type of tone on the lower end of the saxophone.
- This can be done by relaxing the jaw a bit and allowing more air into the tone on the lower part of the register.
- It can also be created by relaxing the jaw but NOT the bottom lip.
- This technique is used to create a sweeter and softer, airy tone. Ben Webster, Lester Young, Paul Gonsalves, etc.

Multiphonics

- Multiphonics is using different fingering combinations to produce multiple tones simultaneously.
- These fingerings vary by instrument type.
- Notable players for using these techniques are: Michael Brecker, John Coltrane, Pharaoh Sanders, David Sanborn, Eddie Harris.
- Here is a source for multiphonics:
 - <https://tamingthesaxophone.com/lessons/effects/multiphonics>
 - Also a google search will bring up a few other sources.