

Primer on Saxophone Basics

Sheldon Johnson

Posture and Horn Placement:

Whether seated or standing, proper posture is of utmost importance when playing the saxophone. Improper posture can cause unnecessary tension, premature fatigue, and worst of all, injury.

When standing, the shoulders should remain relaxed (not raised) and the back should be straight. The neck strap should be adjusted so that the chin remains approximately parallel to the floor and the mouthpiece enters the mouth naturally without resting on the lower lip. A quality neck strap is essential to achieve this (Neotechs not recommended).

If seated, one may choose to position the saxophone to the right of the body or if playing alto, in-between the legs. This choice is a personal one, often dictated by the height of the player. Shorter players often find it easier to position the horn to the side, while taller players find it easier to have everything in vertical alignment in front of them. If the horn is positioned between the legs, the player should take care to make sure that the front of the chair nor clothing obstructs the Eb tone hole causing poor intonation. When in a seated position, the player should maintain good posture and position themselves towards the front edge of the chair.

The Embouchure:

Although similar to that of the clarinet, the saxophone embouchure is distinct from that of its woodwind cousin. One of the main differences is in the angle at which the mouthpiece enters the mouth. The saxophone mouthpiece should enter the mouth at approximately a 90° angle. The angle for clarinet is a bit steeper.

The top teeth should be placed on the mouthpiece and should remain in constant contact with the mouthpiece. For players who are bothered by the vibrations of the mouthpiece on their upper teeth, inexpensive mouthpiece patches or cushions are recommended and are a great way to monitor the continued proper placement of the teeth on the mouthpiece.

The upper teeth and lower lip should be placed on the mouthpiece congruently at approximately the point where the mouthpiece begins to curve away from the reed, though this will vary slightly one from player to the next. The “wet” part of both the upper and lower lips should be concealed in a proper embouchure.

The bottom lip should completely cover the bottom teeth and the corners of the mouth should be drawn inward and slightly forward. The vowel sound “ooooo” is helpful in achieving this. The chin should not be “bunched” and no air should escape from the lips.

Though a bit contradictory, a proper saxophone embouchure should be relaxed, yet sufficiently firm without “biting”. This can be checked by using a tuner to check the pitch that is produced with just the mouthpiece and reed. For alto saxophone, anything between an A and a B indicates that an acceptable balance of relaxation and tension has been achieved. A pitch below A or above B indicates that adjustments need to be made. Ideal mouthpiece pitches for soprano, tenor, and baritone are C, G, and D respectively.

Using the Tongue:

One of the most common issues that arises with saxophone playing is that of a heavy initial attack. Due to the acoustical design of the instrument, as well as the relative ease of producing a tone on the instrument (even with bad habits), this is a problem faced by many students and professionals alike.

To remedy this problem, a spot on the tongue slightly back from the tip should be used to tongue on the reed. Additionally, players should avoid contacting the underside of the reed. Instead, this spot slightly behind the tip should contact the front of the reed (being able to feel the tip of the reed and the beak of the mouthpiece simultaneously will ensure that the tongue does not contact the underside of the reed).

A simple exercise to address this is as follows:

1. Place the tongue on the reed firmly (this will keep it from vibrating).
2. Begin to blow as if playing with the tongue still in place (no sound should result).
3. Release the tongue from the reed while continuing to blow. If done properly, the sound should be immediate and without any noise created by the tongue.

Primer on Overtones, Tuning, and Flexibility

Sheldon Johnson

Quality of Sound:

The saxophone is often characterized as an easy instrument to play because of the relative ease in producing a crude tone. Because of this, too many players never develop the ability to produce anything beyond a crude, out of tune tone. Below are some exercises to focus the ears and to develop the muscle tone and flexibility required to refine and beautify the player's quality of sound and improve intonation throughout the instrument's range.

Long Tones:

Sustained, long tones are a great way to develop critical listening skills as well as muscle tone, proper embouchure, and air support. In the beginning, notes comfortably in the middle range of the horn should be utilized (from second line G to the G an octave above). The student should sustain the note for several beats (at 60 bpm and at a *mezzo forte* dynamic). While playing, the student should focus on using fast, cold air and listen to any inconsistencies or wavering in the sound. Once a steady, focused tone can be produced and sustained, the student should practice crescendos and diminuendos while maintaining a steady, focused sound. Once this is mastered, the student may wish to venture into the upper and lower reaches of the horn's range.

Pitch Bends:

When learning to play in tune, students who are sharp often hear, "drop your jaw" to correct intonation. While somewhat effective, this method is quite destructive to the saxophone timbre and quality of sound. Rather, the student should learn to control pitch mainly with the tongue and throat (as is achieved when whistling). In the beginning this can be practiced by producing a B on the mouthpiece and reed alone. While playing the B, the student should imagine they are saying the vowel sound "eeee" which will force the tongue into a relatively high position in the back of the mouth. Slowly, by gradually lowering the tongue from the "eeee" position into an "aaaaahhhh" position the student should attempt to lower the pitch incrementally. It is imperative to use a fully supported air column with this exercise. With practice, the student should be able to play the better part of an octave descending using this technique. Through experimentation this exercise will allow the student to find and develop the musculature that is required to manipulate pitches in a more effective way than dropping the jaw or biting.

Similarly, this can be practiced with the saxophone by starting on Palm D and attempting to lower the pitch by a half step (to C#) and continuing to do the same working down the horn's range. It will become quite difficult lower in the saxophone range.

Overtone Exercises:

Overtone exercises are another effective way to develop tone quality and absolute control over the saxophone tone. In particular, overtones are a great way to develop proper voicing or tongue/throat positioning throughout the range of the horn. On the attached *Basic Overtone Exercises for Saxophone* sheet, there are several basic exercises that serve as a good introduction to the production of overtones. Other great resources with more advanced exercises include: *Top Tones for the Saxophone: Four-Octave Range (Third Edition)* by Sigurd Rascher and *Voicing: An Approach to the Saxophone's Third Register* by Donald Sinta.

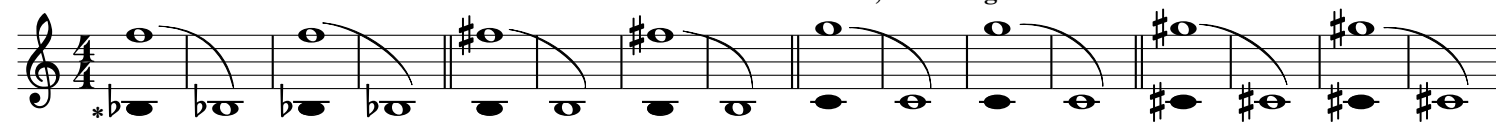
Basic Overtone Exercises for Saxophone

Sheldon Johnson

♩ = 60

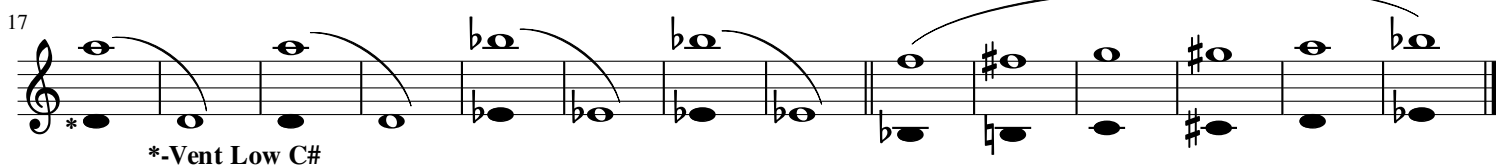
Exercise 1: The Twelfth

*- Finger Filled In Note,
Start Note With Air, Not Tongue



Chromatic Scale on the Fundamental

17

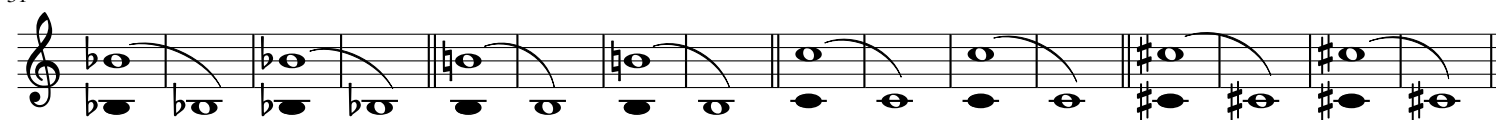


*-Vent Low C#

♩ = 60

Exercise 2: The Octave

31

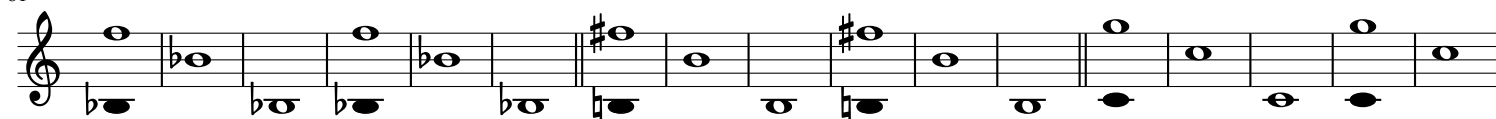


Chromatic Scale on the Fundamental

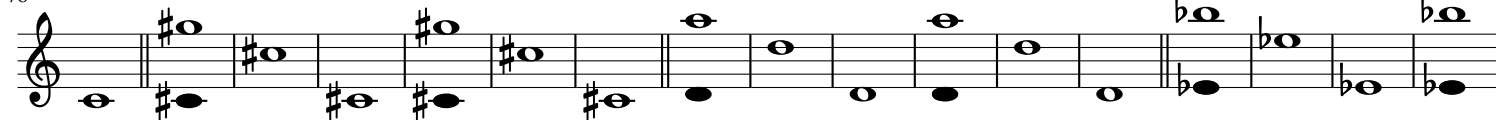
47



61



78



95



Primer on Saxophone Vibrato

Sheldon Johnson

What is Vibrato?

Vibrato is a rapid undulation of pitch imparted to a vocal or instrumental tone that adds warmth and expressiveness.

Though not a perfect representation, vibrato can be thought of as a sine wave where the pitch begins at the crest, lowers to the trough, and returns to the crest in a repetitive cycle (down, up, down).



How is vibrato achieved?

Although the effect of vibrato remains mostly the same on different instruments (the voice, the violin, the flute, etc.), the ways in which it is achieved varies drastically between the different instruments.

On the saxophone, vibrato is created using a slight chewing motion with the jaw. The sound “yah yah yah yah” may be helpful in achieving this motion (although the slight tongue motion required to say “yah” is not necessary to achieve vibrato).

Before attempting vibrato on the instrument, students should first try to develop some control over the jaw muscles to be used. This can be achieved by practicing the “yah” sound with a metronome.

Begin with the metronome set at 60bpm and make the “yah” sound first in quarter notes with the click of the metronome. Once this can be achieved comfortably, the student can progress to eighths, triplets, and finally sixteenth notes.

Proper Basics:

Before transitioning to using vibrato on the saxophone, the student should make sure that they are using a proper embouchure, and that they are able to produce a good, consistent tone **WITHOUT** vibrato. Proceeding to vibrato without proper basic mechanics can hinder future progress.

Baby Steps:

When the student is able to satisfactorily simulate vibrato without the horn, the process of playing with vibrato can begin. Although the purpose of vibrato is to impart expressiveness to the base saxophone tone, in the beginning, beauty is not the objective. To begin, the student should try to effect a slight lowering of pitch by using the “yah” sound (the student should be careful to avoid any change in embouchure while making the vibrato effect).^{*} Following the same rhythmic progression that was done without the instrument, the student should try to create a slight, but noticeable change in pitch using the jaw. In the early stages, it is often most useful to use a more exaggerated jaw motion than will ultimately be desired. When the student can easily achieve the desired effect at 60bpm. It will then be useful for the student to explore a wide range of tempi (anywhere from 60-90bpm).

^{*}If in the beginning, a satisfactory change in pitch cannot be affected on the instrument, the student may find more success using only the mouthpiece or only the mouthpiece and neck. This should make it easier to find and isolate the musculature needed to create an acceptable vibrato effect.

Finally, once a satisfactory vibrato effect is easy to achieve at a variety of tempi, the student should begin trying to implement vibrato naturally into their playing/sound without thinking about rhythm or tempo.

Primer on Reeds

Sheldon Johnson

Basic Parts of the Reed:

Tip: This is the thinnest and most fragile portion of the reed. The tip is thin and flexible in order to allow the tip to seal against the tip of the mouthpiece. This portion of the reed should be handled with extreme care. Any damage to this portion of the reed can result in a reed that will not play.

Table: The flat, bottom portion of the mouthpiece that lays against the mouthpiece. Absolute flatness of this part of the reed is one of the most important things. A reed that does not lay flat against the mouthpiece can cause many problems.

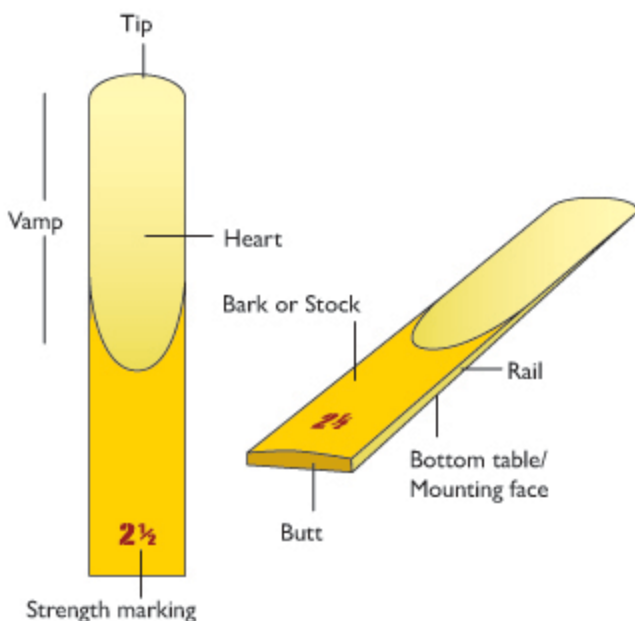
Rails: This is the area of the reed along the sides. This part of the reed gives it a lot of its too hard/too soft/just right feel.

Vamp: This is the entire area of the reed that is free of “bark”. The top half of the reed.

Heart: This is the upside down “U”-shaped part of the reed. It’s easiest to see if held up to a light. This is the soul of the reed. If the heart is bad, the reed is bad.

Stock: This is the bottom portion of the reed. The portion with “bark”.

Heel: Sometimes also called the “butt” of the reed. This part of the reed should be a small arc and should be even on both sides.



Reed Care:

Reeds are very expensive and must be cared for properly. Reeds should always:

-Be removed from the mouthpiece when not in use and kept in a container designed to hold reeds (such as the guards that they come in).

-Rotated. Rotating through your reeds will ensure that your reeds last longer and that they have an adequate amount of time to dry in between playing sessions.

-Broken In. As much as possible, students (and professionals) should avoid playing on new reeds for prolonged periods of time. Reeds that are eased into the rotation will perform better and will last much longer. Reeds that are continuously played right out of the box tend to die quickly. This gets expensive!

-Kept flat. Because reeds go through a constant cycle of becoming wet and then drying out, they tend to warp. This is most obvious on the “table” of the reed. Using a reed knife/tool or sandpaper, the table should be kept flat to maintain a proper seal with the mouthpiece. Many “bad” reeds are discarded prematurely due to issues related to warping. Small adjustments can often make these “bad” reeds much more playable.

Common problems and simple reed adjustments:

Response Problems: This can be caused by any number of issues, but the most likely is a reed table that is not completely flat. The “Rock Test” can help you to determine if this might be the case. Place the reed on a flat surface and attempt to rock the reed from side to side. If the reed rocks, it is not completely flat. Reeds with almost flat tables will also pass the test, but it is a good place to start.

To flatten a reed, use a piece of sandpaper* or a reed tool to scrape away cane from the table (from the portion that seals against the mouthpiece to the heel). Do this gently so that you don’t remove more cane than is absolutely necessary. Check often.

Reed is too hard: First make sure the reed is flat. If the reed still feels too stiff, you can adjust the rails of the mouthpiece. It may only be one rail that needs adjusting. To check this, rotate the mouthpiece about 45 degrees to one side or the other in order to play on one side of the reed at a time. Using your sandpaper or reed tool, very gently scrape with the grain along the top, side edge of each side of the reed. Be careful not to remove too much cane at once. Check often to ensure that you don’t remove too much cane and that both sides are balanced.

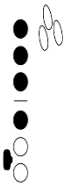
Reed is too soft: Very slightly push the reed so that just a bit of the tip extends beyond the tip of the mouthpiece. This will cause a soft reed to play like one that is a little bit harder, though it may affect articulation.

*Be sure to use the black (and NOT brown) wet/dry sandpaper, 400 grit or finer.


Selection of Quality Reeds

Choosing the right strength of reed as well as a quality brand are extremely important factors that contribute greatly to the production of a satisfactory saxophone sound. Beginning saxophone students will generally have more success starting on a softer reed (generally a 2 or 2 ½). The “Orange Box” Rico reeds are generally a good choice for students at this stage. Once a student is able to produce a good, full, and controlled sound, and able to carefully handle reeds so as not to break them, it is generally advisable for students to move up in strength to a 3 or 3 ½ (though this will vary depending on the student and their choice of mouthpiece). At this point, a move to a higher quality brand of reed is also recommended. Vandoren “Blue Box” or D’addario Reserve reeds are the two brands that I typically recommend.

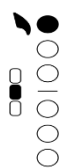
Alternate Chromatic Saxophone Fingerings



Chromatic F# (Also called Forked F# or *Tf*)- This fingering makes it easier to quickly alternate between F# and F \natural . The *Tf* fingering is particularly useful for trills (hence the **T**) and chromatic passages of music. The *Tf* fingering is executed by fingering F \natural and using the right ring finger to press the *Tf* key (be sure not to confuse this with the High F# key; *Tf* is directly below the high F# key on horns that have a high F# key). This fingering can be used in either octave by using the octave key.

Chromatic C (Also called Side C or *Tc*)- This fingering makes it easier to quickly alternate between B and C. The *Tc* fingering is particularly useful for trills and chromatic passages of music (especially when descending). The *Tc* fingering is executed by fingering B and using the the right hand to press the middle right hand side key (*Tc*). It may initially take some practice not to hit the side Bb or high E key. This fingering can be used in either octave by using the octave key.



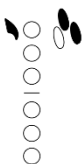
A Note About the Exercises on the Following Pages:

When first starting to tackle these new fingerings, the student should be careful to begin slowly in order to build the necessary muscle memory to make these new fingerings a permanent part of their repertoire. The student should note that these fingerings are intended to be used in rapid chromatic or trill passages and the intonation of these alternate fingers may not be appropriate in other contexts.

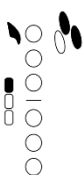
Saxophone Palm Key Fingerings



Palm D- Octave key and first left-hand side key. The first left hand side key should contact the base of the left index finger on the palm side of the finger.



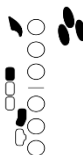
Palm Eb- Octave key and left-hand side key 1 and 2. The first left hand side key should be used as described above. The second left hand side key should contact the left index finger at approximately the second joint.



Palm E- Octave key, left hand side keys 1 and 2, and top right-hand side key. The left-hand side keys should be used as described above. The top right-hand side key should contact the base of the right index finger on the side of the finger.



Palm F- Octave key, all three left hand side keys, and the top right-hand side key. The first two left hand side keys and the top right-hand side key should be used as described above. The third left hand side key should contact the left middle finger around the second joint.



Palm F# (Not all saxophones, especially vintage and student model horns have this key)- Octave key, all three left hand side keys, top right-hand side key, and high F# key. The three left hand side keys and top right-hand side key should be used as described above. The high F# key should be pressed using the fingertip of the right ring finger (not the middle finger).

Chromatic Exercises

Alternate Fingerings

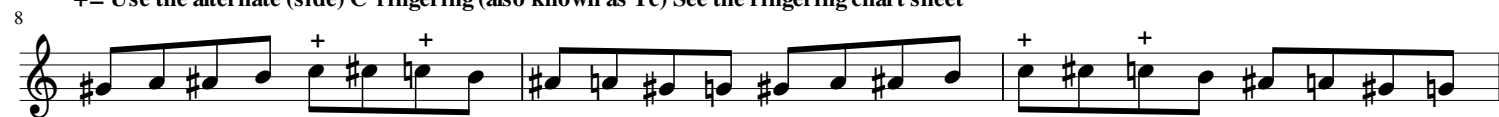
Sheldon Johnson

♩ = 50-160

* = Use the alternate (forked) F# fingering (also known as Tf) See the fingering chart sheet



+ = Use the alternate (side) C fingering (also known as Tc) See the fingering chart sheet



The Chromatic Scale



Exercises for Palm Key Fluency

Sheldon Johnson

♩ = 50-160

Section 1 (For Instruments Without A High F# Key See Section 2)

13

19

23

25

27

29

32

35

38

41

44

47

Section 2 (For Instruments Without A High F# Key)

49

59

65

69

71

73

75

78

81

84

87

90

Common Palm Key Turnarounds (Accidentals Carry Through The Measure)

91

95

99

104



* use alternate F# (Gb)
& use bis Bb (A#)

Saxophone Scales

All-District Format and Full-Range

C Major



6 Full Range



11 F Major



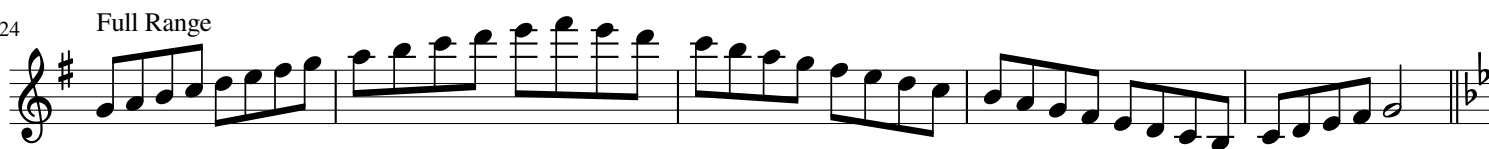
16 Full Range



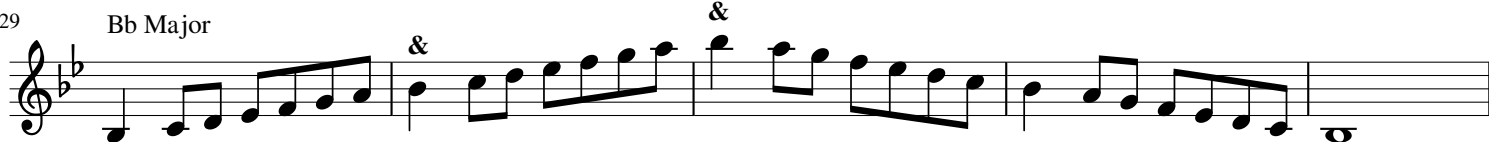
21 G Major



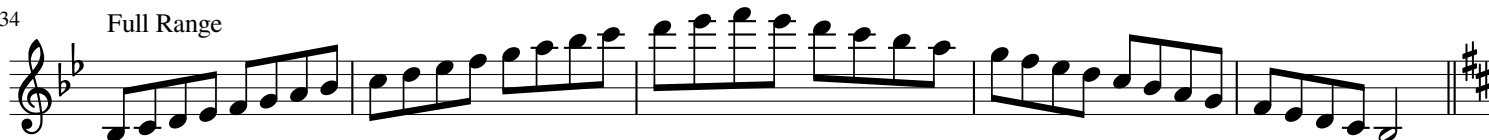
24 Full Range



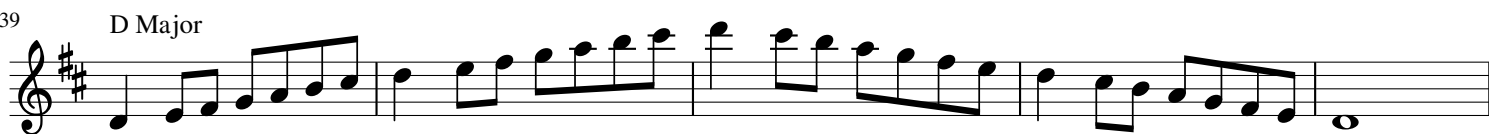
29 Bb Major



34 Full Range



39 D Major



44 Full Range

49 Eb Major

&

54 Full Range

59 A Major

&

62 Full Range

67 Ab Major

&

70 Full Range

74

75 E Major

&

80 Full Range

84



