

Helpful Hints for Happy Saxophonists

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I was recently at a session of the National Music Camp of Canada and had the pleasure of working with *Recorder* co-editor, Sharon Fitzsimmins. While working with the saxophonists in her concert band, I noticed a number of things of which I felt would be useful for a band director to be aware. The following comments is the result of a "lesson" which Mrs. Fitzsimmins had with me.

Embouchure

– how the mouth is configured around the mouthpiece

About half of the fleshy part of the lower lip is curled back over the bottom teeth. This should allow that part of the lip that has the most muscle, with the teeth underneath it, to contact the reed at the point where the mouthpiece starts to curve away from the reed. This allows the maximum amount of reed to vibrate freely in the mouth and the maximum amount of control to be exerted by the lip. If the lip is too close to the tip of the reed, it will muffle the vibrations. If too much mouthpiece is taken in, the reed will still vibrate uncontrollably from the point where the reed and mouthpiece move away from each other, and will have rough, raw tone. The top teeth rest on top of the mouthpiece directly above this area. The corners of the mouth should be pulled in and forward to form a good seal and cause the lower lip muscles to form a cushion. The chin muscles should not be bunched and may be pulled down slightly. Do not stretch the lower lip so tightly over the teeth that they are biting into a thin layer of lip. Remember that the pressure of the lips around the mouthpiece must be even in all directions, like a rubber band. When the lip muscles fatigue the jaw often compensates by pushing up into the lip resulting in squeaks (and a sore lip) due to the uneven pressure. It is best to let the lip rest for a few moments when this occurs.

Producing the tone

1. Setting the teeth on top of the mouthpiece – The weight

of the head should rest firmly on top of the mouthpiece so that the mouthpiece does not move when tonguing. If this is uncomfortable, a mouthpiece patch or a piece of bicycle tire patch can be placed where the teeth rest.

2. Inhaling - Breathe with your top teeth in place on the mouthpiece. Relax the lower jaw a little, just enough to make a space to allow the air to enter. Inhale through the mouth only.

3. Forming the embouchure - See the separate section on embouchure.

4. Placing the tongue on the tip of the reed - The role of the tongue is to stop the reed's vibration. Only light pressure should be needed if the reed is sufficiently flexible. The tongue contacts the tip of the reed between 0.2 - 0.4 cm. behind the tip of the tongue. This is the same area that touches the roof of the mouth when pronouncing the syllable "tah". The tip of the tongue should be firm in order to achieve the cleanest sound - not flabby as in saying "the" or "duh". To achieve the cleanest legato tongued connection (tonguing between two tones) the contact with the reed should be very light and momentary.

5. Bringing the air pressure to the tip of the mouthpiece and releasing the air - These two steps are like singing the syllable "tah". The duration of the "ah" sound corresponds to the length of the tone being produced. Take care not to move the jaw when removing the tongue from the reed so that the pitch and the tone quality are not changed. The next step is to estimate the speed with which the air is to be delivered in order to produce the desired volume. Always feel that the back of the tongue is kept low in the back of the throat, again as if singing the syllable "tah".

Breathing and airflow

When breathing in order to live, we inhale slowly using the top part of our lungs causing the chest to expand. We exhale somewhat faster and have a rest until the next inhalation. For playing the inhalation is very quick, the exhalation is

variable and often quite long with a shorter rest. Sit or stand up straight. Good posture is important. The breath should fill up the stomach area first, expanding all around the waist, then the chest. You should always try to play on a full breath. Do not exhaust all your air or it becomes difficult to fill up again. When the air supply dwindles the embouchure tends to tighten, concentration is lost and the tempo increases. Keep the throat relaxed and open both when blowing and inhaling (as if blowing to fog up a mirror or when whispering a long "haah"). Keep your teeth on the mouthpiece and relax your lower jaw when taking a breath.

The diaphragm is the muscle that separates the thoracic cavity from the abdomen. We can be made aware of the role of the diaphragm by the following exercise. Sit with good posture and place the hands on either side of your body between the hips and where the ribs start. Place the thumbs toward the back and bring the index fingers around the sides and front. Take a breath and make an audible grunt. When this is done correctly the muscles surrounding the lungs push out the air, and closing the throat while attempting to force the air out produces the grunt. This should result in the fingers and thumb feeling that the area at the sides and back expand and push against them. This occurs because the air cannot escape through the throat and pushes against the diaphragm, which then pushes against the fluid mass of the abdominal organs. Diaphragmatic support results from maintaining this expansion while blowing air through the instrument. The result of this support is better response and a fuller sound. This is not the same as a louder sound.

Instrument and hand position

The neck strap should be adjusted so that the mouthpiece comes naturally to the mouth. Do not lean forward or strain upward to reach the mouthpiece. The soprano is held straight out in front of the centre of the player. When seated, the bell may rest on the player's knee for stability. The alto may be held in front of larger players while smaller players may find it easier to hold the instrument on the right side, especially when seated. This avoids having the right hand being between the knee and the instrument and the wrist resting on the leg. The tenor is played to the right side when seated and in front and slightly to the right when standing. The body tube of both the saxophones should be almost perpendicular to the floor.

The mouthpiece should have only a slight downward angle. The left thumb should always maintain contact with the thumb rest and should swivel to engage the octave key. The neck strap should support the instrument. The right thumb should steady the saxophone and help to orient the fingers of the right hand to the keyboard, especially to the side keys. Do not allow too much of the weight of the instrument to rest on this thumb. Let the balls of the last finger joint contact the pearls, not the tips nor middle joints. This allows

for the maximum possible finger length to be deployed. Do not use more muscle than necessary to open and close the keys. The fingers should not move very far away from the keyboard.

Posture

Adjust the instrument to suit your good posture. Students will often assemble the saxophone so that it appears vertically aligned with itself. Then students who play the saxophone to the right side of their body will often be seen with their heads tilting to the left because of the incorrect adjustment of the mouthpiece and neck. Let the weight of the instrument be borne by the neck strap. Use the right hand thumb to guide it into position only.

Mouthpiece and reeds

A good quality mouthpiece is critical. A good one can help a poor quality instrument sound better. A bad one will make a good instrument sound bad. For concert style players, reliable results can be obtained using hard rubber mouthpieces with a medium facing such as the Vandoren Optimum or Selmer C Star matched with medium strength reeds. For jazz playing Meyer, Berg Larsen and Otto Link make very good hard rubber mouthpieces. Metal mouthpieces can be fine as well but require a very well developed embouchure to maintain control.

Saxophonists often complain that they cannot find a good reed and that all the good cane is gone. Yet there is an abundance of great saxophone playing and this is not being done on old reeds. Look for reliable brands such as Vandoren or Rico Royal. Synthetic reeds made in Canada by Legere can also be very good tone generators when the strength is correctly matched to the mouthpiece. Because cane is a natural fibre you can expect that some reeds in a box will never play well. A cane reed should be properly moistened prior to being played. A dry reed will not produce a good seal against the tip rail of the mouthpiece and until the reed has absorbed sufficient saliva it should not be played. If the reed is wrinkled at the tip, it may still be too dry. The flat surface of a reed can warp and swell where it contacts the interior window of the mouthpiece. This will affect the response. The reed can be flattened with very fine sandpaper. The position of the reed on the mouthpiece should be such that the very tip of the reed goes to the very tip of the mouthpiece, but no further, when it closes against the mouthpiece. The reed must cover the opening into the mouthpiece chamber completely.

Mouthpieces should be cleaned regularly. A damp cloth may be pulled through the mouthpiece after the practice session when any deposits on the inside will be soft and easily dislodged. Do not scrape or otherwise damage the tip rail. Protect your mouthpiece from being tossed around in your case by wrapping it in a cloth or using a cloth bag. Never use hot water on a hard rubber mouthpiece. Reeds

can also be cleaned by gently rubbing them between the fingers while holding them under the tap. A dirty reed does not respond well. Be very careful not to damage the tip. There are no perfect mouthpieces, reeds or saxophones. There are currently many excellent options and the player must select good materials to work with and then spend a great deal of time "sweating it out".

Ligatures

The purpose of the ligature is to hold the reed in place by applying even pressure to the back of the reed. The standard ligature, having two sides that are bought together by two tightening screws under the reed, should be back far enough on the mouthpiece that the two sides do not close against each other. Otherwise, you cannot be sure that it is applying pressure against the reed. The ligature should be closed firmly but not to excess. If spaces can be seen between the ligature and the reed, then the ligature probably is not contacting the reed in many places and not providing even support for the reed. Thin strips of felt or rubber glued to the ligature where it contacts the reed will improve the support and also the reed's response. Vandoren and Rovner make excellent ligatures that tighten with a screw on top of the mouthpiece and pull the reed up against the mouthpiece. Quite often problems thought to originate with the reed or mouthpiece can be traced to a ligature that is not doing its job properly.

Registration is effected by the vocal chord configuration

When a student attempts to play a lower register note not using the octave key but produces a note in the upper register, this can often be the result of the vocal chords forcing the air column to produce an harmonic at the octave or higher. Advanced players use the same phenomenon to produce the altissimo register, above the saxophone's normal range. Ask the student to intone the word "low" in his or her lowest voice and then to recall what this feels like. This sensation is then to be maintained when playing the instrument. The octave key is to be used to produce the upper register. Maintain the same firmness and jaw position for all notes. Do not let the jaw drop to produce low notes. This can change pitch and timbre.



Willem Moolenbeek enjoys a varied musical career that spans most genres and styles. He has performed throughout Canada and in Europe with pop groups, as an orchestral soloist, chamber musician and in recital. His music can frequently be heard on broadcasts by the Canadian Broadcasting Corporation. His teachers have included Canadian concert saxophonist,

Paul Brodie, as well as Americans: Frederick Hemke, Eugene Rousseau, and James Houlik. His focus in recent years has been to exploit the vocal qualities of the tenor saxophone in particular. As a proponent of new works for his instrument, he has premiered and recorded works by many Canadian composers. He has been featured on the cover of the International Saxophone Journal for his pioneering work on the tenor saxophone.

Mr. Moolenbeek is a veteran of over 2000 school performances and has been part of the Edward Johnson Music Foundation's "Musicians in the Schools" program since its inception in 2001. Willem Moolenbeek teaches saxophone on the music faculties of McMaster University, the University of Waterloo and the National Music Camp of Canada.