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The Flute Embouchure by Dr. Bradley Garner, University of Cincinnati

A sound on the flute is produced by blowing partly into and partly across the embouchure hole. Theoretically, the air stream should be split in half by the strike edge of the embouchure hole. Many of today's flutists, however, think that perhaps as much as sixty percent of the air stream should go down into the hole. This will create a sound with more edge and a certain fullness or core to it. The flutist must be careful not to blow too far into the flute or the sound will be covered; just as a breathy or airy sound will be produced by blowing too far across the embouchure hole. Some experimentation may be necessary to determine the angle that will produce the best possible sound.

In blowing a small air stream through the lips, the natural tendency is to pucker the lips in an attempt to direct and control the air stream. This normally results in a round aperture causing the tone to sound breathy. To use the air stream more effectively and avoid the unpleasant windy or airy tone, the corners of the mouth are drawn back and slightly downwards, elongating the shape of the aperture.

The upper lip, in forming the embouchure, should be slightly firm and the lower lip should be somewhat flexible. This may best be accomplished in forming one's mouth to say the word pooh. In most cases, satisfactory tone production will be prevented by pulling the corners of the mouth up, which consequently stretches the lower lip.

The following should be done in front of a mirror. Using the headjoint, form the basic embouchure as described. Hold the headjoint with the left hand and stop the open end with the right. Using standard abdominal support, blow a gentle, concentrated stream of air through the aperture. Roll the headjoint in and out until a tone that approximates the pitch of second space A is produced. The use of the mirror will enable the flutist to see as well as feel his or her embouchure.

The most comfortable position for holding the flute is usually at a slight angle below horizontal. The position of the arms when holding the flute can often be tiring, causing the arms to drop. Should this posture become a habit, the embouchure may become distorted and asymmetrical with the embouchure hole. Many times a fuzzy sound can be focused by bringing the flute up so that it is parallel to the lips.

To produce a variety of sounds or tone colors, infinite adjustments of the basic embouchure are necessary. In principle, the lower range or the louder one plays, the more the air stream must be directed down into the instrument and the more the hole should be covered. As one plays higher or softer, the air stream should be aimed more directly across the hole. A lower or louder tone requires a wider aperture in the lips and a correspondingly larger air column.

Because of the differences in the physical characteristics of individual flutists, it is virtually impossible to duplicate or copy precisely the tone quality of another. These subtle differences in tonal quality often identify a particular artist. The flutist must be able to vary the sound or create different tone colors. There is no single standard for determining what is a good tone on the flute, although professional flutists have fewer differences in tone quality than players of the other woodwind instruments. One should listen to recordings of outstanding flutists to develop a tone concept. Embouchure, breath support, and a good instrument are all important ingredients for a good tone. If any one of these is defective, the tone quality will suffer. Problems of tone production and quality are many and varied, but must be corrected immediately before they become habits rather than just problems.

Problem Embouchures and tone: The Small or Weak Tone: This is a common fault with beginning flutists but is also found in some of the most advanced players. In most instances, the cause is poor support, or the flute is rolled in too far. Be sure that the breathing is from the lower abdominal cavity, rather than the upper chest, and that the student has the proper concept of support from the abdominal muscles. To make sure that the flutist is blowing enough air through the aperture, hold a strip of paper in front of the aperture. Try to keep the paper slightly bent by the energy of the air stream. It is often helpful to think of the air stream spinning out of the aperture. The second condition which could produce a small, weak tone is the placement of the embouchure plate on the lower lip. Often the air stream is spinning fast enough but is choked by the small plate on the lower lip so that more of the embouchure hole is exposed.

Open or Fuzzy Tone: This tone is just the opposite of the small tone. The flutist with this problem has the head joint rolled out too far. Thus, too much of the embouchure hole is exposed. This condition usually is accompanied by a shortness of breath and a tendency to play sharp. Flutists with this sound will always have problems playing the upper register of the instrument. This can be corrected by rolling in the flute and thinking of playing with a smaller

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aperture. The embouchure plate should also be positioned just below the pink part of the lower lip. Too many flutists have the flute too high on the bottom lip. Never use the touch and roll method of positioning the embouchure hole on the lower lip.

Loud and Rough Tone: This flutist has no problem getting enough air through the instrument; he or she has plenty of it. There is often a tendency to overblow the flute and play sharp. Breath control is an important factor in correcting this problem and the paper demonstration described previously will be helpful in this case.

Shrill High Register: The tones of many players who have acceptable quality in the first two octaves tend to thin out and become shrill in the third octave. Usually the flutist is not listening or does not change the aperture as he or she enters the third octave. A much more pleasing sound is produced of a smaller aperture is used and the flutist plays a bit more into the embouchure hole. Thus, the air stream is more concentrated and the notes in the third octave speak well.

Control of the Soft Tone: Difficulty in playing and controlling a soft tone is principally due to the inability of the player to project a steady, concentrated stream of air in the proper direction across the embouchure hole (paper trick). To play soft, a smaller aperture must be used. The pitch tendency when playing soft is to go flat. If the player pushes out the jaw or raises the head slightly, the pitch should be corrected.

Four Steps to a Good Embouchure:

- 1. Put the lip plate under the pink part of the bottom lip.
- 2. Form the embouchure as in saying the word pooh.
- 3. Think of the air stream being split 60/40.
- 4. Keep the corners of the embouchure down, don't smile.

The flute student must not expect results overnight from the principles described here; any embouchure change takes time. A satisfactory embouchure should not be changed. If it sounds good, leave it alone! And above all, practice! All students undoubtedly hear that statement more than they would care to, but a flutist must practice every day or his or her tone will suffer.

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