Choosing a Euphonium
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(from www.dwerden.com)

Professional-quality euphoniums are expensive but will last for many years with good care. Therefore, it is important to choose the right instrument from the several good models available. I have been evaluating euphoniums for many years, and have done so intensely in helping to develop the current Sterling Euphonium. The following procedures and criteria have been very useful.

Environment

Make every effort to get into a large room with decent acoustics to play-test the horns (I know how difficult this can be to arrange). In a small room, horns with a smaller tone will often sound better to you. Horns with a large tone might sound unfocused or airy in a small room, but they may really shine in a larger room or in a concert setting. This phenomenon was troublesome for me while testing the Sterling samples because I sometimes had to try a new sample in a hotel room or small practice room. I have always looked for a horn with a large, singing tone quality, but that is not the kind of tone that will sound great in a small space.

In any room, listen for the sound coming back to you from the room (containing more overtones) rather than the fundamental sound directly from the bell. The overtones are critical component of every instrument's tone color. Also notice the degree to which a horn resonates the room around you -- more resonance means better projection.

Two's Company

Bring along a colleague to listen to you in the room. Choose someone who understands your concept of euphonium sound. If he or she is also a euphonium player, you can each take a turn playing and listening. Even though your colleague may have a different style of playing than you, some of the characteristics of a horn will be audible no matter who is playing.

Variety is the Spice of Life

Pick out your music ahead of time. You will want to have several different styles at your disposal, and you should know the excerpts well enough to be able to play them consistently time after time.

My own choices might be:

- Solo from the Holst Second Suite in F (for full, lyrical playing)
- Carnival of Venice or similar (for technical style). I would use both slurred and tongued passages. It is important to use some excerpts that use a

strong tongue. (The way horns respond to the attack can be significantly different between models; this is discussed more thoroughly below.)

- A march, using at least one *mf* strain and the *ff* breakup strain.
- A slow, lyrical song -- any number of vocal pieces will do. This is a good chance to try soft playing and to listen for smooth transitions between notes.
- Arpeggios or broken scales that will take you down into the range between low F (concert) and pedal Bb. You need to pay attention to the response and tone when using the 4th valve in combination with other valves.
- A contemporary solo with some dramatic passages, wide variations in dynamics, and some large leaps.
- Something jazzy.

As you go through the different styles in your play-testing, listen for the instrument that will adapt the easiest. For instance, a horn could have a nice sound on lyrical solos but might sound tubby on a jazz/commercial piece. Or a horn could sound lovely on soft music but sound strained on *ff* passages.

Choose or invent a passage that goes from very soft to very loud. You can even use a simple scale that goes from middle F to upper F, *pp* at the bottom to *ff* at the top. Push the upper dynamics as far as possible to find the limits of the horn. See how loudly you can play it before the tone breaks up, and try to do this without any more "edge" than necessary. This will tell you if the horn can project over a too-loud band even when you don't want to get "brassy" sound.

You need versatility in musical performance, especially with a euphonium. Because of the instrument's very dark tone, the capability of producing different tone shading is very important. Don't let an instrument force you into sounding the same on every style of music you play. (This is one of the characteristics that first attracted me to the Sterling Euphonium -- it is very flexible.) Some euphoniums really limit the variety of sounds I can produce, and that is not acceptable to me. Evaluate the tone in all registers. You should be able to make the horn sing in the low, middle, and high registers.

Simplify

When comparing several samples, try to play on each of them for a while before you get down to business. This will give you a feel for the horns and get them working acceptably. Then do you serious comparisons in pairs only. Try two horns thoroughly and choose the best one. Set aside the one you don't like and start on another pair. As you begin to try each pair, start by playing the "new" one and warm it up a little before you resume comparing. Continue this process of elimination until you have gone through all the choices. When you have selected

the best of the lot, be sure to try your old horn on the same tests to make sure you are really getting something better.

Mechanics

Pay some attention to the way a horn works mechanically, but don't get too distracted by it during your initial selection process. First narrow the field down to a couple winners. If one of them has some mechanical trouble attending to it and see if it can be remedied. A horn that has good blowing characteristics is worth exploring a little further. For example, if the valves are not smooth, disassemble them, clean every nook and cranny on the valve and the casing, oil carefully, and reassemble. If the action is still not smooth, repeat the process. New horns are often shipped with a thicker oil to protect the valves, and sometimes debris left over from manufacturing is caught in the valves.

Attack

As mentioned before, the attack is a very important criterion to test. Much research has been done on the acoustic properties of instruments. In one test from decades ago, instruments playing long tones were recorded on audio tape and then playing back for musicians to identify. The panel were able to identify each instrument with little trouble. Then the technicians used a razor blade to cut off the attack of each note. When this version was played, the panel had great difficulty differentiating between a clarinet and a trumpet, for example.

This same phenomenon comes into play when listening to different models of euphonium. The way the horn responds to an attack can give it a unique sound. Usually, a horn with a large dynamic range will do the best in this area. The attack is the loudest part of most tongued notes; if the horn doesn't have much dynamic "headroom" it will constrain the attack.

Intonation

This is a difficult area to assess in any reasonable amount of time. No horn has perfect intonation. You have to find one that has made acceptable design compromises. However, your impression of the new horn's intonation will be dramatically affected by the intonation of the horn you are used to playing.

USE A TUNER. This is your only hope of judging a new instrument accurately. Be very sure you get each horn warmed up thoroughly before judging the intonation (five minutes will not do it). Then tune it carefully to a concert Bb in the middle register.

Notice three things with any pitch discrepancy:

- Is it in a range that will be noticeable or problematic?
- How far is it from true pitch?

- How easy is it to adjust?

Work with intonation long enough that you begin to feel familiar with each horn. If you are judging a particular note, approach it from above and below melodically to see how that affects it. Remember, you may be used to lipping a certain note up or down because of the horn you have been playing (by this time, you may not even be aware you are doing it). You may unintentionally be creating problems in the new horn that aren't there. In order to work around this, you need to find out where the horn want's to play the note. Stay on the note in question; play it loud and soft to get a feel for it. Bend the pitch grossly up and down. This will help you disassociate your previous notion of where to put the pitch. Listen to where the note is most resonant -- this is where the horn wants to place it.

Slurs

An instrument with superior response can make all slurs easier and cleaner (slurs can be one way to judge response). You will be able to play slurred arpeggios with more facility. For this area of testing, you will probably judge as much by feel as by sound.

Newness

Don't be too distracted by the "newness" factor. No brand new horn plays as well as it will when it is a year old. New horns will be stuffier, less clear, and won't respond as well in the 4th valve register as when they are well broken-in. If you can get a horn to try for a couple weeks, it will play noticeably better at the end of that time, and may give you some idea what it will be like when broken in.

In working with various Sterlings in development, I invariably found that if I had played one for a few months and then got a new one to try, the new one seemed stuffy. It was only after considerable playing that the new sample began to feel like a comfortable old shoe. By then it was time to trade for a newer version, and I had to start breaking in a horn all over again.

This is somewhat easier to deal with when comparing all brand new horns. They will all be stuffy because of newness so the playing field is level. Be aware, though, that sometimes one of the new horns may have been played much more than the others (because of being on display at a show, for example) and may have better characteristics because of that. I haven't found a good way to deal with this; just be aware that it may be a factor.

Physical Considerations

Notice if the horn is comfortable to hold. Try it sitting and standing. Notice the reach from the right hand-brace (behind the valves) to the valve tops, and notice the reach for your left hand to wrap around the slides as you play. Also, make sure the angle of teh mouthpipe is comfortable. Any of these factors can vary between samples within the same brand; try several if necessary.

Mouthpiece

Most professional euphoniums use a bass trombone size receiver for the mouthpiece, but some popular horns use the middle size receiver (similar to the size Besson used before 1975), and at least one uses the smaller tenor trombone size receiver. If you can, bring along your model mouthpiece with the shanks you will be needing. Most mouthpiece manufacturers can supply you with a mouthpiece of any shank size. It might be worth the expense to obtain a set of varied shank sizes. You may find that you have a use for them in the future, and they will be extremely helpful in trying out different brands of euphoniums. If you use a standard mouthpiece, the euphonium dealer may be able to supply you with acceptable duplicates of yours in different shank sizes for trying out horns. If you are going to use the dealer's mouthpiece for any of the horns, use his for all of them -- your comparisons will probably be more valid.

Summary

Obviously, preparation is very important. Make sure you are in the best playing condition possible. Know what music you will be using and learn it well. Arrange for mouthpieces to use. Attempt to secure a large room. Bring along a tuner and use it wisely. Bring a friend. Take your time. When you have made a tentative choice, arrange to keep the horn for a couple weeks to really test it. Don't be too put off by the prices of professional euphoniums -- they are long-term investments.