

Tips on Sound Quality and Reed Anatomy

Reeding is Fundamental: Sound Quality and Reed Anatomy

By Rory Mazzela

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For starters let's get one thing clear: no two reeds are ever alike in sound, feel or playability. With that said, we can explore ways of understanding why reeds can be so different and how to develop good habits to make reeds more predictable. With the right info, students and teachers can learn not only how to handle reeds, but how to adjust and store them. Here are some practical tips to help de-mystify the process:

I. Reed Cut/Design: Importance of the Spine

Also called the heart, the spine is one of the most important parts of a reeds anatomy. The spine is the back-bone of the reed and determines how a reed will respond, feel, and how long it will last. The spine must be thick enough to allow the reed to have some resistance, but not so much that the player cannot make a good sound without too much effort. What is resistance? Resistance is the necessary pressure to create a good sound. The right amount of resistance allows the student or professional to develop a sound that is neither too shrill nor too tubby. The proper balance between the tip, spine, and rails of a reed allows an even response over the whole range of the instrument and affords the player a much more enjoyable playing experience. That's why there are so many reed models available. Each of the different reed cuts helps students and professionals find the right resistance to create great performances. Also called the heart, the spine is one of the most important parts of a reeds anatomy. The spine is the back-bone of the reed and determines how a reed will respond, feel, and how long it will last. The spine must be thick enough to allow the reed to have some resistance, but not so much that the player cannot make a good sound without too much effort. What is resistance? Resistance is the necessary pressure to create a good sound. The right amount of resistance allows the student or professional to develop a sound that is neither too shrill nor too tubby. The proper balance between the tip, spine, and rails of a reed allows an even response over the whole range of the instrument and affords the player a much more enjoyable playing experience. That's why there are so many reed models available. Each of the different reed cuts helps students and professionals find the right resistance to create great performances.

Here are the different sections of a reed:

Blank: The blank is the uncut piece of material in the shape of a reed

Vamped Area: The exposed cut section of the reed where the bottom lip comes into contact

Table: The bottom of the reed

Heel: The back section of the reed

File Mark: The straight line cut in the bark at the back of the vamped section that strips the bark

Spine: middle section of the reed running from the front to back

Rails: sides of the reed on the vamped section

Tip: tip of the reed

II. Flatness of the Table

Without a flat table, the connection between the reed and the mouthpiece is lost. The table and the lay of the mouthpiece are very much like an electrical connection if the connection is not solid, you can lose power. That loss of power in a reed results in a weak, small sound and strange-feeling resistance. An uneven table can sometimes cause the reed to feel soft and sound fuzzy. Why does this happen? Reeds leave the factory flat and a lot of effort goes into ensuring this. But reeds can warp after being wet and left to dry. Cane is a naturally porous and absorbent material. It swells during play and may not shrink back to the same shape when it dries. How do you fix an uneven table? Here's a quick fix that requires nothing more than a simple piece of paper and a flat surface, such as a desk: Take a reed that has been played and, applying equal pressure on the front, middle, and back of the top of the reed, move it in a circular pattern about 6-8 times to help re-flatten the table. This can be done while the reed is moist or dry. For your more advanced students, try a fine sandpaper or a single-grained file. However, with a more abrasive substance, be sure to move it only 1-2 times in straight lines. Adjusting: When adjusting reeds for your students, start by adjusting the back of the vamp first. Only work your way towards the tip if needed. It is best to avoid the tip, the beginning of the spine, and the rails at first. These areas are very delicate and can chip or become too thin very easily. Reed knives and sand paper may not be advisable for your students until they are more advanced. Many times, only one gentle swipe with the reed knife can make all the difference.

III. Break-in Process

Humidity Helps! Because reeds are made of natural cane (*Arundo Donax*) there are certain procedures that should be followed to give reeds their maximum response and longevity. Reeds need special attention during the break-in period to allow the cane to adjust to the wetting and drying that occurs during normal playing. Stabilizing a reed's humidity is very important. A good first step is to place a new box of reeds into some type of humidity storage case, like Ricos Reed Vitalizer, before playing them. The 58 percent RH (Relative Humidity) Reed Vitalizer allows reeds to stabilize and absorb the proper amount of moisture. This process should be done overnight. Wetting reeds in your mouth is ok. To allow reeds the best chance for survival, saliva is recommended instead of water when wetting a reed. A lot of players will then use their fingers to rub off the excess moisture on the vamped or cut area, the bottom or table, and the heel. The goal of this procedure is not only to help dry the reed, but to start sealing off the exposed fibers that can be very porous. At this point, it is important to note that this can cause the reeds to look less than golden. That is perfectly normal. Break in your reeds slowly. Reeds only need a little bit of playing time each day to start the break-in process; no more than five minutes per reed. Then, they should be gently wiped clean of excess moisture and put in a Reedgard to avoid warpage. This may sound like a daunting task, but it is a good habit for your students' future and can be made into a normal part of their warm-up process. This has added benefits for all levels of players and ensembles and can raise the overall tone quality of a section by a large margin.

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IV. Storage of Reeds

All of this effort will be for naught if reeds are not cared for after they are played. We have seen what happens when a reed is left around the band room or loose inside an instrument case! There are many different styles of reed cases. For students, a simple plastic reed holder, like a Reedgard, works well. They are easy to use, store the reed flat, and provide good protection. In addition, Ricos Reed Vitalizer reed storage system encourages good habits with young students. It also helps keep reeds stored at the right humidity level, which prevents warping and cracking. This is especially useful when you take your band on tour to different climates. There are many options for advancing students but the ultimate requirement is that reeds are protected and have a flat surface to lie on. Glass or plastic for the reed table is fine as long as the reeds are held firmly in place with-out putting too much pressure on the vamped section of the reed. Too much pressure can cause bumps or change the shape of the vamped section. Following these steps only takes a little extra effort on the part of you and your students. A little care and the right technique can go a long way to-wards making reed troubles a thing of the past!

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