

## Clarinet Reed Preparation and Adjustment

by Roger Garrett, Illinois Wesleyan University

Let's start with basics - the reed provides the sound. Everything a clarinetist does to influence the reed, whether through it involves the air, embouchure, or front and/or back of the tongue, will ultimately affect the sound and flexibility that the reed can provide.

Assuming the embouchure is not negatively affecting the reed and its ability to vibrate freely (biting, squeezing, or playing on only the tip), that the back of the throat is relaxed (a comfortable, low tongue position that allows the air to more freely drive the reed), and that the right amount of air and/or air support is powering the reed, the way a reed is prepared and adjusted is paramount to maintaining a consistent, beautiful tone.

### Tools Needed

Let's face it, you need tools to work on reeds. If you can't afford the tools, buy reeds that need no adjustment. That means either buying a lot of reeds (which defeats the argument for being able to afford tools), or becoming a psychologist, engineer, or mechanic. Buy the tools.

1. 5" X 5" plate of safety glass (larger if for alto, basset, or bass clarinet reeds). The glass should be approximately 1/4" thick with sanded edges.
2. 320 grit wet/dry sandpaper.
3. 600 grit wet/dry sandpaper.
4. Double hollow ground reed knife (beveled will work, but the former is better).
5. Reed clipper - preferably a Cordier.
6. A glass of water.

### Reed Preparation

The reed is a piece of wood (well, actually it is considered a member of the grass family, but it behaves like wood in its changes/movement). When soaked wet and then allowed to dry, it will behave like any other piece of wood - it will change shape. Most of the time, these changes will take place on the underside (back or bottom) of the reed - always in the form of warping. A reed can warp so that it bulges out slightly, or it can warp in a concave manner. Either way, when the ligature is tightened, the vamp of the reed will bow or "pop up" slightly - often following the dimensions of the warp itself. This visually imperceptible problem will make the reed feel or blow like a hard or resistant reed. Many people make the mistake of working on the top of the reed before eliminating as much warping as they can. This will only work if the reed does not change proportions. Warping can occur even after the reed is broken in. Symptoms of a warped reed include a feeling of resistance that was not there before, the reed feels or blows unbalanced, or flexibility from top to bottom of the range changes drastically from one day to the next (with the same reed). Proper preparation of your reeds can help minimize reed warping.

When preparing reeds, it is often best to force the reed to warp as much as it will during the first two or three days. This change should take place before any work is done on the vamp (top) of the reed.

### Procedure

Operating from a box of ten or more new reeds:

1. Soak the reeds in saliva and allow them to dry naturally - overnight if possible.
2. On the second day, using 320 grit wet-dry sandpaper, place the reed on the sandpaper over a piece of glass and sand the back (bottom) of the reed until it is flat. Be sure to sand only 2/3 of the reed - stay away from the tip area.
3. Using 600 grit wet-dry sandpaper, repeat step number 2 until the back of the reed is polished.
4. Soak the reed, and place it on a clean piece of glass (bottom side against the glass). Allow it to dry overnight.
5. On the third day, repeat step number 3 and soak the reed again. This time however, play on the reed for 3-5 minutes. This allows the reed to begin breaking in the reed fibers. Keep tonguing to a minimum. *Even if the reed is impossibly hard*, try to play on it anyway. **DO NOT WORK ON THE TOP OF THE REED YET.**
6. On the fourth day, repeat step 5, and play the reeds for 5-10 minutes each. **DO NOT WORK ON THE TOP OF THE REED YET.**
7. On the fifth day, sand with the 600 grit for the final time, soak the reed, and play on it. Begin minor adjustments to the top of the reed. These adjustments should be limited to balancing the reed and scraping any wood that is clearly keeping each side of the reed from playing like the other.
8. Every day after the fifth day, continue to work on the top of the reed as needed. Adjustment to the top of the reed.

Once the warp is removed from the reed and it has been played on for two or three days, make small adjustments to the vamp and close to the tip as needed.

1. When the reed is completely soaked, hold it up to the light. Notice if one side of the reed is a different shade (thickness) than the other. Look for thicker parts of the reed - is the reed symmetrical?

2. When the reed is soaked and wet, run your finger along the tip and feel for resistance or bumps. Do you notice if it is more resistant on one side than the other? Check the corners also. Do you feel a ridge or bump along one side or in a particular location of the reed?

3. Use the reed knife to balance the reed, take off very little wood at a time and check the reed after each adjustment. It is easy to remove wood, it is impossible to replace it.

4. Once adjustments are made, the reed may have too little resistance (too soft). Wait a day before clipping the reed, it may surprise you the next day.

5. If a reed chirps, squeals, or cannot play a high note at a soft volume (without hitting the sub-tone or lower partial), it probably needs to be clipped. Do not substitute this step for learning to play correctly in the altissimo register, it is easy to mistakenly decide it is a reed problem when it is really a tongue position problem.

6. When clipping a reed, take off very little wood. Often, the tip is simply too thin, and the tiny sliver removed will solve the problem without the need to adjust the corners or vamp of the reed. Take time to center the reed on the clipper, more good reeds are ruined by careless or impatient clipping.

### **Advice**

When reeds begin to die, use them only in marching band or rehearsals in which you know the reed does not need to be incredibly responsive.

### **DO NOT**

1. Play on anything but your best reed in a lesson.

2. Play on a completely worn out reed.

3. Try to use old, worn-out reeds that have supposedly rejuvenated, it is hopeless.

4. Try to get a box of reeds to stretch longer than 2 or 3 weeks, your stinginess will, ultimately, negatively affect your playing.

5. Complain about bad reeds - it is a fact that they will play badly when you don't want them to. Work at your reed adjustment skills so that you can get yourself out of a jam when you need to.

6. Think you have mastered reed adjustment. Just when you think you have, something will stop working, and you will need to adjust your procedures.

### **DO**

1. Throw away more reeds. Some reeds will NEVER play well, get rid of them (or sell them to some unsuspecting person who broke their last one and is worried the conductor will find out).

2. Buy more reeds at a time. Always have 4-6 good reeds, 4-6 ok practice reeds, and 4-6 reeds that play well but are on their way out. Always have a box of ten reeds on the table (being prepared and/or being broken in).

3. Rotate your reeds within rehearsals and practice sessions. If you play on a reed for more than 20 or thirty minutes, it will not last long, and it will change drastically the next day. Also, if you rotate reeds, your ability to adapt to different reeds will get better, more reeds out of a box will seem to play better. A good rule, in a two hour practice session, play on 4 to 6 reeds.

4. Choose a good brand of reed and stick with that brand. After awhile, you find that a particular brand of reed always needs adjustments in the same places.

5. Continue to learn everything you can about reeds - become an expert. Don't get caught with your pants down!

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