

*A Guide to the  
Oboe and  
English Horn*

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## About This Guide

*This text, “A Guide to the Oboe and English Horn,” is an updated version of a small book on these two instruments which I wrote while in college. You are welcome to learn and teach from these materials as you see fit, as long as you don’t try to sell them for a profit.*

# Oboe and English Horn Fingerings and Trills

## FINGERINGS

Bb0~ 0 \*\*\* \*\*\* Bb C  
 B0 0 \*\*\* \*\*\* B C  
 C1 0 \*\*\* \*\*\* C  
 C#1 0 \*\*\* \*\*\* C#  
 D1 0 \*\*\* \*\*\*  
 Eb1 0 \*\*\* \*\*\* Eb  
 E1 0 \*\*\* \*\*0  
 F1 0 \*\*\* \*\*0 F  
 0 \*\*\* \*0\*  
 F#1 0 \*\*\* \*00  
 G1 0 \*\*\* 000  
 G#1 0 \*\*\* 000 G#  
 A1 0 \*\*0 000  
 Bb1 0 \*\*0 \*00  
 t 0 \*\*0 \*\*\* C#? Eb?  
 B1 0 \*00 000  
 h ~ 0 \*0\* \*\*\* Bb C  
 h @ 0 \*0\* \*\*\*  
 C2 0 \*00 \*00  
 h ~ 0 \*0\* \*\*\* C  
 t 0 \*00 \*\*\* C#? Eb?  
 C#2 0 /\*\* \*\*\* C#  
 D2 0 /\*\* \*\*\*  
 Eb2 0 /\*\* \*\*\* Eb  
 E2 1 \*\*\* \*\*0  
 F2 1 \*\*\* \*\*0 F  
 1 \*\*\* \*0\*  
 h ~ 1 \*\*\* \*\*\* Bb C  
 F#2 1 \*\*\* \*00  
 h 1 \*\*\* \*\*\* B C  
 G2 1 \*\*\* 000  
 h 1 \*\*\* \*\*\* C  
 G#2 1 \*\*\* 000 G#  
 h 1 \*\*\* \*\*\* C#  
 A2 2 \*\*0 000  
 h 2 \*\*\* \*\*\*  
 Bb2 2 \*\*0 \*00  
 h 2 \*\*\* \*\*\* Eb  
 B2 2 \*00 000  
 h ~ 2 \*0\* \*\*\* Bb C  
 h 2 \*\*\* \*\*0  
 h @ 2 \*0\* \*\*\*  
 C3 2 \*00 \*00  
 h ~ 2 \*0\* \*\*\* C  
 h 2 \*?\* \*\*0 F  
 h 2 \*?\* \*0\*  
 C#3 0 0\*\* \*\*?0 C  
 t 0 /\*\* \*0\* C#  
 D3 0 /\*\* 0?0 C  
 t 0 0\*\* 0\* C  
 t 0 /\*\* 00\* C#  
 Eb3 0 /\*\* 0\*\* B  
 0 /\*\* 0\*0 G# C  
 t 0 0\*\* 0\*0 G# C  
 t 1 /\*\* 000  
 t 2 \*00 \*00 Dt C#t  
 t 2 000 ?00 Dt C#t?  
 E3 1 /\*\* 0\*\* G# Eb  
 ~ 1 /\*0 000  
 F3 1 /\*0 0\*\* G# Eb  
 1 /\*0 000 G#

@ 1 /\*0 000  
 F#3~ 1 /\*0 \*0\* C  
 ~ 3 \*\*0 \*\*0 C  
 @ 1 /\*0 \*\*0  
 G3 ~ 1 /\*0 \*00  
 ~ 3 \*00 \*\*0 lG# C F?  
 @ 1 \*0\* \*00  
 G#3~ 1 /00 \*00 P  
 ~ 3 \*0\* 0\*\* B  
 ~ 3 \*00 \*00  
 @ 1 \*00 \*00  
 A3 ~ 1 /0\* 0\*0  
 @ 1 000 \*00  
 Bb3~ 1 0\*\* 0\*0 G# rEb  
 ~ 1 /0\* 0\*0 G# rEb  
 B3 ~ 2 /\*\* \*\*0 C#t  
 C4 ~ 2 /\*0 \*00 C#t  
 C#4~ 2 /\*0 \*00 C#t Dt

## TRILLS

B0-C#1 0 \*\*\* \*\*\* C# B!  
 C1-Db1 0 \*\*\* \*\*\* altC C#!  
 Db1-Eb1 0 \*\*\* \*\*\* lEb C#!  
 D#1-E1 0 \*\*\* \*\*! lEb  
 Eb1-F1 0 \*\*\* \*\*! Eb  
 F1-Gb1 0 \*\*\* \*\*! F  
 0 \*\*\* \*0!  
 F1-G1 0 \*\*\* \*\*! F  
 0 \*\*\* !0\*  
 F#1-G#1 0 \*\*\* !00 lG#  
 G#1-A1 0 \*\*! 000 S  
 G#1-A#1 0 \*\*! 000 G#  
 A#1-B1 0 \*!0 \*00 lG#  
 0 \*!0 \*00 P  
 B1-C#2 0 !00 000  
 0 \*00 000 C#t!  
 C2-Db2 0 !00 \*00  
 0 \*00 \*00 C#t!  
 C2-D2 0 \*00 \*00 Dt!  
 C#2-D#2 0 /\*\* \*\*\* lEb C#!  
 D2-E2 0 /\*\* \*\*!  
 D#2-E2 0 /\*\* \*\*! lEb  
 Eb2-F2 1 \*\*\* \*\*! Eb  
 F2-Gb2 1 \*\*\* \*\*! F  
 1 \*\*\* \*0!  
 F2-G2 1 \*\*\* \*\*! F  
 1 \*\*\* !0\*  
 F#2-G#2 1 \*\*\* !00 lG#  
 G2-A2 1 \*\*! 000  
 G#2-A2 1 \*\*! 000 S  
 G#2-A#2 1 \*\*! 000 G#  
 A#2-B2 2 \*!0 \*00 lG#  
 2 \*!0 \*00 P  
 B2-C#3 2 !00 000  
 2 \*00 000 C#t!  
 C3-Db3 2 !00 \*00  
 2 \*00 \*00 C#t!  
 C3-D3 2 \*00 \*00 Dt!  
 D3-E3 1 0\*\* !00 lG# F  
 D#3-E3 ~ 0 /\*\* 0\*\* B  
 ~ 0 /\*\* 0?0 S C  
 @ 1 /\*\* 0\*\* G#! Eb!

@ 0 /\*\* 0\*\* B rG#! rEb!  
 Eb3-F3 ~ 1 /\*\* 000 lG# G#pad!  
 n ~ 0 /\*\* 0\*\* B rG#!  
 @ 1 /\*\* 0\*\*  
 @ 0 /\*\* 0\*\* B  
 @ 1 /\*\* 000  
 @ 0 /\*\* 0?0 S C  
 E3-F#3 ~ 1 /!! 0\*\* G# Eb  
 n @ 1 /\*\* !\*\* lG# Eb  
 F3-Gb3 ~ 1 /!0 0\*\* G# Eb  
 ~ 1 /!0 000 G#  
 @ 1 /\*0 !!0  
 F3-G3 ~ 1 /\*0 !00 lG#  
 n @ 1 /!0 !\*0 lG#  
 F#3-G3 ~ 1 /\*0 \*0! C!  
 ~ 3 \*!0 \*\*0 C lG#  
 @ 1 /!0 \*\*0 lG#  
 F#3-G#3~ 3 \*!0 \*\*0 F C  
 @ 1 \*!0 \*\*0  
 G3-Ab3 ~ 1 /!0 \*00 P  
 ~ 3 \*00 \*\*0 F C lG#!  
 @ 1 \*0! \*00  
 G3-A3 ~ 1 /!0 !00 B  
 @ 1 !0! \*00  
 G#3-A3 ~ 3 !0\* 0\*\* B  
 ~ 1 /00 !00 P B  
 @ 1 !00 \*00

## NOTATION

~ = oboe only  
 @ = english horn (EH) only  
 ! = key to be trilled  
 t = fingering is a trill fingering, or key is a trill key  
 n = trilling keys should be alternated  
 r = right hand  
 l = left hand  
 ? = key may be omitted  
 P = the little key between the first two fingers of the left hand  
 S = the small key that curls over the rG# key. On EH use rG# key instead.  
 altC = the banana key by the third finger of the right hand

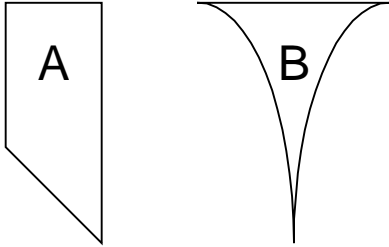
## COMMENTS

First 8va key may be used instead of 3rd  
 Lightly touching back of reed with teeth eases oboe B3, C4, C#4, and EH A3  
 For oboe trill from Bb0 to B0, trill from Bb0 to C0 and hold low B vent shut with knee  
 For first Eb3-F3 trill, trill the G# pad itself, not the G# key  
 Trills derivable from fingerings and visa versa are not listed

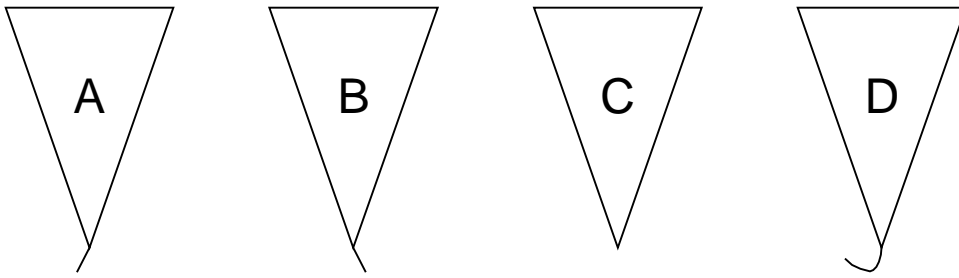
# Guide to Knife Sharpening

(reverse illustrations for a left-handed knife)

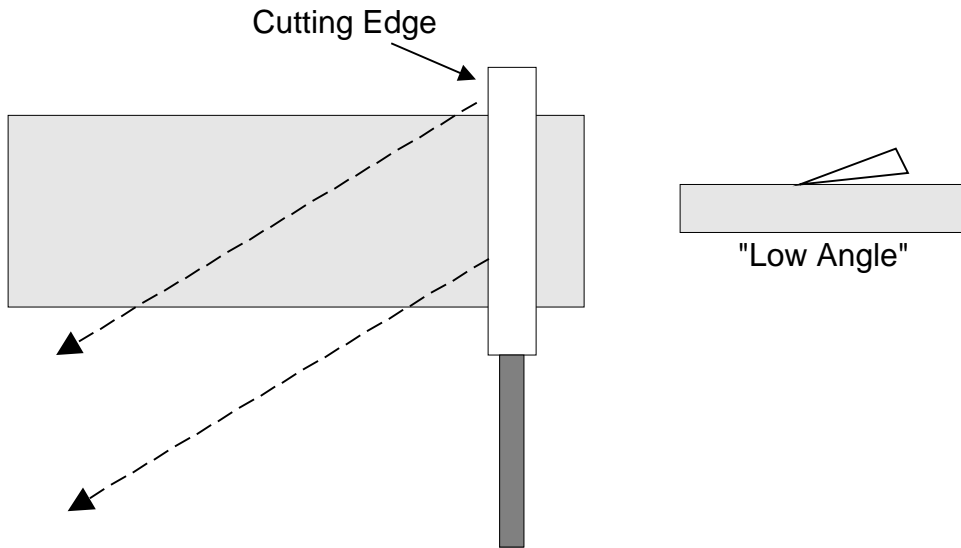
1) Knives: (A) Beveled and (B) Hollow Ground / Direction of Scraping →



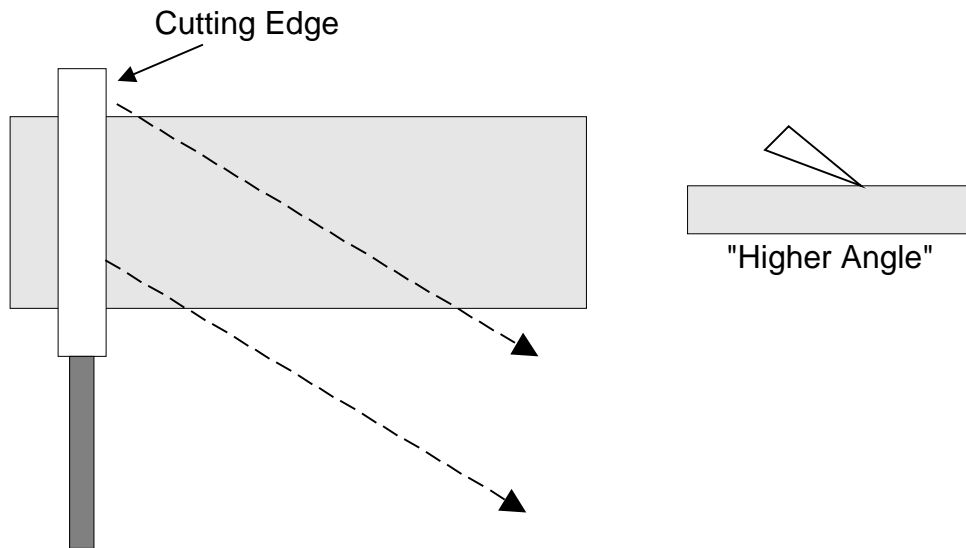
2) Burrs: (A) “Wrong” side, (B) “Right” side, (C) “Sheared”, and (D) “Curled” / Dir. of Scraping →  
(Burrs greatly enlarged for clarity)



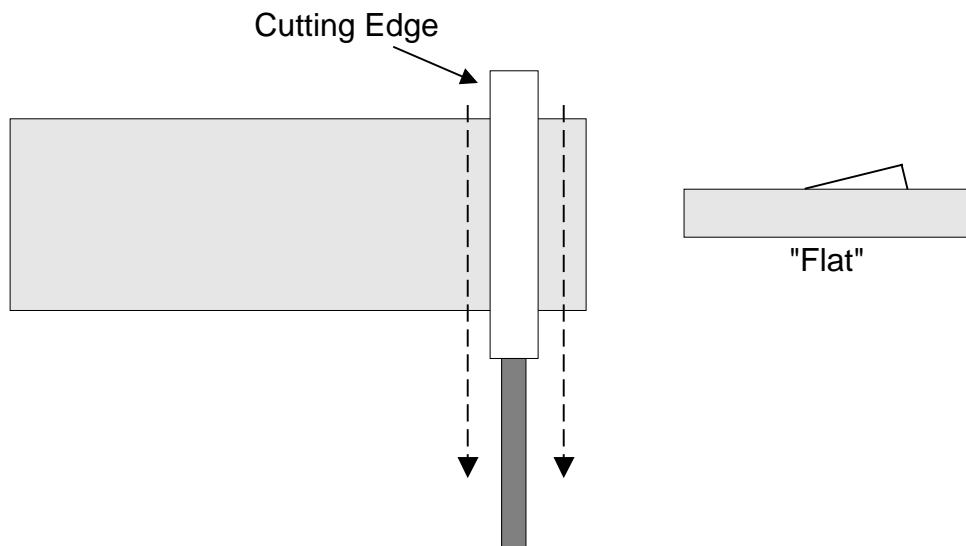
3) Stroke #1 - Done until burr is entirely on “wrong” side



4) Stroke #2 - Done until burr is entirely on "right" side



5) Stroke #3 - Done once or twice to shear off burr



#### Reminders:

- Test the burr (by dragging the blade along a thumbnail in both directions) every one or two strokes. It will catch in the direction of the burr.
- Lubricate the stone (with mineral oil or water) at the start of each session.
- Use the same angles each time you sharpen (once you have determined the angles which work best for your knife).
- With each stroke, be sure the ENTIRE blade is covered with equal pressure.
- If the burr is not periodically checked during sharpening, it may "curl" and seem dull. This usually indicates a particular "angled" stroke has been overused or used at too high an angle.
- The stone must be large enough so the knife doesn't "rock." It should be fine to medium-fine and rest on a sturdy, non-slip surface.
- When the three steps are completed, test the edge on an old reed or a fingernail. If it is still dull, begin again at step one.

## Notes on “Diagram of Finished Reed”

The following is a list of the various parts of a long-scrape reed, in order of thickness:

1. The rails and area between the end of the back and the binding (bark)
2. The spine
3. The heart
4. The back
5. The tip (except the edges)
6. The extreme edges of the tip (these are as thin as possible)

**Tip:** This is the thinnest part of the reed. The extreme tip and sides of the tip are as thin as possible, but the tip gradually becomes thicker from end to heart and from the sides to the middle. The definition between the tip and the heart should be clear, but not at all abrupt. There should be a few thicker fibers (vascular bundles) extending from the middle of the heart into the tip. This should hint of a continuation of the spine. The tip usually extends about 4mm from the end of the reed as measured on the reed sides and 2mm as measured in the reed center.

**Lay:** This is the area of graduation between the thin tip and thicker heart. It should be longer on the sides than in the middle.

**Heart:** With the lay, this area forms the core of the sound. The line of demarcation between the back and the heart can be angled (as in this illustration), or flat (as in the illustrations in the reedmaking section of this guide).

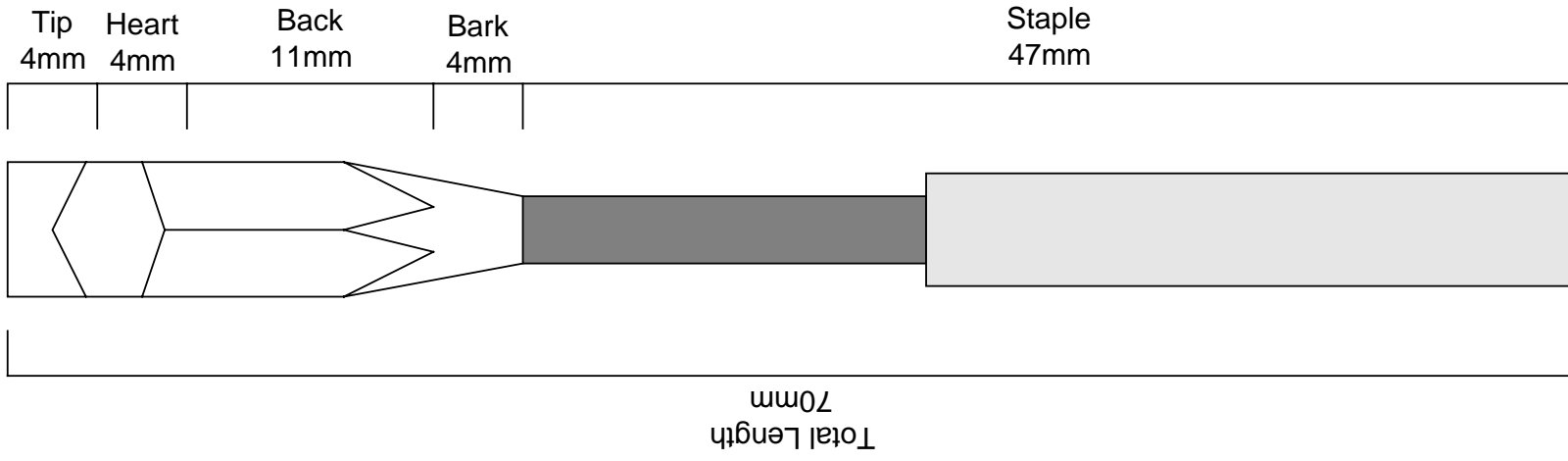
**Rails:** These are narrow strips of bark extending from the binding to the heart along the sides of the reed.

**Spine:** This narrow strip of thicker cane runs along the middle of the reed from the beginning to the end of the back. The merest suggestion of a spine may continue through the heart, but the definite structure is no longer there.

General Notes:

- If the top reed blade must be severely slipped, a razor blade can be used to gradually trim the overlap (beginning at about 6mm from the extreme tip) by the smallest possible amount.
- The crow of the reed should be “C” in two or three octaves.
- To test for leaks: Soak the reed, wet one finger and use it to close the cork end of the reed, assume a normal embouchure at the very tip of the reed, suck out all the air from the reed, and slide the reed out of your mouth while maintaining the vacuum and keeping your finger against the other end. If the reed does not leak, you will hear (possibly after a second or two) a “pop” as the two blades separate and air rushes in.

**Diagram of Finished Reed**





## Reed Adjustments

### REED IS TOO SOFT

Trim the tip. A soft reed has a weak, low, sickly crow.

### REED IS TOO HARD

Beginning with the tip, thin the entire reed

### REED PLAYS SHARP

1. Lengthen the back towards the binding (remove bark)
2. Lengthen the lay (especially the sides) and thin tip sides
3. Unslip the blades or squeeze tip open (or try a wider shape next time)

### REED PLAYS FLAT

1. Trim the tip
2. Slip the blades (more), pinch tip if too open
3. If this problem becomes habitual use a narrower shape

### REED PLAYS TOO SOFT

1. Trim the tip
2. Scrape the lay and the area immediately around it
3. Unslip the blades or squeeze tip open

### REED PLAYS TOO LOUD

See "Reed is Too Hard"

### LOW NOTES DO NOT SPEAK WELL

1. Thin the tip extremes
2. Lengthen the lay at the sides
3. Scrape the entire back of the reed
4. Lengthen the back towards the binding
5. Check that the blades are uniform on both sides

### HIGH NOTES DO NOT SPEAK WELL

1. Trim the tip
2. Thin the heart, especially just below the tip

### REED SOUNDS TOO BRIGHT OR SHRILL

1. Thin the tip corners and tip sides (and lay sides?)
2. Trim the tip
3. Narrow the rails and spine
4. Scrape the entire back (cautiously!)

### REED SOUNDS TOO DARK OR STUFFY

Thin the entire heart and tip

### REED SQUEAKS ON ATTACK

Chop a tiny bit off the tip. Chop corners if frayed.

### REED IS DIFFICULT TO ATTACK

See "Reed is Too Hard," paying special attention to the tip

# Reedmaking

## Philosophy

Reeds are easily the most common source of complaint for oboists. All professionals and serious amateurs make their own reeds, as the cost of commercial ones can be prohibitive and their quality is inferior to handmade, personalized reeds. But, once oboists begin to make their own reeds, they find that not all of their reeds work well, and they frequently worry and play badly due to this “reed problem.”

But there is a solution: quantity of production. Regardless of the success rate of your reeds, you can insure yourself a good reed to whatever probability you desire simply by making enough of them.

Aside from really concentrating on what you are doing when you are making or adjusting a reed, which by now should be part of your approach to the entire instrument, there is one general way to raise the quality of your reeds: consistency. Get the best equipment you can, and stick with it until you can turn out identical, playable reeds. Your oboe cane (start with 10.5mm-11.0mm diameter, .60-.45mm gouge, Gilbert#1 or similar shape), staples (47mm, clean, good socket fit, identical fit on mandrel), oboe (in perfect repair), work acoustics (as “dead” as possible), and even work light should be identical each time you pick up a piece of cane. Finally, you may also find that if you can work on reeds a little bit every day (without compromising your normal practice time on the instrument) you’ll get better very quickly.

## Introductory Skills

Before you even go near a piece of cane, take a day or so and become a world-class knife sharpener. Practice the method in the “Guide to Knife Sharpening” section until, using the same (minimum) number of strokes, you can make your knife pass the “thumbnail test” every time. Reedmakers who do not master this first will lose more cane through dull knives than for all other reasons combined.

Some practice with this sharp knife on old reeds will save even more of your good cane. Grow accustomed to the knife stroke: little to no downward pressure necessary to remove cane, no “gouges” or chattering knife blades, good follow through on the stroke, etc.

There are certain elementary knife strokes that you should master:

1. The tip clip. Whether you use your knife or a razor blade with your cutting block to clip the tips of reeds, you should understand how it needs to be done. Take an old reed, and practice clipping the SMALLEST possible amount from the tip. The cut should be straight and even, but the cane left on the block should barely be visible. If you do this several times before you actually get a cut, you are on the right track; clippings are often directed at tone, not pitch, and any more than a splinter removed will ruin the reed. The only clip not of this sort is in the “FINISHING” section of this guide; all adjustments are of this sort.
2. The basic smooth knife stroke with follow through. You should be able to uniformly thin an area of the reed (such as the back) without creating extra catches or bumps. If you do create a bump, be able to eliminate it by scraping crossways.

3. Tip thinning. Draw a pencil mark down the center of the tip of an old reed, and be able to evenly thin the tip while leaving the line. Be able to make the extreme tip, the corners of the tip, and the sides of the tip as thin as possible without fraying or losing them (i.e. learn the limits). Be able to make smooth graduations of decreasing thickness from the center and beginning of the tip, radiating outwards. You will find that it is almost never appropriate in the final stages of tip thinning to merely guide the knife straight down the tip; it must usually be at some outward pointing angle to preserve the subtle center “spine.” There should not be a “catch” or thicker region at the extreme tip (caused by lifting the knife as it approaches the plaque).

### **Habits This Method Assumes You Have**

1. You sharpen the knife to a keen edge **WHENEVER** it is even slightly dull.
2. You check the reed for leaks periodically during its creation and first few days of use. If it leaks you can moisten the reed and apply a strip of fishskin, but with good equipment leaks should be rare enough to where you can discard the reed and avoid the troublesome fishskin.
3. At any stage after profiling, if the opening is too large, you dip the reed in water and gently squeeze the tip, holding it shut for 4 seconds.
4. You know how to crow the reed (putting the reed alone in your mouth up to the thread and blowing), and that you listen to the effects different crow sounds have on the way the reed plays. You should know that a crow without octaves is a sign that an old reed is collapsing. You should also know that the best reeds usually crow “C” in two octaves. It should not be necessary to actually use the oboe until the fine tuning stage.
5. You constantly check the reed to see that all four sides of the scrape look the same through light.
6. You know when to retire a reed. If the opening has completely collapsed and clipping would sharpen the reed more, if the tip has become damaged, the reed leaks, or the reed has gone sharp, break off the cane and save the staple for a new reed.
7. You dip the reed in water for a second before scraping it. Cane that is too wet cannot be scraped (the knife just “glides” over it), but cane that is too dry may split.
8. You are consistent in your approach to the reed. You concentrate on what you are doing, and try to make each new reed exactly like the best one you have tried. After you tie some blanks, you should be able to pick them up later knowing they are all identical.
9. You proceed from the blank stage with a blank that has the cane aligned with the flatter side of the oval staple (fig. 1), proceeds in a straight line from the staple, and is exactly 73mm long (unless you have changed the measurement - if it is too short the cane will bind, if it is too long the sides will never seal - wider shapes require longer tying lengths). The thread must **NOT** be overtied (extending above the top of the 47mm staple), nor should it be undertied by more than 0.5mm. There should be no cracks extending more than a few millimeters above the binding. During tying, the sides of the cane must close equally and simultaneously as the thread is tightened; this is best accomplished if the first wrap is as close to the end of the staple as possible - the thread then doubles back automatically.
10. It is assumed that you have watched at least one person tie a blank and make a reed, or have watched a videotape on the subject. Some processes can only be easily understood this way.

## **Tying Blanks**

1. Soak the cane in water for one hour.
2. If you prefer, thin the last 4mm on each end of the cane to ease tying (fig. 2). Slice off any “ears.”
3. Put the staple on the mandrel, tie one end of an arm’s length of string to a doorknob or hook, and bind the reed tightly to the appropriate length. Seal and mark the binding with a soft pencil.
4. If there are gaps between the blades, dip the blank in water and gently pinch the tip until the gap disappears. If the fold was scored too deeply, and the blades are almost free of each other, you must finish the reed in one sitting; otherwise, this blank can be stored and worked on later.

## **Profiling Method**

1. If you are not proceeding directly from the last step, soak the reed in water up to the binding for 5 minutes. Otherwise, just dip it in water and begin.
2. Pencil-mark both sides of the reed 66mm from the bottom of the staple (fig. 3).
3. Start at the tip in each of the four sides and gradually lengthen strokes back to the mark, with each going off the tip. This should form a “W”, and there should be a thicker region visible in the center of the tip (without bark) when held up to the light (fig. 4). Remove as much cane as possible without endangering the sides or the center. Avoid catches, and be careful that the thickness gradually decreases toward the tip.
4. Starting at the pencil marks, gradually lengthen strokes back until about 5mm behind those marks, forming another “W”, this time for the heart. Each stroke must go off the side of the tip or the extreme tip. This will cause the lay’s “U” shape to invert (fig. 5). There should be no bumps at the integration between the tip and the heart. Continue scraping until the bark and pre-bark are gone.
5. Make light transverse razor scores 63mm from the bottom of the staple in all four sides. Make a 1mm scrape against the catch (fig. 6), then begin lengthening the strokes back so that the 16th begins 4mm from the binding (fig. 7). All are stopped abruptly by the catch. You can then shave crossways or slice again with the razor blade to get rid of the shavings. Know that if you make the back too thin, the top of the staff F#’s will sag and the reed will be flat; it is usually best not to touch the back again.
6. Compare the reed through light with “Diagram of Finished Reed.” All structures and relative thicknesses should be in place. When you are satisfied, go immediately to the next step.

## **Rough Scraping**

1. First dip the reed in water, then clip the smallest possible amount from the tip with the razor blade and cutting block so that the blades will completely separate. At this point you may slip the blades, if desired (do this if your reeds are well-made, but chronically flat - slipping has the same effect as a narrower shape).
2. The reed should now crow, play well (even in the low register), and NOT LEAK.
3. Insert the (blue) plaque and thin/graduate the tip (fig. 8) until you can almost see the plaque through the extreme tip and tip sides, and the damp reed “blooms” from sides to center when the plaque is pressed against a blade (try this on a good, finished reed to see what it’s supposed to look like). When the plaque is removed, the reed tip should close from sides to center when the back is pinched. If the entire tip closes at the same time, the tip is not smoothly growing thinner from centers to sides and from back to tip.
4. Set the reed aside in the open air for 24 hours.

## Finishing

1. The reed will feel thicker after having sat overnight. Dip it in water and let it sit for a minute. Check for leaks. Pinch the opening as necessary.
2. Clip tip and thin repeatedly, checking the pitch of the reed and its crow against your tuning machine. The final length should be between 70 and 71mm. If the tip looks and acts properly, but the reed feels constricted, cane may need to be evenly removed from the heart.
3. Now the reed should play, but may have specific problems. Note these and proceed directly to the next step.

## Fine Tuning

Make adjustments to the reed (See “Reed Adjustments”) while keeping the following in mind:

1. Do one thing at a time, and try to predict the effect the adjustment will have before you test it.
2. Stop when the desired result has been achieved.

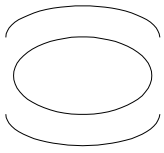
Keep in mind the basic order of reed priorities:

1. **Pitch.** (NEVER play an out-of-tune reed because it “sounds nice and I can adjust.” In practice, this almost never works.)
2. **Response.** All registers should respond to both fortissimos and soft attacks. Rapid articulation should be free. You need the feeling that you could play the reed for a solid hour before tiring. As Joseph Robinson says, “The only security comes from flexibility.”
3. **Tone.** If you have a firm idea of the tone you want, you can make any reed sound more like it in a minute through careful listening, which will produce unconscious embouchure adjustments. If the reed is out of tune or responds poorly, the audience will not be listening to the beautiful tone anyway. Tone IS the lowest priority.

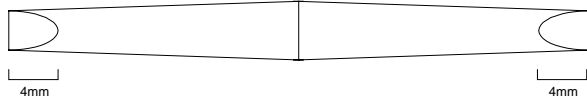
Reeds sometimes take several days to settle. You may have to spend several practice sessions using the reed and adjust it over a period of several days before it is fit for performance. If you are starting a new reed every one or two days, as you should, you will be producing them more quickly than you use them. Do not let this deter you from working on them daily; just set the extra ones aside or give them away.

“Do not apply a scrape to a reed, scrape it according to its needs.” - John Mack

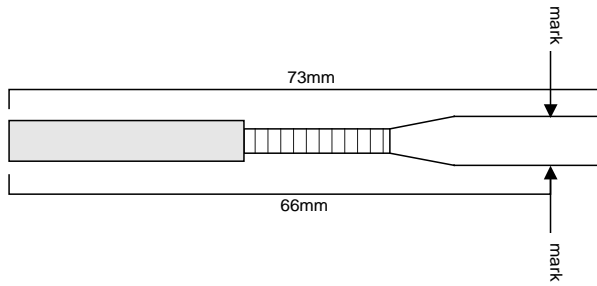
# Reedmaking Guide Illustrations



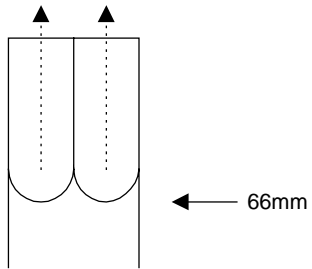
**Figure 1**



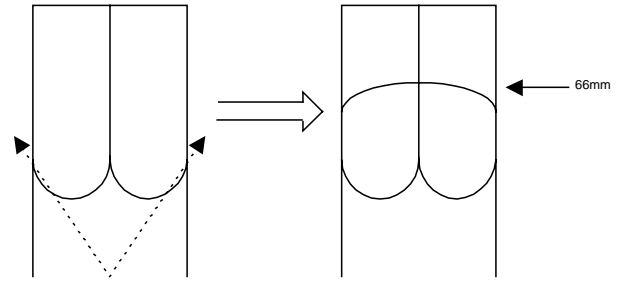
**Figure 2**



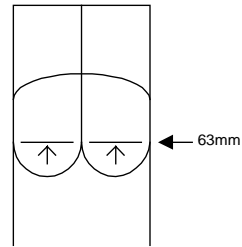
**Figure 3**



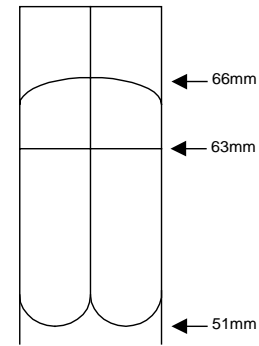
**Figure 4**



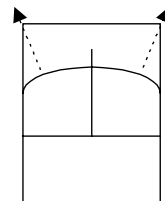
**Figure 5**



**Figure 6**



**Figure 7**



**Figure 8**

## A Guide to Oboe Screw Adjustment

To adjust oboe screws you need only three things:

1. A screwdriver.
2. A piece of cigarette paper cut into the shape of a triangle, tapering to 3mm at the small end.
3. The knowledge that the problem is not the fault of you, the reed, or a leaking pad.

If you are a beginner, you may be bewildered by the many different screws and may be afraid of making a mistake. But if you turn only one screw at a time and remember its original position, you can always bring the instrument back to its original state. Then, if all else fails, you can see your teacher.

You will be asked during several of the troubleshooting solutions to “check the tension of a pad.” This is done by slipping the small end of the test paper (described above) between the oboe wood and key; the key is then closed with normal pressure while the paper is pulled out. The resistance the key offers against your efforts to pull out the paper tells you how high the tension on that key is. Always insert the paper at the point on the key farthest away from its pivot rod.

Do not confuse adjusting screws, which “point” into the oboe, with screw-headed rods, which point along the surface of the oboe and secure the key-holding rods in place. These should always be screwed all the way in.

When adjusting, turn the screw no more than 1/8 of a turn before testing it. Stop immediately when the desired effect is achieved.

Please be aware that what is given below is only a brief summary; it does not cover some of the less commonly adjusted screws (like the octave key screws) and does not cover the adjustments on the english horn (some of which are slightly different). For a complete and illustrated guide to the adjustment of screws on both instruments, purchase the excellent text on oboe maintenance by Carl Sawicki (*The Oboe Revealed*).

Also be aware that it is assumed throughout this guide that the oboe in question is a professional, full-conservatory system instrument. There should be no extra or missing screws. Additionally, none of the keys with a hole in the top should be even partially plugged with dirt.

For problems with C through F# in the middle of the staff:

These problems usually hinge on a lack of balance between the A key and the C vent directly above it, the G key and the Bb vent directly above it, and the two vents with each other.

First find the screw between the A key and the Bb vent that is closest to those two keys; this screw regulates the balance between the Bb vent and the C vent, which must be equal. Test the two tensions with the test paper and adjust the screw until they are equal (turn it “towards” the vent whose tension you wish to decrease).

Now adjust the tension between the A key and the C vent: the appropriate screw is located between these two keys. For this procedure, the F# key must remain down. As before, turn the screw towards the key whose tension you wish to decrease. Try to get the tensions equal, but err on the side of the A key (primary key) closure if you cannot.

Now repeat the procedure of the above paragraph for the G key and the Gb vent; again the screw is located between the two.

For problems from low F down:

Begin by turning the screw on the F resonance key (the one nearest the F resonance opening) counter-clockwise one full turn; this will disengage it and make other adjustments easier.

Towards the pivot point of the E key you will find two screws almost touching each other. The one we will be using here is the one which would be closer to the reed, should the oboe be assembled. Adjust it until the E key and E resonance key (between E and F#) give the same pull on the test paper. If you cannot equalize them, let the E key have the slightly greater tension.

Now repeat the above procedure, except between the D key and the vent, using the screw (of the two mentioned above) which would be closer to the bell should the oboe be assembled.

Now you will reengage the F resonance screw which you turned a full turn at the beginning of this procedure. Turn it clockwise until the tension on the F resonance key is the same as that on the E vent when the E and D keys are depressed with normal pressure. If you go too far, there will be an odd sense of “resistance” on the E key.

Know that if the small low Bb resonance pad has fallen out, the quality of E naturals will change dramatically.

For sharp high D's and/or faulty low Eb-Db trill

Find the screw at the intersection of the low C and Eb keys (the keys that open or close, not the pad you press to produce those notes); this will be called “Eb-Db” screw. Now find the screw located on the C spatula (the right-hand-little-finger pad you press to get the low C). This will be called the “C-E” screw.

First, turn the “Eb-Db” screw a full turn counter-clockwise to disengage it. Then adjust the “C-E” screw until the E key closes snugly (but not more snugly than the key itself) when the C spatula is depressed with normal pressure; turn the screw clockwise to weaken the C key, counterclockwise to weaken the E key. Press the C spatula and tap on the E key with the right hand middle finger: it should not move. Now perform the following test: play a low Db and trill the left hand Eb spatula. You will hear a change in the quality of the Db as the Eb key is pressed, though there should not be any. Turn the “Eb-Db” screw clockwise, testing every 1/16 of a turn, until this effect disappears.

For faulty F#-G# trill:

Play an F# and trill the G# key. There should be no change in the F#'s quality. If there is (in much the same manner as a faulty Eb-Db trill) turn the F#-G# trill screw clockwise until just when the effect disappears. This screw is on the “arm” (part of the bottom joint) that reaches over the top joint to rest on the G# key.

For faulty low B-C# trill:

This test is handled in the same manner as the F#-G# trill. Play a low B (with the “banana” low C key - not the normal one) and trill the C# key. There should be no change in the low B's quality. If there is, turn the low B-C# screw (the bottommost adjusting screw on the bottom joint - is at the intersection of the B and C# keys). Turn it clockwise until the test works. If you go too far, the low B will offer too much finger resistance.

For sharp high C#'s not caused by the E key staying open:

If the high C#'s are disproportionately sharp, and the connection between the C key and the E key is working properly, the problem may be caused by the middle octave B key (first finger, left hand - is open for the standard high C# fingering) opening too far. It is closed down by tightening the B height regulator screw, which is the screw nearest the reed on the same rod as the B, A, and G keys of the right hand (it is the only screw that moves slightly when the middle B key is pressed).



## Practice Schedule Hints

### Introduction

Steps four through eight of this daily schedule are “practicing exercises.” Their purpose is threefold: they help you achieve an understanding of the separate functions involved in playing, they help bring flaws in technique to the surface so they can be worked on individually, and they form habits of actions which are performed correctly. Practicing exercises require intense concentration, which is possible only if the exercises are done SLOWLY. Slow practice is one of the fastest paths to improvement.

Steps nine through eleven are “performing exercises.” They stress musicality and phrasing. Remember here that playing “securely” with inadequate dynamic variance is worse than attempting true pianissimos/fortissimos/fp’s and “cracking.” Imagine during these steps that you are in a large paying audience, listening to yourself play.

Just as breath support is the key to physical technique, rhythm is the key to mental technique. Almost all practice should be done with the metronome.

### Tips and Hints

- Playing the oboe is simpler than it seems. Most of the complications and unnecessary muscle tensions are ones we add through bad habits.
- Listen to tape recordings of your own playing periodically, but keep in mind that all recorders distort tone.
- If time is limited, shorten and intensify all the steps rather than eliminate any of them.
- Practice in several shorter sessions instead of one long one. A tired embouchure is distorted by fatigue, hindering the learning process. The high level of concentration required for real analytical practice is also difficult to maintain.
- Practice while standing up for at least part of the session.
- Work on reeds only after you finish practicing.
- Consider keeping a daily practice log to record what you did or did not accomplish and what you learned.

## The Practice Schedule

1. Review the “Technique” section of this guide, if necessary.
2. Crow and test the soaked reed you will be using. One cannot gain a healthy concept of embouchure playing bad reeds.
3. Warm up by playing low “D”. Concentrate on the strong, even, unhindered flow of air from the bottom of your lungs through the bell of the oboe.
4. Pick a note and hold it until you have perfected the tonal quality. Then slur up or down a half step and match that tonal quality. Do this in the lower octave until it is “anchored” before slurring to the middle octave and repeating the process. The third octave is done last.
5. Practice slow, even, slurred scales (chromatic to top of range, majors in all keys, and [optionally] minors) with arpeggios. Crescendo while ascending and decrescendo while descending to counteract the tendency to back off in the high register and honk in the low register.
6. Practice crescendos/decrescendos on various notes; go evenly from ppp to fff in a certain number of beats and back down to ppp in the same number of beats. Be able to superimpose articulation on this exercise without disturbing it. Also practice  $fff > ppp < fff$  and different degrees of accent. Remember that a change in volume does not mean a change in tempo, pitch, or tone quality. ppp’s should be supported, intense, rich in overtones, pure, and free of wavers while being infinitely quiet. fff’s should be as controlled as mf’s, but infinitely powerful.
7. Practice articulation: play legato-tongued scales, soft attacks in the low register, and clean, short staccato in time with a metronome (tempo may be increased for a speed exercise). Remember that short notes sound exactly the same as long tones, except that they are shorter.
8. Practice rhythmic trills and intervals (octaves, thirds, fourths, fifths, etc.)
9. Work on an etude or study from your study book. If it is a fast one, start slowly (with careful attention to phrasing) and slowly increase the metronome speed until you have reached your limit. You should prepare one or two of these each week.
10. Work on a solo piece or orchestral excerpt.
11. Spend a few minutes sight reading. Remember that, given sufficient mental attention, no passage is unsightreadable.
12. Improvise, sight-transpose, play songs by ear, and experiment.

# Oboe and English Horn Technique

## Physical Technique

1. Good Posture
  - A. Sit/stand up straight; adopt good hand/arm positions.
  - B. Do not tip your head down or hold the oboe too high.
  - C. Remember to smooth and minimize your finger movements.
2. Breath
  - A. Inhale with full breaths to the bottom of your lungs. Plan breaths to occur between phrases.
  - B. “Sing” (play) with fast, driving, abdominally supported, warm air. This produces projection and natural vibrato.
  - C. The flow of air should maintain a driving intensity, especially between intervals, while articulating, in the high register, and during soft playing/decrescendos.
3. Forming the Embouchure
  - A. Relax the jaws and face. Let the bottom jaw drop and set the reed lightly on the bottom lip. Inhale. The top lip is lowered while keeping the teeth comfortably apart (especially the back teeth) and exposing as little reed in the mouth as possible. The lips are then slightly rolled in with the reed, which is held in the center of the embouchure.
  - B. The face muscles should feel flexible (after all, they, not the teeth, change the embouchure). The mouth and throat cavities should feel “big”. Teeth are comfortably apart. Use as open a vowel (“o” or “a”) as possible.
  - C. Pressure should be equal around the entire reed (especially the sides). The formed embouchure should feel round, but relaxed.
  - D. Play as far toward the reed tip as possible.
  - E. Superimpose all notes in all articulations and dynamics on a continuous forte low D. Think of the air stream as traveling the same distance on all notes as it does on a focussed low D. The embouchure adjusts for sharp/bright notes, while the air stream almost always remains a constant. Don’t unnecessarily change the embouchure when changing notes.
4. Articulation
  - A. The tone is articulated by quickly and lightly forming the letter “T” while maintaining air pressure. No unnecessary muscles are tensed.
  - B. Accents are produced by air and embouchure, not tongue.

## Mental Technique

1. Clear your mind of distractions. Write plenty of reminders in pencil so your mind isn’t cluttered.
2. Take your conductor or metronome’s beat (especially on entrances).
3. Pre-hear the music in your mind’s ear before playing (i.e. envision the perfect result before acting).
  - A. Know what key and time signature you are currently in.
  - B. Look ahead while playing. Take all markings seriously.
  - C. Play in exact rhythm (sense the pulse and think in note groups).
  - D. Mentally place tones the instant before you produce them.
4. When playing in an ensemble, listen to the sound of the entire group of which you are a part.

## Modern Techniques

In the last 40 years, new techniques have been developed for producing unusual sounds on the oboe. Many modern composers have written works calling for these special sounds. They work best with an easy and responsive reed, and are worth cultivating only as an advanced player.

The instructions and fingerings in each avant-garde piece will usually be unique; therefore, the best way to learn the avant-garde is to play and listen to the avant-garde. One of the most respected players of avant-garde music is oboist Heinz Holliger, and his performances and recordings in this area are often the definitive ones.

*Double/Triple/Flutter Tonguing:* Double/triple tonguing is accomplished by alternating the normal tonguing consonant “t” with “k”. This technique is useful and is called for in some standard orchestral works, but should not be attempted until single tonguing has reached its limits of speed and control. Another accelerated method, detailed in David Pino’s outstanding book on clarinet playing, involves alternately striking the top and bottom of the reed (as a sort of rapid “paintbrush” stroke). Flutter tonguing is usually managed by rolling the consonant “r” (“fluttering” the tongue against the roof of the mouth).

*Harmonics:* Many notes (though most easily A1-C2 and F2-C3) are capable of a variety of timbres; there are at least 100 fingerings for B1 alone. Adding additional keys or using a completely different fingering can accomplish these changes. Often, however, the “colored” note is of a different dynamic or slightly sharp or flat. Tone changes of a less dramatic, though more consistent, nature are accomplished through changing the embouchure or reed.

*Circular Breathing:* This technique enables the performer to sustain a note indefinitely. Basically, air is collected in the cheeks while playing and is pushed through the oboe with the cheek muscles while more air is inhaled through the nose. It is helpful to first exhale, then inhale in order to avoid CO<sub>2</sub> buildup in the lungs. As there is often a slight tone difference and a cessation of vibrato when the throat is closed, it is best to breathe this way during a trill. Do not cycle breathe indiscriminately in works which do not call for it, as it can make audiences nervous (“When is he going to breathe?!”).

*Complicated Rhythms:* This is the aspect of the avant-garde most likely to improve your general musicianship. Modern music often employs wildly complex rhythms, changing and uneven time signatures (if measures are used at all), and odd, complex subdivisions against equally complex subdivisions in the accompaniment (7 on 5, for example). All of this requires a rhythmic will of a higher order. But by stretching your rhythmic sense to play this music accurately, you may find that ordinary music becomes much easier. A good general rhythmic sense and prior study with odd rhythms are prerequisites.

*Extreme High Register Notes:* As with rhythm, you may find that studying the extreme high register will improve your ordinary high register. James Prodan’s *The Third Octave* (Spectrum Music) and Stevens Hewitt’s *Method* contain good high register exercises. You should be able to slur from notes in the extreme high register to notes in the bottom register and visa-versa. You will probably discover that the extreme high register wears out reeds very quickly. You will also notice that the embouchure must gradually approach the thread as the notes get higher; this should, however, be kept to an absolute minimum for best tone.

*Glissandi, Pitch Bending, Microtonality, Quarter Tones:* Glissandi can be achieved by slowly lifting one’s finger on or off of a key; once you have mastered this technique between the half-steps, learn to perform them sequentially to create one long glissando. Relaxing or tightening the embouchure can also bend the pitch. Quarter tones, however, are usually accomplished through fingering changes. For example,

<0 \*0\* \*\*\* Bb C> produces B1 and <0 \*0\* \*\*\* C> produces C2, but <0 \*0\* \*\*\* B C> is halfway between the two.

*Variable Vibrato, Hairpin Dynamics:* This is self explanatory. Complete control over the vibrato (being able to turn it on or off and change its width and speed) is often requested by avant-garde composers. You must be capable of going from fff to ppp almost instantly and be capable of all the dynamics between. Explosive accents are also popular.

*Double Trills:* These are accomplished by trilling with equivalent keys alternately. For example, trill from D2-Eb2, alternately striking rhEb and lhEb. It is also possible to perform a “tone trill” by trilling between the normal fingering for a note and a coloring fingering for the same note.

*Rolling Tones, Multiphonics:* Using regular fingerings, “rolling tones” can be performed from Bb0 to D1 by merely setting the embouchure at the base of the reed. But entirely new fingerings are required for multiphonics, which result in the oboe producing several notes at once. There are innumerable multiphonics; the following is merely a sample:

0 0** 000	0 0** 00* Bb C
0 **0 0**	0 0** 0** C C# Bb
0 *0* **0 Bb C	0 **0 **0 Bb C
0 *** 00* C	0 *** **0 B? C
0 *** 0** C#	0 */* **0 B? C
0 */* **/ B C	0 **/ *** Eb

## A Few Notes on the English Horn

### Introduction

The english horn (cor anglais) is a relative of the oboe which is larger and is pitched a fifth lower (a fingered C on the english horn will sound as an F). Most professional oboe players will own and often be expected to play the english horn. This is no great handicap; playing the english horn can improve one's concept of oboe playing through the exposure to an inherently darker, deeper sound and though requiring a greater volume of air. Additionally, it is easier to produce and control a good sound on the english horn than on the oboe. Thus, the average non-english horn specialist should practice the instrument frequently, but should spend more time on the oboe. However, in every way except those outlined in this chapter, the oboe and the english horn may be approached identically.

### Buying and Caring for an English Horn

The english horn is significantly more expensive than the oboe (by about 30%), and the used instruments do not lose nearly so much of their value against the new ones. The purchase of an english horn is often a once-in-a-lifetime event, and so should be made with great care.

The instrument should have a rich, full sound with a responsive and in-tune scale. It should respond well on soft low E's and other low register notes (the third octave key is not nearly so useful on english horn as it is on the oboe, and may not be necessary).

The second decision to be made is on the purchase of the english horn bocal (the tube of metal that connects the instrument to the reed). The bocal is an extension of the bore and can make or break the instrument with regard to tone quality, pitch, intonation, and response. Try as many english horn bocals as you can and pick the one that works best for you. Bocals usually have a number engraved on them: the lower the number, the shorter the bocal and the higher the pitch (Dallas bocals are an exception to this rule). When trying a bocal, pay special attention to the middle register C (it tends to go flat during a diminuendo, though a C vent that is not adjusted high enough can cause the same effect) and the notes from high G to high C (they tend to be flat); it seems that although smaller bocals raise the pitch of each note, they do not raise the high notes as much as the low ones, which can cause high register problems. Note that if the shape of the cane is too wide, these problems can be duplicated regardless of bocal.

The english horn should be cared for in the same manner as the oboe (though the adjustment screws are slightly different, and should be studied with this in mind). A common problem on the english horn is the formation of water droplets in the bocal, which causes gurgling. When this happens one can remove the reed and blow out the moisture, but the problem can be avoided (as on oboe) by blowing as little moisture into the instrument as possible and by carefully warming both the bocal and the instrument before playing to prevent excess condensation.

### English Horn Fingerings

Unless one has purchased a special device that can turn the low B into a low B $\flat$  on demand, the low B is the english horn's lowest note. The "long" fingerings for middle and second octave B and C do not work, and the "short" fingerings for E $_3$  and F $_3$  do not work. It is possible on the fingerings for E $_3$  and above to begin the tone with the half-hole and instantly switch to covered-hole on attack while still obtaining the tone (which can be very useful for some upper register work). There is no S key, though the G $\sharp$  key can serve in its place.

Excluding teeth embouchure notes, which do not work nearly so well on english horn as on oboe, the playing limit of the english horn appears to be written Ab<sub>3</sub> (though one almost never sees notes above E<sub>3</sub>). None of the oboe fingerings and trills work from F#<sub>3</sub> up; they are replaced by different ones (see the fingering chart in this guide for details).

Except for harmonic F<sub>2</sub>, the classical harmonic fingerings all work. Most english horn multiphonic fingerings are of the form <0 0\*\* 0?? ?>. Many fingerings and trills (adding low B or low C keys, for example, to notes above low D) do work, and many of the other common “coloring” fingerings work and can be very effective.

Circular breathing also works well; the difference in tone during the inhalation phase is harder to detect, as the instrument’s tone quality is more stable than the oboe’s.

### **English Horn Reed-Making Equipment**

The english horn staple is 27mm long. As before, all of one’s staples should be high quality and of the same make and size. Since the connection between the staple and the bocal is metal on metal, there exists the possibility of leaks. One can test for leaks the same way one would test for leaks with oboe reeds: put the staple on the disconnected bocal and try to form a vacuum. Discard any staples that do not seal. Additionally, one can purchase some clear aquarium tubing with an interior diameter of about 4.5mm and cut it into 10mm lengths; when the reed is finished, slip half of the length of the tubing over the staple and, when the reed is placed on the bocal, the other half over the bocal to insure a seal and prevent the reed from accidentally falling off (if neither of these problems appear with your set-up, then don’t bother with the tubing).

As regards cane, the same comments given on oboe cane apply (though the gouge, diameter, and shape measurements are different). For reedmaking, one also needs a needle-nose pliers with a wire cutter and a supply of 24 gauge soft brass wire. As far as the mandrel goes, you can buy one or you can remove the cork from an old oboe staple and slip this cone over the oboe mandrel when making english horn reeds. This cone can be left in the reed when scraping to provide a little extra working length. You will also need a case to hold the english horn reeds in (unless your case is the small mandrel type it will not hold english horn reeds). All of the other equipment is exactly the same.

### **Making English Horn Reeds**

English horn reeds are easier to make than oboe reeds, as there is more cane and more chances to correct mistakes. Additionally, the english horn is a darker instrument, so one can build a little more response and projection into the reed and still have a nice sound (though one should still always be experimenting and listening to find the ideal tone). Though the reeds generally need to be soaked a bit longer than oboe reeds before they play, they last much longer.

But in every other respect, english horn reeds are merely scaled up oboe reeds (for example, you may wish to make the marks on the side of the reed for the beginning of the tip at 50mm from the bottom, and score the cane for the beginning of the back 46mm from the bottom, assuming a 55mm reed). A good english horn reed will still crow in octaves, will still respond well, will still seal, and will still have a manageable opening. Comments here will be restricted to those aspects of reedmaking that differ from the oboe.

First, it is usually wise to seal the binding of the blank with some sort of sealant to prevent unraveling; it is also wise not to wrap all the way to the bottom of the blank, especially if one uses the fish-tube leak sealer. After one ties the blank, makes the rough scrape, clips the tip, slips the blades, finishes scraping, and lets the reed dry overnight, the wire can be applied. It should consist of two rings 5mm above the

binding, with the loose ends twirled together and pressed against the reed toward the binding. It must be firmly against the cane to manage the opening, but should not bite into the cane. Cut off the excess wire and, if you like, file down the rough ends of the wire. The wire can be squeezed at the sides if the reed is too closed, squeezed from top to bottom if the reed is too open, and pushed up and tightened if it slips.

A good length at which to tie the blanks is 59mm, which produces finished reeds at about 55mm (another good length). Of course, depending on the bocal, this measurement may have to be adjusted. It is often good practice to leave proportionately more cane unscraped between the back and the binding, as this seems to alleviate many of the intonation divergences of the english horn. A tip that is too long can cause the same divergences.



## Tips on Phrasing

“Musicianship and style are learned attributes. Some may be born with the gift of talent and intelligence and learn quickly - others more slowly - but all have to learn.” - Thurmond, *Note Grouping*

### Three Big Tips

1. Listen to recordings or performances of great wind players and singers with score in hand. Try to analyze what they are doing; identify the specific phrasing techniques that they use, and try to logically anticipate them. Trying to duplicate nuances of an instrumental or vocal artist from a recording is another valuable exercise.
2. Always play with the greatest level of musicality you can muster, regardless of the difficulty of the passage. Each phrase has something to say, and it is up to you to find it and bring it out (or impose something on it, if the music is poor).
3. Keep in mind that you may sometimes be overestimating your phrasing, because not everything you are doing physically may be translating into a noticeable difference in sound. In some cases you may have to “exaggerate” phrasing more than you think you might.

### The Intuitive Principle of Phrasing: “The music always moves forward.”

1. Assuming you have listened to many recordings, just THINKING of this rule may cause more expressive playing.
2. Where intuition fails, logic can supply hints. For example, a stream of identical repeated notes or one long note will not move by itself: some sort of decrescendo or (more commonly -especially before the climax of the phrase) crescendo is often expected by the composer.
3. Push the air and the music all the way to the last climax of the phrase (often, but certainly not always, a climax is contained in the phrase’s highest note.) If you cannot clearly locate the climax of the phrase, push the air all the way through the last note.
4. Mindlessly accenting the downbeat, though called for in “bravura” sections, can cause monotony and lack of motion and expressiveness. This mistake can be the result of thinking in terms of how the music looks (divided by beats). Think in terms of the largest note group (the whole phrase?) that will still let you play in rhythm.
5. Lean on the upbeat (especially in slow movements), as they often have great expressive potential and can move the music forward.
6. Be expansive on short notes (especially in slow movements). Give them their full tone quality, emphasis, and length.

**The Logical Principle of Phrasing: “What is unexpected or hard on the ear (such as a discordant tone or a rhythm change) must be emphasized for the ear to accept it.”**

1. Possible means of emphasis might be: increased volume, an accent, a pause before the note, or a more intense tone.
2. Usually, crescendo away from the tonic note, and diminuendo back toward it. Usually, crescendo when ascending the scale (though sometimes a tonic high note played pianissimo can produce a wonderful effect).
3. Delay the expected (this is why fermatas are so often put on notes immediately before the resolution to the tonic).

**The Visual Principle of Phrasing: “Phrases are finite in length, and have a (hidden?) coherent relation to the rest of the music.”**

1. Mark ‘ marks at the ends of phrases. They are not just breath reminders. Each phrase has a beginning, a shape, and an ending.
2. Often a mass of notes has a hidden core melody or pattern in it. Find this and bring it out.
3. Since the phrase is a statement, one can easily see why making dynamic “bulges” on each long note is usually tasteless: it sets off that one note as being the entire statement, making the rest of the phrase sound out of place.
4. Begin the phrase musically, or it may take several notes to gain the audience’s attention; end it musically, or they may forget many of the good things you did.
5. Composers generally give hints to proper phrasing (staccato marks, dynamics, accents, etc.). Take these seriously, and perhaps try to understand logically (by these principles) why they are there.

**Musical Playing in an Ensemble:**

1. Consider the tone of the whole, and hear the first few notes in your mind before playing. But from then on, respond to the sounds of the other players (listen!). Music is a creative process, and no two performances will be exactly the same.
2. Composers often write in a certain idiom. You can learn this idiom by listening to recordings not only of your work, but of other works by the same composer. If you can, study the parts of the other instruments; often, a piano part in a sonata is as important as the solo part.

**Hints on developing self-assurance as a musical player:**

1. Musical playing is not a function of self-confidence, but an inferiority complex can hinder it. In this matter as in many others, experience is often the best way to improve.
2. Before you walk out on stage, quiet your mind and think of the greatest player you have heard. Close your eyes and see and hear him or her performing your piece on your stage. Then, when you walk out, pretend in your mind that you are this person.
3. Convince yourself that this is the best piece of music in the world, that this is the last chance anyone will have to hear it, or perhaps that this is the last time any music will be heard on the planet. The clearer your picture, the more intense the alertness and emotional depth which will be available to you.

4. Try to lose yourself in these phrasing techniques, or in the sheer joy of playing.
5. Assume the stage with some degree of confidence, look at the audience (or at least don't look at the ground), and smile (or at least don't grimace whenever you make a mistake). The audience wants to have a good time, and by appearing to be in nervous pain you deny them that. If you are nervous anyway, see how many you can fool.
6. Remind yourself that there are no perfect performances (prove this to yourself by going to live concerts). The "perfect" recordings only seem that way through studio splicing magic. You can only do your best, so put your whole effort into singing each phrase as musically as you can - if you do this, the audience will forgive a few mistakes.

### **Technical Phrasing Hints**

1. Make a good connection from note to note in legato. Think of making a glissando between two notes of a slurred interval. For many players, just thinking of the next note before playing it will smooth the interval.
2. Hear yourself as a person in the audience would - it should be crystal clear to them what you are doing musically, even if they're sitting in the back row.
3. Even if you do not particularly like your sound on a certain day, play it as though you believe in it anyway! Most of the audience will like it if you seem to.
4. Some players like to decide on phrasing away from the instrument and its limitations.
5. Short rests in a phrase, or a small gap caused by delaying a note, forms silence. Silence is as tangible a part of the music as is the sound itself.

## Miscellaneous Suggestions

Count constantly. Keep the pulse (the beat the metronome or conductor is counting) in your mind with a constant subdivision (2, 3, 4, 5, or 6). The subdivision is the greatest common denominator of the rhythm being played or of the rhythm that WILL be played on the next beat.

To play in accurate time, the COMING beat must be felt, not the beat you just passed. Whether you play with a metronome keeping time or with a conductor keeping time, you should have the feeling of the beat *creating* the notes. Avoid habitually tapping your foot or flapping your arms to the beat.

Remember to keep counting, even on the last note before a rest. Releases should be supported and in time (perhaps pretend there is one note after the last written one). For a very revealing exercise, set your metronome to sound on the off-beats (see Hewitt's *Method* for details).

Ideas to remember for successful sight-reading:

1. Have a positive attitude.
2. Always know the key/time signature.
3. If you keep the rhythm flawlessly accurate the rest will usually follow. Sense the coming beat, feel the rhythmic group to be played before you play it, and always try to land on the first beat of the measure in time.
4. Look and hear ahead.
5. Do not stop.

Arrive at rehearsals and performances early to insure adequate warming-up time. Wind instruments tend to sharpen as they warm, so time must be allowed for their pitch to stabilize. Going through the first eight steps of the "Daily Practice Schedule" would be an excellent warm-up.

Although you should feel air pressure in your mouth and against your tongue, there should be no bulging air pockets in your embouchure.

If you overinhale, you will lose control of the first few seconds of the first note.

Some oboists find attacks easier when they make a small exhalation just before playing.

The reed should never slide on the lips; the lips should curl the reed farther in when necessary (such as for the extreme high register). Never pull the staple out to flatten the pitch except in extreme emergencies.

Vibrato should be part of your image of your ideal tone. With proper breath support, the vibrato will seem to subtly come from your abdominal muscles rather than your throat muscles. Avoid having some notes on your instrument be habitually devoid of vibrato.

For best results, imagine the desired tone in your mind before producing it. If you can imagine exactly what you want to do, your body and instrument will usually give it to you.

Try humming while playing to see if your throat is sufficiently open and relaxed. Being able to exhale through your nose while playing is another sign of good throat relaxation. Avoid involuntary "grunting" while playing, which is usually a sign of excessive tension or resistance.

Try to make a habit of always doing your best, even when you cannot be heard.

Your hands should grip the oboe no more tightly than is necessary (try not to take technical and reed difficulties out on your fingers). The only points of tension should be the lower abdominal muscles, the embouchure, and the right hand thumb.

Playing on the reed alone can often reveal problems that may be hindering tone production when the reed is played with the oboe.

Rapid technical passages are easier and sound better when played with solid breath support and attention to musicality.

There are often notes on each oboe that tend to be flat or sharp. If this is the case for you, make a special effort to pre-hear them the way they SHOULD BE rather than the way the oboe wants to play them.

“Sleeping on it” is a popular expression for a reason. If you practice a passage at a moderate tempo competently, you may find that you will be able to play it at a much faster tempo the next day.

If you remember to push the air the same distance on all notes as you do on low D, and keep your embouchure set at the tip of the reed, you should find that middle octave B and C do not pose significant stability problems.

For low notes, imagine that the oboe is longer than it really is.

You can't do much better than you expect yourself to. If you approach a piece or passage with the goal of merely “getting through it,” you will probably do no more than that. This is not artistry, and is not even fun. It's helpful to think of the style of the whole piece before beginning.

High altitudes/low humidity close the reed opening (which raises pitch) and kill the low register. Low altitudes/high humidity increase the reed opening and resistance.

The left hand thumb should stay on the oboe (practicing before a mirror can help correct other posture problems).

For high notes, opening the throat and maintaining a solid air stream is preferable to merely pinching the reed. Try aiming your air stream at the bridge of your nose.

Some professionals recommend putting old reeds in an ultrasonic cleaner for a minute to renew their response.

A fast passage is merely a slow one taken at a faster tempo. Practice difficult passages SLOWLY, until all prospective technical difficulties are ironed out and you are phrasing it the way you want to phrase it. Then wait a day before slowly increasing the metronome tempo. If you maintain proper rhythm in your mind, you will be amazed at how easy the passage may still be at higher speeds.

Do not articulate by blocking the reed tip opening (and thus the air flow) with the tongue. The tongue should touch the reed just below the tip on a corner of the bottom blade (if this doesn't seem to work for you it may be a sign that your reeds are not responsive enough). When not being used, the tongue should stay forward and out of the way of the air stream.

Notes from A to C (especially with the second octave key) can be “thickened” by also depressing the low C key and (optionally) the E and D keys. This technique can easily become a crutch, so use it sparingly.

Experienced ensemble players tend to pre-hear not just their own sound, but the sound of the entire ensemble along with their tone.

In unison passages, “fit” your sound into the other players's sounds. When tuning, listen toward the bottom of the chord.

Know that the quality of a tone can have an effect on the listener's perception of its pitch; (i.e. a dull tone can seem flat, and a confident tone can seem in tune even if it is not).

No wind musician can hit the exact pitch on attack all the time, but almost any musician can learn to adjust a note after the attack so quickly that the listener cannot really detect the shift (this is the approach which even the best string players use). Confidence in one's intonation is really confidence in one's ability to do this.

There are really two classes of dynamic markings: those for accompaniment passages and those for solos. A non-solo pianissimo should be taken literally, but a soloistic pianissimo can be as much an indication of character or tone color as actual volume.

Your first duty in a solo passage is to be heard. Unless your performing group (chamber music excepted) is top notch, you may find yourself playing many solos (or at least the hearts and climaxes thereof) at full volume (but see the above comments concerning tone color and character). Until you are told you are too loud, assume you are not loud enough. This is often an issue of confidence, and similar comments apply to interpretation.

Because there are relatively fewer oboists than there are performers of most other instruments, oboists and english hornists are usually in demand by community orchestras and other volunteer ensembles. Getting a paid, full-time job in an orchestra is another matter; please investigate and be realistic about your chances before deciding on this as a career.

## Basic Repertoire

This list is intended to provide reasonable possibilities for recital or solo contest selections; it is NOT intended to be all-inclusive. Pieces marked with an asterisk are the most-often performed works in their category, and all ensemble works are also available for oboe and piano. There are several reference texts, including *Music for Oboe 1650-1800* by Bruce Haynes and *The Index of Oboe Music* (with supplements) by Wayne Wilkins, which document oboe repertoire.

The “orchestral excerpts” categories contain works that are commonly requested at orchestral auditions (see Brent Register, “Selected U.S. Audition Requirements for Oboe and English Horn,” *The Double Reed*, Fall 1986, p. 54); they are listed in order from “most requested” to “least requested.”

### Unaccompanied Oboe

Arnold, Fantasy  
Berio, Sequenza (avant-garde)  
Bozza, Suite Monodique  
Britten, Six Metamorphoses After Ovid\*  
Persichetti, Parable

### Unaccompanied English Horn

Persichetti, Parable  
Wagner, Solo from Tristan, Act III

### Oboe and Piano

Bach, Sonata in g minor  
Bozza, Fantasie Pastorale  
Britten, Insect Pieces and Temporal Variations  
Dutilleux, Sonata  
Hindemith, Sonata  
Milhaud, Sonatine  
Kalliwoda, Marceau de Salon  
Lutoslawski, Epitaph  
Pasculli, Variations and Concerto  
Piston, Suite  
Poulenc, Sonata  
Saint-Saens, Sonata  
Schumann, Romances  
Wolpe, Sonata

### English Horn and Piano

Bozza, Divertissement  
Bozza, Lied  
Carter, Pastorale  
Handel, Concerto in c minor (transcription)  
Hindemith, Sonata  
Yvon, Sonata

### Oboe with Orchestra or String Orchestra

Albinoni, Concerto Op9, #2 (and others)  
Bach, Concertos in d minor and F, Double Concerto (Ob, Va)

Carter, Concerto  
Cimarossa, Concerto  
Corigliano, Concerto  
Francaix, Flower Clock  
Goossens, Concerto  
Handel, Concertos in Bb and G minor  
Haydn, Concerto in C  
Hummel, Introduction, Theme, and Variations  
Ibert, Symphonie Concertante  
Jacob, Concertos 1 and 2  
Marcello, Concerto in C minor  
Martinu, Concerto  
Milhaud, Concerto  
Mozart, Concerto K314 in C\*  
Rochberg, Concerto  
Strauss, Concerto  
Telemann, Concerto in F minor (and others)  
Vaughan-Williams, Concerto  
Vivaldi, Concerto #9 in D (and others)

#### English Horn with Orchestra or String Orchestra

Carter, Pastorale  
Copland, Quiet City (with trumpet)  
Donizetti, Concertino  
Jacob, Rhapsody  
Persichetti, Concerto  
Piston, Fantasy  
Reiche, Concerto

#### Oboe with String Ensemble

Bliss, Oboe Quintet (Ob, 2Vn, Va, Vc)  
Britten, Phantasy Quartet (Ob, Vn, Va, Vc)  
Mozart, Quartet (K370) (Ob, Vn, Va, Vc.)\*  
Jacob, Quartet (Ob, Vn, Va, Vc)

#### Miscellaneous

Bach, Arias/Sinfonias (oboe, voice, basso continuo)  
Bozza, Shepherds of Provence (oboe and english horn)  
Beethoven, Trio (two oboes and english horn)  
Francaix, Quatuor (english horn, vn, va, vc)  
Ginastera, Duo for Flute and Oboe  
Koetsier, Partita (english horn and organ)  
Luttman, Meditation II (english horn and organ)  
Mozart, English Horn Quartet (english horn, vn, va, vc)  
Poulenc, Trio (oboe, bassoon, piano)  
Rimsky-Korsakov, Variations (oboe and concert band)  
Sowerby, Ballade (english horn and organ)  
Vaughan-Williams, Blake Songs (oboe and voice)



Orchestral Excerpts: Oboe

Beethoven, Symphony #3

Tchaikovsky, Symphony #4

Ravel, Tombeau de Couperin

Rossini, Scala de Seta Overture

Strauss, Don Juan

Brahms, Concerto (violin)

Brahms, Symphony #1

Brahms, Symphony #2

Debussy, La Mer

Beethoven, Symphony #7

Orchestral Excerpts: English Horn

Dvorak, Symphony #9 "New World"

Berlioz, Roman Carnival Overture

Debussy, Nocturnes

Franck, Symphony in d minor

Wagner, Tristan und Isolde

Berlioz, Symphonie Fantastique

Falla, Three Cornered Hat

Sibelius, The Swan of Tuonela

## Study Resources

It is almost impossible to become skilled as an oboist or english hornist without having a good teacher. In terms of finding a good teacher, one good approach is to contact the principal oboist of the best orchestra in your area. If he or she does not teach, he or she will at least be able to refer you to someone who does.

It is also almost impossible to improve your tone without knowing what sort of tone you are trying to achieve. The best way to gain a good concept of tone quality is to hear live performances by professional oboists; the second best way is to listen to good recordings.

To avoid coming to think of phrasing only in terms of the oboe and its limitations, it is important to listen to artists other than oboists and english hornists (especially singers!). For a change of pace, you might also try listening to a few recordings by the modern jazz group “Oregon”; most of their albums feature extensive oboe and english horn improvisational work.

### Study Books

#### Beginning through Intermediate

- Sprenkle/Ledet, *The Art of Oboe Playing*
- 1. Rubank, *Beginning, Intermediate, and Advanced* or
- 1. Blaine Edlefsen, *Studies and Melodious Etudes*

#### Advanced

- Books on reedmaking and screw adjustment
- 2. Barret, *Method*
- 3. Ferling, *48 Etudes*

#### Semi-Professional

- Stevens Hewitt, *Method for Oboe*
- 4. Bozza, *18 Dix-Huit Studies*
- 5. Gillet, *Studies for Advanced Teaching of the Oboe*

#### Professional

- Studies/etudes of own choice
- Orchestral excerpts/solo works (Andraud’s *Vade-Mecum of the Oboist*, etc.)
- Styles of various eras (including baroque ornamentation)
- Avant-garde techniques

“The only true education is that of the feelings. Memory of how it feels is your only method.”

- Stevens Hewitt

## A Technique and Musicianship Library

### Technique

Browne, *The Art of Cor Anglais*  
Hewitt, *Method for Oboe*  
Light, *Essays for Oboists*  
Sprenkle/Ledet, *The Art of Oboe Playing*  
Whittow, *A Reed Blown in the Wind*

### Screw Adjustment

McFarland, *A Method for Adjusting the Oboe and English Horn*  
Sawicki, *The Oboe Revealed*

### Reedmaking

Berman, *The Art of Oboe Reed Making*  
Capps/Weber, *The Reed Maker's Manual* (videotape also available)  
Hedrick, *Oboe Reed Making - A Modern Method*  
Light, *The Oboe Reed Book*  
Veazey, *The Oboe Reed Video* (videotape)

### Knife Sharpening

Caswell, *Reed Knife Sharpening*

### Musicianship

Blum, *Casals and the Art of Interpretation*  
Dunkel, *The Audition Process*  
Galway/Green, *The Inner Game of Music*  
Gilbert, *The Practice Handbook*  
Ristad, *A Soprano on Her Head*  
Thurmond, *Note Grouping* (Marcel Tabuteau's method)  
A Good Music Dictionary (any)

### Etudes and Methods

Rubank, *Elementary/Intermediate Method for Oboe* (Beginning)  
Edlefsen, *Studies and Melodious Etudes* (Beginning)  
Ferling, *48 Famous Studies for Oboe* (Intermediate)  
Voxman, *Selected Studies for Oboe* (Intermediate)  
Barret, *Method for Oboe* (Intermediate)  
Bozza, *Dix-Huit Etudes pour Hautbois* (Advanced)  
Gillet, *Studies for Advanced Teaching of the Oboe* (Advanced)  
Andraud, *Vade Mecum of the Oboist* (Orchestral Excerpts)

### Periodicals

*The Double Reed* and *The Journal of the IDRS* (International Double Reed Society Publications)

### Other Woodwind Instruments

Galway, *Flute*  
Krell, *Kincaidiana*  
Pino, *The Clarinet and Clarinet Playing*  
Stein, *The Art of Clarinet Playing*  
Teal, *The Art of Saxophone Playing*

## Ear-Recognition of Intervals

Learning to recognize intervals by ear can improve intonation by giving each tone a familiar mental “cubbyhole.” You can practice interval recognition (and duplication) by playing an interval repeatedly on an *in-tune* piano until the sensation becomes very familiar to you; after this, you can sustain the lower tone on the piano and play the interval tone on your instrument to gain a physical sense of what the (in-tune) combination feels like.

Some musicians need a little help in the early stages of this practice. Though they claim to have “no ear,” they can sing or whistle familiar tunes with accurate intonation. Associating the interval at the beginning of a popular tune with its appropriate name can help immensely. The following suggested list may be of assistance:

INTERVAL	ASCENDING	DESCENDING	RATIO
m2	Jaws	M.A.S.H.	16/15
M2	Happy Birthday	Mary Had a Little Lamb	9/8
m3	Camptown Races	This Old Man	6/5
M3	When the Saints Go Marching In	Swing Low, Sweet Chariot	5/4
P4	Here Comes the Bride	I’ve Been Working on the Railroad	4/3
Tritone	Maria	Same	7/5
P5	Twinkle, Twinkle	Feelings	3/2
m6	Go Down, Moses	Love Story	8/5
M6	My Bonnie Lies Over the Ocean	Nobody Knows the Trouble I’ve Seen	5/3
m7	Star Trek Theme (Original)	Same	9/5
M7	Bali Hai (1st and 3rd tones)	Same	15/8
Octave	Somewhere Over the Rainbow	Same	2/1

Pitch ratios in this list are given in “just temperament,” which is slightly different from piano (“equal”) temperament. In equal temperament, multiplying the frequency of a given note by 1.059463094 (the twelfth root of two) gives the frequency of the note one chromatic step higher.

## Getting Started Improvising

Whether or not one becomes a great improvisational musician, learning to improvise can yield several benefits:

1. A classical performer familiar with the idea of “owning” an improvised solo might be able to, when appropriate, interpret orchestral solos more freely and expressively.
2. Improvisation can help one develop the ability to pre-hear and play intervals by ear and, hopefully, then play all intervals better in tune.
3. Improvisation develops memorization and sight transposition skills.
4. Improvisation gives performers a chance to create music which is truly their own.

The key to good improvisation is being able to produce on your instrument sequences of notes that you pre-hear in your mind.

Experiment with this: whistle or sing the melody to a song you know, and then try to duplicate on your instrument what you just whistled or sang. Notice that most melodies contain silence and repeated notes; good improvisations often do the same as they build musical phrases. The best improvisations usually have a sense of direction: they build tension as they approach their climax, and relieve tension after this point.

A good place to start experimenting with improvisation is a 12 bar blues progression in 4/4 time (in C, the progression would be C7 F7 C7 C7 F7 F7 C7 C7 G7 F7 C7 G7 [C7 last time]). There is a special blues scale which can optionally be used with this progression and its variants (in C, this scale would be C Eb F F# G Bb C). One of the reasons this is a good place to start is that this “blues scale” does NOT change as the chords change; a blues progression in C uses a blues scale in C for the *entire length* of the song. You might want to become comfortable with the blues style before moving on to more complex styles.

Here are some final tips:

- As the old saying goes, “there are no bad notes, only bad resolutions.”
- Listening actively and intelligently to good performances will improve the quality of the music you pre-hear.
- When you improvise a solo with an ensemble, remember to listen to the rest of the ensemble (especially the bass).
- An excellent method of practice is to choose an artist you like and play along or improvise along with one of his or her recordings. Every once in a while, turn off the recording and try to play by ear the melody you last heard.
- Once you have developed your pre-hearing ability to a level you are personally comfortable with, you may wish to strengthen your technical skills. Jerry Coker’s *Patterns for Jazz* is a good workbook for technique.
- In many jazz performing styles, you must be able to keep time and follow a written chord progression while improvising; this skill should eventually be acquired if you want to perform with other jazz musicians.

## Solutions to Common Performing Crises

### Waterlogged keys:

- *Immediate Solution:* Press a piece of cigarette paper between the key and its tone hole. Seal one end of that joint with the palm of your hand, close all the keys, blow in the other end, and open the waterlogged key only. Repeat until the cigarette paper shows no moisture when removed. Blowing a sharp burst of air over the tone hole may also clear the problem.
- *Permanent Solution:* Disassemble the surrounding keywork and follow Steps 5 and 7 of “Annual Maintenance Procedure” (for keys other than octave keys). You should attempt this only if the problem occurs regularly with a particular key; if you aren’t comfortable performing this procedure, or if it doesn’t work, consult a repairperson.

### Sticking keys:

- *Immediate Solution:* Put a crisp new \$1 bill or crisp piece of paper between the key and its tone hole. Press the key shut and hold it shut while pulling out the bill or paper. Repeat if necessary.
- *Permanent Solution:* One possibility is that the key is dirty; remove the key and follow Step 12 of “Annual Maintenance Procedure.” Another possibility is that the pad needs to be replaced. Ultimately, if you can’t fix this problem yourself you should take the instrument to a professional repairperson; recurrent sticking keys rarely just “fix themselves.”

### Screw out of adjustment:

- Consulting a book on screw adjustment if necessary, adjust the appropriate screw with a screwdriver. Remember that if you adjust only one screw at a time and keep track of where the screw was set before you started turning it, you can always bring the instrument back to its original state.

## Supplies

Largely due to the necessity of reedmaking, oboe and english horn players must depend on more accessories than almost any other instrumentalist.

### **The following supplies can often be found lying about the house:**

*One plastic 35mm film canister with lid:* This is for holding reed soaking water. Reeds should be soaked for a few minutes before being played, and the best way to accomplish this is to dip the reeds in water and let them lie on a flat surface for a few minutes. English horn reeds require more soaking time.

*Sealant:* Use this to seal the bindings of reeds. Be certain to use a non-toxic, waterproof brand.

*Desk lamp:* The best way to see the structure of a reed is to hold it in front of a bright light. A desk lamp is handy both for this sort of reed back-lighting and for providing adequate working light.

*Two short pencils:* One of these goes in the reed tool kit for marking cane, the other goes in the oboe case for marking music. Pencil in any changes or instructions your conductor or teacher gives you; you will probably not remember them later and certainly will not remember them during a performance. Highlight anything you consistently miss.

*Cigarette paper:* This can be a lifesaver. Keep some in your reed case. If water becomes trapped under a key, slip a piece of cigarette paper over the hole, press the key down, and slowly pull out the paper while the key is being held down (sometimes, blowing a sharp burst of air across the hole will clear it as well). An octave key is holding water if it seems to stop functioning; high G or A will turn into low G or A because one of the two octave holes is clogged and will not open.

*Pipe cleaners:* Keep some pipe cleaners both in your oboe case and in your reed tool kit. Pipe cleaners can be run through old staples and old reeds to clean them out.

*Razor blades:* Keep a sharp one in your reed kit. It can be used for various odd jobs (such as clipping the tip of a reed) that would might dull the edge of a good reed knife.

*Heavy mineral oil in small waterproof bottle:* Keep this in your reed kit. Before sharpening the knife, spread a few drops of oil on the stone. Depending on the type of stone, you may not need to use oil: if it is one of the new diamond stones, use water instead.

*FF nylon thread:* This is for tying reeds. Some reedmakers prefer EE nylon thread, which is slightly thinner. It is useful to get a variety of colors so one can tell the reeds apart.

*Ruler:* Keep a small millimeter ruler in the reed kit for measuring reeds.

### **These supplies must usually be sent away for:**

*Reed knife:* Double hollowground knives and beveled knives are the most popular varieties. Be sure to get a sheath for the knife to protect it against otherwise dangerous drops.

*Sharpening stone:* Many oboists who have tried them prefer the new diamond sharpening stones to the older models, but it is a matter of personal preference.

*Mandrel:* The mandrel is the device that fits inside the staple to help it keep its shape and give you something to grip while the reed is being tied. It should fit standard staples exactly and have a non-circular handle that is in line with itself (so one can tell whether the cane is aligned on the staple while tying).

*Plaque:* This sliver of metal fits between the reed blades while you are scraping. It should be made of blued steel, but may be flat or contoured.

*Cutting block or Billot:* This squat, slightly rounded cylinder of wood is used with a razor blade to clip reed tips.

*Toolkit:* One needs something to safely carry these tools in. If all else fails, any oboe supplier will have leather tool satchels for sale.

*Cork grease:* This should be applied when necessary to the cork that connects the three parts of the oboe.

*Silk swab:* This is the only worthwhile item for swabbing moisture from the inside of the oboe. The silk swabs can be pulled through the fully assembled oboe. This should be done several times during each rehearsal or practice session and immediately before putting the oboe away.

*Fishskin:* This is used in an emergency to seal a leaking reed.

*Oboe screwdriver set:* Use this to turn the adjustment screws.

*Oboe staples:* Although staples are reusable, a good quantity of them (20 or more) is desirable. If the staples are too large to easily slip in and out of your oboe, try sandpapering the cork for a better fit. As the staple is a continuation of the oboe bore, the length of the overall staple and the shape/size of the oval end should be the same on all the staples you use. This can be checked by insuring that each staple fits on your mandrel the same way.

*Cane (Arundo Donax L.):* The beginner is advised to buy cane on his or her teacher's recommendation and use that same cane until he or she can consistently produce good reeds. Reedmakers who have achieved consistency will usually experiment with cane source/age, hardness, shape, gouge (center and side), "vascular bundle density", and diameter until they find the optimum cane for their playing style and climatic conditions. The smaller the cane diameter, the greater the arch and the larger the eventual tip opening. The gouge is a measurement of cane thickness; cane gouged .58 in the center will play more easily than cane gouged .62 in the center. Often, the longer a batch of cane has been aged naturally, the better quality it is (also, cane plants that sprouted in the same place in the same year will have many of the same properties). Vascular bundles are the veins that can be seen in a well-scraped reed tip. Reeds made from cane with dense vascular bundles tend to sound bright, projecting, and vibrant. Cane with a sparse vascular bundle structure (caused by low levels of rainfall during their first spring) tends to produce a dark, but dampened sound.

*Reed case:* Some sort of case is necessary to keep your reeds safe. There are cases available that will hold anywhere from two to sixteen reeds. Most reed cases that hold three reeds or fewer will fit in your oboe case.

*Tuner:* An oboist needs something to insure that he or she is making and playing reeds that are in tune. Keep an A440 tuning fork in your oboe case if you wish, but purchase an electronic tuner if you can. Modern electronic tuners have two functions: they can sound the note or they can silently tell you how sharp or flat a note you play is. The second function should be used sparingly, usually only to check the pitch of the concert A or for testing new fingerings. Using this function indiscriminately is a poor idea for three reasons:

1. Anyone can make the tuner needle stand still; the brain is barely involved in this process, so no real progress is made.
2. It short-circuits the pre-hearing concept of pitch, which is the only way to play in tune without the tuner.



3. It discourages learning to play in tune by matching the given pitch, which is the only real way to stay in tune in an ensemble.

But if you feel you must use this function, close your eyes, attack the note, then open your eyes and look at the needle.

The pitch sounding feature is by far the more beneficial function. Learn to match pitches by having the machine sound the note while you play the same tone on the oboe; when the pitches are out of tune with each other, “pulses” will be heard at regular intervals. When the notes are perfectly in tune, these pulses disappear. Try to pre-hear and attack notes in tune.

Another application of the pitch sounding feature is in interval practice. Have the machine sound a tone which will be considered the key signature for the exercise. Play different intervals of that note, pre-hearing them before you play them, identifying them by the sound, and remembering the sound of that interval when it is in tune.

*Electronic metronome:* Just as rhythm is the most basic element of music, the metronome is the most important tool for practice. It should be used almost constantly; if you have a choice between buying a tuner or a metronome, buy a metronome. When you play, the metronome beat becomes the framework your notes fit into. There is no need to tap the foot or flap the arms to the beat; the pulse is inside the mind, but is tied to the reality of the clicks.

*Oboes:* If you’re going to purchase a new professional instrument, purchase it from a knowledgeable specialty dealer who also does repairs and instrument tunings for professional oboists. If you want to purchase a used instrument, contact a dealer who sells instruments on consignment by and for professional players, or purchase it from a local professional (major symphony oboists usually get the best instruments and often sell them for trivial reasons). A used instrument is less expensive and less likely to crack, making this an attractive option.

*Related instruments:* There are several relatives of the oboe which, while having different ranges and needing different sizes of reeds than the oboe, use the same basic fingerings and technique. The most common of these is the english horn. Orchestras usually employ two oboists and an english horn player, who is also expected to play oboe. Most professional oboists own an english horn. The english horn is in the key of F; each note sounds a fifth lower than the same note on an oboe.

Occasionally, in performance of certain baroque works (“St. Matthew’s Passion” or “Magnificat” by J.S. Bach, for example), an oboe d’amore is used. The oboe d’amore is pitched in the key of A, between the oboe and english horn. There is also a bass oboe in the key of C (pitched an octave below the oboe), which is mainly used in performances of “The Planets” by Holst. There is no real need for an oboist to purchase either of these two instruments; in the event that they are needed, the orchestra will usually borrow or rent one.

*Oboe maintenance:* If you have a new wooden oboe, consult a teacher or dealer as regards maintenance procedures (oiling, using a dampit, etc.) that may have to be done to avoid cracks. Play new oboes sparingly (swabbing FREQUENTLY) for the first few weeks. If a crack does develop (usually around the trill keys), put chalk marks around the crack and send it to a repairman immediately. After one year of use, the instrument is usually out of cracking danger. But, should it lie unused for over a month, treat it like a new instrument when you play it again. Of course, buying a professional instrument with a plastic top joint will prevent cracking, and acoustical scientists tell us such a decision should have no noticeable effect on the tone if the plastic instrument is manufactured with the same care as the competing wooden instrument.

With any oboe, use a pull-through swab periodically during rehearsals and before you put the instrument away. Avoid extreme and sudden temperature changes with wooden oboes, and always warm the top joint

of the instrument in your hands until it no longer feels cold to the touch before blowing air through it. Never set the oboe with the keys down, keep erasers in the case, or assemble it carelessly.

Adjusting the adjusting screws is something most oboists should be able to do for themselves. Purchase a lesson on the subject with a teacher or technician if you can, and then use the “Guide to Screw Adjustment” section of this guide as reference. Every year or so, the entire mechanism of heavily-used professional instruments should be disassembled, oiled and checked for problems. You can pay a repairman to do this, or you can learn to do it yourself with a text such as Carl Sawicki’s *The Oboe Revealed*. But for more serious problems (such as a faulty cork pad), send the instrument to the best repairperson you can find. It will be money well spent.

Finally, be certain your oboe is in top operating condition before attempting to make reeds; this eliminates one more potential variable.

*Reeds:* If you do not yet make your own reeds, buy handmade, long scrape reeds from a professional or a double reed specialty store.

## **Instrument Care and Maintenance**

### **Considerations Before and During Each Playing Session**

1. Warm the instrument properly by opening the case and putting the top joint under your armpit (or wrapping your hands around it) until it no longer feels cold to the touch. If the instrument is extremely cold, let all three joints sit in the open case until they are close to room temperature before warming the top joint. Never blow air through a cold instrument.
2. Be careful of the levers bridging the sections when assembling. Lubricate tenons with cork grease or Vaseline if necessary.
3. Begin the session by playing a few low long tones.
4. Swab the bore (with a pull-through silk swab - not a feather) periodically during the session.
5. Never set the instrument key side down.

### **Caring for New and Unused Instruments**

An instrument that loses its normal humidity level (through a period of disuse or being new, sometimes compounded by a dry climate) may suffer binding keys (lower octave, Eb, C#, or F res stop working or become sluggish) or a crack when played. If your instrument has not been used for a long period of time, consider putting a “dampit” type humidifier in the case for a few days first (but not in the bore, as the instructions indicate, and be sure it doesn’t rest in contact with the keys, which can damage them). The keys will unbind when the instrument has rehumidified. Should the keys bind and a humidifier is not available, place a few orange peels in the case and seal the case in a plastic bag; the instrument should be rehumidified in a few days. If you are breaking in a new instrument, consider playing it for only half-hour sessions for its first two weeks, and swab it every five to ten minutes. Some retailers and manufacturers recommend oiling the bore of new instruments; ask about whether this procedure is recommended at the time you purchase your instrument.

### **Cracks**

As a practical matter, if an instrument is going to crack it will usually crack when it is new and first being played. The following approaches have been recommended to avoid cracks:

1. Preventing the production of excess condensation (by carefully warming the instrument before playing)
2. Preventing the absorption of excess condensation (by periodic swabbing while playing)
3. Raising/maintaining the instrument’s general humidity level (through humidifiers and/or being played for at least a few minutes a day)

Most cracks are found by the trill keys, half hole, octave holes/posts, or (rarely) the G# hole. If there is an improper fit of the joint or tenon (a gap between the wood and the surrounding metal band or an overly tight fit between the tenon and its socket) a crack could result from this stress. Thus cracks are sometimes (but rarely) found by the F# hole or low Bb hole. Cracks, if left unpinned, will usually spread.

If a crack is noticed, the instrument should be sent to a top-notch repairperson as soon as possible. If it is still within its crack warranty period, you might consider requesting a new instrument or top joint from the retailer you purchased it from rather than requesting a repair (you’ll still have to send the cracked instrument back first, obviously). When mailing an instrument to a repairperson, ask them how they would like the instrument prepared for shipment.

## **Principles of Oboe Disassembly/Reassembly**

1. Let springs disengage/reengage AS the appropriate key is being removed or replaced. This will save the springs' tension, which might be altered should the spring have to be pulled into place with a spring hook.
2. Once the key is removed, put any pivot screws back into their correct posts and put any rod screws back into the key. Many things that look interchangeable are not.
3. Place the keys on the table (preferably a large, well lit one) in a recognizable order.
4. Do not set keys on the table with the pads facing down.
5. Do not remove more keywork than is necessary.
6. Remove keys in the recommended order when possible.

## **Instrument Disassembly Order (follow reverse for reassembly)**

- I. Top Joint (each group can be removed separately)
  - A. Octave Keys
    - thumb octave spatula
    - third octave (if present)
    - thumb octave key
    - side octave key
  - B. Left Hand Main Keys
    - two short parallel side rod screws (holding G#-A trill and F# to Bb vent connector)
    - main rod holding half hole, C vent, A key, Bb vent, G key, and right hand G#
    - left hand G# spatula
  - C. G#/A Connector and Trill Keys
    - G#/A connector
    - trill levers (take out lowest pivot screw)
    - trill keys (put paper under keys before removing)
- II. Bottom Joint (generally, these must be removed in order)
  - A. B/Bb/Eb/Left Hand F
    - left hand F spatula
    - alternate C "banana" key
    - B/Bb levers (first remove rod screw in alignment loop, then lower rod screw)
  - B. C/C#/Eb
    - Eb key
    - C# key
    - C#/Eb spatula (lower pivot, unhook springs before removing)
    - low B key and low C spatula/pad (remove low B pad key rod first)
  - C. Right Hand Main Keys
    - F resonance key
    - F resonance "rocker"
    - main rod
    - C/D right hand trill
    - F key

## Tarnish Recovery

Some people have skin which causes their instrument's keys to become tarnished more quickly. If this is the case for you, then you might want to polish your instrument's keys with a silver anti-tarnish cloth every week or month (if recommended by the instrument's manufacturer). Keywork that is extremely tarnished and dirty (usually on a neglected and old instrument) can sometimes be salvaged with Tarn-X. Remove all the keywork and follow the instructions on the Tarn-X bottle. Be careful to get NO Tarn-X on cork or pads, and get as little rinsing water on the cork or pads as is humanly possible.

## Annual Maintenance Procedure

For many players, the best way to handle annual oboe maintenance (especially for expensive professional models) may be to send the instrument to a skilled repairperson for a general-checkup, mentioning to the repairperson any problems that were noticed with the instrument over the last year. For people who would rather handle some basic maintenance procedures themselves, the following outline may be of value. If you are the sort of person who likes to maintain your own instruments, you might mention this to the company you buy your instrument from (if you're buying it new from a knowledgeable supplier), and possibly ask what THEY recommend you do. Ultimately, you're responsible for your instrument, and the fact that some of the things listed below worked well for one person and that person's instrument do not necessarily mean that are appropriate to you and yours.

1. Mentally review your oboe's performance over the last year (making note of keys which developed habitual water, sticking, or sluggishness problems, etc.) Visually examine and play the instrument, noting problem keys, improperly fitting tenons, too much/little tension on any key, or anything else unusual or undesirable.
2. Disassemble the keywork (see above).
3. Examine corks and pads. Note any bumper pads that are wearing out. If you cannot replace these yourself (using a knife, cork cement, and the correct sheet of cork or leather) have a repairman do it.
4. Dust the oboe's wood.
5. Clean dirty tone holes with a wet Q-tip (with elongated tip) or a wet pipe cleaner. Clean the hole's entire length, and if you use a pipe cleaner be sure not to scratch the wood with the metal part of the pipe cleaner. Repeat until no more dirt comes out. Also check for dirt deposited in keys with center holes.
6. Oil the oboe's bore (but only if the manufacturer or retailer or repairperson for the instrument recommends that this be done).
7. Find those tone holes which have had water problems. Elongate a Q-tip tip, lightly coat it with sweet almond oil, and slowly "screw" it down the entire length of the tone hole. Check the hole visually for unevenly applied oil and *be sure* to wipe any excess oil from the top of the tone hole to avoid interference with the pad.
8. Using a paper towel, carefully wipe old oil and dirt from from springs and reoil them (as always, use only enough oil to lightly coat when spread). Oil both the top and bottom of flat springs. Know that the oil used on metal parts such as these (clock oil) is NOT the same as the oil used on the wood or in the bore (sweet almond oil). Some sort of precision applicator must be used to avoid using too much oil or spilling any on the body of the instrument.

9. Polish the keys (with a silver anti-tarnish polishing cloth) if necessary and recommended by the instrument's manufacturer.
10. Using a paper towel, clean old oil/dirt from rod screws and pivots.
11. Run wet pipe cleaners (again, be sure not to scratch anything) through the rod hole in each key until no more dirt comes out. Visually check the hole to insure no residue is present.
12. Locate those keys plagued by sticking problems. Clean their pads with a Q-tip dipped in rubbing alcohol (you may wish to ask your retailer or repairperson if they recommend this procedure).
13. Adjust the tension on any springs that need it. Tension is increased by carefully and evenly increasing the bend of the spring and is decreased by reducing the bend (i.e. bending in the direction opposite to its natural curve). Do not nick the spring, cause a "sharp angle" bend, or bend only at the post. Work along the spring's entire length.
14. Reassemble the keywork. As you reassemble each key, smear a drop or two of clock oil on the appropriate rod or pivot screw to create smoother action and prevent rust.
15. Test the key action WITHOUT blowing into the instrument. Correct anything obviously wrong (usually a slipped spring).
16. If you oiled the bore, let the instrument sit for a day to allow the oil time to soak in.
17. Play-test the instrument, adjusting the adjusting screws where necessary and correcting any other problems.

## Oboe/English Horn World Wide Web Pages

### Professional Societies

International Double Reed Society: <http://idrs.colorado.edu/>

### Online Articles

Third octave key fingerings: <http://www.ms.uky.edu/~moses/doublereed/dr.articles/third-8va.html>

Reed tie-off lengths: <http://www.ms.uky.edu/~moses/doublereed/dr.lists/tie-off.html>

Information on *Arundo Donax L*: <http://wuarchive.wustl.edu/doc/misc/org/doublereeds/general/cane.html>

Information on California-grown cane: <http://www.oboe.org/donax.htm>

### Discussion Groups

The Doublereed-L Discussion List: <http://www.wuacc.edu/cas/music/doublereed-l/>

### Vendor Listings and Other Information

The Double Reed Page: <http://www.ms.uky.edu/~moses/doublereed/>

### Oboe and English Horn Suppliers

Charles Double Reed Company: <http://www.charlesmusic.com/>

Nora Post: <http://www.norapost.com/>

Forrests Music: <http://idrs.colorado.edu/forrests/forrests.html>

McFarland Double Reed Shop: <http://www.mindspring.com/~dblereed/>

## Using the Chord/Scale Constructor

To get started, make a copy of the Chromatic Bar (the two-octave chromatic scale at the top). To obtain a scale, position the Chromatic Bar beneath the name of the scale you desire and slide the bar to the right until the note you wish the scale to be based on is resting directly beneath the “1”. The remainder of the scale can be seen by looking at the notes on the Chromatic Bar directly beneath each of the numbers; the numbers in parentheses to the right indicate what chords would fit that particular scale. The same procedure is followed to obtain chords: the numbers in parentheses to the right of the chord spellings indicate what scales would fit with that chord (scales which might work well in jazz are underlined).

One of the fastest ways to improve one’s skill on any musical instrument is to practice slow scales and arpeggios daily; scales should be practiced in all twelve keys, perhaps alternating between chromatic order and cycle of fifths order. It is also helpful to choose a “key of the day” or “key of the week” (alternating major and minor), and to perform extra scale/interval practice and etudes in this key. Classical musicians might benefit most from practicing the chromatic, major, and minor scales with arpeggios, and jazz musicians might consider practicing the chromatic, major, dorian, and mixolydian scales with arpeggios instead.

Here are some other useful tidbits of information:

- The “Cycle of Fifths” is as follows: C G D A E B F#/Gb Db Ab Eb Bb F C.
- Sharp and Flat addition follows this simple pattern: Sharp addition -> FCGDEAB <- Flat addition.
- In classical theory, the melodic minor scale uses the natural minor scale when descending.
- “Sus” means “suspension.” In a suspended 2 chord the 2nd is used in place of the 3rd, and in a suspended 4 chord the 4th is used in place of the 3rd. A 7sus4 chord, for example, would be spelled C, F, G, Bb. This notation is most commonly found in arrangements of popular or folk music.



# The Chord/Scale Constructor

## The Chromatic Bar

C	Db	D	Eb	E	F	Gb	G	Ab	A	Bb	B	C	Db	D	Eb	E	F	Gb	G	Ab	A	Bb	B	C
---	----	---	----	---	---	----	---	----	---	----	---	---	----	---	----	---	---	----	---	----	---	----	---	---

### Scales

1	Chromatic*	1	2	3	4	5	6	7	8	9	10	11	12	13	(all)
2	Ionian (Major)	1		2		3	4		5		6		7	8	(1,2)
3	Dorian	1		2	3		4		5		6	7		8	(3,4)
4	Phrygian	1	2		3		4		5	6		7		8	(4)
5	Lydian	1		2		3		4	5		6		7	8	(1,2)
6	Mixolydian	1		2		3	4		5		6	7		8	(1)
7	Aeolian (Natural Minor)	1		2	3		4		5	6		7		8	(4)
8	Locrian	1	2		3		4	5		6		7		8	(6)
9	Melodic Minor	1		2	3		4		5		6		7	8	(3,5)
10	Harmonic Minor	1		2	3		4		5	6		7		8	(5)
11	Altered Major	1			2	3		4	5		6		7	8	(1,2,3,5,10)
12	“Hungarian”	1		2	3			4	5	6			7	8	(5)
13	Lydian Augmented	1		2		3		4		5	6		7	8	(11)
14	“Arabian”	1		2		3	4	5		6		7		8	(8,9)
15	“Gypsy”	1	2			3	4		5	6			7	8	(2,11)
16	“Spanish”	1	2			3	4		5	6			7	8	(7,8)
17	“Balinese”	1	2		3			4	5					6	
18	“Chinese”	1		2		3			4		5			6	(1)
19	Pentatonic	1		2			3		4		5			6	
20	Pentatonic Minor	1			2		3		4			5		6	(4)
21	“Byzantine”	1	2			3	4		5	6				7	
22	“Persian”	1	2			3	4	5					6	7	
23	Augmented*	1			2	3			4	5			6	7	(2,5,11)
24	Whole Tone*	1		2		3		4		5		6		7	(8,9)
25	Inverted Diminished*	1	2		3	4		5	6		7	8		9	(1,3,4,6,7,9,10)
26	Diminished*	1		2	3		4	5		6	7		8	9	(10)
27	Blues Scale	1			2		3	4	5			6		7	(blues progression)

### Chords

1	Major Sixth (M6)	1		3		5		6		(2,5,6,11,18,25)
2	Major Seventh (M7)	1		3		5			7	(2,5,11,15,23)
3	Minor Sixth (m6)	1		3		5		6		(3,9,11,25)
4	Minor Seventh (m7)	1		3		5			7	(3,4,7,20,25)
5	Minor w/ Major 7th (m#7)	1		3		5			7	(9,10,11,12,23)
6	Half Diminished 7th ( <sup>ø</sup> 7)	1		3			5		7	(8,25)
7	Dominant 7th (7)	1			3		5		7	(6,16,25)
8	Augmented 7th (+7)	1			3			5	7	(14,16,24)
9	7th w/ Dim. 5th (7b5)	1			3		5		7	(14,24,25)
10	Diminished 7th ( <sup>o</sup> 7)*	1			3		5		7	(11,25,26)
11	M7th w/ Aug. 5th (M7+5)	1			3			5	7	(13,15,23)

\* = Symmetrical or keyless