WOODWIND BASICS

Core concepts for playing and teaching flute, oboe, clarinet, bassoon, and saxophone

BRET PIMENTEL

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Bret Pimentel, D.M.A.

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To my teachers and my students, who between them taught me everything I know

Table of Contents

Preface

This book outlines the most crucial, fundamental, underlying concepts in woodwind playing. You won't find here extended techniques, historical matters, methods of reed making or adjustment, more than a passing look at "auxiliary" instruments, or even ordinary niceties like vibrato, flute double-tonguing, or bassoon flicking.

What you will find are the *core building blocks of solid woodwind technique*. These are applicable at every level of playing and teaching, from beginner to professional. None of the concepts here are new or groundbreaking, but I have tried to present them in a newly clear, concise, and organized way.

You might use this book if you are:

- **A teacher of a college woodwind methods course.** You might use this text (as I have) as a course outline and source of readings. I suggest combining it with a good band method, if you are

teaching several instruments simultaneously, or individual method books, if you are teaching one instrument at a time.

- **A private teacher (beginner through college) or a school band director.** You might use this book as a reference or refresher. The chapter "Elements of woodwind sound" provides a framework for observing woodwind technique (such as in lessons, masterclasses, auditions, or competitions), and the chapters on specific techniques provide methods for shoring up observed problem areas.
- **A woodwind player, especially a woodwind doubler.** You might find this book useful for reconciling the differences in how techniques are taught within different instrumental traditions. This book shows how all woodwind technique is based on the same bedrock concepts, which may be applied to different instruments in different ways. It describes those concepts using a unified and consistent vocabulary.

In any case, I hope this book will help you to better understand, apply, and teach the techniques of this diverse and beautiful group of musical instruments.

Bret Pimentel
May 2017
Cleveland, Mississippi, USA

Chapter 1

The woodwind families

For our purposes, the woodwind instrument group is made up of five families: flutes, oboes, clarinets, bassoons, and saxophones.

The word “wood”-winds doesn’t really work very well for the instruments in that group. Oboes, clarinets, and bassoons are traditionally made of wood, but sometimes other materials. Modern flutes are almost always made of metal, and saxophones have always been metal. Some people think the woodwinds are called that because they use “wooden” reeds. However, reeds are made from a cane plant that is biologically a grass, not a tree, and besides, the flutes do not use reeds.

But even though the word “woodwinds” is outdated, those instruments do still have some things in common.

The Hornbostel-Sachs system is one widely used system of categorizing instruments. It separates mouth-blown wind instruments into three major groups:

- Edge-blown aerophones (flutes)
- Reed aerophones (including the "single reed" clarinets/saxophones, and the "double reed" oboes/bassoons)
- "Trumpets" (it's confusing, but this actually includes all the so-called "brass" instruments)

The first two groups together are the woodwind instruments. They are different from brass instruments because their tone-generating mechanisms are part of the instrument, such as a reed or a flute blowing edge. (For the brass instruments, that mechanism is the vibrating lips, which are part of the musician's body.)

The woodwind instruments have another thing in common: toneholes that open and close along the instruments' lengths. This makes it possible for woodwind players to produce different notes. (Brass players produce different notes by diverting the air through additional tubing with valves or slides.)

Individual woodwind families

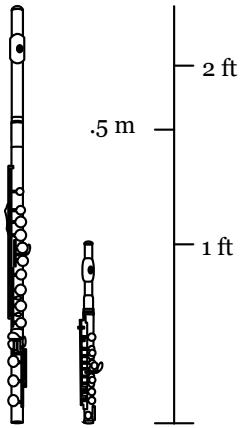
The following sections list only the most common instruments from each woodwind family.

Flutes

The flute (also known as the C flute or concert flute) is a standard instrument in concert bands and symphony orchestras.

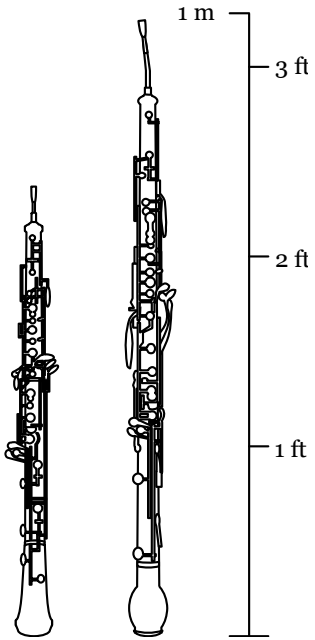
The piccolo is a small, higher-pitched flute that is frequently used in concert bands and symphony orchestras.

The alto and bass flutes are larger and lower-pitched than the C flute. They are only used rarely in bands and orchestras, but are fairly common in specialized groups like flute choirs.



Flute and piccolo

Oboes



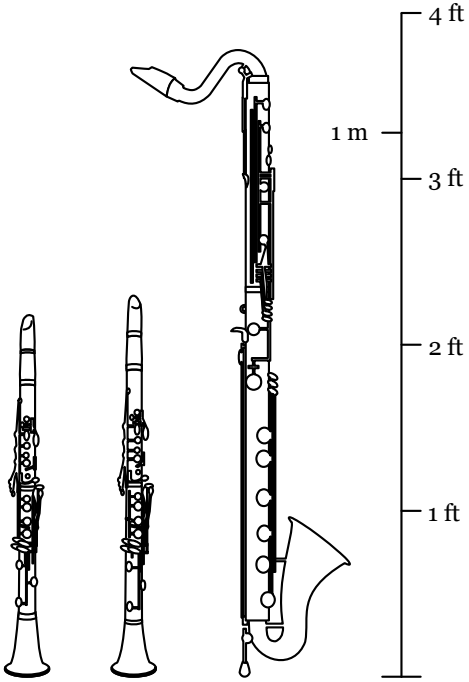
Oboe and English horn

The oboe is a standard instrument in concert bands and symphony orchestras.

The English horn (or “cor anglais”) is larger and lower-pitched. It is sometimes used in concert bands and symphony orchestras.

The oboe d’amore and the bass oboe (also known as the baritone oboe) are rarely used. The oboe d’amore was common in Baroque music.

Clarinets



B♭ and A clarinets and bass clarinet

The term "clarinet" usually refers to the B♭ clarinet, which is a standard instrument in concert bands and symphony orchestras. It can also refer to the slightly larger clarinet in A. Orchestral clarinetists often perform on B♭ and A clarinets in the same concert. They may even switch back and forth in the same piece according to the composer's instructions. Their sounds

are virtually identical. Composers generally choose one or the other for the player's convenience based on the key of the music.

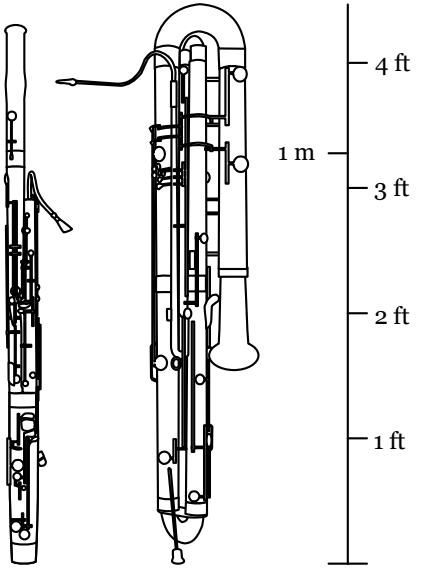
The bass clarinet is larger and lower-pitched. It is frequently used in concert bands and sometimes in symphony orchestras.

The E♭ clarinet is a small, high-pitched instrument. It is used occasionally in concert bands and symphony orchestras.

The alto clarinet is somewhat common in early- and mid-20th century concert band music, but rarer in recent works. The basset horn is similar to the alto clarinet and was used mostly in the Classical and early Romantic periods.

The large E♭ contrabass clarinet (also known, confusingly, as the contralto clarinet) and the even larger B♭ contrabass clarinet are sometimes used in concert band music.

Bassoons

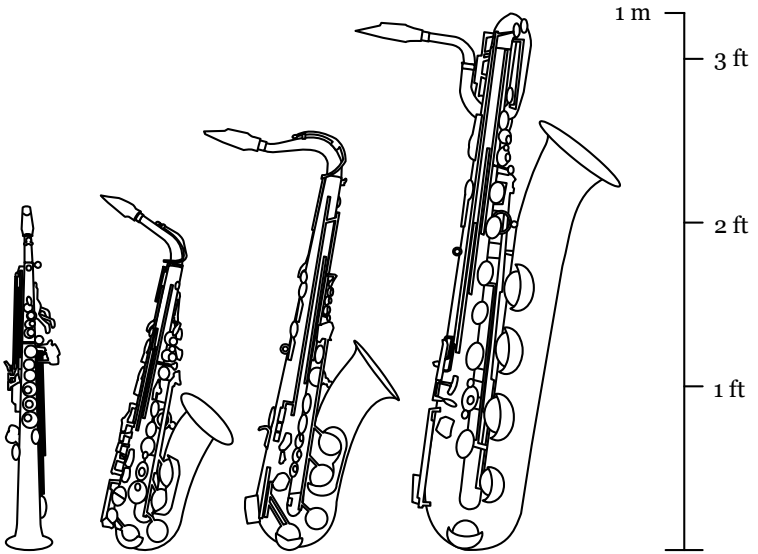


Bassoon and contrabassoon

The bassoon is a standard instrument in concert bands and symphony orchestras.

The larger contrabassoon is sometimes used in concert bands and symphony orchestras.

Saxophones



Soprano, alto, tenor, and baritone saxophones

The alto, tenor, and baritone saxophones are standard instruments in concert bands and in jazz big bands. The soprano saxophone is also used occasionally in concert bands and jazz big bands.

The saxophones are only rarely used in symphony orchestras.

Review questions

1. What do woodwind instruments have in common with each other?
2. What subgroups can the woodwinds be divided into?
3. What woodwind instruments are commonly used in concert bands? symphony orchestras? jazz big bands?

Further reading

Instrument classification

von Hornbostel, Erich M., and Curt Sachs. 1961. "Classification of Musical Instruments: Translated from the Original German by Anthony Baines and Klaus P. Wachsmann." *The Galpin Society Journal*. 14: 3-29.

Details of individual instruments

Adler, Samuel. *The Study of Orchestration*. New York: W. W. Norton, 2002.

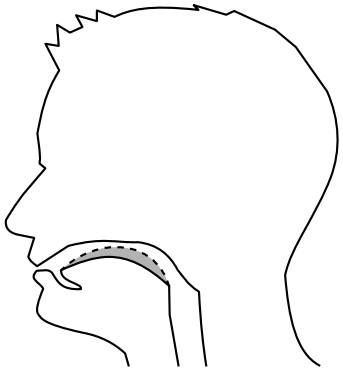
Chapter 9

Voicing

Voicing is most easily understood in terms of some common ways that you already use it. For example, form a small aperture (opening) in your lips, and, without changing the opening, try the following:

- Say "EE," then say "OH."
- Blow cold, fast air, then blow warm, slow air.
- Whistle a high note, then whistle a low note.

Each case involves changing the size and shape of the oral cavity (the space inside your mouth). This is done by changing the position of the back of the tongue. The first part of each example above corresponds to a "high" voicing, and the second part corresponds to a "low" voicing. Notice also that you can create many shades of voicing in between: say "AH," blow air that is a little warm or a little fast, or whistle a mid-range note.

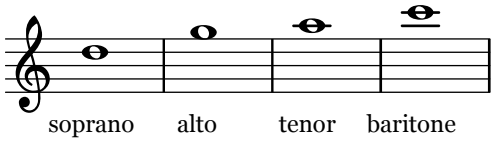


Each of the woodwinds requires a certain voicing to get the best results. Tone, intonation, and response are all affected by voicing. At a beginner level, the object is to learn to use a single "correct" voicing on the instrument, which remains the same regardless of register, dynamics, etc. When you have advanced enough to be able to effectively use a variety of tone colors and to adjust pitch for individual notes, you do so with very small, temporary adjustments to your basic voicing.

Correct woodwind voicings

Clarinets generally require a very high voicing, and flutes and double reeds need a very low voicing.

Saxophones are slightly more complicated because they have in-between voicings. To find the correct voicing, play on the mouthpiece alone, with a well-formed embouchure, strong breath support, and at a *forte* volume. Without changing those things, adjust your voicing up or down until you produce the correct pitch.



Saxophone mouthpiece pitches (concert)

Diagnosing voicing problems

Too low	Too high
A too-low voicing is a common problem on clarinet and saxophone. It generally results in:	A too-high voicing is a common problem on flute, oboe, bassoon, and saxophone. It generally results in:
• Tubby, unfocused tone. • Poor response, especially in the upper register. • Flat/unstable pitch.	• Thin, weak tone. • Poor response, especially in the lower register. • Sharp/unstable pitch.

Review questions

1. What are some ways to experience the sensation of changing your voicing?
2. What is the optimal voicing for the flute? the oboe? the clarinet? the bassoon? the saxophone?
3. What problems can be caused by incorrect voicing?

About the author

Bret Pimentel is an active performer and teacher of all the major woodwind instruments. He has taught woodwinds and woodwind methods courses at the University of Georgia, Clemson University, and Delta State University. He blogs at bretpimentel.com.

Woodwind Basics: Core concepts for playing and teaching flute, oboe, clarinet, bassoon, and saxophone is a fresh, no-nonsense approach to woodwind technique. It outlines the principles common to playing all of the woodwind instruments, and explains their application to each one.

The ideas in this book are critical for woodwind players at all levels, and have been battle-tested in university woodwind methods courses, private studios, and school band halls. Fundamental questions answered with newfound clarity include:

- What should I listen for in good woodwind playing?
- Why is breath support so important, and how do I do and teach it?
- What is voicing? How does it relate to ideas like air speed, air temperature, and vowel shapes?
- What things does an embouchure need to accomplish?
- How can I (or my students) play better in tune?
- What role does the tongue really play in articulation?
- Which alternate fingering should I choose in a given situation?
- How do I select the best reeds, mouthpieces, and instruments?
- How should a beginner choose which instrument is the best fit?

Woodwind Basics by Bret Pimentel is the new go-to reference for woodwind players and teachers.