## The instruments of the orchestra

### Arie van Hoek

to Angela Colbers

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#### The wind instruments

At the back of the orchestra the wind instruments have found a place (**play winds**, **5 sec**). Some wind instruments have been made of wood (**show**) and others are made of metal (**show**). Just like the string instruments the different wind instruments vary in size from very small (**show piccolo**) to big (**show tuba or contrabassoon**).

With string instruments, the vibrating string is the source of the sound, with wind instruments different ways are used to force the air to vibrate. At the flute mouthpiece (show flute) with the lips some airflow from breathing-out is directed towards a rather sharp edge causing some sound. With the so-called reed instruments (show reeds) a thin reed is forced to vibrate, and with the brass instruments a slight air flow between the lips causes vibration (show brass mouthpiece).

# Then, *very important*, after the mouthpiece a piece of tube is mounted. And the air column inside that tube might vibrate as well, the so-called *resonance*. That only happens when the vibrations in the mouthpiece are at a pitch that is able to resonate in the specific length of air column. A much louder and more defined sound is then generated (**play trumpet mouthpiece separately and mounted**). That resonance happens at a *short* tube for *high pitch* (**play piccolo**) and at a *long* tube for *low pitch* (**play tuba**).

#### The bassoons

Like the oboe a bassoon is a double reed woodwind instrument (**show bassoon**). Only, the resonator tube of the bassoon is much longer and the tube has been folded for convenience purposes. It starts with the metal mount for the mouthpiece and then it goes down through a circular hole in the wooden trunk. Then it is reversed at the lower end and goes upwards through another hole. All together the length of that channel is about 2.5 m, allowing the bassoon to play very low notes (**bassoon plays lower range**). Along the bassoon a series of holes and keys are mounted, allowing the playing of pretty fast notes (**bassoon plays some scales**). In the orchestra the low notes of the bassoons are often used to accentuate the rhythm of the music. And, because of the specific tone color, the bassoon is sometimes used for playing the parts describing grumpy old men.

The bassoon as well is part of a family of instruments but this family is not as big as the clarinets. In fact, only the contrabassoon (show contrabassoon) can regularly be found in symphonic repertoire. The contrabassoon sounds twice as low as the normal bassoon (play the lower range contrabassoon). These extreme low notes are often used in music for raising a sinister mood in music.

(Now the bassoons will play a duet and/or a trio, depending on the availability).



























