The instruments of the orchestra

Arie van Hoek

to Angela Colbers

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 clarinets

The clarinet is a single-reed woodwind instrument (**show clarinet**). Like with the saxophone a piece of reed is fixed on a mouthpiece and when blowing a slight flow of air along the reed that will vibrate (**clarinet blows the mouthpiece**). When the mouthpiece is mounted onto the resonance tube of the clarinet distinct tones can be played. The tube of the clarinet is equipped with a lot of holes and keys allowing the clarinet to play very advanced and virtuoso performances (**clarinet plays a series of scales**).

Like the flutes and oboes, the clarinets are members of a family of instruments and the clarinet family has the largest pitch range of all wind instrument families. There is a piccolo clarinet, the "normal" clarinet, the alto clarinet, the bass clarinet, the contralto clarinet, contrabass clarinet, together forming the clarinet choir (show the different sizes of clarinets).

The clarinet not only plays important parts in the orchestra, it has distinct roles in jazz music, gipsy and klezmer music and military bands. The clarinet sound has a wide dynamic range, it can play loud and aggressive as well as soft and smooth. The sound color of the clarinet ranges from a sentimental slobbering in the lower pitch range to a brutal yapping in the high range; a broad range of sounds, very attractive to every composer.

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













