

# The instruments of the orchestra

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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 trombone

The standard trombone is twice as long as the trumpet and the valves are replaced by a slide (**show trombone**). That enables not only the playing of notes at specific pitch but at every pitch in between (**trombone plays glissando**). And some trombones have been equipped with valves as well for a further extension of the tube length. Trombones are built in different sizes and now the most common trombones are the tenor trombone and the bass trombone (**show different trombones**).

Because of the different trombone sizes a broad spectrum of notes can be waited from this trombone section. The tenor trombone can play the mellow mid-range parts and the bass trombone feels easy at the lower pitch, enriching the bass notes. And because the trombone sound is directed straight into the audience it delivers a welcome contribution when more sound volume is awaited.

**(Now the trombones play the trio).**

Moderato ♩ = 96

Trombone 1

Trombone 2

Trombone 3

This block contains the first system of the musical score, measures 1 through 7. It features three staves for Trombone 1, Trombone 2, and Trombone 3. The key signature is two flats (B-flat and E-flat), and the time signature is 6/8. Trombone 1 starts with a rest in the first measure, then plays a melodic line with dynamics *mf* and *mp*. Trombone 2 plays a similar melodic line with dynamics *mp*. Trombone 3 plays a rhythmic accompaniment of eighth notes with dynamics *mp* and *mf*. The system concludes with a dynamic marking of *mp* in the final measure.

8

This block contains the second system of the musical score, measures 8 through 14. Trombone 1 continues its melodic line with dynamics *f* and *mp*. Trombone 2 plays with dynamics *f* and *p*. Trombone 3 plays with dynamics *f* and *mp*. The system concludes with a dynamic marking of *mp* in the final measure.

15

This block contains the third system of the musical score, measures 15 through 21. Trombone 1 plays with dynamics *f*. Trombone 2 plays with dynamics *f*. Trombone 3 plays with dynamics *f*. The system concludes with a dynamic marking of *f* in the final measure.

# Finale

Allegro maestoso, ♩ = 112

Trombone 3 

8 

21 

31 

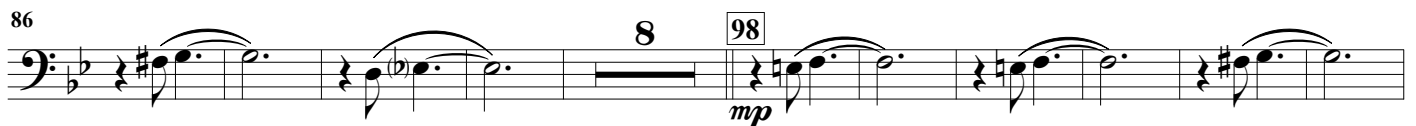
41 

51 

60 

70 

78 **Slow blues,** ♩ = 72 

86 

104 

Allegro maestoso, ♩ = 112

113 

123 