

THE BÖHM FLUTE TURNS 150

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The Böhm Flute, the instrument used by most flautists today, celebrates its 150th anniversary in June. This instrument was designed and perfected by the German flautist Theobald Böhm, who was the foremost designer and innovator of the flute. He was born in Munich on April 9th, 1794, the son of a gold and silver smith, and died there on November 25th, 1881, aged 87 years. The spelling 'Böhm' is preferred by his descendants, although the spelling 'Boehm' is often used.

Böhm began his musical studies with the flageolet at about the age of 6, changing to the flute in 1802, playing a one-keyed flute made by Proser, which is now in the Dayton Miller Collection at the Library of Congress. He changed to the four-keyed flute in 1810, having made a copy of a flute by Heinrich Grenser. In 1811, he studied with Johann Nepomuk Capeller, who was court flautist in Munich. Böhm was appointed first flute in the Royal Isathor Orchestra in 1812, and in the same year he began experimenting with keywork design at his goldsmith's shop and was appointed Inspector of Mines. He was appointed flautist at the Royal Court Chapel, Munich, in 1818, and relinquished his position as Inspector of Mines. In 1828, Böhm established a flute-making business in Munich. By 1829, Böhm had improved the keywork design of the eight-keyed flute, and employed Rudolph Greve as his chief workman and partner.

Böhm visited London and Paris in 1831, where he appeared as a soloist, performing on his redesigned eight-keyed flute. While in London, Böhm heard the famed English flute virtuoso Charles Nicholson performing on his eight-keyed flute. Nicholson's flute had enlarged tone holes that allowed him to produce a bigger, more powerful sound. Böhm was much impressed with Nicholson's playing and went to the London workshop of Gerock and Wolf, where he made his 1831 model flute. On his return to Munich, he began experimenting with the tone hole sizes and key mechanisms on his flutes, producing his 1832 model flute. As Böhm acknowledged later, if he hadn't heard Nicholson, he would probably never have been inspired to improve the flute. Böhm's 1831 and 1832 flutes both featured ring keys placed around some of the tone holes to close keys placed over some additional holes. By 1839, Böhm had given up making flutes due to other work commitments, and arranged for Godfroy in Paris and Rudall and Rose in London to make flutes based on his new designs.

Böhm began the study of acoustics with Karl Schafhaufl at Munich University in 1846, and began experimenting with cylindrical and conical bores. He used silver as a working material for flute tubing, and made the tone holes as large as possible, also determining their correct acoustical locations. He then designed a mechanism with open-standing keys that would cope with the enlarged tone holes. Böhm also introduced the rectangular embouchure hole and the taper in the headjoint, which ensures that the octaves are in tune. The result was Böhm's 1847 flute, the first completed instrument was made in June of that year. With only slight modifications this is recognisable as the modern flute that we all know today. Böhm exhibited his new flute at the London Exhibition in 1851 and the Paris Exhibition in 1855. Carl Mendler joined Böhm in 1854, and became his partner in 1867. Böhm published his book, *The Flute and Flute Playing*, in 1871, in which he describes the experiments and processes that allowed him to develop the Böhm flute.

Theobald Böhm's research and designs influenced the development of all the other woodwind instruments. Adolphe Sax was able to design and make the saxophone; the construction of this instrument was made possible because of Böhm's research into the correct placement of the tone holes, his introduction of metal for the manufacture of woodwind instruments and the new keywork design that he had developed. Böhm had perfected the alto flute in G by 1855, this became his favourite member of the flute family.

Happy 150th Anniversary Böhm Flute!

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