

Saxophone Family Album



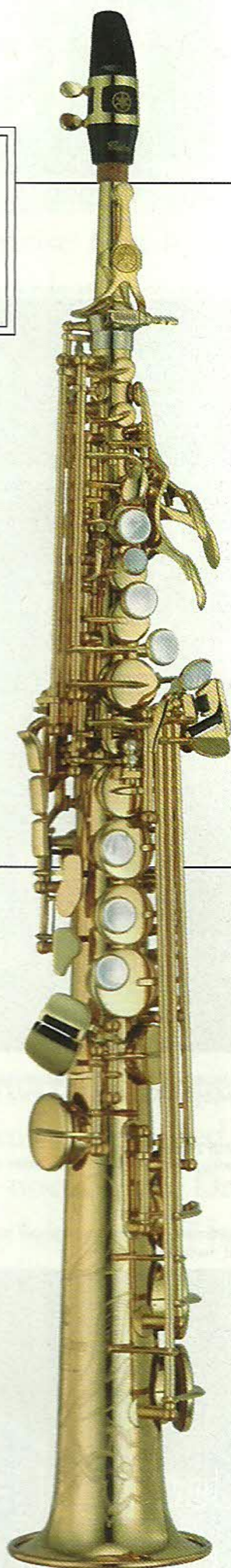
Born of a marriage between brass and reed, the saxophones are among the most versatile of the woodwind instruments.

3ft

2ft

1ft

SOPRANO
TUBE LENGTH (INCL. NECK): 26"
WEIGHT: 3.2 LBS.
shown here:
YAMAHA YSS-875EX



ALTO
TUBE LENGTH (INCL. NECK): 44"
WEIGHT: 5.2 LBS.
shown here:
JUPITER 2069GL



TENOR
TUBE LENGTH (INCL. NECK): 56"
WEIGHT: 7.4 LBS.
shown here:
BUFFET CRAMON 100 SERIES



KEY: B \flat PITCH RANGE: A \flat ₃ - E₆



MIDDLE C

KEY: E \flat PITCH RANGE: CONCERT D \flat ₃ - A₅



MIDDLE C

KEY: B \flat PITCH RANGE: A \flat ₂ - E₅



MIDDLE C



BARITONE
TUBE LENGTH
(INCL. NECK): 88-96"
WEIGHT: 12 LBS.
shown here:
JUPITER 593GL

BASS
TUBE LENGTH
(INCL. NECK): 130"
WEIGHT: 12-20 LBS.
shown here:
SELMER PARIS
SERIES II

4ft

3ft

2ft

1ft

Most “families” of instruments evolved over time from anonymous ancestors. No one knows who first made a sound by blowing into an animal horn, or who stretched skin across a hoop to make a drum. But the saxophone family actually has a father: Adolphe Sax, a Belgian musician who invented the instrument in 1841.

Sax, who played the flute and clarinet, wanted to combine the power of brass with the playability of the woodwinds. He also wanted the instrument to go up an octave in pitch when *overblown*, a technique that changes the airflow and pressure to produce higher notes. This way, the player could use the same fingerings for both normal and overblown octaves, making it easier to play than a clarinet (where overblowing produces a pitch a 12th higher).

Before making the instrument that bears his name, Sax had developed some modifications for the bass clarinet and was also known as a maker of the *ophicleide*, a low-pitched, *conical* (cone-shaped) brass instrument that shared some properties with woodwinds.

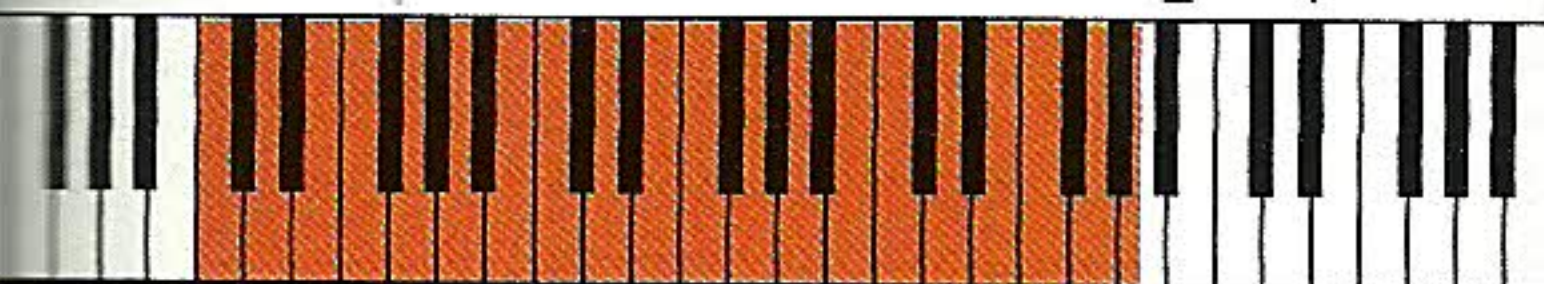
Sax tapped into this experience when he designed the saxophone. From the clarinet came such features as the fixed reed and the use of keys to change pitches. The fingering configuration on the first saxophones was influenced by both the clarinet and oboe. He took the idea of a conical brass tube from the ophicleide. One of his goals was to create a sound similar to that of the French horn, one of the most expressive members of the brass family.

From very early on, Sax designed enough variations of the instrument to cover a wide range of pitches. The 15-year patent for his invention issued in 1846 detailed 14 different versions of his design, including the very highest *sopranino* and the lowest *contrabass*. Between those two extremes are the six more common members of the sax clan (from high to low): soprano, alto, tenor, baritone, and bass. Very rare saxophones reach to the soprillo and contra-contra bass ranges. Each can cover a written pitch range of about two-and-a-half octaves, though advanced players can extend this to as much as four octaves.

From the beginning, the saxophone was available in both concert C and transposed versions. (On a *concert* instrument, playing a written C produces the same pitch as playing C on the piano. On a *transposing* instrument, the sounding pitch differs from the written pitch,

KEY: E \flat PITCH RANGE: C $_2$ -A $_4$

KEY: B \flat PITCH RANGE: A \flat_1 -E \flat_4



MIDDLE C



MIDDLE C

so the sax player's C may sound equivalent to the piano's F, E \flat , or B \flat .) While concert saxes are available today, their transposing counterparts are much more common. Sopranino, alto, baritone and contrabass saxes are in E \flat , each separated by an octave; soprano, tenor, and bass are in B \flat .

As with other wind instruments, the length and diameter of tube—typically made of thin brass, but sometimes constructed of silver, a blend of phosphorus and bronze, or even plastic—helps determine the pitch range, with the longer tubes playing lower notes.

So, if the sax is made of brass, why isn't it part of the brass family? Because it produces tone from a single reed, usually made of special cane called *arundo donax*. The reed sits in a mouthpiece, which attaches to the top of the tube—a section of the instrument known as the *neck*. The type of reed and the shape and size of the mouthpiece both influence the tone. The sax can be tuned by moving the mouthpiece forward and backward on the neck.

Higher pitched saxes like the sopranino and soprano are usually made from straight tubes and have roughly the same shape as the clarinet. Instruments in the alto through contrabass ranges are curved both at the neck and somewhere around the third-lowest tone hole (the latter curve is called the *bow*), to make them easier to hold and play. There are rare examples of straight-tubed saxes as low as baritone, but these are over eight feet long!

Depending on the pitch and design, the tube will have between 20 and 23 *tone holes*. Keys equipped with soft leather pads form an airtight seal over the holes. The player changes pitches by opening and closing the holes with the keys in various combinations. This, along with breathing technique, allows sax players to reach every note of the chromatic scale and bend pitches in between those notes.

EVOLUTION

When Adolphe Sax's patent ran out, other manufacturers were ready to adopt and modify his design. Keys were added and reconfigured to extend the instrument's pitch range and make fingering easier on some notes.

Sax hoped his instrument would become part of the military bands that were popular in his day. His dream came true in many countries (most notably in England and Belgium). The sax generated less of a buzz in classical circles, though composers Claude Debussy and Richard Strauss wrote for it. Ravel's famous *Bolero* has a part for the sopranino saxophone.

But to get a true sense of the sax family's legacy, you must listen to music that emerged in the decades after its patriarch's death. Its versatility, expressiveness, and range made it perfect for a new form of music that was being born in America: jazz. Soprano saxophonist Sidney Bechet (1897–1959) was the instrument's first great jazz star, and saxes of various ranges featured in the big bands of the swing era. Interestingly, the bass saxophone, rarely used today, can be heard on a lot of early jazz recordings



The Sax Choir (top) shows members of the instrument family invented by Adolphe Sax (left). Jazz great, Charlie Parker stretched the creative limits of alto and tenor saxophones.



because it was easier to record with the available technology than a string bass.

It was during this era that Coleman Hawkins (1904–1969) transformed the tenor saxophone from a supporting role to a featured jazz solo voice. As the big band era faded, Hawkins and fellow tenor masters Lester Young and Ben Webster gave way to a group of younger musicians who formed small combos and developed the fast-paced *bebop* style. The tenor and alto work of Charlie Parker exemplified bebop's harmonic and rhythmic complexity, and remains influential today. It was around this time that players began exploring unconventional sounds by creating growls, bends, squeaks, and screams that might have baffled Adolphe Sax. John Coltrane (1926–1967), who played soprano, alto, and tenor, brought a burning intensity to the instrument, while Ornette Coleman (born in 1930) created organized chaos in

a style called "free jazz." Important contemporary players include Wayne Shorter (alto through baritone), Joshua Redman (soprano and tenor), and smooth jazz artist Kenny G, a soprano player who's best known for using the *circular breathing* technique to hold a note almost indefinitely.

Saxophones have been heard in pop since the early days of rock & roll and rhythm & blues, both as a solo instrument and as part of horn sections (usually in combination with a trumpet and trombone). As part of soul great James Brown's band, Maceo Parker (b. 1943) showed how the alto and tenor saxophones could punctuate the groove. Other notable pop saxophonists include Clarence Clemons (b. 1942) of Bruce Springsteen's E Street Band and Fishbone's frontman Angelo Moore (b. 1965) who plays soprano through bass saxes. Although they're more famous as singers and bandleaders, Van Morrison and David Bowie both play the saxophone.

Of course, the ultimate expression of the instrument's versatility is in an ensemble made up entirely of saxophones. Foursomes like the famous World Saxophone Quartet usually consist of soprano, alto, tenor, and baritone (known as SATB), though some quartets may include bass or sopranino saxes. Larger ensembles like Urban Sax and the Sax Choir may feature upwards of 12 to 50 players.

The word "choir" hints at why the saxophone family has adapted to such an incredible range of musical styles. As jazz saxophone great Stan Getz once said, "If you like an instrument that sings, play the saxophone. At its best it's like the human voice." **T**

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