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# The Boehm System Oboe and its Role in the Development of the Modern Oboe

## THE BOEHM OBOE, SOPRANO SAXOPHONE, AND SOPRANO SARRUSOPHONE

The years of the Second Empire were ‘L’age d’or de la facture instrumentale’, a time of great creativity and commerce in French musical instruments.<sup>144</sup> The Boehm oboe was not the only bright sounding

<sup>144</sup> Haine, *Les facteurs d’instruments de musique*, 100–162.

conical reed instrument developed in mid-nineteenth century Paris. Two others were the soprano saxophone, which came into commercial use in 1850,<sup>145</sup> and the soprano sarrusophone, invented in 1856.<sup>146</sup> Saxophones and sarrusophones were both produced in vast families of instruments, from sopranino to contrabass; the soprano member of each family had roughly the same functional range as an oboe. Soprano saxophones have an oboe-like tone which is richer and darker than that of a Boehm oboe. They were employed regularly in French and Belgian bands and are popular to this day. The soprano sarrusophone had range, bore and tonehole dimensions similar to those of a Boehm oboe and, like the oboe, was played with a double reed. It had a more strident tone than the Boehm oboe and offered no compelling musical advantages; thus, it never achieved popularity.<sup>147</sup> A soprano sarrusophone was redundant in a band that included Boehm oboes.

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<sup>145</sup> Howe, 'Invention of the Saxophone'.

<sup>146</sup> Gautrot Aine et Companie, *Catalog des Instruments de Musique*. (Paris, 1867). Reprinted in *Larigot Special X* (April 1999) 3–9. Forsyth, *Orchestration*, 170–2. Gunther Joppig, 'Sarrusophone, Rothophone (Saxorusophone) and Reed Contrabass.' *JAMIS* 12 (1986): 68–106. Michel Jolivet, 'An English translation of a Monograph on the Sarrusophone Written by Roger Leruste.' *The Double Reed* 24.3 (November 2001): 73–88.

<sup>147</sup> The contrabass sarrusophone, however, was the standard Western European contrabass reed instrument until the invention of the French system contrabassoon early in the 20th century.

## THE BOEHM OBOE'S ROLE IN MODERN OBOE DESIGN

The most important role of the Boehm oboe was not its brief use in French and British orchestras, nor its use in bullring bands, nor its application by military bands on the continent. Rather, it was as an example of technology. A careful analysis shows that the Boehm oboe was fundamental to the development of the modern oboe.<sup>148</sup>

The oboes used in 1850 were not standardized as they are today. German players used a 12-key Sellner oboe until the 20th century, while French, British and Belgian players chose from 12-key, Triébert Systèmes 3 and 4, Boehm and hybrid models. Stanislas Xavier Verroust (1814–63), a professor at the Conservatoire Nationale, used a 9-key oboe as late as 1849.<sup>149</sup>

In the 1840s Triébert's Systèmes 3 and 4 were new, and yet not new. They improved the oboe's technique somewhat, using more or less the same toneholes as did simple system oboes. The Système 4 oboe had significant flaws. The side venting for B $\flat$ 1

<sup>148</sup> Montagu, *Romantic & Modern Musical Instruments*, 56. Ventzke, *Boehm-Oboen*.

<sup>149</sup> *Guide du Musée de la Musique*, 80–84.

<sup>150</sup> As Bate notes, (*The Oboe*, 64–5) the Système 5 and Barret oboes have become confused over the years. Descriptions in these sections are therefore taken from the earliest available reference, the Triébert *Nouveau Prix-Courante* of c.1861 (oboes 5, 6), and Barret's *Method* (2nd edition, 1862).

## THE OBOE-SAX

In the late 1920's, Lorée and other makers attempted to capitalize on the American craze for saxophones by selling an oboe with saxophone fingerings. In theory, a saxophonist could play the oboe-sax merely by mastering the oboe's double reed,<sup>168</sup> thus making the oboe a logical doubling instrument for jazz band saxophonists. Since the saxophone is derived from Boehm's principles, the oboe-sax fingers very much like a Boehm oboe.

To make an oboe-sax one could place pearl touches on fingers 1-6 of Lorée's Boehm-fingered oboe, then tidy up the few remaining differences between oboe and saxophone mechanisms. The little finger keys were easily altered to the saxophone's pattern. To play the higher octaves the oboe uses two octave vents and a half-hole; on the modern saxophone, one key opens either of two mechanically-chosen octave vents. Oboe-sax makers, borrowing from Buffet's 1844 patent, modified the half-hole mechanism so that lifting the first finger entirely, with finger 3 held down, would leave a small octave vent open at hole 1. Closing 1 would cover this. Adding this to an oboe built with automatic octave keys gave a reasonable compromise between the two systems.

fingering to maintain proper pitch; these fingerings are awkward on the oboe. On the saxophone, four small toneholes are opened by the palms to produce these notes.<sup>169</sup> Oboe-sax makers placed keys for d3-e3 as on a saxophone: f3 was produced by playing e3 and adding 3, and higher notes were available as cross fingerings.<sup>170</sup> Unfortunately the three tiny tone holes produce a shriller sound than the same notes played on the standard oboe, negating the advantage of increased facility.

The oboe-sax was introduced after 1929. I find no oboe-saxes in a set of photos of 1920s jazz bands, although several players do have conservatory or Boehm system oboes. Robert de Gourdon of Lorée noted that ‘Oboe “AD 53” has been made in 1930 by Mr Lucien LORÉE’.

‘We think that actually this instrument must have a real value as it has been made almost ten instruments of this model only..., and the last one around 1930....’<sup>171</sup>

Besides the oboe referred to in this letter, I have found Lorée oboe-saxes with serial numbers AE 62, AE 69, AE 78, AE 79, AE 93, AH8, and AI 52;<sup>172</sup> other Lorée oboe-saxes of the AE series are known to exist.

Two American catalogues of *c.*1932 show the Lorée oboe-sax.<sup>173</sup> Carl Fischer sold these for \$300; the same catalogue prices the Lorée conservatory oboe at \$440–460 while the Lorée English horn is a bargain at \$380. The Continental Music Company sold Lorée ‘Sax Oboes’ for \$250 and metal bodied oboe-saxes by Kohlert for \$180.<sup>174</sup> Continental sold the Lorée conservatory oboes for \$440–460, the Kohlert grenadilla conservatory oboe for \$190, Kohlert’s metal conservatory oboe for \$184, Buffet-Crampon’s standard Boehm oboe for \$170, the

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<sup>165</sup> Lorée’s Boehm system cor anglais serial A38 sold to Friguel; B7 to Mélé; D40 to Cabot; F61 to Lemaire; F85 to Singier; K38 to Courtal. Friguel also purchased F64 Boehm oboe at English pitch (A=452), suggesting that between A38 (1882) and F64 (*c.*1890-92) he moved to Britain. Lemaire also purchased Boehm bass oboe F42; since Lorée began to make bass oboes only in 1889 (Bate, *The Oboe*), this establishes serial F42 as 1889 or later. Other early known serial numbers for the firm include A1-A5, 1881; A6-A21, January-July 1882; A99, 1885; X96, 1908. By courtesy of Geoffrey Burgess. Another early Lorée Boehm oboe, serial A81, was sold at the Versailles auction on April 26, 1997, lot 141.

<sup>166</sup> Oboe XX7 and oboe d’amore VV56, *c.*1926, were made to order for an American player with fingerings exactly like the Boehm flute.

<sup>167</sup> For a detailed study of the oboe-sax see Robert Howe, ‘An Oboe-Sax by F. Lorée’, *The Double Reed*, 25 (1) 75–80, 2002.

<sup>168</sup> When this turned out to be more than many saxophone players could manage, single reed mouthpieces for the oboe were manufactured.

<sup>169</sup> Contemporary saxophones are often keyed to  $\sharp 3$  or  $g3$ , adding two more such toneholes.

<sup>170</sup> As they are also on a saxophone.

<sup>171</sup> Letter to Lennart Olsen, Berrien Springs MI, dated May 16, 1973, regarding oboe-sax AD53. Lorée’s AB series was from 1929.

<sup>172</sup> America’s Shrine to Music Museum, Vermillion, South Dakota. By courtesy of John Peterson.

<sup>173</sup> Carl Fischer Musical Instrument Company, *Catalog*. (New York, after 1932). By courtesy of Paul Cohen. Continental Music Company, *General Catalog*, 37. By courtesy of Tony Bingham.

<sup>174</sup> Kohlert made oboes in a wide variety of fingering configurations.