



A view of Paris in the 1850s, when Lafleur made the composite bow featured here

Flower of invention

Benoît Rolland examines the ingenuity and artistry of Joseph René Lafleur, one of the most innovative French bow makers of the mid-19th-century

The 1830s were years of invention and innovation in French bow making. As the country began to embrace the Industrial Revolution, makers such as Etienne Pajeot, Jean-Baptiste Vuillaume and François Lupot II all introduced new technical features to their bow designs. Another boldly innovative maker who blossomed in the same decade was Lupot's talented assistant Joseph René Lafleur (1812–74), who crafted the exceptional bow pictured on these pages.

Lafleur started out learning the violin, and probably continued his playing while he learnt instrument and bow making with his father Jacques, whose painted portrait, preserved at the Museum of Music in Paris, hints at a certain social status. In 1852 Lafleur published the *Nouvelle Méthode pour le Violon* by A. Marque. This book places Lafleur on the publishing map during his activity as bow maker, earlier than was assumed so far. In the 1875 catalogue of the *Collection du Conservatoire de Musique*

de Paris, we find a bow that Jacques Lafleur had made for Marque, deemed '*habile professeur de violon*' (apt violin professor) who in turn offered it to Joseph René in 1869. Could Marque have been Lafleur's violin teacher?

Aged 21 when his father died in 1833, Joseph René joined Lupot's atelier and focused on bow making. Innovative features in his bows appeared soon afterwards, his creativity emulating that of his employer and other important makers of the 1830s. In Mirecourt, Pajeot developed a metal lining of the stick mortise, and the self-rehairing system that Vuillaume would soon make his own. In Paris, Lupot's atelier started lining the frog underslides with metal, and Vuillaume experimented with a completely metallic bow. These new features mostly focused on the mechanics of the bow from a bow making, rather than a musical, standpoint. Self-rehairing, for example, aimed at easing the bow maker's work rather than the musician's.

Figure 1 For the bow frog, Lafleur sandwiched a yellow shell layer between two sheets of dark tortoiseshell

These bow making advances took place at a time of great musical activity. There were 320 piano makers in Paris in 1830; Berlioz premiered his *Symphonie fantastique* in December 1830 at the Paris Conservatoire with over a hundred players; and Adolphe Sax was designing the saxophone in 1840 (the patent for it came in 1846). The energy around new music had a base – the Paris Conservatoire, whose student orchestra had introduced Beethoven’s symphonic music in the early 1800s. In 1828 François Habeneck, a professor of violin and head of the Conservatoire’s orchestra, founded the Société des Concerts du Conservatoire, a pioneering concert series that started attracting middle-class audiences. The Société des Jeunes Artistes, established by the conductor Jules Padeloup in 1852, and drawing for its forces on advanced music students, presented both established masterpieces and works by young composers. Padeloup followed up this enterprise in 1861 with the highly successful *Concerts populaires*, designed to drive large audiences to symphonic music.

In view of the buzz that the Conservatoire created for new music and youthful interpretations, it is interesting to see Lafleur progressively moving his residence nearer to this hub, and away from Vuillaume’s sphere of influence and the Palais Royale. By contrast, Dominique Peccatte, Vuillaume’s protégé, remained in this area when he took over Lupot’s shop and was offered private lodging in a building owned by Vuillaume.

Peccatte and Lafleur had much in common: born a couple of years apart, both of them worked with Lupot and both were talented. Lafleur was already with Lupot when Peccatte arrived from Vuillaume’s shop in 1835, probably ready to succeed Lupot as head of his prominent atelier – which he would do on Lupot’s death three years later. During these years, Vuillaume was building his prominence and securing the developing domain of bow making: in 1835 he took a patent with exclusive

rights for five years on ‘*Invention et perfectionnements dans la construction des archets d’instruments à cordes.*’ Peccatte was productive, fast and efficient. Lafleur’s bows and career path suggest that he was artistically inclined and preferred exploring unpaved roads to fighting for business: he had not taken over his father’s shop, and would not patent his inventions. He moved north and settled near the rue Bergère and the Conservatoire, a location better suited to his musical ability.

Lafleur’s invention of the composite bow, a perfectly assembled laminate of five pernambuco strips with a head reinforcement, appears in the *Catalogue Descriptif et Raisonné du Musée de la Musique*, which dates it to 1835. This date might seem early, but suggests that Lafleur was recognised by his contemporaries as a young innovator. The thin layers he painstakingly assembled for his composite bow are of fine pernambuco. For this work he might have had access to newly developed planing machine-tools, but even if he had not, I discovered for myself in the early 1980s that it is possible, with good eyesight and a steady hand, to make a laminate bow by hand from various woods and alternative materials.

Increasing the strength of the bow is the purpose that comes to mind for such an endeavour, which would make sense with the music being premiered at Lafleur’s time. Yet, playing one of his laminated bows one is surprised by its buttery feel – a voluptuous, exquisite sensation that comes from the cumulative quality of his pernambuco strips rather than from laminating itself. As in most of Lafleur’s bows, this elegance and playing quality suggest a fine artistic mind served by an exceptional hand.

Lafleur used laminating to a different end when he prepared the block of tortoiseshell in which he carved the frog for the bow pictured here. He sandwiched a transparent yellow shell layer between two sheets of dark Vietnamese tortoiseshell (**figure 1**). >



The luminous tortoiseshell combines with the richness of the pernambuco



Playing one of Lafleur's laminated bows, one is surprised by its buttery feel

Figure 2

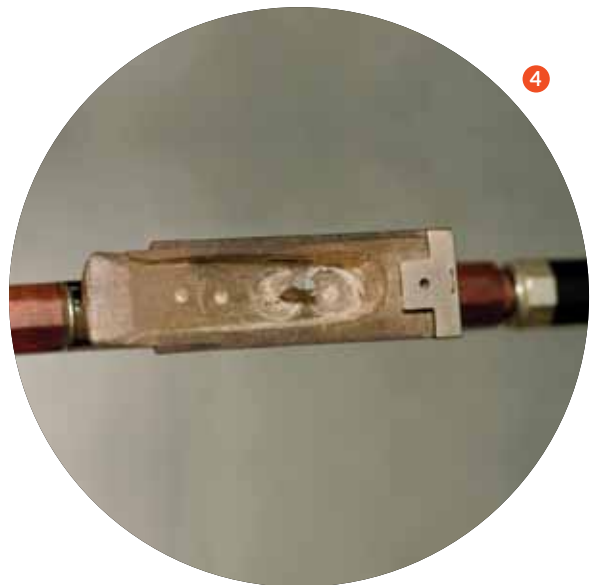
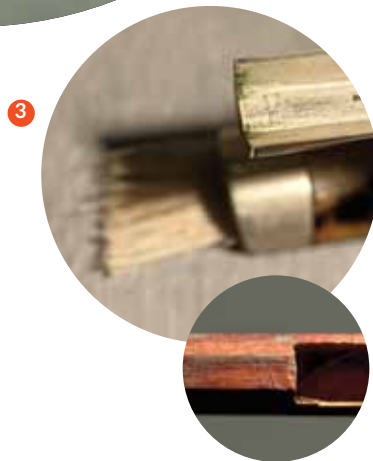
The delicate swan-neck head is carved in a slightly 'ancient' style

Figure 3

The two slashes on the frog and stick indicate that this was the second of two similar bows

Figure 4

The pin inserted into the channel serves as an anchor for the bow-hair bundle



Vietnamese tortoiseshell is not suitable for frogs because it is fragile, lacks flexibility, and is not quite translucent. Inserting a softer, transparent yellow layer accomplished two goals: malleability and beauty. The layers are arranged to conceal the mortise and nut; where the eye expects to see the metal mechanism fitting the hair ribbon, it finds only transparency. In the early 1850s, from when this bow dates, transparency was fashionable, particularly if it was hard to engineer. London's Crystal Palace, built to house the Great Exhibition of 1851, and the Parisian market Les Halles, which began construction in 1854, were made entirely of metal and glass.

To preserve the charming translucence of his tortoiseshell block, Lafleur devised an invisible rehair system. In lieu of the conventional vertical mortise, he carved a horizontal bed to house the hair in the lower part of the frog. We can see four imprints of the drill bit that he used before chiselling. Deep tool marks demonstrate quick, unpolished work that differentiates the guts of the bow from the perfect finish of all visible parts. The raw tortoiseshell inside the frog shows the work process: Lafleur carved the block while it was still opaque, anticipating

by experience and observation the colours and shades that would form the final delicate image. Tortoiseshell only reveals its nuances after polishing.

The luminous tortoiseshell combines with the richness of the golden-brown pernambuco. The blank stick was quarter-sawn at an angle that balances aesthetics and functionality. Faithful to Nicolas Léonard Tourte's lines, Lafleur carved the delicate swan-neck head and its rounded throat in a slightly 'ancient' style (**figure 2**). Lafleur probably made at least two similar bows. This would be the second one, which he marked with two slashes, repeated on both the frog and the stick (**figure 3**). These marks are typical of Lafleur when he produced identical bows.

In the channel, Lafleur inserted a pin that serves as an anchor for the bow-hair bundle (**figure 4**). The system is reliable as long as the hair is sturdily fastened by a strong thread wrap. **Figure 5** shows possibly the original hair ribbon, reinforced with a metal ring. Another innovation completes Lafleur's clever rehair structure: a brass plug replaces the usual wood plug

Figure 5

A metal ring reinforces what could be Lafleur's original hair ribbon

Figure 6

Lafleur replaced the usual wood plug with a brass model, as part of his innovative rehair structure

Figure 7

A naive floral motif under the heel completes Lafleur's design



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6



7

One cannot help reading Lafleur's name in the single-flower arabesque

to secure the hair bundle in the head's mortise. The brass is threaded in its centre, allowing the maker to place and remove the same plug effortlessly using the button screw (**figure 6**). The plug balances the weight at the frog that is incurred by the tortoiseshell, which is heavier than ebony. The button thus serves two functions: it tightens the bow and removes the plug. Increasing efficiency in a work routine was something of paramount importance during this 19th-century Industrial Revolution era. The screw has a beautifully rounded, hand-rolled thread, a technique that François-Xavier Tourte used.

The bow is mounted with nickel-silver, which does nothing to detract from its splendour. Nickel-silver gained favour in France in 1827, when two engineers from Lyon, Maillet and Chorier, launched *maillechort*, an alloy of zinc, nickel and copper. A French novelty, *maillechort* was meant to replace silver with a cheaper alloy that would not tarnish. Lesser grades fade with time, turning to yellowish-green, due to copper oxidation. A higher grade is easy to polish, and displays a convincing white glow at a density close to silver (8.6 g/cm³ compared with

silver's 10.5 g/cm³). Peccatte alternated between both options: some bows that he felt unworthy of silver were mounted with silver, but at other times he used *maillechort* on beautiful sticks. The alloy used in Lafleur's bow retains a somewhat atypical white, slightly greyish hue. My research shows that a patent for *maillechort-platine* was delivered to a Mr Champollion in 1842 and available at Rue du Grand-Hurlleur, seven minutes' walk from either of Lafleur's last two ateliers. This might be the material we see on Lafleur's bow. His choice of such nickel-silver is a statement of innovation, as the expense of Champollion's *maillechort* was probably comparable to that of silver.

Lafleur both masked and signalled his original rehair device by enclosing it behind a thin tortoiseshell plate held in place by a metallic adjustment piece affixed under the heel, and inlaid with a slightly naive floral motif (**figure 7**). One cannot help reading Lafleur's name ('The flower') in the single-flower arabesque. It's a fitting signature for a bow of such beauty and creativity. ●

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