## HISTORICAL INSTRUMENTS

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## "A Magnificent Instrument"

Clifford Bevan

So wrote Hans Richter, at the time probably Europe's most distinguished conductor, of the F tuba he had commissioned in 1887 from the maker William Hillyard for J. H. Guilmartin, a member of his London orchestra. Guilmartin was actually an orchestral ophicleide player, and prior to that a military band euphonium player, so what drove these changes of instrument and, more importantly for Guilmartin, the need to cope with the very different techniques of various valved and keyed brasses? And why Guilmartin's apparently extraordinary chronology: valved instrument to keyed instrument to valved instrument again? And was Guilmartin's case unique? How many other players could show this same degree of versatility?

To learn the answers to these questions, it is useful to go back three steps farther than the euphonium, two farther than the tuba, and one farther than the ophicleide—to the case of the serpent. This instrument was arguably the longest-utilized of any for it first appeared in France round about 1590, was specified in a Wagner score (*Rienzi*) of 1840, and was still being played in Belgium as late as 1925 although by that time in most places it had not been in use for some 70 years. Serpent usage had peaked around the end of the 18th century, when it was found in French bands established during and after the Revolution and in English military bands. (I am restricting myself to European references here.) It is no surprise that it was also used in those massive annual celebrations of popular English musical taste, the provincial music festivals. Here serpents sometimes appeared in profusion, played by musicians who had travelled from London, occasionally joined by local players.

One of the most eminent of the London serpent players was William Ponder. He was also one of the last, as although he was known to be playing serpent in 1829, by 1834 he had changed to ophicleide, an instrument on which he had a distinguished career that ended only with his death while at the Gloucester Music Meeting [Festival] in 1841. Renowned as one of the last professional players of the serpent, he must also have been one of the first English players of the ophicleide as this had been invented (in France) as recently as 1821. Although the first method for ophicleide appeared in France only two years after the ophicleide's invention, so far as is known the first to be published in England dates from 1830, and this was really only a fingering chart. It seems likely that Ponder, and other serpent players who changed to the new instrument, relied mainly on their musicianship to master it rather than instruction from those who were already expert. The challenges were considerable: the larger size of the instrument, the less comfortable playing position, the generally larger mouthpiece, and the ophicleide's ability to absorb every cubic centimetre of air pumped into it

while the serpent demands a far lower breath velocity. There were, however, many advantages to the ophicleide, including every tone-hole's being covered by a conveniently-operated key, the instrument itself conferring much more control over intonation, and the greater possible range of dynamics from very quiet to a previously unheard loudness in a bass brass instrument. There is no doubt that most orchestral conductors showed strong preferences for the ophicleide over the serpent, except in cases where a bass instrument was required to blend with voices, something at which the serpent can excel in the right hands.

During the 1840s and the following decades, there were some renowned ophicleidists working in Britain, notably the French Jean Prospère Guivier and the English Samuel Hughes. Numerous tributes were paid to their playing, in Hughes's case on both sides of the Atlantic. And yet the inexorable process of change continued. Sam Hughes, for example, played ophicleide in the 1874 Leeds Festival. When, fourteen years later, Sir Arthur Sullivan composed his Overture di Ballo, he provided a part for "Ophicleide or Bass Tuba"; yet, prior to its performance at the Leeds Festival that year, he wrote to the chorus master that "the tuba (most important) [can play for] the ophicleide." In fact, tuba had displaced ophicleide in the Leeds Festival orchestra two years earlier, and our ophicleidist colleague Guilmartin himself played tuba there in 1889. The transition from ophicleide to tuba is shown even more clearly in the programmes of London's Royal Philharmonic Society, with the military band serpent player Wilmshurst engaged in 1814–1815, Ponder and others on bass horn, serpent, and ophicleide from 1832–1866, and W. F. Young playing bass tuba in 1870.

In some professional English orchestras the ophicleide was found into the 1880s—all the stranger when the proximity of France, with its great (valved) brass instrument manufacturing enterprises of Adolphe Sax and others, had virtually led to the formation of the British brass band. The military, too, were no laggards when it came to the adoption of valved instruments. Yet Guilmartin, who had been a euphonium player in the Band of the Scots Guards, was expected to perform on ophicleide in the orchestra.

It is useful to remember how quickly the appearance of the first bass tuba (invented in Germany, 1835) followed that of the ophicleide (invented in France, 1821); they were separated by a mere 14 years. It is also important to remember that travel in those days was no faster than it had been in the middle ages, apart from those rare but rapidly-increasing lines of communication marked by the new railroads. Different performing practices were adopted in different and sometimes adjacent areas, separated by language and culture. The ophicleide

was an instant success in France, generally supplanting the serpent in church and totally replacing it in wind bands. Its appearance also coincided with the beginning of the development of the 19th-century symphony orchestra. In England, it became established in the orchestra almost as soon as in France (as we have seen). Until the end of the 19th century British music in general was dominated by German taste, but in the woodwind and brass sections instruments had much more in common with those found in France, in many respects until the middle of the 20th century.

There was a totally different tradition in the Teutonic countries, where there was a profusion of valved instruments including, most importantly from our point of view, the bass tuba. Quickly spreading through the many orchestras in the German states from about 1840, this was the instrument found by Berlioz during his conducting tour there in 1842–1843 and expected by conductors like Richter. But while Germany had the tradition, Great Britain had the money, and thus it was that Richter was lured to England, becoming a permanent resident of the booming northern industrial city

of Manchester at the invitation of the large German colony there. He subsequently divided his time between Manchester and London, the orchestral seasons in the north conveniently fitting in with the opera seasons in the south, and rail communication having been established as early as 1838. But Richter was never going to be happy conducting the great German repertoire in an orchestra where the lowest brass part was played on ophicleide. (Elsewhere in England, Wagner's bass tuba parts had even been played on euphonium!) Hence Richter's commission to Hillyard, and his delight in the tuba that was made. As for Guilmartin, the decision was simple: play tuba or else! He was quite probably the first of the numerous military band euphonium players to become orchestral tubists, a trend that persisted in Britain up to the mid-20th century.

For an ophicleide player, the disadvantages of taking up tuba were the need to learn a valved instrument's fingering, a greater difficulty in making wide leaps in pitch, the larger mouthpiece for the larger instrument, and the need to control the speed of the breath to a greater extent in producing the greater range of dynamics. The advantages were the convenience of resting the instrument on the knees, the use of fewer fingers (even with four or five valves—and those fingers mainly of the right hand compared with the concentration on left hand in the ophicleide), and the much improved security of pitch, along with a greatly extended lower range. This latter was not necessarily an improvement over the euphonium however, as players of that instrument who changed to tuba would find: in this case the advantage was the greater power of the tuba in the



Microtonal tuba by B&S.
Photo by Conor Clarke

lowest register. Hence, Alfred Phasey played euphonium in the 1890 Norwich Festival orchestra but Guilmartin played tuba there six years later.

The Hillyard instrument commissioned by Richter was pitched in F with five valves, probably influenced by the design of the tuba he had previously commissioned from the Berlin maker Paulus for the Vienna Opera (the prototype Viennese Concert Tuba). Guilmartin would not have found too many problems in changing from euphonium to this relatively small tuba which was to establish the standard of orchestral tuba used in Britain until the moment in 1964 when John Fletcher appeared in the BBC Symphony Orchestra with a four-valved compensated E flat tuba (then derided as a "band instrument"). Along the way it had resulted in the Barlow Tuba, made by Besson to the design of yet another distinguished player, Harry Barlow, a type which is currently arousing renewed interest. In recent years British orchestral tubists have continued to absorb other influences from abroad in changing from the previously universally-found E flat tuba to other

pitches of instrument according to the piece being played, using those pitched in CC or F as required

As the history graduate, serpent maker and player Christopher Monk said, a person claiming to be an historian has a duty to look forward from the present as well as to look backwards to the past, but this may be thought an irrelevant exercise when considering an instrument unchanged in many respects from the day that it was invented almost 200 years ago. It was to the specification of Wieprecht and Moritz's Bass-Tuba that British tuba player Robin Hayward turned when considering his new Microtonal Tuba. It is tempting to describe this instrument as "revolutionary," but Hayward himself is keen to make it clear that his development of a fully microtonal valve system was based on his discovery that "a study of the original tuba patent of 1835 reveals microtonal rather than 12-tone equal tempered tuning to be more idiomatic to the instrument." As a professional tubist working in Berlin, Hayward was aware of the practical obstacles to developing such an instrument (of which one fingering chart shows 990 possibilities, compared with Wieprecht's 48), but a prototype has been built by well-known makers B&S of Markneukirchen. Whether this instrument is the way forward, or whether it is simply a move in parallel, remains to be seen.

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<sup>&</sup>lt;sup>1</sup>Hayward's detailed account of his approach to the design of the instrument, complete with fingering-charts, is given in *The Galpin Society Journal*, LXIV, March 2011, pp. 125-177.