Farewell to the Kidshifter: The Decline of the G Bass Trombone in the UK 1950–1980[1]

Gavin Dixon

The narrow-bore G bass trombone was a common feature of British bands and brass sections in the first half of the twentieth century, but by 1980 it had been almost completely replaced by the wide-bore B♭ instrument. The G trombone was a distinctively British instrument, and its use was almost completely restricted to the United Kingdom and areas of direct colonial influence. The B♭ bass trombone, in contrast, has more cosmopolitan origins, an American development of a German design. The switch therefore reflects the increased internationalization of British instrument design and manufacture in the second half of the twentieth century. Other British brass instruments were similarly affected: the piston-valve single horn (which was also popular in France) succumbed to the rotary-valve double horn, and the piston-valve F tuba, a distinctively British design, gave way to B♭ and C instruments. The change to the B♭ bass trombone had a particularly visual dimension. The extension handle on the outer slide stay had been a common feature of bass trombones across Europe since the sixteenth century. However, with the demise of the F bass trombone on the continent in the late nineteenth and early twentieth centuries, the British G trombone became the only remaining instrument in common use to sport one. The slide handle on the G trombone took on an iconic status as it gradually disappeared, and was seen by many as a totem of broader changes, welcomed by most, lamented by a few, but widely considered to be inevitable.

The G Bass Trombone up to the Second World War

The origins of the G bass trombone remain something of a mystery. An early reference to the trombone in G is found in the *Neueste Posaun-Schule* by Andreas Nemetz, published in Vienna in 1827. His discussion of the *Quartposaune* states that the instrument is usually tuned in F, but also more rarely in A♭ or G.[2] The existence of the G trombone in Britain in this period is demonstrated by a surviving example in the Edinburgh University Collection (EUCHMI 3026), made by John Green in London around 1835. Trombone playing in Britain had enjoyed a significant revival at the start of the nineteenth century after at least a century of almost complete neglect.[3] A number of theories have been suggested to explain why the G bass was adopted in Britain in preference to the F instrument on the continent. Its early history parallels that of the tenor trombone in C, which was also more favored in Britain than on the continent in the nineteenth century and to which the G instrument would form the *Quartposaune* complement.

The issue of weight has also been suggested as a reason for the British preference for the G bass over the slightly larger continental F. Another theory, suggested by Denis

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Wick,[4] is that the G trombone has an impressive visual aspect when leading marching bands, especially when playing tonic-dominant bass lines in the common march keys of E♭, A♭, and D♭, all of which require it to make regular moves to and from the seventh slide position. This, incidentally, is the origin of the slightly derogatory nickname "kidshifter," the implication being that the instrument's only useful function was to clear the way for the band it led. Around the turn of the century a thumb-activated rotary valve to D was introduced, initially as an addition to existing instruments (as on the Courtois example of ca. 1869 in the Edinburgh University Collection [EUCHMI 581]), but later as a production feature.[5] By the 1930s the G/D was the standard (although not universally adopted) instrument in professional orchestras, while the (cheaper) straight G was the instrument favored by brass bands. A further distinction between brass band and orchestral bass trombones was introduced by Boosey & Hawkes in the early 1930s with their "Betty-bore" model, a G/D trombone with a wider bore (0.527 in. as opposed to the standard 0.484 in. bore of B&H straight G trombones) and a larger, eight-inch bell. The instrument, which was named after the trombonist William Betty, gained popularity with professional orchestral players as it was able to balance with the medium-bore tenor trombones that were then becoming the norm.

Although the bass trombone in the UK in the first half of the twentieth century was strictly a G instrument, the development of wide-bore tenor trombone production was an important precursor to the first B♭ bass trombones. The explosion of interest in jazz and big band music in the mid-to-late 1920s had a significant effect on instrument production. Hawkes & Son were at the forefront of jazz instrument manufacture, their *Clippertone* trumpet and *Cabaret* trombone imitating both the bore profiles and the art deco engravings of imported American models.[6] The bore of the *Cabaret* trombone was 12 mm, typical for an American instrument but very large for a British one. Hawkes's jazz models were popular, and both the *Clippertone* trumpet and *Cabaret* trombone models were continued well into the Boosey & Hawkes era of the 1930s.

The move to B♭ Bass Trombones in Britain's Professional Orchestras

A visit by the New York Philharmonic to the Edinburgh Festival in 1951 proved to be a decisive factor in the uptake of large-bore trombones in the UK.[7] The players were Gordon Pulis, Lewis Van Haney, and Allen Ostrander (on bass trombone) and the instruments were by Conn. The range of dynamics and roundness of tone offered by these instruments was clearly superior to those of the British-made narrower bore trombones.

The same year, the Scottish National Orchestra, based in nearby Glasgow, became the first professional orchestra in the UK to adopt the B♭ bass trombone. It had been decided that Jimmy Miller, a straight G player who had recently joined from the Bournemouth Municipal Orchestra, was not up to the job. The second trombone player, Percy Cook, agreed to move to the bass trombone chair, but only on the condition that a B♭/F instrument could be found. One was duly sought, and in 1951 he became the orchestra's bass trombonist, playing a German Piering instrument.[8] By 1957, the London Symphony

Orchestra was also using a German B♭/F bass trombone. The player, Tony Thorpe, had acquired the instrument, a Fischer model in poor condition, and had cautiously added a small handle to the outer slide stay to give the appearance of a G trombone in case conductors objected.[9]

But by the mid-1950s, it was American instruments that were most sought-after, and when the B♭/F became the standard orchestral bass trombone in the UK, the American models most commonly used were the King 5B, the Conn 70H, and the Reynolds *Contempora*. However, a trade embargo had been imposed on instruments in 1938, barring the import of American models into the UK. In 1955 the Philharmonia Orchestra toured the United States, and while there the trombone section bought a set of Conn instruments. The tenor trombone players, Alfred Flaszynski and Arthur Wilson, managed to return to the UK with their purchases, but Fred Mansfield had his bass confiscated by customs as soon as they landed in London.[10]

Not all players welcomed the prospect of imported American instruments. Godfrey Kneller (see Figure 1), then bass trombonist with the Royal Philharmonic Orchestra, heard at a London branch meeting of the Musician's Union in 1954 that "we were about to be invaded by a boat-load of B♭ and F 'bass' trombones from America." This prompted him

Figure 1: Godfrey Kneller playing the G bass trombone with the London Philharmonic Orchestra in 1946. John 'Tug' Wilson is playing the F tuba.

to write an article for the MU journal, *The Musician*,[11] in defense of the G trombone, describing it variously as "the English Rose" (see Figure 2) and "the King of the orchestra," and relating approval of the instrument from various British and foreign conductors, including Eugene Goossens, Ernest Ansermet, and Eduard van Beinum, the latter having apparently insisted that the Amsterdam Concertgebouw Orchestra adopt the instrument on the strength of his UK conducting experiences.

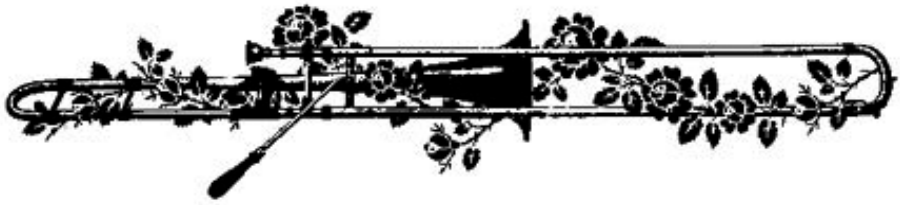

Figure 2: "The English Rose"; the illustration that accompanied Godfrey Kneller's article in the July 1954 edition of *The Musician*.

Kneller's fears proved well founded. The repeal of the trade embargo in 1958 saw almost every professional bass trombone player in the country adopt the American B♭/F bass trombone within about five years. In some orchestras the change came about through the incumbent player switching to the new instrument. For example, Fred Mansfield finally acquired an American bass trombone through legitimate means around 1958, which he used in the Philharmonia from then on,[12] Frank Mathison of the City of Birmingham Symphony Orchestra moved to a Reynolds *Contempora* in 1960,[13] and Tom Wrigley acquired a B♭ bass trombone through Barretts of Manchester to play in the Royal Liverpool Philharmonic, telling everybody how happy he was to see the back of the G trombone's "rattling handle."[14] In other orchestras, the change was the result of a new player taking up the position, such as Tony Thorpe replacing Geoffrey Lindon at the London Symphony Orchestra in 1957 (and soon after trading his decrepit Fischer trombone for a two-valve Reynolds),[15] Harry Spain replacing Godfrey Kneller at the Royal Philharmonic also in 1957, and John Pritchard replacing Bill Coleman at the London Philharmonic in 1962. Gerhard MacElhone's transition from G player in the London Philharmonic to B♭ player at Covent Garden was via the Sinfonia of London, an orchestra set up to record film soundtracks. The work was mainly orchestral, but also included big-band arrangements. The G/D lacked the flexibility to do both so he switched to a Reynolds B♭/F.[16]

By 1963 only four significant British orchestral trombone sections featured a G bass trombone: the BBC Symphony Orchestra (Geoffrey Lindon), the BBC Northern (George Cotham), the BBC Welsh (David Rowsell), and the Sadler's Wells Orchestra (Frank Mills; the Sadlers Wells Company was renamed English National Opera in 1968). The fact that three of these four were BBC orchestras may be a coincidence, but institutional conservatism

is suggested by Frank Mathison's experience of auditioning for a BBC orchestra some years earlier, at the end of the 1950s, where he had been told in no uncertain terms that B♭-bass-trombone-playing applicants "would not be entertained."[17]

Some loyalists took advantage of the glut of G/D trombones that were appearing on the second-hand market. George Cotham, bass trombonist with the BBC Northern, never made the switch to the B♭ bass trombone. But when his colleagues at the Hallé and the Royal Liverpool Philharmonic, Terry Nagel and Tom Wrigley, respectively, did so around 1960, he purchased their old G/Ds and continued to play them in the orchestra until his retirement in the late 1960s. Cotham had an engineering background (he had worked on fighter planes during the war) and had added the valve himself to the straight G he had been playing up until 1960. He preferred to play without the slide extension handle and removed them from the instruments he acquired from Nagel and Wrigley.[18] After the retirement of Dave Rowsell from the BBC Welsh in 1969, the only remaining G player in a British orchestra was Frank Mills at English National Opera. From 1968 the ENO trombone section consisted of two tenors, a B♭/F bass (Les Lake) and a G/D bass, an arrangement that continued until 1974 when Mills died in post,[19] bringing to an end the era of G bass trombone playing in Britain's professional orchestras.

Bass Trombone Production in the UK

By 1950 Boosey & Hawkes and the Salvation Army were the only two companies producing brass instruments in the UK on a commercial scale. The Salvation Army's factory in St. Albans was dedicated to supplying instruments to their own bandsman, and instruments were sent to SA bands around the world. The G was the standard bass trombone for the Salvationists, and the export of instruments from St. Albans provided a surprisingly international platform for the instrument. Between 1950 and 1972, ninety-three G trombones were made at the St. Albans factory. The factory ledgers (now housed at the Salvation Army's Denmark Hill site in South London) state the countries for which they were destined: thirty-five to Australia and New Zealand, thirty-one to the UK, thirteen to the USA and Canada, and thirteen unspecified (see Figure 3). Commonwealth countries, and in particular Australia and Canada, were clearly important centers of G trombone

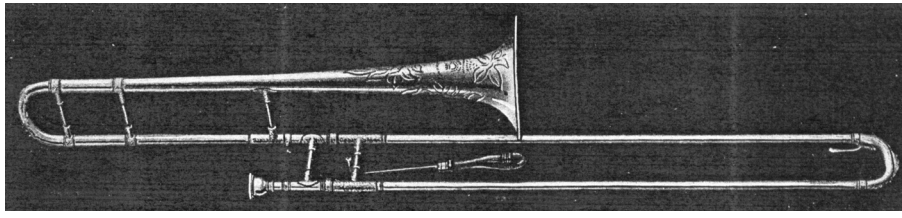

Figure 3: The "Triumphonic De Luxe" G bass trombone, as advertised in a Salvation Army musical instrument catalogue, 1951.

playing, a fact explained as much by the import of the British brass and military band traditions as by the activities of the Salvation Army.

In 1972 Boosey & Hawkes bought out the Salvation Army factory, thereby securing their effective monopoly on brass instrument production in the UK. The import embargo that had remained in place until 1958 had also served to protect their market. However, Boosey & Hawkes were well aware that the advent of superior American imports was only a matter of time and from the mid-1950s, began developing their own range of wide-bore brass, including the B♭/F bass trombone.

The strategy was to copy American designs as closely as possible. The Boosey & Hawkes factory ledgers (now held at the Horniman Museum) record the production of a trombone in 1954 (serial number 186259), with a note: "8.25in bell, experimental (as per Conn)." Despite the trade embargo, the company clearly had access to an American Conn trombone to use as the basis for this design. In 1957 commercial scale production began of a B♭/F bass trombone,[20] its generic model number, "555," a reference to the instrument's bore diameter—0.555 in. The instrument was essentially a version of the company's pre-war B♭/F tenor trombones, but with a bore profile and bell size modeled after the King 5B.[21] Figure 4 shows the production of G and B♭ bass trombones by the factory over the period 1954–79. The initial rise in production of both instruments was a result of an increase in production of all brass instruments in the 1950s, but by the 1970s the B♭ instrument was clearly predominant.

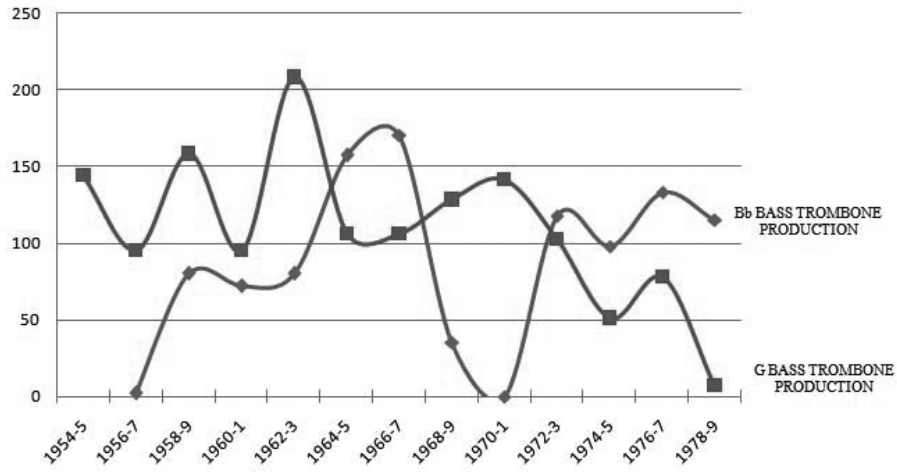

Figure 4: Production of G and B♭ bass trombones at Boosey & Hawkes, 1954–79 (based on two-year aggregates).

The company's next step in its competition with American imports was to introduce a model with two independent "inline" valves. Denis Wick, who had acted as a consultant to the company for the whole of their wide-bore *Sovereign* range, enlisted the help of Ray Premru, the American bass trombone player of the Philharmonia, in the design of this instrument. These were first produced in 1972 with the model number 4106,[22] and a survey of the factory ledgers shows that the development of the model occasioned a hiatus in one-valve bass trombone production, with no 555s produced at all in the period 1969–73 (see Figure 5). Two important influences appear to have contributed to this design: an adapted American instrument and a German patent. Ken Adkins, an American pupil of Denis Wick, had an early 1930s Conn (serial number 212099) that had had an inline second valve added in 1967 by the Los Angeles-based instrument repairer George Strusel. He remembers being invited to visit the Boosey & Hawkes Edgware factory in 1971, where the instrument was measured.[23] Denis Wick also recalls a patent for a similar inline valve arrangement for a contrabass trombone that had been secured some years earlier by the Alexander Company. Boosey & Hawkes adopted the system for their bass trombone design, knowing that the Alexander patent was soon to expire.

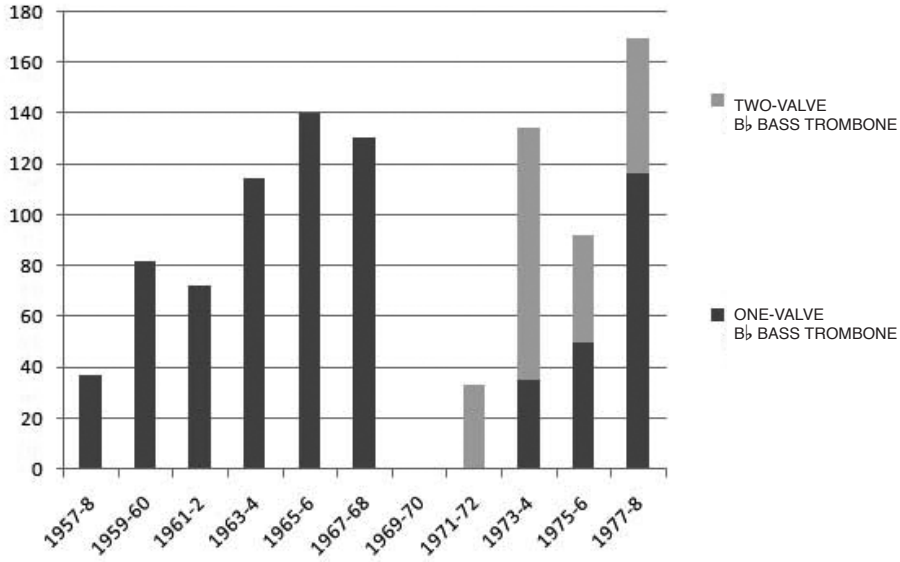

Figure 5: Production of one-valve and two-valve B♭ bass trombones at Boosey & Hawkes, 1957–78 (based on two-year aggregates).

Despite these developments, the G trombone continued to be produced, albeit in ever smaller numbers, up until 1978.[24] Figure 6 shows a page from a Boosey & Hawkes trade catalogue from around 1972, with the G trombone still very much on sale and meeting "the continuing demand for the traditional Bass Trombone sound," a demand by this time limited exclusively to the brass band world. The 4059 model G/D trombone on the right made a curious resurgence in the 1970s. This was essentially the Betty-bore model, the standard orchestral trombone in the late 1940s and early 1950s. The G/D had been produced continuously in modest numbers since the early 1930s, but had come to an abrupt halt in 1954 and no G/D trombones were produced in the period 1955–66. Production of G/D trombones was reinstated in 1967 and was maintained at a fairly even level (about twenty a year) until all G trombone production ceased in 1978. This reinstatement followed by steady production of the G/D suggests a new status for the instrument. As the straight G was being replaced by the B♭/F as the standard bass trombone, especially in brass bands, the more expensive wider bore G/D was taking on a prestige status among those loyal to the "genuine bass trombone." This loyalty has continued until the present day, and among enthusiasts today the wider bore instrument with a D valve has remained the model of choice.

Brass Bands

Even after the import embargo on musical instruments was lifted in 1958, Boosey & Hawkes retained an effective monopoly on both the military band and the brass band markets in the UK. Parade instruments used by military bands had to be silver-plated, which was uncommon for American imports. The brass band movement retained its own particularly British requirement in the form of high pitch (a^1=452.5 Hz), which it only relinquished in the mid-1960s. As a result, the pace of change in both band worlds was tied to the changes in production at Boosey & Hawkes long after orchestral bass trombone players had switched to American instruments.

On 9 August 1958 *The British Bandsman*, the weekly journal of the brass band movement, ran a front-page editorial entitled "An End to the G Trombone Handle."[25] The article discusses (although it does not name) the Boosey & Hawkes 555 B♭/F bass trombone, saying that it has recently been adopted by the Munn & Felton Band (now the Virtuosi GUS Band)[26] and the Ransome & Marles Band (now the Ransome Band) and also mentioning in passing the existence of G trombones with D valves, which it opines are inferior to the new B♭/F. The article was almost certainly the work of Eric Ball, then editor of *The British Bandsman*, and also (not coincidentally) conductor of the Ransome & Marles Band.

The article promotes the B♭/F bass trombone in polemic terms, calculated to animate the defenders of the G. It opens: "For years our G Trombone handle has been laughed at in different parts of the world," and describes the handle as an "anachronism." A letter published on 6 September 1958 shows at least one reader, a William Bower of Bradford, rising to the bait. He points out that the bass trombonists in the top bands in his area,

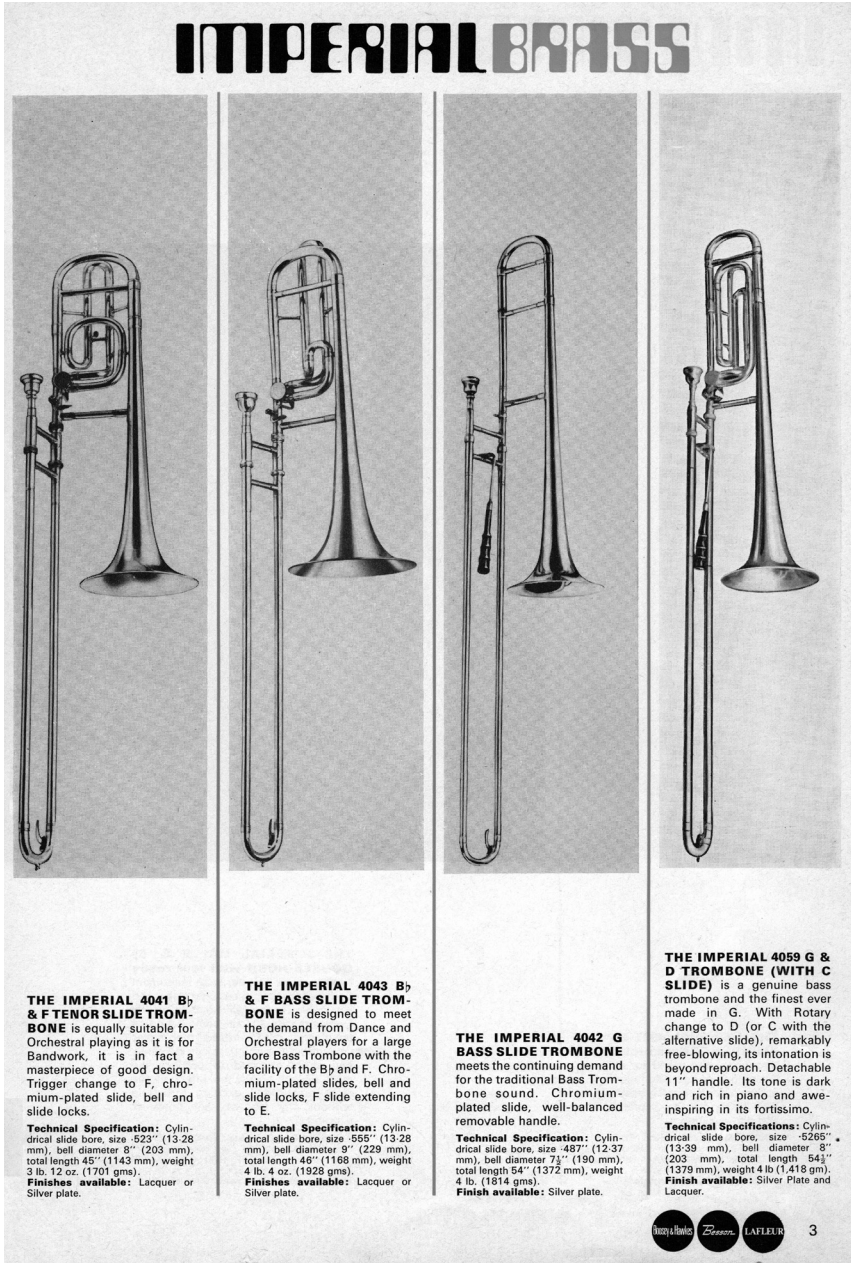

Figure 6: Page from a Boosey & Hawkes trade catalogue circa 1972.
(By permission of the Horniman Museum and Gardens.)

Black Dyke, Brighouse & Rastrick, and Carlton Main, continue to thrill him with their player's "magnificent handling of the G-trombone," thinking it unlikely that a "glorified tenor trombone" would have the same effect. He concludes, "[I]f the time comes when I have to hand over my 'G' to receive a boy's trombone, the effect will be equivalent to attending the funeral of a well-loved friend." [27]

William Bower's sentiments are amplified in a further letter on the subject published anonymously on 21 March the following year.[28] This letter objects primarily to the addition of the thumb valve to both tenor and bass trombones, saying that the mitigation of the air column by the valve in combination with the wider bore profile leads to a "loss of brilliance" (a complaint regularly made in the *Bandsman*'s letters column a few years later in connection with the adoption of low pitch). This second correspondent's complaint is with Boosey & Hawkes (again not mentioned by name), who are accused of imposing thumb valves and discarding the G trombone to ease mass production. This was perhaps a reaction to an advertising campaign by Boosey & Hawkes, which sought to introduce the F valve to the tenor trombone, the B♭/F bass trombone, and wide-bore instruments in general to the brass band world simultaneously. An advertisement in *The British Bandsman* on 17 October 1959 extols the virtues of the wide-bore *Imperial* tenor trombone, adding "or you can wait a little while for the 'Imperial' B♭ and F to come along ... and a companion Bass Rotary Trombone will also be available in this superb quality."[29]

The British brass band world adopted low pitch (i.e., a^1=440 Hz) in the mid-1960s, a move engineered by Boosey & Hawkes through their announcement in 1964–65 that production of high-pitch instruments was coming to an end.[30] But the G trombone survived this modernization, and Boosey & Hawkes continued to produce G trombones in low pitch. The slide handle of the G trombone seems to have taken on an iconic status among traditionalists in the brass band movement; a short editorial in the *Bandsman* in 1962 contradicts the journal's earlier position, saying, "As to the bass trombone, the brass bandsman's liking for the 'G-bass trombone' is a source of puzzlement and wonder to many, especially outside the Commonwealth. Being to some degree traditionalists we should hate not to hear and *see* [italics original] this fine-toned instrument in our bands."[31] Clearly the visual aspect of the instrument was as important as its sound quality.

Price was as important a factor as traditionalism in the continuing use of the G trombone in brass bands in the 1960s. In February 1965 a silver-plated B♭/F bass trombone from Boosey & Hawkes cost £101 10s after tax, while a silver-plated straight G trombone cost £63. But traditionalism continued to play its part. When Chris Stearn joined the National Youth Brass Band in 1969 (on a B♭ bass trombone), he was told that he would not be considered for the principal bass trombone chair unless he played the G.[32]

By the mid-1970s, the use of the G bass trombone was almost entirely restricted to lower-section brass bands. As it was one of the few instruments that could be converted cheaply and easily from high pitch,[33] many older straight G trombones survived the transition and continued to be employed until they were no longer fit for service. Gareth Jones joined the Pontardulais Band near Swansea, South Wales, in 1969, and was given a Boosey & Hawkes straight G trombone that his father had previously played with the

band in 1947. When its condition became critical in 1973, he was told (truthfully or not) that the band could not find a new G and he was bought a Boosey & Hawkes B♭/F *Imperial* instead.[34] The few reports of G bass trombones being used on a regular basis beyond the mid-1970s mainly concern older players continuing to the ends of their careers with it. One such was John Curtis, who played G trombone with the Sidmouth Town Band from 1923 until 1979;[35] another was Geoff Povey, who played G with the West Drayton Band until at least 1984.[36]

Australian bands may have continued to use the G trombone longer than their British counterparts. One of the very last sales of a new G bass trombone was of a Boosey & Hawkes instrument for Fred Cullum in 1981. At the time, Cullum played in the Wollongong Band in New South Wales and continued on the G with the Walkers Engineering Works Band in Maryborough NSW until the late 1980s.[37] The last G trombones to appear in the Boosey & Hawkes ledgers are an order of five G/D instruments completed on 15 September 1978.[38] One of these was destined to be sent out as part of a complete set to a band in Lincolnshire. The set included both a G/D and a B♭/F bass trombone. The player clearly opted for the latter as the G survives today in remarkably good condition (see Figure 7).

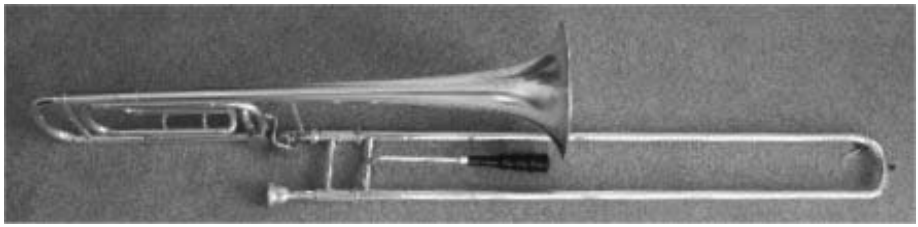

Figure 7: G/D bass trombone, Boosey & Hawkes, serial number 621272. One of the last order of five G bass trombones to be made by Boosey & Hawkes in 1978. (With thanks to Edward Solomon.)

The G Trombone Today

The modest revival of the G trombone in recent years has benefited from the fact that the instrument was in common use well within living memory. Any overlap between the tail end of the "traditionalists" and the early activities of the "revivalists" in the 1990s can be neatly classified through the instruments in use, the former playing narrow-bore straight instruments, the latter wider-bore instruments with D valves. Professor Arnold Myers has been an important facilitator of the instrument's revival, having played it himself since 1965, amassed an impressive collection at Edinburgh University, and supplied instruments to a number of professional players. One such is Douglas Yeo, bass trombone player with the Boston Symphony, who in 2002 performed Elgar's *Cockaigne* Overture with the orchestra under Jeffrey Tate, playing a Betty-bore G/D (see Figure 8). Another is Dave Gordon,

who plays G bass trombone with the New Queens Hall Orchestra, a period performance orchestra dedicated to the British repertoire of the early twentieth century. Gordon can also be heard playing the G trombone on the soundtrack to the film *Topsy Turvy*, about the operettas of Gilbert and Sullivan.[39] Ironically, Gordon's route to the G trombone was via period-performance orchestras on the continent, for whom Beethoven's Fifth and Ninth Symphonies pose the problem of engaging F bass trombone players.[40] Dave Gordon, like Peter Harvey and Steve Saunders, has worked on the continent playing this repertoire on the G trombone, an instrument that (unlike the continental F) was produced long enough into the twentieth century that viable examples can still be found. Among amateur orchestral players, the most enthusiastic recent advocate of the G trombone has been Edward Solomon, who currently performs with the Finchley Chamber Orchestra, playing the G when appropriate.

Figure 8: Douglas Yeo and Jeffrey Tate during rehearsals for a 2002 performance by the Boston Symphony Orchestra that included Elgar's *Cockaigne Overture*. Yeo holds a Boosey & Hawkes Betty-bore G/D bass trombone from 1938. The instrument also appears in Arnold Myers's article, "Brasswind Manufacturing at Boosey & Hawkes, 1930–59," *Historic Brass Society Journal* 15 (2003): 59. (With thanks to Douglas Yeo.)

The G trombone has made a few appearances in brass bands in recent years. One is featured in the 2004 recording by the Grimethorpe Colliery (UK Coal) Band entitled *The History of Brass Band Music: The Early Years 1850–1920* (Doyen DOY CD162). Dave Taylor recently performed on a G trombone at the London and Southern Counties regional qualifying championships in 2008, thereby effectively reintroducing the instrument to the contest stage.

The G bass trombone was a distinctive feature of British orchestras and bands for well over a century. Its decline in the face of imported instruments and imported designs was linked to changes in the economics of instrument manufacture and the aesthetic tastes that shaped the sounds of the nation's ensembles. But its decline was a drawn-out affair, compared, for example, with contemporaneous and equally significant changes to the designs of horns and tubas. Nostalgia for the G, and for its iconic slide handle, seems to have been one of the factors for this slow pace of change, especially in the brass band world. We can now, finally, consider the move to the B♭ instrument to be complete. But the memory of the G remains strong, and thanks to a small number of enthusiastic performers, its voice continues to be heard and its tradition lives on.

Gavin Dixon is an editor and writer on classical music based in Hertfordshire, UK. He completed his PhD from Goldsmiths College with a dissertation on the symphonies of Alfred Schnittke and was formerly a curator of musical instruments at the Horniman Museum. He now writes reviews and articles for a number of publications and websites and is a member of the editorial team for the Alfred Schnittke Collected Works Edition, which recently began publication in St. Petersburg.

NOTES

[1] I am grateful for the assistance that I received during the preparation of this article, particularly from Arnold Myers. Much of the article is based on telephone conversations and e-mail correspondence with players who were active in the 1950s and 1960s. When a footnote reference simply gives a name, this indicates that the information has been communicated directly to me by one of these means.

[2] Andreas Nemetz, *Neueste Posaun-Schule* (Vienna, 1827), 18. Reproduced in Howard Weiner, "Andreas Nemetz's *Neueste Posaun-Schule*: An Early Viennese Trombone Method," *Historic Brass Society Journal* 7 (1995): 12–35.

[3] See Trevor Herbert, "The sackbut in England in the 17th and 18th centuries," *Early Music* 18 (1990): 609–16.

[4] Denis Wick, *Trombone Technique* (London: Oxford University Press 1971), 90.

[5] The second edition of Cecil Forsyth's orchestration treatise, published in 1935, discusses the advantages of the D valve for the G bass trombone and also says that it has been adopted by Mr. Gutteridge of Henry Wood's orchestra; see Forsyth, *Orchestration* (London: Macmillan 1935), 141, note. This reference was brought to my attention by Arnold Myers in his article "Brasswind Manufacturing of Boosey & Hawkes 1930–1954," *Historic Brass Society Journal* 15 (2003): 55–72.

[6] Studies of American trombones by instrument designers at Hawkes & Son in the 1920s survive in the Boosey & Hawkes Archive, now held at the Horniman Museum, London. These include technical drawings from the late 1920s of a Holton trombone (E98.300). The study of American instruments continued into the Boosey & Hawkes era, and the collection also includes drawings and measurements taken of an Olds trombone, lent by a Mr. Heath in 1933, and of a Conn, lent by Tony Thorpe in 1935 (E19.145.21).

[7] See Trevor Herbert, *The Trombone* (New Haven: Yale University Press, 2006), 255–59.

[8] This instrument now belongs to Chris Stearn, bass trombonist with Scottish Opera, and is on loan to the Edinburgh University Collection (EUCHMI 4400).

[9] Denis Wick.

[10] The story is related by Arthur Wilson at http://www.britishtrombonesociety.org/resources/archived-articles/mix-n-match.html (accessed 2 April 2010).

[11] July 1954. Available online at http://www.britishtrombonesociety.org/resources/archived-articles/the-english-rose.html (accessed 2 April 2010)

[12] John Pritchard.

[13] Frank Mathison.

[14] Eric Jennings.

[15] Denis Wick remembers London players initially struggling to find appropriate mouthpieces for these wide-bore instruments. Tony Thorpe, for example, spent the first few months playing the *Contempora* with an E♭ tuba mouthpiece.

[16] Gerhard MacElhone.

[17] Frank Mathison.

[18] Michael Payne. Payne joined the BBC Northern in 1955, playing first trombone until the late 1960s, when he moved to the bass trombone chair on the retirement of George Cotham. Payne remembers the move to the B♭ bass trombone in Northern orchestras as happening very suddenly around 1960.

[19] Tom Winthorpe.

[20] First serial number, 264394; date given out (i.e., ordered from the factory), 28 October 1957.

[21] Based on observations by Chris Stearn.

[22] First serial number: 531669.

[23] Ken Adkins.

[24] In the early 1970s Boosey & Hawkes also investigated the possibility of commissioning G bass trombones from the VEB Blechblas & Signalinstrumentenfabrik in Klingenthal, GDR, as part of their ongoing *Weltklang* range of cheaper brass instruments. A sample order of fourteen instruments was completed in September 1972. The work was carried out by the company's trombone maker, Erich Pastor, but the unusual results demonstrate a lack of familiarity with the British instrument. They had a very wide bore, an extremely large bell, and an additional coil at the bell branch. These anomalies can be explained by the fact that the company, not anticipating any further orders, made the fourteen instruments out of pre-existing parts. Despite their unusual design, the trombones were sold, and one was bought by Arnold Myers from the B&H shop in Regent Street in the early 1980s. It is now on loan to the Edinburgh University Collection (EUCHMI 2706). My thanks to Professor Myers for forwarding me his correspondence with Mario Weller on the subject.

[25] *The British Bandsman*, no. 2943 (9 August 1958): 1.

[26] However, a photograph of the GUS Footwear Band in issue 3194 of *The British Bandsman* dated 1 June 1963 (p. 2) clearly shows a G bass trombone.

[27] Ibid., no. 2947 (6 September 1958): 3.

[28] Ibid., no. 2975 (21 March 1959): 6.

[29] Ibid., no. 3005 (17 October 1959): 5.
[30] See, for example, *The British Bandsman*, no. 3284 (20 February 1964). The Besson (i.e., Boosey & Hawkes) advertisement on p. 4 states that high-pitch instrument production will come to an end on 1 April 1965.
[31] Ibid., no. 3145 (23 June 1962): 7.
[32] Chris Stearn.
[33] The change from high to low pitch was made to the tuning slide; new instruments had previously been dispatched with both high- and low-pitch tuning slides, but when older instruments were converted to low pitch, it was usually by extending the existing tuning slide.
[34] Gareth Jones.
[35] Harold Curtis.
[36] Chris Pass.
[37] Margaret Sharpe, "Fred Cullum: G Bass Trombone Champion," *International Trombone Association Journal* 19, no. 3 (Summer 1991): 29–31.
[38] Serial numbers: 621272–6.
[39] Dave Gordon.
[40] Although, as Howard Weiner has since pointed out, a B♭ "bass" trombone is more appropriate than either an F or a G. See Howard Weiner, "When is an Alto Trombone an Alto Trombone? When is a Bass Trombone a Bass Trombone?—The Makeup of the Trombone Section in Eighteenth- and Early Nineteenth-Century Orchestras," *Historic Brass Society Journal* 17 (2005): 37–79.