

## The Italian Edition of Berlioz's *Treatise on Instrumentation* (1846–1848): The Brass Instruments

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Italian composers of the eighteenth and early nineteenth centuries, with some exaggeration, are usually regarded as little interested in orchestral instrumentation, being of course primarily concerned with voices and the art of *bel canto*. An extensive survey of Italian operas of the period reveals in fact a sporadic use of particular instruments in concertante roles (namely, the occasional exploitation of a particular instrumental timbre) much more than an overall concern for instrumentation and orchestration. It may thus appear surprising that Berlioz's *Grand traité d'instrumentation et d'orchestration modernes* was translated into Italian and published by Ricordi in Milan as early as 1846–48, shortly after the original French edition, which was begun in 1843 and completed in the following year.<sup>1</sup> It is even more intriguing to learn that the Italian translation was promoted almost simultaneously with the Parisian edition.<sup>2</sup> A catalog of the Ricordi publishing house of 1843 announced in fact that the translation of Berlioz's work was already "in press" (*sotto i torchj*), even though the first of the separate fascicles appeared more than two years later (see Figures 1 and 2).



Figure 1: Title page of the Ricordi catalog of 1843.

**OPERE TEORETICHE**  
**LIBRI D'ARGOMENTI MUSICALI**  
**METODI E PRINCIPJ ELEMENTARI**

**OPERE TEORETICHE**  
**E LIBRI D'ARGOMENTI MUSICALI**

<p>5789 <b>Antolini.</b> La retta maniera di scrivere per il Clarinetto ed altri Stumenti da fiato . . . . <i>Franchi</i> 5 —</p> <p>189 <b>Asioli.</b> Principj elementari di Musica, adottati dall' I. R. Conservatorio di Milano. (Quinta edizione). . . . " 4 50</p> <p>6246 — Primi Elementi musicali . . . . " 4 —</p> <p>9479 — <b>T Trattato d' armonia e d' accompagnamento</b>, adottato dall' I. R. Conservatorio di Milano; con ritratto dell'Autore. (Seconda edizione) . . . . " 50</p> <p>. . . — Dialoghi sul Trattato d'Armonia " 1 —</p> <p>5947) — <b>Il maestro di composizione</b>, ossia SEGUITO DEL TRATTATO D' ARMONIA; Opera divisa in due volumi, dedicata a <i>S. M. Ferdinando I.</i> Il primo volume contiene la Vita dell'Autore, le Epitomi delle materie de' tre libri in cui è compartita, e finalmente la parte teoretica delle materie stesse. Il secondo volume comprende la parte pratica, ossia l'applicazione degli esempj alla Teoria, illustrati essi pure da analoghe dilucidazioni. Tutta l'Opera si compone di 300 pagine. Questa unica edizione postuma è impressa <i>in quarto</i> su scelta carta e di nitida incisione; è adorna del ritratto dell'Autore inciso dall' egregio Professore <i>Giuseppe Asioli</i>, di lui fratello, ed anche di un <i>fascimile</i> della sua scrittura musicale . . . . " 75 —</p> <p>509 — Osservazioni sul Temperamento proprio degli Stumenti stabili, dirette agli Accoratori di Pianoforte ed Organo. . . . . " 1 —</p> <p>6819 — Disinganno sulle osservazioni fatte sul Temperamento proprio degli Stumenti stabili, in aggiunta al suo Opuscolo N. 509 di questo Catalogo. (Vedi l'Opera suddetta) . . . . . " — 60</p>	<p>48088 <b>Bellini (F.) Teoriche musicali</b> su gli Stumenti e sull' Istrumentazione, ad uso de' giovani Maestri Compositori. (Sotto i torchj). <i>Franchi</i></p> <p><b>Berlioz. Trattato d' istrumentazione e di orchestrazione</b>, diviso in nove parti. Traduzione dall' originale francese del M.<sup>o</sup> <i>Alberto Mazzucato</i>. (Sotto i torchj)»</p> <p>48081 — Parte 1.<sup>a</sup> Prefazione e Stumenti ad arco . . . . . " "</p> <p>48082 — — 2.<sup>a</sup> Stumenti a corde pizzicate . . . . . " "</p> <p>48085 — — 3.<sup>a</sup> Le Voci . . . . . " "</p> <p>48084 — — 4.<sup>a</sup> Stumenti a fiato di legno, senza ancie. " "</p> <p>48085 — — 5.<sup>a</sup> <i>Idem</i>, con ancie . . . . . " "</p> <p>48086 — — 6.<sup>a</sup> Stumenti a fiato di metallo. Fascicolo 1.<sup>o</sup> " "</p> <p>48087 — — 7.<sup>a</sup> <i>Idem</i>. Fascicolo 2.<sup>o</sup> " "</p> <p>48088 — — 8.<sup>a</sup> Stumenti a tastiera. " "</p> <p>48089 — — 9.<sup>a</sup> Stumenti a percussione, e dell' Orchestra in complesso . . . . . " "</p> <p>14009 <b>Boucheron. Filosofia della musica</b>, o Estetica applicata a quest'Arte. (Un vol. in 8.<sup>o</sup> grande di 160 pag.) . . . . . " 5 50</p> <p>99 <b>Cajani.</b> Nuovi Elementi di Musica esposti con vero ordine progressivo " 5 —</p> <p>3946 <b>Cattaneo (N. E.)</b> Grammatica della Musica, ossia Elementi teorici di questa bell'Arte . . . . . " 2 —</p> <p>. . . <b>Coti (D. Antonio).</b> <b>Vita di Bonifazio Asioli</b> da Correggio, seguita dall' elenca delle Opere del medesimo. (Un volume in 8.<sup>o</sup>) . . . . . " 2 50</p> <p>48090 <b>De-Macchi.</b> Grammatica musicale, o Teoria dei Principj elementari di Musica, compilata dietro le norme di <i>Asioli</i> e di altri rinomati autori. Edizione arricchita di tavole dimostrative, anche per diversi Stumenti. " 1 50</p>
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Figure 2: Announcement of the publication of Berlioz's *Grande Trattato* in the Ricordi catalog of 1843.

Production of the Italian version of the *Grand Traitè*<sup>3</sup> had in fact begun probably as early as the end of 1845, the year of the appearance of the first German edition.<sup>4</sup> The Italian edition was printed in fascicles, the last of which came off the presses in 1848; it was therefore the second foreign-language edition. This fact has long remained largely unnoticed, since the Ricordi Company, like many other music publishers of the nineteenth century, usually did not explicitly indicate the date of publication.<sup>5</sup>

As early as 1842, in issues of the *Gazzetta Musicale di Milano*, the official magazine of Ricordi, several essays on orchestration by Berlioz had already been translated into Italian,<sup>6</sup> and the same topic was repeatedly dealt with in other articles appearing in that journal during the following years. This seems to highlight Ricordi's noteworthy interest in instrumentation, which up to that point had been a simple subject of oral teaching in the composition classes of the country (whence, incidentally, the paucity of previous Italian publications on the same topic). The appearance of the articles in the *Gazzetta Musicale di Milano*, as well as that of the treatise itself, was of course driven by musical reasons, but one may suspect that there was also a non-musical agenda at work, given the political interests of the founder and owner of the firm, Giovanni Ricordi (1785–1853).

In disclosing this background, one should remember the political situation of Italy at the time: the North and Tuscany subject to Austrian domination, Piedmont and Sardinia to the royal dynasty of Savoy, the middle of the peninsula mostly belonging to the Papal State, the South of the country to the Royal House of Bourbon, with smaller areas under still further rulers. But what can relate a treatise on instrumentation to a political situation such as that of Italy at the beginning of its process of national reunification? A bizarre question indeed, if one takes into account the tenuous relationship between the terms of the question.

However, the preparation of a paper on the Italian version of Berlioz's *Grand Traité*, to be presented at a meeting in Siena for the bicentennial of the composer's birth (2003), first led me to suspect that artistic and musical reasons were less relevant to this publication than the political ideas of Giovanni Ricordi, namely his faithfulness to the ideals promoted by the most famous Italian patriot of the time, Giuseppe Mazzini (1805–72).<sup>7</sup> Mazzini played a fundamental role as leader of the reunification of the separate Italian regions, a movement begun in the first decades of the nineteenth century, which led in 1848 to the First War of Independence and continued until the complete unification of the country in 1861 (the Papal State, with Rome as the capital, being added in 1871). Mazzini was not only the political guide of the Italian liberation movement, but also an ideologue and theorist of the unification. His personal credo—to be evaluated within the context of the time—can be defined as a kind of idealism rather than individual egoism, a recognition of the public duties to which the free man is subject: life itself constitutes a mission, the homeland is a faith, an ideal in which the wills and needs of a people converge. These principles must forge the destiny of the nation and, in his opinion, must bring down foreign tyranny by creating a single, free, democratic, and republican Italian state. It must be added at this point that, in Mazzini's vision, music should have a role in this great project, a role which could not be limited to an aesthetic or spectacular dimension, but rather to an educational and moral one, as music can support a population in the struggle for the uprising from a foreign domination.

Initially exiled to France, then to Switzerland, and finally to London, it was during this period that Mazzini devoted himself to political and philosophical writings.

The latter include a small essay on musical aesthetics published in 1836, *Filosofia della musica*, bearing the Latin dedication *ignoto numini* (“to an unknown genius”), a “genius”—musician and composer, of course—of whom he specifies in this pamphlet all the desirable skills, among which is a profound interest in instrumentation.<sup>8</sup> The following excerpt, one of the most eloquent from this point of view, gives an idea of Mazzini’s vision, according to which instrumentation should support the dramatic action of the melodrama, then the most representative and the most widespread musical genre in Italy.

Why not use the instrumentation more frequently and with more care, to symbolize, in the accompaniments of each character, the tumult of affections, habits, instincts, material and moral tendencies that most often act on the soul, spur it to the will, and thus enter into the fulfillment of its destiny, into the final deliberations that will clarify the event represented?<sup>9</sup>

The diffusion in Italy of Berlioz’s book on instrumentation was presumably the result of Giovanni Ricordi’s endorsement of this political vision.<sup>10</sup> These ideals inspired Ricordi to assign, among the huge output of his publishing house, a suitable space to texts on instrumentation.<sup>11</sup>

That the Italian version of Berlioz’s treatise was also due to ideological and political reasons must not, however, let one underestimate the fact that this publication was also aimed at the improvement of the instrumental skills of Italian orchestras. It represented the most up-to-date information one could then find on the subject, far in advance of Italian musical practice. One can only emphasize the gap between the content of this ground-breaking instruction book and the meager Italian works that predated it, the booklets of Francesco Mirecki (1824), Bonifacio Asioli (ca. 1832), Luigi Picchianti (1834), Giuseppe Pilotti (1836), and a few others.<sup>12</sup>

We have already remarked that until the 1830s (and even later, as Verdi’s youthful operas also demonstrate), Italian composers confined themselves to a rather unimaginative use of orchestral instruments. From the early 1840s, however, operas by Meyerbeer also began to be staged in Italy, and they involved a stronger commitment from orchestral forces. They had also a seminal influence on Italian composers of the time, in particular the performances of *Robert le diable* (Florence 1840, as *Roberto il diavolo*), and *Huguenots* (Florence 1841, as *Gli Ugonotti*), followed by many others, with a gradual and impressive increase in the number of performances.<sup>13</sup>

Years	Performances	Cities	Operas
1840–50	35	16	32 Robert le diable, 2 Huguenots, 1 Il crociato in Egitto
1851–60	64	28	34 Robert le diable, 16 Le prophète, 12 Huguenots, 1 Il crociato in Egitto, 1 Étoile du Nord
1861–70	95	28	33 Robert le diable, 22 Huguenots, 15 Africaine, 14 Dinorah, 9 Le prophète, 1 Étoile du Nord
1871–80	90	35	29 Africaine, 18 Robert le diable, 16 Huguenots, 14 Dinorah, 9 Le prophète, 2 Étoile du Nord

**Table 1:** Operas by Meyerbeer produced in Italy (1840–80).

The staging of these grand operas of Meyerbeer, at least initially, presented the personnel of Italian theaters with unprecedented tasks, putting a strain on all the musical components of the production, from soloists to choirs, from instrumentalists to conductors, from the impresario to technical crews. Alberto Mazzucato, translator of Berlioz's treatise and a collaborator of the *Gazzetta Musicale di Milano* from its foundation in 1842,<sup>14</sup> commented on the Milanese performances of *Roberto il diavolo* at the Carcano Theater (1844) and then at La Scala (1846), stressing the difficulties to which the entire forces were subjected.<sup>15</sup>

Thus, even though Ricordi's publication was underpinned by an ideological vision, it is nevertheless apparent that musical and practical reasons favored the release of such a monumental work, a reference book that would last for a long time, at least until the publication in 1912 of an enlarged edition by Ettore Panizza (see below).<sup>16</sup>

### Alberto Mazzucato's critical notes

We now focus on the section of Berlioz's treatise dedicated to brass instruments, in which the most relevant differences between Italian and French musical practices are made apparent by the comments of Mazzucato. As a skilled performer and theorist himself, Mazzucato felt compelled to add remarks to the original text that favor the present understanding of contemporary Italian practices.

#### The Horn

The section of the treatise dedicated to brass instruments begins with the discussion of the horn, which is said to play in all keys, from high C to low B $\flat$ , with the exception of F $\sharp$ , D $\flat$ , and low B $\natural$ . Berlioz also mentions the key of low A, stating that it is obtainable by inserting a small crook in addition to that for B $\flat$ . Mazzucato's first comment is that in Italy horns are not used in the tonality of high C.<sup>17</sup> He further observes that the horn in A $\flat$  is also not in use, but this key can be obtained by adding "the small crook" to the horn in B $\flat$ ;<sup>18</sup> in addition, since high C is not used, one cannot play high B $\natural$ .<sup>19</sup> Research carried out on numerous Italian scores of the eighteenth and nineteenth

centuries confirms the assertion by Mazzucato, that indeed, horns in high C and A $\flat$  are extremely rare in Italian scores of the time. Moreover, one cannot fail to mention the famous horn quartet that opens the second act of Verdi's *Don Carlos* (1867), possibly depending on Berlioz's recommendations regarding the use of four horns in unison, each one crooked in a different key (Figures 3 and 4). A tribute, as it may be, by an attentive reader of Berlioz, and all the more in a score expressly written for Paris.

## ESEMPIO

The musical score, titled "ESEMPIO", shows five staves. The first four staves are for horns: "Corno in Fa", "Corno in Do", "Corno in Mi $\flat$ ", and "Corno in Si $\flat$ ". The fifth staff is for "Effetto" (Effect), with a note labeled "8<sup>a</sup> bassa" (8th low) indicated by a dotted line below the staff. The music consists of a single melodic line in unison across all staves, starting with a whole note on B $\flat$  in the first measure, followed by quarter notes in the second and third measures, and ending with a whole note on B $\flat$  in the fourth measure. The key signature has one flat (B $\flat$ ).

Figure 3: Hector Berlioz, *Grande trattato*, p. 17: example of the use of four horns in unison.

Regarding the (piston or rotary) valves, Berlioz endorses the use of the three-valve system, which offers the advantage of increasing the range of the low register of the instrument by three full tones: considering the low C as the starting note, the valves then allow the hornist to obtain BB, BB $\flat$ , AA, AA $\flat$ , GG, and FF $\sharp$ . Mazzucato, in turn, points out that these notes, though less clear and more difficult, can also be obtained by using the traditional hand-horn technique. It would have been preferable, he continues, to state that the valve mechanism makes the attack much safer and the pitch more audible.<sup>20</sup> The entire passage thus reminds us of an enduring Italian tradition of producing the notes below the second harmonic by exploiting a peculiar lip-relaxation technique.

**Andante sostenuto assai** ♩ = 72

CORNO I. in *Re*  
CORNO II. in *Si* basso  
CORNO III. in *Mi*  
CORNO IV. in *La*

*Coro di Frati, un Frate, poi Don Carlo. Il Coro salmeggia nella cappella.*

**Andante sostenuto assai** ♩ = 72

CONTRABBASSI

*Re*  
*Si*  
Cor.  
*Mi*  
*La*  
Cb.

*Re*  
*Si*  
Cor.  
*Mi*  
*La*  
Cb.

(\*) La lezione dell'Opera in 4 atti comincia qui.

Figure 4: Giuseppe Verdi, *Don Carlos* (1867), Act II, horn quartet.

### The trumpet

In the footnote following the section of the treatise on the trumpet, Mazzucato writes that

the chapter on the trumpet is not very useful to us because it deals with the natural trumpet, which has not been used in our orchestras for several years. Our musicians employ the so-called *trombe a macchina* ["machine" trumpets], instruments to which a mechanism is applied different from that of piston and rotary valves. It offers practically the same possibilities, namely that of also producing the entire chromatic scale with the trumpet.<sup>21</sup>

One may observe that, contrary to the modern generic meaning of the term *a macchina* (a comprehensive term for “valves”), in this instance the term *macchina* indicated the Viennese valve system, widely used in those days for the trumpet. As numerous Italian documents show, this device, in particular when applied to the trumpet, was considered a valid alternative to the piston or cylinder models, all three commonly produced in those days by contemporary makers (see Figure 5).

Mazzucato also states that the valve trumpet was established in Italy at an early stage, which is confirmed by the fact that one of the earliest methods dedicated to the valve trumpet was published in Italy as early as 1835, the author being Giuseppe Araldi, first trumpet at La Scala Theater.<sup>22</sup> Throughout the nineteenth century the trumpet was traditionally pitched in G or F (rarely A $\flat$ , for wind bands) with a few crooks for lower keys, mostly E $\flat$  and D. From the 1860s, however, soloists and orchestral players increasingly used a hybrid model, a sort of cornet/trumpet pitched in B $\flat$ . Unabashedly called *tromba* (“trumpet”), this hybrid was replaced only after WWII by the modern French/American piston trumpet in the same key.<sup>23</sup>

10 FABBRICA DI STRUMENTI MUSICALI DI G. PELITTI A MILANO				MANUFACTURE D'INSTRUMENTS DE MUSIQUE DE G. PELITTI A MILAN 11							
<b>Pistonini.</b>				<b>Soprani.</b>							
		NUMI NUMI	1° NUMI	2° NUMI		NUMI NUMI	1° NUMI				
1	fa o mi $\flat$	3 cilindri	L. 110	90	80	1	fa ou mi $\flat$	3 cylindres	L. 110	90	80
2	»	3 pistonini	60	50	40	2	»	3 pistons	60	50	40
<b>Cornette.</b>				<b>Cornets.</b>							
3	do o si $\flat$	3 cilindri	L. 120	100	90	3	ut ou si $\flat$	3 cylindres	L. 120	100	90
4	si $\flat$	3 » alla Napoletana	130	110	100	4	si $\flat$	3 cylindres à la Napolitaine	130	110	100
5	»	3 » coperti	150	130	120	5	»	3 » couverts	150	130	120
6	»	3 pistonini	70	60	50	6	»	3 pistons	70	60	50
7	»	a macchina	70	60	50	7	»	à mécanique	70	60	50
<b>Flicorni.</b>				<b>Contralti.</b>							
8	do o si $\flat$	3 cilindri	L. 120	100	90	8	ut ou si $\flat$	3 cylindres	L. 120	100	90
9	si $\flat$	3 » alla Napoletana	140	120	110	9	si $\flat$	3 cylindres à la Napolitaine	140	120	110
10	»	4 » »	150	130	120	10	»	4 » »	150	130	120
11	»	3 » coperti	160	140	130	11	»	3 » couverts	160	140	130
12	»	3 pistonini	70	60	50	12	»	3 pistons	70	60	50
13	»	a macchina	70	60	50	13	»	à mécanique	70	60	50
<b>Trombe.</b>				<b>Trompettes.</b>							
14	sol	3 cilindri & ritorte	L. 120	100	90	14	sol	3 cylindres à 4 tons	L. 120	100	90
15	la $\flat$	3 »	120	100	90	15	la $\flat$	3 »	120	100	90
16	sol	3 » coperti	150	130	120	16	sol	3 » couverts	150	130	120
17	do e si $\flat$	3 » per orchestra	120	100	90	17	do et si $\flat$	3 » pour orchestre	120	100	90
18	sol	3 pistonini	70	60	50	18	sol	3 pistons	70	60	50
19	»	a macchina	70	60	50	19	»	à mécanique	70	60	50
<b>Trombe basse.</b>				<b>Basses Trompettes.</b>							
20	do o si $\flat$	3 cilindri	L. 150	130	120	20	ut ou si $\flat$	3 cylindres	L. 150	130	120
21	»	3 pistonini	100	90	80	21	»	3 pistons	100	90	80

**Figure 5:** *Catalogo della fabbrica-strumenti musicali di Giuseppe Pelitti* (Milan: Stab. Sonzogno, (1872), 10–11, offering trumpets with rotary, piston, and *macchina/mécanique* (i.e., Vienna or double-piston) valves.



Mazzucato further remarks in the same footnote, “However, if the trumpets, through the aforementioned mechanism, gained in completing their scale, they also lost in the ease of ascending to the highest pitches. We add this warning to this chapter by Mr. Berlioz, in order to prevent readers from believing that our trumpet players can ascend as high as the author claims.”<sup>24</sup>

Concerning the valves and their invention, it is worth mentioning a letter preserved in the archives of the Academy of Fine Arts in Paris,<sup>25</sup> sent in 1840 by Gaspare Spontini to clarify the issue, for some Parisian makers claimed the discovery to be theirs. This enlightening document, quoted extensively in the *Manuel général de musique militaire* by Georges Kastner (1848, pp. 190–92), has never been fully reproduced, to my knowledge, in modern literature.<sup>26</sup> The witness definitely assigns to Blühmel, instead of Stölzel, the invention of the valves. In fact, Spontini’s declaration, unlike that of other witnesses, is that of a neutral third party, not interested at all in assigning the primacy to one or the other of the two men. The composer, who also mentions the other person involved, bandmaster Wilhelm Wieprecht, to whom the invention of German piston valves is attributed, declared in a letter dated 6 April 1840,

The inventor Stölzel, whom you mentioned to me, has made all the verbal and written statements that were necessary for me, as has the inventor Wieprecht, both musicians of the Royal Chapel, that they received the first information on pistons from the inventor Blühmel, of Silesia, about twenty-five to twenty-six years ago.<sup>27</sup>

In the same section devoted to the valve trumpet, Berlioz also specifies that this system did not deprive the instrument of the sound of the natural trumpet, and that the intonation of the valve model is fairly satisfactory, which is not the case with keyed trumpets, still used “in some Italian orchestras.” This assertion is confirmed by several sources, as for instance by the instruments made in Modena by Antonio Apparuti from around 1831 to 1849, or by other Italian builders until ca. 1850, in particular in the south of Italy.<sup>28</sup> Further to this point, two famous keyed-trumpet players, the Gambati brothers from Rovigo, in the Veneto region, had brilliant careers in Italy and abroad, and whose first names, Antonio and Alessandro, have been recently uncovered.<sup>29</sup>

Then, Mazzucato continues, “We must repeat what was already stated at the beginning of this chapter, namely that the piston, cylinder, and *a macchina* [Vienna valve] trumpets cannot ascend as high as natural trumpets. Our musicians struggle to exceed, regardless of the key in which the trumpet is pitched, treble  $g^2$  at concert pitch.”<sup>30</sup> It is thus confirmed that the adoption of the valves actually led to a reduction in the range of the instrument, a decrease due, in all probability, to the fact that the mouthpiece of the valve model was usually markedly different from that typically adopted on the natural instruments. It was slightly deeper, in order to ease production with the valves of the missing notes in the harmonic series.

### The piston cornet

On the piston cornet, a very popular instrument in Paris already at the beginning of the 1840s, Mazzucato adds in the translated version, “This instrument has not been adopted in our orchestras as yet.”<sup>31</sup> This is one of the main shortcomings of Italian orchestras of the time, as underlined by the same writer in the *Gazzetta Musicale di Milano* on the occasion of the Milanese premiere of *Roberto il diavolo* at Teatro Carcano in 1844.

The performance was better than had been prejudicially rumored; miles away, however, from what one might want, what it should be. Since, apart from the paucity of bow instruments which, in order to balance the wind-instruments, and those of metal in particular, which have such a continuous and important role in this score, should be triple in number (a lack, however, which the *impresario* could have at least partially filled in); apart from insufficient male and female voices; apart from the absence of some needed instruments, such as for example four kettledrums instead of two; apart from the suppression of the piston cornets, which was not the fault of the company because this instrument has not yet been adopted here; apart from all these things, there was still the absolute impossibility that an opera of this type could conveniently be performed in a theater of small-scale dimensions, such as the Carcano.<sup>32</sup>

An almost identical remark is found a few years later in the most distinguished Italian treatise on instrumentation, that by Antonio Tosoroni (1850): “This cornet has had very good results in France since its inception and it would be desirable for it to be introduced into our orchestras as it was in Paris at the Opera House.”<sup>33</sup> Berlioz then compares the range of the cornet to that of the trumpet, stating that the latter can go slightly higher than the former, reaching sometimes the  $g^2$  and  $a^2$ . Mazzucato promptly adds, “It should be noted that the author talks about natural trumpets here.”<sup>34</sup>

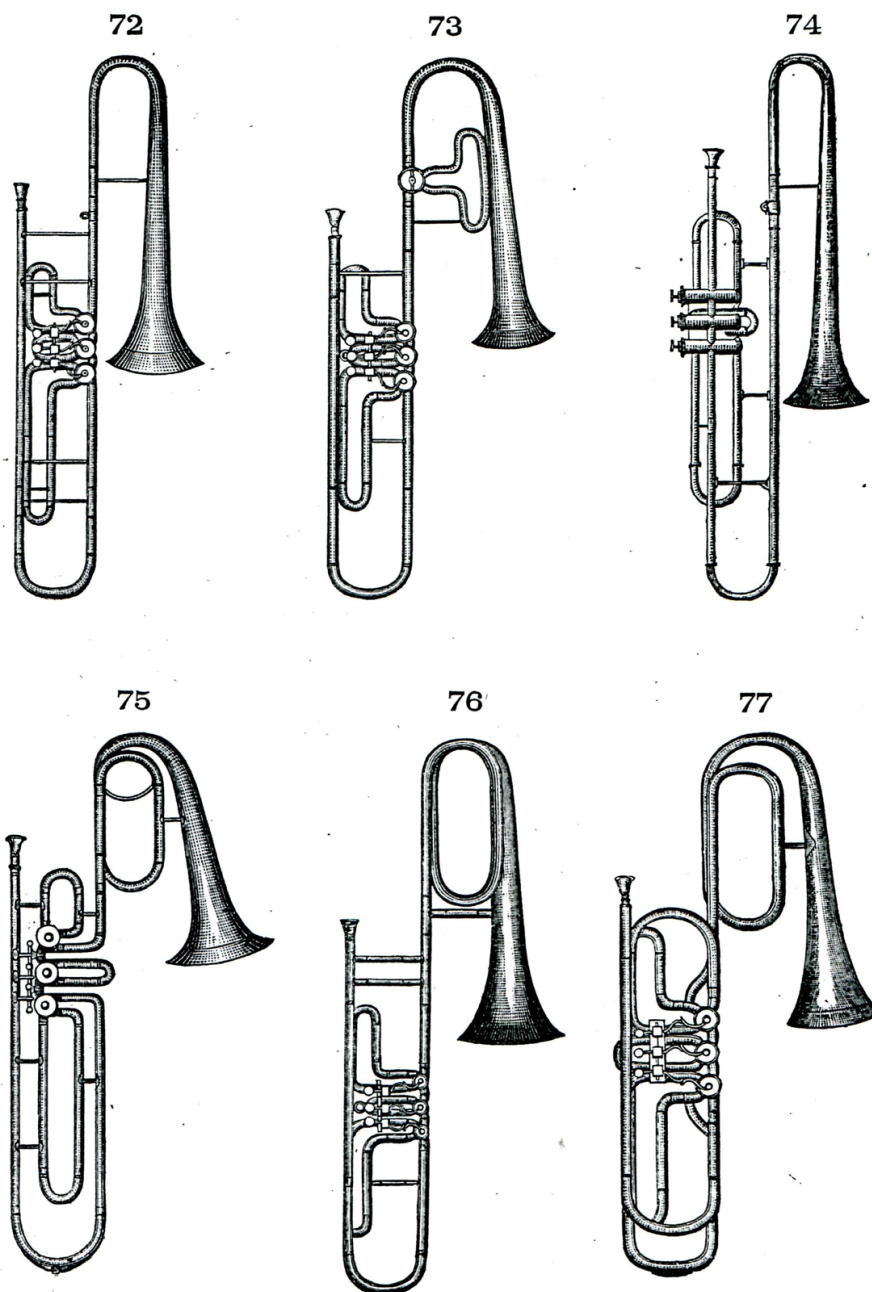
One should also mention Berlioz’s criticism of the “biting, boasting, shaming” sound of the cornet, but also his appreciation of the instrument when properly employed, as in the aria “Mon fils, mon fils, ma tendresse assidue” in *Roberto il diavolo* by Meyerbeer. A comment may further be added on the cornet in the melodramas written by Donizetti specifically for Paris, in particular the solo piston cornet in the aria “Cercherò lontana terra” in *Don Pasquale*, and the two trumpets and two piston cornets in *La favorite* and *Dom Sébastien*.<sup>35</sup>

### Trombones

Berlioz points out that, although there are three sizes of trombones, alto, tenor and bass (the soprano being only used in Germany), the alto trombone is rarely played in France and the bass trombone, almost never. A similar situation exists in Italy where, as Mazzucato remarks, only the tenor is used, so that pieces written for the alto often require the first trombonist to transpose the notes one octave lower.<sup>36</sup>

Milano. - Disegni degli strumenti musicali d'ottone di Giuseppe Pelitti - Milano\*

### TROMBONI



**Figure 6a:** Illustration from the Pelitti factory catalog (1873), reproducing valve trombones only. *Disegni della Fabbrica Strumenti Musicali di Giuseppe Pelitti* (Milan: Tip. del Commercio, 1873).

Milano. - Disegni degli strumenti musicali d'ottone di Giuseppe Pelitti - Milano.



**Figure 6b:** Illustration from the Pelitti factory catalog (1873), reproducing valve trombones only.

The long chapter dedicated by Berlioz to the trombone refers almost exclusively to the slide model, forcing Mazzucato to point out that in Italy, players mainly use “machine” trombones, which he judges as follows: “In many of our orchestras we find

the so-called ‘machine’ trombones which, thanks to a particular mechanism, provide greater ease of execution, thus avoiding the lengthening and shortening of the instrument’s slide and consequently the impractical movement of the arm.”<sup>37</sup>

This observation by Mazzucato draws attention to the fact that the entire Italian orchestral repertoire of the second half of the nineteenth century and the first decades of the following one is meant for the valve trombone, slide models being completely absent from the country during the same period. For example, the 1873 catalog of Giuseppe Pelitti, the most renowned Italian brass instrument maker of the nineteenth century, does not offer a single model of slide trombone (see Figures 6a and 6b).

The knowledge of this Italian uniqueness sheds light on some orchestral excerpts for the instrument. For example, the famous opening of Verdi’s *Otello* (1887) includes a melodic passage written on a chromatic scale that is particularly arduous on a slide trombone, but much less difficult on a valve instrument.

While Berlioz then describes the French notation in three different clefs, each for one of the three sizes of the instrument, Mazzucato further observes that “In Italy the three trombones are usually written on a single line, in bass clef.”<sup>38</sup> The translator also states that the compass employed by Italian instrumentalists is a few tones less than that reported by Berlioz: “To be honest, we must warn that in general the trombonists who play in our orchestras do not easily reach the highest notes of the range noted here by Berlioz. They barely ascend beyond *g*<sup>1</sup>.”<sup>39</sup> While Berlioz regrets that the bass trombone is not used in Paris, Mazzucato simply adds concerning Italy, “And here also.”<sup>40</sup>

### **Bugle and flugelhorn**

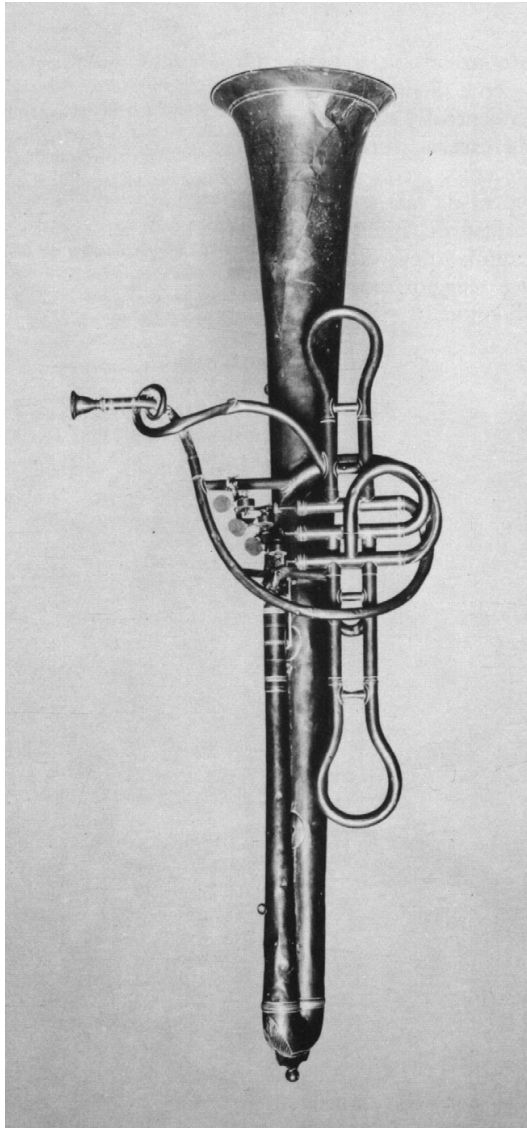
As regards the bugle, Mazzucato restates what he has previously declared in the summary of the book:

We have already said<sup>41</sup> that we do not know these instruments. After some research, [I believe that] they should not stray too far from the flugelhorns, although they have a rather disgusting sound quality, at least if we follow the unfavorable judgment of Berlioz. Besides, we cannot understand how the author can affirm, with regard to the keyed bugles, that they exist in some Italian orchestras. We really do not know where.<sup>42</sup>

Probably the translator was unaware of the situation in southern Italy, where such instruments were sometimes used. Having attended several orchestral performances in Naples, Berlioz would have been aware of this.<sup>43</sup> In addition, Mazzucato’s statement about the possible similarity of the bugle to the flugelhorn (the latter properly called *flicorno* in Italian) confirms that the instrument was already familiar to him. It is somewhat surprising, however, that he did not know the contemporary Italian counterpart for the natural bugle, known as *corno segnale*.<sup>44</sup>

### Ophicleide and bombardone

In this section Berlioz clearly refers to the keyed ophicleide (mentioning, among other things, a key invented by Victor Caussin), and as Mazzucato does not add any comment, it may seem that this instrument was also common in Italian orchestras, and in Milan in particular, where the translator resided,<sup>45</sup> though it is possible that Mazzucato loosely interpreted the term as referring to the valve ophicleide developed by the Viennese firm Uhlmann and later imitated by Apparuti of Modena, which promptly replaced the keyed model in Italy.<sup>46</sup> Its competitor was another instrument first built in Vienna, the bombardone, a bass instrument also briefly mentioned by Berlioz, invented in 1833 by the maker Wenzel Riedl.<sup>47</sup> Both types were soon adopted in Milan and in Lombardy, then under Austrian rule and thus influenced by Viennese customs, and it was one of these valve instruments that Verdi had in mind when writing a *cimbasso* part in his earliest operas, beginning with *Oberto* (1839).<sup>48</sup>



**Figure 7:** Valve ophicleide, Antonio Apparuti, Modena, 1841 (Modena, Musei civici, inv. SM.51).

**Bass tuba**

Surprisingly, Mazzucato does not remark that this instrument was totally unknown in Italy, possibly because Berlioz also speaks of it as a rarity, even in France. In fact, the bass tuba became common in Italy only in the 1930s, after a long period of predominance of the “Verdi contrabass trombone,” invented in 1881 and quickly adopted as the undisputed bass of all brasses in Italy (see below).

Mazzucato then concludes the chapter on brass instruments with the following comment:

Mr. Berlioz chose to stop dealing with brass instruments here. However, readers will agree that the treatise may appear therefore rather incomplete. But the author is not responsible for this, as many brass instruments were invented after the French publication of his work. Among the models recently devised, those of the Milanese Pelitti are remarkable.<sup>49</sup>

Thus it might appear that the treatise of Berlioz had been published much earlier than it actually was, allowing enough time for new instruments to be introduced. As this was not the case, one should assume here only a *homage* to Giuseppe Pelitti Sr. (1811–65), a maker who was then making a dramatic contribution to the construction of the brass instruments in Italy.<sup>50</sup>

**Russian bassoon**

Two further cup-mouthpiece instruments, mostly made out of wood and only partially of brass, remain to be mentioned. The serpent, even though by then completely abandoned, may have been known to Mazzucato, but of the *basson russe* (Russian bassoon), he surprisingly exclaimed, “We do not know this instrument.”<sup>51</sup> Quite likely it was only this instrument’s French name that was unknown to him, because a similar instrument, with a body of wood but with a brass leadpipe and bell, was then still used in Italian bands under the name *corno basso* (“bass horn”), or more often, abbreviated as *cimbasso*, the oldest and the most fitting of all the many meanings associated with this term ever since (see below, under “Verdi” bass trombone).



**Figure 8:** Cimbasso by P. Piana, Milan (ca. 1820). Vermillion, South Dakota, National Music Museum, inv. no. 01275.

### **The second edition (1912)**

The reprint of the treatise in 1912 was divided into three volumes, the third being dedicated to brass and percussion instruments. This edition reproduces exactly Mazzucato's translation of 1846–48, with the addition of a new concluding section consisting of comments by the conductor and composer Ettore Panizza (1875–1967).<sup>52</sup> Panizza's comments relating to brass instruments appear below.

### **Horn**

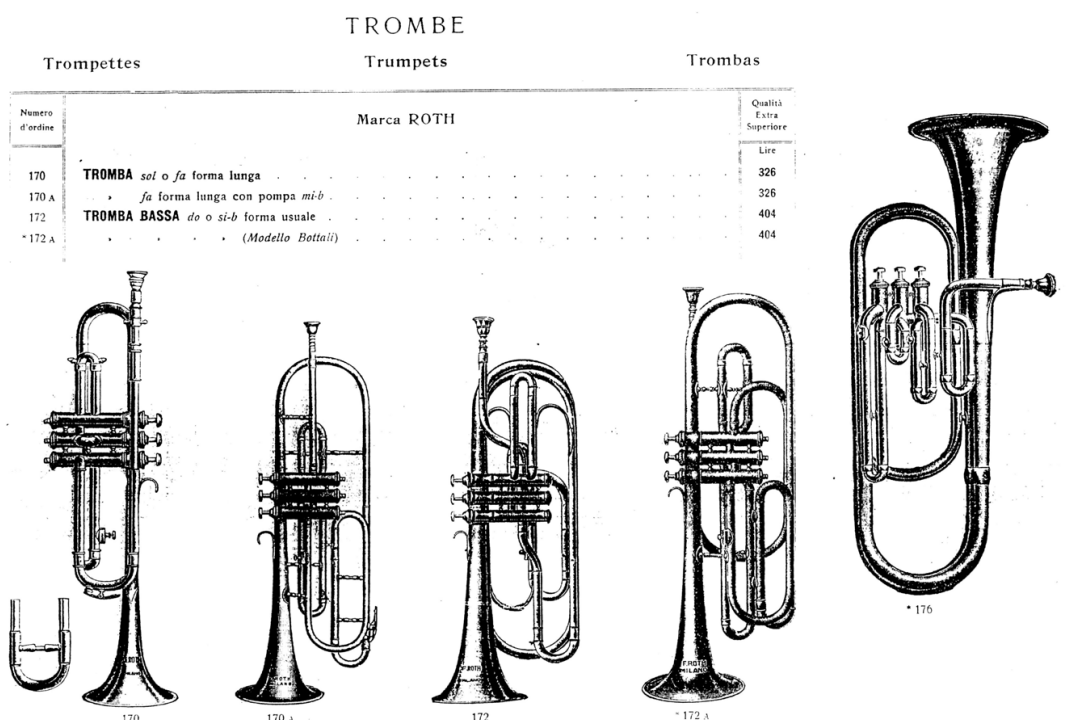
We observe what current practice dictates, namely that in nearly all Italian orchestras chromatic horns in F have been adopted. With this instrument, the professional [hornist] reads and transposes every part written for horns in other keys.<sup>53</sup>



It may be of interest in this regard to remark on the lowest of the horn's keys, that of low A, encountered, for example, in the horn quartet in Verdi's *Don Carlos* (1867) (see Figure 4), and that of low A $\flat$ , requested for the onstage solo "natural" horn in Act III of *Falstaff* (1893).<sup>54</sup> It is likely that players promptly adopted the transposition,<sup>55</sup> and later the valves in order to obtain these very low keys (whatever Verdi's judgment may have been on this choice). The lower of these two keys, in addition, seems a peculiarity of Italian scores, which is also documented in a few Italian horn method books.<sup>56</sup>

### Bass Trumpet in B $\flat$

The [use of the] bass trumpet that was introduced by Wagner in the instrumentation of his *Ring* cycle has undergone a modification in Italy. Wagner employed it in the keys of E $\flat$ , D, and C, writing an octave above the usual trumpet notation; in Italy, instead, it was introduced in the key of B $\flat$ . The reason for this modification is explained by practice: indeed, as there are no professionals who devote themselves solely to the bass trumpet, it is easily played in the key of B $\flat$  by a trombone player. For this reason, as the actual pitch of the bass trumpet is one octave lower than written notes, it is preferable that composers write the part of this instrument in tenor clef, as for the tenor trombone.<sup>57</sup>



**Figure 9:** Bass trumpets (nos. 172 and 172A) from the catalog of the Milanese firm of Antonio Bottali, 1915.

**“Verdi” bass trombone (in B $\flat$ )**

Berlioz does not mention the contrabass trombone. Its pitch corresponds to the lower octave of the tenor trombone. In Italy, we owe to Giuseppe Verdi the introduction of a new instrument of this type, which took the name of the famous musician. It is the “Verdi” contrabass trombone in B $\flat$ . Its timbre is beautiful, soft, and homogeneous, especially in the middle of its compass. It is a non-transposing instrument: its musical notation is at concert pitch, that is to say that the written pitch corresponds to the note heard, although this instrument is in B $\flat$ . Verdi assigned it to very important parts in *Otello* and in *Falstaff*. Today these trombones have become very widespread in Italian orchestras, and almost all the parts for ophicleide or tuba are played by Verdi trombones.<sup>58</sup>



**Figure 10:** Verdi contrabass trombone (No. 41, with rotary valves), from the catalog of the Milanese firm of Antonio Bottali, ca. 1900. Courtesy of Francesco Carreras, Pisa.

While referring to my study on the *cimbasso* (see n. 48), I would remark that the Verdi contrabass trombone, invented in 1881, effectively supplied the lowest voice of the brass family until the 1930s in most Italian orchestras. After a hiatus of forty years in favor of the bass tuba, this model has been revived under the inappropriate name of *cimbasso*, whereas it should be called “Verdi trombone.” Only the rotary-valve contrabass trombone, not the piston model, is called “trombone Verdi,” in both the catalogs by Ferdinando Roth (ca. 1896) and by Antonio Bottali (ca. 1900), as well as in that of his sons and heirs Amedeo and Mario Bottali, ca. 1915. Finally, note that although this instrument is frequently termed a “bass” (even by Verdi himself), its original features are those of a contrabass in B $\flat$ , and not in F, as is nowadays usually maintained.

### **(Wagner) tuba**

According to Panizza, “The purpose of this new type of instrument is to bring together in a single timbre that of the different types of horns, trumpets and trombones.... In Italy, however, these tubas are generally replaced by other band instruments, such as alto saxhorns, baritones, etc.”<sup>59</sup> Evidently Italian orchestras at the threshold of the twentieth century did not use two pairs of instruments of this type but replaced them with other brass instruments. However, it should be mentioned here that today’s Wagner tubas (mostly made by Alexander, or after that model) were totally foreign to Wagner, as the shape so common today was devised long after his lifetime, as noted by William Melton.<sup>60</sup>

### **Saxhorns**

The section added by Panizza ends with the presentation of the complete family of saxhorns, reporting their respective pitches and ranges. The choice of this term is somewhat surprising, however, as throughout the peninsula these instruments were called almost exclusively *flicorni*, even though the French name was also known. It is likely that the international background of Ettore Panizza (Buenos Aires 1875–Milan 1967) as well as his experience abroad as a conductor led him to prefer this widely used name to the one most commonly used in Italy.<sup>61</sup>

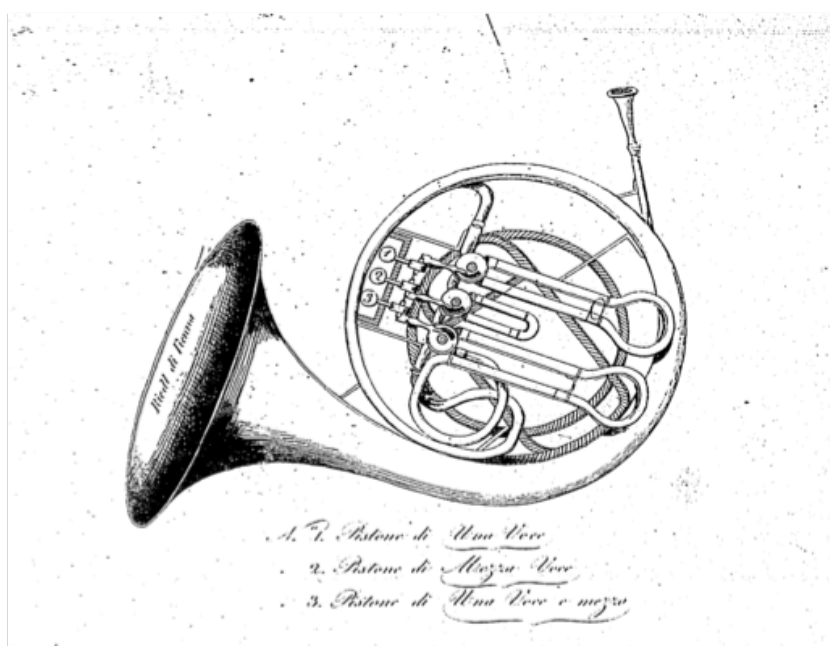
### **Brief conclusions**

Setting aside the political reasons behind the publication of the Italian version of Berlioz’ treatise on instrumentation, the Italian situation described in Mazzucato’s annotations appears dramatically different from that observed in other European countries. This may also turn out to be of some interest to “historically informed” performances of the Italian operatic repertoire of the nineteenth century.

Italian orchestral horn players were of course well-trained in the technique of hand-stopping. Some of them, however, promptly adopted the valve horn, and the foremost Florentine player Antonio Tosoroni was among them. He preferred a valve horn devised for him by Riedl of Vienna, a long-lasting model with fixed leadpipe,

three rotary valves, and slide crooks for the keys of G, F, E, and E $\flat$ , also illustrated in his *Metodo per Corno a 3 pistoni* of 1846 (“pistons” to be understood as valves). This model, still produced at the beginning of the twentieth century, made it impossible for the player to place his hand in the bell, since the valve block, operated by the right hand, is located close to the bell. This also makes it impossible to play stopped notes, which implies a clearer and less muffled tone as a general preference of the horn specialists, an enduring tradition in the Italian horn-playing practice.

Another peculiarity of the principal Italian orchestras was the early adoption of



**Figure 11:** Riedl horn, from Antonio Tosoroni’s *Metodo per il corno di tre pistoni* (1846).

valve trumpets and the parallel ignorance of the piston cornets, a crucial difference in comparison with the Parisian orchestras described by Berlioz. A spring-off of the situation was the emergence, in the last quarter of the century, of a B $\flat$  trumpet sharing some features of the cornet (a sort of “tromba-cornetta”), which was used in Italy thenceforth, and also gave way to a homonym usage of the two terms.

As for the trombone, the constant and exclusive use of the valve instrument should be stressed, the slide instrument being recovered only in the post-WWI period. The *trombone contrabbasso Verdi* was in turn a BB $\flat$  trombone with front bell and (at least at the beginning) rotary valves. Today resumed with the doubtful name of cimbasso (a term which should be reserved for the wooden bass-horn) and frequently pitched in F instead of BB $\flat$ , this model is a mixture of modern and previous traditions, a contradiction not infrequently encountered in the so-called period instrument movement of our times.

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### Notes

<sup>1</sup> *Grand traité d'instrumentation et d'orchestration modernes*, op.10 (Paris, Schonenberger, 1843–44), in separate issues; a second edition, augmented “by several chapters on recently invented instruments and followed by the art of the conductor,” (“de plusieurs chapitres sur les instruments récemment inventés, et suivi de l’Art du chef d’orchestre”) was published in 1855.

<sup>2</sup> On the preliminary editorial arrangements, see Giulia D’Andrea, “Mazzucato traduttore de Berlioz: la première édition italienne du Traité,” in *Berlioz, poète et théoricien de l’orchestre: Regards sur le Grand traité d’instrumentation et d’orchestration modernes*, ed. Emmanuel Reibel and Béatrice Didier (Paris, Champion, 2019), 175–86, in particular 176–78.

<sup>3</sup> Ettore Berlioz, *Grande trattato di stromentazione e d’orchestrazione moderne*, op. 10, It. transl. by Alberto Mazzucato (Milan, Ricordi, 1846–48). A long review by L. F. Casamorata was published in the *Gazzetta Musicale di Milano* of 1846–47: 5/14 (1846): 105–07; 5/16: 122–24; 5/31: 241–44; 5/32: 249–52; 5/35: 273–76; 6/28 (1847): 217–19; 6/29: 225–28; 6/30: 235–37; 6/35: 276; 6/37: 291–92; 6/40: 315–16; 6/41: 321–24.

<sup>4</sup> *Die moderne Instrumentation und Orchestration*, German transl. by J. C. Grünbaum (Berlin: Schlesinger, 1845).

<sup>5</sup> It is probably for this reason that the main musicological repertoires have only recently recorded the effective date of the Italian version of the treatise: before the publication of *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie and John Tyrrell (New York: Macmillan, 2001) and of *Die Musik in Geschichte und Gegenwart* (Kassel etc.: Bärenreiter / Stuttgart etc.: Metzler, 2007), only the second edition (1912), with an appendix by Ettore Panizza, was mentioned.

<sup>6</sup> These are the writings that Berlioz first published in the *Revue et Gazette Musicale de Paris* in 1841–42 and which he then reused as basic materials for his treatise. See the modern reissue in Hector Berlioz, *De l’instrumentation*, ed. Joël-Marie Fauquet ([Bégles]: Le Castor Astral, 1994).

<sup>7</sup> On the political allegiance of Giovanni Ricordi, see Claudio Sartori, *Casa Ricordi 1808–1958: Profilo storico* (Milan: Ricordi, 1958), 57–58.

<sup>8</sup> On this dedication and on the role that Ricordi had in the follow-up of the story, see my article “Mazzini, Ricordi e la strumentazione,” *Nuova Rivista Musicale Italiana*, 42 (2010): 495–509.

<sup>9</sup> G. Mazzini, *Filosofia della musica* (1836), ed. Enrico Nencioni (Milan: Bietti, 1933), 39 (author’s translation). “Perché non valersi più frequentemente e con più studio dell’istruentazione, a simboleggiare, negli accompagnamenti intorno a ciascuno de’ personaggi, quel tumulto d’affetti, d’abitudini, d’istinti, di tendenze materiali e morali che oprano più sovente sull’anima sua, e la

spronano a volontà, ed entrano per sì gran parte nel compimento de' suoi destini, nell'ultime deliberazioni che hanno a sciogliere il fatto speciale rappresentato?"

<sup>10</sup> As Claudio Sartori clearly demonstrated in the volume cited above (see n. 7).

<sup>11</sup> The publication of Berlioz's treatise and the essays previously published in the *Gazzetta Musicale di Milano* are not the only documents that show Giovanni Ricordi's genuine interest in instrumentation (see also the following note for other texts published by him at that time). Among others, one may mention Antonio Jóry's Italian translation of Theobald Böhm's essay *Della costruzione dei flauti e dei più recenti miglioramenti della medesima* (Milan: Ricordi, 1851), published just a few years after the original German publication, *Ueber die Flötenbau und die neueste Verbesserungen* (Mainz: B. Schott's Söhne, 1847).

<sup>12</sup> Francesco Mirecki, *Trattato intorno agli istromenti ed all'istrumentazioni* (Milan: Ricordi, [1824]); Bonifacio Asioli, *Il maestro di composizione, ossia Seguito del trattato d'armonia* (Milan: Ricordi, 1832); Luigi Picchianti, *Principj generali e ragionati della musica teorico-pratica* (Florence: Tip. della Speranza, 1832; rpt., Milan: Ricordi, 1834); Giuseppe Pilotti, *Breve insegnamento teorico sulla natura, estensione, proporzione armonica, e modo di scrivere per tutti gli strumenti d'orchestra* (Milan: Ricordi, 1836).

<sup>13</sup> Anna Tedesco, "Queste opere eminentemente sinfoniche e spettacolose': Giacomo Meyerbeer's Influence on Italian Opera Orchestras," in *The Opera Orchestra in 18th- and 19th-Century Europe*, vol. 2, *The Orchestra in the Theatre: Composers, Works, and Performance*, ed. Niels Martin Jensen and Franco Piperno (Berlin, 2008), 2: 199–241.

<sup>14</sup> Mazzucato (1813–77) began as an opera composer, but was more widely recognized as a teacher. In 1839 he was appointed professor of singing at the Milan Conservatory; in 1851, professor of composition, and the following year, of music aesthetics and music history. He was also a conductor at La Scala in the modern sense, from 1856 (long before Angelo Mariani, to whom such primacy is usually wrongly attributed). In 1857 he inaugurated an instrumentation class and finally in 1872 became director of the Milan Conservatory, a position he held until his death.

<sup>15</sup> The presentations at the Carcano Theater took place in May 1844, followed by performances at the Canobbiana Theater in July and December of the same year, and in May 1846 at La Scala. The music of *Robert le diable* had already been partially performed at the Canobbiana in 1835, for the farce *Baboon nano selvaggio*. On the Milanese presentations of Meyerbeer's operas and on his "unconventional" music, see Tedesco, "Queste opere eminentemente."

<sup>16</sup> The only comparable Italian publication in those days is Tosoroni's treatise, mentioned in n. 33.

<sup>17</sup> *Grande trattato*, 183, n. 1: "Qui da noi non si adoperano questi corni accordati in Do acuto."

<sup>18</sup> *Ibid.*, 184, n. 1: "Nemmeno questi corni in *La bemolle* sono qui adoperati. Si può ottenere però quest'accordatura col piccolo ritorto, come si vedrà più innanzi per altri toni."

<sup>19</sup> *Ibid.*, 184, n. 2: "Questo Si naturale acuto tra noi non è ottenibile, perchè, come abbiamo detto, i nostri suonatori non sono provveduti dei corni in Do acuto."

<sup>20</sup> *Ibid.*, 198, n. 1: "Questa asserzione è per vero troppo assoluta. Non può dirsi che i pistonni aggiungano all'estensione del corno queste sei note, poichè queste note, benchè meno chiare e

molto difficili, pure si ottengono anche sul corno semplice. Dovea dirsi adunque soltanto che il meccanismo de' pistoni ne rende alquanto più sicuro l'attacco e meglio percepibile l'intonazione."

<sup>21</sup> Ibid., 199, n. 1: "Questo capitolo intorno alla tromba non è di grande utilità per noi; giacché qui si parla della tromba semplice, la quale nelle nostre orchestre non si adopera più da parecchi anni. I nostri suonatori adoperano le trombe così dette a macchina; e sono quelle cui viene applicato un meccanismo, diverso da quello de' pistoni e de' cilindri, ma che offre presso a poco i medesimi risultati, vale a dire dà la possibilità anche alle trombe di eseguire tutta la scala cromatica."

<sup>22</sup> Giuseppe Araldi, *Metodo per tromba a chiavi ed a macchina* (Milan: Lucca, [1835]).

<sup>23</sup> Since the original French publication of the present paper (2007), intervening research has demonstrated that this cornet / trumpet was increasingly used by professionals much earlier than previously assumed. On the latter instrument and the intriguing terminological path of its name, see Renato Meucci, "Un caso organologico: l'identificazione della tromba e della cornetta," in *Ponchielli e la musica per banda, atti della tavola rotonda Cremona, Teatro Ponchielli, 27 aprile 2001*, ed. Licia Sirch (Pisa: ETS, 2005), 17–39.

<sup>24</sup> *Grande trattato*, 199, n. 1 (continuation [see n. 21, above]): "Però, se le trombe, mediante i suddetti meccanismi hanno guadagnato nel completamento della loro scala, hanno anche perduto nella facilità di ascendere agli estremi acuti. Avvertiamo questa cosa, perché in leggendo questo capitolo del signor Berlioz non si sia indotti a credere che i nostri suonatori possano ascendere tanto acutamente, quanto l'autore accenna."

<sup>25</sup> I heartily thank Florence Gétreau for assisting me in this research.

<sup>26</sup> The author plans to publish an English translation of Spontini's letter in the near future.

<sup>27</sup> "L'inventeur Stœlzel, que vous m'avez cité, a fait toutes ses dépositions verbales et par écrit, qui m'étaient nécessaires, ainsi que l'inventeur Wieprecht, qui tous deux, musiciens de la Chapelle royale, reçurent les premières indications des pistons de l'inventeur Blühmel de la Silésie, il y a environs de 25 à 26 années." Paris, Académie des Beaux-Arts, Institut de France, Spontini folder, correspondence.

<sup>28</sup> See my study on nineteenth-century Italian wind instrument makers, "Produzione e diffusione degli strumenti a fiato nell'Italia dell'Ottocento," in *Accademie e società filarmoniche. Organizzazione, cultura e attività dei filarmonici nell'Italia dell'Ottocento* (Trent: Assessorato alla Cultura e Società Filarmonica di Trento, 1998), 107–34.

<sup>29</sup> See *Gazzetta di Firenze*, (4 December 1824), 4 (announcement of a recital by "Sigg. Fratelli, Antonio, ed Alessandro Gambati").

<sup>30</sup> *Grande trattato*, 204, n. 1: "Giova ripetere quanto fu detto sin dal principio di questo capitolo, cioè che le trombe a pistoni, a cilindri ed a macchina possono ascendere meno delle semplici. I nostri suonatori durano fatica ad oltrepassare, qualunque sia il tono in cui è accordata la tromba, il *Sol* superiore *suono reale*."

<sup>31</sup> Ibid., 205, n. 1: "Questo strumento non è adottato per anco nelle nostre orchestre."

<sup>32</sup> Alberto Mazzucato, "Critica melodrammatica I: Roberto il Diavolo," *Gazzetta Musicale di Milano* 3/21 (26 May 1844): 83. "L'esecuzione riusci migliore di quella che la prevenzione vociferava: lontana però le mille miglia da quella che si potrebbe desiderarvi, che essere dovrebbe. Poichè, a parte mancanza di stromenti d'arco sufficienti, (che per equilibrare quelli di fiato, principalmente

quelli di metallo, che in questa partizione hanno una parte sì continua ed importante, avrebbero dovuto esservi in numero triplo: mancanza però, alla quale l'Impresa avrebbero potuto almeno in parte provvedere): a parte mancanza di voci maschili e femminili bastanti: a parte mancanza di alcuni stromenti necessarj, come per esempio di quattro timpani in luogo di due, a parte la soppressione delle *cornetti a pistoni*, del quale difetto non ha però colpa l'Impresa perchè ancora tra noi questo stromento non venne adottato; a parte queste cose, aveavi ancora assolutamente impossibilità reale a ciò che un'opera di codesto genere potesse eseguirsi convenientemente in un teatro di area ben poco vasta quale è il Carcano." (See also n. 15, above.)

<sup>33</sup> Antonio Tosoroni, *Trattato pratico di strumentazione* (Florence: Guidi, 1850), 49: "questa cornetta ebbe in Francia fin di principio un buonissimo risultato e sarebbe desiderabile che fosse introdotta nelle nostre Orchestre come lo fu a Parigi alla Grand'Opera." The author adds (p. 51) that the implementation of Vienna valves on the post horn, carried out by the Viennese firm Riedl, was after a suggestion of the Florentine merchant Giovanni Niccolai ("se alla Cornetta da postiglioni è stata da Riedl di Vienna applicata la macchina, lo dobbiamo alle premure del Sig. Giovanni Niccolai Negoziante di strumenti musicali in Firenze").

<sup>34</sup> *Grande trattato*, 208, n. 1: "Deesi sempre ricordare che l'autore intende parlare delle trombe semplice."

<sup>35</sup> For a description of the piston cornet in Italy and its unparalleled fusion with the trumpet into a sort of trumpet-cornet hybrid, see my article quoted in n. 23, above.

<sup>36</sup> *Grande trattato*, 212, n. 1: "Anche in Italia malauguratamente non adoperasi nelle orchestre che il trombone tenore: motivo per cui il primo trombonista in ispecie (che dovrebbe suonare il contralto) è obbligato a trasporre all'ottava bassa parecchie note, con grave danno della distribuzione armonica."

<sup>37</sup> *Ibid.*, n. 2: "In parecchie delle nostre orchestre trovansi i tromboni così detti *a macchina*, i quali mediante un meccanismo particolare, offrono maggior facilità d'esecuzione, e risparmiano la necessità dell'allungare ed accorciare il corpo dello strumento; ed in conseguenza l'incomodo movimento del braccio."

<sup>38</sup> *Grande trattato*, 213, n. 1: "In Italia i tre tromboni scrivonsi d'ordinario su di un sol rigo in chiave di basso."

<sup>39</sup> *Ibid.*, 213, n. 2: "Ad onor del vero devesi avvertire che in generale i trombonisti che suonano nelle nostre orchestre, non raggiungono con facilità le note più acute dell'estensione qui marcata dal Berlioz. A stento eseguono una nota che oltrepassi il [Sol3]."

<sup>40</sup> *Ibid.*, 214, n. 1: "Ed anche qui."

<sup>41</sup> At the very beginning of the treatise there is a summary of the main arguments dealt with in the book. Here Mazzucato writes (p. 5, n. 1) the following remark: "These bugles are instruments that we don't know here. However, they belong to the ophicleide family, or rather, according to Mr. Berlioz, the ophicleides are part of the bugle family. We will get a better idea of this in the sections when we reach the chapters that deal with these sorts of instruments. Cornets are also very little known among us, and not adopted in orchestras." ("Questi *Bugles* sono stromenti che noi qui non conosciamo. Essi appartengono però alla famiglia delle Officleidi, o meglio sia, secondo il signor Berlioz, le Officleidi sono della famiglia dei *Bugles*. Di ciò ci si potrà formare meglio idea quando arriveremo ai Capitoli che versano particolarmente su ambedue queste



specie di stromenti. Anche le Cornette sono da noi pochissimo conosciute, e non adottate nelle orchestre.”)

<sup>42</sup> Ibid., 238, n. 1: “Fu già avvertito non conoscer noi codesti strumenti, i quali però dietro alcune indagini fatte non dovrebbero scostarsi molto dai così detti *Flügel-horns* quantunque devono possedere una qualità di suono molto più disgustosa, se almeno ci rimettiamo al giudizio poco favorevole che ne dà Berlioz. Non possiamo comprendere poi come l’autore, parlando più sotto del *Bugle a chiavi*, asserisca esisterne in alcune orchestre d’Italia. Non sapremmo davvero dove.” Shortly thereafter, where Berlioz deals briefly again with the keyed bugle, Mazzucato does not fail to cross-reference the text just quoted (p. 238, note 2: “Vedasi la nota antecedente”).

<sup>43</sup> Hector Berlioz, *Mémoires* (Paris: Calmann-Lévy, 1870), chapter 41.

<sup>44</sup> See, for example, Cesare Orlandini, *Dottrina musicale esposta in sei ragionamenti scientifici* (Bologna: Tiochi, 1844), 425.

<sup>45</sup> The keyed ophicleide had a brief success in northern Italy, where fingering charts and meager method books for the instrument were published during the 1820s (see my article on the cimbasso, cited below, n. 48).

<sup>46</sup> One of the earliest notices on the valve ophicleide in Italy is to be found in an announcement by the retailer Federigo Toti of Florence, in *Gazzetta di Firenze* (13 January 1835), p. 4.

<sup>47</sup> The news of the privilege Wenzel Riedl obtained from the Austrian government in 1838 for a further innovation of the instrument was also announced in Italy. See *Raccolta degli atti del governo e delle disposizioni generali* (Milan: R. Stamperia, 1838), 2:353.

<sup>48</sup> Renato Meucci, “Il cimbasso e gli strumenti affini nell’Ottocento italiano,” *Studi Verdiani* 5 (1988–89):109–62; Engl. transl. in *Galpin Society Journal*, 49 (1996): 143–79, in particular 148–50.

<sup>49</sup> *Grande trattato*, 242: “Il signor Berlioz ha creduto di chiuder qui l’esame degli strumenti a fiato metallici. I lettori comprenderanno esser però di questi il trattato molto incompleto. Nè il Berlioz ne ha tutta la colpa, giacchè molti strumenti metallici furono inventati dopo la pubblicazione francese della sua opera. Parlando di quelli di recente invenzione vanno distinti quelli del milanese Pelitti.”

<sup>50</sup> See my article “The Pelitti firm: makers of brass instruments in nineteenth-century Milan,” *Historic Brass Society Journal* 6 (1994): 304–33; and “Brass bands and the brass instruments industry in 19<sup>th</sup>-Century Milan,” *Wissenschaftliches Jahrbuch der Tiroler Landesmuseen*, 3 (2010): 101–13. Further information on Giuseppe Pelitti senior is to be found in Francesco Carreras and Cinzia Meroni, “Brass Instrument Makers in Milan, 1800–1850,” in *Romantic Brass. Ein Blick zurück ins 19. Jahrhundert*, ed. Claudio Bacciagaluppi and Martin Skamletz (Schliengen: Argus, 2015), 152–72.

<sup>51</sup> *Grande trattato*, 243, n.1: “Non conosciamo questo strumento.”

<sup>52</sup> *Grande trattato di istrumentazione e d’orchestrazione moderne*, with an addition by Ettore Panizza (Milan: Ricordi, 1912), in three parts. The pages mentioned here in the main text are all from vol. 3.

<sup>53</sup> Ibid., 117: “Faremo un’osservazione dettataci dalla pratica, e cioè: in quasi tutte le orchestre italiane oggidì si sono adottati i Corni in *Fa* cromatici. Con questo solo strumento il professionista legge e trasporta tutto quanto è scritto per Corni in altre tonalità.”

<sup>54</sup> Anthony Baines, *Brass Instruments. Their History and Development* (London: Faber, 1976; rpt., 1980), 220. Although the text erroneously mentions *Otello*, the reference here is obviously to *Falstaff*.

<sup>55</sup> Antonio Tosoroni, in his *Trattato pratico* (see n. 33), 33–34, explains which horn crook can replace others not in use. (“Il suddetto prospetto dimostra quali sono i toni che possono rimpiazzare la mancanza degl’altri; ed in effetto essi sono stati sempre considerati per i toni principali del corno.”)

<sup>56</sup> For instance, Felice Bartolini, *Metodo per corno a cilindri* (Florence: Bratti, [1885]); and Giovanni Battista Frosali, *Metodo elementare teorico pratico per lo studio del corno a cilindri* (Florence: Bratti, [1890]).

<sup>57</sup> *Grande trattato* (1912), 123: “La Tromba bassa che Wagner per il primo ha fatto conoscere adoperandola nella istruzione della sua Tetralogia, ha subito poi in Italia una modificazione: Wagner usò questo strumento nelle tonalità di *Mib*, *Re* e *Do*, scrivendolo un’ottava al disopra di quella ordinariamente praticata per le Trombe; in Italia invece venne in uso una Tromba bassa nella tonalità di *Si b*. Il perchè di questa modificazione va cercato tutto in ragioni di praticità: infatti non essendovi professori che si dedichino specialmente alla Tromba bassa, questa nella nuova tonalità di *Si b*, viene suonata sempre da un professore di Trombone. Per questo appunto è bene che gli autori scrivano la parte di questo strumento in chiave di Tenore, come si usa scrivere per il Trombone tenore.”

<sup>58</sup> *Ibid.*, 132: “Berlioz non accenna al Trombone Contrabasso. Il suo suono corrisponde ad una ottava inferiore del Trombone tenore. In Italia si deve a Giuseppe Verdi l’introduzione di un nuovo strumento su questo stesso tipo e che prese il nome del grande musicista. Intendo parlare del Trombone basso Verdi in *Si b*. La sua voce è bella, pastosa, omogenea, specie nel centro della sua estensione, riuscendo un po’ debole nel grave e nell’acuto. La sua notazione musicale è reale, cioè la nota scritta è la nota d’effetto pur essendo basato quest’istrumento in *Si b*. Verdi che, come abbiamo detto più sopra ne fu l’idealizzatore, gli ha affidato una parte importantissima nel suo *Otello* e indi nel *Falstaff*. Oggidì questo Trombone è divenuto comunissimo nelle orchestre italiane, e quasi tutte le parti di Oficleide, o di Tuba, vengono suonate col Trombone Verdi.”

<sup>59</sup> *Grande trattato* (1912), 138: “Lo scopo di questo nuovo tipo di strumento è quello di unire in un sol suono i diversi timbri dei corni, delle trombe e dei tromboni.... In Italia però, queste *Tube*, vengono generalmente supplite con altri istrumenti di banda e cioè con dei *Genis*, dei Bombardini, ecc.”

<sup>60</sup> William Melton, *The Wagner Tuba. A History* (Aachen: Ebenos, 2008).

<sup>61</sup> *Grande Trattato*, 148–49.