Instrumental performance in the nineteenth century

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1815–1848

Beethoven, Schubert and musical performance in Vienna from the Congress until 1830

As a major centre with a long tradition of performance, Vienna richly reflects the varied locations and types of performance in the early century. Following the Congress of Vienna, which had consolidated the position of Austria and especially Vienna within the German Confederation, there was a shift away from aristocratic patronage of music towards professionalisation, with work for musicians in theatres, churches or military bands.¹ At the same time emerged the concept of a ‘Viennese School’ of Haydn, Mozart and Beethoven.² Concerts took place in the Burgtheater, Kärntnertortheater and Theater an der Wien, as well as the larger Grosse Redoutensaal or Winterreitschule at the Hofburg Palace, the latter of which could seat at least 1,500 people, maybe as many as 3,000.³ Music was dominated by opera, especially the work of Rossini, but there were also major series pioneering instrumental music, organised mostly by members of the aristocracy in the Gesellschaft der Musikfreunde (hereafter the GdM), established in 1812,⁴ the Gesellschaft des Privat-Musik-Vereins, founded in 1818; and the Concerts Spirituels einer Gesellschaft von Musikfreunden, established in 1819.⁵ Audiences for these concerts were constituted of a genuine mixture of the

¹ A. M. Hanson, Musical Life in Biedermeier Vienna, Cambridge University Press, 1985, pp. 7 23, 110.
upper and middle classes. There were also some more commercially oriented concerts, often featuring young virtuosi and private events in aristocratic salons.

At the Congress itself, various of Beethoven’s works, including Wellington’s Sieg Op. 91, Der glorreiche Augenblick and the Seventh Symphony, were played as part of the festivities (Beethoven also gave his own last performance as a pianist during this time); his fame and wealth grew to an unprecedented level. Beethoven’s musical acquiescence with the intense militarism of his time is relevant for consideration not only of his works and their performance, but also for the developments ushered in, which would have a profound effect throughout the nineteenth century. These included an expansion of instrumental resources, a new degree of compositional control expressed through ever more specific notation, and to some extent a more intensely mechanistic approach to tempo and rhythm through the use of the metronome.

Contrary to some ideas, the orchestras employed by Beethoven during this late period of his life were often relatively large for their time – a string section of 18–18–14–12–7 and two contrabassoons for the Eighth Symphony, 24 violins, 10 violas and 12 cellos and basses together with doubled winds for the premiere of the Ninth. The orchestra of the GdM had a huge string section of 20–20–12–10–8, which apparently always remained the same, with winds doubled according to the requirements of the piece. Anton Schindler, however, suggested that Beethoven’s ideal was an orchestra of sixty players, the size employed for the Concerts Spirituels (after hearing the Seventh Symphony played with 120, Beethoven apparently denied he wrote ‘noisy music’).

Beethoven’s students Carl Czerny and Ferdinand Ries, as well as others, attested to the importance he placed upon fidelity to the score and his

7 Hanson, Biedermeier, pp. 92 102.
11 Biba, ‘Concert life in Beethoven’s Vienna’, 90. On Beethoven’s view of the relationship between the size of the space and the ideal number of instruments, see Jones, The Symphony in Beethoven’s Vienna, p. 179.
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intentions; his letters attest to how much care he took over detailed markings in the scores. This was facilitated by the first appearance of Mälzel’s metronome at the end of the Congress in 1815. Beethoven added metronome marks for all his first eight symphonies (though there is extant autograph for these), the ‘Hammerklavier’ Sonata, the first eleven string quartets, and various other works, and signed a public declaration attesting to the value of the device, which he continued to use and favour despite occasional alleged outbursts against it. At the same time, however, a digest of varying accounts by Czerny, Schindler and Ries, as well as of Beethoven’s conducting, all demonstrate that Beethoven also desired and employed a fair degree of tempo flexibility.

Beethoven urged the use of legato fingering over and above the ‘pearly’ (or ‘choppy’ (gehackte)) effect favoured by Mozart and other earlier composers, though his careful notation of a plethora of articulations, right up to his final works, suggest a more varied approach is necessary than for the ‘London School’ of Cramer, Clementi and Dussek. Whilst Beethoven was given a London Broadwood piano some time in early 1818 and had earlier owned an Érard, all evidence points to his having favoured Viennese instruments, especially those of Streicher, throughout his life (almost all of his late piano works are unplayable on the smaller range of the Broadwood; the coruscating trills and passage-work in the later sonatas have a much greater clarity on these instruments.

14 I draw here and elsewhere upon a variety of Beethoven’s letters from the last decade and a half of his life, too numerous to detail individually, as collected in S. Brandenburg (ed.), Ludwig van Beethoven: Briefwechsel Gesamtutsage, 7 vols., Munich, Henle, 1996.
15 For a facsimile of the published version, see W. Malloch, ‘Carl Czerny’s metronome marks for Haydn and Mozart symphonies’, Early Music, 16/1 (1988), 75.
16 A full list can be found in G. Nottebohm, Beethoveniana, Leipzig, Peters, 1872, pp. 131 3.
18 See further I. Pace, Instrumental Performance from the Congress of Vienna to the Berlin Philharmonic (forthcoming).

Alla danza tedesca
Allegro assai

Whilst I am not aware of any explicit comments by Beethoven on the execution of his plentiful short slurs (though evidence is available from contemporary treatises\textsuperscript{24}), his need to notate explicitly slurs cut short (e.g. Ex. 26.1) suggests that this was not the default practice he envisaged.\textsuperscript{25}

Franz Schubert's profile in the Vienna of this time was larger than often imagined, though based primarily upon his Lieder, part songs, dances and short piano pieces.\textsuperscript{26} None of his symphonies was performed publicly in his lifetime, though Nos. 1, 2, 3, 5 and 6 did receive private salon performances (apparently of a reasonably high standard), organised by Otto Hatwig, with an orchestra with string section 7\textsuperscript{-}6\textsuperscript{-}3\textsuperscript{-}3\textsuperscript{-}2 and doubled winds.\textsuperscript{27} The Ninth, however, Schubert donated to the GdM and was rehearsed by them in his presence;\textsuperscript{28} he may have envisaged the mighty sound of their large forces when writing passages as in Ex. 26.2.

Source data relating directly to Schubert performance in the composer's lifetime is relatively scarce; much has thus been made of wider contemporary

\textsuperscript{24} Various different views are given in the treatises of Türk, Joseph and Carl Czerny. See also Barth, The Pianist as Orator, pp. 103 5.
\textsuperscript{25} This question is evaded by both Rosenblum, Newman (Beethoven on Beethoven, pp. 121 62), and to some extent by Barth.
Ex. 26.2. Schubert, Symphony No. 9 in C D944, finale
treatises. Albert Stadler attested to his clarity and expressivity, beauty of touch and quiet hand and fingers, whilst Schubert himself wrote to his parents about how much he disliked ‘this damnable chopping that even quite advanced pianists indulge in’, preferring the vocal style at the keyboard for which he himself had been praised after a performance of the variations from the Sonata in A minor D845. He expressed a clear preference in late 1823 for Viennese instruments, though he never owned one of the more recent models. He also left thirty metronome markings for his works, from which David Montgomery has made a strong case for the application of a very wide range of tempos to his music. Leopold von Sonnleithner emphasised how Schubert kept strict and even time in Lied rehearsal, except where indicated otherwise, and disallowed violent expression. Many of his scores employ accents on weak beats, which suggest deviations from patterns of strong and weak stress patterns, and make much more sense within a general context of stress on strong beats (e.g. in Ex. 26.3).

The age of virtuosity

The early nineteenth century had witnessed the domination of the French school of violin playing, centred around the figures of Pierre Baillot, Pierre Rode and Rodolphe Kreutzer, involving brilliant and varied bow strokes, a strong tone and a high degree of expression, as well as a distinct German school headed by Ludwig Spohr, for whom imitation of the voice was a recurrent concern.


Montgomery, Schubert’s Music in Performance, p. 6; McKay, Schubert, pp. 184, 213.


The details of this school of playing are amply described, with reference to contemporary treatises, in R. Stowell, Violin Technique and Performance Practice in the Late Eighteenth and Early Nineteenth Centuries, Cambridge University Press, 1985.

New developments in the instrument included the invention of the chin rest by Spohr in c. 1820, and occasional use of metal strings or coverings (though gut remained the norm). However, violin playing, and attitudes to soloistic virtuosity in general, were revolutionised by Genoa-born violinist Niccolò Paganini (1782–1840), who created a Europe-wide sensation after playing

Ex. 26.3a. Schubert, String Quartet in G, D887, first movement

Ex. 26.3b. Schubert, Impromptu D899, No. 2.*

*On the way in which Schubert’s use of accented weak beats constitute an integral part of the style hongroise (a factor neglected by Montgomery) see J. Bellman, The Style Hongroise in the Music of Western Europe, Boston, MA, Northeastern University Press, 1993, pp. 149–73, 191–2.
outside Italy from 1828 onwards. Audiences were delirious by the spectacle of his playing, many believing him to be literally possessed by the devil, a belief fed by his eccentric and eerie stage manner. He captivated musicians such as Robert and Clara Schumann, Chopin, Berlioz and above all Liszt (see below). Paganini’s playing was theorised in an early treatise by Carl Guhr, who listed his primary innovations as scordatura (used to facilitate various pieces, such as his Violin Concerto no. 1 in E flat major\(^4\)) (Ex. 26.4), bowing, left-hand pizzicato, harmonics, performing on the G-string alone (he also often played on just two strings), fingering and ‘extraordinary tours de force’.

Paganini’s bowing involved strong contrasts between long sustained tones, especially in his soft singing melodies, and many different varieties of springing. His distinct staccato was a result of firm pressure upon the bow and the use of the thumb and forefinger of the right hand to accentuate each note, whilst he

Ex. 26.4a Paganini, Violin Concerto No. 1 in E flat major, opening

Ex. 26.4b Paganini, Violin Concerto No. 1 in E flat major, opening, as played


41 Guhr, *Ueber Paganinis Kunst. Die Violine zu spielen ein Anhang zu jeder bis jetzt erschienenen Violinschule*, Mainz, Schott, 1829. Some of the most important material in this is included in Stowell, *Violin Technique and Performance*.


demonstrated a new mobility through his fingering. He used many brilliant glissandi as well as portamento effects between double stops. Guhr also used Paganini’s playing as an opportunity to systematise a series of harmonics, which he felt were otherwise neglected.

Many other violinists were influenced by Paganini, including the Moravian Heinrich Wilhelm Ernst (1814–65), the Norwegian Ole Bull (1810–80), and the Belgians Charles Auguste de Bériot (1802–70) and Henri Vieuxtemps (1820–81); Ernst was thought by many to be the only one to match Paganini’s technique.

The most influential other violinist of the period, however, was François Habeneck (1781–1849), whose Méthode théorique et pratique de violon was published around 1840. Habeneck paid considerable attention to the subject of bow speed and pressure and set down various rules of phrasing, matching dynamics with contour, ‘spinning out’ long notes, and emphasising dissonant pitches. De Bériot was also important in the development of a Franco-Belgian violin school; he stressed an expression based upon whole phrases and argued that ‘the performer will not be perfect until he can reproduce the accents of song’. Both Habeneck and de Bériot were clearer than their predecessors on the desirability of portamento if used tastefully (Ex. 26.5).

Piano playing prior to 1830 had been dominated by Johann Nepomuk Hummel (1778–1837), Irishman John Field (1782–1837), Frédéric Kalkbrenner (1785–1849) and Ignaz Moscheles (1794–1870), whose styles

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46 F. Habeneck, Méthode théorique et pratique de violon, précédée des principes de musique et quelques notes en fac-simile de l’écriture de Viotti, Paris, Canaux, 1845. Much of this can be found in Stowell, Violin Technique and Performance.
47 On de Bériot’s model of phrasing, see Milsom, Late Nineteenth Century Violin Performance, pp. 38 44.
48 Ibid., p. 32.
can be roughly characterised in order as (a) clarity and elegance involving high fingers; (b) singing of the melody, a ‘floating’ approach to passage-work and minimal finger action; (c) clean, even, brilliant playing known as the jeu perlé and (d) strength, agility and accuracy, as well as an interest in earlier repertoire.\textsuperscript{50} But as for the violin, pianism was transformed above all by one individual, Franz Liszt (1811–86), whose virtuoso style is generally believed to have been inspired primarily by the experience of hearing Paganini in Paris in 1832\textsuperscript{51} (though it has also been suggested by his student Moriz Rosenthal that envy of Chopin was the galvanising factor).\textsuperscript{52} He certainly developed numerous pianistic techniques in imitation of Paganini’s playing, including wild leaps (Ex. 26.6), spiccato-like effects, tremolos, harmonics and glissandi (achieved through rapid chromatic scales, sometimes in double-notes).\textsuperscript{53}

After hearing the premiere of Berlioz’s Symphonie fantastique in 1830, Liszt was also moved to develop an ‘orchestral’ style at the piano, evident in his 1833 transcription of this work and much later music. This style was the antithesis of that of Frederic Chopin, whose Parisian debut in 1832 was also heard by Liszt. The two were not close, with Chopin disliking both Liszt’s theatricality and the use of effects in his compositions.\textsuperscript{54} Numerous accounts of Chopin’s playing\textsuperscript{55} describe his ‘delicacy’ and ‘elegance’,\textsuperscript{56} though also it was suggested that he could not produce a great deal of power from his instrument;\textsuperscript{57} he told students to ‘Caress the key, never bash it!’\textsuperscript{58} He preferred the lighter-toned


\textsuperscript{53} See also D. Gooley, \textit{The Virtuoso Liszt}, Cambridge University Press, 2004, pp. 36–43, for more on this piece and related aspects of Liszt’s playing during this period.

\textsuperscript{54} See Walker, \textit{The Virtuoso Years}, pp. 184–6 for more on the relationship between Chopin and Liszt.

\textsuperscript{55} Much the most important work on Chopin’s pianism is J. J. Eigeldinger, \textit{Chopin: Pianist and Teacher as Seen by his Pupils}, trans. N. Shohet, with K. Osostowicz and R. Howat, ed. R. Howat, Cambridge University Press, 1986 (hereafter simply \textit{Chopin}), which draws upon a wide range of accounts. All evidence concerning Chopin’s playing comes from this source unless otherwise stated.


Chopin believed pianists should have a quiet but flexible demeanour, with elbows close to the body and a curved hand, which could be turned to aid the thumb. He emphasised the individual sound of each finger, opposing strategies to ‘equalise’ them in the manner of Liszt. Otherwise his musical style can be summarised in terms of (a) long phrasing and the stressing of long, high, dissonant or syncopated notes (see Ex. 26.7 for an example of this as written out by Kleczyński); (b) musical declamation learned by listening to the best

pianos of Pleyel (and Broadwood in England) to Érards,\textsuperscript{59} though he also made some positive remarks about Grafs that he played in Vienna.\textsuperscript{60}

Ex. 26.6. Liszt, Grande Fantaisie de Bravoure sur la Clochette de Paganini

Variation à la Paganini

\begin{music}...
\end{music}

\begin{music}...
\end{music}

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\end{music}

\begin{music}...
\end{music}

\begin{music}...
\end{music}

\begin{music}...
\end{music}

\begin{music}...
\end{music}


60 Chopin, \textit{Correspondance I}, pp. 100–8, 120.
Italian singers,61 (c) a legato and cantabile approach with unbroken lines, (d) tasteful but flexible rubato, which applies only to the melody, the accompaniment remaining steady, (e) ornamentation as if improvised, without slackening of tempo, (f) the widest range of subtle dynamic gradations, (g) the use of both pedals for colour and harmonic effects, though sparingly, (h) a study of the formal properties of works, and (i) simplicity, naturalness and spontaneity. His tempo rubato was much commented upon; Meyerbeer, upon hearing Chopin play the Mazurka in C Op. 33 No. 3, insisted that the music was in 2/4 rather than 3/4. His pedal markings are extremely distinct (and belie some of the other evidence), with long pedals crossing harmonic changes and the use of the pedal to imply particular phrasing or rhythmic accents; there is also considerable reason to believe that he would have used the pedal more selectively than is common nowadays.

Perhaps the most serious rival to Liszt, however, was Sigismond Thalberg (1812–71). Able to move effortlessly in aristocratic company after having been brought up in such an environment, Thalberg had success in the late 1820s, and launched a major career after his 1836 Paris debut received unanimous praise.62 His playing was characterised by many at the time above all in terms of its

61 See Skowron, “Creating a legend or reporting the facts?”, p. 15.
vocality, entailing a clear marcato emphasis upon the melody most of the time as well as the use of the pedals, as well as a still posture, in distinction to the playing of Liszt, frequently praised for its dramatic virtuosity and frenetic bodily motion, but much less for his ‘tone’. The introduction to Thalberg’s *L’art du chant appliqué au piano*, op. 70, suggests the most important attributes of his playing were (a) fingers close to the keys to produce a full sonority, (b) separation of the melody clearly from the accompaniment (and learning from singers) in terms of both dynamics and rhythmic displacement, and the use of close arpeggios for melodies in the upper notes of chords, (c) holding notes for maximum legato, (d) much variety of dynamics, colour and sonority and (e) using pedal (either one or both) at all times. Taken as a whole, these attributes constitute what might today be called a ‘beautiful tone’ approach to the instrument.

Thalberg’s playing and music (mostly transcriptions and fantasies on popular operas of the time) have been argued to have had a particular appeal to a certain section of the aristocracy socially defined at the time as ‘dilettante’, drawn to Italian opera and disdainful of more ‘learned’ forms of listening, expressing through their enthusiasm for this music an affinity with the political order of the Restoration and the venues with which it was associated. He garnered firm support amongst a Paris high aristocracy still relatively inaccessible to Liszt, whose social networks were limited to more specific subsections of this class, dominated by women and literati. The rivalry this engendered led to a notorious ‘duel’ organised by the Princess Cristina Belgiojoso-Trivulzio in March 1837 at her salon (with the princess giving an ambiguous verdict), and soon afterwards a commission for six leading Parisian pianists – Liszt, Thalberg, Johann Peter Pixis, Henri Herz, Chopin and Czerny – each to write a variation on a theme from Bellini’s *I puritani* to be presented in a

65 S. Thalberg, *L’art du chant appliqué au piano*, Op. 70, four series, Paris, Heugel, 1853 68. A summary of various of Thalberg’s main points can be found in Hamilton, *After the Golden Age*, pp. 158 161. Whilst these publications date from some time after the period in question, I have not encountered any evidence of a significant change in Thalberg’s style between the 1830s and the 1850s.
66 For one perspective upon this, see C. Rosen, *Piano Notes: The Hidden World of the Pianist*, London, Allen Lane, 2003, pp. 23 30.
67 Gooley, *The Virtuoso Liszt*, pp. 29 35.
68 Ibid. pp. 62 70.
combined performance (Liszt ended up also writing an introduction, version of the theme and finale, and performing the work – the *Hexameron* variations – alone). Liszt’s letters from later that year suggest his weariness for the rat race and disdain for mass audiences; earlier he had sounded a note of scepticism about those of his own liberties which dazzled such company.

However, after a triumphant series of performances in April and May 1838, Liszt began a major period of touring, spanning ten years, during which time he travelled to almost every corner of Europe, playing well over a thousand concerts. Despite some noticing changes in Liszt’s playing during these years, there is no doubt that he favoured a much freer and more creative approach to musical interpretation around this time not only than many modern pianists, but also numerous of his contemporaries. Although there were some sceptical responses, especially in parts of northern Germany (in particular Leipzig, breeding a lifelong resentment of the city on Liszt’s part), his success was immense amongst audiences, not least in Berlin, where some critics worried about the generation of what was seen as irrational hysteria through his playing, especially on the part of his female admirers. During this time he brought in numerous innovations which have gone on to shape the modern concert, playing a repertoire from Bach to the present, placing the piano at right angles to the platform, and consolidating the practice of the solo recital with no other instrumentalists involved (though it took some time for this to become the norm). His repertoire was overwhelmingly concentrated upon his own transcriptions of fashionable music of the time (especially from opera), in the manner of Roma musicians who would travel from city to city, acquainting themselves with the local music of each place, and perform and embellish it in their own manner. The period saw the emergence of his

71 Ollivier, *Correspondance*, pp. 135–6.
73 Ibid., pp. 17–18.
77 On this subject, see in particular Gooley, *The Virtuoso Liszt*, pp. 203–15.
‘Hungarian’ style and works, drawing upon popular Hungarian melodies as played by Roma musicians, for which various sources imply his desires for the stressing of dissonant pitches, impulsive performance of extravagant harmonic shifts, a clear hierarchy between melody and accompaniment and free but stylised rhythm.81

The other most important pianist who came to prominence in this era (other than Clara Wieck/Schumann, who will be discussed below) was Adolph von Henselt (1814–89). His own particular singing style, legato touch, richness of sound even in quiet dynamics, free rubato (including tempo shifts, unlike Chopin’s) and in particular performance of arpeggios (he had huge hands) won much praise.82 Like Field before him, Henselt settled in Russia in 1838, where he was appointed to numerous teaching positions that provided him with significant influence of the development of piano playing in the country, especially in terms of training governesses and female teachers,83 despite having practically given up performing at the age of thirty-three, probably due to stage fright.84

As noted in Chapter 24, there were many important developments in the piano during the first half of the nineteenth century. Primary among these were Érard’s patenting of the new double escapement action in 1821, which enabled a key to be restruck without having to be fully released, greatly facilitating in particular the playing of repeated notes on English instruments (though Viennese manufacturers maintained their own distinct action), and also permitting the use of heavier hammers and a larger dip on the keys.85 In 1843, Jonas Chickering of Boston patented a full cast-iron frame in 1843, a decisive move in shifting the centre of more radical developments from Europe to the United States.86 Steel piano wire began to replace wrought iron from the 1840s; steel-wound strings had been in use by Érard since 1830.87 Érard reduced their range from CC–c’’’’ to CC–f’’’’ in 1834, though Graf extended

87 Good, Giraffes, pp. 183 4.
their higher end from c'''' to g'''' in the late 1820s, which became standard until the late 1840s when the higher register was extended further by some to a''''

After this, some makers adopted a seven-octave range: AAA to a'''' by Érard, Collard and Kirman, GGG to g'''' by Broadwood. The former of these remained the standard until the 1870s. The piano also became an ever-increasing presence in middle-class households, leading to a growth in the manufacture of square pianos through the course of the century, eventually replaced by the upright.

Berlioz and the development of the orchestra and instruments in the first half of the nineteenth century

The first half of the nineteenth century, especially after 1830, saw a growth in new orchestral societies devoted to instrumental music. Amongst the most important of these were the Hamburg Philharmonic Society (founded 1828), the Société des Concerts du Conservatoire in Paris (1828), the Gürzenich Orchestra in Cologne (1840), the Royal Liverpool Philharmonic (1840), the Mozarteum Orchestra in Salzburg (1841), the New York Philharmonic (1842) and the Vienna Philharmonic (1842). Sizes are shown in Table 26.1 at the end of this chapter, with German court orchestras generally maintaining smaller forces than those in Paris, London and elsewhere. There were four principal German regional centres – Leipzig, Berlin, Dresden and Munich – of which the most important was Leipzig, whose Gewandhaus orchestra, originally founded in 1743, was the oldest. In London, the Philharmonic Society, founded in 1813, grew from an original twenty-two players to around seventy in 1833; the players were notable for their sight-reading abilities in a competitive and badly paid world. The Paris Conservatoire Société des Concerts du Conservatoire, founded by Habeneck (who conducted them with his bow),

88 Rowland, ‘The piano since c.1825’, p. 46.
91 See A. Carse, The Orchestra from Beethoven to Berlioz, Cambridge, Heffer, 1946, pp. 107-59 for a comprehensive history of German orchestras during the period.
were known for precision, unity of bowing and style, and feeling for tempo, whilst rehearsing more extensively than most other orchestras of the time.95 Various seating practices of the time differ from modern conventions; some German orchestras, including the Leipzig Gewandhaus (until around 1905), maintained the practice of having the violins and violas standing. Some orchestras broke with an earlier theatrical practice of grouping strings on one side, wind on the other; in place of this, first and second violins would be seated at opposite ends.96

After 1815, orchestras gradually moved away from the practice of ‘divided leadership’, split between the leader and the conductor,97 towards a singular conductor, as part of a wider Napoleonic cult of the commanding individual. Whilst Spohr made dubious claims to be the first baton conductor,98 the practice was developed by Weber and Gaspare Spontini (often described in terms of military metaphors),99 and consolidated by Mendelssohn100 and Berlioz. The latter cut an imposing figure on stage, making extravagant bodily gestures like Beethoven before him, but with a clear and emphatic beat. Eschewing what he saw as ‘approximate’ approaches of Habeneck and others, he would drive orchestras through many rehearsals (and sectionals) to obtain the results he desired.101

Most major developments in woodwind instruments took place in the first half of the nineteenth century, after which further modifications were essentially refinements. French and German instruments became more stratified, the former producing a brighter and thinner sound, the latter richer and more timbrally varied. The flute gained new keys, but in the German Confederation throughout the period they remained separately mounted within the ‘simple system’; Carl Bochm developed a new design in 1832 with separate holes for each chromatic note to produce evenness of tone and avoid the need for

97 See Koury, *Orchestral Performance Practices*, pp. 61 70 on the persistence of this practice.
‘cross-fingering’, and introduced a cylindrical rather than conical bore in 1847.102 A thirteen-key oboe became the standard in the German Confederation from 1825, whilst an eight-key instrument with the new ‘conservatoire’ system of fingering became used in France.103 The bassoon also followed divergent paths in France and the German Confederation through the century, the instruments being known as the ‘Buffet’ and ‘Heckel’ respectively. In both countries the bore was widened and extra keys added, culminating in a twenty-two-key bassoon which was produced in 1847 in France, and became the standard, whilst an eighteen-key model was more common in German-speaking countries.104 Iwan Müller developed a thirteen-key clarinet around 1810, from which other fingering systems were developed; the other major technological development of the instrument was the development of a Boehm system in 1843, inspired by the earlier system for the flute, by Hyacinthe Klosé, then professor at the Paris Conservatoire. This became the standard system in France, southern Europe, North and South America, and the most used and manufactured in England, though modified versions of Müller’s clarinet, including the later developments by Carl Bärmann around 1860, are appropriate for much of the Germanic repertoire.105

The first valved horns were introduced by Heinrich Stölzel in 1814, facilitating chromatic pitches; similar valves were introduced to the trumpet, cornet and trombone by 1825–30. Band players in the German Confederation took up the new horn, though it was not until the 1840s that most German orchestras had adopted it. It was resisted in France for most of the century, where the hand horn continued to be taught and studied.106 Rossini, Meyerbeer and Berlioz were the first to use the valve trumpet in the 1820s in France, though it was still rare by the 1840s. The process was slower amongst Germans, with the B-flat trumpet only beginning to be employed regularly in the second half of the century, and Wagner and Mahler notating parts in C so as to leave the choice of instrument to the performer.107 The early nineteenth century also

saw a move away from trios of alto, tenor and bass trombones in favour of two or just one model.

Berlioz, more than any other figure, was fascinated by the musical possibilities offered by the developing orchestra, especially after hearing Habeneck’s performances with the Société. He learned much through spending time with orchestral players, and became a major innovator within the medium, notable in particular for his insistence (as a non-pianist) that orchestra scores should not be thought of in terms of piano reductions. A stickler for the letter of the score, Berlioz compared the performer to a sun which illuminates a picture, though this did not contradict his desire for fervent, passionate performances.

Berlioz set down many of his ideas on orchestras and instruments in his influential *Grand traité d’instrumentation et d’orchestration modernes* of 1844. He envisaged an expanded version of the Société with extra brass and some additional instruments from military bands, such as the E-flat clarinet. At first favouring German clarinets, he would come by 1851 to write of the superiority of French instruments in general. Similarly, he would later come to favour valved rather than natural horns; in the *Traité*, however, he wrote about the individual properties of the latter, identifying ‘bad’ notes with poor timbre and tuning, which he would avoid even if it required breaking a unison, as in Ex. 26.8.

![Ex. 26.8. Berlioz, Overture to King Lear, bars 364–8](image)


111 For the purposes of this chapter, the version I use is MacDonald, *Berlioz’s Orchestration Treatise*, which mediates well between the 1844 and 1855 editions of Berlioz’s original, provides an excellent commentary, and includes valuable diagrams of instruments and halls from the time. All of Berlioz’s preferences in this respect are taken from this source unless otherwise stated.


Berlioz also listed various types of détaché and other bowings, in a similar manner to Baillot and Habeneck’s treatises, and was very clear in the indications of specific techniques in his scores.

There is no doubt that Berlioz favoured large orchestras: he specified a minimum string section of 15–15–10–11–9 for the Symphonie fantastique, Roméo and the overture Le carnaval romain and 15–15–10–12–9 for Benvenuto Cellini, whilst for the version of the Sinfonie funèbre et triomphale with strings, he gave figures of 20–20–15–15–10, which are combined with around double the usual number of winds and massed clarinets. In the Traité he fantasised about much larger orchestras, one of which would involve a whole 467 players and a choir of 360. His concerts got bigger and bigger, involving over a thousand musicians (around half of which were instrumentalists) for a performance of his Hymne à la France, and similar forces for movements from the Symphonie fantastique and Sinfonie funèbre et triomphale in 1844 as part of the Exhibition of Industrial Products in Paris. As the Marxist writer Hans G. Helms suggests, the 1844 concert, which took place in the Hall of Machinery, represents the one time of true convergence between the economic conditions of music-making and those of wider industrial mass production; Berlioz’s relationship to the orchestra was akin to that of a factory owner towards their workers, who he ensured (through his cooperation with instrument manufacturers including Adolphe Sax) gained those machines which enabled them to optimise their production. This possibility was utterly dependent upon fluctuations in the economy, and became untenable by the time of the 1848–9 revolutions, after which, during a recession, profits became used speculatively rather than to support further production.

Berlioz was a strong proponent of the metronome, thinking it vital when a conductor has not ‘received instruction directly from the composer or if the tempos have not been handed down by tradition’, though warning about copying the ‘mathematical regularity’ of the device. Those metronome markings he left, and other accounts suggest that he envisaged an extremely broad spectrum of tempos, especially in early works, though with a general inclination towards the faster end of the spectrum.

116 See Berlioz, Memoirs, pp. 298 306 for the composer’s own account of this occasion, in which, for example, there were a whole 36 double basses.
118 MacDonald, Berlioz’s Orchestration Treatise, p. 339.
Chamber music, Leipzig, Mendelssohn and the Schumanns

Chamber-music performance developed distinctly from orchestral concerts; the medium was held up as a sophisticated and elevated alternative to the twin spectacles of virtuoso performance and opera that flourished especially between 1830 and 1848. Whilst various important quartet series had been founded earlier in the century, it was during the 1830s and 1840s that chamber music shifted from a private to a public medium,\(^\text{120}\) with the advent of the concerts of the mixed amateur/professional Beethoven Quartet Society in London in 1835,\(^\text{121}\) the chamber series formed by Ferdinand David in 1836,\(^\text{122}\) and the first touring quartet, the Müller brothers from Braunschweig, who were active from 1830 to 1855.\(^\text{123}\) The latter were much praised for their ability to play as a unified body without sacrificing each player’s individual character, as well as their precision and expressive range.\(^\text{124}\)

After Schuppanzigh’s death in 1830, the focus of chamber music shifted to Leipzig, a city which was home to a large number of composers, performers and intellectuals; Mendelssohn, Schumann, David and the Wiecks all lived or worked there during the period leading up to the late 1840s. In contrast to Paris, Vienna and various other cities, Leipzig had little in the way of an aristocratic musical culture during this time; rather, the growing musical scene was based around the new middle class, though they themselves looked to emulate cultural pursuits associated with the aristocracy.\(^\text{125}\)

The city also became world-famous through the ‘Bach Revival’, as the St Thomas Church there housed many of Bach’s manuscripts;\(^\text{126}\) a major catalyst in this revival was of course Mendelssohn’s revival of Bach’s St Matthew Passion in the Singakademie, Berlin, on 11 March 1829.\(^\text{127}\) Mendelssohn himself was influenced by his teacher Carl Friedrich Zelter of the importance of music as a ‘serious business’ and ‘high art’, the epitome of which was represented by


\(^{123}\) Baron, *Intimate Music*, p. 320.


Bach. Whilst this performance was far from ‘authentic’ by contemporary standards, using a large orchestra and with modified scoring, cuts and other changes, it nonetheless laid down a gauntlet in terms of a historicist attitude to music-making, and the formation of a Germanic canon, whose implications continue through to the present day. After taking over the Gewandhaus in 1835, Mendelssohn had them perform a repertoire based upon eighteenth- and early nineteenth-century Germanic music; in February 1838, he devised various series of ‘historical concerts’ at the Gewandhaus, which were designed to show the ‘succession of the most famous masters from one hundred or more years ago up to the present time’.

As a pianist, Mendelssohn was noted for his elasticity of touch, elegance, roundness, unaffectedness, clarity of articulation and strict (though often fast) tempo, rather than Lisztian brilliance or Chopinesque seductiveness. As well as being a brilliant sight-reader, from an early age he frequently played from memory and probably played a significant role in establishing this practice. In 1831, he declared the metronome ‘an utterly useless invention’; only in his later works, when his opposition seems to have been loosened, do we find a fair number of metronome markings. Many, including Wagner, Liszt and Clara and Robert Schumann, noted (sometimes critically) his predilection as a conductor for fast tempos, though he also employed occasional tempo fluctuations in performance which seemed pre-prepared.

Mendelssohn also performed sporadically on the violin throughout his life. Whilst at first favouring the broad bow and full tone of Eduard

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131 Dörfler, Gewandhaus concerts, pp. 91, 95, 115–16; Schumann, ‘Rückblick auf das Leipziger Musikleben im Winter 1837–1838’, in GS 1, p. 373.
133 See Brown, A Portrait of Mendelssohn, pp. 204, 6, 232, 5.
134 At least according to Berlioz, Memoirs, p. 237; I use here the translation from Nichols, Mendelssohn Remembered, p. 172.
137 See D. Mißborn, ‘Mendelssohn and the Orchestra’, in Reichwald, Mendelssohn in Performance, p. 87; and Brown, A Portrait of Mendelssohn, pp. 254–5 for further evidence of Mendelssohn’s (sparingly) use of tempo fluctuation as a conductor.
Rietz (1802–32), after Rietz’s death he became closely involved with the most important Leipzig string player in Leipzig of the time, Ferdinand David (1810–73), a student of Spohr, who would become leader of the Gewandhaus in October 1836 at Mendelssohn’s instigation. David was noted for technical brilliance combined with intellect, though later accounts suggest a more ostentatious approach, which some saw as poor taste. He published his own Violinschule in 1863, which remains the best guide we have to his method and style. He appears to have used a violin with no chin rest or shoulder attachment, with a low left elbow, distinctive bow hold, bowing in a right angle across the strings with a loose and bent wrist, and a variety of types of bow strokes, including hitting with the point and a ‘springing bow’. Portamento was only to be used exceptionally, and vibrato employed sparingly. Mendelssohn’s Violin Concerto was written in consultation with David (who premiered it in 1845); David himself produced an edition of the work in 1875 which has been analysed by a variety of writers. This contained a wide range of new markings, in particular counter-intuitive fingerings which would produce portamenti, as well as indications of harmonics (Ex. 26.9).

The most prominent piano teacher in 1820s Leipzig was Friedrich Wieck (1785–1873), who published his own important treatise, Klavier und Gesang, in 1853. Wieck’s emphasis was upon a legato tone, a flexible wrist without use of the arm, but also staccato and ‘sprightly articulation’. He strongly disliked overuse of either pedal, was disparaging of young virtuosi, and urged a reverential approach to the music of Beethoven, Mozart and Weber. His most

141 Dörffel, Gewandhausconcerte, pp. 86, 239.
146 See Brown, ‘Performance of chamber and solo music for violin’, pp. 72 6; Milsom, Late Nineteenth Century Violin Performance, pp. 86 7, and Stowell, The Early Violin and Viola, pp. 151 64.
147 Friedrich Wieck, Klavier und Gesang, Leipzig, Whistling, 1853, trans. M. P. Nichols as Piano and Song: How to Teach, How to Learn and How to Form a Judgement of Musical Performances, Boston, Lockwood, Brooks, 1875.
prominent student was of course his daughter Clara (1819–96), whose early concerts, featuring works of Kalkbrenner, Herz, Czerny and others, drew praise for virtuosity and finished execution, as well as interpretation, accentuation and tonal shading. Later in life she would also play the music of Thalberg and Chopin, and included works of Bach, Scarlatti and Beethoven in her programmes from the 1830s onwards, gradually eschewing virtuoso pieces and moving decisively towards what would now be called a more ‘serious’ repertoire centred around what are now seen as classic figures of the first half of the nineteenth century (Beethoven, Schubert, Weber, Chopin, Mendelssohn and Schumann) as well as some Bach and Scarlatti and a handful of mostly early works of Brahms. From an early stage she would play from memory, and preferred the pianos of Graf to the heavier instruments of Érard. Critics came to associate her with the Werktreue aesthetic of performance (sometimes described as ‘objective’ sometimes as ‘faithful’), and her playing was seen variously as ‘intellectual’ and ‘refined’ (in contrast to more overt virtuosi), ‘elegant’, ‘solid’, ‘clear’, ‘pure’ and ‘deeply artistic’. Nonetheless she admitted to Brahms in 1871 that she was often beset by nerves, and was often perceived to play too fast, though she had earlier commented very critically.


149 May, Clara Schumann, pp. 64 5.


153 Reich, Clara Schumann, pp. 270 1.


155 Reich, Clara Schumann, p. 270.
in her diaries about impetuous virtuosity and hurrying in the playing of other rival pianists.156

The pianist career of Robert Schumann, Clara’s husband-to-be, was curtailed at an early stage (by November 1832157), probably through his use of the chiroplast, as recommended by Kalkbrenner, Thalberg and others.158 Yet the subsequent period saw the production of the majority of his major piano works, most of which were performed, if at all, by Clara, often in private;159 Schumann himself sometimes discouraged public performances of his more ‘difficult’ works.160 Whilst his pianistic preferences were less definitive than those of Clara,161 he certainly thought highly of Viennese instruments such as those of Graf and Streicher;162 these facilitate not only the staccato chords such as in the F sharp minor sonata, but also the detailed short staccatos and accents that are often interspersed into passage-work, as in the Fantasy Op. 17 (Ex. 26.10).

The lack of a sustained tradition of public performances of Schumann’s piano music during his lifetime makes his stylistic preferences difficult to ascertain precisely. In terms of other pianists he dismissed Kalkbrenner, became lukewarm about Hummel, but was highly positive about Moscheles;

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156 See, for example, her comments on her female rival Amalie Rieffel, entry of 20 November 1840, in Marriage Diaries, p. 35. She followed this up with some extremely patronising remarks about Rieffel on 22 November (ibid., p. 36).
158 The most sensible writing on this subject is in E. F. Jensen, Schumann, Oxford University Press, 2005, pp. 68–72.
161 See Clara/Robert Correspondence, vol. 1, p. 125, for Robert’s interest in English pianos.
later he would become utterly effusive about Chopin, Field and Liszt, massively enthusiastic about Henselt, and favourable towards Thalberg.\textsuperscript{163} In terms of Clara’s own playing, it should not be automatically assumed that this represented Robert’s ideal, as he sometimes compared her unfavourably or ambiguously with others,\textsuperscript{164} had difficulty persuading her to adopt his slower tempos, and sometimes doubted the infallibility of her technique.\textsuperscript{165}

Schumann’s many very specific tempo modifications, such as in the first movement of the Fantasy, or the \textit{Arabeske} Op. 18 (see Ex. 26.11),\textsuperscript{166} need not imply a rigid tempo elsewhere, but should be set into relief by contrast with other surrounding material at least through the degree of modification. His pedalling was sometimes remarked upon as being extravagant, blurring harmonic shifts, with a certain murkiness.\textsuperscript{167} He provided more detailed performance commentaries relating to two works, the \textit{Études d’après les Caprices de Paganini} Op. 3 (1832),\textsuperscript{168} and the \textit{Album für die Jugend} Op. 68 (1848);\textsuperscript{169} these eschew excessive bravura, forbid modifications or embellishments of texts

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\textsuperscript{166} See Winter, ‘Orthodoxies, paradoxes, and contradictions’, pp. 46, 8, on how such things are ironed out in the Fantasy.


\textsuperscript{169} The original text, ‘Musikalische Haus- und Lebensregeln’, is given in the Henle edition of \textit{Album für die Jugend}, Munich, Henle, 2007, pp. 61, 8, with translations into French by Liszt and by H. H. Pierson.
(though sometimes to vary material upon repetitions), and encourage the employment of vitality and variety of touch and voicing and sometimes shifts in the pulse.

Ferdinand David was as important to Schumann as to Mendelssohn, though he was also impressed by the playing of Ernst and especially Ole Bull. David gave the first performances of all three of his string quartets (which required a new level of technique and ensemble playing), led (or conducted) the Gewandhaus orchestra in performances of various orchestral works and was also a major inspiration for the violin sonatas. Though Schumann was deeply impressed by the ensemble, regularity of rehearsals and depth of preparation of the Gewandhaus orchestra from the late 1830s onwards. They premiered his First Symphony in 1841 under Mendelssohn, a performance which met with huge admiration from the composer. Their forces and seating arrangement have already been noted; the antiphonal arrangement of the standing violins is particularly important for exchanges such as in bars 97–106 of the first movement. Various correspondence around subsequent performances and editions provides significant information concerning performance; Schumann was most concerned about the horns being sufficiently loud, with the execution of some tempo modifications, and with precise articulation in the first Trio.

In November 1849, Schumann accepted a position as municipal music director in Düsseldorf. The orchestra there (mostly made up of amateurs or military musicians) had 27 strings, 8 woodwind, 2–3 horns, 2 trumpets, 2 trombones, and timpani, significantly less than the Gewandhaus’s 60 players. Almost all of Schumann’s orchestral works from the beginning of this period exhibit thicker orchestration than those from hitherto, including the December 1851 revision of the Fourth Symphony (whose 1841 first performance under David is generally believed to have been a failure). In

172 Clara/Robert Marriage Diaries, p. 72; Jansen, Briefe, p. 251.
particular there are many doublings of the string parts by the winds and denser textures, as well relentless use of the basses. This transformation of Schumann’s orchestration is too sudden and consistent to be attributable merely to a lessening of competence, as suggested by Brian Schlotel;\textsuperscript{178} rather it seems likely that Schumann’s preferences changed, or (in my opinion more likely) he made allowances for the smaller and somewhat less accomplished string section at Düsseldorf, and possibly also for his own somewhat mediocre conducting skills.\textsuperscript{179}

1848–1890

Introduction

The disruption of musical life subsequent to the events of 1848 and the following years was noticed by many,\textsuperscript{180} with a major decline in the number of concerts and an end to the optimism of the virtuoso years. The 1848–70 period in particular was not an especially fruitful one for the production of instrumental music of previously existing genres; very few historically durable symphonies were produced after Schumann’s Third in 1850, nor much important chamber music prior to Brahms’s early works in the 1860s. The range and diversity of piano composition also fell, despite the appearance of a new range of performers; the major exceptions are to be found in the mid-period works of Liszt and the early work of Balakirev. The other most important development in instrumental music from the period is to be found in the symphonic poems of Liszt and then further programmatic or otherwise ‘realistic’ music of Borodin, Musorgsky and Rimsky-Korsakov at the end of the period. In 1860, a journalist in the Viennese \textit{Recensionen und Mittheilungen über Theater und Musik} wrote of the fundamental changes in concert life over the past ten years: ‘no more tumults of virtuoso concerts, but rather great instrumental and vocal presentations . . . the ungodly proliferation of concert promotions has given way to the present flood of ‘classical’ taste’.\textsuperscript{181} These transformations were keenly felt as much in the world of performance as that of composition.

\textsuperscript{178} Schlotel, ‘The orchestral music’, p. 314.
The piano and pianists after 1848

In February 1848, Liszt abandoned his career as a touring virtuoso to take up the position of Kapellmeister in the small German principality of Weimar. From this point onwards his music also changed: he revised many of his earlier transcendentally virtuosic works into (somewhat) more playable forms (which are those most frequently played today); his major original piano works from the time demonstrate a characteristic virtuoso approach to the instrument, but rarely with the level of extremity (or bombast) of his earlier productions. Liszt also became involved with the rising tide of historicism, through his increased championing of Beethoven and the shift in focus of his transcriptions towards organ pieces of Bach.

In his Weimar house, called the Altenburg, Liszt kept a new Érard concert grand on the ground floor, together with pianos of Streicher and Bösendorfer on the second floor, and elsewhere the Broadwood which had belonged to Beethoven, of which he had come into possession during his tours. He pursued a long pedagogical career from this point until the end of his life; his students from this period included Hans von Bülow (see below), Carl Tausig, Joachim Raff, Peter Cornelius, Karl Klindworth and William Mason.

Accounts of his teaching, right up to his final years, are relatively consistent, and have been summarised as follows: (a) the music should flow...
in long phrases marked off by strong accents; (b) the musical sense should continue through the many rhetorical pauses; (c) expression (and bodily gestures) should avoid sentimentality at all cost; (d) the piano should produce a quasi-orchestral range of sonorities; (e) melodic figuration should more often be lyrical rather than brilliant; (f) tempo should be flexible, not metronomic; (g) rubato can take the form of interruptions to the beat or prolongings, quite distinct from that of Chopin; and (h) a lack of expressiveness is much worse than a few wrong notes.

In what is arguably Liszt’s crowning pianistic achievement of this period, the Sonata in B minor, he made use of a dichotomy between short, terse staccato writing (such as one might associate with earlier Viennese pianos and pianism), which he would later instruct students to play as ‘muffled timpani strokes’ (dumpfer Paukenschlag)\(^\text{190}\) and much more expansive quasi-vocal lines (lending themselves to the more resonant pianos of Érard), running through the whole work (Ex. 26.12). In this sense the work stands on the fault-line dividing competing schools of instruments and piano styles.\(^\text{191}\)

The Sonata was given its first public performance by Hans von Bülow (1830–94), who, after a brief early study with Wieck, worked with Liszt in Weimar from 1851, and became one of his favoured protegées.\(^\text{192}\) From an early stage Bülow was also devoted to Beethoven,\(^\text{193}\) and became a champion of the late works, giving all-Beethoven concerts and series in various German cities in the 1860s.\(^\text{194}\) After a long period in which he focused upon conducting (see below), he began to tour again from 1872, also making a major American trip in 1875–6, which included the premiere of Tchaikovsky’s First Piano Concerto.\(^\text{195}\) In the 1880s he began to play all five of Beethoven’s last piano sonatas in recitals.\(^\text{196}\) A series of masterclasses he gave in Frankfurt from the mid-1880s reveal much about his pianistic and interpretive priorities. Focusing above all on the


\(^{190}\) Ramann, \textit{Pädagogium}, vol. 5, p. 3. This is the only known account of Liszt’s teaching of this work.


\(^{193}\) The Early Correspondence of Hans von Bülow, ed. by his widow, selected and trans. C. Bache, New York, Appleton, 1896, p. 77.


music of his holy trinity of Bach, Beethoven and Brahms, he urged diaphanous and differentiated approaches to Bach, cited Wagner in support of certain interpretive practices in Beethoven, and suggested that, as well as providing Brahms with much colour and expression, one should conceive the music in poetic rather than abstract terms.\(^{197}\) Opinions of his playing varied, many admiring his facility, strength, endurance and variety of touch, or his reverence for text and style and ability both to ‘command’ and ‘obey’, but others finding him cold and unable to generate serious enthusiasm amongst audiences.\(^ {198}\)

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197 Zimdars (ed.), Bülow Master Classes, pp. 17, 23, 32, 37, 70 3, 82, 90, 94, 104, 113 14, 124.
Ex. 26.12b. Liszt, Sonata in B minor, towards end of first ‘movement’

Ex. 26.12c. Liszt, Sonata in B minor, conclusion

The other most prominent pianist of this era was the Russian-Jewish Anton Rubinstein, a student of Field’s pupil Alexander Villoing (1804–78).\textsuperscript{199} Idolising Liszt (whose reputation he came to mirror), Rubinstein attempted to mimic his theatrical mannerisms; also, like Chopin before him, he claimed as a major influence the opera singer Rubini, whose tone he would attempt to imitate on the piano.\textsuperscript{200} Accounts of his playing draw attention to his rich and full tone (but also delicacy), his wild and impetuous nature at the instrument

\textsuperscript{199} Rubinstein, Autobiography, pp. 6–10.
as a reflection of his volatile temperament, often opting for quite extreme (and flexible) tempos, his inimitable use of the pedal, and general grandeur of style, though some were critical of excesses and clumsiness. After leaving the St Petersburg Conservatoire (see below), Rubinstein’s career flourished, becoming the first major Russian musician to tour America in 1872–73. But his crowning achievement was the series of ‘Historical Concerts’ he gave between autumn 1885 and May 1886 in Berlin, then various other cities around Europe, featuring the history of European piano music from English virginalists to contemporary Russian composers, which deeply impressed the young Rachmaninov. He followed these with a series of ‘Historical Lectures’ at the St Petersburg Conservatoire in 1888, in which he emphasised the employment of a variety of historical styles, and advocated C. P. E. Bach’s keyboard treatise, and urged smaller orchestras to use clarity and restraint in the music of Haydn, Mozart, Hummel, Weber and Mendelssohn; on the piano, though, he believed that full modern resources should be employed for Beethoven, Schubert, Schumann and Chopin.

Various schools of pianistic pedagogy were consolidated during this period, including the style sévère in France – clear, brilliant, elegant, strict in rhythm and tempo, and with a basically thin and non legato touch – whose most brilliant representative was Camille Saint-Saëns (1835–1921), and a finger school in various conservatoires, especially in Stuttgart. What could be practical for Hummel and Czerny, working on very light Viennese pianos, now became a form of pianist torture, a merciless and grinding technical regime that produced much stiffness and unwanted harshness. These schools encountered some early challenges, but the most significant came...
through the pioneering teaching of Ludwig Deppe (1828–90). Deppe advocated the distribution of motions amongst all the components of the anatomy (hand and arm), involving circular movements of the hand and upward motions of the wrist, as well as a type of ‘controlled free fall’, by which the whole apparatus is allowed to drop freely under gravity. Amy Fay, who studied with Deppe from 1873, found his methods to be revelatory, relating them to what she had seen in Liszt’s playing.

At the Great Exhibition in London in 1851, the difference between Viennese and English pianos was noticed very strongly; the intervening period saw the growth of large-scale industrialised production of pianos, especially in the United States, facilitated by new woodworking machinery and hammer-covering machines. At the 1862 London Great Exhibition, Steinway exhibited their iron-frame, cross-stringed piano, which had been patented in 1859; this provoked a variety of opinions at the time, but would become the standard model for all instruments, right up to the present day, though some other distinct pianos were manufactured for a short while.

The few new developments during the remainder of the century included an extension of the upper range to c’, the new iron frame curved up from its fastenings, and the addition of the middle pedal, which won Liszt’s advocacy for such works as his third Consolation (Ex.26.13).

Violinist and violin playing 1848 1890

In the period immediately after 1848, four violinists became most prominent: Henri Vieuxtemps (1820–81), Joseph Joachim (1831–1907), Henryk Wieniawski (1835–80) and Leopold Auer (1845–1930). Vieuxtemps, a prodigy who also spent five early years in Russia as soloist to the Tsar, was described as having perfect intonation, an excellent staccato, an avoidance of portamento, whilst avoiding an overly ‘expressive’ style, for which he was criticised from various quarters, whilst Joachim, who worked first in Leipzig in the


213 For more on this subject more widely, see Good, *Giraffes*, pp. 197–256.


Gewandhaus with David, moved to become leader of Liszt’s orchestra in Weimar, then left this environment, dissatisfied, to become royal music director at Hanover, and developed an intensive relationship with both Schumanns and the young Brahms. Like Clara, he was known for his fidelity to works and avoidance of effects, as well as varied styles for different works, unaffected expression, and the performance of a core German repertoire. His technique involved the ‘Joachim grip’, a very low arm pressed to the body and a high-angled wrist, with rotary motion of the wrist and stiff fingers to change at the frog, which came to be opposed by many later players not least for its unsteadiness. In his late years, Joachim published a treatise with his student and biographer Andreas Moser, in which they expressed their reservations about the new dominance of the Franco-Belgian schools, a move from a singing style towards ‘effects’, and opposed trends towards continuous vibrato.

Wieniawski was in Weimar at the same time as Joachim, and like Vieuxtemps was a prodigy who settled in Russia, first in the early 1850s, then for twelve years until leaving in 1872. His playing seems, however, to have been more
subjective, temperamental and colourful than that of Vieuxtemps, whilst employing a very different bow technique to Joachim, with a high right elbow, pressing the bow with the index finger above the second joint, and stiffening his arm to produce the so-called ‘devil’s staccato’ on a single string, a technique which later was referred to by some as the ‘Russian bow grip’. Auer, a student of Joachim, who also had played to Vieuxtemps at a young age, replaced Wieniawski in Russia. He broke with Joachim’s teaching by employing a standard Franco-Belgian grip and to the end of his career was adamant in his opposition to the continuous use of vibrato, despite the fact that this practice was adopted by many of his students.

The most significant later nineteenth-century violinist was Eugène Ysaÿe (1858–1931), a protégé of Vieuxtemps and student of Rodolphe Massart and Wieniawski. Ysaÿe himself perceived distinct schools descending from Vieuxtemps and Paganini, definitively preferring the ‘romanticism’ of the former to the ‘mechanics’ of the latter. His playing emphasised a singing tone above all else, continuous but containing distinctive sonorities, with the use of a practically immobile right upper arm, playing from the point of the bow, simplicity of fingering, rhythmic cohesion and smooth transitions, as well as a greater amount of vibrato (though still only on selected notes) and portamento than earlier players, and a highly spontaneous and declamatory rubato. He was closely associated with Fauré, César Franck and Max Bruch; works such as the Franck Violin Sonata (written as a wedding present for Ysaÿe in 1886) provided a new customised outlet for the French and Belgian violin schools (Ex. 26.14).

The orchestra between 1848 and 1890

After 1848 orchestral repertoire also became much more focused upon the classics (including a small increase in performances of works from the Renaissance and Baroque periods) and a canonical repertoire, whilst

229 Flesch, Memoirs, p. 70; Ginsburg, Ysaÿe, pp. 19, 31, 35, 41, 45, 270, 1, 356, 82, 493, 2.
orchestras became national institutions rather than private societies. The most important new orchestras were the Budapest Philharmonic Orchestra (1853), the Strasbourg Philharmonic Orchestra (1855), the Hallé Orchestra in Manchester (1858), the Pasdeloup Orchestra in Paris (1861), the Düsseldorf Symphony Orchestra (1864), the Tonhalle Orchestra in Zurich (1868), Dresden Philharmonic Orchestra (1870), Concerts Colonne in Paris (1873), Berne Symphony Orchestra (1877), Boston Symphony Orchestra (1881), Lamoureux Orchestra in Paris (1881), Berlin Philharmonic Orchestra (1882), Helsinki Philharmonic Orchestra (1882), St Petersburg Philharmonic Orchestra (1882), Detroit Symphony Orchestra (1887), Dortmund Philharmonic Orchestra (1887) and Concertgebouw Orchestra (1888).

The Vienna Philharmonic Orchestra had been founded as the Philharmonische Akademie in 1842 with just a few annual concerts; after a
quiet period between 1848 and 1859, the opera director Carl Eckert started a series of subscription concerts which has continued through to the present day. From the second season, they were conducted by Otto Dessoff, under whom they played (uncharacteristically for the time) a large number of world or Vienna premieres. Dessoff’s interpretations differed considerably from others of his time, in terms of highly extended pauses and a massive dynamic range, as well as some very slow tempos. Hans Richter directed the subscription concerts from 1875 to 1898, a period which has been described variously as the ‘full flowering’ or ‘golden era’ of the orchestra. He described his ideal as being guided by the orchestra and its individuality, rather than subjugating it as if with a whip. By 1884, it had expanded to ninety players.

Liszt regularly conducted the relatively small court orchestra at Weimar (see the Table 26.1 for the size in 1851), performing numerous Beethoven symphonies and staged performances of Wagner operas. His conducting was of mixed quality, employing various body signals to signify nuances, colours and rubato, and describing arc-like shapes with the bow, but lacking some basic technique. He deeply opposed metronomic tempos, which he said led to a situation whereby ‘the letter killeth the spirit’, and used symbols to indicate light tempo modifications around particular motives, as in the symphonic poem Orpheus. Some of his principles were extended further still by Wagner, who published his hugely influential tract on conducting, Über das Dirigiren, in 1869. This set down many of the principles upon which twentieth-century approaches to conducting were founded, in opposition to various existing practices he had experienced. Identifying a different style required for Beethoven and after than for earlier composers, he advocated the centrality of the melodic line or *melos* to be rendered in the manner of a singer, as well as selecting the appropriate tempo (wary of excesses of fast or slow) and its

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231 See C. Hellsberg, *Demokratie der Könige: Die Geschichte der Wiener Philharmoniker*, Zurich, Vienna and Mainz, Schweizer, Kermayr and Scheriau & Schott, 1992, pp. 93–116, on these years.
236 See Pace, ‘Conventions, genres, practices’, pp. 95–6 for more on Liszt’s performances of Beethoven, and Walker, *The Weimar Years*, pp. 112–34 for his efforts on behalf of Wagner.
239 See, however, *Wagner on Conducting*, pp. 5, 15–17, for Wagner’s admiring comments on Habeneck and French orchestras in general.
modification according to the qualities of individual sections of a work. Wagner left detailed comments on various Beethoven symphonies as well as on the overture to his own *Die Meistersinger*. He wished the movement to begin with a vigorous 4/4 beat, pushing ahead in bars 89–90, whilst for the second theme in E, the conductor should hold back the tempo (in the manner of 'a somewhat grave 4/4 time') but lend the music a 'passionate, almost hasty character' (Ex. 26.15).

Bülow was also as central a figure as a conductor as a pianist during this period. Beginning his career in Berlin, and moving on to work in Leipzig, Munich and elsewhere, he focused upon the music of Berlioz, Liszt and Wagner (giving the premieres of *Tristan* and *Die Meistersinger* in 1865 and 1868). Whilst he described his conducting in Napoleonic heroic terms, it was noted by others for similar qualities to his piano playing; he also conducted without a score. He directed the Meiningen Court Orchestra from 1880 to 1884, taking them to a new level of renown and in the process establishing a new orchestral practice. Bülow would give as many as six rehearsals per concert including sectionals, and took great care to synchronise dynamics, bow strokes and articulation amongst the players; he also retained the practice of having higher strings standing.

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241 Wagner on Conducting, pp. 15 18, 24 8, 35 8, 42 3, 92 100.
244 Hinrichsen, Bülow, p. 86.
1880–1 concert season to Beethoven’s music, and also developed a very strong relationship with the music of Brahms.249 Bülow is also credited with generating widespread acclaim for the Berlin Philharmonic, which was founded in 1882 by a breakaway group of fifty-four players from the Bilsesche Kapelle, run from 1867 to 1882 by Benjamin Bilse.250 The Berlin Philharmonic began giving a series of ‘Philharmonic Concerts’ conducted by Franz Wüllner, featuring important symphonic works, subscription concerts conducted by Joachim and Klinworth, and some popular concerts as well. They quickly flourished, with the help of major private contributions, giving 50 concerts (with 110 rehearsals) in the 1883–84 season, and a total of 20 subscription concerts in the 1884–85 season, though this fell to 12 in the next two seasons.251 Joachim became their Principal Conductor in 1884, followed by Bülow in 1887, who introduced public general rehearsals and gave didactic speeches from the podium to the audience. Whilst reactions to the latter were mixed, concerts sold out during his tenure, with thousands of people turned away.252 The establishment of this orchestra reflected wider growth in the city, whose population increased from 400,000 in 1848 to four million in 1914, and which was home to a range of major banks which exerted commanding power over German industry.253

Bruckner and Brahms in late nineteenth century Vienna

The two most enduring composers based in Vienna from the 1860s to the 1890s were Anton Bruckner and Johannes Brahms, bitter rivals within a charged critical climate in which the ‘War of the Romantics’ continued to be fought, generally to the benefit of Brahms. Bruckner’s formative musical experiences derived from the organ, military bands and dance orchestras;254 he described the Trio of the Fourth Symphony as a dance tune played to hunters during their meal.255 Bruckner had mixed experiences at first with the Vienna Philharmonic, with various rejections, hostility from the players, or even walk-outs from the

249 Hinrichsen, Bülow, p. 62; for the important Brahms programmes given by the orchestra in 1882, see R. and K. Hoffmann, Brahms als Pianist und Dirigent. Chronologie seines Wirkens als Interpret, Tutzing, Schneider, 2006, pp. 207 8.
251 Stresemann, Berlin Philharmonic, pp. 40 2.
255 Howie, Bruckner 2, p. 335.
audience (from the Third in 1877); this prompted him to make cuts and other changes, one reason for the often bewildering number of versions of his works. In general, the first published versions of his works have more detailed indications of tempo, dynamics and expression than the manuscripts, as Bruckner would revise writing he felt to be impractical or misleading. He was also very concerned to be clear about his tempos and their modifications (though wrote in one letter that many important details, as well as tempo modifications, are not indicated in the score).

Furthermore, varying conceptions of Bruckner as treating the orchestra like an organ, or alternatively as a Wagnerian symphonist (a view that was especially prevalent during the Third Reich), may affect one’s approach to performance. Bruckner’s organ-playing was described by August Stradal as ‘monumental’ with ‘no false sentimentality, no daintiness, no fancy touches played purely for special effect’. This sort of musical ideal seems to have informed his wishes for his orchestral music as well: he implored Felix Mottl to extend the dynamic range and adopt a slow, solemn tempo in the funeral music (in memoriam to Wagner) for tubas and horns in the Adagio of the Seventh Symphony (Ex. 26.16). Similarly, Bruckner wanted practically as slow a tempo as possible for the Sanctus from his E minor Mass at an 1885 performance. Letters between Bruckner and Felix Weingartner also suggest that he liked the large string section of the Vienna orchestra.

Brahms’s twenty-four orchestral works rarely extend beyond the forces common in the first half of the century, but there is some debate about his preferred size of string section, on the basis that he had an equally strong association with the Meiningen Orchestra and the Vienna Philharmonic. The argument for his preferences are too intricate to do justice to here; I maintain

261 Howie, Bruckner 2, pp. 463 4. 262 Howie, Bruckner 1, pp. 174 5; Bruckner 2, p. 481.
263 Howie, Bruckner 2, pp. 620 2, 624.
264 For a highly partisan comparison, see Hanslick, ‘The Meiningen court orchestra’, p. 233.
that Brahms seems probably to have favoured a larger orchestra for his Second, Third and Fourth Symphonies in particular, though he could equally be happy with the works played with smaller forces when the playing was of the standard produced at Meiningen.
Brahms was not fond of the metronome and left few markings; some evidence suggests a general preference for moderate tempos, though with exceptions such as the Intermezzo Op. 119 No. 1 (Ex. 26.17), which he told Clara could hardly be played slowly enough.266

However, performances of the symphonies have been demonstrated to have slowed progressively since Brahms’s death, though he himself wrote that a ‘normal person’ would take a different tempo ‘every week’.267 Other documents suggest that he desired and executed a fair amount of tempo flexibility and nuancing, though was critical of both Bülow’s use of mannered rhetorical pauses and Richter’s inflexibility in both tempo and phrasing.268 Of younger conductors, Brahms had kind words about both Fritz Steinbach and Felix Weingartner, but seems especially to have favoured the former’s flexible approach.269

A crucial aspect of performance practice in Brahms concerns the execution of his numerous two-note slurs. In a letter to Joachim of 1879, Brahms made clear that he believed that in the second note in such slurs should be shortened (though not in longer slurs);270 this is corroborated in accounts by Florence May, Charles Villiers Stanford and Siegfried Ochs,271 as well as in Steinbach’s

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269 See W. Frisch, ‘In search of Brahms’s First Symphony: Steinbach, the Meiningen tradition, and the recordings of Hermann Abendroth’, in Musgrave and Sherman (eds.), Performing Brahms, pp. 277–301; Styra Avins, Johannes Brahms: Life and Letters, Oxford University Press, 1997, p. 726; Brahms, Briefwechsel, vol. 12, p. 169. For a more detailed consideration of Brahms’s relative views on Steinbach and Weingartner, drawing upon the available evidence, see Pace, Brahms Performance Practice.
270 Brahms, Briefwechsel, vol. 6, p. 168.
markings for the symphonies, in which almost all two-note slurs are rewritten with the second note shortened. The two-note slur is a recurrent feature of much of Brahms’s output (see for example the passages in Ex. 26.18, some of which would then suggest faster tempos than are commonplace).


A great many of these are illustrated in W. Blume (ed.), *Brahms in der Meininger Tradition: Seine Sinfonien und Haydn Variationen in der Bezeichnung von Fritz Steinbach*, Stuttgart, Suhrkamp, 1933.

Other prominent examples would include the fifth variation of Book 1 of the Paganini Variations, Op. 35, the opening of the Second Symphony, the *Klavierstücke* Op. 118 No. 2 in A major, or the opening of the Clarinet Sonata Op. 120, No. 1.
Other important considerations for Brahms performance include his preferences for pianos: he made clear his liking for those of Streicher, though also played Bösendorfers in most of his concerts in Vienna, whilst in the last fifteen years of his life he became enthusiastic about Bechsteins and Steinways, requesting one or other of these for performances of his piano concertos.\textsuperscript{274} He also favoured natural over valved horns, telling Ochs in this context that ‘The natural is always the artistic’,\textsuperscript{275} and took an interest in the ‘reform flute’ (with a modified non-Boehm simple system) developed by Maximilian Schwedler, which produced a powerful and reedy sonority.\textsuperscript{276}

### The Rubinstins and the transformation of Russian musical life

A general atmosphere of paranoia in Russia after 1848, with increased censorship, executions and control over education, came to head following defeat at the hands of Britain and France in the Crimean War (1853–56) and increased isolation. Tsar Alexander II reformed an antiquated political and economic structure, including the phasing out of serfdom, beginning in 1861.\textsuperscript{277} Musical life had earlier been dominated by Italian and French opera, in large measure directed by foreign musicians; the emergence of Russian-language operas from the 1830s onwards did little to change this situation,\textsuperscript{278} though there was a private Symphonic Society organised by Count Matvey Wielhorski from 1841, and a symphonic concert series conducted by Karl Schubert at the

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\textsuperscript{275} S. Ochs, Geschehnes Geschehener, Leipzig, Grethlein, 1922, pp. 297 8.

\textsuperscript{276} Brown, The Early Flute, p. 30.


Peterschule in St Petersburg from 1842, as well as a tradition of amateur chamber music and numerous visits by prominent foreign musicians.279

Anton Rubinstein, who had spent some of his childhood in Germany, attacked the perceived backwardness of Russian musical life in a Viennese journal in 1855, to much criticism.280 He was to make a profound change through his foundation of the Russian Musical Society (Russkoe Muzykal’noe Obshchestvo or RMO) in St Petersburg in 1859,281 who performed at first a mostly Germanic orchestral and chamber repertoire, and the St Petersburg Conservatoire in 1862, made possible after some limited relaxation of earlier restrictions upon higher education after 1855,282 and with the support of Grand Duchess Elena Pavlovna. The first faculty was highly international, including Rubinstein himself, Leschetizky, Anton Gerig and Alexander Dreyschock on piano, Wieniawski on violin, and Schubert and Karl Davidov on cello.283 The teaching of both Rubinstein and Leschetizky laid the foundations of two Russian piano schools: the former stressed tone, rhythm and general musicianship (over technique),284 the latter a quiet demeanour, cantabile playing, a mixture of curved fingers and some wrist motion, chords played close to the keys, displacement between melody and accompaniment, judicious use of the pedal, sustained bass lines and flexibility of tempo and rhythm.285 Wieniawski, and after him Auer, continued the influence of the Franco-Belgian school in Russia, following on from Rode, Lafont, de Bériot and Vieuxtemps.286 Davidov, who succeeded Schubert in 1863, taught an approach to cello tone derived from listening to violinists.287


280 Campbell, Russians on Russian Music I, pp. 64 73. See also Chapter 5 of the present volume.


284 See Bowen, Free Artist, pp. 334 8 for more on Rubinstein’s teaching in his later years in particular.


Nationalistically minded composers were from the outset uniformly opposed to the Conservatoire, and its perceived Germanic bias. A rival Free School of Music, in which Balakirev was closely involved, was established in the city in 1862. The School hosted a series of concerts featuring first Classical repertoire, then foreign figures neglected by the RMO, including Schumann, Berlioz and Liszt, towards the establishment of a nationalistically inclined flavour of programming and the concept of the ‘Mighty Handful’ or kuchka. By 1867, Rubinstein had resigned from both the RMO and the Conservatoire (weary of constant tensions); Balakirev took over the conducting of the RMO concerts the same year, and steered their programming in a similar direction. Dismissed two years later, he returned to the Free School in 1869 and pursued an ‘anti-RMO’ programming policy with increased fervour, eschewing almost all pre-nineteenth-century music, or any of a purportedly conservative tendency such as favoured by Rubinstein, though this policy in turn was undermined by a greater inclusion of the Neudeutsche Schule and Russian music by the RMO.

Nikolai Rubinstein set up a branch of the RMO in Moscow in 1860, and a second conservatoire in the city in 1866, of which he was the first director. His early faculty included Anton Door and Karl Klindworth for piano, Ferdinand Laub for violin and Bernhard Cossman for cello, the latter three of whom had worked with Liszt in Weimar. Less dogmatic than his brother, Nikolai could entertain better relations with the kuchka faction. The initial standard of performance was apparently not high, but this would change in later eras. The teaching of Nikolai Zverev, Paul Pabst, Alexander

288 See Campbell, Russians on Russian Music I, pp. 73, 85, 89–91 for some of the key articles; also Maes, A History of Russian Music, pp. 38–41; Taylor, Rubinstein, pp. 77–81; Ridenour, Russian Music, p. 90.
291 This was a term coined by Vladimir Stasov for Balakirev, Musorgsky, Borodin, Cui and Rimsky-Korsakov after a free School concert in 1867. See Stasov, ‘Mr Balakirev’s Slav concert’, St Petersbourg Bulletin, 13 May 1867, no. 130, in Campbell, Russians on Russian Music I, pp. 183–6; Maes, A History of Russian Music, pp. 42–3. See also Chapter 5 of the present volume.
292 Bowen, Free Artist, pp. 217, 18.
293 Garden, Balakirev, pp. 86, 6; Campbell, Russians on Russian Music I, pp. 186, 95.
295 See Campbell, Odysseys, pp. 157, 64 for a good overview of the events from the foundation of the Moscow branch of the RMO to the opening of the Moscow Conservatoire; also Bowen, Free Artist, pp. 187, 8, 200, 1.
297 Campbell, Russians on Russian Music I, p. 91.
Siloti and Vasilii Safonov on piano, and Adolph Brodsky and Ivan Hřimaly on violin, would have immeasurable effect upon twentieth-century performance schools headed by their students.  

After the assassination of Tsar Alexander II in 1881, his son moved the country away from German sympathies towards a cultural ‘Russification’, especially in St Petersburg, to inspire a new sense of ‘belonging’; this led to increased discrimination towards other citizens, especially Jews, who were falsely blamed for the assassination. Rubinstein returned to run the St Petersburg Conservatoire in 1886 (it had previously been directed by Mikhail Azanchevsky, during whose time a certain rapprochement was achieved between opposing factions by inviting Rimsky-Korsakov to teach there, then Davidov); ultimately fear of anti-semitism and the possibility of pogroms led him to resign for the final time in March 1891, bringing a uniquely cosmopolitan era to an end. During his final tenure, however, Rubinstein drove up standards through ruthless examinations, leading to dismissals, and the creation of an international competition for composers and pianists to take place in different European cities, a prototype for twentieth-century competitions.

Some information concerning Russian orchestras can be discerned from the writings of Rimsky-Korsakov. A pragmatist who believed that a composer should write idiomatically for whatever orchestra was available, one can fairly assume that the orchestras Rimsky knew were ideal for his compositions. He lists numbers of strings in present-day orchestras (though in which year is not entirely clear) as follows: Full: 16–14–12–10–8/10; Medium: 12–10–8–6–4/6; Small: 8–6–4–3–2/3 (occasionally with more strings and/or woodwind doublings). In his Russian Easter Overture (1887–8), Rimsky specifies string forces lying roughly between ‘Full’ and ‘Medium: 20/12–18/10–14/8–12/8–10/6; in passages such as Ex. 26.19, the appropriate relative proportions are very important in order for the cellos and basses to be able to provide a depth of sound upon their pulsations and not be overshadowed by the horn or harp. Rimsky’s descriptions of the characteristics of different strings makes clear that he would have known gut strings with steel-wound gut on the violin G and viola and cello G and C, which would produce a particular timbral

299 Barnes, Russian Piano School, pp. xvi xvii; Pribegina, Moskovskaiia konservatoriia, pp. 32, 47, 52, 56.
303 Taylor, Rubinstein, p. 197.
Ex. 26.19 Rimsky-Korsakov, *Russian Easter Overture*
differentiation in the opening violin solo and various other passages in Scheherazade.

By 1890, there were music educational institutions not only in St Petersburg and Moscow, but also Kiev, Kharkov, Saratov, Tiflis, Odessa, and Omsk (in Siberia), though most of these were not full conservatoires. By 1890, there were music educational institutions not only in St Petersburg and Moscow, but also Kiev, Kharkov, Saratov, Tiflis, Odessa, and Omsk (in Siberia), though most of these were not full conservatoires. Russian schools of performance, especially on piano and violin, would come to be hugely influential in the twentieth century, especially in the charged geopolitical environment that characterised the Cold War, whilst German schools eventually declined somewhat in prominence. Whilst many of the styles entailed would certainly have become modified in the interim period, there is little doubt that they have roots in the particular conflation of European influences and counter-reactions that bred those schools of playing that emerged in the late nineteenth century in both St Petersburg and Moscow.

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*The 1843 forces come from Berlioz. Carse also gives much smaller forces for 1844 (3+picc–2–2/4–2–3–1/timp+perc+hp/8–8–6–6–4). However, forces available in 1820 and 1830 were closer to Berlioz’s figures.

**A very different set of figures are given for this year by Carter and Levi (7–6–7–6–5–5–0–0–2timp + perc (number unknown)/26 total violins, 3 violas, 8 cellos, 6 basses), but this must be assumed to have been for a special occasion. A similar balance for 1827 is cited by Carse.

†This is the planned ‘Grand Band’ as projected by Zeugheer Herrman in his manifesto of 1849. The string figures were minimums. Whether this corresponded with the actual forces used at this date is unclear. There was also a planned smaller orchestra of 2–3–3–2/2–2–3–1/timp/5–5–5–3–3–3. See Henley and McKernan, The Original Liverpool Sound, pp. 34–5.