

A Comparison of Robert Schumann's Fourth Symphony with its Reorchestration by

Gustav Mahler

Howard Pitt Hsu, D.M.A.

University of Connecticut, 2009

The orchestration of Robert Schumann, especially that of the 1851 version of his Fourth Symphony, has been harshly criticized throughout history by critics, historians, conductors and composers. Admirers of the Fourth Symphony, such as Gustav Mahler, took matters into their own hands by reorchestrating it for their own performances. This dissertation compares Schumann's 1851 revision with Mahler's reorchestration, while also taking into account Schumann's own original 1841 version. By analyzing these different versions of the symphony and attempting to determine the rationale behind them, it is possible to gain valuable insight into the orchestrational aesthetics of Schumann and Mahler; in addition, some surprising similarities between the two composers, whom few regard as being equally skilled, emerge from the analysis. Selected examples are used to illustrate the styles of orchestration and revision of each composer, followed by a comparative analysis of the first two movements of the Fourth Symphony. The appendix includes a table of revisions organized by measure number and categorized by type, with additional commentary.



A Comparison of Robert Schumann's Fourth Symphony with its Reorchestration by

Gustav Mahler

Howard Pitt Hsu

B.S., University of Pennsylvania, 1992  
M.M, San Francisco Conservatory of Music, 1994

A Dissertation  
Submitted in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Musical Arts  
at the  
University of Connecticut  
2009

UMI Number: 3360695

Copyright 2009 by  
Hsu, Howard Pitt

All rights reserved  
INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

**UMI**<sup>®</sup>

---

UMI Microform 3360695  
Copyright 2009 by ProQuest LLC  
All rights reserved. This microform edition is protected against  
unauthorized copying under Title 17, United States Code.

---

ProQuest LLC  
789 East Eisenhower Parkway  
P.O. Box 1346  
Ann Arbor, MI 48106-1346

Copyright by

Howard Pitt Hsu

2009

iii

APPROVAL PAGE

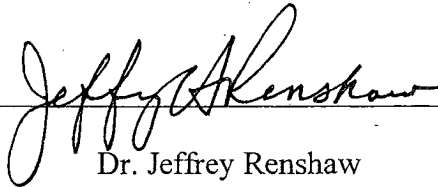
Doctor of Musical Arts Dissertation

A Comparison of Schumann's Fourth Symphony and its Reorchestration by Mahler

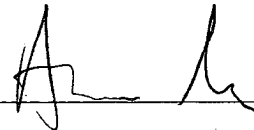
Presented by

Howard Pitt Hsu, B.S., M.M.

Major Advisor

  
Dr. Jeffrey Renshaw

Associate Advisor

  
Dr. Alain Frogley

Associate Advisor

  
Dr. Peter Kaminsky

University of Connecticut  
2009

## TABLE OF CONTENTS

Chapter	Page
I. Background and Methodology.....	1
Background .....	1
Sources .....	2
Methodology.....	2
II. The Orchestration and Revisional Styles of Schumann and Mahler ...	6
Historical Opinion of Schumann's Style of Orchestration .....	6
A Brief Analysis of an Excerpt of Schumann .....	11
Mahler's Style of Orchestration .....	15
A Brief Analysis of an Excerpt by Mahler .....	17
Schumann's Approach to Revision.....	20
Mahler's Approach to Revision .....	24
III. Mahler's Reorchestration of Schumann's Fourth Symphony.....	29
Survey of Writings on Mahler's Reorchestration of Schumann Symphonies.....	31
Categorization of Mahler's Changes .....	35
Comparison and Analysis .....	38
First Movement.....	39
Second Movement .....	87
IV. Conclusion .....	91
Appendix: Table of Revisions.....	93
Bibliography .....	118

## CHAPTER 1

### Background and Methodology

#### Background

Robert Schumann was widely believed to be a master of melody but a mediocre orchestrator; Tchaikovsky for one felt that Schumann was unable to clothe his “wealth of ideas in beautiful sounds.”<sup>1</sup> Conductors such as Gustav Mahler went one step further, taking it upon themselves to reorchestrate the Schumann symphonies thoroughly, but Mahler’s efforts elicited a significant number of negative responses from conductors such as Sir Adrian Boult and Joseph Keilberth. Although no one questioned his command of the orchestra, many believed he had made unacceptable alterations to the character of Schumann’s sound. Charles Groves wrote that it was an “impertinence to try to hear Schumann’s music through Mahler’s ears.”<sup>2</sup> As a composer, Mahler prized clarity in his orchestration; as a conductor of works of Beethoven and Schumann, Mahler appears to have sought this same clarity by extensively reorchestrating them.

This dissertation will focus on Schumann’s Fourth Symphony, because it offers the additional perspective of Schumann’s own 1851 revisions to the original 1841 version, giving us the opportunity to compare his reorchestration to Mahler’s. Johannes Brahms considered the 1841 version to be superior to the 1851 revision and had the original published in 1891 against the wishes of Clara Schumann. Although the 1841 version was published during Mahler’s lifetime, it is not known if he consulted it for his own reorchestration.

---

<sup>1</sup> Adam Carse, *The History of Orchestration*, (London: Keegan Paul, 1925), 306-7.

<sup>2</sup> Asher Zlotnik, “Orchestration Revisions in the Symphonies of Robert Schumann” (Ph.D. diss., Indiana University, 1972), 290.



The scores of the Mahler revisions of the Schumann symphonies are available only through rental from Universal, posing a significant obstacle for scholars wanting to study them and for conductors wishing to peruse them before committing to performing these works. As an admittedly inferior alternative, one could consult the dissertations and articles that examine the Mahler reorchestrations, but none of these contains a comprehensive comparison that would allow for intensive study of the entire work in the absence of the actual score. This dissertation is an initial effort to fill that void and, I hope, will be a valuable resource to conductors who wish to familiarize themselves with the Schumann/Mahler scores before committing to the expense of the rental.

### Sources

Since the initial publication of the Symphony in 1853 by Breitkopf, some of the most significant editions to appear have been Clara Schumann's 1882 Breitkopf edition<sup>3</sup>, Alfred Dörfel's 1890's Peters edition<sup>4</sup>, Mahler's reorchestration<sup>5</sup>, and Joachim Draheim's 1999 Breitkopf critical edition.<sup>6</sup> The first performance of Mahler's reorchestration of the Fourth Symphony was given in 1900 by the Vienna Philharmonic, which would suggest that the reorchestration was made sometime in the 1890s. The alterations that Mahler wrote into his Dörfel Peters score were later copied into scores

---

<sup>3</sup> Robert Schumann, *Vierte Symphonie*, in *Werke*, Ser. 1, *Symphonien*, ed. Clara Schumann (Leipzig: Breitkopf & Härtel, 1881-93; reprint, New York: Dover Publications, Inc., 1980).

<sup>4</sup> Robert Schumann, *Vierte Symphonie: Introduction, Allegro, Romanze, Scherzo und Finale in einem Satze*, ed. Alfred Dörfel (Leipzig: C.F.Peters, [1890-9?]).

<sup>5</sup> Robert Schumann, *Symphonie Nr. 4, d moll*, ed. Gustav Mahler (Wien: Universal Edition, 1977).

<sup>6</sup> Robert Schumann, *Symphonie Nr. 4, d-moll*, ed. Joachim Draheim (Wiesbaden: Breitkopf & Härtel, 1999).

and parts and made available for rental from Boosey and Hawkes,<sup>7</sup> but his revision was not published as a printed edition until 1977 by Universal. In addition to the scores mentioned above, my additional sources will include the Kalmus (ed. Brahms/Wüllner)<sup>8,9</sup> and Breitkopf (ed. Jon Finson)<sup>10</sup> scores of the original 1841 version.

## Methodology

It will be useful first to establish the style of orchestration and revision Schumann employed to achieve a completed work, in particular the Fourth Symphony. Brief examples from the Symphony will be used to illustrate several of Schumann's tendencies in instrumentation and significant changes that he made the score. A similar study will be made of Mahler's style of orchestration and revision in his own Fourth Symphony, which was composed in the same period that he reorchestrated Schumann's Fourth Symphony.

Once the parameters of orchestration and revision are established, I will compare the first two movements of the Schumann's Fourth Symphony (1851) and Mahler's reorchestration using the Clara Schumann edition and the published Universal score of Mahler's reorchestration; the latter utilized the Clara Schumann edition as its template

---

<sup>7</sup> Mosco Carner, "Mahler's Re-scoring of the Schumann Symphonies," *The Music Review* 2 (May 1941): 98.

<sup>8</sup> Robert Schumann, *Vierte Symphonie* (1841) (Boca Raton, Florida: Edwin Kalmus & Co., Inc., n.d.).

<sup>9</sup> There has been controversy regarding Brahms' and Wüllner's editing of Schumann's original 1841 score (see Robert Schumann, *Symphonie Nr. 4, d-moll*, ed. Joachim Draheim (Wiesbaden: Breitkopf & Härtel, 1999), Preface). Before selecting passages of the Brahms/ Wüllner edition, I initially compared them to the new Finson critical edition to find any major discrepancies before using these passages for comparative analysis.

<sup>10</sup> Robert Schumann, *Symphonie Nr. 4, d-moll* (1841), ed. Jon Finson (Wiesbaden: Breitkopf & Härtel, 2003).

and kept the identical page layout throughout. For a supplementary source I also extensively consulted Mahler's annotated Dörffel score<sup>11</sup> that is held at the Beinecke Library of Yale University and found some significant discrepancies between Mahler's Dörffel score and the printed Universal score, but I did not find many significant discrepancies between the Dörffel and Clara Schumann editions. Discrepancies that affect the comparative analysis have been noted.

Differences between the Schumann and Mahler scores will be documented in a chart consisting of four parameters: Bar.Beat, Instrument, Revision in Mahler, and Comments. The alterations will be grouped into specific classifications (e.g. "doubling," "thinning" etc.) to determine the most frequent types of changes made by Mahler. From this chart I will select passages containing some of the most significant alterations for additional analysis and attempt to determine the rationale behind them; I will also compare Mahler's changes to the revisions that Schumann himself made to his original 1841 version.

By analyzing the changes that Schumann and Mahler each made to the Fourth Symphony, I hope to provide greater insight into each composer's orchestration preferences, tendencies and aesthetics. One issue I will examine is whether Mahler was able to separate his "composer" persona from his "conductor" persona when

---

<sup>11</sup> Robert Schumann, *Symphonie für Orchester Redivert von Alfred Dörffel*. James Marshall and Marie-Louise Osborn Collection, Beinecke Rare Book and Manuscript Library, Yale University.

reorchestrating this symphony. In other words, do his changes give the Schumann Fourth Symphony the orchestral characteristics of a Mahler symphony?<sup>12</sup>

---

<sup>12</sup> Regarding Mahler's changes in particular, conductors may learn a wealth of practical performing information from a master conductor who had identified potential balance problems with the Fourth during performances of his own or by others.

## CHAPTER 2

### The Orchestration and Revisional Styles of Schumann and Mahler

#### Historical Opinion of Schumann's Style of Orchestration

From the late-nineteenth century through the middle of the twentieth century, the opinion of Schumann's skills as an orchestrator became increasingly negative. Henry Raynor captures the feelings of many in his belief that as compositions, the Schumann symphonies were musically outstanding, but deficient from an orchestration standpoint.<sup>13</sup> Adam Carse characterizes Schumann's style of orchestration as a "continuous tutti" of strings, woodwinds and horns, and he blames this style for dulling individual timbres and masking important melodic material. Like Raynor, he feels that to achieve a "well-balanced" performance, musicians would need to either make major changes to the dynamics or re-orchestrate Schumann's works.<sup>14</sup>

In Schumann's time, however, there was no general consensus on Schumann's abilities as an orchestrator. Jean Marie Hellner finds that during the 1850s and 1860s, critics disagreed over Schumann's orchestration of the revised D minor Symphony. In 1853, the critic of the *Düsseldorfer Journal* admired the level of timbral shading, but that same year the writer for the *Signale für die musikalische Welt* denounced the over-reliance on one primary color. Admiration of Schumann's skills also came from the critic for the New York publication *The Musical World* in 1859 and in 1864 from the critic for *The Musical Standard*, who praised Schumann's brass orchestration in the first

---

<sup>13</sup> Henry Raynor, *The Orchestra: A History* (New York: Charles Scribners Sons, 1978), 116–7.

<sup>14</sup> Adam Carse, *The History of Orchestration* (London: Keegan Paul, 1925), 264–5.

movement, but in 1860 the writer for the *Deutsche Musik-Zeitung* criticized the same brass scoring for weighing down the lightness of the work.<sup>15</sup>

Later in the nineteenth century, opinion of Schumann's orchestration grew increasingly negative in light of several developments. Hellner says that by the 1870's, the technical innovations made in orchestral instruments had lessened instrumental contrasts that had been heard by critics of previous generations, and she speculates that during this period composers such as Wagner and Tchaikovsky were exploring new colors and contrasts that made Schumann's orchestrational style sound old-fashioned by comparison. Tchaikovsky himself accused Schumann of not having a thorough understanding of the art of orchestration and felt that the general heaviness of his instrumentation and lack of timbral contrasts weakened the beauty of his works.<sup>16</sup>

Recent historians such as Jon Finson and conductors such as John Eliot Gardiner have argued that Schumann wrote with the fifty-member Gewandhaus in mind rather than the much larger Wagnerian ensemble of the late-nineteenth century, and that the expansion of the orchestra not only affected the balance between instrumental groups but also produced a sound different from what Schumann had envisioned. According to Finson, Tchaikovsky's specific complaint that Schumann did not fully utilize the orchestra indicates that Tchaikovsky was used to the Wagnerian-sized group.<sup>17</sup> Gardiner believes that the growth in orchestra size was to blame for many of the complaints about

---

<sup>15</sup> Jean Marie Hellner, "Robert Schumann's Symphony in D Minor, Op. 120: A Critical Study of Interpretation in the Nineteenth-Century German Symphony" (Ph.D. diss., University of North Texas, 2003), 95–8.

<sup>16</sup> *Ibid.*, 98–9.

<sup>17</sup> Jon W. Finson, "Robert Schumann: The Creation of the Symphonic Works" (Ph.D. diss., University of Chicago, 1980), 139–41.

Schumann's orchestration skills.<sup>18</sup> Both Finson and Gardiner suggest that reorchestration of the symphonies would be unnecessary if a Gewandhaus-sized ensemble were used.<sup>19</sup>

Schumann's exposure to Mendelssohn and the Gewandhaus most likely influenced his earlier style of orchestration, which was similar to Mendelssohn's lighter approach characterized by his conservative treatment of the brass and the care he took to keep a clear distinction between the instrument families, allowing him to effectively use contrasting timbres.<sup>20</sup> Sir Donald Tovey considers the orchestration of the First Symphony ("Spring") to be less dense than that of the others, possibly due to the advice and influence of Mendelssohn's role as a colleague and the conductor.<sup>21</sup> Finson says that under Mendelssohn's baton, the Gewandhaus demonstrated the level of orchestral virtuosity that were possible at that time, and that it served as Schumann's model of a symphony orchestra while he composed the First, Second and Fourth Symphonies. Only

---

<sup>18</sup> John Eliot Gardiner, program notes to *Schumann: Complete Symphonies*, Orchestre Révolutionnaire et Romantique conducted by John Eliot Gardiner (Hamburg: Deutsche Grammophon GmbH CD 289 457 591-2, 1998), 8.

<sup>19</sup> Patricia Hoy points out that Schumann followed the common practice of notating a general dynamic that he wanted to hear in his orchestral music. Before Wagner and Liszt, composers did not usually consider the relative volume of instruments in relation to each other when notating dynamic levels, but instead gave a "common" marking to represent an overall level. If a brass accompaniment is marked with the same dynamic level as the strings or woodwinds, it would most likely be stronger than the strings or woodwinds. Hoy believes that the lack of differentiation was detrimental to both the clarity and balance of Schumann's works.<sup>19</sup> In my experience, this is also exemplified in the works of Beethoven in which he often gave trumpets and horns a dynamic marking of "ff," but is less representative of Schumann's colleague Mendelssohn, who tended to use his brass much more sparingly and created lighter orchestral textures that did not obscure his less-blended woodwind writing. See Patricia Hoy, "A Comparison of Selected Performing Editions of the Robert Schumann Symphonies" (A.Mus.D. diss., University of Arizona, 1991), 67–8.

<sup>20</sup> Carse, *History*, 262.

<sup>21</sup> Sir Donald Francis Tovey, *Essays in Musical Analysis* (London: Oxford University Press, 1935), 2: 47.

after becoming more familiar with other orchestras later in his career did Schumann revise several aspects of his symphonies to increase the playability of his works.<sup>22</sup>

There are various theories that attempt to explain Schumann's much-criticized use of doubling in the 1851 revision of the Fourth Symphony. Brahms believed that Schumann's scoring was an attempt to compensate for the technical shortcomings of his orchestra in Düsseldorf. Tovey and Gerald Abraham thought that Schumann's deficiencies as a conductor led to his reliance on doubling to make "all of the entries 'foolproof'."<sup>23</sup> Brian Schlotel sees a combination of these factors in Robert and Clara Schumann's complaints about rebellious or absent Düsseldorf players and reports of Schumann's physical difficulty with conducting during that time. In Schlotel's opinion, Schumann's frequent doubling of the parts ensured that in the event a player missed an entrance due to absence or difficulty in following the conductor, another player would most likely be sharing the melody.<sup>24</sup>

Roy Goodman mentions the comments of Schumann's composition student Albert Dietrich as evidence that Schumann used these orchestrational techniques for a specific purpose. Dietrich said that Schumann would normally "condemn any excess," and that he used the doubling of wind instruments to cover the thin sound of the weak Düsseldorf violin section. Friedrich Wieck, Schumann's teacher and father-in-law, criticized the instrumentation of Schumann's early orchestral works for being too thin, and Goodman speculates that Schumann revised his orchestration to be darker and thicker

---

<sup>22</sup> Jon W. Finson, *Robert Schumann and the Study of Orchestral Composition: The Genesis of the First Symphony, op. 38* (Oxford: Clarendon Press, 1989), 27, 138.

<sup>23</sup> Finson, "Creation," 224.

<sup>24</sup> Brian Schlotel, "The Orchestral Music," in *Robert Schumann: The Man and His Music*, ed. Alan Walker, 277–323 (London: Barrie & Jenkins, 1972), 314–5.



in response to criticism or to compensate for mediocre players. In Goodman's opinion, however, the thicker orchestration of Schumann's later works does contain duller colors than his earlier works.<sup>25</sup>

The First and original D minor Symphonies, which were composed in the same year of 1841, can be grouped into an "early" orchestrational style period, and have historically received less criticism for their orchestration than the Third ("Rhenish") and the revised Fourth Symphonies, which were composed or revised in 1851 and are part of his "late" orchestrational style period. The differences between the "early" (1840's) and "late" (1850's) orchestrational style periods can be clearly demonstrated by comparing the original D minor Symphony and the 1851 revision. Tovey believes that Schumann's revision was little more than a heavy application of doubling to hide his defects as a conductor, and insists that the original score be consulted as a guide to thin out the orchestration of his later works. Incidentally, he does not feel that the scoring of the First Symphony requires thinning, indicating that he prefers the lighter style of orchestration of the First and D minor Symphonies.<sup>26</sup> Gardiner regards the original D minor Symphony to be one of Schumann's most original and innovative works, and he feels that the revision was more conventionally orchestrated and stripped of some of the most interesting qualities of the original. He cites the doubling of the wind parts and the heavy

---

<sup>25</sup> Roy Goodman, program notes to *Schumann—4 Symphonies; Overture, Scherzo & Finale*, The Hanover Band conducted by Roy Goodman (New York: BMG Music CD 09026-61931-2, 1994), 5–8.

<sup>26</sup> Tovey, *Essays*, 2: 49.

usage of measured tremolos in the middle string parts as some of the more ordinary orchestration techniques that Schumann used in his revision.<sup>27</sup>

John Daverio attributes the denser orchestration of Schumann's revision to his conscious decision to communicate the impression of grandeur in his works in the key of D minor rather than to shortcomings in his orchestration skills. Daverio compares the darkly colored orchestration in the D minor Symphony to that of Schumann's Overture to *Hermann und Dorothea*, which was completed only days after the revision of the Symphony but is in the key of B minor/major and is as lightly scored as a work by Mendelssohn.<sup>28</sup> Daverio also notes a similarity between the 1851 revision and Schumann's 1850s retouchings of his early keyboard works in which the later versions tend to "soften the sharply delineated contours of the original." In the case of the D minor Symphony, Daverio feels that the addition of darker colors and heavier rhythms of the revision did not fully compensate for the loss of individual colors and clarity of texture, echoing the sentiment of others that many positive qualities had been lost in the revision.<sup>29</sup>

### **A Brief Analysis of an Excerpt of Schumann**

The opening of the Schumann's Fourth Symphony (1851) is representative of his "late" orchestrational style. Practically every voice is doubled by both a member of the winds

---

<sup>27</sup> John Eliot Gardiner, program notes to *Schumann: Complete Symphonies*, Orchestre Révolutionnaire et Romantique conducted by John Eliot Gardiner (Hamburg: Deutsche Grammophon GmbH CD 289 457 591-2, 1998), 8.

<sup>28</sup> John Daverio, program notes to *Schumann: Complete Symphonies*, Orchestre Révolutionnaire et Romantique conducted by John Eliot Gardiner (Hamburg: Deutsche Grammophon GmbH CD 289 457 591-2, 1998), 14.

<sup>29</sup> *Ibid.*, 14.

and a member of the strings, creating an opulent and steady sound but often muffling the individual timbres. In this passage, Schumann continually adds multiple layers of primary and secondary voices, all of which are doubled.

After the opening chord, there is a primary layer of melodic material and a secondary layer of supporting material (Ex. 2.1). The primary material is played by the 2nd violins, violas and bassoons at the interval of a 6th, and the supporting sustained “A” in octaves is played by the flutes, oboes, 3rd and 4th horns, 1st violins, cellos and basses.

In mm. 5–10, the clarinets enter an octave higher and join the bassoons, 2nd violins and violas to present the primary melodic material (Ex. 2.2). The secondary layer divides into sub-layers in mm. 7–10, during which the cellos and basses are paired with the horns, while the flutes, oboes and 1st violins are grouped together.

Flauti  
 Oboi  
 Clarinetti in  $\begin{matrix} B \\ Sib \end{matrix}$   
 Fagotti  
 Corni in  $\begin{matrix} F \\ Fa \end{matrix}$   
 Corni in  $\begin{matrix} D \\ Re \end{matrix}$   
 Trombe in  $\begin{matrix} F \\ Fa \end{matrix}$   
 Tromboni  $\begin{matrix} Alto \\ Tenore \\ Basso \end{matrix}$   
 Timpani in  $\begin{matrix} D \\ A \\ Re \\ La \end{matrix}$   
 Primary material  
 Ziemlich langsam ( $\text{♩} = 52$ )  
 Violino I  
 Violino II  
 Viola  
 Violoncello  
 Contrabasso

Example 2.1. Mm. 1–5, 1851Kalmus.

In mm. 10–14, the primary layer divides into sub-layers (Ex 2.2). The oboes and 1st violins are paired together to play the primary material at the interval of a 6th, and they are joined by a voice moving in contrary motion played by the bassoons, violas and cellos. The secondary material gains another sub-layer with the repeated “A’s” played by the 3rd and 4th horns, tympani and basses.

In mm. 14–18, the texture becomes increasingly dense as additional instruments share the primary material, and several instruments play both primary and secondary

material (Ex. 2.2). There is a transfer of primary melodic material between groups of mixed instrumental families in the middle of m. 16, but the lack of distinctive individual colors makes it difficult to hear the transfer from group to group. The 1st violins, 1st flute and basses switch from primary to secondary material, while the oboes, 2nd violins and violas switch from secondary to primary. A more careful use of mixed groups to maximized individual timbres could have brought clarity to the switch between primary and secondary material, or this clarity could have been achieved by dividing the groups by instrumental family. Finally, the lack of clarity is compounded by the doubling of primary and secondary material by mixed groups that do not switch. The clarinets, bassoons and cellos play only primary material, while the horns play only secondary material. This constant doubling, in combination with the continual mixing of wind and string families, produces a homogenous sound in which the nuance of transfer between groups is lost.

Example 2.2. Mm. 6–19, 1851Kalmus.

This passage demonstrates the advantages and disadvantages of Schumann's style of orchestration. The layers of doubled voices produce the characteristic full and rich quality of Schumann's orchestral sound, but the continual doubling also mutes individual timbres. Merton Shatzkin observes that composers have historically marked formal divisions through the interaction between contrasting instrumental families:<sup>30</sup> if the color contrasts between the instrumental families are diminished through over-mixing of the families, the composer loses a valuable tool in using orchestration to define formal divisions.

### **Mahler's Style of Orchestration**

Erwin Stein, among others, has discussed Mahler's desire to achieve clarity in his part-writing by using pure (i.e. unmixed) colors and avoiding overuse of tutti groupings and blended timbres, with a drive for clarity rising above any other aesthetic principles.<sup>31</sup>

Henry Raynor notes further that Mahler's avoidance of instrumental doublings, such as in his Fourth Symphony, was not limited to his own works: he even removed some doublings from his performing scores of Mozart operas, for instance.<sup>32</sup> James Zychowicz sees Mahler's Fourth Symphony as a turning point in his orchestration, in that it uses the thinner textures and purer timbres than in the composer's previous symphonies, with a smaller orchestra that foreshadows the chamber - style approach of his *Song of the*

---

<sup>30</sup> Merton Shatzkin, *Writing for the Orchestra: An Introduction to Orchestration* (Englewood Cliffs, NJ: Prentice Hall, 1993), 214, 293.

<sup>31</sup> Erwin Stein, *Orpheus in New Guises* (Rockliff: London, 1953), 17-8.

<sup>32</sup> Raynor, *Orchestra*, 163.

*Earth*.<sup>33</sup> Mahler composed his Fourth Symphony in 1899–1900,<sup>34</sup> during the general period which he reorchestrated and conducted Schumann’s First and Fourth Symphonies.<sup>35</sup> We would expect Mahler’s orchestrational preferences that were demonstrated in his Fourth Symphony to be similar to those in his reorchestration of Schumann’s Fourth Symphony.

Eric Carse credits Gustav Mahler and Richard Strauss with following Wagner’s lead in expanding the size of the orchestra and, in the process, gaining more colors from which to select. Mahler’s works not only employed effects for a wider variety of colors but also increased the complexity of the texture.<sup>36</sup> Where Mahler differed from Wagner and Strauss was in his approach to achieving clarity. Raynor says that Mahler employed a huge “chamber orchestra,” in which instruments sound only when necessary, and that he chose instruments for their particular timbre and used the distinct colors to maximize the clarity of the most important musical material.<sup>37</sup> Few of his works demonstrate this economy more than the final movement of his *Song of the Earth*, in which the loneliness of the narrator who awaits death is skillfully evoked by the solo oboe accompanied initially by only horns, harps, low strings, contrabassoons and tam tam.

Contrasting the orchestration of Wagner and Mahler, Heinz Bekker notes that while Wagner created gentle transitions in which one instrument grows out of another, Mahler preferred to emphasize the contrasts between instruments. Mahler aimed to be

---

<sup>33</sup> James L. Zychowicz, *Mahler’s Fourth Symphony* (New York: Oxford University Press, 2000), 9.

<sup>34</sup> Zychowicz, *Mahler’s Fourth*, 1.

<sup>35</sup> Paul Mathews, ed., *Orchestration: An Anthology of Writings* (New York: Routledge Taylor & Francis Group, 2006), 4.

<sup>36</sup> Carse, *History*, 321–2.

<sup>37</sup> Raynor, *Orchestra*, 161–2, 164.

distinct whenever possible, and he tended to use more pure, unblended colors. He wanted every voice in his music to have a vocal quality with the intimate quality of an instrument in a quartet, and he used all of the tools in his orchestrational arsenal to make these voices heard.<sup>38</sup> In his correspondence with Natalie Bauer-Lechner, Mahler reaffirmed the ultimate importance of “clarity of line” in composition, and stated that every voice should be an independent melodic line, as in a vocal quartet. He believed that as the ensemble increases in size, the texture becomes less and less transparent but the clarity must remain.<sup>39</sup>

### **A Brief Analysis of an Excerpt by Mahler**

Mahler had a tendency to assign instruments to clearly defined primary or subordinate roles, and he exploited their individual colors to promote the clarity of the musical material. When assigning roles, he often kept members of the same family together. When Mahler did combine members of different families to perform the same role, he usually did so only long enough to execute a specific purpose such as reinforcement of an instrument’s weaker register. As soon as the purpose of the combination had been achieved, Mahler ended it, as if he considered the mixing a necessary evil. His general avoidance of mixing instrumental families is reflected in his carefully restrained use of instruments from his large orchestra.

The final movement of Mahler’s Fourth Symphony is representative of this style of orchestration. In fact, the economy of the scoring resembles that of a chamber

---

<sup>38</sup> Heinz Bekker, *History of Instrumentation*, trans. Robert Kolben (Cologne: Arno Volk Verlag, 1964), 30.

<sup>39</sup> Matthews, *Orchestration*, 48.



orchestra work. In the opening, the 1st clarinet emerges out the ethereal haze of the flutes and high harmonics of the 1st violins, the earthy richness of the clarinet in its low/middle register providing a gentle, yet distinct contrast to the hazy violin harmonics. Only the 1st horn plays the sustained d', its timbre undiluted by any other instrument (Ex. 2.3).

The harp combines with the violas and cellos for the dotted-rhythm accompaniment, but this is not a case of simple doubling but rather a combination that create a unique, distinctive sound. The harp part is divided between the violas and cellos, and each provides a quality that the other does not. The harp makes a distinct articulation on each note, creating a percussive sound that would be possible on stringed instruments playing *pizzicato*, except that at this moment the violas and cellos parts are *arco*. The division of the harp part between the violas and cellos simplifies the performance for both the violas and cellos, because the passage cannot be played by the violas alone because they can not play the bottom G. Although the cellos are technically capable of playing the passage alone, the addition of the accented d would make it more awkward to perform. Also, the cello glissando adds an effect that the harp is unable to create.

In mm. 4–5, the doubling of the harp is taken over more conventionally by the 2nd clarinet, and the strings assume an accompaniment role by playing *pizzicato* (Ex. 2.3). The 2nd violins and the upper line of the divided violas reinforce the outline of the harp part. In the middle of m. 5, Mahler used a complete change of color to mark a phrasal transition, and he punctuates this change with a strike of the triangle. In mm. 5–6, the primary and secondary material is moved to different members of the wind family and out of the string family. The melody is transferred from the 1st clarinet to the 1st oboe, and the dotted-rhythm accompaniment is transferred from the harp and 2nd clarinet

to the bassoons, clarinets and bass clarinet. These instruments are divided in the same manner as the violas and cellos in mm. 1–3, with the clarinets and 2nd bassoon playing the accented dotted quarter note, and the bass clarinet and 1st bassoon playing the 16th note-quarter note figure. The tympani part is added to subtly reinforce the outline of the dotted accompaniment.

In the middle of m. 6, Mahler purposefully doubled the 1st flute with the 1st oboe, using the oboe's color and relative strength in the middle register for reinforcement in the flute's weaker middle register (Ex. 2.3). This doubling lasts only until m. 7, during which the register has risen enough so that the 1st flute can be sufficiently doubled and reinforced by the 2nd flute. In mm. 7–9, the 1st violins "ornament" the 1st and 2nd flutes, creating a more complex melodic line that would otherwise have been more difficult for the flutes alone to play. In the middle of m. 9, the 1st oboe returns briefly to double the flutes in order to compensate for the increased activity in the clarinets. In the middle of m. 10, the 3rd and 4th flutes are doubled by the 1st violins at the dynamic peak of the measure. In m. 11 the violins are no longer needed as reinforcement, and all four flutes play the primary melodic line, accompanied only by the 1st and 2nd horn.

In this passage, we see that Mahler doubles parts with a specific purpose in mind and that he quickly ends the doubling as soon as the objective has been completed. Doubling of a part by an instrument of a different family rarely occurs, and when it does occur it is not an exact doubling, as in the case of the harp and violas and cellos in mm. 1–3, or the doubling is extremely brief, as in m. 10 when the 1st violins double the flutes for only two beats. Mahler's infrequent use of doubling means that the pure colors of individual instruments are heard more often.

150

Sehr behaglich IV  
Molto piacevole

12. Clarinetto in  $\text{B}_b$   
I. Corno in  $\text{F}_3$

Arpa  
Doubled by viola  
and cello  
Viola  
Violoncello

Sehr behaglich  
Molto piacevole

151

Poco rit.

Example 2.3. Movement IV, mm. 1–11. Mahler SYMPHONY No. 4. © Copyright 1963 by Universal Edition (London) Ltd. London/PH540/UE952. © Renewed. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

### Schumann's Approach to Revision

Schumann's three-step process of instrumentation that Finson calls the "empirical procedure" was established during the composition of the G minor Symphony (an early work that was never completed) and was still used by Schumann when he wrote the First Symphony. In the first step, Schumann transcribed orchestral works for the piano. Schumann's reductions of the slow movement of Beethoven's Fourth Symphony and Leonore Overture No. 3 contain markings about transpositions, doublings and melodic assignments, indicating that he transcribed orchestral works for piano in order to learn about orchestration. In the second step, he received feedback on the first draft of his own

composition from an experienced conductor such as Christian Gottlob Müller. In the final step, Schumann repeatedly revised his work after trial performances.<sup>40</sup> The experience of hearing numerous performances gave Schumann the opportunity to continually revise the work, allowing him to bring his original conception to fruition by adding instruments to strengthen important melodies or lines.<sup>41</sup> As we have seen, however, it is this type of reinforcement by doubling that has been frequently criticized.

According to Finson's chronology of the D minor Symphony, it did not undergo the same "empirical" process of revision as the G minor Symphony and First Symphony, which was written in the same year as the D minor Symphony. After the original version was premiered in 1841, it was most likely not performed again before being set aside for a decade, meaning that when Schumann significantly revised the D minor Symphony in December 1851, he most likely had not heard the original version since its premiere in 1841. Finson does find a similarity to the empirical process in that Schumann had the opportunity to assess the new version through a performance before having it published.<sup>42</sup>

After the premiere of the new version on March 3, 1853, Schumann conducted two additional performances in May of 1853, one occurring on May 15, meaning that he heard the work at least once or possibly twice more before he submitted the score to Breitkopf for publication on May 19, 1853.<sup>43,44</sup> Although no one can determine the extent of the revisions made by Schumann claimed that he made in 1853 between the premiere and submission of the score to Breitkopf, we do know that he had

---

<sup>40</sup> Finson, *Robert Schumann*, 5–7, 9–10.

<sup>41</sup> *Ibid.*, 129–30.

<sup>42</sup> Finson, "Creation," 184–8.

<sup>43</sup> Hellner, "Schumann's Symphony," 72.

<sup>44</sup> Finson, "Creation," 184–8.

approximately two months to make additional changes to the revised score before its submission. In Finson's opinion, the autograph of the 1851 revision has very few internal corrections, indicating that there could not have been many important 1853 revisions.<sup>45</sup>

### Schumann score editions

1851Kalmus - 1851 revision -Breitkopf edition, reprinted by Kalmus

1841Finson - 1841 original version - Breitkopf edition, edited by Jon Finson

1841Brahms - 1841 original version - Breitkopf edition, edited by Johannes Brahms and Franz Wüllner

In mm. 297–304 of 1851Kalmus (Ex. 2.4.a), Schumann's revisions include making the primary melodic material more complex, adding dynamic indications, and involving more instruments. These revisions are representative of the ones Schumann repeatedly made throughout 1851Kalmus that reinforce lines through doubling, generally thickening the overall texture and darkening the colors.

In mm. 564-579 of 1841Finson/1841Brahms (Ex. 2.4.b), the melody is played initially by the 2nd violins, joined four measures later and an octave higher by the 1st violins. In 1851Kalmus, Schumann reinforced the melody considerably by giving it to the 1st violins and the clarinets an octave lower. The 2nd violins play a partial version of the melody alongside the 1st violins, mostly in the same octave, and when they are not playing the melody they are filling in the harmony. Coupled with the clarinets an octave below, the bassoons perform the same role as the 2nd violins.

The accompaniment in 1841Finson/1841Brahms consists of sustained chords played by the bassoons and horns, but in 1851Kalmus Schumann pared down the

---

<sup>45</sup> Ibid., 214.

accompaniment and broke up the sustained chords. The bassoon and horn chords in 1841Finson/1841Brahms were also partially removed in 1851Kalmus, with the bassoons performing the new role of reinforcing the melody and a portion of the original bassoon part being preserved in the oboes. The chords in the 3rd and 4th horns were reduced to a single half note in the 3rd horn and 2nd horn.

The 8th-note accompaniment in the violas and cellos of 1841Finson/1841Brahms was converted to equivalent 16th notes and rewritten to be more arpeggiated and less continuous. In 1851Kalmus, the cellos now double the basses an octave higher, leaving the violas with the fast-note accompaniment. Schumann divided the violas to preserve the sense of harmonic depth originally found between the violas and cellos.

The mixing of the instruments playing the melody in 1851Kalmus makes for a stronger, more secure primary voice. Schumann's method of reinforcing the melody here is more sophisticated than simple doubling in that it utilizes both doubling and filling in of the harmony. However, Schumann not only doubled within an instrumental family (clarinets and bassoons) but also between them (violins, clarinets and bassoons). The net result is the loss of the single color of the violins alone in 1841Finson/1841Brahms and addition of a mixed timbral combination that is generally richer, but less distinctive because the combination lasts the entire passage.

1841 version

264 Sustained chords

265

Mahler (1851 color of Mahler)

Accompaniment

Example 2.4.a. Mm. 562–573, 1841 Brahms.  
303,

1851 version

Mixed colors (strings and woodwinds)

297

98

Chords broken up

Partial melody

298

300

Revised accompaniment now in violas only

Example 2.4.b. Mm. 297–  
1851 Kalmus

### Mahler's Approach to Revision

Zychowicz estimated that Mahler revised his Fourth Symphony at least three times from 1901, when it was first published, to his death in 1911 with the final set of revisions not being published until 1963. Mahler most likely revised his music after publication in order to make further improvements based on the experience of live performances.<sup>46</sup>

According to Henry-Louis de la Grange, following its 1902 premiere the Fourth Symphony was more frequently revised than any of Mahler's other symphonies. The corrections made in preparation for the 1905 Graz premiere were incorporated into the work's 1906 publication by Universal. Yet another set of revisions dating from 1910

<sup>46</sup> Zychowicz, *Mahler's Fourth*, 151.

were included in a later edition. Mahler's New York performance of the work in 1911 led to a final set of alterations that was published in the 1963 Mahler-Gesellschaft edition.<sup>47</sup>

Zychowicz's summary of the orchestrational aesthetic of Mahler's late style focuses on his prizing of clarity. He removed superfluous or clumsy doublings and what he called "infelicities" to allow for more unblended timbres, and he strove to strengthen the presentation of important musical material through the adjustment of musical properties such as timbre, dynamics and pitch register. The experience of performing the work probably led to Mahler's desire to give more precise instructions and musical notations in the score, and his dual role of composer and conductor gave him the perspective to adjust dynamic markings to increase the effectiveness of the work. Overall, the revisions of the Fourth Symphony served to further refine its already delicate scoring, allowing the work to sound more easily on its own and limiting the amount of interpretation by conductors.<sup>48</sup>

Mm. 44–45 of the 1st movement demonstrate the detailed changes made by Mahler in his final set of revisions (Ex.s 2.5.a and 2.5.b). The 1st horn has been removed in m. 44, and the 2nd and 4th horns have been added to fill in the harmony. The violas now reinforce the 2nd violins, and the upper line of the divided cellos take over the original viola part. Perhaps the 1st horn part was deleted to prevent it from overshadowing the moving 8th notes in the 2nd violin part, which was bolstered by the

---

<sup>47</sup> Henry-Louis de La Grange, *Gustav Mahler*, trans. Henry-Louis de La Grange (New York: Oxford University Press, 1994), 2: 156–7.

<sup>48</sup> Zychowicz, *Mahler's Fourth*, 153–4.



violas in the revision. In this instance, Mahler doubled the melody and thickened the harmony to strengthen each, going against his natural tendency to thin the texture.

First edition 1. Original horn part

Cor. 1. *pp*

2. *pp*

4. *pp*

Vl.I *pp* *pp morendo*

Vl.II *pp*

Vla. *pp*

Vlc. *div.* *pp*

Cb. *pp*

45

Example 2.5.a. Mm. 43–45, First Edition

Final edition Alteration of horns

Cor. 1. *pp*

2. 4. *pp*

Vl.I *pp* *pp morendo*

Vl.II *pp*

Vla. *pp*

Vlc. *arco* *div.* *pp*

Cb. *pp*

45

Example 2.5.b. Mm. 43–45, Final Edition. Mahler SYMPHONY No. 4. © Copyright 1963 by Universal Edition (London) Ltd. London/PH540/UE952. © Renewed. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

A more typical set of revisions occurs in mm. 194–196 of the 1st movement (Ex.s 2.6.a and 2.6.b). The 3rd and 4th flutes and the 1st and 3rd clarinets were later deleted, most likely because Mahler felt that there was no need for the oboes to be doubled or tripled in order to be heard. He did raise the dynamic level of the horns from *forte* to

*fortissimo* to adjust the balance in relation to the clarinets and strings. One possible reason for the deletion of the first five notes in the basses in m. 196 may be to eliminate a sudden, large downward shift to F#. The addition of slurs to the 16th notes of the cellos and basses makes the articulation consistent with the corresponding part in the bassoons, possibly correcting what might have been the accidental omission of the slurs in earlier editions.

First edition

Doubling oboe parts      slurs

original bass part      no slurs

Example 2.6.a. Mm. 194–196, First Edition.

Final edition

Doubling removed

bass part removed      slurs added

Example 2.6.b. Mm. 194–196, Final Edition. Mahler SYMPHONY No. 4. © Copyright 1963 by Universal Edition (London) Ltd. London/PH540/UE952. © Renewed. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

Upon examining these alterations, one senses the experience of a conductor with numerous performances under his belt. The level of refinement in the revisions would probably occur with the benefit of repeated performances, and the long history of published editions of the Fourth Symphony<sup>49</sup> seems to validate this theory.

As composer/conductors, Mahler and Schumann had the luxury of hearing multiple performances of their works and revising the scores accordingly. In Mahler's case, he revised his Fourth Symphony repeatedly and had several different versions published. After the initial extensive revision of his Fourth Symphony in 1851, Schumann had the opportunity to revise the score more after conducting it at least twice before sending it to Breitkopf for publication, but there is little evidence that any significant changes were made.<sup>50, 51</sup>

---

<sup>49</sup> Ibid., 156.

<sup>50</sup> Finson, "Creation," 191, 214.

<sup>51</sup> Hellner, "Schumann's Symphony," 90.

## CHAPTER III

### Mahler's Reorchestration of Schumann's Fourth Symphony

In a conversation with Arnold Rosé, concertmaster of the Vienna Philharmonic, and with Natalie Bauer Lechner, Mahler praised Schumann's symphonies. Mahler believed that Wagner had done the symphonies a great disservice by criticizing them, which had the result of turning Wagner's followers against Schumann as well. Mahler wondered if Wagner's impressions were due to hearing a bad performance, so he worked diligently to overcome the First Symphony's history of poor performances. He revised parts that he believed could not be played and took care to rebalance the voices so that the accompanimental lower parts did not cover up the more melodic upper parts. Mahler's performance of Schumann's First Symphony on January 15, 1899 with the Vienna Philharmonic was well received by both critics and the audience.<sup>52</sup> La Grange notes that Mahler was taken by the Fourth Symphony's "Beethovenian" beauty and labored over its reorchestration, intending his revisions to better express Schumann's intentions. His performance of the symphony on January 14, 1900 with the Vienna Philharmonic was praised by most critics, with some even stating that for the first time they regarded Schumann as a good orchestrator.<sup>53</sup> Judging from these comments, the contemporary critics appear to have been either unaware of Mahler's reorchestration of the symphonies or undisturbed by its scope.

They were certainly aware of the changes he made to Beethoven's Ninth Symphony, however, because Mahler wrote an explanation and justification of his revisions to be distributed at his concerts. The performances, which occurred on

---

<sup>52</sup> La Grange, *Mahler*, 137–8.

<sup>53</sup> *Ibid.*, 230.

February 18 and 24, 1900, received a huge ovation from the audience but bitter criticism from critics, who felt that Mahler's revisions had gone beyond Wagner's, which they regarded as sufficient. They accused Mahler of changing the sound and even the meaning of certain moments in the Ninth Symphony, thus clashing with the wishes of the composer.<sup>54</sup>

Although we do not know if the audience was aware that Mahler had revised Schumann's orchestration, his changes to Beethoven's Ninth could hardly escape notice. According to Denis McCaldin, some of the more significant changes Mahler made in the Beethoven included the addition of instruments such as a tuba and extra tympani (and possibly an E-flat clarinet), extensive rewriting of brass and percussion parts, and extension of the range of woodwind parts.<sup>55</sup> For the most part, Mahler's Schumann revisions are smaller in scale. In the Fourth Symphony, no instruments were added except optional tympani to facilitate a rapid pitch change. Schlotel remarks that Mahler left many of Schumann's passages untouched, and that deletions of doublings and additions of expression markings are much more common than augmentations in the orchestration.<sup>56</sup> David Matthews praises Mahler's restraint, saying that by operating as a "diligent editor" he rarely injected a Mahlerian personality into the music.<sup>57</sup>

---

<sup>54</sup> Ibid., 233–4.

<sup>55</sup> Denis McCaldin, "Mahler and Beethoven's Ninth Symphony," *Proceedings of the Royal Musical Association* 107 (1980–81): 104–9.

<sup>56</sup> Schlotel, "Orchestral Music," 315.

<sup>57</sup> David Matthews, program notes to *Symphonies 2 & 4: The Mahler Arrangements/Schumann*, Leipzig Gewandhaus conducted by Riccardo Chailly (London: Decca CD 475-8352, 2007), 6.

### Survey of Writings on Mahler's Reorchestration of Schumann Symphonies

In "Mahler's Re-scorings" (1927), Erwin Stein summarizes Mahler's revisional intent as wanting to illuminate that would otherwise have been hidden.<sup>58</sup> Although he touches upon a few general types of revisions that occur regularly in the symphonies such as dynamic changes and part-writing in the brass instruments, Stein does not provide many actual musical examples, so his essay provides only a tempting glimpse of Mahler's revisions.

At the time Gerald Abraham writes "The Three Scores of Schumann's D Minor Symphony" (1940), he says that to his knowledge no critic had conducted a comprehensive comparison between the 1841 and 1851 scores of the Fourth Symphony, and that the Mahler retouching was even more obscure than the 1841 score.<sup>59</sup> Abraham compares a few passages of the 1841 and 1851 editions and refers to the Mahler revision when it differs from the 1851 score. In Abraham's opinion, Schumann's revisions were often not improvements and that Tovey was most likely correct in stating that the ideal score would contain the text of the 1851 version with the clearer orchestration of the 1841 original.<sup>60</sup> In the six musical examples Abraham provides, he presents them in a way that allows for easy comparison between the two Schumann editions, but gives no musical examples of the Mahler revision. Although informative, the verbal descriptions of Mahler's changes are too brief to be a significant source to conductors or musicologists.

---

<sup>58</sup> Stein, *Orpheus*, 26.

<sup>59</sup> Gerald Abraham, "The Three Scores of Schumann's D Minor Symphony," in *Slavonic and Romantic Music* (New York: St. Martin's Press, 1968), 281.

<sup>60</sup> *Ibid.*, 286-7.

Mosco Carner's essay "Mahler's Re-scoring of the Schumann Symphonies" (1941) was published a year after Abraham's and was one of the most in-depth comparisons of the 1851 score and Mahler's revision up to that time. He groups Mahler's alterations into seven headings (to be discussed in a following section) and provides examples for each category.<sup>61</sup> According to Carner, Schumann's orchestral works tend to be densely scored, awkward in their usage of individual instruments, often ignorant of the conventional dynamic characteristics of the orchestra and indifferent to instrumental timbre. Carner feels that Mahler's experience as a conductor and composer, coupled with his ability to interpret Schumann's intentions, aided him in correcting many of these defects.<sup>62</sup> Carner praises the majority of Mahler's revisions, although he concedes that Mahler's part-writing for the brass was anachronistic and that his extremely specific dynamic markings were uncharacteristic of Schumann.<sup>63</sup> Although Carner's essay offers even more valuable information on Mahler's revisions than what Stein's and Abraham's had previously provided, it does not supply more than a glimpse of the actual scores.

In his exhaustive dissertation "Orchestration Revisions in the Symphonies of Robert Schumann" (1972), Asher Zlotnik presents a wealth of information on revisions made by Mahler as well as other conductors and has given numerous musical examples from all four symphonies to illustrate Carner's seven categories. Zlotnik recognizes how Wagner's writings on conducting and the reorchestration of Beethoven's Ninth Symphony influenced subsequent conductor's performances of works by other

---

<sup>61</sup> "Mahler's Re-scoring," 98.

<sup>62</sup> *Ibid.*, 98, 102.

<sup>63</sup> *Ibid.*, 103, 107.

composers, especially in terms of achieving clarity of the score.<sup>64</sup> Of particular interest is his table of changes made by Mahler, Keilberth, Muck, Pfitzner, Reger and Walter in the Third Symphony.<sup>65</sup> Although this table is by far the most detailed of its kind up to that time, it is still not as comprehensive in detail as a critical commentary that accompanies newly published urtext editions and makes an effort to account for every discrepancy. It makes a valuable resource for those wanting to carefully analyze Mahler's changes in the Third Symphony, but those looking for a similar level of information for the Fourth Symphony will find only a limited amount of specific information.<sup>66</sup>

In her dissertation "A Comparison of Selected Performing Editions of the Robert Schumann Symphonies" (1991) Patricia Hoy expands upon Zlotnik's work and selected brief passages from all four symphonies and given a side-by-side comparison of revisions by Mahler, Weingartner, Toscanini and Szell, accompanied by tables indicating the instrumentation and dynamic markings used by each. She concludes that the number of individuals who have reorchestrated the Schumann symphonies is a strong indicator that revisions are needed for a successful performance.<sup>67</sup> Although she provides a detailed examination of the types of revisions favored by each conductor, she gives only short passages from each symphony, requiring those wanting a more comprehensive comparison of the symphonies to look elsewhere.

Although Ronn Cummings' dissertation "Analysis of the Re-Orchestrations of Robert Schumann's Four Symphonies Employed by Felix Weingartner with Four

---

<sup>64</sup> Asher Zlotnik, "Orchestration Revisions in the Symphonies of Robert Schumann," (Ph.D. diss., Indiana University, 1972), 403-4.

<sup>65</sup> *Ibid.*, 685.

<sup>66</sup> Also of interest is Zlotnik's extensive correspondence with the leading conductors of the day on their opinion of Mahler's revisions of the Schumann symphonies.

<sup>67</sup> Hoy, "A Comparison," 214.



Recitals of Selected Works by Schumann, Beethoven, Tchaikovsky, Poulenc, Bizet, Rossini and Chabrier” (1997) does not examine Mahler’s revisions, it provides its readers an in-depth look at scores that are otherwise not readily available. Cummings analyzes Weingartner’s revisions of Schumann’s symphonies, and if not measure for measure, his examination of the second symphony is very thorough, although he does not give an actual chart of the revisions. Cummings concludes that as an orchestrator, Schumann did not improve with experience, though it is difficult to determine whether or not Weingartner’s revisions improved the score.<sup>68</sup> I share Cummings’ desire to make hard-to-find scores more accessible, and this work is extremely valuable to anyone wanting comprehensive information about Weingartner’s changes.

Jean Marie Hellner’s dissertation “Robert Schumann’s Symphony in D Minor, Op. 120: A Critical Study of Interpretation in the Nineteenth-Century German Symphony” contains comparisons between various editions of the fourth symphony by Clara Schumann, Alfred Dörffel, Mahler and Woldemar Bargiel, Schumann’s 1851 manuscript and the 1853 published score. Hellner finds that the later editions are more of a reflection of late nineteenth-century ideals rather than those of Schumann in 1850’s.<sup>69</sup> Focusing primarily on the Fourth Symphony, Hellner provides a wealth of information on historical background the various scores, Schumann’s rarely seen 1851 manuscript in particular, as well as an extensive comparative analysis. She is one of the few scholars to have written about Mahler’s most significant alterations in mm. 24–6 of the first

---

<sup>68</sup> Ronn Cummings, “Analysis of the Re-Orchestrations of Robert Schumann’s Four Symphonies Employed by Felix Weingartner with Four Recitals of Selected Works by Schumann, Beethoven, Tchaikovsky, Poulenc, Bizet, Rossini and Chabrier” (D.M.A. diss., University of North Texas, 1997), 216–7.

<sup>69</sup> Hellner, “Schumann’s Symphony,” i.

movement and m. 379 of the second movement, alterations that I will analyze later in this paper.<sup>70</sup> Hellner concludes that Schumann's "implied narrative" has been obscured by the revisions made by others and it is deeply connected to his competent and unfairly maligned orchestration.<sup>71</sup> Although Hellner's work provides the most thorough examination of Mahler's revisions of the Fourth Symphony, it is not as comprehensive as a measure-for-measure critical commentary and does not include examples from the 1841 version of the score.

In my analysis of the first two movements, I intend to provide a measure-by-measure comparison between the published 1851 score and published Mahler revision, with extensive reference to the 1841 original score. The following will combine some of the best features of the works mentioned above, with a level of comprehensiveness that will allow those without access to the Mahler score the opportunity to study all the revisions made in the first two movements.

### **Categorization of Mahler's Changes**

Mosco Carner classifies Mahler's revisions into seven categories:<sup>72</sup>

1. Lightening of thick instrumental textures
2. Throwing into relief of the thematic lines and rhythmic patterns
3. Changes in dynamics and re-scoring of certain dynamic effects
4. Improvement of phrasing
5. Changes in the manner of performance
6. Thematic alterations
7. Suggestions for cuts

---

<sup>70</sup> Ibid., 274–6.

<sup>71</sup> Ibid., 423–4.

<sup>72</sup> Carner, "Mahler's Re-scoring," 98.

Others who have written about Mahler's reorchestrations group his changes into similar categories. Although the headings they choose are not identical to Carner's, several themes repeatedly emerge, including clarity of thematic material, adjustment of dynamics, orchestral transparency and changes in orchestration:

Patricia Hoy<sup>73</sup>

1. Clarification of dynamics
2. Orchestral transparency
3. Continuous scoring
4. Clarification of thematic line
5. Additional changes

Denis McCaldin<sup>74</sup>

1. Restitution of parts
2. Additive orchestration
3. Changes in orchestration
4. Recomposition

Brian Schlotel<sup>75</sup>

1. Greater prominence is given to thematic ideas
2. Greater orchestral transparency is achieved
3. Mahler assumes that valve horns and valve trumpets are available
4. Dynamics are rethought

In my analysis of the first two movements of the Fourth Symphony, the most common of Mahler's changes seem to fall into the following groups:

1. Thinning
2. Reinforcement
3. Dynamics
4. Phrasing/Articulation
5. Recomposition

---

<sup>73</sup> Hoy, "A Comparison," 66.

<sup>74</sup> McCaldin, "Mahler," 101-2.

<sup>75</sup> Schlotel, "Orchestral Music," 319.

Of these, the first three categories cover a majority of the changes that directly address the issue of balance within the orchestra, and most of the musical examples analyzed below include several of these categories.

### *Thinning*

This can be essentially be regarded as “reorchestration through subtraction.” Mahler thinned the orchestration by reducing the number of doublings. Thinning can assist in the desaturation of orchestral colors, which aids in balancing or promoting individual timbres.

### *Reinforcement*

One of the methods that Mahler used to accentuate what he considered to be important lines that needed an increase in volume was to add complementary instruments. Reinforcement, or “reorchestration through addition,” is another tool for adjusting orchestral balances or simply adding more color to a voice. An example of reinforcement that does not utilize addition occurs when a part is raised an octave, providing it with a more powerful register in which to play.

### *Dynamics*

Mahler often modified dynamic markings to tweak orchestral balances or clarify a passage that contains little or no dynamic notation. This does not include instances of actual reorchestration, but rather only adjustment in the dynamic markings themselves.

### *Phrasing/Articulation*

Mahler clarified phrasing and articulation through precise musical notation. Often this coincides with the “Dynamics” heading, particularly when Mahler added a *crescendo* or *decrescendo* to shape a phrase.

### *Recomposition*

In certain instances Mahler went beyond the actions covered in the previous headings by altering rhythms or significantly changing the orchestration.

### **Comparison and Analysis**

#### Scores consulted

- 1841Finson – 1841 original version, Breitkopf edition, edited by Jon Finson
- 1841Brahms – 1841 original version, Breitkopf edition, edited by Johannes Brahms and Franz Wüllner
- 1851ClSch – 1851 revision, Breitkopf edition published 1881–93, reprinted by Kalmus
- 1851Dörffel – Peters edition of the 1851 version edited by Alfred Dörffel
- 1851MahAnn – Mahler’s annotated score, Peters edition of the 1851 version edited by Alfred Dörffel
- 1851MahPub – Schumann/Mahler, published Universal edition

I have conducted a bar-by-bar comparison of the first two movements of the as they appear in 1851ClSch and 1851MahPub. For several passages I have consulted two editions of the original 1841 version, 1841Brahms and 1841Finson, as well as 1851MahAnn. Mahler’s alterations are listed in the Appendix by bar number, instruments involved, changes made, categorization and additional comments. I have analyzed some of Mahler’s most significant changes and have attempted to interpret the reasoning behind them.

One question that will frequently arise in this paper is “Was Mahler familiar with the original 1841 score?” If he had actually owned the score or even had merely heard it in a performance, we could speculate on the level of influence it would have had on Mahler’s own revision. There are several instances that I will examine in which Mahler’s reorchestration resembled that of Schumann’s original version. If Mahler was not familiar with Schumann’s original version, then Mahler and Schumann were much closer in their approach to orchestration than has previously been assumed. However, the possibility that Mahler was familiar with the 1841 is unproven and would require further study that is beyond the scope of this paper.

### **First Movement**

#### Opening:

The opening of the symphony has been frequently cited as a typical example of Mahler’s tendency to desaturate the overall texture, and has been well-analyzed by many, including Zlotnik<sup>76</sup>, Hoy<sup>77</sup> and more substantially, Hellner.<sup>78</sup> Mahler apparently regarded the doubling of the sustained A’s as unnecessary because he deleted the oboes and the 3rd and 4th horns from the middle of the 1st measure until the 4th measure (Ex. 3.1.b). In this case, Mahler deleted the oboes and horns to allow the bassoons, 2nd violins and violas to be heard with their 8th-note passage beginning in the 1st measure. His precise alteration of the oboes, 1st and 2nd horns, and trumpets demonstrates that Mahler was concerned about the audibility of the very first note of this 8th-note passage. The length

---

<sup>76</sup> Zlotnik, “Orchestration Revisions,” 394–5.

<sup>77</sup> Hoy, “A Comparison,” 88, 92.

<sup>78</sup> Hellner, “Schumann’s Symphony,” 273.

of the tied note in the oboe, 1st and 2nd horn, and trumpet parts in the 1st measure was cut to a dotted quarter note to remove the overlap with the entrance of the 8th-note passage. It is surprising that the clarinets and the 3rd and 4th horn were not also cut to a dotted quarter note, but this is not a misprint because Mahler's markings in 1851<sup>79</sup> clearly indicate a half note and a quarter rest.<sup>79</sup> The scoring of m. 5 did not allow for an identical revision, although the same balance problem remains. This time, Mahler replaced the "sf" markings with "fp," most likely to create a less harsh attack and a more immediate *piano* to clear a path for the 8th-note passage. Although I agree with Hellner's otherwise excellent analysis of this passage, particularly her identification of Mahler's desire to clarify the introductory theme, she is incorrect in calling "sf" indication in m. 5 a "*subito forte*," when it is clearly a *sforzato*.<sup>80</sup>

In his 1851 revision Schumann moved the opening chord from the downbeat to the pickup beat and thickened the sustained "A" by adding the flutes and oboes (Ex. 3.1.a). Also, he reduced the dynamic at the end of the *decrescendo* from "p" to "pp."<sup>81</sup> In m. 4 he added additional weight by changing the accompanying 8th notes to longer quarter notes, also creating a richer sonority. Mahler's subsequent reduction of instruments that sustain the "A" in the opening measures results in a relative instrumental sparseness similar to that of the 1841 orchestration (Ex. 3.1.c). Also, Mahler's

---

<sup>79</sup> A revision that was not transferred from MDP to MU was the insertion of an 8th rest in the 1st measure of the 2nd violins and violas. The 8th rest changes the dotted quarter note to a quarter note-8th rest (matching the bassoons), creating an additional clearing of sound in the opening chord before the start of the 8th-note passage.

<sup>80</sup> Hellner, "Schumann's Symphony," 273.

<sup>81</sup> 1841<sup>Finson</sup> indicates that in m. 1 the dynamic drops from "f" or "fp" to "p," not "pp" as shown in 1841<sup>Brahms</sup>.

substitution of “fp” for “sf” in m. 5 matches Schumann’s original dynamic marking in the 1841 version.

### 1851 version

*Ziemlich langsam (♩. 22)*

*Ziemlich langsam.*

### Mahler reorchestration

*Ziemlich langsam (♩. 22)*

*Ziemlich langsam*

should be quarter note-8th rest, matching bassoons

Example 3.1.a. Mm. 1–5, 1851ClSch.

Example 3.1.b. Mm. 1–5, 1851MahPub.  
Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.



## 1841 version

Andante con moto.

Flauti.

Oboi.

Oboesini in B.

Fagotti.

Corni in F.  
(Venti)

Corni in D.

Trombe in D.

Tromboni Alto  
e Tenore.

Tromboni Bassi.

Timpani in D.

"p" in  
1841 version

Violino I.

Violino II.

Viola.

Violoncello.

Basso.

8th notes


Fewer instruments sustain

Originally "fp"

Example 3.1.c. Mm. 1–5, 1841 Brahms.







### Measures 24–26:


One of the most significant alterations made by Mahler also happens to be an intriguing piece of evidence that Mahler might have known the 1841 score. With few exceptions, Mahler's revisions in the first two movements adjusted the instrumentation while leaving intact Schumann's melodies, harmonies and form. In the few instances in which Mahler did add notes or alter rhythms, he matched what Schumann had already written in other parts or he made extremely subtle adjustments. For example, by cutting the length of the tied note in the oboe, 1st and 2nd horn, and trumpet parts in the 1st measure to a dotted quarter note, Mahler cleared "space" for the entrance of the 8th-note passage, but few if any listeners would notice this slight change. Or in the case of m. 134 of the first

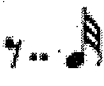
movement, Mahler changed the dotted rhythm of the violins from  to




creating a conspicuous alteration but one that matched Schumann's own rhythmic scoring of the horns and tympani. Mahler's other noticeable revisions, such as the addition of tympani notes to provide bass notes in root position, are also significant but do not modify Schumann's actual harmony. However, the rhythmic revisions in mm. 24–26 are even more noteworthy due to their high level of exposure and visibility within their respective passage, as well as the fact that nothing in Schumann's score can be interpreted to sanction such a major change.

Score	Pulse value	Pickup value	Pickup character
1841			Energetic
1851			Sluggish
1851 Mahler			Energetic

In the first-movement transition in mm. 24–26 of 1851MahAnn, the  figures in the

winds, tympani and violas were altered to become  figures (Ex. 3.2.b). Since there is no evidence of this rhythmic figure in the Dörffel or 1851ClSch editions (Ex. 3.2.a) of the 1851 revision, or in the 1841Finson or 1841Brahms editions (Ex. 3.2.c) of the 1841 original version, there are few possibilities left for Mahler's reasoning. The first possibility is that an error occurred during the transfer of markings from 1851MahAnn to 1851MahPub, but we can discount it by referring to 1851MahAnn, which clearly shows

the  alteration written by Mahler into several parts. The second possibility is that Mahler deliberately altered the rhythm to highlight or provide more clarity to the response to the 16th-note motive in the 1st violins. Jean Marie Hellner has theorized that Mahler intended a higher level of “agitation” and intensity.<sup>82</sup> This is a valid interpretation, especially in light of Mahler’s general desire to make the score more effective, although it remains a much more radical revision than most of Mahler’s other changes and would appear to demand additional explanation. Furthermore, it does not necessarily exclude the third possibility, which is that he was familiar with or owned the 1841 Brahms and was attempting to reconstruct or preserve its features, such as the energetic character of the pickup notes. Because a *stringendo* has already begun by m. 22 (1841 Brahms or 1841 Finson), the majority of the seven occurrences of 16th-note pickups gain a lively quality within mm. 22–27 by occurring against an accelerating quarter-note pulse.

Schumann’s 1851 revision (1851 ClSch or 1851 MahAnn) contained significant changes to the transition to the *Lebhaft* that altered the character of the pickups. Beginning in m. 22 he incorporated the 16th-note motive that appears in m. 29 (*Lebhaft*, 1851 ClSch) into the 1st violins and added an 8th-note *ostinato* in the cellos and basses. In addition, he relocated the *stringendo* approximately three bars later and rewrote the *Allegro di molto* (which became *Lebhaft*) to become a 2/4 time signature, essentially condensing every two measures into one and incorporating the feeling of two true pulses of quarter notes in each measure. The *stringendo* does not take place until a measure after the first of only three occurrences of the pickup, causing the passage to feel slower

---

<sup>82</sup> Hellner, “Schumann’s Symphony,” 274.

and heavier compared to the 1841 version. By the time the effect of the *stringendo* is felt, the quarter-note pulse has been obscured by the 8th-note *ostinato* in the cellos and basses and the 16th-note motive in the 1st violins, changing the quality of the pickup notes from energetic to sluggish. Did Mahler convert the pickup note to a 32nd note to preserve the original character found in the 1841 score? Although there is no evidence that Mahler was familiar with it, this revision is such a significant departure from Schumann's 1851 score that it is either a remarkable coincidence or an indication that Mahler knew the 1841 score.

1851 version

Stringendo

Fl 22

Ob

Cl (B)

Fg

Cor (D)

Tr (F)

dotted 8th rest-16th note figure

Tymp

VI 1 16th-note motive

VI 2

Vla

Vlc

Cb

8th-note ostinato

Stringendo

Example 3.2.a. Mm. 22–26, 1851ClSch.

Mahler reorchestration

Stringendo

Fl 22

Ob

Cl (B)

Fg

Cor (D)

Tr (F)

double-dotted 8th rest-32nd-note figure

Tymp

V1 1 y (v)

VI 2

Vla

Vlc

Cb

Stringendo

Example 3.2.b. Mm. 22–26, 1851MahPub.  
Schumann SYMPHONY No. 4, arranged by  
Gustav Mahler. © Copyright 1977 by  
Universal A.G., Wien/UE18363. All Rights  
Reserved. Used by permission of European

Stringendo - - sino - al 1841 version Allegro

Fl

Ob *cresc.*

Cl (B)

Fg

Cor (D)

Cor (D) 16th-note pickup in quarter note pulse

Stringendo - - sino - al

Vln

Vla

Cb

Stringendo - - sino - al Allegro

Example 3.2.c. Mm. 22–29, 1841 Brahms.

Measures 50–58:

Measure 50:

Several primary lines are often covered with regard to this passage. In m. 50, Mahler recognized that the 16th-note run in the bassoons was easily obscured by the rest of the orchestra, so he reinforced the run with the violas and cellos, giving it a greater chance of being heard (Ex. 3.3.b). This subtle modification was probably the result of having heard many performances, possibly some of his own, in which this wonderful detail was usually lost. Coincidentally, Mahler's reinforcement was similar to the scoring of the 1841 original version, in which the cellos and basses reinforce the bassoons (Ex. 3.3.c). In the 1851 revision Schumann actually removed the cellos and basses from doubling the

bassoons (Ex. 3.3.a), creating the very balance issue that Mahler later dealt with by restoring the doubling of the bassoons with violas and cellos. This passage contains additional examples in which Mahler's experience as a conductor/composer may have helped him to make fine adjustments in balance:

Measures 52, 54:

The melodic "response" to the 16th-note figure in the 2nd violin part in m. 51 occurs in m. 52 in the 1st bassoon and viola parts. Similarly, in m. 53 the 16th-note figure is now played by the 1st violins and receives the same response in m. 54 from the 1st bassoon and viola parts. In both cases, an insensitive *tutti* orchestra can easily cover the response. Mahler doubles the response with the 2nd bassoon, though it can be argued that he could have done more to ensure its clarity. The dynamics of the *tutti* orchestra could have been altered in addition, or another instrument could have reinforced the response.

Schumann's revision of these measures, in which he reinforced the viola with the 1st bassoon, was already a noticeable improvement over the original scoring of viola alone, and Mahler took the strengthening of the response a step further.

Measures 57–58:

The 16th notes in the 1st oboe and clarinet parts in mm. 57–58 are easily overcome by the strings, especially the hairpin swells in the 1st violin and viola parts. Mahler reinforced these woodwind parts by raising the 1st clarinet part by an octave and adding the 2nd oboe and clarinet to the lower octave. Although the violin and viola parts are notated as *piano* by m. 55, Mahler adds "p" in m. 57 as a reminder to reduce the possibility of

covering the woodwinds. Schumann's alteration of m. 57 shifted the entire string accompaniment to the downbeat, generating a balance problem in which the 16th-note figure in the woodwinds can be easily obscured. Mahler might have preferred the balance in the original score in which most of the string accompaniment enters in the middle of the measure, creating a clearing for the 16th-note figure. Hoy has referred to Mahler's revision of the woodwinds as correcting an awkward doubling and improving clarity, although I believe the issue here is less one of awkward doubling and more one of improving the balance in favor of the woodwinds.<sup>83</sup>

1851 version

The image shows a page of a musical score for a symphony orchestra, labeled '1851 version'. It covers measures 49 to 58. The instruments listed on the left are Flute (Fl), Oboe (Ob), Clarinet in B-flat (Cl(B)), Bassoon (Fg), Cor in F (Cor(F)), Cor in D (Cor(D)), Violin I (VI 1), Violin II (VI 2), Viola (Vla), Violoncello (Vlc), and Contrabass (Cb). The score features a prominent 16th-note figure in the woodwinds, with a specific annotation '16ths in bassoons only' pointing to the bassoon part. There are also 'response' markings in the bassoon and viola parts. The music is written in a standard orchestral format with multiple staves per instrument.

Example 3.3.a. Mm. 49–58, 1851ClSch.

<sup>83</sup> Hoy, "A Comparison," 155, 157.

Mahler reorchestration

Fl  
Ob  
Cl (B)  
Fg  
Cor (F)  
Cor (D)  
VI I  
VI 2  
Vla  
Vlc  
Cb

2nd oboe added  
2nd bassoon added  
clarinets altered  
reminder  
reinforce bassoons

Example 3.3.b. Mm. 49–58, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

1841 version  
Cellos/Basses double bassoons

74  
92

oboe/bassoon only  
staccato markings  
rest helps balance

Example 3.3.c. Mm. 74–98, 1841Brahms.



Measures 59–62:

In order to clarify the primary lines in the violins, flutes and oboes, Mahler adjusted the overall dynamic level and sharpened the articulation (Ex. 3.4.b). The dynamic level for all parts was changed from “p” to “pp,” allowing the primary lines to emerge more easily, although Hellner has made an interesting argument that Mahler’s revision of dynamics in m. 59 has changed the relationship between the second key area and the previous section, distracting the listener from the new key area and the alteration of the 16th-note motive.<sup>84</sup> Mahler also added staccato markings to the flute and oboe parts in mm. 59–60, either because he wanted to further increase their audibility or simply preferred crisper dotted rhythms (or both). It is not clear whether or not Mahler meant to articulate the similar passage in the clarinets in mm. 61–62 in the same manner, although by leaving their dynamic level at “p” he allowed for the clarinet parts to be heard above the orchestra.

The brackets that are printed in 1851MahPub represent parts that were circled by Mahler in 1851MahAnn. The editor(s) of 1851MahPub did not continue to use brackets, although there are many instances in 1851MahAnn in which Mahler circled parts, most likely as a conductor’s reminder to himself to be aware of them.

---

<sup>84</sup> Hellner, “Schumann’s Symphony,” 349.

1851 version

Example 3.4.a. Mm. 59–62, 1851 ClSch.

Mahler reorchestration

Example 3.4.b. Mm. 59–62,  
1851 MahPub. Schumann  
SYMPHONY No. 4, arranged by  
Gustav Mahler. © Copyright 1977  
by Universal A.G., Wien/UE18363.  
All Rights Reserved. Used by  
permission of European Music  
Distributors LLC, U.S and Canadian  
agent for Universal Edition.

Measures 79–84:

In the closing measures of the exposition, Mahler inserted revisions of a more extensive nature to adjust the balance (Ex. 3.5.b). In Schumann's scoring, the 16th-note motive in mm. 79 and 81 is difficult to hear because it is played only by the violas and bassoons (Ex. 3.5.a). The original orchestration also included cellos (Ex. 3.5.c), but Schumann removed them in the revision to double the basses. Mahler's reinforcing of the bassoons and violas with the cellos restored Schumann's original scoring (mm. 130–1 and 134–5 in

1841 Brahms). Mahler added “ff” to the viola and cello parts to further amplify the motive.

Mahler also felt it necessary to reinforce the 1st violins in m. 80 with the 2nd violins. This revision caused an interesting problem because the original secondary material of the 2nd violins (outlined by the 1st and 2nd horns) was regarded by Mahler as important enough to redistribute it to the violas. Mahler must have felt that the balance was still in need of adjustment because he also had the 3rd and 4th horns double the secondary material of the 1st and 2nd horns in mm. 80 and 82, giving that rhythmic figure an instrumental weight similar to that of the 1841 version, in which two horns were combined with two trumpets. Hoy also has made an insightful observation that Mahler’s doubling of parts was also as a method of intensifying the *crescendo* beginning in m. 78.<sup>85</sup>

In the 1851 revision, Schumann altered the violas and violins to play the 16th-note motive as 32nd-note tremolos. Not only might it have been an ineffective attempt to make the motive louder, but it also has the effect of making the motive less clear. Patricia Hoy has also noted Schumann’s tendency to use the tremolo in an attempt to increase volume, as well as Mahler’s frequent removal of them.<sup>86</sup> To a composer such as Mahler who consistently sought clarity, the effect of the measured tremolo on significant musical material was detrimental. Whether it was Mahler’s need for clarity or his skepticism of the volume-raising effect of the measured tremolo, he replaced the 32nd notes with 16th notes, making the motive rhythmically consistent with the passage in the

---

<sup>85</sup> Hoy, “A Comparison,” 77.

<sup>86</sup> Ibid., 162–3.

bassoons.<sup>87</sup> Hellner has characterized Mahler's deletion of the tremolos as prioritizing "rhythmical drive" over Schumann's preference of sonority.<sup>88</sup> The closing measures of the 1st movement (mm. 350–356) present a similar situation in which Mahler removed all of the measured tremolos from the cellos and basses and notated the motive in 16th notes, essentially duplicating the notation of Schumann's original 1841 version. Is this representative of Mahler's familiarity with Schumann's 1841 score or of a surprising similarity in orchestrational preferences between Mahler and the Schumann of 1841?

Example 3.5.a. Mm. 79–84, 1851ClSch.

Example 3.5.b. Mm. 79–84, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

<sup>87</sup> However, his addition of slurs to the first two notes of each beat created articulation that is not consistent with the bassoon part, in which only the first two notes of the first beat are slurred.

<sup>88</sup> Hellner, "Schumann's Symphony," 351.

130 1841 version

Flg  
Cor (E)  
Cor (D)  
Trp (F) Horns and trumpets  
Trb 1  
Trb 2  
Trb 3  
VI 1  
VI 2  
Via  
Vlc  
Violas, cellos and bassoons

Example 3.5.c. Mm. 130–137, 1841Brahms.

The development section of the 1st movement contains some of the most extensive revisions. In addition to alterations in balance, Mahler carefully notated phrasing and articulation in a manner in which a conductor might normally mark any score. These markings are similar in detail to the painstaking level of notation contained in Mahler's works, in which he leaves little to the conductor's discretion.

#### Measures 101–104:

Schumann's scoring of this section is ambiguous and problematic. The initial dynamic level of m. 101 at *forte* from the previous measures, and the entire orchestra drops to *piano* in m. 103 (Ex. 3.6.a). While the horns, cellos and basses return to "f" in m. 105,

the violins and violas are marked only with “sf.” Should the violins and violas match the rest of the orchestra at the *forte* dynamic level? In m. 107, the entire orchestra is marked once more at the *piano* level, but in m. 109 the violins and violas are not marked as *forte*, only “sf.” Either Schumann forgot to notate each return of the violins and violas in the 1851 version or he believed that “sf” implied a *forte* dynamic level. In the 1841 version (Ex. 3.6.c), each subsequent entry of the 16th-note motive in the 1st violins and violas was marked both “f” and “sf,” so Schumann either forgot to notate each return of the violins and violas as “f” in the 1851 version or he consciously removed “f” from each return, believing that “sf” was sufficient in implying a *forte* dynamic level. Hellner has described Schumann’s original scoring in mm. 101–2 as a “careful blending” of horns and strings that was undone by Mahler’s revisions, but in my opinion the notion of a careful blending is challenged by Schumann’s neglecting to add a dynamic marking for the 2nd violins and violas as well as by the tendency of the 1st violins to be overpowered by the horns, 2nd violins and violas.<sup>89</sup>

#### Measures 101–102:

Mahler’s alterations of mm. 101–104 serve as a basic model for his revisions of mm. 101–116 (3.6.b). He recognized that using only the 1st violins to present the motive made for a serious balance problem because the horns, cellos and basses are *forte*, and so to improve the balance he had the 2nd violins and violas double the 1st violins but did not specify a dynamic level for each return beyond the existing “sf” indication. From mm. 101–104, Mahler preserved the harmony by taking pitches that had been removed from

---

<sup>89</sup> Ibid., 348.

the 2nd violins and violas by placing them in the 3rd and 4th horns. Since the rhythmic material in the horns is no longer doubled by the 2nd violins and violas, Mahler boosted the dynamic level of the horns to “ff.” At first glance, this appears to be a contradiction because the initial problem was that the 1st violins were covered by the rest of the orchestra. However, Mahler must have determined that the horns alone were not carrying over the newly combined forces of the violins and violas, requiring further adjustment, including staccato markings. The staccato markings do not appear in similar horn passages several measures later, although it is not clear whether this was intentional or an oversight. Mahler did not change the forte level of the cellos and basses.

Schumann’s scoring in his original 1841 version has some features that Mahler might have preferred. The 16th-note motive in the 1st violins (notated as 8th notes in the 1841 version) is also played by the violas, and each return is marked “f.” The rhythmic material in the horns is doubled by the 2nd violins, clarinets and bassoons, and is marked “mf”: the cellos and basses were originally marked “mf.” Schumann’s own revisions were both beneficial and detrimental to the overall balance. In addition to the previously mentioned ambiguity that was created in the 1851 version, Schumann revised the rhythmic accompaniment by removing the clarinets and bassoons, adding violas (which were removed from the 16th-note motive), and moving each entrance from the downbeat to the middle of the measure. The clearing away of the rhythmic accompaniment on the downbeat of m. 101 and each subsequent downbeat would allow the 16th-note motive in the 1st violins to be better heard, although the newly reduced forces of the horns, 2nd violins and violas are still more than capable of covering up the 1st violins, who are now solely entrusted with playing the motive. If Mahler had been familiar with the 1841

version, he might have been satisfied with the balance achieved by more specific dynamic indications and the doubling of the motive and the rhythmic material.

Measures 103–104:

Mahler's personal preference for clarity and unblended colors is apparent in these measures. For example, to bring out the cello arpeggios, he thins the texture by removing the oboe parts, which simply double the flute parts. The 1st violins and violas are also removed because their notes are carried by the 2nd violins which, along with the remaining woodwinds, are marked down to "pp." Mahler could have removed the 2nd violins as well because they double the clarinets, but it is likely that he wanted to preserve some of the quality of the string tremolo without covering the cellos. As an indication of his phrasing preferences, Mahler added a hairpin swell over two measures in the 2nd and 3rd trombones and added a hairpin swell in each measure in the cellos.

In the 1841 version, the sustained chords are played only by the oboes and violins, a group considerably thinner than the group of flutes, oboes, clarinets, 1st bassoon, violins and violas in the 1851 version. Only one trombone plays, and either two solo cellos (in 1841Finson) or half of the cello section (in 1841Brahms) play the arpeggios, resulting in scoring that is much more sparse than in the 1851 version or Mahler's version. Incidentally, Schumann also marked the arpeggios with hairpin swells, as Mahler did. Schumann's revisions thickened the sustained chords and cello arpeggios, but it is not clear if he intentionally removed the hairpin swells or forgot to add them.



**1851 version**

Fl 101  
Ob  
Cl (B)  
Fg Middle of measure  
Cor (F)  
Cor (D)  
Trb 2 "f"  
Trb 3  
VI 1 14th note motive only in VI 1 "sf" only  
VI 2  
Vla No dynamic marking  
Vlc  
Cb

**Mahler reorchestration**

101  
Ob Oboes removed  
Cl (B) Woodwinds now "pp"  
Fg  
Cor (F) Horns now "ff" with staccato markings  
Cor (D) Horn 3 altered  
Trb  
Tromp  
VI 1 2nd violins and violas double 1st violins  
VI 2  
Vla Hairpins added  
Vlc  
Cb

Example 3.6.a. Mm. 101–104, 1851ClSch.

Example 3.6.b. Mm. 101–104,

1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363.

All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

clarinets and bassoons double horns      1841 version

On downbeat "mf"

174

176

Reduced group of oboes, 3rd trb and violins

hairpins

2 solo cellos in 1841 Finson

Violas double 1st violins

Example 3.6.c. Mm. 174–182, 1841 Brahms.

It is important to think of Mahler's original annotated Schumann score as a working conductor's score. His marking of the phrasing in this passage is similar to what any other conductor would indicate in his or her own personal score. In 1851 MahPub, the phrasing indications have become more permanent. We have seen that in scores of his own music, Mahler leaves little to the conductor's discretion, but if Mahler had known that he was editing a Schumann symphony edition for publication, perhaps he might not have added as many phrasing indications.

Measures 121–128:

Measures 121–124:

This extended passage represents a serious challenge for conductors in terms of achieving an ideal balance. The rhythmic character of the primary material in the woodwinds tends to be covered by the brass, which are also marked “ff.” In particular, the 16th-note pickup notes blur into the brass notes that provide an outline on the beat. Also, the “moving” notes in the 2nd flute, 1st oboe and 2nd clarinet are covered by the “static” notes in the 1st flute, 2nd oboe and 1st clarinet because both groups produce essentially the same volume level (Ex. 3.7.a).

Mahler adjusted the balance in m. 121 by marking the trumpets, trombones and tympani “mf” and he thinned out the strings by removing the measured tremolo from the 2nd violins (Ex. 3.7.b). Hoy has interpreted the effect of Mahler’s revisions as giving greater weight to the strings through the deletion of the tremolos and reduction of the dynamic marking of the trumpets, trombones and tympani to “mf,” although I believe Mahler softened these instruments to bring out the woodwinds.<sup>90</sup> Although the editor(s) of 1851MahPub removed the 1st violin part in this measure, an examination of 1851MahAnn leads to an alternate interpretation of Mahler’s markings—he circled the 1st violin part, but did not use any of the deletion markings that he often used throughout the score. Because Mahler circled many parts to call his attention to them, it is likely that he did not intend for the 1st violin part to be deleted. However, the deletion of the 1st violins does help with the overall balance because their presence acts to cover up the woodwinds.

---

<sup>90</sup> Hoy, “A Comparison,” 186.

Did Mahler intend to remove all of the measured tremolos from the violins and violas beginning from the 2nd beat of m. 118 through the violas in m. 121? In 1851MahPub, the slurs added to the measured tremolos are impossible to play, but they make sense if the measured tremolos become regular 16th notes. Mahler's use of shorthand notation in 1851MahAnn requires us to interpret his markings and make our own decision. The most logical interpretation of his use of a slur and two dots over a quartet of measured tremolo 32nd notes is that he wanted regular 16th notes, the 1st two slurred and the 2nd two separate and staccato. In mm. 117–120 of 1851MahAnn, this pattern of markings occurs only over the 2nd beat of m. 117 and the 1st beat of m. 118 in the violins and violas. Was Mahler implying that these markings should continue through m. 120? 1851MahPub reflects this uncertainty, printing the markings through m. 120, but over measured tremolo 32nd notes. Mm. 121–122 of 1851MahPub demonstrate the inconsistent interpretation of Mahler's markings in 1851MahAnn. The 2nd violins and violas were marked identically in m. 121 of 1851MahAnn (32nd-note measured tremolos with slurs and staccato marks), yet 1851MahPub printed the 2nd violins as regular 16th notes and the violas as measured 32nd-note tremolos with slurs and staccato marks. In m. 122 of 1851MahAnn, the violins, violas and cellos are marked in the same manner, but 1851MahPub prints all of these figures as 16th notes.

Other adjustments Mahler made that do not necessarily help the balance are the addition of the 3rd and 4th horns doubling the 1st and 2nd horns and the raising by an octave of the 1st clarinet part. The extra horns provide a melodic outline of the “moving” notes in the woodwinds but add yet another layer of parts that cover the lightly scored 16th-note pickup notes in the woodwinds. Working under the assumption that in

counterpoint the “moving” notes of a musical line should be heard over a line of “static” or repeated notes, a conductor would work to balance the “moving” line over the “static” one. In m. 121, the higher pitch register of the 1st clarinet part brings out the “static” notes that cover the “moving” lines of the softer-sounding 2nd flute, 1st oboe and 2nd clarinet. These moving lines are the ones that need to be reinforced.

Schumann’s 1841 scoring might be the most logical and effective in terms of balance (Ex. 3.7.c). The horns and 3rd trombone are marked the relatively softer “f” and are the only brass instruments performing the melodic outline. In addition, the violins and violas play on only the 1st beat of m. 214 of 1841Finson and the cellos and basses have a rest.<sup>91</sup> A reduction of activity from the brass and strings means that the woodwinds are more easily heard. However, for the 1851 revision he thickened the sound by adding 32nd-note tremolos and more brass, and raised the general dynamic level to “ff.”

---

<sup>91</sup> In mm. 214–5 of 1841Brahms, the violins and violas play the same figure as written in the 1851CISch without the tremolos, and the cellos and basses have a quarter note d-flat in m. 214.

1851 version

Mahler reorchestration

Example 3.7.a. Mm. 119–123, 1851ClSch.

Example 3.7.b. Mm. 119–123,  
1851MahPub. Schumann SYMPHONY No.  
4, arranged by Gustav Mahler. © Copyright  
1977 by Universal A.G., Wien/UE18363.  
All Rights Reserved. Used by permission of  
European Music Distributors LLC, U.S and  
Canadian agent for Universal Edition.

1841 version

no tremolos      In 1841 Finson only quarter note d-flat in m. 214  
for violins and violas, rests for cellos/bass

Example 3.7.c. Mm. 212–221, 1841 Brahms.

Measures 125–128:

In this passage, the woodwinds are still in danger of being overwhelmed by the brass so Mahler’s revisions are particularly effective here (Ex. 3.8.b). He kept the brass and tympani at *mezzo-forte* and increased the dynamic level of the flutes, oboes and clarinets in m. 125 to “*fff*.” In m. 127, Mahler raised the “moving” notes of the 1st clarinet an octave and doubled the lower octave with the 3rd and 4th horns. The strong reinforcement of the “moving” notes is more than adequate to bring them to the forefront.

Schumann’s original scoring was much more sparse (Ex. 3.8.c). The double-dotted woodwind figure in m. 222 (1841 Brahms) was played only by the oboes and flutes

(oboes only in 1841Finson), although they only had to contend with the smaller, lighter group that consisted of clarinets, bassoons, 1st and 2nd horns, and 3rd trombone. The 1851 scoring is much denser because all of the parts are reinforced (Ex. 3.8.a).

Schumann's doubling of the double-dotted woodwind figure with clarinets (and flutes if the scoring of 1841Finson is followed) in m. 125 (1851ClSch) improved the balance somewhat, but his addition of trumpets, trombones and tympani at "ff" reduces the effectiveness of this improvement.

Example 3.8.a. Mm. 125–128, 1851 ClSch.

Example 3.8.b. Mm. 125–128, 1851MahPub.

Example 3.8.c. Mm. 222–227, 1841Brahms.

Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors



Instrumental Comparison: Measures 121–128 (214–229 in 1841Finson/1841Brahms)

	<u>1851</u>	<u>Mahler</u>	<u>1841</u>
fl 1,2	y (ff)	y (ff)	y (f)
ob 1,2	y (ff)	y (ff)	y (f)
cl 1,2	y (ff)	y (ff)	y (f)
fg 1,2	y (ff)	y (ff)	y (f)
cor 1,2	y (ff)	y (ff)	y (f)
cor 3,4	n	y (ff)	y (f)
trp 1,2	y (ff)	y (mf)	n
trb 1	y (ff)	y (mf)	n
trb 2	y (ff)	y (mf)	n
trb 3	y (ff)	y (mf)	y (f)
tymp	y (ff)	y (mf)	y (f)

Measure 132:

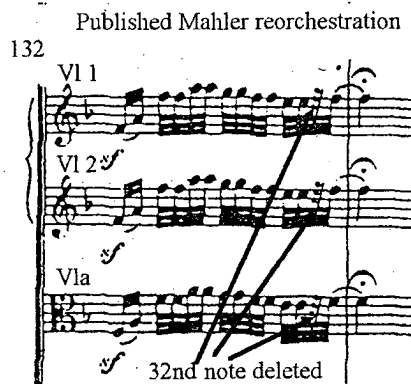
In 1851MahPub, there is a curious revision to the strings at the end of the measure, in which Mahler substitutes a 32nd rest for the penultimate 32nd note (Ex. 3.9.b). There is what appears to be a staccato marking over the final note of the 1st violins, but not over the corresponding note of the other string parts. The most likely reason for such a significant alteration would be to increase the clarity of the final note. Mahler's concern over the balance in this measure is evident from his addition of a *decrescendo* to *piano* in all of the brass parts. He did not, however, make the same rhythmic alteration to the strings in a similar passage in m. 207.

An examination of 1851MahAnn reveals that there is no evidence supporting the addition of the staccato marking, so it should be removed (Ex. 3.9.c). Mahler's marking of the penultimate 32nd note is more problematic. In 1851MahAnn, that note is covered by a thick, vertical line in blue pencil. Thin, slanted lines were more commonly used by

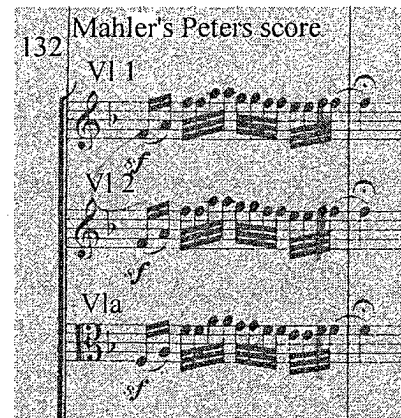
Mahler to indicate deletions in 1851MahAnn, though he did occasionally use thicker vertical lines in this manner. However, there is no indication of a 32nd note rest to replace the deleted note, which leads me to believe that in this instance the marking does not signify a deletion. Mahler was extremely meticulous in writing in rests when replacing deleted notes, and for such a drastic revision he most likely would have written in a 32nd rest over the deletion in the violins, violas and cellos. I believe the thick vertical line is used to “highlight” this note because he appears to have used the marking in this manner elsewhere in 1851MahAnn. The corresponding m. 207 in 1851MahAnn does not contain any similar marking.



Example 3.9.a. M. 132, 1851CISch.



Example 3.9.b. M. 132, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.



Example 3.9.c. M. 132, 1851MahAnn. Robert Schumann, Symphonie für Orchester Redivert von Alfred Dörffel. James Marshall and Marie-Louise Osborn Collection, Beinecke Rare Book and Manuscript Library, Yale University.

Instrumental Comparison: Measures 134–141 (240–254 in 1841Finson/1841Brahms)

	<u>1851</u>	<u>Mahler</u>	<u>1841</u>
fl 1,2	y (ff)	y (ff)	y (f/sf)
ob 1,2	y (ff)	y (ff)	y (f/sf)
cl 1,2	y (ff)	y (ff)	y (f/sf)
fg 1,2	y (ff)	y (ff)	y (f/sf)
cor 1,2	y (ff)	y (f)	y (ff)
cor 3,4	n	y (f)	y (ff)
trp 1,2	y (ff)	n	n
trb 1	y (ff)	y (mf)	y (f)
trb 2	y (ff)	y (mf)	y (f)
trb 3	y (ff)	y (mf)	y (f)
tymp	y (ff)	y (ff)	y (ff)

Measures 134–141:

Mahler identified several potential problems in this passage, in which Schumann's 1851 revisions included the removal of the 3rd and 4th horns and the addition of the trumpets and tympani to reinforce the dotted rhythms (Ex. 3.10.a). However, the trumpets and tympani are melodically limited, so Mahler removed the trumpets to allow the melodic material to be better heard, leaving the tympani as the only melodically limited instrument (Ex. 3.10.b). Along with the deletion of the trumpets, Mahler's addition of the 3rd and 4th horns is yet another instance of his "restoration" of Schumann's 1841 scoring (Ex. 3.10.d). Hellner has attributed Mahler's removal of the trumpets to his desire for more variety in timbre, and noted that when the passage returns in m. 207, he leaves in the trumpet parts and marks them "p."<sup>92</sup> Hoy is inaccurate in stating that Mahler added 3rd and 4th horns to replace the trumpets because Mahler used the 3rd and 4th horns to double the 1st and 2nd horns.<sup>93</sup> The pitches of the deleted trumpets were not replaced by the horns or other instruments. Although Hoy has stated that Schumann had

---

<sup>92</sup> Hellner, "Schumann's Symphony," 352.

<sup>93</sup> Hoy, "A Comparison," 157.

scored the trumpets in too low of a register to be effective, this is less true of the 1st trumpet, which would be most likely be heard.<sup>94</sup> I believe that Mahler's deletion of the trumpets stems more from their limited melodic line rather than their inability to be effective, and that the addition of the 3rd and 4th horns was more to reinforce the 1st and 2nd horns rather than replace the brass resonance lost by losing the trumpets.

In m. 134, Mahler changed the dotted rhythm of the violins to match the horns and tympani. The removal of the dot on the 8th notes and the addition of a 16th rest makes the violins consistent with the drier, crisper rhythm of the horns and tympani, although the cellos and basses were left unchanged in 1851MahPub. The changes made by Mahler beginning in m. 121 are generally still in effect. The 3rd and 4th horns reinforce the 1st and 2nd horns, but now at "f." While the trombones are still at "mf," the tympani part returns to the original dynamic of "ff."

In 1851MahAnn, Mahler did indicate that the cellos and basses should also have the substitution of the 16th rest for the dot (Ex. 3.10.d). To confuse matters further, beginning from m. 136 the violins return to their original dotted rhythm. Did Mahler mean to imply that the alteration should continue, or was the change a one-time feature to tweak the initial articulation after the fermata? In 1851MahAnn, there are no further 16th-rest markings, meaning either that either Mahler wanted a return to dotted 8th notes or that he wanted the insertion of 16th rests to continue but forgot to continue marking the subsequent measures.

---

<sup>94</sup> Ibid., 200.

1851 version

Fl # 134

Ob Now "in F"

Cl (B)

Fg

Cor (C)

3rd and 4th horn removed

Trp (F) Trumpets added

Trp 1

Trb 2

Trb 3

Tymp Tympani added

VI 1

VI 2

Via

Vcl

Cb

Example 3.10.a. Mm. 134–141, 1851 ClSch.

Mahler reorchestration

Fl # 134

Ob

Cl (B) 1st clarinet mixed in octave

Fg

Cor (C) 1st horn altered to double 1st

3rd and 4th horns added to double 1st and 2nd horns

Trumpets removed

Trp 1

Trb 2

Trb 3 New "in F"

Tymp

16th rests added

VI 1

VI 2 2nd violins altered to double 1st violins

Via

Vcl

Cb

Editor left out 16th rests.

Example 3.10.b. Mm. 134–141, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

1841 version

Fl E 240  
Ob  
Cl "sf" instead of "ff"  
Fg  
Cor (F)  
Cor (D) All horns used  
No trumpets  
Trb 1  
Trb 2 Only "f"  
Trb 3  
No tympani  
VI 1  
VI 2  
Vla  
Vlc  
Cb Cellos and basses an octave higher  
E

Example 3.10.c. Mm. 240–252, 1841 Brahms.

ff  
Mahler's Peters score  
VI 1  
VI 2  
Vla  
Vlc  
Cb  
ff  
Mahler's indication to add 16th rests

Example 3.10.d. Mm. 134–136, 1851 MahAnn. Robert Schumann, Symphonie für Orchester Redivert von Alfred Dörffel. James Marshall and Marie-Louise Osborn Collection, Beinecke Rare Book and Manuscript Library, Yale University.

### Measures 142–146:

The alterations in these measures demonstrate Mahler's ability to shape and sharpen a dramatic climax. In m. 142, the rhythm of the original 1851 tympani part is not consistent with the other dotted rhythms and lacks the note c reached in the progression in the cellos and basses (Ex. 3.11.a). Furthermore, because the tympani cannot complete the expected progression to the fermata c in m. 143, its absence creates a dramatic and aural vacuum in that measure. Mahler's solution was to remove the tympani in m. 142, thus avoiding the tympani d-flat against the c of the cellos, and to add a c roll in the tympani in m. 143 (Ex. 3.11.b). It is curious that Mahler asks the tympani player to prepare a 3rd drum on c but does not take advantage of it in m. 142 to duplicate the cello line. The reason for this could be in Mahler's conception of dynamic shaping. He retains the tympani part in m. 144, with a reminder of "ff," and adds another c roll in m. 145. The removal of the tympani in m. 142 allows its entry in m. 144 to make that measure more emphatic. To further emphasize this shaping, Mahler increased the dynamic level of the trumpets and trombones to "ff" in m. 144. Additional evidence that Mahler was looking to shape in this manner is his treatment of the trumpet parts in mm. 142 and 144. To de-emphasize m. 142, Mahler stripped down the trumpet parts from the original dotted rhythm to more sparse 8th notes on each beat. To emphasize m. 144, he kept the original rhythm but had the 1st horn double the primary melodic line of the 1st horn.

In 1851MahAnn, the tympani part in m. 144 contains confusing markings by Mahler (Ex. 3.11.c). It appears that he was indicating that the pitch should be changed to F and if this was his intention, then he did so to enrich the harmony by doubling the pitch in the lower octaves.

An examination of the 1841 version (Ex. 3.11.d) reveals several interesting revisions made in the 1851 score, including the inconsistent tympani rhythm in m. 142. In the 1841 version in m. 257, the tympani part lacks the final 8th note that should come at the end of the measure to outline the rhythm in the strings. Schumann added this note in his 1851 revision, but seemingly in the wrong place. Also, yet another coincidence occurs when Mahler restored the 16th-note (8th note in 1841Brahms) pickup of the trombones in m. 144 (m. 260 in 1841Brahms) that Schumann removed in his own revision.

Once again, the role of Mahler as both conductor and composer becomes apparent. Mahler the conductor interpreted the dynamic shaping of this passage as surging more powerfully into the 2nd fermata in m. 146, even though Schumann's scoring could be seen as treating the entrances into the fermatas in m. 144 and 146 as dynamically equal. Mahler the composer made the necessary changes to effect this shaping, including the alteration and addition of notes and the addition of detailed dynamic markings that ensure the desired result. The main distinction here between the role of the conductor and that of the composer is that the conductor typically works with the material written in the score and makes minor adjustments as needed, whereas the composer can make major adjustments to the score, including rhythm, pitch, dynamics and instrumentation. Mahler certainly straddled the line between these roles to create performances to his liking, although many of his alterations are consistent with Schumann's original version.



1851 version

142

tympani rhythm not consistent

Mahler reorchestration

142

Fl

Ob

Cl (B)

Clarinet raised octave

Fg

Cor (F)

Restored pickup

Breath mark added

Cor (D)

Horn 3 & 4 double 1 & 2

Trp (F)

Trb 1

Trumpets altered

Trb 2

Dynamics added

Trb 3

Tymp

removed

added

VI 1

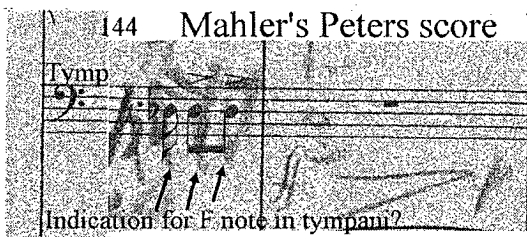
VI 2

Vla

Vlc

Cb

Example 3.11.a. Mm. 142–146, 1851 ClSch. Example 3.11.b. Mm. 142–146, 1851 MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.



Example 3.11.c. Mm. 144–145, 1851MahAnn. Robert Schumann, Symphonie für Orchester Redivert von Alfred Dörffel. James Marshall and Marie-Louise Osborn Collection, Beinecke Rare Book and Manuscript Library, Yale University.

1841 version

256

Pickup note

"Missing" tympani note

Example 3.11.d. Mm.. 256–264, 1841Brahms.

Measures 290–297:

In this passage Mahler went to great lengths to control the balance by dictating, measure by measure, the amount of crescendo in the winds and tympani. In the 1851 version (Ex. 3.12.a), each entrance in the wind and tympani parts (except the trombones) is marked as “p cresc,,” ending in m. 297 with “f.” What commonly occurs is that the interplay of the motive in the strings is covered by the premature crescendo in the winds and tympani,

and that the dynamic level reached in 297 is louder than *forte*. To Mahler, Schumann's notation probably seemed to allow the winds and tympani too much of an opportunity to obscure the strings. Mahler attempted to keep the sense of a crescendo by allowing the winds and tympani a maximum of two measures crescendo at a time, while reining in all of the parts by returning to *piano* at the end of each crescendo (Ex. 3.12.b). Each *subito piano* coincides with, but does not cover, an interjection from the strings. Mahler did not specify how loud each crescendo should be before returning to *piano*, so in essence he did leave that decision up to the performer. The controlled crescendo increases the likelihood that only a single "f" will be reached in m. 297.

In m. 297 of 1851MahPub, "sf" was removed from the violin parts and "p" was replaced with "pp" in 1851MahPub. Mahler's markings in 1851MahAnn are confusing here, although he clearly did not remove the "sf" from the 1st violins. In the 2nd violins, "pp" is written over the printed "sfp." In the clarinets, Mahler wrote "pp" next to the printed "sfp" and he replaced "sfp" with "pp" in the 2nd violins and with "sfpp" in the clarinets. Because the clarinets are doubled by the 2nd violins for two measures, it would be logical for these parts to share the same dynamic marking. Perhaps Mahler's placement of the "pp" over the "sfp" in the 2nd violins was not meant to signify the deletion of the "sfp." However, it is clear that Mahler wanted the general dynamic in m. 297 to reach "pp," which is a refinement of Schumann's own revisions in which he sharpened the dynamic markings from "mf" and "p" to "f" and "sfp."

Several of the other major changes in this passage that Schumann made in his revision include the removal of the crescendo reminder in m. 294 (m. 558 in 1841Brahms, ex. 3.12.c), the addition of cellos to reinforce the 1st violins, the removal of

the “mf” indication in m. 292 (m. 554 in 1841 Brahms), the alteration of the trumpets and tympani and addition of the 1st and 2nd horns to play sustained notes, and the marking of woodwind, tympani and bass entrances to begin at “p” instead of “mf.” His revisions thickened the overall sonority, although he made some helpful balance adjustments by doubling the 1st violins with the cellos and marking new entrances of sustained notes as “p.”

The image displays two side-by-side musical staves for measures 290-297. The left staff is labeled '1851 version' and the right is 'Mahler reorchestration'. Annotations with arrows point to specific changes: 'mf' removed, 'Cresc. reminder removed', '1st and 2nd horn added', 'Trumpets altered', 'Trb 1 removed', 'Tympani altered', 'Now "p"', 'Cellos now reinforce 1st violins', 'Raised an octave', and 'Added dynamics'. The instruments listed on the left include Fl, Ob, Cl (B), Fg, Cor (F), Cor (D), Trp (F), Trb 1, Trb 2, Trb 3, Tymp, Vl 1, Vl 2, Vl (I), Vl (II), and Cb (I). The right staff includes Fl, Ob, Cl (B), Fg, Cor (F), Cor (D), Trp (F), Trb 1, Trb 2, Trb 3, Tymp, Vl 1, Vl 2, Vl (I), Vl (II), and Cb.

Example 3.12.a. Mm. 290–297, 1851 Cl Sch. Example 3.12.b. Mm. 290–297, 1851 Mah Pub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

"mf" in 1841Finson      **1841 version**      "p"

"mf" No cresc. reminder in m. 554 in 1841Finson      Cresc. reminder

552 Fl

Ob

Cl (B)

Fg

Cor (F) No 1st and 2nd horns

Cor (D)

Trp (F)

Ttb 1 & 2

Ttb 3

Tymp Tympani and 3rd and 4th horn not sustained "A"

VI 1

VI 2 1st violins alone

Vla

Vlc

Cb

Example 3.12.c. Mm. 552–564, 1841Brahms.

Measures 313–332:

Measures 313–322:

In the 1851 version, the primary melodic line is carried by the lighter, higher-pitched instruments of the orchestra (Ex. 3.13.a). The 1st violins, 1st flute, 1st oboe and 1st clarinet can be easily drowned out by the rest of the orchestra, which is universally marked “ff.” Mahler adjusted the balance by raising the clarinets an octave and reducing the dynamic level of the bassoons, horns, trombones and tympani to “f” (Ex.3.13.b). In 1851MahPub, the octave marking in the clarinets is incorrectly placed after the 1st note in m. 313. Mahler’s octave indication in 1851MahAnn is clearly placed at the beginning

of the measure, meaning that the voice leading in the clarinets is consistent with the 1st flute, 1st oboe and 1st violins.

In m. 315, the harmony is clarified by the doubling of the bassoons and 2nd trombone by the 4th horn. In the same measure, Mahler removed the slur in the woodwinds, 3rd and 4th horns, and 1st and 2nd trombones, presumably to sharpen the articulation. These changes are not incorporated into the corresponding measure of 319 in 1851MahPub, although Mahler's markings in 1851MahAnn indicate that they should be. The 4th horn's added notes in m. 319 are clearly visible and identical to those added in m. 315. In 1851MahAnn, there is a vertical slash mark penciled in through the woodwind slur in m. 319, most likely indicating deletion of the slur. There is no indication that the slur in the 1st and 2nd trombones should be deleted, although this could simply have been an oversight on Mahler's part because he clearly deleted the similar slur in m. 315 of 1851MahAnn.

Schumann improved the balance in his revision by reinforcing the melodic line in the 1st violins with the 1st flute, 1st oboe and 1st clarinet. However, he also expanded the entire dynamic range by changing the overall dynamic marking to "ff," making the tympani part more sustained, and adding 2nd and 3rd trombones. He also altered the trumpets and 1st and 2nd horns to become more static rhythmically and melodically, shifting them from a primary role to a secondary one. By increasing the overall volume of the orchestra and taking the powerful horns and trumpets away from a melodic role, Schumann probably undid most of the balance benefits gained by reinforcing the 1st violins.

Schumann revised the rhythm in m. 601 (1841Brahms, ex. 3.13.c) from a double-dotted gesture to a single-dotted one in m. 315 (1851ClSch). An argument could be made that in the process of converting the pulse from “one-in-a-bar” in the 1841 version to “two-in-a-bar” in the 1851 revision, Schumann did not completely convert the tympani rhythm. In 1851ClSch, the tympani’s 8th notes stand alone in mm. 314, 316, 318 and 320 against the 16th notes of the winds. In 1841Brahms, the tympani’s 8th notes in mm. 597, 601 and 605 align with those of the winds, retaining the double-dotted gesture.

Example 3.13.a. Mm. 313–322, 1851ClSch. Example 3.13.b. Mm. 313–322, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

Uniform "f" dynamic      Different rhythm      1841 version

596 M

Horns and trumpets melodically active

Only 3rd trombone

Tympani less active but "double-dotted"

M

Example 3.13.c. Mm. 596–611, 1841Brahms.

Measures 323-332:

In m. 325, Mahler sensed the need for further adjustments to bolster the primary melodic line. The 1st oboe was employed to double the 1st violins, and the trumpets, trombones and tympani were reduced another dynamic level to “mf” (Ex. 3.14.b). In 1851MahPub, the 1st clarinet doubles the 1st flute in m. 325, only to return erroneously to Schumann’s 1851 scoring in the following measure (an octave higher). In 1851MahAnn, Mahler wrote in the doubling of the 1st flute part into the 1st clarinet until m. 329.

The final push of this passage, mm. 329–332, received even more retouching. To compensate for the “ff” trumpets and trombones, Mahler used the 2nd violins to double the primary melodic line of the 1st violins and marked both “fff.” The 1st and 2nd oboes



were utilized to reinforce the flutes, and the pitch of the trumpets was altered to a sounding e''/e' to further reinforce the melodic line on the downbeat of m. 329.

For the 1851 revision Schumann continued reinforcing the melodic material of the 1st violins with the 1st oboe, 1st clarinet and flutes (Ex. 3.14.a). The trombones, which were harmonically active and involved in suspensions in the original version, were revised to be more static, and the active harmonic material was transferred to the horns and bassoons. Mahler's changes strengthened the melodic line even further and softened the trombones in their new secondary role.

Example 3.14.a. Mm. 323–332, 1851 ClSch. Example 3.14.b. Mm. 323–332, 1851 MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

1841 version

Fl<sup>612</sup> <sup>N</sup>

Ob

Cl (B)

Fg Bassoons more static

Cor (D)

Cor (D) Horns more static

Trp (D)

Trb 1 & 2

Trb 3 Suspension material in 1st and 3rd trombone

Tymp

VI 1 Melodic line in 1st violin only

VI 2

Vla

Vlc

Cb

N

Example 3.14.c. Mm. 612–635, 1841 Brahms.

Measures 345–354:

The closing pages of the first movement received several major revisions by Mahler. In the 1851 version, the running 16th notes in the violins, flutes and oboes often have difficulty being heard over the rest of the orchestra (Ex. 3.15.a). Mahler reduced the brass section to “mf” in m. 345 while raising the 2nd violins an octave to reinforce the 1st violins (Ex. 3.15.b). The tympani part is thinned out as well from 345–9, restoring the rhythm of the 1841 version (Ex. 3.15.c), although it is not clear if Mahler chose to do so to help the balance or to simply reduce the repeated use of the tympani. Beginning in m.

349, Mahler shifts the tympani to a different grouping of instruments. In the 1851 version, the tympani part punctuates the string and trumpet chords, which are “opposed” by the woodwind, horn and trombone chords. Mahler must have felt that the woodwind, horn and trombone group was the weaker of the dueling groups. His addition of the tympani to this group shifts the emphasis in this passage from the “statement” chords of the strings and trumpets to the “response” chords of the woodwinds, horns and trombones. Perhaps Mahler sought to use the tympani to outline the appearance of the motive in the bassoons, cellos and basses as the tympani part does in both versions beginning in m. 354.

In the 1851 revision Schumann reinforced the melodic material of the 1st violins with the flutes, oboes and 2nd violins. The syncopated rhythmic material was removed from the flutes, oboes, horns, and 1st and 2nd trombones, and was added to the violas. He altered the horns, trumpets and tympani to reinforce the rhythmic outline of the syncopated material. The 16th-note motive in the cellos and basses was converted to 32nd-note tremolos, as it had been in other passages such as mm. 79–84 and 121–128.

1851 version

Flutes and oboes now double violins

345 Fl

Ob

Cl (B)

Fg

Cor (F) Horns and trumpets reinforce syncopated rhythm outline

Cor (D)

Trp (F)

Trb 1

Trb 2 Trb 1 & 2 no longer syncopated

Trb 3

Tymp Tympani reinforces syncopated rhythm outline

VI 1

VI 2 2nd violins now double 1st violins

Vla

Vlc Violas now syncopated

Cb

32nd note tremolos

Example 3.15.a. Mm. 345–354, 1851 ClSch.

## Mahler reorchestration

345 Fl

Ob

Cl (B)

Fg

Cor (F)

Cor (D)

Trp (F)

Trb 1 ← Reduced to "mf" Back to "f"

Trb 2

Trb 3

Tymp

2nd violins raised an octave to double 1st violins

Vl I

Vl II

Vla

Vlc

Cb

Note removed

Note added

Changed to 16th notes

Example 3.15.b. Mm. 345–354, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

1841 version

Example 3.15.c. Mm. 660–679, 1841 Brahms.

## Second Movement

### Measures 370–380:

This passage quotes the theme from the opening of the 1st movement (Ex. 3.16.a), and is marked “mf” by Schumann in 1851 ClSch until the *crescendo* in m. 378 (Ex. 3.16.b).

Mahler diligently shaped the dynamic contour of this passage by adding “f” to the strings in m. 374 and dropping the dynamic marking of the accompanying repeated notes of the flutes, oboes, horns, 1st violins, cellos and basses to “p” to allow the primary material of the clarinets, bassoons, 2nd violins and violas to come forward at “mf” (Ex. 3.16.c). In m. 379, Mahler added “dim” to the strings a full measure before it occurs in 1851 ClSch.

In my opinion, the premature *diminuendo* distorts Schumann's original intentions in this passage. In numerous recorded performances of the 1851 version, this passage is performed with dynamic shaping similar to mm. 10–21 of the 1st movement. However, an examination of the comparable mm. of 14–20 and 374–380 reveals that Schumann compressed the *crescendo-peak-diminuendo* shape in the 2nd movement. In the case of the phrase in mm. 14–20, the *crescendo* has already begun in m. 13, peaking in the middle of m. 18 (the 5th measure of the passage). The *diminuendo* begins in m. 19 (the 6th measure of the passage). In mm. 374–380, the *crescendo* does not begin until m. 378 (the 5th measure of the passage), peaking in the 2nd half of m. 379 (the 6th measure of the passage). The *diminuendo* does not begin until m. 380 (the 7th measure of the passage).

Measure	14	15	16	17	18	19	20
Shape (cresc.)					peak	dim.	
Measure	374	375	376	377	378	379	380
Shape					cresc.	peak	dim.

Mahler's early insertion of "dim." in m. 379 neutralizes what should be the dramatic peak of this passage—the 2nd half of m. 379. It could even be argued that the loudest note in the peak should be the first note of m. 380, in which the *diminuendo* is printed in 1851C1Sch. The *diminuendo* would take effect through the course of the first three beats but not on the first beat, which is the strong beat. In 1841Brahms/1841Finson (m. 22), the *diminuendo* was printed on the second beat, supporting the idea that the peak of the *crescendo* should be reached on the first note of the measure (Ex. 3.16.d). In fact, the only difference between the 1841 and 1851 versions in this passage is the placement of the *diminuendo*, confirming that Schumann had intended the *crescendo-peak-*

*diminuendo* shape to differ from that of the beginning of the first movement. Jean Marie Hellner has also noted that the early appearance of “dim” prematurely alleviates the build-up of intensity, although she theorizes that Mahler did so to move “dim.” further away from the reappearance of the Romanze theme at the end of the measure, allowing for more time for the “dim.” to take place.<sup>95</sup>

1851 version

13 14 15 16 17 18 19 20 21

VI 1  
VI 2  
Vla  
Vlc  
Cb

Cresc. begins

Ex. 3.16.a. Mm. 13–21, 1851 CISch.

1851 version

374 375 376 377 378 379 380

Fl  
Ob  
Cl (B)  
Fg  
Hrn (D)  
VI 1  
VI 2  
Vla  
Vlc  
Vlc  
Cb

Violino Solo Cresc. continues until m. 380

Example 3.16.b. Mm. 374–380, 1851 CISch.

<sup>95</sup> Hellner, “Schumann’s Symphony,” 275–6.



Mahler reorchestration

Example 3.16.c. Mm. 374–380, 1851MahPub. Schumann SYMPHONY No. 4, arranged by Gustav Mahler. © Copyright 1977 by Universal A.G., Wien/UE18363. All Rights Reserved. Used by permission of European Music Distributors LLC, U.S and Canadian agent for Universal Edition.

1841 version

Example 3.16.d. Mm. 18–24, 1841Brahms.

## CHAPTER IV

### Conclusion

Although there is no evidence that Mahler was familiar with the original 1841 version, his changes to the score sometimes result in a final product that is so similar to Schumann's original version that either Mahler must have been at least somewhat familiar with the original or that his orchestrational aesthetic was much more similar to that of "1841" Schumann than we would have ever imagined. Certainly Mahler often restored portions of Schumann's original scoring, either by knowingly borrowing from the 1841 score or by intuitively divining it, supporting Brahms's contention that the 1841 version was superior to revision and that many of Schumann's changes were not improvements.

Schumann's revisions can be characterized as compositional reimagining, while Mahler's can be characterized as orchestrational problem-solving. Schumann took material that usually functioned well already and made major changes to alter the overall sonority, sometimes to the detriment of the balance, or rewrote several transitional passages altogether. Mahler generally sought to "troubleshoot," improving balances and bringing out important melodic material through reorchestration.

Although few if any historians have remarked on any resemblance between the orchestrational aesthetics of Schumann and Mahler, there are some notable similarities between them, the Schumann of 1841 in particular. The "1841" Schumann tended to rely more on solo instruments instead of using doublings, which is comparable to Mahler's preference for pure, unblended timbres. The thickening of colors and textures that arose from the "1851" Schumann's heavy use of doublings and 32nd-note tremolos produced

the opposite effect of what Mahler usually strove to achieve. That is not to say that Mahler never used doublings in his reorchestration of Schumann, because he did frequently reinforce melodic lines with additional instruments, essentially continuing the doubling that Schumann himself had begun in his own revision.

That Mahler's revisions would sometimes look like Schumann's original scoring or further continue Schumann's own 1851 revisions demonstrates that his changes were generally conservative in scope and more often than not made the score sound like Schumann (frequently of 1841) rather than Mahler. It is undeniable that the changes enacted by Mahler's reorchestration were much more extensive than those that a conductor might ordinarily make, and that he also occasionally used orchestrational techniques that Schumann would not have used. In either case, what resulted was an honest attempt to perfect the music of Schumann rather than an attempt to put a Mahlerian stamp upon it.

## APPENDIX

### Table of Revisions

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
1.1	ob 1,2	half note to dotted quarter	thinning
1.3-5.1	ob 1,2	remove all	thinning
1.1	fg 1,2	dotted quarter to quarter	thinning
1.1	cor 1,2	half note to dotted quarter	thinning
1.3-4.1	cor 3,4	remove all	thinning
1.1	trp 1,2	half note to dotted quarter	thinning
4.1	vln 1	add upbow marking	articulation
5.2	fl, ob, cor, trp (1,2); cor 3,4; vln 1; vcl; cb	replace "sf" with "fp"	dynamics and articulation
6.1-7.1	ob 1,2; cor 3,4	remove all	thinning
10.1	fl 1,2	add breath mark after half note	articulation
10.1	ob 1,2; cor 3,4; vln 1; vcl; cb	add breath mark after dotted quarter	articulation
10.2	cl, fg (1,2); vln 2; vla	add breath mark after 3rd note	articulation
14.1	fl, cl (1,2)	add breath mark after quarter	articulation
14.2	ob, fg, vln (1,2); vla; vcl	add breath mark after 3rd note	articulation
14.2	cb	add breath mark after dotted quarter	articulation
14.2	fl, cl (1,2)	add "p" after 8th rest	dynamics
14.2	ob, fg, vln (1,2); vla; vcl	add "p" on fourth note	dynamics
14.2	cb	add "p" after dotted quarter	dynamics
15.1	fl, ob, cl, fg, vln (1,2); vla; vcl; cb	add "cresc."	dynamics
16.2	ob 1,2; vla; vcl	add hairpin cresc. after dotted quarter	editorial suggestion (already has "cresc."/dynamics)
16.2	cl, fg (1,2); vcl; cb	add hairpin cresc. on fourth note	editorial suggestion (already has "cresc.")/dynamics
17.1	vln 2; vla; vcl	continue hairpin cresc through measure	editorial suggestion (already has "cresc."/dynamics)
21.1- 22.1	fl 2	add "8 - - - -"	balance adjustment (only for fl 2?)

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
21.1	vln 1,2; vla; vcl; cb	add hairpin descr. through measure	editorial suggestion (already has "dim." in bar 19)/dynamics
22.2, 23.2	fl 2	replace 8th note c#" with 8th note e"	balance/reinforce ob 1
22.1	vcl; cb	add hairpin descr. on 2nd note down to "pp" on fifth note	dynamics
22.3	vln 1	add upbow marking and "pp"	dynamics and articulation
23.1	vln	add upbow marking	editorial reminder
23.2	fl, ob, cl, fg, trp (1,2); cor (3,4); tymp	add "pp"	dynamics
23.1- 26.1	vln 2	remove all	thinning
23.1- 24.2	vla	remove all	thinning
24.1	fl, ob, cor, trp (1,2); cor 3,4; tymp	replace dotted 8th rest-16th note with double dotted 8th rest-32nd note	major alteration-rhythm (check Mahler's annotated score?)
24.1	cor 3,4; trp 1,2; tymp	add "cresc." to 1st note	balance (match other instruments)
24	fl 2	replace all c#" with e"	balance/reinforce ob 1
24.3, 25.3, 26.3	vln 1	add upbow marking	articulation
25.1, 26.1	fl, ob, cl, fg, trp (1,2); cor (3,4); tymp; vln 2; vla	replace dotted 8th rest-16th note with double dotted 8th rest-32nd note	major alteration-rhythm
25.1	vla	add "pp"	balance
25-26	vla	add e' to existing rhythm	reinforce lower register
26.2- 28.1	vln2	add doubling of vln 1	reinforce vln 1
27.1	vln 2	add "cresc."	dynamics
28.1- 29.1	vla	add "8 ----"	reinforce vln 1
28	vcl	replace A tremolo with A 8th note followed by doubling of 1st vln (an octave below)	reinforce vln 1,2; vla
28.1	vln 1,2; vla; vcl	add "f" to g#/g#"	dynamics

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
29.1	all	quarter note = 96	tempo indication (marked as 92 in 1851ClSch but no marking in 1851Dörffel)
29.2	vln 2; vcl	add "ff"	balance
29.2-30.1	vln 2; vcl	add staccato to all notes on these beats	articulation
29.2-30.2	vla	add doubling of vln 1	reinforce vln 1
32	cor 3,4; trp 1,2	add "f" and hairpin cresc. through measure	dynamics
32.2	tymp	add four 16th notes on A and hairpin cresc.	reinforce lower register
33.2-33.2	vla	add upper line doubling original 2nd violin part	replace notes lost from removal of vln 2 part
33-35	vln 2	remove and replace with doubling of vln 1	reinforce vln 1
35	fl, ob, cl, fg, trp, vln (1,2); cor (3,4); trb 3; vla; vcl; cb	add "ff"	dynamics
35	vla	add 16th note a over 1st note, add 8th note a' over 2nd note, add 8th note c' over 4th note	replace notes lost from removal of vln 2 part
36.1	vln 1,2; vla; vcl; cb	add "f"	dynamics
36.1	vln 2; vla; vcl; cb	add staccato to the 1st four notes	articulation
37.1	vln 1,2; vla; vcl; cb	add "ff"	dynamics
37	vln 2	remove and replace with doubling of vln 1	reinforce vln 1
37	vla	add 8th note e" above 2nd note and 8th note g" above fourth note	replace notes lost from removal of vln 2 part
38.1	cl, fg, cor, trp (1,2); cor 3,4	add "mp" and hairpin cresc. through measure	dynamics
38.1	tymp; vln 1	add "f" and hairpin cresc. through measure	dynamics
38.2	vln 2	change 32nd notes to 16th notes	articulation (mistake? vln 1 and vla are 32nd notes, and in m. 39 the 2nd beat has 32nd notes)

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
38.2-39.1	vla	remove and replace with doubling of vln 2 (except with 32nd notes on 2nd beat)	reinforce vln 2
39.1	fg, cor, trp (1,2); cor 3,4	replace "ff" with "ffp"	balance
39.1-41.2	t ymp	on 2nd note place "p" and hairpin cresc. through m. 41	balance
39	vln 1	double vln 2 part upper line an octave above	reinforce fl 1
39.2	vln 2; vla	move 32nd note b-flat'-a'-g#'-a' from vln 2 to vla	increased color
40.1-40.2	ob, cl, fg (1,2)	add "8 - - - -"	balance/reinforce upper register
40.1-41.2	cor, trp (1,2); cor 3,4; t ymp	add hairpin descr. through both measures	dynamics/balance (continued from m. 39)
41	vla	remove and replace with doubling of vln 2	reinforce vln 2
42.1	cor, trp (1,2); cor 3,4; t ymp	add "f"	dynamics/balance (continued from m. 39)
43.2	vln 2	add upbow marking	articulation
50.2	vla; vcl	remove and replace with doubling of fg 1,2	reinforce fg 1,2
52, 54	fg 2	double fg 1	reinforce fg 1
57	ob 2	double ob 1 part an octave below	reinforce ob 1
57	cl 1,2	raise cl 1 an octave and give cl 2 original cl 1 part	reinforce ob 1
57.1	fg 1,2	add "a2"	editorial reminder
57.1	vln 1,2; vla	add "p"	editorial reminder
58	ob 2	double ob 1 part (a2)	reinforce ob 1
58	cl 2	double cl 1 part/add "a2"	reinforce ob 1
59.1	fg, cor, vln (1,2); vla; vcl; cb	replace "p" with "pp"	dynamics (not balance - moved all parts to pp)
59-60	vla	place brackets around these 2 measures	no indication (suggestion for removal?)
59.2, 63.2	fl, ob (1,2)	replace "p" with "pp" on 2nd note	dynamics
59.2-60.2, 63.2-64.2	fl, ob (1,2)	beginning with 2nd note, add staccato to all notes	articulation

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
59.2- 60.2, 63.2- 64.2	vln 1	place brackets from 2nd note through next measure	no indication (suggestion for removal?)
61.1	fg 1,2	replace "p" with "pp"	dynamics
63.2- 64.2	vla	place brackets from 2nd note through next measure	no indication (suggestion for removal?)
67.1	fl, ob (1,2)	add "pp" and hairpin cresc./decrec. beginning on 2nd note	dynamics/phrasing
67.1	fg, cor, vln (1,2)	add "pp"	dynamics
67.1	vla	add hairpin cresc./decrec. beginning on 2nd note	dynamics/phrasing
68.1, 69.1	fl, ob (1,2); vla	add hairpin cresc./decrec. beginning on 2nd note	dynamics/phrasing
68.1	cl 1,2	add "pp" and hairpin cresc./decrec. beginning on 2nd note	dynamics/phrasing
68	vln 2	add hairpin cresc. through measure	dynamics/phrasing
69.2	fl 1	add "8 ----" to final two notes	follow melodic contour of previous two measures (unclear if it applies only to fl 1)
73.1, 74.1, 75.1	vln 1,2; vla; vcl; cb	add "p"	dynamics/reminder
75.1	fl, ob, cl, fg, cor (1,2)	add "p"	dynamics/reminder
76.2, 77.2	vln 1	add downbow marking to 3rd to last note	articulation
77.1, 78.1	vln 1	add upbow marking to 2nd note	articulation
78.2	vln 1	add upbow marking to 3rd to last note	articulation
79.1	vln 1	add downbow marking to 1st note	articulation
79, 81	vla	change 32nd notes to 16th notes	articulation
79, 81	vla	slur 1st and 2nd notes/slur 5th and 6th notes	articulation



Bar.Beat	Instrument	Revision in 1851MahPub	Comments
79, 81	vla	add staccato to 3rd, 4th, 7th and 8th notes	articulation
79, 81	vcl	replace with doubling of revised vla part	reinforce vla
79.1, 81.1	vla, vcl	add "ff"	dynamics/balance
80	cor 3,4	double cor 1,2 parts	reinforce cor 1,2
80, 82	vln 2	double vln 1 part	reinforce vln 1
80, 82	vla	keep 1st and last notes, add 32nd notes and 8th note a'/c" from original vln 2 part	replace notes lost from removal of vln 2 part
80.2	fl, ob, cl, fg, cor, vln (1,2); cor 3,4; vla; vcl; cb	add breath mark after last note	articulation
82-85.1	cor 3,4	double cor 1,2 parts through 1st note of m. 85, then return to original part for rest of measure	reinforce cor 1,2
82	vln 2	double vln 1 part	reinforce vln 1
83-84	vln 1	change all 32nd notes to 16th notes	articulation
83-84	vln 1	slur 1st and 2nd notes/slur 1st two notes (g" and f") on beat 2	articulation
83-84	vln 2	double revised vln 1 part an octave below	reinforce vln 1
83-85.1	vla	double vcl part through 1st beat of m. 85/1st note in m. 83 is raised an octave to f	reinforce vcl
86	all	cross out 1st ending and repeat	preference in formal structure
93, 97	fg 1,2; vcl	replace "f" with "mf"	dynamics (establish crescendo)
94, 98	cl 1,2; vla	replace "f" with "mf"	dynamics (establish crescendo)
94-96, 98-100	fg 1,2; vcl	add hairpin cresc. through these measures	dynamics
95	vln 2	replace "f" with "mf"	dynamics (establish crescendo) - should this apply to ob 1,2 in m. 95 and 99 and vln 2 in m. 99?
95-96, 98-99	cl 1,2; vla	add hairpin cresc. through these measures	dynamics
96	fl 1,2; vln 1	replace "f" with "ff"	dynamics

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
96, 100	ob 1,2; vln 2	add hairpin cresc. through measure	dynamics
100	vln 1	replace "f" with "ff"	dynamics (should this apply to fl 1,2 in m. 100?)
101-102, 105-106, 109-110, 113-114	vln 2; vla	double vln 1 part	reinforce vln 1
101.2, 105.2, 109.2, 113.2	cor 1,2,3,4	replace "f" with "ff"	dynamics
101.2- 102.2	cor 3,4	change notes to written e'/g## (sounding f#/a)	reinforce harmony
101.2- 102.2	cor 1,2,3,4	add staccato to all notes	articulation (what about 105-106, 109-110, 113-114?)
103, 107, 111	fl, cl, fg (1,2)	replace "p" with "pp"	balance
103-105, 107-109, 111-113, 115-116	ob 1,2	remove all	thinning
103-104, 107-108, 111-112	trb 2,3	add hairpin cresc. through 103/107/111 and hairpin decresc. through 104/108/112	dynamics/phrasing
103-104, 107-108	vln 1; vla	remove all	thinning
103, 104	vcl	add upbow marking to 1st note, add downbow marking to 6th note	articulation
103, 104, 107, 108, 111, 112	vcl	add hairpin cresc. after "p" and hairpin decresc. after "sf"	dynamics/phrasing
105.2- 106.2	cor 4	change note to written d" (sounding b)	reinforce harmony
107-108	vln 2	add g' to tremolo	reinforce harmony (moved from vln 1)
110.1	cor 1,2,3,4	add "ff"	dynamics/reminder
113.2- 114.2	cor 4	change note to written b-natural' (sounding c')	reinforce harmony

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
117.1	ob 1,2	add "p"	dynamics (original dynamic marking removed from m.)
117.1-120.2	cor 3	change note to written g-flat" (sounding a-flat')	reinforce cor 1
117-120	trb 1	add a-flat' (match rhythm of trb 2)	reinforce trb 2
117.1	vln 2	double vln 1 part	reinforce vln 1
117.2-118.1	vln 1,2; vla	change to 16th notes, add slur over 1st and 2nd notes, add staccato to 3rd and 4th notes (match vln 1 beat 1 articulation)	articulation
118.1	ob 1,2	add "cresc."	dynamics (original dynamic marking removed from m.)
118.2-120.2	vln 1,2	for each group of 4 notes: add slur the 1st and 2nd notes, add 2 dots to the 3rd and 4th notes (indicating 32nd notes)	articulation (The original marking of slash marks indicating 32nd note marks remains in the revision. The added articulation markings are not possible with the original 32nd note markings – were these left in by accident? Should these notes actually be 16th notes?)
118.2-121.2	vla	for each group of 4 notes: add slur the 1st and 2nd notes, add 2 dots to the 3rd and 4th notes (indicating 32nd notes)	articulation (The original marking of slash marks indicating 32nd note marks remains in the revision. The added articulation markings are not possible with the original 32nd note markings – were these left in by accident? Should these notes actually be 16th notes?)
118.2-119.2	vla	add "8 ----"	reinforce vln 1
118.2-120.2	vcl	add "8 ----"	reinforce vln 1
119.2	cor 1,2,3,4	add "cresc."	dynamics/phrasing
119.2-120.2	cb	add "8 ----"	raise register of lowest line

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
120	cor 1,2,3,4	add hairpin cresc. through measure	dynamics/reminder
120.2-124.1	cl 1	add "1. Kl 8 ----" from final note in m. 120 to note in m. 124	reinforce fl 1 (only cl 1?)
121.1-124.1	cor 3	double cor 1 part	reinforce cor 1
121.1-124.1	cor 4	double cor 2 part	reinforce cor 2
121.1	trp 1,2; trb 1,2,3, tymp	replace "ff" with "mf"	balance
121	vln 1	remove all	thinning
121	vln 2	change all 32nd notes to 16th notes	articulation
122, 124	vln 1,2; vla	change all 32nd notes to 16th notes	articulation (should this apply to 126, 128, 130?)
122, 124	vln 1,2; vla	for each group of 4 notes: add slur over 1st and 2nd notes, add staccato to 3rd and 4th notes	articulation (should this apply to 126, 128, 130?)
122, 124	vcl	change all 32nd notes to 16th notes	articulation (should this apply to 126, 128, 130?)
122, 124	vcl	for each group of 4 notes: add slur over 1st and 2nd notes (1st beat already has slur), add staccato to 3rd and 4th note	articulation (should this apply to 126, 128, 130?)
122, 124	cb	for each group of 4 notes: add slur over 1st and 2nd notes (1st beat already has slur), add staccato to 3rd and 4th note	articulation (should this apply to 126, 128, 130?)
123.2	trp 1,2	change notes to written d' (sounding g')	reinforce cl 1,2
124.1	trp 1,2	change notes to written e-flat' (sounding a-flat')	reinforce cl 1,2
125.1	fl, ob, cl (1,2)	add "fff"	dynamics/balance
125.1, 129.1	trp 1,2; trb 1,2,3, tymp	add "mf"	dynamics/balance
126.2-128.1	cl 1	add "1. Kl 8 ----" from final note in m. 126 to note in m. 128	reinforce fl 1,2
126.2-128.1	cor 3,4	double cl 2 part from pickup to m. 127 to 1st note in m. 128	reinforce cl 2

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
128.2	fl, ob, cl, fg (1,2)	add "f" to pickup to m. 129	dynamics
128.2- 131.2	cor 3,4	double ob 1 part an octave below from the pickup to m. 129	reinforce top line
128.2	cor 1,2,3,4	add "mf" to pickup to m. 129	dynamics/balance
129	fl, ob, cl, fg, cor (1,2); cor 3,4	add hairpin cresc. through measure	dynamics/phrasing
129.2- 130	cor 1,2	change pickup to m. 130 and note in m. 130 to written e' (sounding a)	balance
130	cor 1,2,3,4	add "^" over note	articulation
131	fl, ob, cl, fg, cor (1,2); cor 3,4	add hairpin cresc. through measure	dynamics/phrasing
132.1- 133.1	cor 1,2	change note to written e' (sounding a)	balance
132.1- 133.1	cor 3,4	add "a2", add written e-flat" (sounding f)	reinforce trp 1,2; restore original cor 1 part
132	cor 1,2,3,4	add "^" over note	articulation
132	cor 1,2,3,4; trp 1,2; trb 1,2,3	add hairpin descr. through measure	dynamics/balance
132.2	vln 1,2; vla; vcl	replace next to last 32nd note with 32nd rest	articulation? (should this apply to m. 207?)
132.2	vln 1	add dot over last note	articulation?
132.2.- 133.1	vlc	add slur from last note in m. 132 and 1st note in m. 133	articulation
133.1	cor 1,2,3,4; trp 1,2; trb 1,2,3	add "p"	balance
133.2- 146.2	cor 3,4	double cor 1,2 parts from pickup to m. 134	reinforce cor 1,2
133.2- 141.2	trp 1,2	remove all from pickup to m. 134	thinning
134.1	trb 1,2,3	replace "ff" with "mf"	balance
134	vln 1,2	replace each dotted 8th note with 8th note and 16th rest	articulation to match cor 1,2,3,4; tym (should this apply to 134, 136, 138 and vcl and cb in 134?)

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
134.1-138.2	vln 2	change to double vln 1 part	reinforce vln 1
134	vln 2	add 16th note c" under 2nd note, add 16th note a-flat' under last note (additions to doubled vln 1 part)	preserve original vln 2 material
135	vln 2	add 16th note f' under last note (additions to doubled vln 1 part)	preserve original vln 2 material
136	vln 2	add 16th note d-flat" under 2nd note', add 8th note d-flat" under 3rd note (additions to doubled vln 1 part)	preserve original vln 2 material
137	vln 2	add 16th note c-flat" under last note (additions to doubled vln 1 part)	preserve original vln 2 material
138	vln 2	add dotted 8th note c-flat" under 1st note and 3rd notes, remove dotted 8th note a-flat' 1st and 3rd notes, add 16th note c-flat" under 2nd note, add 16th note b-flat' under last note (additions/deletions to doubled vln 1 part)	preserve original vln 2 material
139, 143, 145	cl 1,2	add "8 ----"	reinforce fl 1,2
141.2	cor 1,2,3,4	add "ff" to last note	dynamics
141.2-142.2	tymp	remove all from pickup to m. 142	thinning
142	trp 1	change to 8th note written e-flat' (sounding a-flat')-8th rest-8th note written f' (sounding b-flat')-8th rest	reinforce cor 1/thinning
142	trp 2	change to 8th note written c (sounding f)-8th rest-8th note written c (sounding f)-8th rest	reinforce cor 2/thinning
142.1	trp 1,2	add "f"	dynamics
142	cor, trp, vln (1,2); vla; vcl; cb	add hairpin cresc. through measure	dynamics/phrasing
142.2	trb 1,2,3	add "f" and hairpin cresc. from 1st note	dynamics/phrasing

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
143, 145	t ymp	add half note c "tr~~~~", fermata	reinforce bass note
143, 145	t ymp	add "ff" to beginning of measure, hairpin descresc. through measure, "p" at end of measure	dynamics
144	trp 1	change to dotted 8th rest-16th note written e-flat' (sounding a- flat')-8th note written e-flat' (sounding a-flat')-8th note written f' (sounding b-flat')	reinforce cor 1
144	trp 2	change to dotted 8th rest-16th note written c' (sounding f')-8th note written c' (sounding f')-8th note written c' (sounding f')	reinforce cor 2
144.1	trb 1	replace quarter rest with dotted 8th rest-16th note f'	reinforce 16th note
144.1	trb 2	replace quarter rest with dotted 8th rest-16th note a-flat	reinforce 16th note
144.1	trb 3	replace quarter rest with dotted 8th rest-16th note d-flat	reinforce 16th note
144.2	cor 1,2,3,4; trp 1,2; trb 1,2,3; t ymp; vln 1,2; vla; vcl; cb	add breath mark after last note	articulation
145	trp 1,2	add hairpin decresc. after "sf" through measure	balance
146.1	trb 1,2,3	add "p"	dynamics
146	vla; vcl	move hairpin decresc. to begin on c tied into fermata	dynamics/balance
146	cb	remove hairpin decresc. and add "pp" at end of measure to the right of the last quarter note	dynamics/phrasing (this was missed in the published version)
146.2	fl, ob, cl, fg, cor, trp (1,2); cor 3,4; vla; vcl	add "pp" at the end of measure	dynamics

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
147	fl 1; ob 1; cl 1,2; cor 1,2; vla; vcl; cb	replace "p" with "pp"	dynamics
1151.2	vln 1	remove "cresc."	balance adjustment (moved to m. 153)
153.2-154.2	vln 1	add hairpin cresc.	adjustment (moved from m. 151)
155-156	vla	double vln 1 part	reinforce vln 1
156.2	vln 1; vla	add downbow marking to 3rd to last note, upbow marking to next to last note, downbow marking to last note	articulation
157-8	vln 2	double vln 1 part	reinforce vln 1
157.1	vln 1,2	add upbow marking to 1st note, downbow to 3rd note	articulation
158.2-159.1	vla	add 8th note d' above last note in measure 158, add 8th note e' above 1st note in measure 159	preserve original vln 2 material (this was missed in published version)
159.1	vln 2	remove 1st note	reinforce vln 1 (completing removal of previous 2 measures)
159-162	fl 2	double fl 1 part	reinforce fl 1
167-168	vln 2; vla	add staccato to all notes	articulation (should horns match? This was not published - Mahler's own markings did not place staccator over horns)
168	cor 3	change notes to written f##"	reinforce cor 1
169.1	fl, ob, cl, fg (1,2)	replace 1st quarter note with 8th note and 8th rest (pitches remain the same)	articulation
169.1	cor 3	add natural sign to f'	reminder
169.1	vln 1	add upbow marking to 1st note, add downbow marking to 3rd note	articulation
169.1-170	vln 2	keep 1st note, then double vln 1 part	reinforce vln 1
169.1	vln 2	add downbow marking to 3rd note	articulation
169-170	vla	add c##" above all notes except 1st note	preserve original vln 2 material (this was missed in published version)



Bar.Beat	Instrument	Revision in 1851MahPub	Comments
171	cor 3	add 8th note written d-flat" (sounding e-flat')-8th rest-8th note written d natural" (sounding e-natural')-8th rest	preserve original vln 2 material
171	cor 4	add 8th note written b-flat' (sounding b#)-8th rest-8th note written b natural' (sounding c#)-8th rest	preserve original vln 2 material
171-174	t ymp	double trb 3 part	reinforce trb 3
171-176	vln 2	double vln 1 part	reinforce vln 1
172	cor 3	add 8th note written d-flat" (sounding e-flat')-8th rest- quarter rest	preserve original vln 2 material
172	cor 4	add 8th note written b-flat' (sounding b#)-8th rest-quarter rest	preserve original vln 2 material
173	cor 3	add 8th note written g-flat" (sounding g#)-8th rest-8th note written g natural" (sounding a- natural')-8th rest	preserve original vln 2 material
173	cor 4	add 8th note written e-flat" (sounding e#)-8th rest-8th note written e natural" (sounding f#)-8th rest	preserve original vln 2 material
174	cor 3	add 8th note written g-flat" (sounding g#)-8th rest-quarter rest	preserve original vln 2 material
174	cor 4	add 8th note written e-flat" (sounding e#)-8th rest-quarter rest	preserve original vln 2 material
177.1, 181.1, 185.1	trb 1,3	add hairpin cresc. after "p" through measure	dynamics/phrasing
177	vln 1	remove all	thinning (should m. 178 also be removed? see m. 182, m.
177	vcl	add hairpin cresc. after "p" and hairpin decresc. after "sf"	dynamics/phrasing should this be added to m. 182, m. 183, m. 185, m. 186?)
178- 179.1	trb 1,3	add hairpin descr. through 1st note of m. 179	dynamics/phrasing
178	vcl	add hairpin cresc. on 1st note and hairpin decresc. after "sf"	dynamics/phrasing

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
179-180, 183-184, 187-188	vln 2	double vln 1 part	reinforce vln 1
181-182, 186-186	vln 1	remove all	thinning
181-182	vln 2	add half note b-flat' tremolo to each measure	preserve vln 1 material
182, 186	trb 1,3	add hairpin descr. through measure	dynamics/phrasing
189.1	fl, ob, cl, fg (1,2)	add "p" before "cresc."	dynamics/reminder
191.1	vln 2	double vln 1 part	reinforce vln 1
192.2- 193.2	vla	add "8 ----"	reinforce vln 1,2
193.1	trb 1,3	add "cresc. molto"	dynamics/phrasing
193.2- 194.2	cor 1,2,3,4	add hairpin cresc. on 2nd beat through m. 194	dynamics/phrasing
194.2- 196.1	fl 2	all e" pitches dropped one octave to e"	pitch register
194.2- 202.1	cl 1,2	add "8 ----" from pickup to m. 195 to 1st note in m. 202	reinforce fl 1,2 and ob 1,2
194.2- 195.1	cl 1	change 16th note and 8th note written f#" (sounding e") to written c#" (sounding b)	reinforce ob 1
194.2- 195.1	cl 2	change 16th note and 8th note written f#" (sounding e') to written a#" (sounding g#)	reinforce ob 2
195.1	trp 1,2; trb 1,2,3	replace "ff" with "mf"	dynamics/balance
195.2	cor 1	change 8th note written e" (sounding a') to written g#" (sounding c#)	reinforce cl 1
197	cor 1	add 8th note written d#" (sounding g#)-8th rest-8th note written e#" (sounding a#)-8th rest	reinforce ob 1
197	cor 2	add 8th note written b' (sounding e')-8th rest-8th note written b' (sounding e')-8th rest	reinforce ob 2
197.2	trp 1	change 8th note written d" (sounding f#) to written f#" (sounding a#)	reinforce cor 3

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
197.2	trp 2	change 8th note written d' (sounding f#') to written c' (sounding e')	reinforce cor 4
198.1	cor 1	add 8th note written f##" (sounding b')-8th rest-quarter rest	reinforce ob 1
198.1	cor 2	add 8th note written a##" (sounding d#')-8th rest-quarter rest	reinforce ob 2
198.1	trp 1	change 8th note written d" (sounding f##") to written g' (sounding b')	reinforce ob 1
198.1	trp 2	change 8th note written d' (sounding f#') to written b (sounding d#')	reinforce ob 2
199.1	fl, ob, cl, fg, cor (1,2)	add "fff"	dynamics/balance
199	cor 1	add 8th note written c##" (sounding f#')-8th rest-8th note written f##" (sounding b')-8th rest	reinforce fl/ob/cl 1
199	cor 2	add 8th note written a' (sounding d')-8th rest-8th note written d" (sounding g')-8th rest	reinforce fl/ob/cl 2
199.1	trp 1,2	add "p"	dynamics/balance
199.1	trb 1,2,3	add "mf"	dynamics/balance
200.1	cor 1	add 8th note written c##" (sounding f#')-8th rest-quarter rest	reinforce fl/ob/cl 1
200.1	cor 2	add 8th note written a' (sounding d')-8th rest-quarter rest	reinforce fl/ob/cl 2
200.2-202.1	cor 1	double fl 1 part (an octave below) from pickup to m. 201 to 1st note of m. 202	preserve original cl 1 register
200.2-204.2	cor 2	double ob 2 part (an octave below) from pickup to m. 201 through m. 204	reinforce ob 2
202.2-204.2	cor 1	double ob 1 part (an octave below) from pickup to m. 203 through m. 204	reinforce ob/cl 1

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
202.2	cor 1,2,3,4	add "f" to pickup to m. 203	dynamics/balance
203.1	cor 1,2,3,4	add hairpin cresc. through measure	dynamics/phrasing
203.1	trp 1,2; trb 1,2,3	add "p" and hairpin cresc. through measure	dynamics/phrasing
204.1	fl, ob, cl, fg, cor, trp (1,2); cor 3,4; trb 1,2,3	add hairpin decresc. after "sf" through measure	dynamics/balance
205	cor 1,2	add "a2" and double cor 3,4 parts	reinforce cor 3,4
206-207	cor 1,2	add half note written d#" (sounding g#) and a tie extending to m. 207	reinforce trp/trb 1
207.1	cor 1,2	replace quarter rest with quarter note written d#" (sounding g#), tied to note in previous measure	reinforce trp 1
207.2-209.1	cor 1,2	double pitches of vln 1 part, upper line, (an octave below), but matching the rhythm of cor 3,4 part	reinforce vln 1
207.2	cor 1,2	add "mf" to pickup to m. 208	dynamics/balance
207.2	cor 3,4	replace "ff" with "mf"	dynamics/balance
207.2	trp 1,2	replace "ff" with "p"	dynamics/balance
207.2	vln 1,2	add upbow marking to last note	articulation
208	trb 1,2,3	replace "ff" with "mf"	dynamics/balance
208	vln 1,2	add downbow marking to 1st note, upbow marking to 2nd note, downbow marking to 3rd note, upbow marking to 4th note	articulation
208	vln 2	upper line replace f#" with b", e" with g#"	reinforce vln 1 upper line
209.1	vln 1,2	add downbow marking to 1st note, upbow marking to last note	articulation
209	vln 2	upper line replace e" with g#" , add e" above last note g#"	reinforce vln 1 upper line

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
210	cor 1,2	add "a2" and double vln 1 part upper line 2nd, 3rd and 4th notes (an octave below)	reinforce vln 1 upper line
210	vln 1	add downbow marking to 1st note, upbow marking to 2nd note, downbow marking to 3rd note, upbow marking to 4th note	articulation
210	vln 2	new upper line doubles vln 1 part upper line	reinforce vln 1 upper line
210	vln 2	new lower line is dotted 8th note g#" - 16th note e" - 8th note e" - 8th note e"	reinforce vla
211, 213, 215, 217, 219-220	cl 1,2	add "8 ----"	reinforce fl 1,2
211.1	cor 1,2	add 8th note written f#" (sounding b') - 8th rest - dotted 8th rest - 16th note written c#" (sounding f#)	reinforce vln 1 upper line
211-215.1	vln 2	double vln 1 part	reinforce vln 1
212-215.1	cor 1,2	double pitches of vln 1 part upper line (an octave below) through 1st not eof m. 215, but matching rhythm of cor 3,4 part	reinforce vln 1 upper line
215.2-220	cor 1	double vln 2 part upper line (an octave below) beginning with pickup to m. 216	reinforce vln 2 upper line
215.2-217	cor 2	double trp 2 part beginning with pickup to m. 216	reinforce trp 2
215.2	cor 1,2,3,4; trp 1,2	add "f" to pickup to m. 216	dynamics
215.2-216	tymp	remove all from pickup to m. 216	thinning
216	cor 1,2,3,4; trp 1,2	add hairpin cresc. through measure	dynamics/phrasing
217	cor 1,2	add "sf"	articulation to match cor 3,4
217	trb 1,2,3	replace "sf" with "sff"	dynamics

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
217	tymp	add half note d# "tr~~~~", fermata, "ff"	reinforce bass note
217	cor 1,2,3,4; trp 1,2; trb 1,2,3; tymp; vln 1,2; vla; vcl; cb	add hairpin decresc. after "sf"/"sff"/"ff" through measure	dynamics/balance
218-220	cor 2	double original trp 2 part	preserve original trp 2 material
218	trp 1,2	2nd vln part lower line/vla part	reinforce 2nd vln/vla
218.1	cor 1,2,3,4; trp 1,2	add "ff" on 1st note	dynamics/balance
219	cor 1,2	add "sf"	articulation to match cor 3,4
219-220	trp 2	double trp 1 part	reinforce trp 1
219	tymp	add half note d# "tr~~~~", hairpin decresc. through measure	reinforce bass note
220.1	trb 1,2,3	add "p" at end of hairpin descres.	dynamics/balance
220	tymp	add quarter note d#-quarter rest with fermata, "p" on d#	release note
220.2	fl, ob, cl, fg, cor; trp (1,2); cor 3,4; vln 1,2; vla; vcl; cb	add "pp" at end of hairpin descres.	dynamics/balance
225.1	ob 1	replace dotted quarter note c" with dotted quarter note c"	match melodic contour of cl/fg 1
225.2	vln 1	remove "cresc."	dynamics/balance
227.2- 228	vln 1	add hairpin cresc. on 2nd beat through m. 228	dynamics/reminder
229-232	vln 2	double vln 1 part	reinforce vln 1
229-232	vla	new upper line doubles original vln 2 part upper line	preserve original vln 2 material
230	vln 1,2	add upbow marking to next to last note, add downbow marking to last note	articulation
231	fl, ob, cl, fg (1,2)	add "ff"	dynamics/balance
231	vln 1,2	add upbow marking to 1st note, downbow to 3rd note	articulation
232	fl, ob, cl, fg (1,2)	add hairpin descr. through measure	dynamics/balance

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
241-248	vln 2	double vln 1 part	reinforce vln 1
241-244	vla	double original vln 2 part	preserve original vln 2 material
241.1	vla	add 8th note c' on 1st beat	preserve original vla material
242.1	vla	add 8th note b on 1st beat	preserve original vla material
243.1	fl, ob, cl, fg (1,2)	change rhythm on 1st beat from quarter note to 8th note- 8th rest	articulation
243.1	vla	add 8th note a# on 1st beat	preserve original vla material
244.1	vla	add 8th note a# to end of measure	preserve original vla material
245	vla	add 8th note d#' on 1st beat, 8th note e' on 2nd beat	preserve original vln 2 material
246.1	vla	add 8th note d#' on 1st beat	preserve original vln 2 material
249.2- 250, 257.2- 258, 261.2- 262	vln 2; vla	from 2nd beat, add staccato to all notes	articulation (does this apply to m. 253, m. 254?)
251.2- 252	cl, fg (1,2)	add hairpin cresc. on 2nd note through m. 252	dynamics/phrasing
255-256	cl, fg (1,2)	add hairpin cresc. through these measures	dynamics/phrasing
257.1	vln 1	add "pp"	dynamics
257.2	cl, fg (1,2); vln 2; vla	add "pp"	dynamics
258.1	vcl; cb	add "pp"	dynamics
259.1- 260	cl, fg (1,2)	add hairpin cresc. after "sf" through m. 260	dynamics/phrasing
265	trb 3	replace "f" with "mf"	dynamics/balance
266	trb 2	replace "f" with "mf"	dynamics/balance
267	trb 1	replace "f" with "mf"	dynamics/balance
273	trb 3	add "f"	dynamics/balance
274	trb 2	add "f"	dynamics/balance
275	trb 1	add "f"	dynamics/balance
291-297	ob 1,2	double fl 1 part	reinforce fl 1
291-296	cl 1,2	add "8 - - - -"	preserve original ob 1,2
291.1- 292	fl, ob, cl, cor (1,2)	replace "cresc." with hairpin cresc. through m. 292	notational choice/reminder (should trp 1 "cresc." also be replaced?)
292.1	fg, trp (1,2); cor 3,4; tympan	replace "cresc." with hairpin cresc. through measure	notational choice/reminder

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
293.1	fl, ob, cl, fg, cor, trp (1,2); cor 3,4; tympan	add "p"	dynamics/phrasing/balance
293.1- 294	fl, ob, cl, fg, cor, trp (1,2); cor 3,4; tympan	after "p" add hairpin cresc. through m. 294	dynamics/phrasing/balance
294.1	trb 2,3	replace "cresc." with hairpin cresc. through measure	notational choice/reminder
295.1	fl, ob, cl, fg, cor, trp (1,2); cor 3,4; trb 2,3; tympan	add "p"	dynamics/phrasing/balance
295.1- 296	fl, ob, cl, fg, cor, trp (1,2); cor 3,4; trb 2,3; tympan	after "p" add hairpin cresc. through m. 296	notational choice/reminder
297.1	cl 1,2	replace "sfp" with "sfpp"	dynamics
297.1	vln 1	remove "sf", replace "p" with "pp"	articulation/dynamics
297.1	vln 2	replace "sfp" with "pp"	dynamics/articulation
297.1	vla	replace "p" with "pp"	dynamics/balance
298.1	fg 1,2	replace "p" with "pp"	dynamics
313.1	fg, cor, trp (1,2); cor 3,4; trb 1,2,3; tympan	replace "ff" with "f"	dynamics/balance
313.2- 332	cl 1	add "8 ----" from pickup to m. 314 through m. 332	reinforce ob 1 (m. 313- 325)/cor 1 (m. 326-328) (unclear if octave marking)
315	fl, ob, cl, fg, trb (1,2)	remove slur	articulation (does this apply to m. 319?)
315	cor 4	replace dotted quarter note written c" (sounding d')-8th note written d" (sounding e') with dotted quarter note a' (sounding b)-8th note b' (sounding c#')	reinforce fg 1,2/trb 2 (does this apply to m. 319?)
325-332	ob 1	double fl 1 part (an octave below)	reinforce fl 1
325	cl 1	double fl 1 part (an octave below)	reinforce fl 1



Bar.Beat	Instrument	Revision in 1851MahPub	Comments
325.1	trp 1,2; trb 1,2,3, tympt	add "mf"	dynamics/balance
329	ob 2	double fl 1 part (an octave below)	reinforce fl 1
329	trp 1	replace quarter note written a' (sounding d'')-quarter rest with half note written b' (sounding e'')	reinforce fl/vln 1
329	trp 2	replace quarter note written a (sounding d')-quarter rest with half note written b (sounding e')	reinforce fl/vln 1
329.1	trp 1,2; trb 1,2,3	add "ff"	dynamics/balance reminder
329.1	vln 1,2	add "fff"	dynamics/balance
329-332	vln 2	double vln 1 part	reinforce vln 1
337-338, 341-342	fg 1,2;trb 3; vcl; cb	add staccato to all 8th notes	articulation
337, 341	cor 1, 2, 4; trp 2; trb 1,2	add staccato to 1st note	articulation (does this apply to cor 3, trp 1?)
339, 343	cor 2	double cor 4 part	reinforce cor 4
339.1	cor 1,2,3,4; trp 1,2; trb 1,2	add "mf"	dynamics/balance
340, 344	cor 2	double trb 2 part	reinforce trb 2
341.1, 343.1	cor 1,2,3,4; trp 1,2; trb 1,2	add "f"	dynamics/balance
345.1	cor 1,2,3,4; trp 1,2; trb 1,2,3	add "mf"	dynamics/balance
345-347	vln 2	add "8 - - - -"	reinforce vln 1
345.2	tympt	remove last 8th note	thinning
346.1	tympt	remove 1st 8th note	thinning
347	tympt	remove 2nd and 3rd 8th notes	thinning
348.1	tympt	remove 1st 8th note	thinning
349.2, 351.2	tympt	remove last 8th note	thinning
350.1	cor 1,2,3,4; trb 1,2,3	add "f"	dynamics/balance
350.2, 350.2	tympt	replace quarter rest with 8th note d -8th rest	reinforce trb 3

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
350-356	vcl; cb	replace each pair of 32nd notes with a 16th note	articulation
351.1	trp 1,2	add "f"	dynamics/balance
<b>Romanz e</b>			
360.3	cl 1,2	replace "p" with "ppp"	dynamics/balance
360.3	cor 3,4	replace "p" with "pp"	dynamics/balance
364.3, 365.3	ob 1	add hairpin cresc. through 3rd beat	dynamics/phrasing
366.3	ob 1	add "pp"	dynamics
367.3	ob 1; vcl 1	remove staccato on last note	articulation (does this apply to m. 407?)
368	ob 1; cl 1,2; vcl 1	add hairpin descr. through measure	dynamics/balance
369	ob 1	replace dotted half note with quarter note and two quarter rests	thinning
369.1	ob 1; cl, fg, vln (1,2); vcl 1	add "pp"	dynamics/balance (vln 1 dynamic is placed in m. 368 after quarter beat rest on beat 3 - assuming this applies to m. 369)
369	vla; vcl 2	add hairpin descr. through beat 1 and 2, "pp" on beat 3	dynamics/phrasing
370	ob 1	remove all	thinning
374.2	vln 1,2; vla	add breath mark after 3rd note	articulation
374.2	vln 1,2; vla	add "f" on 4th note	dynamics/balance
374.2	vcl 1,2; cb	add breath mark after 1st note	articulation
374.2	vcl 1,2; cb	add "f" on 2nd note	dynamics/balance
376.2	fl, ob (1,2); cor 3,4; vln 1; vcl 1,2; cb	add "p" on 4th note	dynamics/balance
376.2	cl, fg (1,2); vln 2; vla	add "mf" on 4th note	dynamics/balance
378.2	fl, ob (1,2); cor 3,4; vln 1; vcl 1,2; cb	add breath mark after 1st note	articulation
378.2	cl, fg (1,2); vln 2; vla	add breath mark after 3rd note	articulation
378.2	vln 1	add "mf" after 1st note	dynamics
379.1	vln 1; vla	add hairpin descr. through measure	dynamics/phrasing

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
379.1	vln 2; vcl 1,2; cb	add "dim." on 1st note	dynamics/phrasing
381.3	vcl 1	remove staccato on last note	articulation (does this apply to ob 1?)
382.3- 383	cl, fg (1,2)	add hairpin descr. from beat 3 through m. 383	dynamics/phrasing
383.1	vla	add hairpin decresc. from 2nd note through measure	dynamics/phrasing
384.2	vln 1,2; vla; vcl 1,2	add "*" for "sul tasto" marking	technique
384.2	cor 3,4; vln 1 solo	replace "p" with "pp"	dynamics
384.2	vln 1,2; vla; vcl 1,2	replace "p" with "ppp"	dynamics/balance
388.2	cor 3,4; vln 1 solo; vln 1,2; vla; vcl 1,2	add breath mark after 2nd note	articulation
392.2	fg 1,2; cor 3,4; vln 1,2; vla; vcl 1,2	add breath mark after 2nd note	articulation
393.1	vln 1	add "{tutti div." between original solo part and tutti vln 1	balance (vln 1 tutti divisi until m. 396)
394.3	ob 1	add "pp"	dynamics
395.1	vln 1 (lower), 2; vla; vcl 1,2; cb	add "pp" to 1st note	dynamics/balance
396.2	vln 1	add "Solo" to top vln 1 line	reversion to original divisi
396.2	vln 1 solo; vln 1,2; vla; vcl 1,2	add breath mark after 2nd note	articulation
397.3- 398	vln 1 tutti	add "dim." on last note in m. 397, add "-----pp" through m. 398	dynamics/phrasing
397.3- 398	vln 2; vla; vcl 1,2	add hairpin decres. from last note in m. 397 through m. 398	dynamics/phrasing
398.3	fg 1,2; cor 3,4; vln 1,2; vla; vcl 1,2	add "pp" to last note	dynamics
400.2 (1st ending)	fg 1,2; cor 3,4; vln 1,2; vla; vcl 1,2	add "p" in between hairpins	dynamics (does this apply to vln 1 solo?)

Bar.Beat	Instrument	Revision in 1851MahPub	Comments
400.2 (1st ending)	fg 1,2; cor 3,4; vln 2; vla; vcl 1,2	add breath mark after 2nd note	articulation (does this apply to vln 1 solo, vln 1 tutti?)
400.2 (1st ending)	vln 1	add "{tutti div." between original solo part and tutti vln 1	balance (vln 1 tutti divisi until m. 396)
400.1- 400.2	fl 1	add "f" on 1st note, hairpin deces. through middle notes, "p" on last note	dynamics/balance
403.3	ob 1; vcl 1	remove staccato on last note	articulation (does this apply to m. 401, m. 407?)
409.1	cl, fg (1,2); cor 3,4	add hairpin decresc. through measure	dynamics/phrasing
409.3- 410.2	vln 1; vla; vcl 1,2; cb	add hairpin decresc. from beat 3 in m. 409 through beat 2 of m. 410	dynamics/phrasing
409.3	vln 2	add "dim." on beat 3	dynamics/phrasing
410.2	cl, fg (1,2); cor 3,4	add "ppp" on 2nd note	dynamics/balance/phrasing
410.3	vln 1,2; vla; vcl 1,2, cb	add "ppp" on 3rd note	dynamics/balance/phrasing

## BIBLIOGRAPHY

- Abraham, Gerald. "The Three Scores of Schumann's D Minor Symphony." In *Slavonic and Romantic Music*. New York: St. Martin's Press, 1968.
- Avins, Styra, ed. *Johannes Brahms: Life and Letters*. Translated by Josef Eisner and Styra Avins. New York: Oxford University Press, 1997.
- Bauer-Lechner, Natalie. *Recollections of Gustav Mahler*. Translated by Dika Newlin; edited and annotated by Peter Franklin. New York: Cambridge University Press, 1990.
- Bekker, Heinz. *History of Instrumentation*. English translation by Robert Kolben. Cologne: Arno Volk Verlag, 1964.
- Boyd, Malcom: 'Arrangement', Grove Music Online ed. L. Macy (Accessed 8 September 2007), <<http://www.grovemusic.com>>
- Carner, Mosco. "Mahler's Re-scoring of the Schumann Symphonies." *The Music Review* 2 (May 1941):97-110.
- Carse, Adam. *The History of Orchestration*. London: Keegan Paul, 1925.
- Corder, Frederick. "Schumann's Orchestration." *The Musical Times* 51, no. 810 (August 1910): 494-5.
- Cummings, Ronn. "Analysis of the Re-Orchestrations of Robert Schumann's Four Symphonies Employed by Felix Weingartner with Four Recitals of Selected Works by Schumann, Beethoven, Tchaikovsky, Poulenc, Bizet, Rossini and Chabrier." D.M.A. diss., University of North Texas, 1997.
- Daverio, John: 'Schumann, Robert', Grove Music Online ed. L. Macy (Accessed 3 November 2007), <<http://www.grovemusic.com>>
- "Robert Schumann: Orchestral Works. A Quest for Mastery of the Grand Form." Booklet. Program notes to *Schumann: Complete Symphonies*, Orchestre Révolutionnaire et Romantique conducted by John Eliot Gardiner. Hamburg: Deutsche Grammophon GmbH CD 289 457 591-2, 1998.
- Finson, Jon W. and R. Larry Todd, eds. *Mendelssohn and Schumann: Essays on Their Music and Its Context*. Durham, NC: Duke University Press, 1984.
- *Robert Schumann and the Study of Orchestral Composition: The Genesis of the First Symphony, op. 38*. Oxford: Clarendon Press, 1989.

- ..... "Robert Schumann: The Creation of the Symphonic Works." Ph.D. diss., University of Chicago, 1980.
- Franklin, Peter: Mahler, Gustav, Grove Music Online ed. L. Macy (Accessed 3 November 2007), <<http://www.grovemusic.com>>
- Gal, Hans. *Schumann Orchestral Music*. Seattle: University of Washington Press, 1979.
- Gardiner, John Eliot. "Schumann and the Ideal of a Modern Symphony." Booklet. Program notes to *Schumann: Complete Symphonies*, Orchestre Révolutionnaire et Romantique conducted by John Eliot Gardiner. Hamburg: Deutsche Grammophon GmbH CD 289 457 591-2, 1998.
- Goodman, Roy. "Schumann the Symphonist." Booklet. Program notes to *Schumann—4 Symphonies; Overture, Scherzo & Finale*, The Hanover Band conducted by Roy Goodman. New York: BMG Music CD 09026-61931-2, 1994.
- Hellner, Jean Marie. "Robert Schumann's Symphony in D Minor, Op. 120: A Critical Study of Interpretation in the Nineteenth-Century German Symphony." Ph.D. diss., University of North Texas, 2003.
- Hoy, Patricia. "A Comparison of Selected Performing Editions of the Robert Schumann Symphonies." A.Mus.D. diss., University of Arizona, 1991.
- Holoman, D. Kern: 'Instrumentation and orchestration', *Grove Music Online* ed. L. Macy (Accessed 20 June 2007), <<http://www.grovemusic.com>>.
- Jensen, Eric Frederick. *Schumann*. New York: Oxford University Press, 2001.
- La Grange, Henry-Louis de. *Gustav Mahler*. Translated by Henry-Louis de La Grange. New York: Oxford University Press, 1994.
- Mathews, Paul, ed. *Orchestration: An Anthology of Writings*. New York: Routledge Taylor & Francis Group, 2006.
- Mathews, David. "Schumann, Arranged Mahler Symphonies 2 and 4." Booklet. Program notes to *Symphonies 2 & 4: the Mahler arrangements/Schumann*, Leipzig Gewandhaus conducted by Riccardo Chailly. London: Decca CD 475-8352, 2007.
- McCaldin, Denis. "Mahler and Beethoven's Ninth Symphony." *Proceedings of the Royal Musical Association* 107 (1980 - 1981): 101-10.
- Mitchell, Donald, and Andrew Nicholson, ed. *The Mahler Companion*. New York: Oxford University Press, 1999.

- Niecks, Frederick. "Schumann's Instrumentation and his Position as a Symphonist." *The Musical Times and Singing Class Circular* 23, no. 368 (July 1882): 367-9.
- Painter, Karen. "The Sensuality of Timbre: Responses to Mahler and Modernity at the fin de siècle." *19th-Century Music* 18, no. 3 (Spring 1995): 236-56.
- Raynor, Henry. *The Orchestra: A History*. New York: Charles Scribners Sons, 1978.
- Schlötel, Brian. "The Orchestral Music." In *Robert Schumann: The Man and His Music*, ed. Alan Walker, 277-323. London: Barrie & Jenkins, 1972.
- Shatzkin, Merton. *Writing for the Orchestra: An Introduction to Orchestration*. Englewood Cliffs, NJ: Prentice Hall, 1993.
- Steen, Michael. *The Lives and Times of the Great Composers*. New York: Oxford University Press, 2003.
- Stein, Irwin. *Orpheus in New Guises*. Rockliff: London, 1953.
- Szell, George. "George Szell on Schumann," *The New York Times*, 13 March 1960.
- Taruskin, Richard "Let's Rescue Poor Schumann From His Rescuers," *The New York Times*, 17 May 1998
- Todd, R. Larry. "Orchestral Texture and the Art of Orchestration." In *The Orchestra*, ed. Joan Peyser, 193-227. New York: Charles Scribners Sons, 1986. Reprint, Milwaukee, WI: Hal Leonard Corp., 2006.
- , ed. *Schumann and His World*. Princeton, NJ: Princeton University Press, 1994.
- Tovey, Donald Francis, Sir. *Essays in Musical Analysis*. London: Oxford University Press, 1935.
- Turnbridge, Laura. *Schumann's Late Style*. New York: Cambridge University Press, 2007.
- Zlotnik, Asher. "Orchestration Revisions in the Symphonies of Robert Schumann." Ph.D. diss., Indiana University, 1972.
- Zychowicz, James L. *Mahler's Fourth Symphony*. New York: Oxford University Press, 2000.

**Scores of Schumann Symphony No. 4 in D Minor, Op. 120.**

Schumann, Robert. *Symphonie Nr. 4, d moll.* Ed. Gustav Mahler. Wien: Universal Edition, 1977.

----- *Vierte Symphonie* (1841). Boca Raton, Florida: Edwin Kalmus & Co., Inc., n.d.

----- *Symphonie-Nr. 4, d-moll* (1841). Ed. Jon Finson. Wiesbaden: Breitkopf & Härtel, 2003.

----- *Symphonie Nr. 4, d-moll.* Ed. Joachim Draheim. Wiesbaden: Breitkopf & Härtel, 1999.

----- *Vierte Symphonie: Introduction, Allegro, Romanze, Scherzo und Finale in einem Satze für grosses Orchester.* Ed. Alfred Dörffel. Leipzig: C.F.Peters, [1890-9?].

----- *Symphonie für Orchester Redivert von Alfred Dörffel.* James Marshall and Marie-Louise Osborn Collection, Beinecke Rare Book and Manuscript Library, Yale University.

----- *Vierte Symphonie*, in *Werke*. Ser. 1, *Symphonien*. Ed. by Clara Schumann. Leipzig: Breitkopf & Härtel, 1881-93. Reprint, New York: Dover Publications, Inc., 1980.

----- *Symphony No. 4.* New York: Edwin F. Kalmus, n.d.

**Scores of Mahler Symphony No. 4.**

Mahler, Gustav. *Symphony No. 4.* New York, Edwin F. Kalmus, n.d.

----- *Symphonie No. 4.* Ed. Erwin Ratz. Wien: Universal, 1963.