

THE PROCESS OF ARRANGING MUSICAL
WORKS FOR ENSEMBLES THAT
INCLUDE THE TROMBONE

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ABSTRACT

This project is a performance of my own arrangements for ensembles including the trombone. This manuscript accompanies that recital as an explanation of the process of creating the arrangements, discussing problems that arose and how I solved them.

Arrangements are an important part of the trombone literature, and providing information about their creation can be helpful to aspiring arrangers. In this manuscript I focus on three aspects of music that can be problematic when arranging: range, technical difficulty, and complexity of a piece. Depending on the piece and ensemble, the way that these aspects cause problems can differ dramatically, and so I illustrate various methods for working around them using several case studies.

DEDICATION

I would like to dedicate this document to my parents, Ruth and David Mayhew, for all of their love and support.

ACKNOWLEDGMENTS

I would like to thank all the members of my committee for their help and guidance throughout the process of this project. I am grateful to all the members of the chamber ensembles that performed in the recital that accompanies this manuscript. I would like to thank Dr. Jonathan Whitaker for all his help throughout my time at Alabama.

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INTRODUCTION

Standard literature for the trombone often includes pieces that were originally written for other instruments. The use of arrangements is especially prevalent for trombone choirs. These arrangements are an important part of the trombone literature, since the trombone has historically not been a popular instrument for which to write. An instrument like the violin, in contrast, has had countless solos written for it by major composers. Pieces like the Nikolai Rimsky-Korsakov's *Concerto* or the Camille Saint-Saens *Cavatine* are available and are commonly performed pieces, but the number of works by major composers pale in comparison to most other orchestral instruments. As a result, if one desires to play something by a major composer, they often must rely on an arrangement to do so. While new works for the trombone are becoming more common, there is a wealth of music by the masters that can be arranged for the trombone and ensembles that include the trombone. For these reasons, it is important to continue to create new arrangements for the trombone.

It is important for people to become interested in creating their own arrangements. However, creating an arrangement can be a daunting task if the arranger is new to the art. Even deciding what to arrange might seem intimidating to the inexperienced arranger. In his arranging book, *Arranging Music for the Real World*, Vince Corozine states, "The art of arranging is a skill developed through trial and error over many years and is the result of listening to, and receiving both positive and negative comments from, musicians who perform one's music."¹. Another

¹ Corozine, "Arranging Music for the Real World", 2.

important aspect of the process is studying the works of the masters, to see how they used the instruments². While this is all true, it can also be extremely helpful to be able to see specific problems and the solutions that were developed to overcome them. The following document provides the context for some of the issues that appear during arranging, as well as suggestions on how to solve them. Table 1.1 lists the pieces that will be discussed in the order in which they appear.

Table 1.1 – List of Pieces

Piece	Ensemble	Original Key	Arrangement Key	Difficulty to arrange
Verdi, <i>Rigoletto</i> , “Figlia Mio Padre!”	Flute, Trombone, Piano	C Major	C Major	Very Easy
Beethoven, String Trio in E-flat Major, Movement 4	Trombone Trio	A-flat Major	C Major	Easy
Grieg, <i>Lyric Pieces</i>	Brass Trio	Various	No Change	Moderate
Mozart, Requiem in D Minor, Introitus and Kyrie	Trombone Choir	D minor	D minor (down 1 octave)	Moderate
Mendelssohn, Symphony No. 4, Movement 2	Trombone Quartet	D minor	D minor	Difficult
Mahler, Symphony No. 2, Movement 4	Brass Quintet	A-flat Major	A-flat Major	Very difficult

² Ibid.

VERDI, *RIGOLETTO*, “FIGLIA MIO PADRE!”

If one is looking to arrange a piece for duet and piano, opera is a beginner-friendly medium from which to draw examples because many duets exist between various characters. An opera duet arrangement can be approached in two different ways. The first is to find a desirable duet that you would like to arrange and pick instruments that fit the range of the singers. The second, and the way I approached it, is to decide what instruments to use and then find a piece that will fit those instruments. There are rarely any limiting factors for opera duets if you follow one of these two methods. Technique should not be an issue; only extended vocal techniques that would not translate well to an instrument can cause problems. Range can be a minor issue depending on the piece and instruments chosen, but the issue is usually resolved without difficulty. Given the lack of restrictions, there is a wealth of music from which to choose and the arranger can easily select a piece they enjoy. For this project, my search was for a duet that would work for trombone, flute, and piano. Therefore, the duet “Figlia, Mio Padre!” from *Rigoletto* between a soprano and a baritone fit the range requirements.

Once this piece was chosen, creating the duet section of the arrangement was very straightforward. Since the range of the instruments fit the vocal parts, reproducing the notes and rhythms from the vocal parts to the duet was uncomplicated. The accompaniment part was slightly more problematic; since many opera scores have a condensed piano part, the arranger must make a choice before work begins on the accompaniment. For an arranger looking for something quick and easy it is straightforward enough to simply use the condensed piano part from a vocal score. However, for those interested in a more sophisticated arrangement, or those

looking to practice reducing orchestra parts, creating an original arrangement for the piano is the superior method.

The melody does not need to be doubled by the piano, as is often done with vocalists, when instrumentalists are playing. Therefore, the arrangement was able to use a more complete realization of the chords. These simplifications allow for a more complete realization of the chords. Measure 80 provides the biggest difference between the piano reduction and the arrangement. As seen in Examples 2.1-3, there is a difference in harmonic color available for the orchestra compared to what is presented when the melody is doubled in the piano reduction. When examining the orchestral score one can see that the majority of instruments are playing the chords and triplet rhythms instead of the vocal line.

Example 2.1. “Figlia Mio Padre!”, arrangement, m. 80

The image displays a musical score for measure 80 of the piece "Figlia Mio Padre!". The score is written for voice and piano. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 2/4. The measure number "80" is indicated at the beginning of each staff. The vocal line (top staff) features a melody with a triplet of eighth notes in the first half and a triplet of quarter notes in the second half. The piano accompaniment (bottom two staves) consists of chords and rhythmic patterns, including triplets of eighth notes in the right hand and quarter notes in the left hand. The piano part uses a grand staff with a brace on the left. The overall texture is characterized by the use of triplets and chords, providing a different harmonic color compared to a piano reduction that might double the vocal melody.

Example 2.2. “Figlia Mio Padre!”, Score, m. 80

Example 2.3. “Figlia Mio Padre!”, Piano reduction, m. 80

Another aspect that was adjusted was the speed of the notes at measure 94. In the vocal score the repeated notes were changed to be two different notes moving back and forth as shown in example 2.6. Later, in measure 99, the correct rhythm is used for the top part. In the

arrangement (Example 2.4), slowing the rhythm down to eight-notes made the passage playable on the piano with a more accurate spelling of the chords. While using the piano reduction from a vocal score would have been a viable option, with my arrangement the original piece is more accurately represented.

Example 2.4. “Figlia Mio Padre!”, Arrangement, mm. 94–99.

Example 2.4 shows a musical arrangement for measures 94–99. The score is written for voice and piano. The vocal line is in the treble clef, and the piano accompaniment is in the grand staff (treble and bass clefs). The key signature has two flats (B-flat major), and the time signature is 3/4. The piano part includes a piano (*pp*) dynamic marking. The arrangement uses eighth notes for the piano accompaniment, making it more playable on the piano.

Example 2.5. “Figlia Mio Padre!”, Score, mm. 94–99.

Example 2.5 shows the original score for measures 94–99. The score is written for voice, piano, and cello/contrabass. The vocal line is in the treble clef, and the piano accompaniment is in the grand staff (treble and bass clefs). The cello/contrabass line is in the bass clef. The key signature has two flats (B-flat major), and the time signature is 3/4. The piano part includes a piano (*pp*) dynamic marking. The score is more complex than the arrangement, with more notes and rests.

vi - sta. Il no - me vo - stro di - te-mi, il duol che si v'at
zia - to

Example 2.6 “Figlia Mio Padre!”, Piano reduction, mm. 93–99.

The musical score is presented in two systems, each containing vocal staves and a piano accompaniment. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The first system (measures 93-99) features a vocal melody in the upper staff with lyrics: "vi - sta. Il no - me vo - stro". The lower vocal staff has the lyrics "zia - to". The piano accompaniment consists of a right hand with a continuous eighth-note pattern and a left hand with a steady quarter-note accompaniment. The second system (measures 100-106) continues the vocal melody with lyrics: "di - te - mi, il duol che si v'at". The piano accompaniment continues with similar rhythmic patterns. The score includes dynamic markings such as *pp* (pianissimo) and a triplet marking (³) over the vocal lines in the second system.

BEETHOVEN, STRING TRIO IN E-FLAT MAJOR

Arrangements that feature one group of instruments are straightforward if the number of instruments in the group for the arrangement equals the number of parts in the original composition (e.g., turning a trio of any set of instruments into a trio of another set of instruments). In this case, a key factor in choosing the work to arrange is the technical proficiencies of the instruments for which you are arranging. For example, a piece that is relatively easy for string players to perform technically might be nearly impossible for brass players because of double stops or large leaps. As a result, my search for a piece to arrange for trombone trio was mostly restricted to music in slower tempos. Fast-tempo pieces are not necessarily impossible, but the comfortable speed at which the average trombone player can operate is significantly slower than most other instruments. Bearing this in mind, it seemed more constructive to search for slower works that would have a higher likelihood of success.

Another aspect to be aware of is the range of the original composition, including the composite range of all the constituent parts as well as the range of each individual part. For my purposes, the search was for a trio with a range of about three octaves. Adjustments can always be made to account for notes that move out of range, but if most of the piece exceeds a comfortable range, the constant necessary adjustments change the nature of the piece.

The fourth movement of Beethoven's *String Trio in E-flat Major* became my preferred choice to arrange for trombone trio. The movement is slow and beautiful, and the range of the original notes transferred well enough to the range of the trombone. The trio chosen for this arrangement consists of an alto, tenor, and bass trombone instead of two tenor trombones and a

bass trombone, which is the more common configuration. The original trio was for violin, viola, and cello so the different trombones produce a comparable feeling of the instruments being related but with their own individual timbre and comfortable range. Also, using the alto, tenor, and bass trombone seemed appropriate because Beethoven used the same configuration in the trombone section in his fifth and ninth symphonies.

The first and most important matter to consider when arranging this piece is that of range. This movement's range generally fell within the boundaries discussed above, but there were still issues to consider. While the cello and viola parts are both within the range of the bass and tenor trombone respectively, the violin part is often above the reasonable expectations of an alto range. After considering transposing the entire piece down an octave, it became clear this would make the lowest notes of all three parts too low. My decision was to transpose the piece down a minor 6th to C Major. While there are still sections of the music where the range of the bass and alto trombone get stretched, the alto trombone mostly stays within a manageable high range. There were still measures where adjustments needed to be made, such as in measure 30 (Example 3.1); the violin part goes slightly higher than is reasonable to expect of the alto trombone player, so transposing the passage one octave lower is necessary. A similar example can be found in measure 88. The reverse issue takes place in measure 34; the violin part goes too low for the alto trombone to comfortably play this measure, so the passage was given to the tenor player who would mostly be resting in that measure.

Example 3.1 Beethoven, String Trio, m. 30



After these slight modifications, very little needed to be done to make the piece playable. The notes were well within the technical abilities of the trombone, other than the double and triple stops. While the trombone could potentially play the double stops with multiphonics, this would be an inappropriate technique for the piece. For the repeated double stops, seen in example 3.2, the trombone plays one note and then the other to mimic a similar effect.

Example 3.2 Beethoven, String Trio, mm. 28–29



The double stops at measure 113 presented more of a challenge. The chordal and non-repetitive nature of these two measures makes the decision a more difficult one. The problem is solved by using simple music theory. For the first note of the measure, both notes in the viola part are covered by the cello and the top note of the violin double stop. As a result, the tenor trombone needs to play the bottom note of the violin double stop to fill out the I chord. The next chord is a ii^6 chord, which the third is in both the cello and the violin part. Both the root and the

fifth appear in the viola part. While it may be tempting to put one of those notes in the bass or alto part, it would ruin either the inversion or the melodic downward scale line respectively. The only solution in this case is to put the root in the tenor part and weaken the chord slightly by leaving out the fifth but keeping the underlying chord and movement the same. The next two chords are a cadential V pattern with an 8-7, 6-5, and 4-3 motion. With the 6-5 motion in the violin part the tenor trombone needs to be given either the 8-7 or 4-3 motion. Either is possible, but the 4-3 motion works better since it provides both the root of the I^6_4 portion of the cadential V and the third of the V^7 portion of the chord. The triple stops only appear twice and are significantly easier to solve. They both appear at cadences and are simple triads. Unfortunately, as seen in Example 3.3, some of the color is lost due to simplifying the spelling of the chords. Despite the color loss the basic effect of the chord is preserved.

Example 3.3 Beethoven, String Trio, m. 42

The musical score for Example 3.3, Beethoven's String Trio, measure 42, is presented in two systems. The first system shows the Violin, Viola, and Cello/Double Bass parts. The Violin part has a melodic line with a downward scale. The Viola part has triple stops. The Cello/Double Bass part has a melodic line with a downward scale. The second system shows the Viola, Cello, and Double Bass parts. The Viola part has triple stops. The Cello part has a melodic line with a downward scale. The Double Bass part has a melodic line with a downward scale. The score is marked with 'f' (forte) and includes dynamic markings like '<' (crescendo) and '>' (decrescendo).

GRIEG, *LYRIC PIECES*

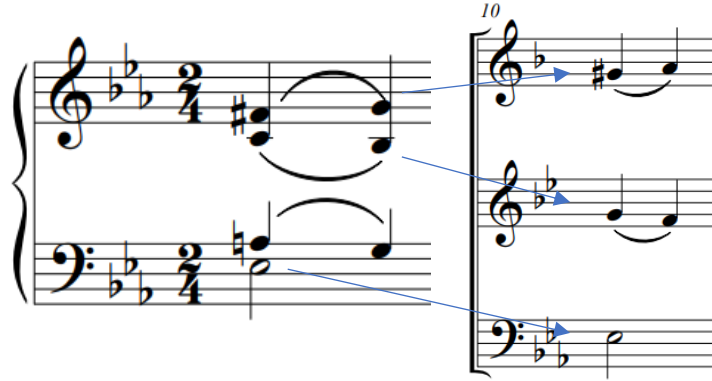
Arranging piano pieces for small ensembles presents more challenges than the cases described above, but ultimately the process is still relatively straightforward. Many piano pieces can be arranged for a small ensemble with careful planning. There are two ways to approach the process of arranging. One can start with a piece and explore the options for what ensemble(s) would work for the piece. Conversely, one can start with a specific ensemble and look for a piece that would arrange well for that group. I chose the latter option, with the goal of creating a brass trio arrangement for trumpet, horn, and trombone.

A brass trio arrangement has three major challenges: range, technical difficulty, and complexity. Considering the high range of the trumpet and the low range of trombone, I searched for a piece that mostly stayed within the staff of the treble and bass clef. Some amount of range stretching can be done, but if either hand of the piano part plays consistently outside the staff problems arise for the range of these instruments. The second issue is technical difficulty. For example, a pianist can play multiple octave arpeggios that would be extremely difficult for brass players. In this context, complexity occurs in both the density of harmony and the coexistence of separate lines of melodic material. With only three instruments in a trio, trying to fit the melody, bass line (when important), and chordal structure would be an impossible balance with piano pieces that frequently use complicated chords.

When considering these challenges, Edvard Grieg's first set of *Lyric Pieces* offer an excellent choice for arranging. The *Lyric Pieces* rarely have difficulties with range, the technical problems are solvable, and the harmonic complexity is generally straightforward. The structure of the work is also beneficial for the players; the eight relatively short pieces allow the arranger to consistently use all three instruments. The performers will be able to take short rests between the pieces, or else pick and choose certain pieces to play while leaving out others if endurance is a concern.

The "Arietta" had only a few difficulties to resolve. Most of the music can be clearly separated into three separate lines, thereby creating the three instrument parts. Problems that needed resolution appear in measures 10, 12, 20, and 22. (Example 4.1 shows the issue as it relates to measure 10.) In these measures the top and bottom notes needed to be preserved, so a decision needed to be made for the horn part. Measure 10 was the most difficult problem to resolve because the first chord in the measure is a third inversion ii^{o7} and the horn part has the option of either the third or fifth. Conventional wisdom would lead the arranger to choose the third, as I initially did. However, after examining the second beat of the measure, which resolves to the I chord, the option for the horn is either the third or the fifth of the chord. The third is already in the trumpet part so the clear option is the fifth. Following this logic, the solution is to use the third for the first beat and the fifth for the second beat. While this is a reasonable choice, I found that it ruined the function of the passage. When all the notes are present, there is contrary motion between the middle notes and the top line and using the third and fifth instead creates parallel motion. While this parallel motion is not inherently wrong according to common practice rules (i.e., it does not create parallel fifths or octaves), it does ruin the effect of the measure somewhat. For these reasons, using the fifth for both chords for the horn part is a more

Example 4.1 Grieg, *Lyric Pieces*, “Arietta”, mm. 10



The “Waltz” is very similar to the “Arietta” from the perspective of arranging, though the complexity problem is much more prevalent. Most of the piece can be split into three lines, one for each part. The main difference between the pieces is the number of measures that need resolving due to more than three notes at once in the piano part. In this piece, the problematic measures are significantly more numerous and are as follows: measures 11–18, 29–36, 38, 40, 46, 48, 63–78. While many of these measures repeat previous sections (measures 11–18 are the same music as measures 29–36), this still leaves more measures to solve than in the “Arietta”. However, the voicing concerns can be resolved in much the same way as they were in the “Arietta.” As shown in Example 4.2, it is immediately clear upon looking at measures 11–18 that the horn needs to pick one of the chromatic lines and play those notes instead of picking individual notes for each beat, which would completely break the chromatic phrase effect of the music. In this case, the higher chromatic line works better. The first and the last note (measure 12) of the line are the two most important notes for making this decision. The lower chromatic line starts an octave below the trumpet and the last note is an octave above the trombone. The

upper line has no such issues and therefore provides more harmonic material throughout the line. The same logic applies to measures 13 and 14. In measure 17, either the C or the A can work equally well, but I preferred how the C sounded to my ear. And finally, in measure 18, the B needed to be taken from the first chord as it is the root, and the G-sharp needed to be taken from the second chord as the third of the chord.

Example 4.2 Grieg, *Lyric Pieces*, “Waltz”, mm. 11–18

The musical score for Example 4.2, Grieg's "Waltz" from *Lyric Pieces*, measures 11–18, is presented in two systems. The first system (measures 11–14) shows a piano part with chords and triplets, and a violin part with triplets. The second system (measures 15–18) continues the piano part with chords and triplets, and the violin part with triplets. Dynamics include *f*, *rit.*, and *p*. The key signature has one sharp (F#).

Chordal issues found in the “Watchman’s Song” were solved in similar ways. The unique issue in this piece arrives in the Intermezzo section; the septuplets written in the piano part are a technical issue for the instruments of the brass trio. To have any of the instruments play exactly what is written there would be extremely challenging, so an alternate solution needed to be found. The answer was to have the trombone do a rip up and down from the pedal note. The

notes that the piano is playing mostly fit in one slide position on the trombone (though the G is in a hypothetical eighth position so that rip is not completely correct). This gives a rough estimation of the effect that is used on the piano while staying within reasonable expectations of the trombone player.

The remainder of the pieces have issues similar to those already discussed, with one exception. “Norwegian Air” has a wide range in the original piano part, making it a challenge to solve other issues that arise. For example, the opening eight measures of the piece are an interesting conundrum. The bottom note can be covered by the trombone easily enough, and the melodic line is initially within the range of the trumpet. The held A on top of the music, while technically feasible for the French horn, is outside the comfortable range of the instrument. The lower A is a possibility, but it limits the movement of the held A to D in measure 3. In measure 5 there is repetition of material, except the right-hand of the piano is down an octave. This necessitates the switching of the trumpet and horn roles. Dropping the octave in the horn for the first four measures means that the trumpet will play the same notes in measures 5–8 that the horn did in the first four measures, unfortunately making the octave effect slightly weaker. A different range issue appears for the trombone part. The G1 and A1 notes that appear throughout the piece pose a problem for the trombone. While possible to be played as is, the difficulty is significantly higher than having the trombone play the note that already exists in the piano part an octave above. This does have a negative effect on the direction of the bass line; however, it is relatively minimal, and the benefit is greater.

MOZART, REQUIEM IN D MINOR

The most important characteristic of a piece to consider when arranging for trombone choir is technical difficulty. Most other issues can be worked around with pure numbers. For example, as discussed earlier with the *Lyric Pieces*, harmonic complexity was an issue with only three players. With a trombone choir you can have eight or more parts so harmonic complexity should rarely if ever be a concern. Range can, of course, be an issue; you should avoid pieces with a large range, but notes can be adjusted as necessary. When arranging for trombone choir, first and foremost, one should choose a piece they enjoy because the restrictions are few. This is important mostly because with eight or more parts it takes a significant amount of time to complete each part. For this ensemble I chose to arrange the Wolfgang Amadeus Mozart *Requiem*, not only because it is a piece I thoroughly enjoy but also because it contains the “Tuba Mirum” the most requested trombone orchestral excerpt in professional auditions.

The *Requiem* was arranged for the largest ensemble of this project. As a result, the decision making for the arrangement was largely done in the setup phase (e.g., deciding the number of parts, structure of the parts). Therefore, looking closely at individual measures is unnecessary for the scope of this project; instead, it is more insightful to look at the decisions made during the setup of the arrangement. When beginning the arrangement, range of the original score was the first consideration. The overall range of the piece is reasonable, except that the high notes are simply too high for the trombone. Solving this issue was simple; the entire piece could be transposed down an octave. The new range stretches the trombone players, both for the upper notes and the lower notes, but not to an unreasonable degree. The next decision was

to choose how many parts to write for the trombone choir. The interplay of the individual lines is a key aspect of the Introitus, so there needed to be enough parts to play every line. The original piece essentially has eight crucial orchestra parts as well as a four-part choir. So, a twelve-part trombone choir both makes sense and creates an easier arrangement. The twelve parts were separated in two sections: one for the orchestra parts and one for the choir. Essentially, there is an eight-part trombone choir that plays along with a trombone quartet. The last decision to be made was instrumentation; what types of trombones were to be included? I wanted an alto trombone to lead each section of the choir, and one bass trombone for the bottom of each choir. This is subjective choice, and another arranger might choose different instrumentation.

With the setup done, the Introitus was a relatively simple process to arrange. Each trombone part follows one of the parts from the original score. Changes from the original were made in measure 7, where the original trombone parts need to be accounted for. There were already three parts that were resting so giving them the trombone parts was an easy choice. The Kyrie did require some amount of work. The structure of the Kyrie is such that there are, for most purposes, only four parts. The vocal parts fill out the melodic and harmonic material for the movement and the orchestra accompanies them with each part in the orchestra following one of the vocal lines. With 12 parts mostly covering a four-part movement, I had to decide what to do with all the trombone parts. The texture of the trombone choir would be too muddy if there were three players for each of the lines, so I had the four parts that cover the vocals play the entire part to give the lines continuity, with each of the orchestra trombones dropping in and out of the music to support them. The exception is that the bass trombones play the bass line together because of the range of the part. This movement is difficult for the bass trombones because of the faster speed, so giving both bass trombones the same part throughout creates more stability.

There are a few measures that the orchestra has slightly different rhythms or notes than the vocals, most notably in the penultimate measure, but the differences are minor. Additionally, there are a few measures with trumpet and timpani interjection, such as measure 39. These were covered by whichever trombone part was available at the time.

MENDELSSOHN, SYMPHONY NO. 4, ANDANTE CON MOTO

Condensing an orchestra score into only a few parts is a difficult task. The restrictions that affect the prospects of choosing a piece do not change, but the problem is that they are significantly harder to follow. Specifically, when working with a trombone quartet, finding an orchestra piece that fits within the trombone range is challenging. Similarly, the complexity of the orchestra piece is a potentially major concern. The flexibility of having an entire array of orchestral instruments gives a composer opportunities to write in a way that smaller ensembles simply cannot match. Finally, the technical difficulty of the orchestral score can be a limiting factor for trombone players. There are plenty of orchestral pieces that are within the technical capabilities of other instruments, but the difficulty of some pieces will prevent them from being viable options for the trombone.

When condensing an orchestral score to a trombone quartet, a viable arrangement requires that some restrictions be ignored. The easiest adjustment is to condense the range. As already seen in the previous arrangements, changing octave placement becomes a good solution, though this can alter the effect of the original section. Complex orchestral writing is harder to adapt, though it is possible to emulate the effect of this complexity without adhering to every single note of the original piece. Technical difficulty can be difficult to adapt for the trombone. Individual instances can be simplified by slowing down the rhythm or slightly adjusting the notes. However, the difficulty of the arrangement should fit within the ability of the players and instruments being played.

Considering these issues, my approach for a trombone quartet arrangement was to find a piece that had to primarily contend with only one of these concerns. The second movement of Felix Mendelssohn's Symphony No. 4 was a suitable choice; range is consistently problematic throughout the movement, but both complexity and technical difficulty were adaptable.

Example 6.1 Mendelssohn, Symphony No. 4, Andante con moto, mm. 11–15

The movement mostly functions as a pseudo-quartet piece with groups of instruments creating four main lines throughout the piece, as seen in Example 6.1. Any loss of complexity comes from losing the octave doubling of parts. The technical aspect is even easier to adapt; the movement is played at a reasonable speed and mostly consists of eighth note passages, so no adjustments in that area are necessary. The range of the original symphony score spans from flutes to double bass. For this arrangement, it was necessary to transpose the top octave parts down so the notes would be playable by trombones. For example, the flute part in measure 12 is

too high for the trombone, but simply transposing the part down an octave worked quite well, as it will throughout the movement. Normally there are voice crossing concerns when transposing the melody down an octave or two, but since there is voice crossing in the original score, this concern is unnecessary. For example, again in measure 12, the three tenor trombones drop the octave of their respective parts, keeping the voice crossing that already exists between them. This does add a small amount of crossing between third trombone and the bass trombone parts in measure 13.

The octave consolidation begins at measure 4, where there are two octaves doubling the melody line. In all cases throughout the symphony, the default was to use the lowest available octave. While I could have used both octaves because the first and third trombone are resting, I thought that it was unsuitable. Rests are a luxury in this type of arrangement and the texture of this section is extremely light, so it seemed appropriate to keep the light perception by having only the second and bass trombones play.

Measure 45 (Example 6.2) is the first section that requires significant adjustment since it is the first time in the movement that the orchestra has more than four distinct musical ideas. For the first two measures, the concept that the bass and cello are resting is an important textural effect. This leaves four unique lines to be filled by three players. The decision was difficult, as there is no correct choice. There were a few adjustments that were necessary; the melody needed to be included, the bass trombone needed to mimic the rest in the score, and at least one of the eighth note lines from the strings was needed for the underlying rhythmic pulse. The decision-making process past those three basic needs was trial and error. Having rhythmic diversity improved the sound in my judgement, so the second clarinet and viola parts worked well for the second and third trombone parts respectively. This logic was followed for the rest of this section.

There is a similar section at measure 74 that was solved similarly. Otherwise, the low complexity of this movement makes for a fantastic arrangement for trombone quartet.

Example 6.2 Mendelssohn, Symphony No. 4, Andante con moto, mm. 45–47

The image displays a musical score for measures 45, 46, and 47 of Mendelssohn's Symphony No. 4, 'Andante con moto'. The score is arranged for a trombone quartet, consisting of four staves. The key signature is one flat (B-flat major or D minor), and the time signature is 4/4. The notation includes various musical symbols such as notes, rests, beams, and slurs. Dynamic markings include *sf* (sforzando) and *f* (forte). The score is divided into three systems, each containing four staves. The first system shows measures 45 and 46, with measure 47 continuing in the second system. The second system shows measures 46 and 47, with measure 48 continuing in the third system. The third system shows measures 47 and 48, with measure 49 continuing in the fourth system. The notation is complex, featuring many beamed notes and slurs, indicating a fast and intricate passage.

MAHLER, SYMPHONY NO. 2, ANDANTE MODERATO

For this arrangement, the second movement of Gustav Mahler's Symphony No. 2 was chosen specifically because of how difficult it would be to arrange. An aspiring arranger may at times have a piece that they either need or want to arrange even though it does not fit neatly within the constraints of the chosen ensemble. The arranger needs to be able to make difficult decisions that might have multiple valid solutions. The basic rules for small ensembles apply to a brass quintet, though the fifth part makes it more versatile than the other small ensembles discussed. With the addition of the tuba, the range of the ensemble is larger than the brass, and the five parts allow for more complexity compared to the four parts of a trombone quartet. Despite these accommodating guidelines, one should be careful to choose a piece that fits the ensemble when looking for an orchestral piece to arrange for brass quintet. The second movement of Mahler's second symphony breaks almost every rule. The range of the movement regularly spans well over three octaves. While the technical passages are possible, the triplets that appear in the string section become particularly difficult parts for brass quintet players. Finally, both the harmonic and melodic complexity of the piece far exceeds that which can be comfortably covered with only five parts. Despite all these issues, an arrangement of this movement was possible with enough careful consideration, as well as trial and error.

The arranger has many decisions to make when organizing a difficult piece and a few of them may be labeled as poor. As a result, allowing for the process of trial and error can be extremely helpful. This technique was most helpful was during the more harmonically complex triplet sections in the strings, such as in measures 64–73 (Example 7.1). The five separate string

lines with the multiple melody lines above it create a dilemma with complexity. Since the strings are supposed to play lightly underneath the melody, it became clear that trying to have many of the string lines covered was not going to sound good. Not knowing what to do with this section, I wrote out the string parts for the tuba, trombone, and horn with the trumpets playing the melody. It sounded terrible, so I began experimenting. Thinking I had to leave at least two instruments for melody, the trumpet parts remained where they were. I tried every combination available for the other three instruments. Initially, I tried to use just two instruments at a time to get as much of the effect of the strings as possible, but it still sounded too muddy. Finally, I gave the tuba the triplets, which successfully completed the section. The harmony created by the strings was far less important than the melodic and rhythmic concepts that occur behind the melody. Starting with the tuba meant that the transition into the baseline in measure 68 where the horn takes over the melodic idea of the triplets occurs more naturally.

Example 7.1 Mahler, Symphony No. 2, “Satz”, mm. 64–66

The musical score for measures 64-66 of Mahler's Symphony No. 2, "Satz", is presented in a multi-staff format. The top two staves represent Violin I and Violin II, both playing a melodic line with a piano (*p*) dynamic and a dolce (sweet) character. The third staff is the Viola, also playing a melodic line. The bottom three staves represent the Cello, Tuba, and another Cello/Double Bass part. The Tuba part is characterized by triplet patterns and is marked with *ppp* (pianissimo) and *sempre ppp* (sempre pianissimo). The Cello and Double Bass parts also play triplet patterns, with the Double Bass part marked *pp* (pianissimo). The key signature is two flats (B-flat and E-flat), and the time signature is 3/4.



Range is a frequent issue throughout the arrangement. There are two types of range issues that occur: one requiring octave repositioning of notes, the other necessitating shifting entire phrases. When just a few notes need to be transposed down an octave for one part, the solution is often awkward, meaning it is done by changing the direction of a jump or by removing the jump altogether, but it is often the best way to proceed. The more complicated issues are when entire phrases need to be transposed an octave, because a smooth way of both getting into and out of the octave change is necessary. The first example of this is at the *Nicht eilen* in measures 39 through 47. The first violin and flute parts are significantly out of the range of the trumpet. Transposing just those parts down an octave would sound awkward due to voice. Moving the entire section down an octave makes more sense, but it is necessary to figure out how and when to do so. The solution is to have the other parts transpose the octave while the horn holds the note from the previous phrase. This creates some voice crossing between the horn and trumpet, but it is a smoother solution than having the horn change octaves during their repeated notes. Getting out of the octave drop at measure 48 was more complicated. The solution here was to move each part down one string part from what they were playing. For example, the trombone was playing the viola part in measure 47 and switches to the top cello part in measure 48. This did create

jumps in the horn and trombone part that do not exist in the original score, but it was the smoothest way to transition the octave.

Example 7.2 Mahler, Symphony No. 2, “Satz”, mm. 47–48

The image displays a musical score for Mahler's Symphony No. 2, 'Satz', measures 47-48. The score is in E major and 3/4 time. It features a horn and trombone part with jumps, and a string part with triplets and a 'ppp' marking.

The score is written for a horn and trombone part (top staves) and a string part (bottom staves). The horn and trombone part includes a jump in the melody, which is smoothed out by the string part. The string part features a triplet pattern and a 'ppp' (pianissimo) marking.

Measure 47 shows the horn and trombone part with a jump in the melody. The string part plays a triplet pattern. Measure 48 continues the triplet pattern in the string part, with a 'ppp' marking.

Complexity is an issue for measures 187 through 195. With all the part splitting that exists in the strings in these measures there are far more than five unique lines throughout these measures. The most complicated measure, measure 194, has a grand total of thirteen unique lines without even counting octave doubling. To cut that down to only five parts is challenging, and there are simply too many options for trial and error to work effectively but there is a process to simplify the measures. Examining the score, one can see that the flute and oboe parts are essentially the first violin line with less ornamentation; the violin adds a flourish on the second eighth note of the measure. Similarly, each of the other wind parts has a string part that plays the same note at the start of the triplet. While the timpani has a unique rhythm, it fulfills the same role as the bass part. After these simplifications, only the string section has necessary notes, leaving six unique lines, a much more manageable number. Three of the remaining lines are moving in (mostly) parallel motion, and therefore removing one of them is less noticeable. Removing the viola part preserves the parallel tritones between the bottom violin two and top cello part. Other complexity issues can be solved in similarly; eliminate lines that serve a similar purpose in favor of other more important lines.

Example 7.3 Mahler, Symphony No. 2, “Satz”, mm. 194

The image displays a musical score for Mahler's Symphony No. 2, 'Satz', mm. 194. The score is presented in two systems. The left system shows the original orchestration with multiple staves for woodwinds, strings, and percussion. The right system shows a simplified arrangement with four staves. Blue arrows indicate the mapping of instruments from the original score to the simplified arrangement. The simplified arrangement uses a common key signature of three sharps (F#, C#, G#) and a common time signature. The right system includes measures 194 and 195, with triplets marked '3' in measures 194 and 195. The simplified arrangement uses a common key signature of three sharps (F#, C#, G#) and a common time signature. The right system includes measures 194 and 195, with triplets marked '3' in measures 194 and 195.

Doing an arrangement like this can be an intimidating and time-consuming task.

Hopefully, observing these examples of problem solving helps the reader to realize the possibilities. If the arranger is willing to work through the challenges, a difficult arrangement can be a rewarding experience to complete.

CONCLUSION

Creating the arrangements for this project was both challenging and fulfilling. Challenging because the works chosen were so diverse and the groups for which the pieces were arranged were so different. It was fulfilling because I was able to hear my arrangements performed live for an audience. This author hopes that readers will take the information provided and create their own arrangements. This document focuses on three specific areas of arranging: range, technical difficulty, and complexity. While these are important, there are other topics that were not discussed. Timbre and texture are important aspects to consider when arranging music for specific instrument groups. A thickly textured piece does not translate well into small ensembles. The timbre of the original composition affects the instruments that can be effectively integrated into an arrangement. Using notation software is a critical component for successful arranging. Notation software is a personal choice; I use Finale, but there are other equally suitable choices. Find pieces that you enjoy and experiment to learn what methods are most effective. Most importantly, arrange a piece that you enjoy for an available ensemble; nothing is more informative than having your colleagues play and critique your arrangement.

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