

Re-realising opera performance
for chamber ensemble

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Re-realising opera performance
for chamber ensemble

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[Composer]'s [Opera Title] - Original [Part], [Musical number/Act and Page number(s)]

E.g., *Puccini's La bohème - Original Score, Act I, p. 9*

For my own arrangement:

[Composer]'s [Opera Title] - Arrangement [Part if applicable], [Musical number/Act and Bar Number(s)]

E.g., *The Merry Widow - Arrangement, No. 1, Bars 109-114*

For other arrangements:

[Composer]'s [Opera Title] - [Arranger]'s Arrangement [Part if applicable], [Musical number/Act and Page/Bar Number(s)]

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Abstract

Chamber arrangements of large-scale works have been gaining popularity in the last decade with professional groups, educational institutions, and amateur opera societies, especially as they reduce costs and allow for performances in small venues. Their use also increased as they allowed for social distancing during the Covid-19 pandemic. However, many arrangements are often poorly executed, and scores include indications pencilled in haphazardly, resulting in time being wasted before and during rehearsals. Therefore, this thesis suggests alternative approaches and explores how we can re-realise opera performance by using chamber arrangements. It will explore the methods which may be used in producing these arrangements, illustrated by my own arrangements and performances (I also conduct the performances) of two operas, a 65-minute version of Puccini's *La bohème* that was performed in November 2021 and Lehár's *The Merry Widow* that was performed in April 2023.

There is little literature on how a chamber arrangement of an opera might be made, with reduced forces and reduced duration. Hence, in order to construct a framework for my own arrangement, I proposed a list of ten factors to consider when producing an opera arrangement. I also documented my process of arranging the two operas with regards to the ten factors. And finally, I designed a questionnaire that would be able to capture useful data from the audience, singers and instrumentalists involved in the performances. By undertaking this research, I found out that the ten factors were comprehensive in making sure that all aspects of producing an opera arrangement were considered. They consider the entire journey from the genesis of a project regarding its purpose and vision, which leads onto the arranging process, and finally towards the performance, after which, feedback is obtained. There is much that arrangers may learn from the research presented in this thesis such as the methods by which I employed the use of current timbre research to analyse an original score through the listening process and translating that into my own arrangement.

Acknowledgements

I would like to thank my supervisory team: Dr Michelle Phillips, Professor Adam Gorb, Dr Adam Swayne, Dr Simon Clarke, and Dr Benjamin Bowman (MMU) for all their invaluable counsel and insights. Thanks also go to Professor Mark Heron, Professor David Horne, and Professor Jane Ginsborg for the additional support and guidance.

Thank you to Alvin Seville Arumugam (Artistic Director of Musicians' Initiative) for commissioning me to produce the arrangement of Puccini's *La bohème* and inviting me to conduct the production.

Thank you also to the fantastic committee and every single musician in the orchestra, and to director Tang Xinxin and the cast members, Teng Xiang Ting, Jonathan Charles Tay, Felicia Teo, and Martin Ng for bringing the production to life.

To the lovely people of OperaViva, thank you for performing the arrangement and having the courage to put on a reimagined version of Lehár's *The Merry Widow*. I am grateful for the time and effort put in by David Palmer, Vivienne Sharp, Norah Button, Alexandra Thackray, Jim Craig, and every single member of the company for all the work they have put in. Thank you to all the instrumentalists involved in the production (Robert Chester, Anna Tulchinskaya, Olga Eckert, Ben Cartlidge, Jeanette Szeto, Rhainna Wade, Hermione Smith, Saulo Roberto, Leila Marshall, Kristine Healey, Beth Nichol, Johanna Leung, Peter Athans, and Sebastian Williman).

Finally, thank you to all my family and friends for all their patience and unyielding support throughout this entire process, for without their encouragement none of this would have been possible.

List of Performances

Puccini - *La bohème*

Arrangement commissioned by Musicians' Initiative

Dates and Venue: 15th/17th October 2021, Gateway Theatre, Singapore.

Director: Tang Xinxin

Cast: Mimi - Teng Xiang Ting; Rodolfo - Jonathan Charles Tay; Musetta - Felicia Teo; and Marcello - Martin Ng

Instrumental Ensemble: Musicians' Initiative

Lehár - *The Merry Widow*

Arrangement produced for and performed by OperaViva

Dates and Venue: 28th April 2023 - Mossley Hill Club, L18 4PT; 29th April 2023 - St Mary's College, L23 5TW; 30th April 2023 - Heswall Hall, CH60 0AF

Directors/Producers: Alexandra Thackray, David Palmer, Jim Craig, Vivienne Sharp

Cast: Hanna - Bernadette O'Keefe/Pamela Ashcroft; Danilo - David Palmer; Camille - Alexandra Thackray; Valencienne - Lauren Estlin/Eva Edwards; Baron Zeta - Steve Riordan; Njegus - Freddie Ligertwood; St Brioche - James Fleming; Cascada - Peter McColgan; and the chorus of OperaViva

Instrumental Ensemble: Freelance instrumentalists from the North West England

Violin - Anna Tulchinskaya, Olga Eckert, Ben Cartlidge; Viola - Jeanette Szeto; Cello - Rhianna Wade, Hermione Smith; Bass - Saulo Robertson; Piano - Robert Chester; Flute/Piccolo - Leila Marshall, Kristine Healey; Clarinet/Saxophone - Beth Nichol, Johanna Leung; Trumpet - Peter Athans, Sebastian Williman

Personal Context

I am a professional conductor having worked with a variety of ensembles such as the BBC Philharmonic, Royal Liverpool Philharmonic Orchestra (RLPO), Manchester Camerata, Northern Ballet, London Voices, and many more. As the current music director of OperaViva, an amateur opera company in Liverpool, I have conducted staged productions of Verdi's *La Traviata* (1853), Donizetti's *L'elisir d'amore* (1832), and more. I have also acted as the assistant conductor for the premiere production of Gorb's *The Path to Heaven* (2018) and for the RLPO's concert production of Verdi's *Falstaff* (1893). As an arranger, I have made multiple professional arrangements such as Bizet's *Carmen Suite No. 1* (1885/2017) and *No. 2* (1886/2017) for a chamber ensemble and was also recently commissioned by Kolbotn Konsertorkester, Norway, to arrange excerpts from Puccini's *Tosca* (1899/2020) and two Spanish songs, Chapi's *Carceleras* (1889/2020) and Montsalvatge's *Canto Negro* (1945/2020), for voices and wind orchestra. For this PhD, I created and performed arrangements of Puccini's *La bohème* (1896/2021) and Lehár's *The Merry Widow* (1905/2023), commissioned by Musicians' Initiative, a professional ensemble in Singapore, and OperaViva respectively. At the point of submission, I am in the middle of producing an arrangement of Poulenc's *La Voix Humaine* (1958/2023) that has been commissioned by Pegasus Opera, London.

My experience as a professional conductor and arranger, together with my work in opera, resulted in my interest in this topic and led to me pursuing this PhD in 2020. As conductors, we are exposed to reduced-size arrangements on a regular basis for a variety of reasons such as the financial restraints of not being able to engage a larger ensemble, existing groups of smaller ensembles wanting to perform a larger work (eg. a chamber orchestra wanting to play a Mahler symphony), and for conducting education (in which an arrangement can make an expensive experience much cheaper). It is through this lens, that of a professional conductor, that I discovered that there was a gap in the knowledge, literature, and quality of producing such arrangements. Arrangers need to consider a broader range of factors. As such, this became an opportunity to bring together my experiences with existing research on music perception research and of course, orchestration.

Chapter 1: Overview

“Whereas purists maintain that no one should tamper with the music of the past, history answers with very strong reminders that transcription is perhaps as old as composed music itself.”

- Samuel Adler (2002, p. 666)

While chamber arrangements have always occurred throughout history, they started to gain popularity at the beginning of the 20th century when Schoenberg founded the *Verein für musikalische Privataufführungen* (Society for Private Musical Performances) on 23 November 1918. They had the aim of promoting modern music (Stuckenschmidt, 2018) where orchestra works were often reduced to suit whatever small instrumental ensembles were available (Meyer, 2000). Even before this, albeit in a less structured way, since the Baroque period, composers have been known to adapt pieces of their contemporaries and predecessors and orchestrate these for whatever instruments were available (Adler, 2002). Both Erwin Stein¹ and Benjamin Britten have created reduced orchestrations of selected movements from Mahler’s first three symphonies, and an arrangement of Bizet’s *Jeux d’Enfants* by Finck which put “this charming music within the grasp of Theatre Orchestras, often shamefully undersized” (Warrack, 1944, p. 362). In recent years, Aurora Orchestra have performed many of such arrangements: Bartok’s *Miraculous Mandarin Suite*, Mahler’s *Das Lied von der Erde*, and more (Rye, 2017; Tonkin, 2019).

Throughout history, chamber arrangements of opera have helped to bring music to the wider community. Even in the 19th century, composers often had to be flexible depending on the venue, especially in Italy where “the budget did not allow for hiring a large ensemble and where the size of the theatre often dictated the use of a smaller group” (Harwood, 1986, p. 111). Composers often “wrote for a certain size orchestra and some of these instruments can easily be dropped with very little rearrangement and negligible loss of effect” (Warrack, 1944, p. 363). In the last decade,

¹ Stein has also created a reduced arrangement of Mahler’s Fourth Symphony.

chamber arrangements have again been gaining popularity with professional groups, education institutions, and amateur opera societies, because they reduce costs, allow for performances in small venues, and also allowed for social distancing during the Covid-19 pandemic. This is also in light of the fact that many arts organisations are under threat with arts funding being precarious, such as the major cuts to public funding announced by Arts Council England in November 2022 and the fact that there has been a 46% reduction of government funding for the arts in real terms since 2005 in the United Kingdom (Musicians' Union, 2023). Scottish Opera put on a touring production of Donizetti's *Elixir of Love* in 2016 where the entire orchestral score was reduced to a string trio, horn, and guitar, which helped take the "opera out of the cities and out across Scotland" (Smyth, 2016, para. 6). Reduced scores are also often used by music colleges: the Royal Northern College of Music's production of Humperdinck's *Hansel and Gretel* in 2018 used an arrangement by Derek Clark (Beale, 2018), and the University of South Dakota have used arrangements for multiple of their productions (L. Viquez, personal communication, December 1, 2019). Professional groups have also performed from arrangements of popular works, for example, during the Covid-19 pandemic, Michigan Opera Theatre put on a one-hour chamber-sized arrangement of Wagner's *Götterdämmerung* (Ross, 2020).

However, many arrangements are often poorly executed resulting in time being wasted before and during rehearsals. Chamber arrangements of operas often use a copy of the original full score with the changes pencilled in with the indications of what is omitted or rewritten often poorly indicated. This can be seen in Figure 1 which is the first page of the full score of Bizet's *Carmen* (1875) for 11 players (string quintet, wind quintet, and percussion) by Pocket Publications, one of the main providers of such arrangements in the UK. Individual instrumental parts also often use original existing parts with the additions pencilled in (T. Burke, director of Pocket Publications, personal communication, November 21, 2019). The string parts usually stay the same and this becomes an issue when there is *divisi* in the original (as the reduced ensemble may only have one instrumentalist per part), especially when the arrangement is intended for a string quintet, and the

parts are often unclear, as notes would be scratched out and missing lines are written in by hand. Sometimes, the transpositions for the wind instruments are in the wrong key (L. Viquez, personal communication, December 1, 2019). As such, effectively realising such arrangements often results in a loss of rehearsal time. Arrangements that come with a full score of the reduced instrumentation with clearly prepared parts are an exception as these are usually specially commissioned for specific projects such as Stephen McNeff's *Carmen* (2014) for Mid Wales Opera (published by Edition Peters) or Laura Bowler's *The Flying Dutchman* (2023) for OperaUpClose tour. Hence, there is a need for practical, informed, and clear professional arrangements. This project aims to suggest alternative approaches and explores how we can re-realise opera performance using chamber arrangements.

Figure 1

First page of Pocket Publications arrangement of Bizet's Carmen²

1. Prelude

Allegro giocoso. $\text{♩} = 110$.

Allegro giocoso.

² As shown, the woodwind players play their original part (the bassoon has extra notes pencilled in), while the horn plays the trombone part (also with the indication pencilled in the score). This score is intended for 11 instrumentalists.

Before going further, it is worth acknowledging that the word “arrangement” can mean slightly different things to different people. Encyclopædia Britannica has a more general definition whereby arrangement refers to “any adaptation of a composition to fit a medium other than what it was originally written, while at the same time retaining the general character of the original” (Britannica, 1998). However, both Alfred Blatter and Samuel Adler (two authors of widely used books on orchestration and instrumentation) give a more specific definition but also a rather different definition of what an arrangement means. Blatter (1997) states that it “incorporates both transcribing and a certain amount of composition” (p. 388) while Alder (2002) believes that it “involves more of a compositional process, since the previously existing material may be as little as a melody” (p. 667). Transcribing on the other hand is “a literal transference of a previously composed work from one musical medium to another” (Adler, 2002, p. 667). Therefore, it is paramount that the definition of the term arrangement is consistent throughout this thesis; its definition henceforth will be similar to Encyclopædia Britannica's and will be used as an umbrella term to refer to any work that has originated from a previously composed work for a different musical medium (including concepts of orchestration, composition, and transcription). We will further explore the types of arrangement in this context in Chapter 2.

There are four notable scholarly articles that explore chamber arrangements. The first is by Junghwan Kwon (2016) on the difference between Mahler's *Symphony No. 4* (1902) and Klaus Simon's arrangement (2007) for fifteen musicians. Kwon discusses how Simon compensates for the smaller string section, and how the winds compensate for the absence of brass instruments (Kwon, 2016). The second by Richard Parks (1999) explores how the arrangement (1920) of Debussy's *Prélude à L'après-Midi D'un Faune* (1894) was undertaken, which was used by Schoenberg's Society for Private Musical Performances. The third is by Felix Meyer (2000) exploring Webern's arrangements of his own piece, *Six Pieces for Orchestra* (1909), in which Meyer discusses how Webern adapted his own work for various ensemble sizes; the piece has a large orchestra version (1909), a slightly smaller revised orchestra version (1928) and an even smaller chamber ensemble

version (1920). Finally, a paper by Sun Ai-Kuang (2006) on Schoenberg and Riehn's chamber transcription (1983) of Gustav Mahler's *Das Lied von der Erde* (1909). The papers only focus on the methods employed by the arrangers for these specific pieces. As such, they do not offer a comprehensive view into what should be considered when producing an arrangement and also do not consider any process of reimagination. Besides these four papers, there is limited academic writing about how chamber arrangements are produced, especially in the context of opera, and no existing research on the effect of arrangement on audience perception and enjoyment.

I have explored five prominent books on orchestration. All five books have extremely useful detail relating to the properties of each instrument and their typical scoring, as well as the special effects of each instrument type. However, the texts are limited in that while they do discuss various possible orchestration techniques, the main focus tends to be with regards to producing a new composition. There may be a few chapters on arrangement, but they are either about rewriting from a smaller to bigger medium or between two specific mediums (e.g., wind band to orchestra or vice versa in Adler's book). First, Berlioz and Strauss's (1948) *A Treatise on Modern Instrumentation and Orchestration* mainly discusses the instruments and their usage. It also has a section on the voice from a more compositional point of view i.e., which voices to choose and how to write for them. Second, Rimsky-Korsakov's (1922) *Principles of Orchestration* discusses the balance between voice and ensemble as well as doubling voices with instruments. However, the author's points gravitate towards large orchestral writing as he talks about being careful not to overpower the voice with instrumental writing. The requirements are often the opposite in chamber arrangements where it is important to support the individual voices instead. Third, Walter Piston's (1955) *Orchestration* has a relevant chapter on "background and accompaniment," although this mainly discusses the full orchestra setting with interesting points of balance within the ensemble but without specifics to voice or opera. Fourth, Samuel Adler's (2002) *The Study of Orchestration* again mainly discusses scoring from a composition point of view. However, it includes a short chapter on "Transcribing to Various Available Instrumental Combinations." Ideas from the chapter include reducing the work to

a piano score (or piano four-hands) and using that to carefully re-orchestrate the piece to whatever instrumental combination one is writing for. Other notable points include the suggestion of using the piano as another orchestral instrument, and ideas relating to writing for amateur musicians who might have problems in the extreme registers. Finally, Alfred Blatter's (1997) *Instrumentation and Orchestration* similarly discusses arranging from "only a lead sheet; a melody and a set of simple chords" (p. 410), and states that the arranger's job is to "assemble all of the missing material" (p. 410). While the contents may be useful for any arranger, much of it needs to be looked at from a new set of lenses when taking into the context of producing a reduced arrangement instead of orchestrating from a smaller work. An important point raised is the importance of being able to "locate the various musical lines to be found in the composition" (p. 329), something to be discussed more in detail in section 2.2.5 below.

These books form a useful basis when producing arrangements, as they provide an understanding of how to utilise an instrument when scoring a piece. However, they do not directly address the issue of producing a chamber arrangement from an originally larger work. Producing such an arrangement involves a method of rewriting, so as to maintain balance within the ensemble and to manage the power of the ensemble in relation to the voice. Many of these papers and books ignore a wide variety of other factors that an arranger should consider; these texts do not explore how one should reallocate the lines (see sections 2.2.5, 3.3.5, and 4.3.5 below), nor do they attempt to engage in research that explores how instrumental timbres are perceived (see sections 2.2.4, 3.3.4, and 4.3.4 below) or with research on audience perception (see sections 2.2.10, 3.4, and 4.4 below).

1.1 Aims

This original research in this thesis intends to fill the gaps which currently exist regarding how one should approach arranging an existing operatic work and to highlight the factors that are important for the arranger to consider. Therefore, the outcome of this project is to re-realise opera

through arrangements for chamber ensemble so that they can be used by organisations, especially those with financial and logistical limitations. It aims to explore what it means to re-realise opera performances by delving deeper into two of the three categories mentioned in Chapter 2, *Direct Reduction* and *Reimagination*. Therefore, this project interrogates what it means to maintain the composer's intention and what it means to reimagine an opera. By evaluating the factors that should be considered in producing a usable opera chamber arrangement and exploring ways in which to gauge the success of the arrangement by inviting audience responses, it aims to promote better quality access to opera for performers and audiences through the publication and performance of these new arrangements. As part of this project, two operas have been arranged: Giacomo Puccini's *La bohème* and Franz Lehár's *The Merry Widow (Die Lustige Witwe)*.

1.2 Questions

The project addresses the following questions:

- 1) What forms can an opera arrangement take and what are the factors an arranger should consider when producing an opera arrangement for chamber ensemble?
- 2) How can we practically use these factors to produce two new arrangements, taking into account the fact that the arrangements should also be able to be performed with limited resources and/or in community settings (often involving amateur musicians)?
- 3) What are audiences and performers' impressions when listening to these arrangements?

Chapter 2: Study of Arrangements

2.1 Types of Arrangements

In categorising the types of arrangement that exist, I have devised three main categories: 1) *Direct Reduction*: an arrangement that aims to keep as much of the composer's intentions such as with regards to timbre and atmosphere; 2) *Reimagination*: an arrangement that takes the original music material and reinterprets it – decisions on orchestration and instrumentation therefore become fluid; 3) *Hybrid with Synthesised Sounds*: an arrangement that uses a combination of real musicians and synthesised sounds, often used in musicals (see examples discussed below in section 2.1.3). While these categories are presented here as separate, arrangements might fall into a category that is a combination of two as is later discussed in my arrangement of Puccini's *La bohème* in Chapter 3. In the following sections I will discuss how previous literature has defined an arrangement, and outline where I feel existing thinking does or does not adequately represent this practice as a whole.

2.1.1 Direct Reduction

Blatter (1997) proposes two approaches of transcribing; the first is to recreate the sound of the original composition in the new medium and the second is taking the stance that the original version is only one of the many possible versions of the piece. The first approach produces a direct reduction, an arrangement whereby the arranger transcribes a work that is initially for a large ensemble and reduces its instrumentation while still maintaining as much of the composer's intention as possible. Examples of direct reductions include the arrangement (1920) of Debussy's *Prélude à L'après-Midi D'un Faune* (1894) for Schoenberg's Society for Private Musical Performances and the many versions of Mahler's various Symphonies, some of which have been mentioned in Chapter 1. With opera arrangements, there are many available but they vary in their success and are often plagued with issues that were mentioned in Chapter 1.

2.1.2 Reimagination

Blatter's second approach to transcribing would be similar to producing an arrangement that would be considered a reimagination. However, a reimagination should encompass much more than Blatter's brief definition, as it should also take into account a variety of other factors such as the structure, setting, staging, libretto, and many more, and not just the medium itself. All of these factors are relevant when such an arrangement is made. A reimagination takes the original music material and interprets it, sometimes in a way that makes it more accessible or relevant, and as such, instrumentation and orchestration choices become much more fluid. To some extent, this also becomes an act of creative composition.

2.1.3 Hybrid with Synthesised Sounds

This type of arrangement uses a combination of both live musicians and synthesised sounds. This is an approach currently used by musical theatre groups with pit ensembles for music theatre becoming smaller (Meffe, 2011). Synthesisers were first used to supplement live musicians, which led to the virtual orchestras that could be operated by a single musician and produce tones of various instruments and respond to real-time tempo changes (Gibbs, 2019). There are two main versions of virtual orchestra technology. The first is by Realtime Music Solutions which has a "technologist" dictate the tempo while the computer plays back sounds that have been sampled and pre-programmed (Bianchi & Campbell, 2000). The second is by Music Arts Technology whereby "the music is controlled by a musician at the keyboard, but their playing triggers a multitude of sounds that mimic as many instruments as desired" (Gibbs, 2019, p. 284). Ableton Live, a digital audio workstation, is also used in Broadway orchestras to "trigger preprogrammed musical segments and to digitally process vocals and acoustic instruments in real time" (Gibbs, 2019, pp. 274-275).

Use of such technology encompasses an ethical dilemma which has also hit productions in Broadway and West End. Virtual orchestras were created for the "sole purpose of saving money by hiring one musician to play the music of an entire orchestra" (Gibbs, 2019, p. 284) which was a

significant issue in the 2003 Broadway musicians' strike (Mulder, 2009). An example is Andrew Lloyd Webber's *The Phantom of the Opera* (1986), which once had the largest ensemble in the West End. The number of musicians in the pit was reduced in 2021 from 27 to 14 with some traditional instrumental sounds being replaced by keyboard effects, which has resulted in concerns that there will be less jobs for musicians in this field in future (Roberts, 2021).

In the opera world, there has not been a widespread use of such an approach, i.e., the use of synthesised sounds. One main reason may be that the voices and instruments in musical theatre groups are often all amplified, which makes balance much easier with virtual instruments as this can easily be tweaked by a sound engineer. For example, a Broadway staging of Puccini's *La bohème* in 2003 included the use of two electronic keyboards, equipped with Music Arts Technology's virtual orchestra, in their 28-piece orchestra but with the company performing with body microphones (Jones, 2003; Hofler, 2003). On the other hand, opera singers most often sing acoustically (with no amplification), and the use of virtual instruments might cause challenges when trying to balance or support the sound (in terms of adjusting the sound levels throughout a performance). A hybrid arrangement with synthesised sounds would require a separate more in-depth look into its potential in the opera world as well as the ethical challenges faced when using it. This category of arrangement therefore has significant challenges around the usage of digital technology, which could be considered to be a separate issue to that of the craft and responsibilities of the arranger. Therefore, this thesis will only focus on the first two categories of arrangements.

2.2 The Ten Factors

Adler (2002) believes that to master the art of transcription one needs to have:

1. *a thorough knowledge of all the instruments (their capabilities and the characteristics of different parts of their range) used in the piece you wish to transcribe as well as in the transcription you wish to make;*
2. *an intimate knowledge of the piece's structure, including its formal details;*

3. *an insight into the orchestral style of the composer whose work is to be transcribed, or if that composer has not written for orchestra, familiarity with the orchestral practices of the era in which the composer lived;*
4. *a love for the work to be transcribed;*
5. *a valid reason to transcribe a particular work (p. 667).*

Adler highlights some important points to consider but I would argue that there are a few more additional points that need to be explored. Whether an arrangement of this nature needs to be written with the familiarity of the orchestral style or practices of the era it was written in is also debatable; it could be argued that a fresh approach to an arrangement without the baggage of past traditions is also valuable. Therefore, I propose ten factors which I believe are important to consider when producing an opera arrangement, many of which have not previously been discussed or even considered in previous scholarship on arranging practice. Two considerations are worth bearing in mind: 1) Depending on the type of arrangement that an arranger is hoping to produce, some of these factors might be more relevant than others, and 2) While it is important to note that the factors are not mutually exclusive, this list is intended to enable the arranger to consider all that might be essential. The ten factors (which will be discussed in turn below) are: 1) Structure, 2) Atmosphere and Feel, 3) Instrument Choice, 4) Timbre, 5) Reallocating Lines and Dealing with Divisi and Multiple Stops, 6) Dynamics and Balance, 7) Performance Markings, 8) Modern Notation and Typesetting, 9) Reimagination, and 10) Purpose and Audience Enjoyment.

2.2.1 Structure

It is essential for the arranger to be extremely familiar with the structure (the overall form) of the original work. Therefore, this also includes being familiar with the libretto. Regardless of whether the structure is changed in the arrangement, a familiarity with the layout of the work will help and affect the rest of the ten factors. It is then important to consider the overall structure of

how the arrangement will be produced as compared to the original early in the process. One would need to decide whether to keep the full narrative, a truncated version with a coherent narrative, or even just the highlights. During this stage, it is crucial to consider the elements that constitute the coherency of the overall end-product; is it the tempo, the harmony, the narrative, or a combination of the above and more? It is important to know the intricate details of the original work's structure if the arranger is intending to make structural changes to the work. One needs to consider whether the opera is a number opera, an opera consisting of "individual sections or 'numbers' that can readily be detached from the whole" (Grove Music Online, 2001), or an opera of continuous music. When deciding which numbers in a number opera to keep and the order in which they are presented can affect the outcome of the performance. Often, the numbers might not be performed in an order that is different from the sequence in which they have been published. While this is something that changes between productions depending on various reasons such as tradition or stage direction by the director, it is important that the arranger is aware of the various formats so that the possibilities are explored.

In a number opera, the plot is either driven by recitative or by dialogue. Where there is dialogue between the numbers, it is important that the following is considered when arranging; "the moment of transition from speech to musical number has long been recognized as dangerous - as a juncture likely to disturb audience absorption" (Abbate & Parker, 2015, p. 149). Knowing the libretto as well as working with the producer and director (or another librettist who might be revising the libretto) is important so that the numbers and the text work well together. Examples will be explored in the commentary of the arrangement of *The Merry Widow* in Chapter 4. When an opera has continuous music, it can be much more straightforward when producing an arrangement if there is no change in the overall structure from the original. However, unlike the number opera which already has each small section individually packaged and defined, producing an arrangement of a continuous opera becomes trickier if there is an adjustment to the form as this needs to be dealt with carefully so that the flow and/or contrast between sections are still coherent and clear when

sections are being rewritten or removed. In certain cases, structural changes may result in alteration to the plot. Examples will be explored in the commentary of the arrangement of *La bohème* in Chapter 3. Not only is the coherence of the narrative important, it is also important to consider the tonality and whether a transition section needs to be written or a particular section needs to be rewritten in a different key.

Opera is frequently driven by the story and it is important to look carefully into the libretto in order to consider this when arranging. Familiarity with the plot and character can affect a wide range of other factors such as the atmosphere and feel (see section 2.2.2 below), the instrument choices (see section 2.2.3 below), as well as any reimagination process (see section 2.2.9 below). Having a concrete idea of narrative structure at each particular moment allows the arranger to have a clear conception of the atmosphere and feel each section is supposed to create. This will allow for an informed choice on the techniques to employ in the arrangement and also for a contrast between the sections. Furthermore, this will inform the instrument choices of the entire arrangement so that the arranger will be able to select the appropriate instruments to evoke the outcome intended; this will inform the decisions made with regards to instrumental pairing or which instrument to use so that there is a contrast between the different sections. Finally, this clarity of the original will help with the reimagination process as it will allow the flexibility of knowing what can be changed.

2.2.2 Atmosphere and Feel

It is necessary to consider what it means to maintain the same atmosphere or feeling of a particular section in an arrangement when compared to the original. This can either mean that it is written in a way that maintains the same “vibe” as the original or rewritten in a way that changes it when reimagining an opera. This is a difficult quality to conceptualise and assign a procedure for, yet it is one that is often necessarily and importantly assumed that an arranger will prioritise. With a direct reduction, on a surface level, it means that the musical material itself is left untouched; the harmony and musical motifs are not changed. Despite the reduction in the size of the ensemble, it is

important to find ways to maintain the essence and character of the original. Often, arrangers are meticulous in making sure that the harmony and musical motifs are similar to the original but in doing so the music sometimes loses the atmospheric characteristics achieved in the original. Pierre Boulez (1987) expresses that practical descriptions in books on orchestration are divorced from their context. For example, he mentions that Berlioz's book on orchestration shows a close but incoherent link between symbolism and affectivity; Berlioz makes the analogy that the lowest register in the clarinet sounds "hollow" but also compares it to the sombre feeling of anguish. Chapter 3 will explore how I attempt to recreate the same atmosphere and feeling as the original through my arrangement of *La bohème*.

With reimaginings, it is essential that the new arrangement creates a different atmosphere and feeling, and to do so might involve changing the harmony, musical motifs, or ostinato parts to achieve the desired outcome. For example, in the 2020 English National Opera Drive-in production, sections were broken up with "interludes of excerpted orchestral Puccini backed by hip hop beats" (Scott, 2020) which gave the production a music festival atmosphere. More examples will be explored in the section 2.2.9 on reimagination below. Chapter 4 will explore how I attempted to refashion *The Merry Widow* in such a way that changes the atmosphere of the music from a 19th-century ballroom into a 1920s jazz club. It is therefore important to note that knowing the overall atmosphere and feel the arrangement is attempting to portray will influence the instrumentation choices.

This factor also brings up an interesting point because of the terminology. There is an issue of shared vocabulary; what this means for one person could be different for the next. How can we maintain something that is elusive, intangible, not easily translatable between people, and does not have clear links to existing research? What changes the "feeling" or "vibe", and what does not? Or does everything change it in some way? Much of what is discussed here also ties in closely with section 2.2.4.

2.2.3 Instrument Choice

While this might be limited by other concerns such as the production's budget or an existing ensemble instrumental line-up, choosing the right number and types of instruments in an arrangement is a significant decision that can quickly become a limiting factor. When it comes to the string section, there is a tradition for most arrangements to use a quintet (two violins, one viola, one cello, one bass); is that the best combination of strings or would having a trio (violin, viola, cello) or quartet (violin, viola, cello, bass) be better? The former is what often happens as it is the most straightforward way to duplicate the original string parts which would be for Violin I, Violin II, Viola, Cello, and Bass, which would save the arranger a lot of time when transcribing as they would be able to copy over most of the original string parts into the arrangement, except for situations whereby this may be hindered by divisi markings. There are various existing arrangements of operas that diverge from this norm, especially in a situation whereby the original work is so large that the reduced arrangement would be totally different; for example, Laura Bowler's *The Flying Dutchman* (2023) uses a string trio of violin, cello, and bass (OperaUpClose, 2023). Another is Stephen McNeff's *Carmen* (2014) which uses a string quartet of violin, viola, cello, and bass. This combination was probably chosen to cover the entire string range and allow enough overlap between the instruments to accommodate doubling where needed.

It is important when producing a direct reduction to think about whether there are crucial instruments that need to be kept in the arrangement in order to recreate something that is similar to the original in terms of timbre and texture, which we will also explore in section 2.2.4. And when producing a reimagination, deciding on which instruments would create the desired effect that will fit the overall artistic vision of the new work. Quite often these will be instruments in the wind and brass sections, as these will most likely be the sections with the greatest reduction in the number of individual parts. While not related to operatic repertoire, there are admirable examples of chamber arrangements of orchestral pieces that compensate for the reduced ensemble size with an informed choice of instruments. For example, Debussy's *Prélude à l'après-midi d'un faune* has a total of nine

distinct instrumental colours by using three flutes, two oboes, an English horn, two clarinets, two bassoons, four horns, two harps, strings, and antique cymbals while the chamber arrangement made for Schoenberg's Society for Private Musical Performances has almost as many with a total of seven by using a flute, an oboe, a clarinet, a harmonium, a piano, a string quintet, and antique cymbals (Parks, 1999). By ensuring that there is still a large number of distinct instrumental colours (only two less than the original), this enables the arranger to still have a wide available palette to use in order to create a version that closely resembles the original.

The selection of instrument choices can be crucial, as there can be important representations or associations to particular instruments that might be important in the telling of the opera narrative. Instruments might be inherently represented on stage by the opera. For example, in Donizetti's *L'elisir d'amore*, the character Dulcamara has an assistant who plays a trumpet fanfare to announce his arrival, and this is also represented in the music both times when he appears in front of the townspeople. This might of course be easily changed to a different instrument if the director accommodates that and just requests the assistant on stage play an instrument represented in the ensemble instead. However, the use of the trumpet in this context does not just signify the instrument that the assistant plays but also mimics heraldry by using the trumpet to mark or signify ceremonial or important events, which might be taken to represent the ironic satirical yet humorous representation of Dulcamara appearing to be more important than he is. Certain instruments also have important symbolic significance in music of that time and should be retained in the arrangement where possible. For example, the hallowed significance of the trombone by the German musical public in the eighteenth century resulted in Mozart using it in *Idomeneo*, *Don Giovanni*, and *Die Zauberflöte* to enhance sacred moments in each work (Dueppen, 2012). Furthermore, instrumental significance can be important when producing a reimagination. For example, McNeff wanted to create a sound in *Carmen* that reminded people of a bar "on a good Saturday night with a band in" by using instruments like saxophone, guitar, and marimba (Carmen Abroad, 2018, 0:56).

I believe it is important that at least one instrument in the arrangement needs to be a polyphonic instrument. This does not include the typical string instruments such as the violin which is usually monophonic, as its polyphonic nature is much more limited by the possibilities of multiple stopping. McNeff uses a guitar in *Carmen* (Bizet, 2014), while Bowler uses an accordion in *The Flying Dutchman* (OperaUpClose, 2023). More commonly however, is the use of either the piano, harmonium, or harp. A polyphonic instrument is crucial to make up for the reduced numbers especially when arranging from a larger work. However, it is still important to treat it like another orchestral instrument which might be able to add body to sections, provide arpeggiated accompaniments, or occasionally doubling solos. A harp part could also be rendered by a polyphonic instrument such as the guitar or piano. The use of harmonium or accordion is also a popular choice as they offer the ability to sustain chords which could support and complement well with wind or brass instruments. However, while I understand the appeal of the sustaining quality, I personally feel that they are often unsuitable for a direct reduction (although they have been used in many reduced symphonic works) as they have a very distinct instrumental colour that drastically changes the sound of the ensemble from the original. For example, in Schoenberg's arrangement (1921) of Strauss's *Rosen aus dem Süden* (1880) for string quartet, piano, and harmonium, the harmonium covers much of the brass and woodwind parts. The result is an overall drastic change in the sound as the arrangement loses the colour of the woodwinds and brass instruments in which the harmonium does not effectively substitute.

Finally, it is important to decide the key that the music is to be played in, as this will affect both the instrumentalists and singers. Transposing to a higher or lower key, while perhaps rare, does happen for certain operas or specific sections/arias for various reasons. Sir Charles Mackerras performed Donizetti's *Lucia di Lammermoor* with sections of the music restored to the original higher keys in which the composer wrote (Crutchfield, 1999); it was initially lowered so that the highest note in the soprano aria is brought to an E-flat from an F (Gramophone, 1998). Dame Joan Sutherland sang the Queen of the Night aria from Mozart's *Die Zauberflöte* in C-minor instead of the

original D-minor in the early 1960s (Crutchfield, 1999). In the 1990s, Placido Domingo would sing sections in the role of Canio in Leoncavallo's *Pagliacci* in a lower key (Davis, 1999). There is a common tradition for tenors to sing Rodolfo's aria, "*Che Gelida Manina*", from *La bohème* in a lower key so that they can carry the top note with ease; Rolando Villazon often does so in his performances and can also be heard when he sang in the movie version of the opera (Dornhelm, 2008). As such, knowing the tradition whereby sections or arias might need a transposition option would be helpful to include in any arrangement. It would also be essential if the arranger knows the singers who will be singing in the initial performance of the arrangement. Furthermore, knowing the type of company that is going to sing the arrangement is also helpful. For example, there is a version of *The Merry Widow* (1958) which has the story and lyrics adapted by Phil Park with the music adapted and arranged for large orchestra by Ronald Hanmer which had the music being a whole tone lower than the original so as to accommodate amateur operatic and dramatic societies (Scott, 2019). Selection of the right key might include range considerations whereby a particular low note in a particular instrument needs to be within range or for scoring options whereby certain passages might allow the winds to double at an octave without becoming too high (Blatter, 1997).

Therefore, when producing a direct reduction, are the same instruments needed to recreate something that is similar to the original, especially in terms of timbre and texture (explored further in section 2.2.4)? When producing a reimagination, what choice of instrument would create the desired effect that will fit the overall artistic vision (explored in section 2.2.9)? These considerations are an important part of the thinking of an arranger.

2.2.4 Timbre

“...timbre perception is at the heart of orchestration practice...”

- Dr Stephen McAdams (2019b, p. 212)

Timbre is “thought of as any property other than pitch, duration, and loudness that allows two sounds to be distinguished” (Siedenburg et al., 2019), and is “a rather vague word that implies a multiplicity of perceptual qualities” (McAdams & Goodchild, 2017, p. 129). This topic of timbre is linked to the previous two points of atmosphere and feel, and instrument choice. This factor offers a fantastic opportunity to draw different fields on this topic together, for example, professional practice and research on music perception.

A recent paper by Dr Lindsey Reymore (2022) characterised the timbre trait profiles for 34 instruments common in the Western orchestra by using a 20-dimensional model. The model is intended to suggest what is to be the closest timbral neighbour of an instrument based on each instrument’s characterisation. Such a model might be an interesting tool to use in any reorchestration process as timbre research develops; currently, such decisions by an arranger are likely based on people’s generic imagined sounds for each instrument and do not account for the changes in timbre due to loudness/intensity, articulation, or extended techniques. Boulez (1987) touched upon these aesthetic issues:

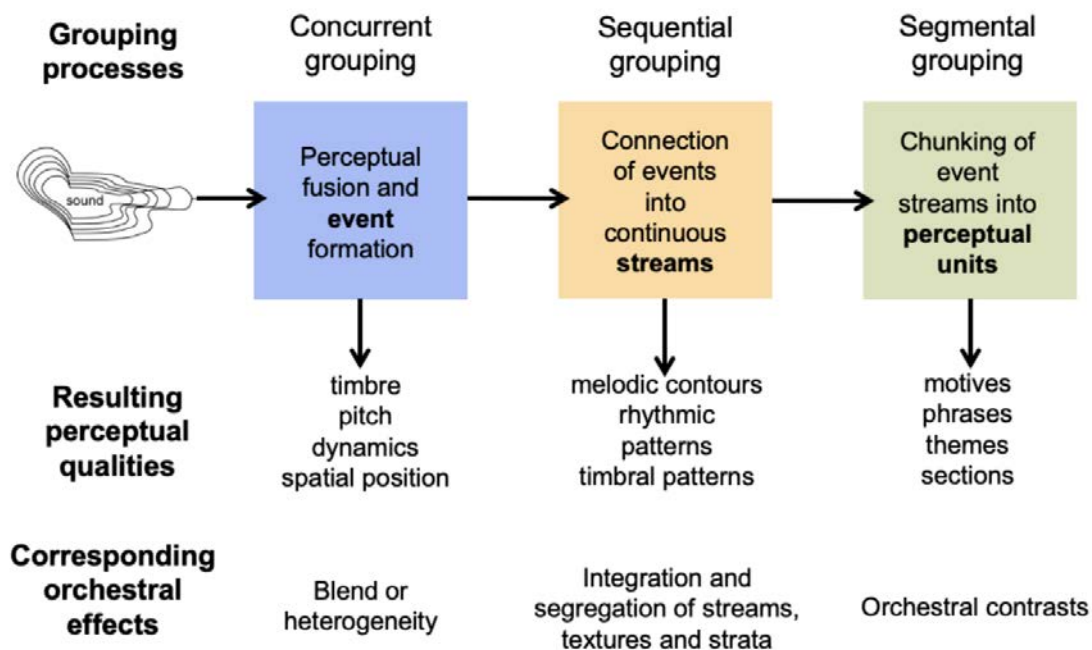
Even when one deals with the perception of sound phenomena and their quality, it is mostly a question of perception in isolation, exempt from any context. I feel that the truly artistic value of timbre is fundamentally forgotten using this approach. On the other hand we have the subjective, artistic manner of dealing with timbre, as a constituent of a musical language, along with the aesthetic and formal criteria which relate to it. This leads us to an opposite difficulty, namely the impossibility of linking instinctive feelings about the qualitative aspect to a more reasoned appraisal of the quantitative. (pp. 161-162)

Orchestration books already offer suggestions on alternative instruments that can be used. For example, Blatter's book offers a list of instrument substitutions that can be valuable especially if "a particular instrument is not available or if one just wishes to contrast or blend on instrument with one or more other instruments with similar or related sounds" (Blatter, 1997, p. 385). For example, he suggests that a high piccolo could be replaced by violin harmonics, or a low English horn might be replaced by either a viola or a clarinet with bassoon and muted horn. However, lists like this are not exhaustive and many of these combinations or solutions are in the hands of the arranger.

McAdams and Bregman (1979) realised that intentions when orchestrating a piece are related to auditory grouping processes. McAdams (2019b) discusses how timbre can be a structuring force in music and has come up with different categories in which instrumental timbre and textures can be grouped together through the process of listening; in this process, sounds are "grouped together into musical events in concurrent grouping, whether these events are connected into musical streams in sequential grouping, and how listeners chunk event streams into musical units such as motifs, phrases, or themes in segmental grouping" (ACTOR Project, n.d.). This can be seen in Figure 2 which shows the three main auditory grouping processes: concurrent, sequential, and segmental (Bregman, 1990; Goodchild & McAdams, 2021; McAdams, 1984). Through this, McAdams et al (2022) proposes a Taxonomy of Orchestral Grouping Effects which will be further explored in the arrangement of *La bohème* in section 3.3.4 below.

Figure 2

Auditory Grouping Processes (McAdams et al., 2022, Example 2)



For an arrangement to be successful, whereby success is considered to result from trying to achieve the same goals as the original, it is important to know how the music is aurally perceived. This is a factor which is not currently given any consideration in existing scholarship on the practice of producing an arrangement, but one which is ever more possible to consider, given the growth of the field of music psychology. This suggestion of the taxonomic categories and grouping processes by McAdams might help to streamline the approach and processes used by arrangers. In doing so, arrangers would be able to closely resemble the similarities and contrasts of timbre and texture between the different lines and sections in the arrangement compared to the original. It would be interesting in the future to develop a method to use these groupings described by McAdams in the reorchestration process which will be further discussed in section 5.1 below and also in Appendix 1. While timbre perception research has made many exciting breakthroughs in terms of new knowledge of how different instruments are perceived, this research is still considered to be in its early stages and a frequent challenge is that timbre “is a perceptual property, not a physical one”

(McAdams, 2019a, p. 23), which makes it difficult to measure. As such, it will be fascinating to see how progress in the field of timbre perception will influence the future of orchestration practices.

In some sense, a method and taxonomy of grouping of instrumental sounds is often already used by arrangers in the reorchestration process. In my arranging process regarding *La bohème* (Chapter 3), I will explore how arrangers can make use of some of the grouping process to analyse scores which can also help when dealing with reallocating lines, as well as analysing the outcomes from different scoring techniques. More of this will be discussed in the next factor in section 2.2.5.

2.2.5 Reallocating Lines and Dealing with Divisi and Multiple Stops

Deciding how to reallocate the various instrumental lines from an original work to an arrangement can be a daunting task for any arranger, especially if the string section will only be one-per-part in the new work. This factor considers the ways in which different parts can be allocated to different instruments, which may sometimes involve readjusting or removing octaves and might involve the revoicing of chords. In the arranging process, the theme of dealing with divisi and multiple stops appears often. The ways in which the divisi in parts can be redistributed or rewritten in the arrangement must be carefully handled, not least in a section that only uses the string section; adding a non-string instrument in the arrangement to cover a missing line may vastly change the perceived timbre of the overall section. The arranger must make an important decision on whether the colour of the section is most important or making sure all the notes are there and it can be difficult to find the suitable compromise. Elgar's *Nimrod* from *Variations on an Original Theme* is a good example; as seen in Figure 3, the first eight bars of the movement start with only strings but with the divisi in the second violins, viola, and cellos. George Morton's (2016) arrangement for 15 instrumental parts deals with this divisi by allocating some of the extra lines to the clarinet, bassoon, and first horn as seen in Figure 4; he attempts to balance the wind and brass instruments by indicating "*ppp*", one dynamic level less than the strings (more on this topic can be found in section 2.2.6, entitled Dynamics and Balance). However, in doing so, the arrangement loses the

characteristic strings-only opening of the movement of the original and also the drastic contrasts of colour that occurs when the winds and horns enter in the ninth bar of the movement. My assumption is that Morton probably wanted to prioritise the presence of all the musical lines at the expense of maintaining the string-only opening colour. The use of the bassoon adds a distinct timbre quality in this orchestration, and he probably decided that the entry of the flute in the ninth bar is significant enough to bring about the contrast. Arrangers face similar challenges frequently and will need to have the conviction that what they have done is the best possible course of action.

Figure 3

Elgar - Variations on an Original Theme, Nimrod (Elgar, 1899)

IX.
(Nimrod.)

33 Adagio. (♩ = 24.)
Flauti I & II.
Violini I & II.
Violoncelli.
Trombe & Tubi.
Timpani (in E⁺, B⁺, F⁺).
Corno & Tromba.

33 Adagio. (♩ = 24.)
Violini I & II.
Violoncelli.
Trombe & Tubi.
Timpani.
Corno & Tromba.

34
Violini I & II.
Violoncelli.
Trombe & Tubi.
Timpani.
Corno & Tromba.

Figure 4

Elgar (arr. Morton) - Variations on an Original Theme, Nimrod (Elgar, 2016)

In addition, dealing with multiple stops can become quite an important consideration when deciding which notes to include or remove so that the arrangement sounds authentic while still ensuring an efficient rehearsal process can take place, as well as an ease of performance. Having notes in a double, triple, or sometimes quadruple stops on open strings may be more successful as these would have better sustaining power (Adler, 2002) and can be much easier to perform even by very inexperienced players (Blatter, 1997). Where open strings are not involved, it is most common for double stops to consist of thirds, sixths, or octaves (Sevsay, 2013). It is especially important to account for where there might be possible key changes from the original in the arrangement; a key change can change a relatively easy double or triple stop into a fiendishly tricky one. It is important to make sure that the orchestra does not sound lacking or incomplete because of missing notes (especially if listeners are familiar with the original) and to explore the different ways to compensate for that.

Furthermore, it is important to reallocate lines in a carefully thought-out manner so that the arrangement maintains a distinct characteristic of the original in a direct reduction. Schoenberg stipulated, when his students arranged for his Society of Private Musical Performances, that they should remove all doublings from the original and eliminate divisi within sections and where possible reallocate them to another instrument or keyboard (Parks, 1999). However, it might not always be ideal to remove all doublings, especially when these are among the string instruments. Doubling can be useful when a specific line in the original is played by a large viola section, but in an arrangement, the arranger might be able to obtain a lush sound by doubling the part on violin and cello where the range allows. Simon uses a similar technique in his arrangement of Mahler's *Symphony No. 4* (2007) whereby he occasionally adds passages for the viola or bass to obtain a more substantial sound to compensate for the smaller string section (Kwon, 2016). In Chapter 3 and 4, I will explore the various techniques I have employed when reallocating the lines in the two operas.

2.2.6 Dynamics and Balance

When producing a contemporary arrangement, it is important that the dynamics are clear, specific, and consistent. For example, certain composers of the past especially those during the late-Classical and Romantic period often use extreme dynamic indications of “*ppppp*” or “*ffff*” is sometimes been referred to anecdotally by musicians today as “Italian hysterics” (A. Gorb, personal communication, 2021) and as a volume instruction outside of a certain range is not useful to musicians today as it would be physically impossible. In a letter to publisher Giulio Ricordi in October 1895, Puccini wrote that “as for the *pp* and *ff* in the score, if I have overdone it, it is because, as Verdi says, when you want *piano* you put *pppp*” (Vaughan, 1960, p. 3). Some might argue that this extreme range does not only encompass the volume instruction but also includes the quality and characteristic of the sound requested. For example, Tchaikovsky's *Symphony No. 6* has an illustrative example as seen in Figure 5, whereby the clarinet starts with “*ppp*” and gets to “*ppppp*” this section finishes with the bassoon indicated “*pppppp*”, the bassoon part is often substituted by a bass

clarinet to get the required softness. In most performances, this section does not sound softer than other sections indicated “*ppp*” but has a distinct unique colour that sets a different atmosphere instead. As such, I have kept the dynamic range in my arrangements between “*ppp*” and “*fff*”, with both of those extremes being used minimally; they are only used at the biggest or most intimate moments. Where I believe the performance should have an additional different quality to the sound, I often add an emotional adjective as an additional expression marking.

Figure 5

Tchaikovsky - Symphony No. 6, Full Score, Movement I (Tchaikovsky, 1945)

The image displays a page of a musical score for Tchaikovsky's Symphony No. 6, Movement I. The score is arranged in a system with multiple staves. The top staff is for Clarinet 1 in A (Klar. 1 in A), marked 'Solo' and 'dolce possibile'. The second staff is for Flute 1 and 2 (Fag. 1,2), marked 'a 2' and '1. Solo'. The third staff is for Horns in F (1,2 in F, Hrn. 4 in F). The fourth staff is for Percussion (Pk.). The fifth staff is for Violin 1 (Viol. 1), marked 'divisi'. The sixth staff is for Violin 2 (Via.). The seventh staff is for Viola (Vc.). The eighth staff is for Cello (Kb.). The score is divided into two sections: 'Adagio mosso (♩ = 60)' and 'ritardando molto'. Dynamic markings include 'ppp', 'p', 'f', and 'fff'. Performance instructions include 'Solo', 'dolce possibile', 'divisi', and 'pizz.'. The tempo markings 'Adagio mosso (♩ = 60)' and 'ritardando molto' are repeated at the beginning and end of the sections.

Dynamic indications such as crescendos and diminuendos are often vague in where they start and end in some of the original scores. Figure 6 below shows an example of the original violin part from Lehár's *The Merry Widow* (1906). The dynamic markings are quite clear at certain moments, but the instructions between bars 13 to 36 are vague. Besides the starting dynamic of piano, there is not any other clear indication in this section except for relatively indistinct markings of crescendo and decrescendo. A contemporary arrangement should therefore have a much clearer indication of the dynamic instructions. While these changes may be editorial, they are important, as

they allow for the reading of the music to be much more efficient, as the vagaries of such instructions are removed.

Figure 6

Lehár's The Merry Widow - Original Violin 1 Part, No. 5 Duet (Lehár, 1906)

Nr. 5. Duett

*Allegretto
con sord.*

fz

pizz.

f

arco

p

div.

*Langsam
div.*

p

Furthermore, when the orchestration is reduced, especially with the string size being hugely diminished compared to the wind and brass section, it is important to make sure that the different sections within the ensemble are well-balanced. The dynamics for certain instrumental families such as the brass needs to be rewritten to account for their ability to overpower the orchestra in louder moments. So often in an arrangement for string quintet and wind quintet, the winds tend to be too dominant. Dynamics in each instrumental part can be a sensitive factor when working with a smaller ensemble and can greatly affect balance. Both the dynamic indication and the orchestration will have to reflect this phenomenon.

Finally, it is important to ensure the balance between the voice and ensemble. It is often an issue in such arrangements where the voice is not supported by the orchestra because of the reduced numbers. While it is usually up to the conductor/music director in the moment to ensure

that the balance between voice and ensemble is supportive but not overpowering, a clear indication in the score to help with this balance will make the overall process much more efficient, more often than not, by ensuring that the dynamics are not too soft. Sometimes, with a one-per-part string section, the effect of having muted strings might be overshadowed by an imbalance between the singers and ensemble and it might be more effective to have the strings play the passages in an ordinary fashion instead (Sun, 2006). In my arrangements, I tend to leave these in as optional depending on a variable string size and the quality of voice; their effective usage might only truly be decided in the rehearsal process.

2.2.7 Performance Markings

Performance markings refer to the articulation, expression, technical markings, and any other instructions indicated in the score. Written articulation was notated in scores at a relatively late stage in the history of music publication, with written articulations often being inconsistent and ambiguous (Lawson & Stowell, 2004). In the original score for *La bohème*, the articulation markings for the wind and brass instruments are often not consistent with those in the strings. Techniques requested by composers of the past may not have the same standardised instructions that are understood by musicians today. Arrangers need to consider how markings that appear in the original might be effectively translated in a contemporary modern arrangement. It is important for these markings to be immediately understandable by performers of today. Specific examples of these will be explored in Chapter 3 and 4.

2.2.8 Modern Notation and Typesetting

“One worthwhile suggestion that can be offered is to have the orchestrator read through each instrumentalist’s part. Two items should be checked: playability and performer satisfaction.”

- Alfred Blatter (1997, p. 422)

The previous two factors are linked to this one, notation and typesetting. When producing an arrangement, it is important that the notation is treated like that of a contemporary composition. This is so that the score and the parts are immediately familiar and easily readable by the performers of today as “bad layout–poor spacing and ill-judged page-turns, for instance–can hinder a good performance” (Gould, 2011, p. xi). Burke mentioned that it is producing the parts that consume the most time when producing arrangements for Pocket Publications as they need to be proofread and checked for page turns and instrument changes (T. Burke, personal communication, 2020).

There are many books that offer guidance on the best way to present the music and parts to the musicians. Blatter (1997) offers advice in his book on explaining how the score and parts should be prepared and laid out so that it is clear and suitable to be performed. Elaine Gould’s (2011) *Behind Bars* is a useful resource as it examines the various traditions and rules with score and parts preparation, proposes conventions that are clear and uncomplicated, as well as recommendations that are based on her experience working with composers and musicians. An example is with the portrayal of rests. It can be seen in *La bohème*, whereby the original (see Figure 7) does not use dotted rests in compound time and instead uses a crotchet and quaver rest separately instead. This makes initial reading of the music much more difficult. Gould (2011) suggests that it would be much easier to read if the rests within a beat are combined as seen in my arrangement (see Figure 8) and makes reading of it much more efficient.

Figure 7

Puccini's *La bohème* - Original Score, Act I, pp. 34-35

The image displays two pages of a musical score for Puccini's *La bohème*, Act I, pages 34 and 35. The score is written for a full orchestra and vocal soloists. The tempo is marked 'Allegro'. The key signature has one flat (B-flat major or D minor). The score includes parts for Flute, Oboe, Clarinet in La, Bassoon, Horns, Trumpets, Trombones, Tuba, Snare Drum, Cymbals, and Harp. The vocal parts are for Marcello (Baritone), Colline (Bass), and Mimì (Soprano). The lyrics are in Italian. On page 34, there is a scene description: '(Dalla porta di mezzo entrano due garzoni, portando l'uno provvisto di silibottiglie di vino, l'altro un fascio di legna. Al rumore i tre innanzi al camino si vedono e con grida di meraviglia si siedono sullo provvisto portato dai garzoni e lo depauperano sul tavolo. Colline prende la legna e la porta presso il caminetto.)'. The score features various musical markings such as 'f' (forte), 'p' (piano), 'cresc.' (crescendo), 'deciso', 'pizz.' (pizzicato), and 'arco' (arco). On page 35, the vocal parts have lyrics: 'Le do - vi - sto d'e - na fi - ra il do - stin ci de - sti -'. The instrumental parts include 'Schaunard entra con aria di trionfo' and 'Mimì'.

Figure 8

Puccini's *La bohème* - Arrangement, Act I, Bars 224-240

The image displays two pages of a musical score for Puccini's *La bohème*, Act I, bars 224-240. The score is written for a full orchestra and vocal soloists. The tempo is marked 'Allegro'. The key signature has one flat (B-flat major or D minor). The score includes parts for Flute, Oboe, Clarinet in C, Bassoon, Horns, Trumpets, Trombones, Tuba, Snare Drum, Cymbals, and Harp. The vocal parts are for Marcello (Baritone), Mimì (Soprano), and Colline (Bass). The lyrics are in Italian. On page 224, there is a scene description: '(There's a knock at the door. At the door is a package from his uncle; a Christmas present consisting of food, bottles of wine, cigars and fireworks.)'. The score features various musical markings such as 'f' (forte), 'p' (piano), 'cresc.' (crescendo), 'deciso', 'pizz.' (pizzicato), and 'arco' (arco). On page 225, the vocal parts have lyrics: 'Le do - vi - sto d'e - na fi - ra il do - stin ci de - sti -'. The instrumental parts include 'Schaunard entra con aria di trionfo' and 'Mimì'.

Modern scores are notated very differently today and while this is always changing, it is important that the scores are notated as clearly and specifically as possible, while still making sure that the information provided is not overwhelming for the musicians.

2.2.9 Reimagination

Reimagination with regards to opera arranging can take various forms. One could alter the structure of the original by reworking the sections in various ways to make a new unique version which might also involve altering the number of cast members involved. A version of this will be explored in Chapter 3 where we explore my arrangement of Puccini's *La bohème* that has been shortened and with certain sections rewritten to make it a coherent piece. Reimagination could also be altering the "feel" of the music and in doing so changing the genre; this could include introducing new instrumental timbres and textures that are not in the original. For example, Stephen McNeff's arrangements of *Carmen* include a guitar, alto saxophone, and muted trumpet to create a burlesque feel (Power, 2014). Furthermore, there is also the possibility of rewriting the libretto to make the story more relevant today. The process of reimagination may tie in with or will bring together many of the aforementioned points. For example, OperaUpClose's recent touring production of Wagner's *The Flying Dutchman* rearranged by Laura Bowler for eight instrumentalists features a combination of the three aforementioned points: a change in the structure including a reduction in the number of cast members to just five singers, instrumental changes (accordion and instrumental members singing), and a new English version by Glyn Maxwell based on an original concept by director Lucy Bradley (OperaUpClose, 2023). This version tweaks the plot from a seaman condemned to sail the sea for eternity to a modern-day refugee tale set in a dystopian modern-day England. This innovative version made use of the instrumental ensemble as part of the setting while occasionally changing their outfits to fit the story, interacting with the cast, as well as singing as a chorus. As such, there are many other ways a reimagination can happen and the end-product is only limited by the imagination of the arranger and the brief they are given. Another example in recent years is Opera

North's production of Monteverdi's *L'Orfeo* (1609) (Opera North's entitled their 2022 production as *Orpheus*) that was "reinvented for an orchestra of baroque, classical and Indian instruments, and rescored for a cast of Indian and western classical singers" (Kenton & Tilden, 2022) featuring Baroque instruments such as the theorbo and lute as well as Indian classical instruments such as the esraj, tabla and many more (Opera North, 2022).

There are also more radical versions of reimaginings that take opera into a different medium such as staging it with dancers instead of having singers. An example is Matthew Bourne's *The Car Man* which was described as "a steamy pulp-fiction take on the Opera Carmen" (Roy, 2022) features a live orchestra with orchestration by Terry Davies (New Adventures, n.d.). Reimaginings that go beyond structural and instrumentation choices usually involve a team of creatives to produce the new recreation such as collaborations with stage directors, choreographers, and producers.

Therefore, it is important to think about what form the reimagined arrangement is going to take; it is important to consider whether the narrative is going to be changed, how the changed narrative is going to affect the structure of the opera, and whether the feeling and atmosphere of the opera is going to change which in turn influences the instrument choice and timbre considerations when creating the arrangement. It is also important to consider its purpose and the audience's enjoyment, bringing us to our final factor.

2.2.10 Purpose and Audience Enjoyment

Despite being the last item on the list, this factor should probably be and is most likely the first thing an arranger considers when producing an arrangement. The purpose of producing an arrangement is very important. Is it because of financial constraints? Is it to make it possible to perform in a smaller venue? During the Covid-19 pandemic period, was it to allow for social distancing? While originally not reduced for this purpose, my arrangement of *La bohème* (Chapter 3) was one of the first operas to be performed in Singapore since the pandemic occurred as it allowed

for social distancing. Is there a specific brief from the organisation commissioning the arrangement? For example, I was recently contacted by a TV production company in Singapore asking whether I might be able to arrange music to reimagine Donizetti's *L'elisir d'amore* in a Singaporean context by including "Hokkien Techno influences" so as to create a show that introduces opera as relatable to a local audience (P. Goh, personal communication, 2023). A reduced-size arrangement is usually used so that it can either be performed by a group that has financial constraints or be performed in a variety of venues. In certain cases, a chamber arrangement allows amateur musicians to become familiar with these works as it allows them to put on performances of it by reducing the cost, such as my arrangement of *The Merry Widow* (Chapter 4). If the purpose of the arrangement needs to consider portability, so that these works can be easily performed in a variety of venues, the arranger needs to take into account the instrumentation choices and numbers as well as the right type of doubling for a small space. Chapter 3 and 4 explores the reception and perception of the arrangements of *La bohème* and *The Merry Widow* through questionnaire responses from the performers and audiences.

It is also important to consider what the desired effect from the audience is. Opera as a medium allows for original themes to take on new relevance to events of today; for example, Puccini's *Tosca* may take on new resonance today when "exploitive sexual relationships by powerful men in the public eye have come under the spotlight" (Wilson, 2021, p. 190). OperaUpClose's *The Flying Dutchman* reimaged Wagner's original setting it in a dystopian England hardening its borders against refugees, making it difficult not to draw links with the current United Kingdom's Home Office's harsh and severe anti-immigration measures (Evans, 2023). The meaning of specific operas changes over time and will continue to do so, which makes knowing the purpose of producing an arrangement ever more important. It was impossible not to see the relevance of *La bohème* during the Covid-19 pandemic; Scottish Opera (2020) put on a production of the opera in 2020 with clear parallels drawn to the pandemic.

Does opera have a role in the community? Music can be a medium for social bonding; Cross (2014) coined the term *floating intentionality* in which “we experience music as though it exhibits intentionality or ‘aboutness,’ but precisely what music may be ‘about’ is variable and particular to an individual” (p. 8). To what extent should the choice of opera challenge us? Should music be an emotional outlet, or should it make people feel uncomfortable to spark change? Emotions felt during performances may have significant impact on people; in fact, performances of sad music can be a way to create a safe environment to experience sadness. Huron (2011) suggests that sadness invoked by sad music might have an accompanying positive effect. Exposure to sad music might allow for depressive realism, a phenomenon that suggests we are most realistic when sad (Alloy & Abrahamson, 1979), allowing for more accurate self-appraisals and more realistic assessments (Brown & Mankowski, 1993) and it is in this state that prolactin is released which “produces feelings of tranquillity, calmness, well-being, or consolation” (Huron, 2011, p. 151). Because of the breadth of this topic, these are subjects that will not be fully explored in this thesis, but they are important for the arranger to keep in mind. In the end, an arrangement needs to bring to life an artistic vision; an effective arrangement will do so and help surmount any logistical and financial constraints.

Chapter 3: Commentary on the arrangement of Puccini's *La bohème*

3.1 Background

The arrangement of Puccini's *La bohème* was commissioned by Musicians' Initiative in Singapore for their 2021 opera performance after discussion about collaborating on an opera production together. The opera was selected because it is considered one of the most popular operas today; on OperaBase, an online database that documents opera activities in over 900 opera companies worldwide, Puccini's *La bohème*³ has been in the top 5 most performed operas for all years between 2018 and 2023 (OperaBase, n.d.), and has featured in many different lists of the top or greatest operas (Allison et al., 2019; ClassicFM, 2018; Gramophone, 2022).

The initial concept was to put on an opera production that was reduced in both duration and size (singers and instrumentalists) so that this would facilitate an immersive performance experience for the audience (the term immersive is used here to mean the integration of the audience with the performers, see section 3.3.8 below for more details). *La bohème* was a suitable choice, as the story still flows when it is presented in this abridged version with the cast reduced to only four roles: Mimì, Rodolfo, Marcello, and Musetta. The arrangement is a direct reduction, with a slight reimagination. The original work consists of approximately 120 minutes of music, which corresponds to a full running time of 150 minutes, including the intermission and short breaks between acts. In my arrangement, this is reduced to approximately 70 minutes of music, which allows for a full running time of 80 minutes without intermission but with short set changes between acts; that is 58.3% of the original music duration, and 53.3% of the full show. To maintain a coherent storyline, the arrangement focused on Rodolfo's and Mimì's relationship (with a secondary focus on Marcello's and Musetta's relationship). This allowed for significant sections that were not crucial to their stories to be removed. This also allowed for greater flexibility and reduced the cost of the production. However, while the Covid-19 global pandemic prevented the realisation of an immersive experience

³ A synopsis of the full opera can be found on the Opera North website here: <https://www.operanorth.co.uk/whats-on/la-boheme/#story>

due to the requirements of social distancing (as the performers could not interact with the audience), the performance of this arrangement was still able to go ahead as it allowed for social distancing by the performers due to the significantly reduced numbers. *La bohème* was performed in Italian (with English surtitles) as a double bill with Menotti's *The Telephone* that was performed in English.

3.2 Other Known Arrangements

The arrangement has 13 instrumental parts: flute (piccolo), oboe, clarinet, bassoon, horn, trumpet, piano, percussion, and string quintet; the piano part should also work with a harp instead if preferred. The source material used for this arrangement is the full score published by Ricordi in 1920.

There are multiple existing well-known arrangements of *La bohème*. The first, published by Pocket Publications, is for 12 musicians: string quintet, wind quintet, harp, and percussion. However, the arrangement uses exact copies of the original score, with changes pencilled in. As such, this results in a multitude of challenges as mentioned in chapter 1. There is an arrangement used by Scottish Opera (2020) by Jonathan Dove, which had a similar (but not as substantial) reduction in the structure as mine (see section 3.3.1 below), but still requires a larger cast and orchestra of seven singers and 15 instrumental parts; the production used a larger string section. Another existing arrangement by Daniel Llewelyn James in 2019 is also for 12 musicians: flute (piccolo), oboe (cor anglais), clarinet (bass clarinet), bassoon, horn, percussion, piano (celesta), and string quintet (Puccini, 2019). It could be argued that this arrangement (especially in the strings) results in certain sections losing their characteristics. For example, in the final duet of Act I, James' arrangement removes the tremolos in the strings to account for their reduced numbers which results in the section losing its "quivering" quality to set the atmosphere of the couple falling in love. This can be seen in Figure 9 and 10. More on this difference to be explored in section 3.3.2 and 3.3.4 below. An arrangement by Jonathan Lyness (1999) is again for 12 musicians: flute (piccolo), clarinet, bassoon,

horn, trumpet, percussion, harp, and string quintet. I believe that the extra part in my arrangement makes a significant difference; James' arrangement only has one brass instrument (horn) and as such sacrifices the brass timbre, which is a key part of the original score, while Lyness' arrangement is missing an oboe which means its distinct instrumental colour is missing from the arrangement. In light of these existing arrangements, my own work is most likely the first of its kind as it not only has a reduced duration with a substantial amount of music removed, it also only needs four of the principal vocal roles. This allows for the arrangement to be versatile in being able to be performed in more intimate venues with a small cast and ensemble.

Figure 9

Puccini's *La bohème* - Original Score, Act I, p. 110

Arpa *Parmonioso*

RODOLFO (volgendosi, scorge Mimi avvolta come da un nimbo di luce, e la contempla, quasi estatico)
dolcissimo, pp
 O so-a-ve fan-ciul - la, o dol-ce

MAR. (molto lontano, ma quasi gridato)
 Tro-vò la po-e-si - a!

Viol. I. *divisi* *arco* *pp*

Viol. II. *divisi* *arco* *pp*

Vcllo. *divisi* *arco* *ppp*

Cb. *ppp* *pizz.*

(41) *ppp* *pizz.*
 Largo sostenuto ♩ = 58

P. R. 110

Figure 10

Puccini's *La bohème* - James' Arrangement, Act I, Final Duet, p. 158

The musical score for Figure 10 is a page from a chamber arrangement of Puccini's *La bohème*, Act I, Final Duet, page 158. It features the following parts and markings:

- Rod. (Rodolfo):** Vocal line with lyrics: "O so-a-ve fan-ciul - la, o dol - ce vi - so di mi-te cir-con".
- Mar. (Musetta):** Vocal line with lyrics: "Tro-vò la po - e - si - a".
- Pno. (Piano):** Accompaniment marked *ppp armonioso*.
- Vln. I (Violin I):** Accompaniment marked *pp* with *(pizz.)* and *arco* markings.
- Vln. II (Violin II):** Accompaniment marked *pp* with *arco* markings.
- Vla. (Viola):** Accompaniment marked *pp* with *arco* markings.
- Cello:** Accompaniment marked *pp* with *arco* markings.
- Bass:** Accompaniment marked *pp* with *(pizz.)* markings.

3.3 The Arrangement Process

As mentioned in Chapter 1 and 2, there is little literature on how a chamber arrangement of an opera might be made with reduced forces and reduced duration. Therefore, the arrangement was made with the framework of the aforementioned ten factors. Alongside them, I kept notes in a diary to document my own personal progress when arranging from which the main points will be featured in this section of the paper. The factor on modern notation and typesetting will not be included as it has already been discussed in Chapter 2. The discussion on a reimagination will not have its own individual section either as this arrangement is predominantly a direct reduction; most of what is being reimagined will be discussed in the next section 3.3.1. Finally, I designed a questionnaire that would be able to capture data from the audience, singers, and instrumentalists involved in the performances in section 3.4.

3.3.1 Structure

In order to reduce the duration and numbers of musicians needed in this arrangement, it was important to consider the overall structure of the music. I started by working with the libretto and vocal score⁴ to reduce the overall duration of the music. Without including the chorus, the original version has 10 significant roles: Rodolfo, Mimì, Marcello, Musetta, Schaunard, Colline, Benoît, Alcindoro, Parpignol, and a customs sergeant. The arrangement removed the chorus and many of these roles, leaving only Rodolfo, Mimì, Marcello, and Musetta; this meant that a significant change needed to be made to the structure and libretto to account for this. This process started with choosing the sections in the four acts that I would keep in order to create a coherent storyline, while removing plot points and characters that are extraneous. The result is structure of three parts: Part I consists of Act I and II which is set on Christmas Eve (Act I is at Rodolfo and Marcello's apartment and Act II is at Cafe Momus), Part II is Act III which is set outdoors in late February, and Part III is Act IV which is set a few months later back at the apartment.

Act I.

In the original version, Act I opens with four struggling bohemians living together; it starts with Rodolfo and Marcello before they are joined by Colline and Schaunard. Schaunard arrives with riches he made from a job; this is a significant moment as the fortune allows them to dine at Cafe Momus in Act II. In the arrangement, these were given to Marcello as a present from his uncle instead as it was set on Christmas eve (see Figure 11). With the removal of Schaunard and Colline, lines that were essential in their part were rewritten for Rodolfo and Marcello, and the rest of their music was removed (see Figure 12 and 13). Benoît the landlord arrives to collect rent immediately after in the original as well; this has been entirely removed. From the arrival of the riches to the moment Marcello leaves to Cafe Momus without Rodolfo, this entire section has been rewritten and

⁴ A link to the vocal score produced by me and used for the production can be found here: <https://drive.google.com/file/d/1K7suLQkuXr7BiLBZWd8RrflRi3URL1P5/view?usp=sharing>

truncated (refer to pages 17-23, bars 224-284 in arrangement submitted) so that it is coherent and flows.

Figure 11

Puccini's *La bohème* - Arrangement, Vocal Score, Act I

(There's a knock at the door. At the door is a package from his uncle; a Christmas present consisting of food, bottles of wine, cigars and firewood.)

Marcelol (incredulously): "Un regalo di mio zio!"

5 Allegro
f deciso

Figure 12

Puccini's *La bohème* - Original Vocal Score, Act I, pp. 23-24

RUDOLPH
Alz. destined yet to know.
stin ci de - sti - nò. (Exeunt the two boys)

MARCEL
 fa - ted yet to know.
stin ci de - sti - nò.

SCHAUNARD
(enters with a triumphant air.) (throwing some coins on the ground)
tonante Such wealth in the ba - lance Outweighs the Bank of
La ban.ca di Fran - cia per vo - i si sbi.

COLLINE
 fa - ted yet to know.
stin ci de - sti - nò.

MARCEL
(Picking up the coins) (Incredulously)
 Tin me - dals? in.
Som pes - si di

SCHAUNARD
 France.....
lan - cia.

COLLINE
 Then take them, then take them!
Rac - cat - ta, rac - cat - ta!

24 RUDOLPH
(bowing)
 King Louis Phi.
Lu - i - gi Fi.

MARCEL
 ..spect them!
- lat - ta!.. (showing one to Marcel)

SCHAUNARD
gridato
 You're deaf, then? or blind? What face do they show?
Sei sor - do?.. Sei tip - po?.. Quest'uomo chi è?

p leggiero

Figure 13

Puccini's *La bohème* - Arrangement, Vocal Score, Act I

The image shows a musical score for Act I of Puccini's *La bohème*. It consists of two systems of music. Each system includes a vocal line for Rodolfo (Rod.) and a vocal line for Marcello (Mar.), along with a piano accompaniment. The lyrics are in Italian and English. The first system shows Rodolfo singing "stin ci de - sti - nò." and Marcello singing "La ban-ca di Fran - cia per vo - i si sbi-lan - cia. Rac-cat-ta, rac". The second system shows Rodolfo singing "Son pez - zi di lat-ta! Lu-i-gi Fi" and Marcello singing "cat-ta! Sei sor - do?...Sei lip - po?... Quest'uo-mo chi è?". The piano accompaniment includes a *p leggero* marking.

Furthermore, there is a moment in the original of Act I between Mimi's aria, and Mimi and Rodolfo's duet whereby Marcello, Schaunard and Colline interrupt them by shouting (from offstage) to Rodolfo to hurry up and join them at Cafe Momus. This is shortened in the arrangement to only include Rodolfo so that the scene flows more effectively.

Act II.

In the arrangement, Act II contains the most significant reduction as the original greatly involves the chorus. Originally set in the Latin Quarter before they enter Cafe Momus in Paris, the arrangement only focuses on Cafe Momus. Instead of the opening chorus scene that sets the stage for the Latin Quarter, the arrangement starts with Rodolfo, Mimi, and Marcello dining at the cafe before the arrival of Musetta. Musetta's arrival music is played before jumping straight into her famous aria "Quando me'n vo". The act ends in this arrangement without the chorus ending (see Figure 15).

Figure 14

Puccini - La bohème - Original Vocal Score, Act II, pp. 154-156

154 (Musetta and Marcel embrace with much fervour)

MUSSETTA *stent.* a Tempo sostenuto *Meno*
bring another pair! *gol* Marcel...
pro - sta, va! va! Marcel... lo...

MIMI *stent.*
of Mar - cel!
di Mar - cel - - lo!

RUDOLPH *stent.*
- pen - - - dous!
- pen - - - da!
he hastily buttons up)

ALCINDORO *stent.* (hurries off the stage)
Mu - set.ta! Shame!
Mu - set.ta! Vo,!

MARCEL
meet... thee, O my love! *En.chantress!*
-prir, ad a - prir! St.re - na!

SCHAUNARD *stent.*
as a play, as a play!
- pen - - - da!

COLLINE *stent.*
- pen - - - dous!
- pen - - - da!

155 (to Mimi in amazement as they both rise)

RUDOLPH *pp*
The bill...
Il conto?!

SCHAUNARD *pp* (a waiter brings in the bill) (in amazement)
Here's the final tabeaa! The bill... What a
Siamo all'ultima scena! Il conto?! Co.st

COLLINE *pp* (in amazement)
The bill...
Il conto?!

SCHAUNARD (after looking at it he hands it round)
bother!
presto? Let's see... Ve.diam!

COLLINE
Who bade him bring it?
Chi l'ha ri - chiesto?!

Allegro alla marcia
Ogni battuta di 2 equivale a un quarto di 4
Drums begin in the distance
ancora più lento
sempre pp

156 **Allegro alla Marcia** ♩=132
The Tattoo (far away at first; but gradually approaching)

(Drums) *pp*

RUDOLPH (examining the bill)
Heav'n! Out with your coppers!
Ca.ro! Fuori il da-na-ro!

SCHAUNARD
Out with your coppers! Col. li. ne, Ru.
Fuori il da-na-ro! Col - li - ne, Ro.

COLLINE (examining the bill)
Heav'n! Out with your coppers!
Ca.ro! Fuori il da-na-ro!

RUDOLPH I've
Ho

MARCEL
We've not a rap!.....
Siamo all'u.scut.to!

SCHAUNARD I say!
-dolph, and you, Mar.cel! Co - me?
-dol fo e tu Mar.cel?

STREET ARABS (hastening from the right)

Sop. WORK - GIRLS 'Tis the tat - too!
La rit - ra - ta!

Temp. STUDENTS (hurrying out of the Café Momus) 'Tis the tat - too!
La rit - ra - ta!

'Tis the tat - too!
La rit - ra - ta!

'Tis the tat - too!
La rit - ra - ta!

Figure 15

Puccini - La bohème - Arrangement Vocal Score, Act II

The image displays a page from a vocal score for Act II of Puccini's *La bohème*. It features four vocal staves: Musetta (Mus.), Mimì (Mim.), Rodolfo (Rod.), and Marcello (Mar.), and a piano accompaniment. The score is in 3/4 time and G major. The tempo markings are *allarg.* and *a tempo*. The lyrics are in Italian. A box containing the number '11' is placed above the first measure of the Musetta staff. The piano part includes dynamic markings such as *pp dolcissimo* and *tutta forza*. The score concludes with a double bar line.

Mus. *allarg.* t'an-dreb-be il mio co - re ad a - - - pris! *a tempo* Mar-

Mim. lo ve - do... ben ell' è in-va-ghi - ta di Mar-cel - - - lol (Musetta and Marcello embrace passionately)

Rod. lo ve - do... ben in - va-ghi-ta Mar - cel - - - lol *stent.*

Mar. ...t'an-dreb-be il mio co - re ad a - pris... ad a - pris! *allarg.* *a tempo*

Mus. cel - lol

Mar. Si - re - nal!

pp dolcissimo

tutta forza *tutta forza*

m.d.

Act III.

Act III has the least changes with regards to the structure. The introduction of the act is shortened to remove the chorus, and the ending of it was shortened by removing the argument between Marcello and Musetta.

Act IV.

Similar to Act I, because of the absence of Schaunard and Colline, a large section has been cut that is not relevant to the storyline. The act starts with Marcello and Rodolfo speaking about Musetta and Mimì, who have left them before jumping to the arrival of Musetta with Mimì, who is unwell and dying. Similarly, the lines in this act originally belonging to Schaunard and Colline are reallocated to Marcello and Rodolfo, or the text adjusted so that it makes sense.

Leitmotifs.

“Leitmotif, then, is not just a musical labeling of people and things (or the verbal labeling of motives); it is also a matter of musical memory, of recalling things dimly remembered and seeing what sense we can make of them in new context.”

- Thomas Grey (2008, p. 114).







A leitmotif can be considered to be a short phrase or theme used to represent a person, object, place, idea, sentiment, or supernatural force, and is transformable to symbolise changes in emotions or different situations (Whittall, 2001). Puccini is known to often use leitmotifs to describe his characters as well as their feelings and emotions. It is important when deciding the structure of the entire opera to consider the leitmotifs related to the important characters and sentiments so that they are properly represented even in an arrangement that is of reduced duration. Min Ho (1994) wrote a paper on the leitmotifs in Puccini’s operas. One of the operas he focused on was *La bohème* whereby he numbers the leitmotif, highlights each time they reappear, and describes how they have been transformed. This resource is helpful to ensure that the motifs are heard and retained in the arrangement as they often signify important moments (it is important that they are not removed from the overall structure) especially the first time they appear. The way they are present is crucial so that any subsequent versions of it make sense when they appear later in the work. There are many memorable leitmotifs in *La bohème* and Ho identifies 12 of them.

An important leitmotif relates to Mimì’s illness which is a significant narrative point of the opera and this leitmotif appears five times (see Figure 16 for all five times it appears); this is Leitmotif No. 4 in Ho’s (1994) paper. The first time this is heard happens when Mimì and Rodolfo meet for the first time and Mimì coughs and faints as she enters the apartment. This motif is set up for the listener as soon as Mimì is first introduced in the story. This motif is not heard again until the second half of the opera with its appearances becoming more often to signify the illness getting worse. The second time in Act III happens after Rodolfo discovers Mimì hiding in the corner after

telling Marcello that she is sick and he cannot help her. The third time happens when Mimì is saying farewell to Rodolfo in Act III and at the point where the music is most emotional (*agitando un poco* in the score) and slightly more agitated, this motif is heard. The fourth is in Act IV when Mimì's death is close and when she has a few final moments alone with Rodolfo; the rhythm here is augmented and the dynamic extremely soft as she is on her deathbed. The fifth and final time has the rhythm and dynamic similar to the original, during which Mimì suddenly suffers from a spasm of pain after she started drifting off when reminiscing about their first meeting. Every appearance of this leitmotif is kept in the arrangement even with the reduced structure because it plays an important narrative element from the first appearance to its last. As such, where possible and relevant, in the arrangement of this opera, it was important to try and keep most of the leitmotifs' appearances. Furthermore, they need to be carefully treated in the arrangement because they can be an important factor in maintaining the atmosphere and feel of the overall operatic narrative.

Figure 16

Leitmotif No. 4 - List of appearances in *La bohème* (Ho, 1994)

First Time		Second Time	
Table 4.23		Table 4.24	
Meter	3/4	Meter	3/4
Rhythm	<i>Allegro agitato</i> 	Rhythm	<i>Lo stesso movimento</i> 
Key	G major (at this point)	Key	B [♭] major.
Tempo	Allegro agitato.	Tempo	Lo stesso movimento
Dynamic	p, f.	Dynamic	fp.
Instruments and Voices	clarinet in A and violin.	Instruments and Voices	flute, oboe, English horn, clarinet in B [♭] and violin.
Dramatic Situation	Rodolfo remains to finish an editorial; someone knocks at the door. Mimi, a neighbour, indicates that her candle is out and she asks Rodolfo to relight it. Rodolfo lets her enter. Mimi coughs and Rodolfo places her on a chair.	Dramatic Situation	Mimi speaks to Marcello. Rodolfo enters while Mimi hides in a corner. Rodolfo tells Marcello that Mimi is dying. She needs better living conditions and he feels guilty because he cannot help. Mimi coughs and sobs. Rodolfo lets her come inside but Mimi refuses because she cannot stand the smell.
Page Number	81.	Page Number	292.
Rehearsal Number	25.	Rehearsal Number	24 (Act Three).
Table 4.25		Table 4.26	
Third Time		Fourth Time	
Meter	3/4	Meter	4/8
Rhythm	<i>Andantino</i> 	Rhythm	
Key	G major.	Key	A major.
Tempo	Andantino	Tempo	Molto meno (Allegro moderato agitato).
Dynamic	mf, p, pp.	Dynamic	pp.
Instruments and Voice	clarinet in B [♭] , violin and Mimi.	Instruments and Voices	flute, oboe, English horn, clarinet in A, bassoon and Mimi.
Dramatic Situation	Mimi is singing an aria "Farewell" to Rodolfo.	Dramatic Situation	Mimi feels that death is close and she wants to spend her last moments with Rodolfo. Musetta finds Mimi outside the garret. Rodolfo and Marcello place Mimi on the bed. Mimi sings "My darling Rodolfo, oh let me stay with you".
Page Number	294.	Page Number	367.
Rehearsal Number	26 (Act Three).	Rehearsal Number	12 (Act Four).
Table 4.27		Fifth Time	
Meter	3/4	Meter	3/4
Rhythm	<i>All.^o moderato</i> ♩=120 	Rhythm	<i>All.^o moderato</i> ♩=120 
Key	G major.	Key	G major.
Tempo	Allegro moderato ♩=120	Tempo	Allegro moderato ♩=120
Dynamic	f, p.	Dynamic	f, p.
Instruments and Voices	flute, oboe, English horn, clarinet in A and violin.	Instruments and Voices	flute, oboe, English horn, clarinet in A and violin.
Dramatic Situation	Mimi and Rodolfo enjoy the recollection of their first meeting. Suddenly, Mimi suffers from spasms and on alarmed Rodolfo raises her up.	Dramatic Situation	Mimi and Rodolfo enjoy the recollection of their first meeting. Suddenly, Mimi suffers from spasms and on alarmed Rodolfo raises her up.
Page Number	397	Page Number	397
Rehearsal Number	25 (Act Four).	Rehearsal Number	25 (Act Four).

3.3.2 Atmosphere and Feel

I have tried to maintain the same atmosphere as the original where possible. This meant that, on a surface level, the musical material itself is left untouched; the harmony and musical motifs are not changed. The motifs and the way they are presented (as mentioned earlier in section 3.3.1) are especially important as they relate to the character, the drama, and the atmosphere of the music. Furthermore, despite the reduction in the size of the ensemble, I was aiming to maintain the signature Puccini sound that is an “ingenious amalgam of orchestral and vocal richness” (Tommasini, 2018, para. 13). Puccini’s music has a richness and warmth that reflects the narrative of the story. Puccini uses various methods to create the various atmospheres in the music that reflect the text such as using tremolos in the background texture, using syncopations to create a sense of tension, as well as using specific articulation markings to reflect the feeling of certain sections. It is important in the arrangement that these effects are maintained. As mentioned earlier in section 3.2, James’ arrangement (see Figure 10 above) loses its “quivering” quality as there are sections where tremolos are removed to compensate for the smaller ensemble size. Ensuring that these sonic features are kept in the arrangement ensures that these qualities come through which will in turn affect the “feel” of the section; therefore, in my arrangement, the tremolos are maintained (see Figure 17). It can also be noted in this section of my arrangement that all the strings play the tremolos together at a very soft dynamic of *ppp* in contrast with James’ arrangement which only has the cello holding a long note. In the original, Puccini has the full viola and cello section playing; it is the quality from a large number of string instruments playing the tremolo softly that creates this warm quivering effect. Therefore, in order to create something similar, it was important to compensate for the reduced string section in the arrangement by ensuring that multiple parts play at a soft dynamic.

Figure 17

Puccini's *La bohème* - Arrangement, Act I, Bars 630-632

23

630 *Largo sostenuto* $\text{♩} = 58$

Fl. *ppp*

Cl. *pp*

Bsn. *ppp*

Hn. *pp*

Tpt. *pp*

Timp. *ppp*

Pno. *p armonioso*

Rod. *p dolciss.*

Mar. (molto lontano, ma quasi gridato)

O so-a-ve fan - ciul - la, o dol - ce vi - so di mi-te cir-con

Tro - vò la po - e - si - a!

23

Largo sostenuto $\text{♩} = 58$

Vln. I arco *ppp*

Vln. II arco *ppp*

Vla. arco *ppp*

Vc. arco *ppp*

Db. arco *ppp*

pizz.

These factors which I discuss in this thesis as important to consider in an arrangement are not mutually exclusive. So much of atmosphere and feel in the music is related to how timbre is perceived, how the various lines are then reallocated, and how the dynamics and balance are managed so that the outcome maintains the textural, timbral, and harmonic qualities; all of these will be explored further in sections 3.3.4, 3.3.5, and 3.3.6 below.

3.3.3 Instrument Choice

The original version of *La bohème* was scored for strings (violin I, violin II, viola, cello, bass), a piccolo, two flutes, two oboes, an English horn, two clarinets, a bass clarinet, two bassoons, four horns, three trumpets, three trombones, a bass trombone, percussion (timpani, snare drum, triangle, cymbals, bass drum, xylophone, glockenspiel, chimes), and an off-stage band of four piccolos, six trumpets and two snare drums. The arrangement is written for strings (violin I, violin II, viola, cello, bass), flute (doubling piccolo), oboe, clarinet, bassoon, horn, trumpet, piano and percussion (timpani, snare drum, triangle, cymbals, bass drum, glockenspiel). It initially started life by only having the string quintet, flute, clarinet, horn, piano, and percussion. However, during a conducting masterclass on 13 April 2021 at the Royal Northern College of Music, three arias in the initial arrangement were used and workshopped; they used a larger string section (3.3.3.3.1). The arrangement worked well but, because of the larger string section, it felt as if the work could afford to have more wind and brass instruments added to balance with the string section. Similarly, the production in Singapore of my own arrangement was performed by a similar-size string section (4.3.2.2.1). An oboe, a bassoon, and a trumpet were therefore added to supplement the instrumentation choice while still ensuring that the arrangement would still work even if only performed by a string quintet. These instruments were used so that there were three additional distinct instrumental colours that could allow for a great colouristic palette in the arrangement. In section 3.3.5 below, I will explore in greater detail the characteristics of specific instruments such as the clarinet, horn, and piano that facilitate the reallocation of lines and help with dealing with issues with divisi.

3.3.4 *Timbre*

Taxonomy of Orchestral Grouping Effects.

As mentioned in section 2.2.4 above, in some ways a method and taxonomy of grouping of instrumental sounds is often already used by arrangers in the reorchestration process even if that might have been done unconsciously. For an arrangement to successfully translate from the original, the arranger has to analyse the music to decide how the various music lines work together; whether they blend together, contrast each other, or if they are transforming⁵ in some way. In doing so, the arranger would be able to create a similar effect in the arrangement. Using the Taxonomy of Orchestral Grouping Effects (TOGE)⁶ proposed by McAdams et al. (2022), I intend to demonstrate how it might be useful in the analysis process and how it might offer possibilities in helping with the arranging process. This is also a useful method as it does not merely rely on the score but also relies on the listening process and makes use of the latest research in the field of music psychology.

The TOGE provides a foundation for “a perception-based approach to orchestration analysis” (para. 1.3) which might be a useful tool for arrangers when studying the original orchestral score. As such, before demonstrating some of these analyses with examples from *La bohème*, here are the brief explanations of the various taxonomies. First, according to McAdams et al. (2022), one way in which listeners may perceive parts of the orchestral texture is termed Concurrent Grouping which “governs what components of sounds are grouped together into musical events” (para. 3.2) and involves both Blend and Non-Blend (see Figure 18). There are two types of Blend: 1) Timbre Augmentation: “fusion in which one dominant instrument is embellished or colored by a subordinate instrument or group of instruments” (para. 4.5); 2) Timbre Emergence: “when a fusion of different instruments results in the synthesis of a new timbre that is identified as none of its constituent

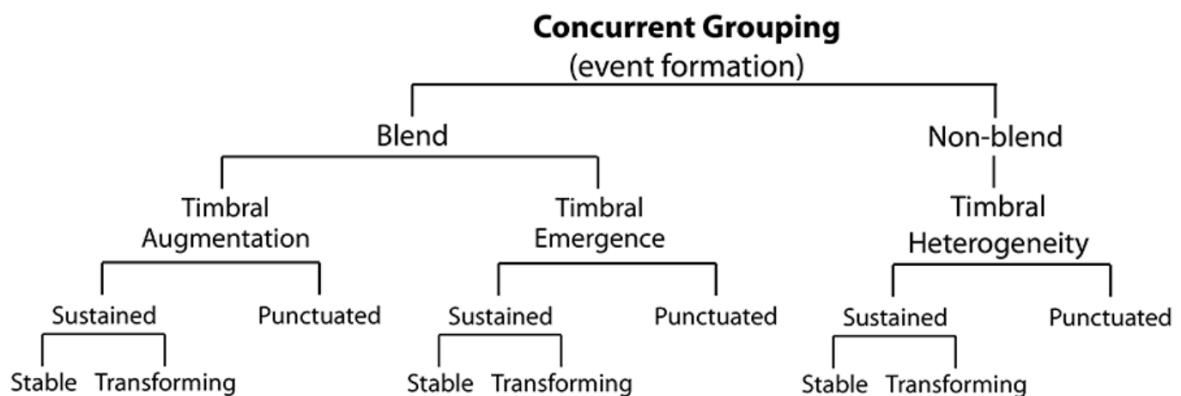
⁵ Transforming in this context means that the instrumentation changes over the duration of a passage.

⁶ More information on McAdams et al. (2022) research on the TOGE with sound clips of examples can be found at <https://timbreandorchestration.org/tor/modules/taxonomy/orchestral-grouping-effects/introduction>

instruments, creating a new sonority” (para. 4.9). In Non-Blend, there is Timbre Heterogeneity which is “when the parts written for instruments satisfy auditory grouping principles ... but do not blend completely and some instruments or groups of instruments are consequently heard independently due to their timbral dissimilarity” (para. 4.13). In these, “the effect can either be of short duration (punctuation) or the more continuous, and in the latter case the instruments involved can be stable or changing over time (transforming)” (para. 3.8).

Figure 18

Concurrent Grouping (McAdams et al., 2022, Example 3)

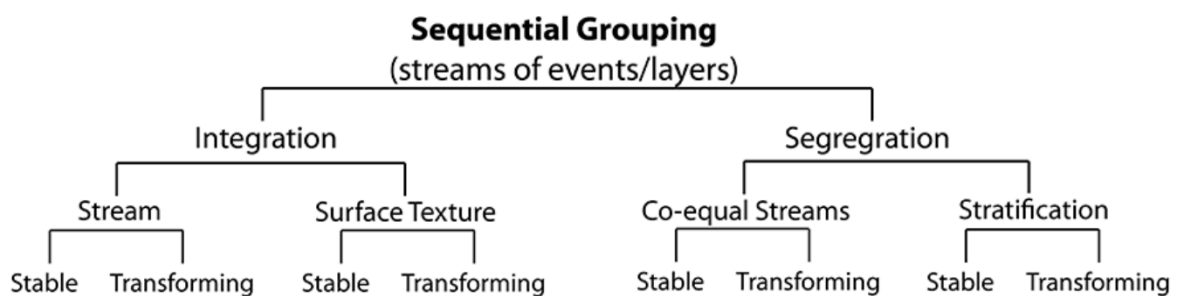


Next there is Sequential Grouping which “determines whether these events are connected into single or multiple streams, on the basis of which perception of melodic contours and rhythmic patterns occurs ... affect[ing] how streams are “chunked” into musical units, such as motives, phrases, and themes” (para. 3.2) and involves both Integration and Segregation (see Figure 19). There are two types of Integration: 1) Stream: “consistent timbre, register, dynamics across a sequence of notes helps them to be connected perceptually into an auditory stream” (para. 5.6); and 2) Surface Texture: “occurs when two or more instruments have different material—contrasting rhythmic figures and/or pitch material—but are integrated perceptually into a single surface texture” (para. 5.6). In Segregation, there are two main types: 1) Stream: “involving two or more clearly distinguishable voices (i.e., integrated streams) with nearly equivalent prominence or salience”

(para. 5.12); and 2) Stratification: “occurs when two or more different layers of musical material are separated into more and less prominent strands. Most often one hears foreground and background, but at times a middleground is also present” (para. 5.16). In any of these, they can either be stable or transforming.

Figure 19

Sequential Grouping (McAdams et al., 2022, Example 12)

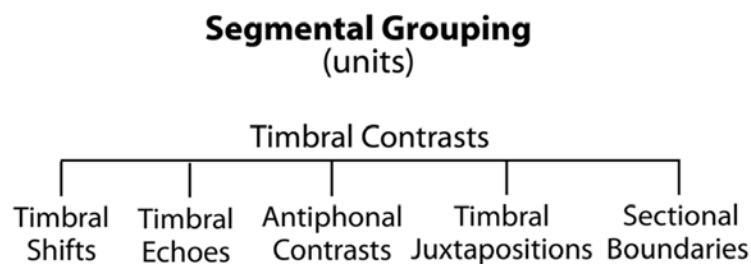


Finally, there is Segmental Grouping which “involves the hierarchical “chunking” of event sequences into musical units that one usually associates with motifs, cells, and phrases, but it can also apply to groups of streams or layers in the creation of section boundaries ... provoked by sudden changes in a number of musical parameters such as loudness, pitch register, timbre, and surface texture” (para. 3.10). There are currently five types of Timbral Contrasts (see Figure 20): 1) Timbral Shifts: “can be conceived of as an orchestral “hot potato,” wherein a musical pattern is reiterated with varying orchestrations of similar prominence; that is, a repeated phrase is “passed around” the orchestra” (para. 6.3); 2) Timbral Echoes: “involves a repeated musical phrase or idea with different subsequent orchestrations” (para. 6.4); 3) Antiphonal Contrasts: happens “when musical materials require an alternating call-and-response pattern” (para. 6.5); 4) Timbral Juxtapositions: “occur when sonorities are set against another one in close succession with different instrumentations, registers, and musical textures” (para. 6.6); 5) Sectional Boundaries: “large-scale sections in music are formed on the basis of similarities in register, texture, and instrumentation (i.e., timbre), and that changes in

one or more of these parameters, along with more formal considerations, create boundaries between sections” (para. 6.7).

Figure 20

Segmental Grouping (McAdams et al., 2022, Example 22)



Examples of TOGE.

In this next section, I will use the TOGE to demonstrate an analysis of various sections from *La bohème* and how their usage might be translated into the arranging process. The recording of *La bohème* by the Berlin Philharmonic conducted by Herbert von Karajan, featuring Luciano Pavarotti as Rodolfo and Mirella Freni as Mimì (Puccini, 1895/1972) will be used as the basis of this analysis process. The following example is taken from the first eight bars from Mimì’s aria in Act I which can be segregated into three main lines (Sequential Grouping) that are perceived as a Segregation manifesting as a Stratification, as can be seen in Figure 21 below; in this section, the foreground is in red (melody), the middle ground is in purple (syncopation), and the background surface texture is in blue.

Figure 21

Puccini's *La bohème* - Original Score, Act I, pp. 103-104, Sequential Grouping

(Key: Red - Foreground; Purple - Middleground; Blue - Background)

Within each of these lines there is also further Sequential Grouping. I will start by exploring the first line in the foreground as shown in Figure 22 below. In the first four bars, there are four instrument types playing this line: flute, English horn, clarinet, and violins (Violin I and Violin II). Aurally, they are mostly in a stable integrated stream (Sequential Grouping) through a sustained stable blend (Concurrent Grouping). They only diverge in the moments which are circled in orange below where each instrument's timbre can be heard coming through distinctly from the stream as they are playing something different. For me personally (which is not to say that my own perception is generalisable or relevant to anyone else), the entry of the English horn did not seem to have a transforming effect as I did not perceive any drastic change in the recording at its point of entry. In the subsequent four bars, the same group of instruments seem to still be in a stable integrated

stream through a stable sustained blend with a transformation through the addition of two horns highlighted in red and green in Figure 22 below. However, the two horns join this stream with a non-blend through a stable sustained heterogeneity (Concurrent Grouping) because of its distinct instrumental colour as well as the displacement of the notes slightly by syncopation in the second and third bar of its entry.

Figure 22

Puccini's *La bohème* - Original Score, Act I, pp. 103-104, Segregation Line 1

(Key: Red - Foreground of stable integrated stream; Orange - texture coming out from stream; Green - Two horns joining the stream resulting in a stable sustained heterogeneity)

Therefore, using the analysis above, I attempted to recreate this in my arrangement as seen in Figure 23 below. Because the English horn did not have an impact on how I perceived the sound in the recording of the original score, I did not find a substitute for it in the third and fourth bar of this

section in the arrangement. However, the horns joining the stream in the fifth bar of the original had a significant impact. As such, in the arrangement, I have made use of the trumpet to create this heterogeneity contrast in this stream with its distinct brass timbre as well as ensure that the syncopation is distinctly marked in the second and third bar of its entry. This rhythmic distinction was left out in the arrangement by James (see Figure 24).

Figure 23

Puccini's La bohème - Arrangement, Act I, Bars 581-588

(Key: Red - Foreground of stable integrated stream; Green - Non-blend of trumpet joining the stream resulting in a stable sustained heterogeneity)

The image shows a musical score for Puccini's *La bohème*, Act I, bars 581-588. The score is divided into two systems. The top system includes Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Ban.), Horn (Hn.), Trumpet (Tpt.), Piano (Pno), and Mimi's vocal line. The bottom system includes Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.).

The score is annotated with a red box highlighting the main melodic line across all instruments and a green box highlighting the trumpet's entry in bar 585. Performance instructions include "Andante sostenuto molto", "poco allarg.", "pp cresc poco a poco", "ff tutta forza", "Aspetta sord.", and "arco".

Mimi's lyrics are: "ma quan-do vien lo sge - lo, il pri-mo so - le è mi - o. il pri - mo ba - cio del - la - pri - le è mi - o!"

Figure 24

Puccini's *La bohème* - James' Arrangement, Act I, p. 149

The musical score for Figure 24 is a full orchestral arrangement of Puccini's *La bohème*, Act I, page 149. It features the following instruments and parts:

- Fl. (Flute):** *ff con tutta forza*
- Ob. (Oboe):** *ff con tutta forza*
- Cl. (Clarinet):** *ff con tutta forza*
- Bsn. (Bassoon):** *ff con tutta forza*
- Hn. (Horn):** *ff con tutta forza*
- Mimi (Voice):** *il pri-mo so-le è mi-o — Il pri-mo ba-cio dell'A-pri-le è*
- Pno. (Piano):** *ff con tutta forza*
- Vln. I (Violin I):** *ff con tutta forza*
- Vln. II (Violin II):** *ff con tutta forza*
- Vla. (Viola):** *ff con tutta forza*
- Cello:** *ff con tutta forza*
- Bass:** *ff con tutta forza*

The score includes a tempo marking of *poco allarg.* and a page number of 149. The dynamic marking *ff con tutta forza* is repeated for most instruments.

The second and third lines are the one in purple and blue respectively in Figure 25 below.

The second line is the syncopation originally starting in the horns in the first four bars before transforming into an amalgamation of horn and trumpet in the next four. The aural result from the recording is a transforming integrated stream (Sequential Grouping) through a form transforming sustained blend (Concurrent Grouping). In the arrangement, because of the multiple notes in the horns, I used the piano instead (see section 3.3.5 below for more detail on usage of piano in the arrangement) before adding the viola and cello to account for the trumpet entry in the original and I

also gave this stream more weight in the climax of this phrase as shown in Figure 26 below. The third line is the rest of the “padding” in the orchestration which is a mixture of long notes and tremolos which may be perceived as an integration manifesting as a transforming sustained surface texture (Sequential Grouping). This again is realised in the arrangement through a similar mixture of long notes and tremolos as shown in Figure 26 below.

Figure 25

Puccini's La bohème - Original Score, Act I, pp. 103-104, Segregation Line 2 and 3

(Key: Purple - Middleground; Blue - Background)

The image displays two pages of a musical score for Puccini's *La bohème*, Act I, pages 103 and 104. The score is for a full orchestra and includes vocal parts for Mimì. The tempo is marked *And^{te} sost^{to} molto*. The score is annotated with segregation lines: purple lines for the middleground and blue lines for the background. The instruments listed include Flute (Fl.), Oboe (Ob.), English Horn (C. Ingl.), Clarinet in B-flat (Cl. b. in Bb.), Clarinet in A (Cl. in A), Bassoon (Fag.), Horns (in F and in C), Trumpets (in F and in C), Trombones (in F, in E-flat, and in B-flat), Timpani (Tr. in F), Violins (Viol.), Viola (Vcllo), Violoncello (Vcllo), and Double Bass (Cb.). The vocal part for Mimì is also present, with lyrics in Italian. The score is divided into two systems, P. R. 110 and P. R. 110. The annotations include dynamics like *pp*, *cres.*, *poco.*, *a poco.*, *ff tutto forza*, *poco allarg.*, *dim.*, and *ppp*. Performance instructions like *I. solo*, *con grande sospensione*, and *(con espressione intensa)* are also present.

Figure 26

Puccini's *La bohème* - Arrangement, Act I, Bars 581-588, Segregation Line 2 and 3

(Key: Purple - Middleground; Blue - Background)

It is interesting to note that when using this method of instrumental timbre perception to analyse the score, it became apparent to me that there always seems to be an overlap between the various lines. For example, there is an impression of overlap between the line in red with the line in blue through the Violin II, which not only plays the melody but also adds to the surface texture with its tremolos. Similarly, when the two horns join the melody in the original a few bars later, this results in an overlap between the line in red and the line in blue with its syncopations. Therefore, I found it important to ensure that this subtle feature of overlapping is achieved in my arrangement as well. The researchers themselves do acknowledge that the categories “may not always be clean cut in cases of lesser grouping strength and might depend on both performance [and the recording] nuances and the analyst’s interpretation” (McAdams et al., 2022, para. 7.4). The method in which I have employed the TOGE differs from most current usage, as they “generally work in teams of two

analysts who first do individual analysis and then compare analyses to arrive at a consensus ... ambiguous cases are brought to a larger team for discussion and resolution” (McAdams et al., 2022, footnote 26). My own research applies this model in a new way as it is not practical or feasible for an arranger to have a team of analysts, and it is hitherto unexplored by other research practitioners. It is therefore dependent on the arranger’s own interpretation and hence also allows for this process to be a creative one. I propose that the model can be used as an in-depth tool by arrangers in making decisions about how to allocate musical material to other instruments during the arranging process.

3.3.5 Reallocating Lines and Dealing with Divisi and Multiple Stops

This consideration is linked to those discussed above as having a clear image on how the various lines are distinguished will be helpful in reallocating lines as well as dealing with divisi. The methods discussed in the previous section may be explored further in future as a method for arrangers to analyse the music before starting the arranging process. Following on, this section highlights the techniques used to overcome various challenges when producing the arrangement when it comes to reallocating lines and dealing with divisi that were written in the original; there are often more lines in the original compared to the number of available instruments (or parts) in the arrangement (often due to logistical and financial constraints) and it is important to make informed decisions on the techniques to employ.

Throughout *La bohème*, it is common for the strings to have parts that are in divisi and multiple parts for each instrument type in the woodwind and brass. This means that when arranging for a smaller ensemble, there is a challenge of making sure that the multiple parts are reallocated or accounted for. An example of dealing with divisi in the strings is near the start of Act I, where the viola and cello parts are divided into four distinct lines in the original (see Figure 27). However, most of the other instruments in the arrangement are already covering a different part. As the significance of this line is more in its rhythmic intention than the exact notes, the viola and cello in the

arrangement play only the top and bottom line which are written in octaves (see Figure 28). These octaves mean that the same notes are reinforced and come through the overall texture of the ensemble in the arrangement better. The middle parts in the original are less important and not likely to be missed because the piano in the arrangement highlights the harmony of the chords.

Figure 27

Puccini's *La bohème* - Original Score, Act I, p. 9

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 9. The score is arranged in a standard orchestral format with multiple staves. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet in Sib (Cl. in Sib), Bassoon (Fag.), Horn in F (Corni in Fa), Arpa (Arpa), Rodolfo (ROD.), Mimi (MAR.), Violin (Viol.), Violoncello (Vc.), and Contrabasso (Cb.). The vocal parts for Rodolfo and Mimi are shown with lyrics in Italian. The score is marked with 'I. solo' and 'p' (piano). The lyrics for Mimi are: "Quelle sciocche fo-re-ste che fan sot-to la ne-ve? ne-ste da un pez-zo non ri-cc-ve. Ro-". The score is written in a key signature of two flats and a 3/4 time signature.

Figure 28

Puccini's *La bohème* - Arrangement, Act I, Bars 106-111

The musical score for Figure 28 shows the orchestral and vocal parts for bars 106-111 of Puccini's *La bohème*. The score is arranged for a full orchestra and two vocalists. The instruments listed are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Piano (Pno.), Rodolfo (Rod.), Mimì (Mar.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The vocal parts include lyrics in Italian: "Quel - le scioc - che fo - re - ste che fan sot - to la ne - ve?" and "ne - ste da un pez - zo non ri - ce - ve. Ro -". The score includes dynamic markings such as *pp*, *p*, and *mp*, and performance instructions like *pizz.* (pizzicato) for the strings.

It is crucial where possible to ensure that important harmony notes are being covered and the rest may then be removed. For example, during Mimì's aria in Act I, the violins' pizzicato is in divisi with four distinct lines in the original (see Figure 29). In the arrangement, the top three lines are allocated to Violin I, Violin II, and Viola part (see Figure 30). In this scenario, I felt that it was possible to leave out the fourth line from the original Violin II part because it doubles the top line an octave lower; the notes of this fourth line are also at the same pitch of what is being sung by Mimì. The top line is often the most important to maintain in the arrangement, as pitch discrimination⁷ and sensitivity increases the higher the pitches are (Campbell & Greated, 1994), making it the easiest line for the ear to pick up immediately on first listening.

⁷ This is the ability to detect changes in the pitch of a tone.

Figure 29

Puccini's *La bohème* - Original Score, Act I, p. 102

Fl. I. *poco rall.*

Arpa *pp* *col canto*

MIMI *poco rall.*
ca - me - ret - ta: guar - do sui tet - ti e in cie - lo,
divisi

Viol. *pp* *divisi*

V. 1º *pp* *poco rall.*

Vc. *pp* *poco rall.*

Figure 30

Puccini's *La bohème* - Arrangement, Act I, Bars 575-580

Fl. *poco rall.*

Pno. *ppp*

Mimi *poco rall.*
ca - me - re - ta: guar - do sui tet - ti e in cie - lo,

Vln. I *pizz.* *pp*

Vln. II *pizz.* *pp*

Vla. *pizz.* *pp*

Vc. *pizz.* *pp* *arco*

Another example can be found earlier in that act where the violins in the original are written divisi with four distinct lines (see Figure 31, from the fourth bar). Similarly, the top three of these lines are in the Violin I, Violin II, and Viola parts in the arrangement (see Figure 32); the fourth line is an octave lower than the top line and was removed from the arrangement.

Figure 31

Puccini's *La bohème* - Original Score, Act I, pp. 34-35

The image displays a page of a musical score for Puccini's *La bohème*, Act I, pages 34-35. The score is arranged in two systems. The left system includes parts for Oboe (Ob.), Clarinet in LA (Cl. in LA), Bassoon (Fag.), Horns in F and C (in F, in C), Trumpets in F (Tr. in F), Arpa, and vocal parts for Rodolfo (RODOLFO), Marceline (MAR.), and Colline (COLL.). The right system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet in LA (Cl. in LA), Bassoon (Fag.), Horns in F and C (in F, in C), Trumpets in F (Tr. in F), Arpa, and vocal parts for Rodolfo (RODOLFO), Marceline (MAR.), and Colline (COLL.). The vocal parts include lyrics in Italian. The score shows a complex orchestration with multiple staves for each instrument and vocal line. The top three lines of the violin parts are written divisi, and the fourth line is an octave lower than the top line and was removed from the arrangement.

Figure 32

Puccini's *La bohème* - Arrangement, Act I, Bars 232-239



The musical score for Figure 32 shows the orchestration for Act I, Bars 232-239 of Puccini's *La bohème*. The score includes parts for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Piano, Trombone, Maracas, Violin I, Violin II, Viola, Violoncello, and Double Bass. The music is in 3/4 time and G major. The score features various dynamics (p, f, piz.) and performance instructions (ben ritmato, f gridato, con entusiasmo). The lyrics for the Maracas part are: Leg-na! (sorpreso) f gridato Leg-na! (con entusiasmo) Le do - vi - zie d'u - na fie - ra il de - stin ci de - sti - Si - ga - ri! Bor - dol! Bor - dol!

It is a challenge to condense the multiple brass parts for two brass instruments (trumpet and horn) and still maintain a consistent brass colour. One method I came up with to deal with the multiple lines is by creating a “brass sandwich” in which the trumpet takes the top line while the horn takes the bottom line of any series of brass chords in the original while having the piano (or any other instrument available) fill in the rest of the chord. This works effectively as the brass colour on both ends is augmented by the piano filling out in the harmony in the middle. There are various moments in the arrangement where this technique is used. One example is at the end of the first section in Act I. In the original, there are four horns playing the syncopated brass line in four distinct lines (see Figure 33). In the arrangement, the trumpet, horn, and piano takes on these notes in the manner of a brass sandwich (see Figure 34); an additional feature is that the brass only joins in and augments these chords from bar 208 where the crescendo starts so that this rhythmic line does not become too prominent at the start and the brass colour carries the phrase to the end of it. The brass

sandwich allows for the chords to maintain the distinct brass colour while maintaining the harmonic quality by using the piano to “fill-up” the chords.

Figure 33

Puccini’s *La bohème* - Original Score, Act I, p. 16

Figure 33 shows a page of the original score for Act I, page 16 of Puccini's *La bohème*. The score is arranged in two systems. The left system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet in Bb (Cl. in Sib), Bassoon (Fag.), Horns (in Fa, Corni in Fa), Violoncello (Vcllo), and Double Bass (Cb.). The right system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet in Bb (Cl. in Sib), Bassoon (Fag.), Horns (in Fa, Corni in Fa), Violoncello (Vcllo), Double Bass (Cb.), and Voice (MARCELLO). The vocal line includes the lyrics: "Puzza la te-la di - pin - ta. Il mio dram - ma. l'ar-den-te mio dram - ma ci scal - di. (con comico spavento) MARCELLO Vuoi legger-lo for - se? Mi ge - li." The score includes various performance markings such as *rit.*, *a tempo*, *p*, *mp*, and *mf*.

Figure 34

Puccini’s *La bohème* - Arrangement, Act I, Bars 204-214

Figure 34 shows an orchestral arrangement for Act I, bars 204-214 of Puccini's *La bohème*. The score includes parts for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Tpt.), Piano (Pno.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vcllo), and Double Bass (Db.). The vocal line includes the lyrics: "No. Puz-za la te-la di - pin - ta. Il mio ram - ma. l'ar-den-te mio dram - ma ci scal - di. Ros-so? sulla IV. corda rit. A tempo Vuol leg-ger-lo for - se? Mi ge - li." The score includes various performance markings such as *rit.*, *A tempo*, *p*, *mp*, *mf*, *mp sensibili*, *pizz.*, and *arco*.

Another example is at the very end of the opera in Act IV when Rodolfo realises that Mimì has passed. At this point, large brass chords are sounded in the original by a full section of horns, trumpets and trombones as seen in Figure 35. However, as such a complement of instruments is not available in the arrangement, I used four instruments instead: trumpet, horn, oboe, and bassoon. Again, as a brass sandwich, the trumpet takes the top line of the chords while the horn takes the bottom line. The rest of the notes are filled in by the oboe and bassoon; the oboe at this range has a “rich, reedy quality” (Blatter, 1997, p. 100) while the bassoon in this range is considered “horn-like” and blends well with other instruments (Blatter, 1997). Their distinct instrumental colour complements the brass instruments and fills out the chords from within, as can be seen in Figure 36.

Figure 35

Puccini's *La bohème* - Original Score, Act IV, pp. 406-407

The image displays a page of a musical score for Act IV of Puccini's *La bohème*, pages 406-407. The score is written for a full orchestra and includes vocal parts for Rodolfo and Marcello. The tempo is marked "Largo sostenuto" and the dynamics are "tutta forza".

The orchestral parts shown include:

- Flute (Fl.)
- Oboe (Ob.)
- Clarinet in G (Cl. in G)
- Clarinet in Bb (Cl. in Bb)
- Bassoon (Fag.)
- Trumpet in F (Tr. in F)
- Trombone in F (Tr. in F)
- Trombone in Bb (Tr. in Bb)
- Tuba (Tr. in C)
- Drum (Piatto solo percusso con la mazza)
- Harpsichord (Arpa)
- Violin (Vl.)
- Viola (Vla.)
- Violoncello (Vcl.)
- Double Bass (Vc.)

The vocal parts shown include:

- Rodolfo (ROD.)
- Marcello (MARCELLO)
- Clarinete (Cl.)

The score includes lyrics in Italian and a stage direction in English: "(Musetta spaventata corre al letto, getta un grido angoscioso, buttandosi ginocchioni e piangendo ai piedi di Mimì dalla parte opposta di Rodolfo-Fichamur si abbandona accasciata su di una sedia, a sinistra della scena-Colline va ai piedi del letto, rimangono atterrito per la rapidità della catastrofe- Marcello singhiozza, volgendo le spalle al proscenio) (si getta sul corpo assieme di Mimì)".

Figure 36

Puccini's *La bohème* - Arrangement, Act IV, Bars 427-435

From my experience as a conductor, the timbre of the highest instrument in any phrase or melody is heard distinctly compared to the instrument that is supporting it, as long as the supporting instrument does not have a timbre that is more distinct. This is also supported by Chon and Huron (2014) in which they state that “a sound that was easy to identify in isolation was also easy to identify when presented with another concurrent sound” (p. 4) which also means that “listeners would be more confident of identifying more salient timbres” (p. 4). This works well when rewriting sections that originally have multiple parts in the same instrumental family. An example is in Act I when Mimì has dropped her keys, and both Rodolfo and herself are looking for them. Puccini passes the phrase between two pairs of instruments playing in thirds: a pair of oboes and a pair of clarinets (see Figure 37). In my arrangement, in order to create a similar contrast where the phrase still

sounds like it is being passed between the oboe and clarinet, the lower line in each phrase is played by the flute, whereas the sole oboe and clarinet play the original higher lines. The flute in this role and at this range effectively supports the colour of the instrument it is reinforcing as shown in Figure 38. This method of using the highest voice as the basis of contrast between different instrument colours can be a significant tool when the arranger has limited instruments but still wants to create the contrasts between the sections.

Figure 37

Puccini's *La bohème* - Original Score, Act I, pp. 86-87

The image displays two pages of a musical score for Puccini's *La bohème*, Act I, pages 86 and 87. The score is for the original instrumentation. On page 86, the instruments listed are Oboe (Ob.), Clarinet in B-flat (Cl. in Sib.), Clarinet in A (Cl. in A), Bassoon (Fag.), and Arpa. The vocal parts for MIMI and RODOLFO are shown with Italian lyrics. On page 87, the instruments listed are Oboe (Ob.), Clarinet in B-flat (Cl. in Sib.), Bassoon (Fag.), Arpa, MIMI, RODOLFO, Violin I (Viol.), Violin II (V.le), Viola (Ve.), and Cello/Double Bass (Cb.). The score includes dynamic markings such as *p dolce e legato*, *pizz.*, *poco rit.*, and *a tempo*. The lyrics for MIMI and RODOLFO are in Italian, describing a scene where they search for a key on the floor.

Figure 38

Puccini's *La bohème* - Arrangement, Act I, Bars 424-437

The image displays a musical score for Puccini's *La bohème*, Act I, bars 424-437. This is an arrangement score. The instruments listed are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Arpa, MIMI, RODOLFO, Violin I (Vin. I), Violin II (Vin. II), Viola (Via.), Cello/Double Bass (Ve.), and Double Bass (Db.). The score includes dynamic markings such as *p dolce e legato*, *pizz.*, *poco rit.*, and *A tempo*. The lyrics for MIMI and RODOLFO are in Italian, describing a scene where they search for a key on the floor.

Furthermore, it is important to consider the way in which individual instruments are effectively used in the arrangement. Firstly, the clarinet can be versatile and flexible in its usage, as it not only is able to stand out when needed as a soloistic instrument but it can also be inconspicuous and “blend with other instruments more readily than any other woodwind” (Blatter, 1997, p. 108). It also has the ability to play in the extreme dynamic ranges “greater than any other wind instrument in terms of extremes” (Blatter, 1997, p. 108). An example can be found in Act I where the clarinet is used to supplement and blend with the string section. The Violin II part in the original (see Figure 39) is indicated as *divisi* and the bottom line is played by the clarinet instead in the arrangement (see Figure 40). This allows Violin I to focus on performing the solo, while the rest of the strings with the clarinet covers the other notes in this section of the music especially when the string section performing it is only a quintet. The Violin II part has the original Violin I, the clarinet has the original Violin II top line (original), the Viola has the original Violin II bottom line, and the Cello has the original Viola part.

Figure 39

Puccini's La bohème - Original Score, Act I, p. 77

The image displays a page of a musical score for Act I, page 77 of Puccini's *La bohème*. The score is in the key of B-flat major and 3/4 time, with a tempo marking of *Andantino* (♩ = 92). The page is numbered 77 in the top right corner. The score includes parts for Arpa, ROD. (Rodolfo), MAR. (Marcello), Viol. I, Viol. II, and Vcllo. The lyrics are in Italian. The score shows vocal lines with lyrics in Italian and musical notation for the instruments. The lyrics include: "re. sto per termi. nar l'ar. ti. co. lo di fon. do del Cu. sto. ro.", "Cinque minu. ti. Co. sono il mesier.", "I. solo senza sordina. Fa presto.", "Se T'aspet. te. rem dab. basso dal partier.", "(prende dal tavolo un lume e va ad aprire l'uscio; Marcello, Schanhard e Colline escono e scendono le scale) Cinque minu. ti. (nell'uscire) Tagliacorta la coda al tuo Cu.", "tar. di u. drai che so. rol'.

Figure 40

Puccini's La bohème - Arrangement, Act I, Bars 285-298

In another example, the clarinet instead takes on a more soloistic role by taking on the countermelody that was originally in the Violin I part (see Figure 41 and Figure 42). However, with its ability of blending easily, its use here is effective in the arrangement as it lightly highlights the line without giving it too much prominence. This allows the Violin I and Violin II parts in the arrangement to take on the divisi in the original Violin II part, while the Viola and Cello in the arrangement take on the divisi in the original Viola part. This effectively handles the various divisi in the original string parts. The accompaniment lines remain in the string instruments while the countermelody is lightly highlighted by the clarinet. This technique uses the given instrumentation of the arrangement by highlighting the hierarchy of the lines without detracting too much from the original. It introduces a more distinct instrumental colour to create this separation.

Figure 41

Puccini's *La bohème* - Original Score, Act I, p. 89

CL. in Sib
Corai in Fa
Arpa
MIMI
RODOLFO (tesendo la mano di Mimi, con voce piena d'emozione)
Viol.
Vio.
Arpa
ROD.
Viol.
Vio.

And^{te} affettuoso $\text{♩} = 58$

lasciar vibrare
dolcissime
con sordina
con sordina
con sordina
pp
pp
ppp
fiorando

Abbi
Che ge-li-da-ma-ni-na, se la la-sci-ri-sca-l-dar. Cer-
car che gio-va? Al bu-fo non si tro-va.

a tutti, il più piano possibile e ben legato
And^{te} affettuoso $\text{♩} = 58$

Figure 42

Puccini's *La bohème* - Arrangement, Act I, Bars 461-474

Cl.
Hn.
Pno.
Min.
Rod.
Vin. I
Vin. II
Via.
Vc.

Andantino affettuoso $\text{♩} = 58$

f *pp* *pp* *dolcissimo*

f *ppp*

(sorpresa)
Abbi

pp *dolcissimo*

Con sord.
pp

con sord.
pp

con sord.
pp

pizz.
pp

12

12

Che ge-li-da-ma-ni-na, se la la-sci-ri-sca-l-dar. Cer-car che gio-va? Al bu-fo non si tro-va.

The horn is not only able to highlight important brass lines where needed, it can also act in a supporting capacity when used in its low-to-middle register at a low-to-medium dynamic range. The horn is adept at taking on a role that involves sustaining a note to create some depth of warmth to the texture. For example, in the introduction of Act III, the viola creates a sense of sustained line and warmth in the original (see Figure 43). In my arrangement, this part is reallocated to the horn in

order to achieve a similar characteristic as a solo instrument in this smaller ensemble (see Figure 44).

This reallocation frees up the viola to play the pizzicato line that was divisi in the original Violin II part that doubles the piano.

Figure 43

Puccini's La bohème - Original Score, Act III, p. 241

Figure 43 shows the original score for Act III, page 241 of Puccini's *La bohème*. The score includes parts for Triang., Arpa, Viol., v.1ª, and Ve. The Arpa part is marked *p ma armonico*. The Viol. part has markings for *pizz.*, *pp*, *divisi pizz.*, and *pizz.*. The v.1ª part has markings for *arco* and *p*. The Ve. part has markings for *p* and *cres.*. The score is divided into two systems, with a circled '1' at the beginning of each system.

Figure 44

Puccini's La bohème - Arrangement, Act III, Bars 30-44

Figure 44 shows the arrangement for Act III, Bars 30-44 of Puccini's *La bohème*. The score includes parts for Fl., Ob., Cl., Hn., Tri., Piano, Vln. I, Vln. II, Vla., Vc., and Cb. The Piano part is marked *p leggiero con ped.*. The Vln. I and Vln. II parts have markings for *pizz.* and *p*. The Tri. part has markings for *pp* and *p*. The score is divided into two systems, with a circled '1' at the beginning of each system.

Furthermore, the horn is often able to replace the original second clarinet part in a way that balances and blends with the first clarinet. This combination between the two instruments works really well as long as it is not in the extreme ranges for the horn and does not involve technical passages such as fast running notes or large interval leaps. For example, in Act I when Mimì and Rodolfo first meet, the clarinet and horn duo is used in the arrangement to replace the two clarinets in the original (see Figure 45 and Figure 46).

Figure 45

Puccini's *La bohème* - Original Score, Act I, p. 80

80

Cl. in La Lento *cres.*

Mimì (bussa timidamente alla porta) (di fuori) *pp dolce.*

Rod. (alzandosi) (corre ad aprire) *cres.*

Viol. *pppp* *cres.*

Vcl. *pppp* *cres.*

Cb. *pppp* *cres.*

Cl. in La *poco rit.*

Mimì (sull'uscio con un lume spento in mano) *poco rit.*

Rod. *dim.* *poco rit.*

Viol. *dim.* *poco rit.*

Vcl. *dim.* *poco rit.*

Cb. *dim.* *poco rit.*

F. R. 110 *poco rit.*

Figure 46

Puccini's *La bohème* - Arrangement, Act I, Bars 323-329

323 Lento *pp* *mp* *pp* *poco rit.*

Cl. *pp* *mp* *pp*

Hrn. *pp* *mp* *pp*

Mimì (di fuori) *pp* *mp* *pp*

Rod. (alzandosi) *pp* *mp* *pp*

Viol. I *pp* *mp* *pp*

Viol. II *pp* *mp* *pp*

Vla. *pp* *mp* *pp*

Vcl. *pp* *mp* *pp*

Cb. *pp* *mp* *pp*

Cl. *pp* *mp* *pp* *poco rit.*

Hrn. *pp* *mp* *pp*

Mimì (di fuori) *pp* *mp* *pp*

Rod. (alzandosi) *pp* *mp* *pp*

Viol. I *pp* *mp* *pp*

Viol. II *pp* *mp* *pp*

Vla. *pp* *mp* *pp*

Vcl. *pp* *mp* *pp*

Cb. *pp* *mp* *pp*

The versatility of this duo is also useful where certain dovetailing is needed. At the end of Act I, the viola in the original holds a G for a substantial number of bars (see Figure 47). This is carried in the arrangement by the clarinet and horn taking turns to dovetail and therefore hold the note continuously (see Figure 48). Again, this helps by freeing up viola in the arrangement to take on the lower line of the original Violin II part which ensures that all the divisi from the original are covered.

Figure 47

Puccini's *La bohème* - Original Score, Act I, pp. 119-120

This musical score excerpt covers measures 119 and 120 of Puccini's *La bohème*. It features vocal parts for Mimì and Rodolfo, and instrumental parts for Flute, Viola, Violoncello, and Contrabasso. Mimì's lyrics include "(maliziosa) Curioso! Obbe-di - sco, si - gnor...". Rodolfo's lyrics include "(con molta grazia a Mimì) p *dolcissimo* Dammi il braccio, mia pic - ci - na...". The score includes performance directions such as "Sostenuto", "divisi", and "pizz.". The tempo is marked $\text{♩} = 58$. The page number "F. R. 110" is visible at the bottom.

Figure 48

Puccini's *La bohème* - Arrangement, Act I, Bars 659-666

This musical score excerpt covers measures 659 to 666 of the arrangement for Puccini's *La bohème*. It features instrumental parts for Flute, Clarinet, Horn, and Piano, and vocal parts for Mimì and Rodolfo. The instrumental parts show the clarinet and horn taking turns to hold a note, as indicated by the "pizz." (pizzicato) markings and the continuous line of notes. Mimì's lyrics include "(maliziosa) Cu - rio - so! Ob - be - di - sco, si - gnor...". Rodolfo's lyrics include "(con molta grazia a Mimì) p *dolcissimo* Dam - mi il brac - cio, mia pic - ci - na...". The score includes performance directions such as "Sostenuto", "pizz.", and "pizz.". The tempo is marked $\text{♩} = 58$.

However, due to the reduced instrumentation in such an arrangement, there are certain moments whereby the arranger will have to make the difficult decision of removing elements that are in the original. There may be certain reasons why one might do so; there might not be a suitable instrument to cover the allocated line, and using one of the other instruments might cause more issues than benefit such as by changing the intended instrumental colour too drastically or causing a particular line to stick out. At the end of Rodolfo's aria in Act I, the ending is played by two flutes and a clarinet in the original (see Figure 49). However, in my arrangement, it was the best option for the flute to have its original top part while the clarinet takes the original bottom flute part (see Figure 50). These two lines were also more suitable because they are in sixths. It did not seem right to have the original clarinet part in any of the other wind instruments (oboe, bassoon) as their distinct instrumental tone would change the atmosphere greatly, especially when the dynamic is pianissimo at this intimate moment. Using any other instrument for these notes would stick out too much from the texture because of the reduced ensemble size and it was more important to maintain the unified string sound contrasting against the lighter and more neutral wind colours of the clarinet and flutes.

Figure 49

Puccini's *La bohème* - Original Score, Act I, p. 98

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 98. The score is for the ending of Rodolfo's aria. It features multiple staves for various instruments and voices. The instruments listed on the left are Flute (Fl.), Clarinet in Sib (Cl. in Sib), Clarinet in Sib (Cl. b. in Sib), Horn in Fa (Corni in Fa), Arpa, Violins (Viol.), Viola (v.le), Voice (Vo.), and Cello/Double Bass (Cb.). The score is marked 'allarg.' and 'dim. e allargando sempre'. The lyrics for Mimi are '(e un po' titubante, poi si decide a parlare) (sempre seduta) con semplicità Si. Mi'. The score is numbered 35 at the top and bottom.

Figure 50

Puccini's *La bohème* - Arrangement, Act I, Bars 531-533

The musical score for Figure 50 is arranged in two systems. The first system (bars 531-533) features a Flute (Fl.) and Clarinet (Cl.) part with a melodic line, a Piano (Pno.) accompaniment, and vocal lines for Mimi and Rodolfo. The second system (bars 534-550) features a Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.) part. The tempo is marked 'A tempo' and the dynamics are 'pp' (pianissimo). The score includes various performance instructions such as 'sempre seduta', 'con semplicità', 'senza sord.', and 'dolor'. A measure rest of 17 measures is indicated in the second system.

Also, there are certain moments that would be most effective if the strings-alone colour is maintained without the addition of any woodwinds or brass. Hence, it would be inadvisable to add any additional instruments not from the string family to cover a particular line as that might cause an imbalance and give that line a greater prominence compared to the others that remained in the string parts. An example is in Act I after Mimì recovers from fainting and Rodolfo is admiring Mimì's beauty. In the original, there are only extremely quiet strings with Puccini giving the instruction of "*pp il più piano possibile*". The strings are intended to just add a sense of warmth during this moment (see Figure 51). If one were to transcribe from the original note for note, a string quintet would not suffice and additional instruments would need to be used to cover everything. Therefore, in the arrangement, the strings still have the same chords as the original but it is voiced in a slightly different manner so as to achieve a similar effect without adding other non-string instruments (see Figure 52).

Figure 51

Puccini's *La bohème* - Original Score, Act I, pp. 82-83

Figure 52

Puccini's *La bohème* - Arrangement, Act I, Bars 363-373

Another example that works better as a string-only section in the arrangement is at the introduction of Rodolfo's aria in Act I. The orchestra sets up a sense of warmth immediately before their hands meet and Rodolfo starts singing about how cold Mimì's hands are. In the original, this section was written for violin, viola, cello, and bassoon (see Figure 53) which works well because the solo bassoon is balanced with a full-sized orchestra string section. However, this intimate moment would be less effective in the arrangement as the bassoon would stick out when accompanying a string quartet of violins, viola, and cello (or even a small string section). Therefore, the bassoon was left out of the arrangement and the note (which is also the same as the cello in the original) is played

in the bass instead (see Figure 54). The divisi in the Violin II part resulted in the various lines being reallocated with the cello taking on the original Viola part and the viola with the original lower Violin II part.

Figure 53

Puccini's *La bohème* - Original Score, Act I, p. 88

This musical score for Figure 53 shows the original instrumentation for Act I, p. 88 of Puccini's *La bohème*. The score includes parts for Clarinet in B-flat (Cl. in Sib), Bassoon (Fag.), Mimi's vocal line, Violin I (Viol.), Violin II (Viol. II), Viola (V. II), and Voice (Vo.). The vocal line includes the lyrics: "(china a terra, cerca sempre a tastoni: in questo momento Rodolfo si è avvicinato ed, abbassandosi esso pure, la sua mano incontra quella di Mimi)". The score features various performance markings such as *rall.*, *sempre*, *dim. e rall. molto stent.*, *f*, *pp stacc.*, and *ppp stacc.*. The bottom of the score is marked "E.R. 110".

Figure 54

Puccini's *La bohème* - Arrangement, Act I, Bars 454-460

This musical score for Figure 54 shows an arrangement of Act I, Bars 454-460 of Puccini's *La bohème*. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The score features performance markings such as *rall.*, *f espressivo*, *arco*, *f*, *p dim.*, and *pp*. The bottom of the score is marked "PP".

Therefore, it might be preferred to leave out instruments to ensure that the reduced size ensemble is balanced within itself. In the original, the start of Mimi's aria in Act I opens with the full orchestra string section being complemented with a harp that is doubled by two clarinets and two flutes (see Figure 55). However, in an arrangement that is for a string quintet (or a small string section), this would cause an imbalance with the combination of wind instruments and harp being too prominent. Therefore, the wind instruments were not included in this aria's opening and only the piano plays those notes as the harp did in the original (see Figure 56). This ensures that the notes still contrast with the strings but also balance well without overpowering this soft opening of the aria. Furthermore, the violins and violas have four bars in this section that is indicated as *divisi* in the original. In order to replicate these string chords in the arrangement, the chords played are revoiced by keeping the highest five notes so that it sounds as similar to the original as possible with the Violin I and Violin II parts in the arrangement written as double stops (most of them involving either open strings or being in sixths).

Figure 55

Puccini's La bohème - Original Score, Act I, p. 99

The image displays two systems of a musical score for Puccini's *La bohème*, Act I, page 99. The score is in 3/4 time, marked "Andante lento" with a tempo of 40. The first system shows the beginning of Mimi's aria, with lyrics: "chia.ma.no Mi . mi, mai il mio so.me è La. ci . a..... La sto.ria mia è bre.ve...". The second system continues the vocal line with lyrics: "..... A te, in a se, ta ri, cum in casee fue, ri... Son tranquilla e lieta ed è mio". The score includes parts for Flute (Fl.), Clarinet in La (Cl. in La), Arpa (Harp), Violin (Viol.), Viola (Vla.), Violoncello (Vcl.), and Contrabbasso (Cb.). Dynamics such as *pp*, *ppp*, and *ppp* are indicated throughout. Performance instructions like "I. solo" and "con sordina" are also present.

Figure 56

Puccini's *La bohème* - Arrangement, Act I, Bars 534-544

534 *Andante lento* $\text{♩} = 40$

Pno.

Mimi

chia-ma-no Mi-mi, ma il mio no-me è Lu-ci-a... La sto-ria mia è bre-ve... A te-la o a se-ta ri-ca-mo in ca-sa e fuo-ri... Son tran-qui-la e lie-ta ed è mio

Vln. I

senza sord. *pp* *ppp* *p* *espressivo*

Vln. II

pp senza sord. *pp* *ppp* *pp*

Vla.

pp senza sord. *pp* *ppp* *pp*

Vc.

pp *pp* *ppp* pizz.

Db.

ppp

On the other hand, there might be certain lines when arranging a specific section that are quite prominent and demands for a fuller treatment in the reduced ensemble. These lines should therefore be doubled in other parts. As such, it is crucial to make sure the parts that are now left out are reallocated appropriately. An example is at the very initial moment where Rodolfo and Mimi meet and she is about to faint. The tremolo in the strings sets the mood with a background “shiver” as well as lay the foundation for the leitmotif that represents Mimi’s illness to be played on top by the clarinet. In the original, this tremolo line is played by the full string section of violins and cello, while the viola has a syncopated line (see Figure 57). In order to compensate for the reduced number of strings, the viola in the arrangement doubles the bottom line of the original Violin II part so that there is a greater number on the tremolo. The syncopated line, which is more of a rhythmic texture, is shifted onto the piano instead (see Figure 58). Doing so helps rebalance the ensemble by giving the tremolo more presence to support the clarinet while still keeping the rhythmic texture by using the piano which is slightly “percussive”.

Figure 57

Puccini's *La bohème* - Original Score, Act I, p. 81

Allegro agitato a 2 *accel. sempre*.....

Ob. *mp*

Cl. in La *sensibile, espressivo, con voce omogenea*

Fag. in Fa *mp*

Corni in Fa *mp*

Arpa

MIMI (entra, ma subito è presa da soffocazione) (tossisce)

ROD. (premuroso) No... nul . la . Impalli - di - sce!

Viol. *unifi*

V. lo *unite* *accel. sempre*.....

Vc. *pizz.*

Cb. *pizz.* *Allegro agitato* *accel. sempre*.....

Figure 58

Puccini's *La bohème* - Arrangement, Act I, Bars 330-335

Allegro agitato *accel.*.....

Ob. *mp*

Cl. *sensibile, espressivo, con voce omogenea* *mp*

Fl. *mp*

Hr. *mp*

Tpt. *mp*

Pno. *mp*

Mim. (entra, ma subito è presa da soffocazione) (tossisce)

Rod. (premuroso) No... nul - la . Impalli - di - sce!

Allegro agitato *accel.*.....

Vln. I *mp*

Vln. II *mp*

Vla. *mp*

Vc. *mp*

Db. *pizz.*

Another example is also in Act I when Rodolfo and Mimì are looking for her keys. It is important to take any opportunity to double up on important lines where possible if it makes the overall balance and musical intention better. In the arrangement, the Violin II part doubles the Viola part in bar 412 to compensate for the reduced string size (see Figure 59 and Figure 60). This also gives the line a strong forward direction into bar 413.

Figure 59

Puccini's *La bohème* - Original Score, Act I, p. 85

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 85. The score is for a full orchestra and two vocalists, Mimì and Rodolfo. The orchestral parts include Flute (Fl.), Oboe (Ob.), Clarinet in Sib (Cl. in Sib), Bassoon (Fag. in Fa), Horns (Corni in Fa), Violin I (Viol.), Violin II (Viol.), Viola (V. lc), Violoncello (Vc.), and Contrabass (Cb.). The vocal parts are for Mimì (MIMI) and Rodolfo (ROD.). The score is marked with 'a2' and '28' in a circle. The lyrics are: 'MIMI: Disgra.ziata! Im - por - tu - na è la vi. ROD.: O.ve sa - rà?'. The score includes performance instructions like 'pizz.', 'arco', and 'ppp'. The score is marked with 'P.R. 110' and '28' in a circle.

Figure 60

Puccini's *La bohème* - Arrangement, Act I, Bars 409-416

The musical score for Figure 60 shows the orchestration for Act I, Bars 409-416 of Puccini's *La bohème*. The score is arranged for a full orchestra and includes vocal parts for Mim. (Minnetta) and Rod. (Rodolfo). The instruments listed are Fl. (Flute), Ob. (Oboe), Cl. (Clarinet), Bsn. (Bassoon), Hn. (Horn), Tpt. (Trumpet), Pno. (Piano), Min. (Minnetta), Rod. (Rodolfo), Vln. I (Violin I), Vln. II (Violin II), Vla. (Viola), Vc. (Violoncello), and Db. (Double Bass). The score includes dynamic markings such as *mf*, *p*, and *pp*, and performance instructions like "ripete con grazia, avvicinandosi ancora cautamente" and "arco". The vocal parts have lyrics in Italian: "Dis - gra - zia - tal" and "Im - - por - - tu - na è la - vi -". The score is in 3/4 time and features a key signature of one flat.

When reallocating the lines in the arrangement, the important lines should be highlighted by making sure the melody line is distinct and then reallocating or removing any of the supporting lines. In Act III, while Rodolfo is explaining to Marcello about Mimì's illness and about his inability to care for her because of his poverty, Puccini uses the woodwinds, horns, harp, and strings extremely softly in the original to accompany the voice. They all have the same rhythm and the instruments either play repeated notes in the chord or the melody (see Figure 61). The Violin I and Violin II parts of the original are divisi. As such, it was more important that they had the melody notes in the arrangement with the Violin I, Violin II, Cello, and oboe parts given the melody (see Figure 62). The rest of the instruments are allocated the harmony notes instead: viola, trumpet, and flute start on an F, and the horn, clarinet, and bassoon starts on a D.

Figure 61

Puccini's *La bohème* - Original Score, Act III, p. 285

285

22 *a tempo* *cres.* *poco rall.*

Fl. I. *pppp con stanchezza* *cres.* *poco rall.*
II. *pppp con stanchezza* *cres.* *poco rall.*

Ob. I. *pppp con stanchezza* *cres.* *poco rall.*
II. *pppp con stanchezza* *cres.* *poco rall.*

Cl. in G. *pppp con stanchezza* *cres.* *poco rall.*
Cl. in Bb. *pppp con stanchezza* *ppp* *poco rall.*

Fag. I. *pppp con stanchezza* *cres.* *poco rall.*
II. *pppp con stanchezza* *cres.* *poco rall.*

in Fa *a tempo* *pppp* *cres.* *cres.* *poco rall.*
Corni *pppp con stanchezza* *cres.* *cres.* *poco rall.*
in Fa *pppp* *cres.* *cres.* *poco rall.*

G. Cassa *pppp* *pppp* *pppp*

Arpa *vibrato* *poco rall.*

MIMI *a tempo* *p* *poco rall.*

ROD. *a tempo* *poco rall.*
La mia stanza è una tana squalida... Il fuoco ho spento... Ventrò e l'aggira il'

Viol. *pppp con stanchezza* *cres.* *cres.*
divisi *pppp con stanchezza* *cres.* *cres.*
divise *pppp con stanchezza* *cres.* *cres.*

V.le *pppp con stanchezza* *cres.* *cres.*

Vo. *pppp con stanchezza* *cres.* *poco rall.*
tutti *pppp con stanchezza* *cres.* *poco rall.*

Cb. *a tempo* *arco* *poco rall.*
pp

22 P. R. 110

Figure 62

Puccini's *La bohème* - Arrangement, Act III, Bars 310-313

The musical score for Figure 62 is a page from an orchestral arrangement of Puccini's *La bohème*, Act III, bars 310-313. It features a full orchestral ensemble and vocal soloists. The instruments and parts shown are:

- Flute (Fl.)
- Oboe (Ob.)
- Clarinet (Cl.)
- Bassoon (Bsn.)
- Horn (Hn.)
- Trumpet (Tpt.)
- Piano (Piano)
- Mimi (Mim.)
- Rodolfo (Rod.)
- Violin I (Vln. I)
- Violin II (Vln. II)
- Viola (Vla.)
- Violoncello (Vc.)
- Contrabass (Cb.)

The score includes dynamic markings such as *ppp con stanchezza*, *cresc.*, and *poco rall.*, and tempo markings like *A tempo*. The vocal parts for Mimi and Rodolfo are also shown with lyrics in Italian. The piano part is notably sparse, consisting of a few chords and rests.

The piano is one of the most versatile instruments in the arrangement but its utilisation should be treated carefully. If too much piano is used, it can become tiresome with the instrumental colour drawing strong association to the music call rehearsals of an opera whereby the repeteur plays piano reduction using a vocal score (A. Gorb, personal communication, 2021). When implemented in the right way, the piano enables the arrangement to become much more effective. Alder (2002) mentioned that instead of the piano part having the reduction from beginning to end, the arranger should “use the piano as another orchestral instrument, to lend body to tutti sections, provide arpeggiated accompaniments, render the harp parts, take occasional single line solos, or double solos, perhaps in the higher register” (p. 742). The original harp parts are mostly translatable onto the piano; while it might be tempting to add staccato markings onto the piano part to mimic the harp’s plucking, it is from personal experience when rehearsing *La bohème* that the legato

playing of the piano sounds closer to the harp because of the resonance. This was originally how the piano part was written in Act IV from bar 297 and it only sounded closer to what I had envisaged when the pianist was requested to ignore the staccato markings (see Figure 63).⁸

Figure 63

Puccini's La bohème – Arrangement Piano Part, Act IV, Bars 297-304



The piano is also effective when taking on a single line when accompanying or doubling high staccato lines in the winds (especially the flute). This works effectively in the opening section of Act I when the piano plays a similar rhythmic motif with the winds and supports the piccolo in sixths (see Figure 64). In the original, this is played by the piccolo and two flutes, with the two oboes and two clarinets playing repeated notes (see Figure 65).

Figure 64

Puccini's La bohème - Original Score, Act I, p. 11

⁸ The staccato markings have been removed in the arrangement submitted.

Figure 65

Puccini's *La bohème* - Arrangement, Act I, Bars 126-137

Another example is from Mimi's aria in Act III where a motif is played by two flutes in the original (see Figure 66). In the arrangement, this is played by a flute and also doubled by the piano in the arrangement (see Figure 67). This works extremely well as the articulation and timbre of the piano and flute at that register go well together.

Figure 66

Puccini's *La bohème* - Original Score, Act III, p. 295

Figure 67

Puccini's La bohème - Arrangement, Act III, Bars 372-375

The image shows a musical score for Act III, Bars 372-375 of Puccini's *La bohème*. The score is arranged for a full orchestra and includes the following parts:

- Flute (Fl.):** Rests in the first system, then plays a tremolo pattern in the second system.
- Clarinet (Cl.):** Plays a sustained melodic line in the first system, then rests in the second system.
- Piano:** Rests in the first system, then plays a rhythmic accompaniment in the second system, marked *pp leggerissimo*.
- Mimi:** Sings the lyrics: "scel - ta. Le po - che ro - be a - du - na che la - sciai spar - - se. Nel mio cas -".
- Violin I (Vln. I):** Plays a sustained melodic line, marked *pp*.
- Violin II (Vln. II):** Plays a sustained melodic line, marked *pp*.
- Viola:** Plays a sustained melodic line, marked *pp*.

Furthermore, the piano can lend body to the tutti sections by taking on anything rhythmic or textural. In Mimi's aria in Act I, there is a section in the original where the four horns play chords in the background to create a syncopated texture (see Figure 68). This is one of the moments in Puccini's music where the music has a sense of warmth that feels like the sound is hugging the listener. In order to achieve this effect, it has a larger number of instruments playing long sustained lines very softly with a background rhythmic texture of syncopations and tremolos. In the arrangement, the piano takes on and gives weight to the rhythmic syncopated texture which enables the horn to lend body to the soft yet full-bodied section (see Figure 69) as this section requires as many instruments as possible to sustain a line softly.

Figure 68

Puccini's *La bohème* - Original Score, Act I, p. 103

Figure 69

Puccini's *La bohème* - Arrangement, Act I, Bars 581-584

3.3.6 Dynamics and Balance

In the previous section (3.3.5), it was discussed that the arranger should ensure that when reallocating lines the result should be balanced within the ensemble. This can be done by making sure that each line is suitably represented and anything that the arranger considers superfluous can be removed. In order to further help with this internal balance, it is important that the dynamics written for the woodwinds and brass are adjusted to maintain this balance as well. For example, before Musetta's entry in Act II, the off-beat quavers in the brass of the original are written as *ff* (see Figure 70). However, to ensure that the brass (as well as bassoon and percussion) does not overpower the ensemble, these are written a dynamic lower in the arrangement (see Figure 71).

Figure 70

Puccini's *La bohème* - Original Score, Act I, p. 177

Allegro moderato $\text{♩} = 132$
brillante, con fuoco

16

Fl. *ff*

Ott. *ff*

Ob. *ff*

Cl. in Si b *ff*

Fag. *ff*

in Fa *ff*

Cori in Fa *ff*

Timp. *ff*

(all'angolo di Via Mazzarino appare una bellissima signora dal fare civettuolo ed allegro, dai sorrisi provocante. Le vien dietro un vecchio signore pomposo, pieno di pretese negli abiti, nei modi, nella persona)
(con sorpresa vedendo Musetta)

ROD. Oh! Muset.ta!

(si lascia cadere sulla sedia)

MAR. tos. sico! Essa!

(con sorpresa)

SCHAU. Oh! Muset.ta!

(con sorpresa)

COLL. Oh! Muset.ta!

Viol. *arco* *f*

V. la *arco* *f*

Vc. *arco* *f*

Cb. *arco* *f*

16 Allegro moderato $\text{♩} = 132$
brillante, con fuoco

Figure 71

Puccini's *La bohème* - Arrangement, Act I, Bars 165-168

The musical score for Figure 71 is a page from an orchestration of Act I, Bars 165-168 of Puccini's *La bohème*. It features a full orchestral ensemble and vocal parts for Rodolfo and Mimi. The tempo is *Allegro moderato* at a metronome marking of quarter note = 132. The woodwinds (Flute, Oboe, Clarinet, Bassoon) and strings (Violin I and II, Viola, Violoncello, Contrabasso) are marked with a fortissimo (*ff*) dynamic. The vocal parts for Rodolfo and Mimi have lyrics in Italian. The score includes a rehearsal mark '6' at the beginning of the section.

Furthermore, it is important for string pizzicato to be indicated at a higher dynamic. In my personal experience as a conductor, in most pieces, especially when the orchestration is most dense, the pizzicato sound is often covered; in these situations, I almost always have to request for those notes to be played at least a dynamic or two higher than written for them to be heard. As such, throughout this arrangement, where suitable, any pizzicato lines are written at a slightly higher dynamic than those indicated in the original. This is also done to account for the smaller string section. For example, immediately before Mimì and Rodolfo meet for the first time in Act I, the strings have pizzicato in various bars with *pp* indicated (Figure 72). In the same section of the

arrangement, the dynamics are marked a level higher at *p* (Figure 73). They are only marked a dynamic higher as the orchestration is still rather sparse at this point. Doing so helps to make rehearsals more efficient as less will need to be said.

Figure 72

Puccini's *La bohème* - Original Score, Act I, p. 79

Figure 72 shows a page of musical notation from Puccini's *La bohème*, Act I, page 79. The score is for the original version and includes parts for Clarinet in B-flat (Cl. in Sib.), Violoncello (Vc.), Contrabasso (Cb.), Flute (Fl.), Clarinet in A (Cl. in La), Horn (Corni in Fa), Violin (Viol.), and Viola (Vla.). The tempo is marked *Allegretto*. The score includes Italian lyrics and stage directions: "(Rodolfo chiude l'uscio, depono il lume, sgombra un angolo del tavolo, vi colloca calamaio e carta, poi siede e si mette a scrivere, dopo avere spento l'altro lume rimasto acceso.)" and "(Rodolfo scrive, s'interrompe, pensa, ritorna a scrivere.)". Dynamics include *ppp*, *p*, and *ppp*. The score is marked with a first ending bracket and a measure number 25.

Figure 73

Puccini's *La bohème* - Arrangement, Act I, Bars 305-318

Figure 73 shows a page of musical notation from Puccini's *La bohème*, Act I, Bars 305-318. The score is for an arrangement and includes parts for Flute (Fl.), Clarinet in A (Cl.), Bassoon (Bsn.), Horn (Hn.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The tempo is marked *Allegretto*. The score includes Italian lyrics and stage directions: "(Rodolfo chiude l'uscio, depono il lume, sgombra un angolo del tavolo, vi colloca calamaio e carta, poi siede e si mette a scrivere, dopo avere spento l'altro lume rimasto acceso.)" and "(Rodolfo scrive, s'interrompe, pensa, ritorna a scrivere.)". Dynamics include *p*, *pp*, and *p*. The score is marked with a first ending bracket and a measure number 7.

In a contemporary arrangement, it is also important for the arranger to ensure that the dynamics in the score are as specific as possible. Throughout the original score, there are moments where the dynamics are vague and should be indicated more clearly in the arrangement which would again help the rehearsal process be more efficient. For example, at the start of Act I, the dynamic markings are unclear in the original (see Figure 74). As such, in the arrangement, the dynamics in this section are written in a more explicit manner to ensure that it is clear where the “*p subito*” is written and also signifies the target dynamic (see Figure 75).

Figure 74

Puccini's *La bohème* - Original Score, Act I, p. 6

6

a tempo

Fl.

Ott.

Ob.

Cl. in La

Fag. in Fa

Corn. in Fa

Tr. ^{bb} in Fa

Tr. ni

Triang.

Arpa

MAR. *(torna al lavoro)*

Viol.

V. 1^o

Vc.

Cb.

a tempo

P.R. 410

Figure 75

Puccini's *La bohème* - Arrangement, Act I, Bars 67-75

The musical score for Figure 75 is a full orchestral arrangement of Puccini's *La bohème*, Act I, bars 67-75. It is marked "A tempo". The score includes parts for the following instruments:

- Flute (Fl.)
- Oboe (Ob.)
- Clarinet (Cl.)
- Bassoon (Bsn.)
- Horn (Hn.)
- Trumpet (Tpt.)
- Piano (Pno.)
- Maracas (Mar.)
- Violin I (Vln. I)
- Violin II (Vln. II)
- Viola (Via.)
- Violoncello (Vc.)
- Double Bass (Db.)

The score features various dynamic markings and performance instructions. Dynamic markings include *p* (piano), *p sub.* (piano subito), *mp* (mezzo-piano), and *f* (forte). Performance markings include *pizz.* (pizzicato) and *arco* (arco). The score is divided into two systems, with the first system starting at bar 67 and the second system starting at bar 71. The tempo marking "A tempo" is present at the beginning of each system.

3.3.7 Performance Markings

It is not only the dynamic markings that need to be carefully translated when producing the arrangement, but also some of the performance markings; some of those in the original *La bohème* might be considered superfluous today. For example, pizzicato notes in the strings do not need to have staccato indication as well; the same is true in some of the percussion writing such as for the snare drum and xylophone. This can be seen in Figure 76 below. As such, these non-essential staccato indications are removed in the arrangement.

Figure 76

Superfluous indications of staccato

Left – Act I, pizzicato strings; Right – Act II, snare drum

Furthermore, some of the techniques requested by Puccini would not be notated the same way today. For example, as seen in Figure 77 below, Puccini would write “*col crine*” (with horsehair), and “*col dorso dell’ arco*” (with the back of the bow). Today, string players are used to seeing “*ord.*” (*ordinario*, or ordinary) and “*col legno*” (with wood) instead.

Figure 77

Puccini’s La bohème - Violin Parts, Act II

Top line - original notation; Bottom line - arrangement notation

Finally, it is important to note that the markings in the original score published in 1920 have often not been copied from the manuscript accurately with “an average of from 40 to 50 small changes on each and every page of the score” (Vaughan, 1960, p. 1). One of the many examples mentioned by Vaughan (1960) is in Act I, where the copyist must have standardised the articulation in the winds with a staccato on the first note (see Figure 78, bar 3). However, the staccato markings are only in the second oboe and second clarinet part in the manuscript so as to increase the clarity of the repeated notes (see Figure 79). Therefore, it is important for the arranger to have a clear concept of how the arrangement should sound instead of fully relying on the markings indicated in the original score.

Figure 78

Puccini's La bohème - Original Score, Act I, p. 6

The image shows a page of a musical score for Act I, page 6 of Puccini's *La bohème*. The score is for a full orchestra and chorus. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet in G (Cl. ingl.), Clarinet in Bb (Cl. b. in Sib), Bassoon (Fag.), Trumpet and Trombone (Trombe e Fagotti), Arpa (Harp), Chorus (CORO), Violin (Viol.), Viola (Vcllo), and Cello/Double Bass (Cb.). The score is in 3/4 time and features various musical markings such as dynamics (pp, p, mf, f, sfz), articulation (staccato, sfz), and performance instructions (e.g., 'se ne viene al ritrovo, agitando trionfalmente un vecchio libro'). The lyrics are in Italian, including 'COLLINE (se ne viene al ritrovo, agitando trionfalmente un vecchio libro)' and 'Nin - no, li, spil, let, ti! Dat, teri e ca, ra - mel, lei!'. The page number 'P. R. 110' is visible at the bottom.

Figure 79

Manuscript Articulation (Vaughan, 1960, p. 6)

Example 3

The image shows a musical score for four woodwind parts: Flutes, Piccolo, Oboes, and Clarinet Bb. The score is labeled 'Example 3' and is in 2/4 time. It features a complex rhythmic pattern with many slurs and accents, indicating a focus on articulation. The key signature is one sharp (F#).

3.3.8 Purpose and Audience Enjoyment

The purpose of producing this arrangement was initially to enable a performance that would allow for an immersive experience for the audience. The reduced-size orchestra and smaller cast meant that the performance space can be used more effectively by bringing the audience into the performance space of the singers. This meant that the orchestra would have been able to put on a performance that gave a unique experience for the audience in an intimate space. However, the duration of the Covid-19 pandemic meant that, although the performers and audience could not interact as much as planned (in order to achieve the effect of immersion), this arrangement allowed for this performance to still go ahead because it catered for social distancing among the musicians.

On a practical note, a clear purpose also helped Musicians' Initiative in their bid for various grants resulting in this project being supported by two funding bodies in Singapore, National Arts Council and Arts Fund. Doing a grant application is a process that almost every creative practitioner has to go through at some point in their career, all over the world. The initial conception of this project (see Appendix 2) was a Triple Bill exploring relationships featuring Samuel Barber's *A Hand of Bridge* (1959), Gian Carlo Menotti's *The Telephone* (1947), and my own arrangement of *La bohème*. The production was to be thought-provoking as the three operas are linked by the way human relationships define us today. *A Hand of Bridge* broaches our relationship with oneself, *The*

Telephone deals with our connection with technology, and *La bohème* explores the bond between people: falling in love, falling out of love, and dealing with loss and death. The character Mimi is consumed by a deadly illness which is also apt coming out of a period where many have passed from a deadly lung disease. Watching such a production might be a cathartic experience for audiences who have lost their loved ones to Covid-19 through the experience of depressive realism (as discussed earlier in section 2.2.10).

It was my initial intention for *La bohème* to be performed with a suitable English translation so that there is an immediacy of comprehension by the local audience which would allow them to focus on the dramatic elements on stage and listen to the music without relying on surtitles. My belief is that this would have enhanced the audience's experience of the opera. Nonetheless, the artistic team of Musicians' Initiative decided against the idea with the reasoning that the original Italian text works better musically. There is much to debate on whether opera should be performed in the original or local language.⁹ Because of the breadth of the topic, it is not explored in this thesis. It is, however, important for the arranger to keep in mind as the overall comprehension of the opera can impact the enjoyment of the audience.

Finally, it was important to have an idea of what the musicians and audience thought about the production. This will be explored in the next section where I collated and analysed the audience's and musicians' feedback through the questionnaires.

3.4 Feedback from Questionnaire

3.4.1 Introduction

There are many studies exploring the listening experience of audiences, in which data is obtained using a questionnaire. These studies have largely aimed at exploring how and why people listen (Dearn et al., 2017), the cultural value of live music and "how audiences, artists and other

⁹ For example, see papers by Mateo (2013) and Martin (1968).

participants in live music value their experience” (Behr et al., 2016, p. 7), and themes of experiences by “audience members at a concert of participatory, contemporary, classical music” (Toelle & Sloboda, 2021, p. 70).

Empirical research executed by arts organisations has often been undertaken to understand the audience experience, but few have been concerned with the effects of a specific piece of music, or a well-known piece of music in a new form. When such studies are undertaken, they are usually a discussion about brand new pieces of music, and they explore the nature of the works being performed and how they are perceived. For example, Toelle and Sloboda (2021) explore the participants’ perception of experiencing contemporary pieces by Huang Ruo and Christian Mason in which audience participation was a part of the performance instructions. The current study, however, explores how participants perceive an arrangement of an originally larger operatic work.

The musical work explored in this current chapter is my own arrangement of Puccini’s *La bohème*. There is no scholarship considering the perception of listeners with regards to how decisions in creating these arrangements were made. Existing scholarship is concerned with the creation process rather than the listening process. As such, this chapter presents a questionnaire study that was undertaken with an audience listening to my arrangement of *La bohème* live. Although participant numbers were too low to make statistically significant observations, the results from the questionnaire will hopefully allow for some understanding of the audiences’, singers’, and instrumentalists’ perception of the arrangement. This will in turn enable us to explore how to create effective arrangements in the future and better understand the benefits of such arrangements, in terms of the experiences of these stakeholders. The questionnaire also explores how audiences feel about hearing a popular work which has been truncated (and rearranged), which does not often happen in reduced opera arrangements (i.e., existing arrangements usually keep the same duration).

3.4.2 Research Questions

1. How well did the arrangement convey the story, given that this work is a reduction in duration from the original?
2. How effective was the arrangement (for example, to what extent did audiences consider this successful, enjoyable and/or preferred)?
3. How comfortable was the arrangement for the musicians (i.e., how well suited was it for their instrument or voice type)?

3.4.3 Methods

Ethical Consideration.

This questionnaire was granted ethical approval by the Royal Northern College of Music Research Ethics Committee.

Participants.

There were 51 participants; 16 musicians (12 instrumentalists and 4 singers) and 41 audience members who either performed or attended the concerts on 15th and 17th October 2021 in the Gateway Theatres in Singapore. These were professional ticketed performances. All three questionnaires (for audience, instrumentalists, and singers) asked about participants' enjoyment and pacing of the opera. For the musicians (instrumentalists and singers), it had questions that were more specific to the performance such as stamina and details in the parts. The questionnaires for the respective groups can be found in Appendix 3.

The participants performed or watched my newly created arrangement of Puccini's *La bohème*. Participation in the questionnaire was optional and the audience members could choose to answer the questionnaire pertaining to the arrangement of *La bohème* by scanning the QR code available throughout the venue and in the programme booklet after the performances. The instrumentalists and singers were sent the links to their respective questionnaires after both performances had been completed. The audiences' and musicians' responses were captured using

the survey tool, Online Surveys. Most questions were given on a Likert scale, with a few using multiple choice options.

The performance was part of a show titled "Double Bill: The Pursuit of Happiness" by Musicians' Initiative, a professional orchestra in Singapore, that featured Menotti's *The Telephone* and this 65-70-minute arrangement of Puccini's *La bohème*. Due to the Covid-19 pandemic, the performance of the operas had to happen without an intermission and as such, in order to reduce the overall duration, Barber's *A Hand of Bridge* was removed which turned the initially proposed triple bill to a double bill.

The 41 audience members who opted to complete the questionnaire represented 19.0% of the 216 total audience members at the concerts. The 12 instrumentalists who took part represented 60% of the 20 instrumentalists. All 4 singers took part.

3.4.4 Results

Responses were first reviewed for anomalies. It appeared that one of the participants in the instrumentalists group mistook the Likert scale as meaning the opposite (they interpreted the 1 and 7 as opposite ends of the scale). The participant responded that they enjoyed the arrangement but gave consistent low scores on later questions specific to the arrangement. As such, the ratings given by this participant have been inverted.

Descriptive statistics and overviews of the data will be given, and where statistical tests were run to address the research questions above, these are also listed below. These results will then be interpreted in light of the research questions above.

On the original version of *La bohème*.

On average, most of the audience members had not seen a performance of *La bohème* before (Yes I have seen this before=11, yes I have seen parts of it=5, no I have not seen it before=24, Not sure=1), and the piece was also mostly known by the instrumentalists (rating of familiarity on a

scale of 1-7, 7 = I know the piece well: $M=3.67$, $SD=1.92$) and the singers (rating of familiarity on a scale of 1-7, 7 = I know the piece well: $M=5.75$, $SD=0.5$).

Comparing the arrangement to the original.

When asked if participants enjoyed the original work more or this new reduced version (1 = original, to 7 = new), on average the audience members who have heard at least some of the original enjoyed the arrangement more ($n=16$, $M=5.13$, $SD=1.59$), 7 of the 11 instrumentalists who had played all or part of the original *La bohème* before enjoyed the arrangement slightly more than the original on average ($M=4.29$, $SD=1.38$) and the singers slightly enjoyed the arrangement more than the original ($M=4.25$, $SD=1.71$).

The audience gave an average rating of 6.1 to the question of whether they felt that the music reflected the atmosphere of the work (1 = the music did not reflect the atmosphere effectively, 7 = the music did reflect the atmosphere effectively: $M=6.1$, $SD=0.900$).

Coherence and pacing of the story.

As the arrangement is a reduced version of the original, with a large section of the original being removed, it was important to ask listeners whether they felt that the story still made sense in this arrangement. Participants were asked to rate the extent to which the story was coherent on a 7-point Likert scale (1 = it did not make sense, 7 = it did make sense). Results demonstrated that, on average, the story largely made sense to the audience (average rating 5.95). Perceptions about whether the pace of the action felt suitable (1 = pace was too slow, 7 = pace was too fast), so as to reflect if the arrangement managed to retain the important story telling element of the original effectively were asked. The audience felt that the pacing of the story was just very slightly faster than they would have liked (average rating 4.32) and the singers felt that the pacing was slightly faster than the original (average rating 5.3).

When asked whether the arrangement felt like a complete work in its own right, the audience on average slightly agreed ($n=41$, $M=4.44$, $SD=1.60$).

On the arrangement.

The audience felt that the orchestral accompaniment of the arrangement was effective in supporting the voices ($n=41$, $M=6.02$, $SD=1.11$). The singers felt that the orchestra supported their voices ($n=4$, $M=5.25$, $SD=1.5$; three singers rated 6, one singer rated 3).

In general, the musicians enjoyed the arrangement, with only 1 singer answering "no" ($n=16$, $Yes=15$, $No=1$, $Not\ sure=0$). The instrumentalists found that their parts suited their instrument well ($n=12$, $M=6.33$, $SD=0.778$). They also felt that their part works well with the rest of the ensemble ($n=12$, $M=6.42$, $SD=0.669$).

With regards to stamina, the singers felt that the arrangement was slightly less challenging than "just right" ($n=4$, $M=3.75$, $SD=1.26$).

Correlations.

Various questions in the audience questionnaire indicated some sense of what the audience found to be 'effective' about the arrangement. These were questions 2, 5, 6 and 7 in the survey respectively:

2. Did the story make sense in this arrangement (could you understand what was happening)?
5. This is an arrangement of the full opera. To what extent did it feel like a reduced/shortened/new version of an existing work, and to what extent did it feel like a work in its own right?
6. How effectively did the orchestral accompaniment support the voices in this performance?
7. How well did the music reflect the atmosphere of the story?

These questions were analysed to see if there was a sense that listeners rated multiple of these highly (i.e., there were correlations evident when a test was run to check the extent to which these ratings varied in line with one another), in other words, to see if audience members had a general sense of 'effectiveness', which impacted on multiple of their responses.

There were statistically significant correlations between audience responses to questions 5 and 6 ($r(41) = 0.432, p < 0.01$) and between questions 6 and 7 ($r(41) = 0.385, p < 0.05$). These results therefore suggest that people who found the arrangement to feel like a complete work were also more likely to feel that the orchestral accompaniment supported the voices well. They were also more likely to rate the extent to which the orchestral accompaniment supported the voices and the extent to which the music reflected the atmosphere of the story in line with one another. Therefore, there is some indication that audience members found the arrangement to be effective in more than one way if the above questions might be considered as representative of effectiveness.

No other statistically significant correlations were found between questions 2, 5, 6 and 7. This suggests that there is some evidence of listeners having a sense of the 'effectiveness' of the arrangement, which manifested itself in multiple questions.

3.4.5 Limitations, Discussion, and Conclusion

Limitations.

There are certain limitations in this study that might affect the results obtained in the questionnaire. The sample size of participants might be considered small as the performances happened during the Covid-19 pandemic and had a smaller audience than usual. With small sample sizes, there can be more 'noise' in the data, i.e., one response which is very different to others can have a large effect on averages. For example, one of the singers' responses was negative compared to the others and it is difficult to understand whether it was due to the arrangement or from other issues. In addition, comments made by the stage director during the music rehearsals regarding the absence of certain sections in this truncated arrangement might have influenced some of the responses of the singers. For example, a response in the open-ended section mentioned that "The quartet in Act 3 was left out which was a pity..." is probably influenced by comments made by the director during rehearsals. Finally, as I was also the conductor of the project, the musicians may have

felt inclined to give a more positive response to this study if they enjoyed working with me and vice versa.

Singapore has a rapidly growing opera culture but does not have a strong one when compared to other cities; a single opera company in the UK is more likely to undertake more productions a year than in Singapore. Opera North has eight productions in their 2022-2023 season (Opera North, 2022). However, the “flagship company of the western opera in Singapore”, Singapore Lyric Opera, only performed one fully staged opera with orchestra and chorus in 2019 (Singapore Lyric Opera, 2022). Other opera companies in the country such as New Opera Singapore also only perform one fully staged opera a year (New Opera Singapore, 2022). As such, it would be interesting to see if these results would be similar to performances in another country with a more prominent operatic culture.

Discussion.

The research questions will be addressed in turn:

Despite reduction in duration from the original, how well did the arrangement convey the story? The results above suggest that the arrangement managed to convey the story well for most people. The audience generally agreed that the story made sense to them despite there being a large reduction in content in the arrangement compared to the original work. This suggests that condensing well-known operas in this way could be a worthwhile project that may appeal to audiences, albeit that these were limited sample sizes, and more data are needed to draw any reliable conclusions.

How effective/successful/preferred was the arrangement? The audience participants who knew at least some of the original version seemed to enjoy the arrangement more. However, the group sizes were too small to run statistical tests, so further testing would need to be undertaken before definite conclusions could be reached. The singers also enjoyed the arrangement slightly more than the original as well. However, this was again a very small sample size.

All the audience members except one (who selected 'not sure') chose the answer 'yes' when asked if they enjoyed the performance (the options were yes, no, and not sure). This meant that it was not possible to check whether there were different levels of enjoyment of engaging with this arrangement depending on whether participants knew the original score of *La bohème*. In future, a Likert scale may be a better option for enjoyment ratings, to allow for t-tests to be run on the different groups so as to be categorised in terms of their knowledge of the original work.

Despite a 41.7% reduction in the duration of music taken from the original, it was interesting to note that the audience on average felt that the pacing of the opera was 'just right'; the average rating was just a bit higher than just right ($M=4.32$). A reason might be that our average attention span has decreased compared to audiences of the past with the onset of the digital age, as "the high pace and potential information overload of social media, its use might lead to decreased attention span" (Studen & Tiberius, 2020, p. 6).

However, it is also noteworthy that the singers had a different view from the audience with every single one of them feeling that the pacing of the story was too fast. Probably as performers, they might have felt that their character development was either moving too fast or did not have enough time to take place. They may also have been more familiar with the original score than the average familiarity of the audience, and hence their judgement was made in light of this benchmark.

How comfortable was the arrangement for the musicians? In general, the musicians found the arrangement comfortable. The arrangement meant that there was a reduction in the length of the music, but the key moments of the opera crucial to the story were kept. This meant that most of the important arias, duets, trios, and quartets which are usually the more tiring sections for singers were featured. The reduction in length also meant that there was less time to rest between sections. However, it is notable that most of the singers felt that, with regards to stamina, the arrangement was not tiring.

Conclusion.

The results from this questionnaire provide an indication that producing an arrangement that reduces the duration and orchestration of an original, well-known work, can be effective. The reduced forces did not seem to negatively affect the perception of a famous opera such as *La bohème* and was even preferred by certain audience members. It is therefore even more important the arrangements of such nature are undertaken meticulously so that it comes across effectively. Arrangements have sometimes been frowned upon especially from the mid-20th century during the so-called “age of authenticity” which was believed to have originated from “the progressive artistic insecurity of [the] age that has gradually turned [the] search for authenticity into a compulsion” (Keller, 1969, p. 23). However, the results from this seem to paint a positive outlook that audiences today seem to be moving towards a place where they are more open to variations from the norm, making it ever more important to make sure that such arrangements are of the best quality. This means that it might be a good idea for opera companies to consider smaller scale productions of such works in which the arrangements are carefully and thoughtfully undertaken. This would allow productions to be performed in a wider variety of venues and create different performance experiences that are potentially more intimate for the audiences.

These results and the discussion above might also signal that future productions could aim to be shorter in duration so that they might effectively capture the audience's attention, as it has been remarked that a “two- or three-hour classical music performance can feel like a workout” (Quito, 2017). Chief classical music critic of The New York Times, Anthony Tommasini has noted that “live classical music requires concertgoers to listen and focus, often for lengthy stretches, [and] has long seemed off-putting to many potential aficionados” (Tommasini, 2015). It might be more effective for productions to consider performing works of shorter duration so as to maintain and build not only a younger audience, but also cater to the needs of the people today to stay relevant. More research needs to be done in finding out the average attention span or concentration of audiences today when watching opera and listening to classical music, as there have been comments

from performers and audiences that concerts today are feeling too long compared to the shorter concerts experienced during the middle of the Covid-19 pandemic. For example, after performing many shorter concerts without intermission during the pandemic, world-renowned pianist Stephen Hough has commented that removing intervals and having 60- to 80-minute concerts might be beneficial to the focus of both audiences and performers (Hough, 2020), and this was something he has advocated for even before the pandemic (Hough, 2016).

Further studies should be undertaken to explore the experience by audiences of concerts differing from the established format of classical music. It might be that the current traditional way of having concerts or full-length operas would only cater to the "converted" (those already familiar with the work) but not to the general public. This would be important research to the continuity of building up newer audiences in the future, and in doing so, it might paradoxically help build future audience's attention spans, allowing for longer concerts in the future as according to Jonathan Berger, professor of music at Stanford University, "the process of listening to music could be a way that the brain sharpens its ability to anticipate events and sustain attention" (Baker, 2007).

3.5 Knowledge Gained

This journey from the initial proposal of the triple bill to Musicians' Initiative to being commissioned to produce a new arrangement and performing it generated much new knowledge which is central to the current thesis. Having proposed the ten factors which should be considered during the arranging process, this is the first time that I used them in a practical manner in the conception and production of the arrangement. These factors were found to be relevant and successfully considered and applied during the creation of this arrangement, in that they provided a comprehensive list that I as the arranger could consider. Other new knowledge resulting from this arranging process includes my growing awareness that categorisation of arrangements may not be as clear-cut as it seems, as what I refer to above as a direct reduction can also overlap with the concept of a reimagination, for example, the changes made to the structure in this arrangement of

La bohème in which a coherent story was still produced with the structure changed resulting in a 41.7% reduction in the total amount of music from the original. It is also notable that the ten factors which I have conceived of are not mutually exclusive, especially those on atmosphere and feel (see section 3.3.2), instrument choice (see section 3.3.3), timbre (see section 3.3.4), reallocating lines and dealing with divisi and multiple stops (see section 3.3.5), and dynamics and balance (see section 3.3.6). This can be seen most clearly in section 3.3.5 above where I demonstrate how reallocating the lines affects the other factors involved. Regarding timbre (section 3.3.4), I explored how the latest research from the field of music perception research can be used in the discipline of orchestration and arranging, making use of work undertaken by McAdams et al. (2022) and many more. I believe this is the first known use of the TOGE from this music psychology research in analysing music and making decisions for the subsequent arrangement. Finally, this is the first usage of my newly developed questionnaire for audience members and performers, which provided multiple insights into the success of the arrangement and production, resulting in many ideas regarding how future performances can be made more effective and enjoyable. Future arrangements of well-known works could make use of this technique—surveying the audience at the first performance in order to judge the extent to which the arrangement has been undertaken successfully (or not).

Chapter 4: Commentary on the arrangement of Lehár's *The Merry Widow*

4.1 Background

The arrangement which I made of Lehár's *The Merry Widow*¹⁰ (*Die Lustige Witwe*) (1905) was produced and performed by OperaViva for their 2023 opera production. OperaViva is a community opera company based in Merseyside who perform their productions in different places throughout the county. Cast and company include semi-professionals and amateur singers, with the instrumental ensemble being made up of various freelance instrumentalists from North West England. As their music director, I chose the opera because it appears regularly on the list of operas that are most often performed by operatic societies in the North of England (see Appendix 4) and also because it has a substantial chorus part. The survival of most amateur opera societies is dependent on their chorus because of membership subscriptions (H. Harrison, music director of Preston Opera, personal communication, 2019). *The Merry Widow* is one of the most popular operettas¹¹ worldwide. When it received its London premiere in 1907, it "played nearly 800 times at Daly's Theatre, and some Londoners were reported to have seen the show more than 100 times" (Metropolitan Opera, n.d.). It is also number 51 in the list of *100 classical music recordings you must own* on ClassicFM (n.d.). The 2022/2023 season has seen multiple amateur operatic societies in the United Kingdom stage the opera, such as Opera Worcester, Bath Opera, St Albans Chamber Opera and also OperaViva. Its popularity means that there are different versions of the opera available as well as arrangements (see section 4.2 below).

Discussion with the artistic committee of OperaViva concluded that the opera production was to be set in France in the 1920s and the score would be reimagined to reflect the Jazz Age through the alteration of the instrumentation and orchestration by hinting at the sounds that might have been heard in music at that time (see section 4.3.2 and 4.3.3 below). The overall structure was

¹⁰ A synopsis of the full opera can be found on the Opera North website here: <https://www.operanorth.co.uk/whats-on/the-merry-widow/#story>

¹¹ Operetta is a "light opera with spoken dialogue, songs and dances" (Lamb, 2001).

mostly kept the same as the original with minor changes (see section 4.3.1 below). The performances took place on 28th, 29th, and 30th April 2023 at Mossley Hill Club, St Mary's College, and Heswall Hall respectively. The company used the original English translation of the libretto by Basil Hood and Adrian Ross, which was used for the first London production in 1907 (Hood & Ross, 2019). However, because of the archaic nature of some of the themes and the incoherence of the source material at times, the text was reviewed and edited by various members of the company (see section 4.3 below).

4.2 Versions and Other Known Arrangements

This source material used for this arrangement was the original orchestral parts published in 1906 by Doblinger (Lehár, 1906). It was common for conductors of operettas before 1940 to use a vocal score with handwritten indications of instrumentation and instrumental solos (Scott, 2019). As such, the only publicly available version of the full score (Lehár, 2005) was published by Doblinger in 2005 and cannot be used as a source material as it is still in copyright in the UK.¹² As with the nature of many operas, there are many different versions of *The Merry Widow*. The opera's libretto by Viktor Léon and Leon Stein is based on a French play, *L'attaché d'ambassade*, by Henri Meilhac and this was first performed in Vienna in 1905. This was later adapted in 1907 by Basil Hood and Adrian Ross which was used both at the West End, London and on Broadway, New York (Scott, 2019). In 1958, two different English versions were published; the first is by Christopher Hassall based on the original Doblinger edition published in Vienna (Scott, 2019), and the other is sometimes also known as the "Operatic Society Version" (Lehár, 1958) published by Glocken Verlag Ltd which has the story and lyrics adapted by Phil Park with the music adapted and arranged for large orchestra by Ronald Hanmer. As will be further explored in the next section 4.3 below, OperaViva used Hood and Ross's

¹² This full score may still be in copyright in the United Kingdom because of the 25-year copyright term on typographical arrangements.

libretto as it was out of copyright to be a starting point which was further edited and adapted for the production.

There are other notable arrangements that exist. The first is by Phil Parks and Ronald Hanmer as mentioned above. This arrangement included significant edits such as various numbers being structurally rewritten with additional chorus parts. Most of the music in the arrangement is a whole tone lower than the original as it was designed to appeal to amateur operatic societies (Scott, 2019). It was also written for a large orchestra of a flute, two clarinets, one oboe, one bassoon, two horns, two trumpets, two trombones, percussion, a harp, and a complete string section. This makes it less feasible to be used by operatic societies today as they have the financial constraints of mainly being funded by their own membership subscriptions. Another version for two violins, viola, cello, and piano produced by Pocket Publications was used by Opera Worcester (Opera Worcester, 2023); this was probably a bespoke version for the production as it is not a product featured on their website. Having seen the production on 22 February 2023, I feel as though the arrangement sounded sparse, as the piano was filling in most of the missing lines and sounded like the string quartet was playing the original parts from the full score with the piano using the vocal score to fill in the missing sections. This is often the case when there are only five instrumentalists available, probably due to logistical (size of venue as there was no orchestra pit) and financial constraints (being a community opera group). Third is a version by Reduced Opera Orchestration which is for one flute (doubling piccolo), one oboe, one clarinet, one bassoon, two horns, one trumpet, timpani, three percussion (glockenspiel, side drum tambourine, tam-tam, triangle, cymbals, bass drum), harp, and string section. The main reduction for this version is in the woodwinds and brass section as “all other instruments are as the composer wrote them” (Reduced Opera Orchestration, n.d.). This arrangement is still meant for a relatively large ensemble that needs twelve instrumentalists and an additional string section, as the percussion, harp, and string parts are left untouched. Finally, there are numerous other versions that feature selections from the opera such as the one arranged for theatre orchestra (1907) by Richard Klugescheid, a version for orchestra (1907) arranged by Henry

Higgs and orchestrated by Daniel Goffrey, and also many others for other ensemble such as wind ensembles and brass bands. I believe that my arrangement is probably the only one that features a reimagination for a small ensemble size of eight instrumentalists.

4.2.1 Libretto and Translation

As producing a suitable translated libretto can be a mammoth task, it was decided by the production team that the company would use an existing version that is out of copyright and adapt it to be more suitable for their performance. The libretto and source used for the production is based on the book by Basil Hood and the lyrics by Adrian Ross. The adaptation for this production that can be found in Appendix 6 was edited by Alexandra Thackray, David Palmer, Vivienne Sharp, and myself. In the English book, the names of characters were changed such as the widow being called Sonia instead of Hanna, the baron is called Popoff instead of Zeta, and the country they are all from is called Marsovia instead of Pontevedro but we decided to revert the names back to the original Viennese version instead. This decision was made because the audiences were more familiar with the original names which are more widely used. Changes were also made because the references, speech, and jokes may be considered archaic and unsuitable for contemporary sensitivities as the original London production was set in 1907. For example, there was also certain violent imagery in some of the text that has been removed such as “if someone courts another’s wife, he will be shot, of course” (Hood & Ross, 2019, p. 16), as well as references to beating someone black and blue with a cudgel (Hood & Ross, 2019). Furthermore, some of the dialogue was lengthy and it was decided to try and reduce the amount of talking between the musical numbers. For example, there is a section in Act II where Danilo is looking for the owner of a fan. In Hood’s version, this interaction involved the character Njegus (Nisch) and his involvement in this scene may be considered superfluous and was thus removed. It was important to make sure that the overall story was finalised before working on the music as it would affect the order of the musical numbers.

4.3 The Arrangement Process

The process of arrangement will be discussed using the list of ten factors proposed in Chapter 2. Similarly, factors on modern notation and typesetting will not be included as this has already been discussed in Chapter 2. Factors on Instrumental Choice and Timbre will be combined in section 4.3.4. Finally, there was a questionnaire (based on the one used for the performances of *La bohème* and was edited to suit this performance) that captured data from audience, singers, and instrumentalists involved in the performances and this is explored in section 4.4.

4.3.1 Structure

As *The Merry Widow* is a number opera,¹³ it was important to consider the musical numbers that were going to be in the arrangement as well as the order in which they would appear. Especially for an opera with many different versions and alterations, it is important for the arranger to have a clear idea of what the overall skeleton of the work is going to look like. Table 1 below shows the comparison between the original Viennese version compared to the English version by Hood & Ross that was used for the premiere productions at the West End, London and on Broadway, New York. The first two acts are similar between the two versions besides the variations in the name of the characters¹⁴ and some minor discrepancies. For example, in No. 1, the opening is sung by the Baroness in the English version while it is sung by the Baron in the Viennese version. In No. 5, the English version is a solo piece for Camille while it is a duet by Camille and Valencienne in the Viennese version. The musical material, however, is the same. It is from the end of Act II onwards where the versions significantly differ. The English version does not have an Entr'acte at the end of Act II. The opening three numbers of Act III are similar for both versions except for No. 14 where

¹³ Previously mentioned in section 2.2.1, a number opera consists of “individual sections or ‘numbers’ that can readily be detached from the whole” (Grove Music Online, 2001)

¹⁴ The character names in the original Viennese version differ from the English version by Hood & Ross (2019). For example, Hanna and Valencienne in the Viennese version are Sonia and Natalie in the English version respectively.

instead of Valenciennes singing with the grisettes, there is an additional grisette Zozo in the English version that takes on this role. The English version also has two additional numbers in this act, "*Butterflies*" and "*Quite Parisian*". The Viennese version has an additional "*Reminiscence*" number which is musically similar to the opening interlude of Act III.

In this arrangement, I decided to create a version that is a combination of both (see Table 2 below); the characters and their appearance in the music are mostly based on the Viennese version so that the music would work with most text regardless of the translation that is being used. As such, No. 1 opens with the baron singing instead of the baroness, No. 5 is a duet for Valenciennes and Camille, and the "*Entr'acte*", "*Interlude*" and "*Reminiscence*" number is included. However, in No. 4, the Viennese version has a bridge section of 16 bars that is not included in the English version (highlighted blue in Figure 80 below) and the English version is also repeated twice. Therefore, No. 4 in the arrangement is based on the English version as the text from Hood & Ross fits it much better. I have also included the number "*Quite Parisian*" from the English version as a musical number for Njegus (Nisch in the English version) and this is placed slightly higher in the order before the introduction of the grisettes in this arrangement. "*Butterflies*" from the English version was not included as it felt inappropriate for the musical style of the reimagination and did not fit the intended night club atmosphere (see section 4.3.2). Instead, the arrangement included a number from another Lehár opera, *Giuditta* (1934), entitled "*On my lips every kiss is like wine*" rearranged for two sopranos and two altos for the four stronger singers in the group of Grisettes for the production. After the finale in Act III, the director requested music for the cast and company to exit (No. 18) which is an excerpt from a short dance section in No. 7.

Table 1

Comparison of musical numbers between Viennese and English version

Viennese Version	English Version
<u>Act I</u>	<u>Act I</u>
1. Introduction	1. Opening Chorus
1a. Ball Music	1a. Ball Music
2. Duet <i>"So kommen Sie"</i> Valencienne and Camille	2. Duet <i>"A Dutiful Wife"</i> Natalie and Camille
3. Entrance Song and Chorus <i>"Bitte, meine Herren"</i> Hanna	3. Entrance Song and Chorus <i>"In Marsovia"</i> Sonia
3a. Ball Music	3a. Ball Music
4. Aria <i>"O Vaterland"</i> Danilo	4. Song <i>"Maxim's"</i> Danilo
5. Duet Valencienne and Camille	5. Song <i>"Home"</i> Camille
6. Finale	6. Finale
<u>Act II</u>	<u>Act II</u>
7. Introduction, Dance, and Song Hanna	7. Opening Chorus and Song <i>"Vilia"</i> Sonia
8. Duet <i>"Heia, Mädels, aufgeschaut"</i> Hanna and Danilo	8. Duet <i>"The Cavalier"</i> Sonia and Danilo
9. March-Septet <i>"Wie die Weiber man behandelt"</i>	9. March-Septet <i>"Women"</i>
10. Scene and Dance Duet Hanna and Danilo	10. Duet Sonia and Danilo
11. Duet and Romance Valencienne and Camille	11. Duet and Romance <i>"Love in my heart"</i> Natalie and Camille
12. Finale	12. Finale
12a. Entr'acte	
<u>Act III</u>	<u>Act III</u>
12b. Interlude	13. Opening Scene
13. Dance Scene	13a. Cakewalk
14. Grisetette Song	14. Song and Chorus <i>"The Girls at Maxim's"</i> Zozo
14a. Reminiscence	15. Dance and Chorus <i>"Butterflies"</i> Fifi
15. Duet <i>"Lippen schweben"</i> Hanna and Danilo	16. Song and Chorus <i>"Quite Parisian"</i> Nisch
16. Final Song	17. Valse Duet <i>"I love you so"</i> Sonia and Danilo
	18. Finale

Table 2*Musical Numbers in the Arrangement*¹⁵

Arrangement	
<u>Act I</u>	
1. Introduction	
1a. Ball Music	
2. Duet " <i>A Respectable Wife</i> "	
	Valencienne and Camille
3. Entrance Song and Chorus " <i>In Marsovia</i> "	
	Hanna
3a. Ball Music	
4. Song " <i>Maxim's</i> "	
	Danilo
5. Duet	
	Valencienne and Camille
6. Finale	
<hr/>	
<u>Act II</u>	
7. Opening Chorus and Song " <i>Vilia</i> "	
	Hanna
8. Duet " <i>The Cavalier</i> "	
	Hanna and Danilo
9. March-Septet " <i>Women</i> "	
10. Scene and Dance Duet	
	Hanna and Danilo
11. Duet and Romance " <i>Love in my heart</i> "	
	Valencienne and Camille
12. Finale	
12a. Entr'acte	
<hr/>	
<u>Act III</u>	
12b. Interlude	
13. Cakewalk	
14. Song " <i>Quite Parisian</i> "	
	Njegus
15. Song and Chorus " <i>The Girls at Maxim's</i> "	
	Valencienne
15a. Quartet " <i>On my lips every kiss is like wine</i> "	
15b. Reminiscence	
16. Valse Duet " <i>I love you so</i> "	
	Sonia and Danilo
17. Finale	
18. Exit Music	

¹⁵ The vocal score produced by myself and used for the production can be found here:
<https://drive.google.com/file/d/1dhUskYWMnsr41Yy6jeGv68fQA5xRda76/view?usp=sharing>

Figure 80

Lehár's *The Merry Widow* - Original Vocal Score (Lehár, 1906, pp. 25-26)

The image displays two pages of the original vocal score for Lehár's *The Merry Widow*. The left page shows the vocal parts for Tenor (Tn) and Soprano (Sop) with piano accompaniment for Viola and Corno. The right page shows the vocal parts for Tenor (Tn) and Soprano (Sop) with piano accompaniment for Flauto (Fl), Clarinetto (Clar), and Fagotto (Fag). Several sections of the score are highlighted with blue boxes, indicating areas that were removed or modified during staging rehearsals.

During the staging rehearsals, it was discovered that certain sections of the music were too long and at times superfluous. They were removed from the final arrangement. For example, in No. 10, the duet between Danilo and Hanna in which they are mainly speaking on top of the music and at the end they dance and hum the tune together. There is a *Kolo*, a Slavic dance, that was in the original but this was removed because it took a long time. Furthermore, in No. 14, in Njegus's number, the chorus response was removed after discussing with the director as it came across as repetitive.

Finally, in order to accommodate the voices of the singers who were mostly semi-professionals and amateurs, most of the music was transposed down by a tone so that the voices did not have to go too high which meant that they were able to give more power when singing. This also ensured that the cast had the power and stamina to do the shows back-to-back for three nights in a row. Only No. 4 was kept in the original key as it was the requested preference of the singer.

4.3.2 Reimagination

As this concept (as discussed in the ten factors above) was going to have a significant influence on the arrangement, it was crucial to consider the reimagination process early on. It was important to decide the parameters that were going to be changed and those that were to be kept the same. The overall structure of the work was kept similar to the original as discussed earlier in section 4.3.1. Discussion with the artistic committee of OperaViva resulted in the decision that the production would be set in 1920s France and the music would hint at a period of the Jazz Age through the usage of various instrumental colours and harmony. Through this work, I also wanted to reflect the influence of Jazz on European composers such as Kurt Weill and Darius Milhaud (explored later in section 4.3.3). However, as this was produced for an amateur opera company, I had to ensure that it did not deviate too far from the version of *The Merry Widow* that they were used to. Most of the elements that were reimaged were in the choices of instruments (see section 4.3.4), the way in which these instruments were employed and orchestrated (see section 4.3.5), and the harmony was only modified in sections that did not have any involvement of the singers. It was also intended, following discussion with the directors and producers, for Maxim's in Act III to feel like it was set in a cabaret night club and for the music to reflect that. Therefore, using this overall concept of how the reimagination was going to look, it was then important to ensure that the arrangement created the right atmosphere and feel which is discussed in the next section.

4.3.3 Atmosphere and Feel

Jazz started to gain popularity throughout the world at around 1920 to 1930 and this has been loosely known as the Jazz Age. According to Tucker and Jackson (2020), "local jazz bands had sprung up everywhere" and had "also made an impact on European composers of concert music" (The Jazz Age section, para. 2). Examples of these are Darius Milhaud's *La Création du Monde* (1923) in which he used "elements of jazz—rhythmic, melodic, instrumental—in one work" (Bauer, 1942, p. 149) and Kurt Weill's music in Bertolt Brecht's play, *The Threepenny Opera* (1928), in which there is

the influence of modern dance music (jazz) of the time (Hinton, 1990). A song written for the play, *Mack the Knife*, has become a jazz standard and has been recorded by popular names such as Louis Armstrong and Ella Fitzgerald. Specific instrumental colours that are associated with this crossover are the use of an alto saxophone to “replace” the viola in the string section in Milhaud’s piece or the muted trumpet in the music of Weill’s *The Threepenny Opera*. Paris was a significant hotspot for the reception of African American jazz at this time because “French consumer culture was, on the one hand, increasingly shaped by American entertainment culture ... and on the other hand, by cultural forms to which one attributed African origins, a result of colonialism” (Schmeisser, 2007, p. 106). Jazz had spread throughout Paris in the 1920s, and “the new music was particularly associated with the red-light district of Montmartre and was viewed by some as a threat to the traditional ‘chanson.’ For a time it was banned by the Parisian police” (Wynn, 2007, p. 9). The association with jazz works especially well in Act III which is set in Maxim’s, a nightclub in Paris. Therefore, I wanted to create an atmosphere with the arrangement of how it might sound if an orchestrator of the opera had been influenced by the sounds of jazz at that time. The arrangement is intended to sound like a band at a nightclub on a Saturday night in Paris, especially when the opera scene moves to Act III being set in Maxim’s. It is important to note that the arrangement is not a “jazz” version of *The Merry Widow* but is instead an arrangement that uses the original musical material to hint at the sounds of dance music of the time, creating the feeling of being surrounded by the prevalence of the sounds and colours. Hence, in order to recreate this, the music has to reflect the timbres of instruments that might have been associated with creating this atmosphere and feel, leading us to the next factor on instrument choice.

4.3.4 Instrument Choice and Timbre

The instrumental choices and the timbre associated with them are important to consider. As mentioned earlier in section 2.2.3, the instrumentation can easily become a limiting factor and must be carefully considered. A logistic constraint due to the variable yet extremely tight spaces of the

various performance venues (see Figure 81 below) and the budget available for hiring instrumentalists resulted in the final number of eight. It was therefore crucial that the arrangement still allowed a breadth of colours even with the limited numbers. Hence, the arrangement for *The Merry Widow* was for eight instruments: a flute (doubling piccolo), a clarinet (doubling alto saxophone), a trumpet, a piano, a violin, a viola, a cello, and a bass. The original version has two flutes (both doubling piccolo), two oboes, two clarinets, two bassoons, four horns, two trumpets, three trombones, glockenspiel, timpani, percussion (triangle, side drum, bass drum, cymbals), harp, and strings, with an on-stage band of strings and tamburica.¹⁶ It was decided that the arrangement would not have any percussion because of the limited performance space as well as the logistical issue of hiring and travelling with a set of percussion instruments. As this is a reimagination, it was still possible to make the music come to life without the use of any percussion instrument.

Figure 81

Photo of performance at Mossley Hill Club



¹⁶ Tamburica (Tamburitza/Taburizza) is a family of long-neck lutes popular in southern and central Europe (March, 2012).

Inspiration for the instrumentation choices came from Stephen McNeff's arrangement of Bizet's *Carmen* (2014) which was described as having "smoky atmosphere" and as a "burlesque, ironic cabaret" (Power, 2014). In that, he scored for a flute (doubling piccolo), a clarinet (doubling alto saxophone), another clarinet (doubling bass clarinet), a trumpet, a guitar, a percussion, a violin, a viola, a cello, and a bass. In order to keep the number of instruments in the ensemble down, I have used a string quartet similar to McNeff instead of the usual string quintet normally seen in such arrangements. However, this quartet was not the typical string quartet of two violins, viola, and cello, but instead consists of violin, viola, cello, and bass. This meant that the string section in this arrangement covered the entire range possible for string instruments. Furthermore, the use of the bass is preferred as it is a foundation in jazz/jazz-inspired work, especially "through the depth and penetration of its tonal quality" (Feather, 1957, p. 164). It was important that the ensemble setup had alto saxophone and trumpet, as inspired by their usage by Milhaud and Weill (as mentioned above in section 4.3.3). The alto saxophone is an appropriate addition because it was sometime in the late 1920s that "it cross[ed] the line successfully [into jazz] after decades of identification principally with brass bands" (Feather, 1957, p. 131). It is also known to have a versatility in both a "classical" style and a "jazz" style; for example, the Yamaha (n.d.) website writes on the different types of saxophones:

With jazz, the ideal instrument allows players to express their individuality ... The raspy tones and buzz of the instrument contribute to the texture of the music. With classical music, the player must perform with the many other instruments in the orchestra, and so they prefer an instrument with a clean, finely controlled pitch ... the instrument can appear to be almost as straight as a clarinet. (para. 1)

This is also reflected in Reymore's (2022) paper on timbre trait profiles in which the saxophone had a less consistent rating compared to other instruments most likely due to this difference; this meant that the image of what a saxophone sounds like between different people is

not consistent. This is similar for the trumpet with its flexibility, especially evident through the use of mutes, with “a quiet and almost ethereal tone ... from the so-called Harmon mute ... and the growl or ‘wa-wa’ effect is produced by the rubber plunger” (Feather, 1957, p. 105). More on this effect will be discussed in section 4.3.5 with examples of its usage in the arrangement. Finally, the piano is a regular feature in jazz as it provides “the outlet for triply rich expression in the fields of melody, rhythm and harmony, while all the horns, capable of but one note at a time, are limited to the first two of these” (Feather, 1957, p. 85). Together, these eight instruments seem to be a good combination to create the sound I have envisioned for the arrangement.

4.3.5 Reallocating Lines and Dealing with Divisi and Multiple Stops

This is at times easier than producing the direct reduction of *La bohème* as the aim of the arrangement of *The Merry Widow* is not to recreate the same sounds intended by Lehár, but to recreate a totally different sound world. This makes the reallocation of lines in this situation a different kind of creative process as there is no previous baggage and the main restriction is limited by the pre-existing musical material, the available instruments in the ensemble, and the scope which the reimagination allows. It was important to highlight the various important lines to make sure that they translate well for the ensemble available while recreating the intended sound. Also, as this was written for eight musicians instead of a large orchestra, it was important to ensure that there was suitable balance between the lines between the strings, the woodwinds, and the brass. Finally, it was crucial to include the relevant performance markings in the various parts, especially in the solo lines to make sure that the intended character of the reimagination comes through. Examples will be shown later in this section.

As mentioned in section 4.3.1, most of the musical numbers in the arrangement have been brought down a tone making multiple stopping in the strings problematic. In the original key, Lehár often uses multiple stops which are idiomatic for the instrument. For example, as seen in Figure 82 below which is an example from No.1 in the original, the violin has a quadruple stop in bar 116, a

triple stop in bar 119, and a quadruple and double stop in bar 120. The writing for this works really well as he uses a lot of the open strings on the violin; the low G and D in the quadruple stops, the D in the triple stop, and the low G in the double stop; the fingerings for the stopped notes are also straightforward. However, when the music is brought down a tone (see Figure 83 below), the lowest note in the quadruple stop becomes unplayable as it is out of range (lowest note in violin is a G), there is a reduced number of open strings and the stopped notes have awkward fingerings after the transposition. As such, most of the multiple stops in the strings for this arrangement were removed and the chords are reorchestrated across the ensemble.

Figure 82

Lehár's The Merry Widow - Original Violin I, No. 1, Bars 116-120



Figure 83

Lehár's The Merry Widow - Violin I, No. 1, Bars 116-120, transposed down a tone



Similar to the case of the arrangement of *La bohème*, it was at times essential in this arrangement for lines to be doubled by more instruments to compensate for the reduced ensemble size. An example is from bar 81 of No. 3 as seen below in Figure 84. The melody sung by Hanna needs to be supported by something substantial and this is done by using the violin, viola, and cello doubling the voice in octaves. In the original, this is played by the cello section and a clarinet while

the rest of the string section creates the waltz beat. Although the beat is important, it is secondary to making sure that the melody is well supported. As such, the arrangement has the bass and piano playing the waltz beat instead, with the flute and clarinet focusing on the ornamentations.

Figure 84

Lehár's The Merry Widow - Arrangement, No. 3, Bars 81-87

The musical score for Figure 84 consists of eight staves. The top staff is for Flute (Fl.), marked 'pp' and 'D Valse'. The second staff is for Clarinet (Cl.), also marked 'pp' and 'D Valse'. The third staff is for Horn (Han.), with lyrics: 'that is how we wed, there's no - thing more that need be said.' The fourth staff is for Piano (Pno.), marked 'p'. The fifth staff is for Violin (Vln.), marked 'D Valse'. The sixth staff is for Viola (Vla.), marked 'D Valse'. The seventh staff is for Violoncello (Vc.), and the eighth staff is for Double Bass (Db.).

There is a versatility in the viola for a string quartet like this. While it can take on viola-specific lines and solos, it can also take on various capacities within the ensemble. The viola might be used as a “second violin” in certain sections by doubling the violin rhythmically in octaves or in harmony; second violins in a full orchestra often have this role. For example, as seen in Figure 84 above and Figure 85 below, the viola doubles the violin at an octave throughout this passage. In contrast, the viola can also act as part of the lower string section, while the violin plays a different

line. For example, in another passage in No. 3 as shown in Figure 86, the violin plays the melody line while the viola joins the cello and bass in playing the accompaniment.

Figure 85

Lehár's The Merry Widow - Arrangement, No. 3, Bars 69-76

Figure 85 shows a musical score for bars 69-76 of Lehár's *The Merry Widow* Arrangement, No. 3. The score includes parts for Clarinet (Cl.), Horn (Han.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The Clarinet part features a melodic line with a 'rit.' marking and a 'f' dynamic. The Horn part has lyrics: 'us get mar-ried now, I've a horse and a rig. My fa-ther has a cow, and your mo-ther has a'. The Piano part is marked 'p'. The Violin, Viola, Cello, and Double Bass parts are marked 'mf' and 'f'.

Figure 86

Lehár's The Merry Widow - Arrangement, No. 3, Bars 121-125

Figure 86 shows a musical score for bars 121-125 of Lehár's *The Merry Widow* Arrangement, No. 3. The score includes parts for Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The Violin part is marked 'Mazurka' and 'F'. The Viola, Cello, and Double Bass parts are marked 'pp'.

It was important to consider the pizzicato in the strings to make sure that they are able to have an appropriate amount of power to balance with the rest of the ensemble. An example is in the introductory opening bars of No. 4 whereby the strings were simplified to crotchets and quavers in

the arrangements so that they are able play at a louder dynamic as seen in Figure 87 below. The strings in the original as shown in Figure 88 have to play repeated semiquavers as pizzicato. If replicated in the arrangement, this introduction will not come across as effectively due to the lack of power from plucking repeated notes. However, the strings play semiquavers later in this musical number when the dynamic is written “*pp*” and does not require much power.

Figure 87

*Lehár's The Merry Widow - Original Score, No. 4, Bars 1-4*¹⁷

Allegretto

1. Violinen

2. Violinen

Violen

Violoncelli

Kontrabässe

pizz.

arco

mf

p

pizz.

arco

mf

p

pizz.

mf

pizz.

mf

pizz.

mf

Figure 88

Lehár's The Merry Widow - Arrangement, No. 4, Bars 1-4

Allegretto

Violin

Viola

Violoncello

Double Bass

pizz.

arco

mf

p

pizz.

arco

mf

p

pizz.

mf

pizz.

mf

¹⁷ Note that the full score is used for illustration purposes only as clarified in section 4.2, the arrangement was made from the parts that are out of copyright.

The trumpet is employed in a myriad of ways in the arrangement. At times, the trumpet is used sparingly to add a distinct colour contrast, sometimes with the various mutes (cup, straight, and Harmon). For example, in No. 1 as seen below in Figure 89, the trumpet with a cup mute is added to lightly support Cascada's singing. This creates a timbre contrast from the flute and clarinet in the bars before reflecting the character change of the text.

Figure 89

Lehár's The Merry Widow - Arrangement, No. 1, Bars 65-76

The use of the trumpet with a Harmon mute is significant in this arrangement. The first appearance of this is in No. 4, as seen in Figure 90 below. There is a performance instruction for the music to be played “*sensually, with wah-wah effect*” to recreate sounds that might have been heard by various jazz trumpeters from that time. Joe “King” Oliver¹⁸ who was a leading cornet¹⁹ player in jazz and often created the “wah-wah” effect by using “his hand to manipulate his Conn ball mute,

¹⁸ Oliver, 1881-1938, was a mentor to renowned jazz trumpeter, Louis Armstrong.

¹⁹ The difference between cornet and trumpet jazz musicians are largely academic at that time, in that they are often used interchangeably and often indistinguishable (Feather, 1957).

moving it in and out of the bell to alter his sound ... [but it was] an awkward technique and can wreak havoc with a player's intonation" (Aldag, 2002, p. 17). This resulted in the Harmon mute being invented by Tom Harmon to reduce the difficulties of intonation when producing the effect that Oliver was popularising (Aldag, 2002). I have associated the trumpet's use of the Harmon mute and the "wah-wah" effect in this arrangement with Maxim's to create the feeling and atmosphere of a "smoky" jazz/night club. Often, this is where Danilo sings "I'm happy at Maxim's ...".

Figure 90

Lehár's The Merry Widow - Arrangement, No. 4, Bars 32-44

The musical score for Figure 90 consists of ten staves. The top staff is for Flute (Fl.), followed by Clarinet (Cl.), Trumpet (Tpt.), Danila (Dan.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The score is marked with a box containing 'B' and 'Langsamer'. The trumpet part is specifically marked 'harmon mute' and 'mp sensually, with wah-wah effect'. The piano part is marked 'p'. The Danila part includes the lyrics: 'cent. I'm hap-py at Ma-xim's, where fun and fro-licbeams. With all the girls I chat-ter, I laugh and kiss and flat-ter. Lo-lo, Do-do, Jou-jou, Clo-clo, Mar-got, Frou-frou! For'. The score includes various musical notations such as notes, rests, and dynamics.

This melody/motif in the trumpet with a Harmon mute is most prominent in Act III where it is set in Maxim's. When it appears "properly" in No. 12b (the introductory number of Act III) and No. 14a, the two numbers open with just the trumpet and piano to create the sense of a jazz duo playing music in the background of a nightclub. The harmony of the accompaniment is modified slightly

from the original to include sevenths and ninths to add to the atmosphere. No. 14a is the most extended version of this as the melody is repeated twice; the first has the string quartet coming in quietly with the voices of the grisettes as seen below in Figure 91 before going into the second time that is the same as that which is written in No. 12b.

Figure 91

Lehár's *The Merry Widow* - Arrangement, No. 15b, Bars 1-18

Andante

Flute

Trumpet in B_b

Piano

Fl.

Cl.

Tpt.

Pno.

Vln.

Vla.

Vc.

Db.

harmon mute

p sensually, molto vibrato

p

9

Grisettes: "la, la, la..." (with the melody)

harmon mute

p sensually, molto vibrato with wah-wah effect

ppp

pp

pp

pp

pp

pp

pp

The trumpet with a Harmon mute followed by the alto saxophone is also used during intimate moments to reflect Danilo and Hanna's feelings for each other. For example, in No. 6 as shown below in Figure 92, they start dancing together for the first time in a slow waltz. The melody is first played by a trumpet with a Harmon mute and is later passed onto the alto saxophone. I have used the combination of these two instruments to represent special moments between Hanna and Danilo throughout the arrangement. For example, a waltz in No. 10 in which they are both dancing together is played by the alto saxophone and then the trumpet with a Harmon mute as shown in Figure 93 below. This same melody also opens the final duet in Act III before Danilo finally declares his love for Hanna in No. 16, as seen below in Figure 94.

Figure 92

Lehár's The Merry Widow - Arrangement, No. 6, Bars 415-430

415 **P** Valse moderato

Fl.

Cl.

Alto Saxophone
p

harmon mute
Tpt.
pp with wash-wash effect

Han.

No. 1

Pno.

P Valse moderato

Vln.
pp

Vla.
pp

pizz.
Vc.
pp

pp
pizz.
Db.

Figure 93

Lehár's *The Merry Widow* - Arrangement, No. 10, Bars 145-161

Figure 93 shows the musical score for Lehár's *The Merry Widow* - Arrangement, No. 10, Bars 145-161. The score is divided into two systems. The first system (bars 145-152) features the Flute (Fl.) and Alto Saxophone (Alto Sax.) parts, with the Flute part marked "Valse lento rit." and the Alto Saxophone part marked "p dolce". The string parts (Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.)) are marked "p" and "pizz.". The second system (bars 153-161) features the Alto Saxophone (Alto Sax.), Trombone (Tpt.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.) parts. The Alto Saxophone part is marked "p dolce, with wah-wah effect" and "harmon mute". The Violin and Viola parts are marked "arco". The Trombone part is marked "p dolce, with wah-wah effect". The Violoncello and Double Bass parts are marked "p".

Figure 94

Lehár's *The Merry Widow* - Arrangement, No. 16, Bars 1-17

Figure 94 shows the musical score for Lehár's *The Merry Widow* - Arrangement, No. 16, Bars 1-17. The score is divided into two systems. The first system (bars 1-8) features the Alto Saxophone (Alto Saxophone), Violin (Violin), Viola (Viola), Violoncello (Violoncello), and Double Bass (Double Bass) parts. The Alto Saxophone part is marked "Valse moderato" and "p dolce". The Violin and Viola parts are marked "Valse moderato" and "p". The Violoncello and Double Bass parts are marked "pizz." and "p". The second system (bars 9-17) features the Alto Saxophone (Alto Sax.), Trombone (Tpt.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.) parts. The Alto Saxophone part is marked "p dolce, with wah-wah effect" and "harmon mute". The Violin and Viola parts are marked "arco". The Trombone part is marked "p dolce, with wah-wah effect". The Violoncello and Double Bass parts are marked "p".

The alto saxophone is also used again in this way in No. 10 for a different melody, where it is an intimate duet between Hanna and Danilo in Act II. At this point, it signifies the moment where they are about to dance together again. It then passes on to the trumpet with a Harmon mute playing the Maxim's melody where Danilo jokingly sings about it to Hanna. This can be seen in Figure 95 below. This is reprised in No. 12 as seen in Figure 96 below, but this time Danilo is angry with Hanna for leading him on and storms off to Maxim's. The use of the saxophone and trumpet with a Harmon mute together is associated with the tension of their feelings for each other throughout this arrangement.

Figure 95

Lehár's The Merry Widow - Arrangement, No. 10, Bars 89-100

The musical score for Figure 95 is for Lehár's *The Merry Widow*, Arrangement No. 10, Bars 89-100. The tempo is *Allegretto Moderato* and the time signature is 2/4. The key signature has two sharps (D major). The score includes parts for Alto Saxophone, Trumpet, Dan. (Danilo), Piano, Violin, Viola, Violoncello, and Double Bass. The Alto Saxophone part starts with a melody marked *mf sensually* and *f*. The Trumpet part enters with a melody marked *p sensually, molto vibrato* and includes the instruction *harmon mute*. The Dan. part has lyrics: "Dan: Perhaps you prefer a Frenchman?" and "He'll bring you to Maxim's, where fun and fro-lic beams...". The Piano part has a *ppp* marking. The Violin, Viola, Violoncello, and Double Bass parts have dynamic markings of *f* and *p*.

Figure 96

Lehár's *The Merry Widow* - Arrangement, No. 12, Bars 387-401

The musical score for Figure 96 is divided into two systems. The first system, covering bars 387-401, begins with a tempo change from *Allegro* to *Andante*. It features a vocal line with lyrics: "Where will you be go - ing? Danse! Where...? Where I won't see you a - gain." The instrumental parts include Clarinet (Cl.), Trumpet (Tpt.), Horn (Han.), Danseuse (Dan.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The second system, covering bars 293-303, changes to *Allegretto* and includes lyrics: "I'll go off to Ma - xim's! I'm done with lo - vers' dreams. The girls will laugh and greet me, they will not trick and cheat me. Lo -".

Throughout the opera, there are moments where there is a fanfare-like motif that reflects the start of various sections in order to direct everyone's attention to the scene. No. 7, which is the start of Act II, is an example and this part of the arrangement works effectively when this is played by a trumpet and a clarinet doubles it in octaves as shown in Figure 97 below. Another example is in No. 15, as shown in Figure 98 below. This is effective as the clarinet adds depth to the trumpet at the lower octave to give it a greater weight in this smaller size ensemble. In the original, these sections were written for two trumpets and four horns. The combination of these two instruments is also useful in other sections associated with the usage of brass instruments such as the march section from bar 291 in No. 6.

Figure 97

Lehár's *The Merry Widow* - Arrangement, No. 7, Bars 1-4

Polonaise

Flute

Clarinet in A

Trumpet in B

Piano

Violin

Viola

Violoncello

Double Bass

Figure 98

Lehár's *The Merry Widow* - Arrangement, No. 15, Bars 50-53

50

C
Trio

Cl.

Tpt.

Val.

Lo.
Do.
Jou.

Frou.
Clo.
Mar.

Vln.

Vla.

Throughout the arrangement, I made use of the variety of instrumental colours to create interest as well as contrast within a musical number. An example is in No. 2 which has five distinct instrumental timbres to carry the melody and double the voices; the alto saxophone, the trumpet with a cup mute, the woodwinds (flute and clarinet), the strings, and strings when playing pizzicato. They are used to demarcate the different sections in the phrase. After the short introduction, the song starts with Valencienne singing that she is “*a respectable wife*”. As it felt appropriate for the start of this section to be marked by a distinct change in colour, the alto saxophone doubles the voice subtly (at a piano dynamic) but expressively (as indicated by the “*expressive*” performance marking) as seen in Figure 99. The saxophone makes a brief reappearance at the end of bar 47 where there is a mention again about being a respectable wife. When there is a slight change in the mood whereby the text is more questioning and uncertain (“*I lose if I love you, and what are you winning? Ah! Break off this folly, where it’s just beginning!*”), the trumpet with a cup mute (supported by the violin and viola rhythmically in harmony) is introduced to double the voice in order to give it a feeling of ambiguity as seen in Figure 100. The woodwinds and pizzicato strings then take over the phrase as the music becomes lighter and quicker from bar 53.

Figure 99

Lehár’s The Merry Widow - Arrangement, No. 2, Bars 33-40

The musical score for Figure 99 shows the instrumental arrangement for bars 33-40. The score is in G major and 2/4 time, marked *Allegretto moderato*. The vocal line (Valencienne) is in the upper part of the score, with lyrics: "I'm a res-pect-a-ble wife, A se-cure, pre-dict-a-ble life. It brings but trou-ble and dan-ger, to lis-ten to love from a stran-ger. My". The Alto Saxophone part is marked *p expressive* and features a melodic line that closely follows the vocal line. The piano accompaniment is marked *pp* and features a rhythmic pattern of eighth notes. The string parts (Vln, Vla, Vc, Db) are marked *pp* and *pizz.* (pizzicato). The tempo is marked *Allegretto moderato*.

Figure 100

Lehár's *The Merry Widow* - Arrangement, No. 2, Bars 48-53

The musical score for Figure 100 shows the arrangement for bars 48-53. The piano part is highlighted with a red box. The score includes the following parts and markings:

- Flute (Fl.):** Rests throughout the section.
- Alto Saxophone (Alto Sax.):** Rests throughout the section.
- Trumpet (Tpt.):** Plays a melodic line with a *cup mute* and *mf molto vibrato* marking.
- Violin (Vln.):** Plays a melodic line with *mf* and *a tempo animato* markings.
- Viola (Vla.):** Plays a melodic line with *mf* and *a tempo animato* markings.
- Violoncello (Vcl.):** Plays a melodic line with *mf* and *arco* markings.
- Double Bass (Db.):** Plays a melodic line with *mf* and *arco* markings.
- Piano (Pno.):** Plays a chordal accompaniment with *mf* and *a tempo animato* markings.

The lyrics for the vocal part are: "wife? I lose if I love you, and what are you win - ning? Ah! Break off this fol - ly, while it's just be - gin - ning! Take".

Similar to the arrangement of *La bohème*, the piano is one of the most versatile instruments in the arrangement but its utilisation should be treated carefully. It was important that the piano was used sparingly but effectively. In this arrangement, it was used to render some of the harp parts where it was needed as the notes transfer across to the piano quite idiomatically. Furthermore, the piano was also useful in this arrangement to lend its weight to certain sections. For example, in No. 7, there is a particular section whereby the four string instruments are playing *col legno*, where they have to use the wood of their bow to hit their strings. The result is a rather percussive effect that has more of a hitting sound than pitch. Therefore, the piano was utilised to play the same chords at the same time to reinforce the strings so that both the percussive effect and pitch is heard in equal measure as shown below in Figure 101.

Figure 101

Lehár's *The Merry Widow* - Arrangement, No. 7, Bars 38-49

The musical score for Figure 101 consists of seven staves. The top two staves are for Flute (Fl.) and Clarinet (Cl.), both in 2/4 time. The Flute part begins with a rest in bar 38 and then plays a melodic line starting in bar 39. The Clarinet part also begins with a rest in bar 38 and then plays a melodic line starting in bar 39. The Piano (Pno.) part plays a rhythmic accompaniment of chords throughout. The bottom four staves are for Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.), all in 2/4 time. The Violin part is marked 'Vivace col legno' and 'f'. The Viola part is marked 'col legno' and 'f'. The Violoncello part is marked 'col legno' and 'f'. The Double Bass part is marked 'col legno' and 'f'.

In addition, the piano is able to act as a contrasting voice in the arrangement. An example is in No. 7 whereby a motif is played by two oboes and is answered by two flutes in the next bar in the original. In order to create a similar effect of contrasting colours in this small ensemble, the arrangement has the piano in the first bar and the response in the next bar is played by flute and clarinet as seen in Figure 102 below. The piano works extremely well in this situation lending an extra set of colours to contrast with, especially since it is able to play multiple notes at once.

Figure 102

Lehár's *The Merry Widow* - Arrangement, No. 7, Bars 150-153

150 *a tempo*

Fl. *pp*

Cl. *pp*

Han.
Sud - den - ly a tre - mor ran, right through the love - bewildered man,
As be - fore her feet he lay, she va - nished in the wood a - way,

Pno. *pp*

a tempo

Vln. *pp*

Vla. *pp*

Vc. *pp*

Db. *pp*

Finally, the arrangement compensates for the missing timpani by making use of the cello, bass, and piano. For example, in the original at the start of No. 3, there is a timpani roll. In order to recreate the feeling of suspense created by this timpani roll, the arrangement uses the piano playing tremolo octaves in the left hand which blends well with the octaves in the cello and bass, as shown in Figure 103 below. This is done a few times throughout the arrangement. Another example is in no. 12 as shown in Figure 104 below.

Figure 103

Lehár's *The Merry Widow* - Arrangement, No. 3, Bars 1-6

Allegro

Flute

Clarinet in A

Trumpet in Bb

Piano *fp*

Violin *fp*

Viola

Violoncello *fp*

Double Bass *fp*

con Ba

Figure 104

Lehár's *The Merry Widow* - Arrangement, No. 12, Bars 85-90

85 Allegro

Fl. *f*

Cl. *f*

Tpt. *f*

Han. Hanna: Now, ladies and gentlemen, you will know what was arranged in the arbour. (aside) It's neck or nothing. Now I play my trump card!

Pno. *fp*

Vln. *f*

Vla. *mf*

Vc. *f*

Db. *f*

4.3.6 Dynamics and Balance

There are moments where the various lines are reallocated in the arrangement so that there is a better balance between the different elements. The opera starts immediately without an overture in No. 1 with only a quick introduction. The arrangement uses the entire ensemble at the beginning of this opera in order to create an impact that signifies the start of the opera by making it

as full sounding as possible. Due to drastic reduction in the number of instruments compared to the original, the writing in the arrangement is as “clean” as possible by ensuring there is nothing that is written in excess. This is done by making sure that doublings are kept to a minimum and used for specific reasons, especially when the parts are covered by the voices. For example, from bar 109 in No. 1, the entire cast and chorus sings the melody. This is doubled by two oboes, two clarinets, and a cello section in the original. However, as seen in Figure 105, this is only doubled by one cello in the arrangement. This allows the other instruments in the arrangement to focus on the other lines to ensure the balance with the full set of voices on stage. This principle was maintained throughout the arrangement.

Figure 105

Lehár’s The Merry Widow - Arrangement, No. 1, Bars 109-116

The musical score for Figure 105, titled "Lehár’s The Merry Widow - Arrangement, No. 1, Bars 109-116", is presented in a standard musical notation format. The score is divided into two systems, each marked with a rehearsal sign [H]. The first system covers bars 109 to 114, and the second system covers bars 115 to 116. The vocal parts include Soprano (S.), Alto (A.), Tenor (T.), Bass (B.), Camerata (Cam. St. B.), Zeta, and Cas. Kro. The instrumental parts include Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vla.), Cello (Vc.), Double Bass (Db.), and Piano (Pno.). The lyrics for the vocal parts are: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." The score includes dynamic markings such as *f* (forte), *mf* (mezzo-forte), and *p* (piano). The key signature is one flat (B-flat major or D minor), and the time signature is 2/4.

No. 1a, which is exactly the same as No. 3a, is a light waltz to accompany the cast when they deliver their dialogue between the numbers. In the original, there are two options in which these numbers can be played. It might be performed by a string quintet if the instrumentalists were on stage as part of the scene or by the orchestra in the pit which consisted of the same string parts with added woodwind instruments. It was most likely only written for strings if the instrumentalists were onstage so that they would not take up too much space and Lehár probably did not want the music to detract from the dialogue by being too loud. As this arrangement is intended to be effective in a variety of venues, it is most likely that the instrumental ensemble will share the same space as the stage. This was the case for the performances with OperaViva. Therefore, as seen in Figure 106 below, the ornamentation that was written in the clarinet part in the original was not included in this arrangement. In the arrangement as seen below in Figure 107, the viola harmonises with the melody in the violin. The piano is added softly (written *pp* as compared to *mf* in the strings) to supplement the pizzicato in the cello and bass in order to create a richer harmony. The writing here is written very subtly so that the music will not overpower the voices that will be speaking. There is also a cue written in the right hand of the piano so that if it is desired, the entire number can be played by the piano alone without the strings.

Figure 106

Lehár's The Merry Widow - Original Clarinet Part, No. 1a, Bars 1-13



Figure 107

Lehár's *The Merry Widow* - Arrangement, No. 1a, Bars 1-13

The image shows a musical score for five instruments: Piano, Violin, Viola, Violoncello, and Double Bass. The title is "Walzer (use in right hand)". The Piano part starts with a *pp* dynamic. The Violin and Viola parts start with a *mf* dynamic. The Violoncello and Double Bass parts start with a *pizz.* dynamic and a *mf* dynamic. The score is in 3/4 time and G major.

Quite often the dynamics in the arrangement are different from the original so that it would work for this particular ensemble. For example, in No. 6, in order to ensure that the ensemble does not overwhelm the voices on stage even with the smaller ensemble, a diminuendo is added in bar 438 with “*p*” indicated in bar 439 so that Hanna would be able to be heard above the texture. This is important as the violins are also playing high in the register. This can be seen in Figure 108 below.

Figure 108

Lehár's *The Merry Widow* - Arrangement, No. 6, Bars 432-441

The image shows a musical score for nine instruments: Flute, Alto Saxophone, Trumpet, Horn, Piano, Violin, Viola, Violoncello, and Double Bass. The title is "Walzer". The Piano part starts with a *pp* dynamic. The Violin and Viola parts start with a *mf* dynamic. The Violoncello and Double Bass parts start with a *p* dynamic. The score is in 3/4 time and G major. The lyrics "You're a ve - ry bad man..." are written under the Horn part.

4.3.7 Performance Markings

There are discrepancies and a lack of clarity in the way fermatas and caesuras are indicated throughout original music. At certain points, it is unclear whether a fermata or caesura is intended, as can be seen in No. 4 as seen in Figure 109 below where there is both. A fermata may sometimes be put above a caesura to indicate a longer pause between the sections. However, as the length of this would be at the discretion of the conductor, it would be superfluous to indicate it in this way. As such, the arrangement just has the caesura. This can be seen below in Figure 110.

Figure 109

Lehár's The Merry Widow - Original, No. 4, Bars 7-10

7

1. Fl.

Picc.

1. Ob.

2. Ob.

1. Klar. in A

2. Klar. in A

1. Fag.

2. Fag.

1. u. 2. Hr. in F

3. u. 4. Hr. in F

1. u. 2. Ttp. in F

1. 2. 3. Pos.

Pk.

Trgl.

Hf.

Dan. *Eszellenz!*

1. Vl. *pizz*

2. Vl. *pizz*

Va. *pizz*

Vc. *pizz*

Kb. *pizz*

Figure 110

Lehár's *The Merry Widow* - Arrangement, No. 4, Bars 8-11

The musical score for Figure 110 consists of ten staves. The top five staves are for Piccolo (Picc.), Clarinet (Cl.), Trumpet (Tpt.), Danseuse (Dan.), and Piano (Pno.). The bottom five staves are for Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The score is in 3/4 time and marked 'Allegretto moderato'. The lyrics for the Danseuse part are: 'My fa - ther - land calls out to me, I ought to work from one to'. The score includes dynamic markings such as *mf* and *p*, and performance instructions like *pizz.* and *arco*. A first ending bracket labeled 'A' spans bars 8-11.

Furthermore, there are moments in the original whereby there are pauses indicated on the bar lines which makes the intention of the musical outcome unclear. It is hard to tell whether Lehár intended for there to be a break of silence between the bars or whether the musicians were meant to linger longer on the last note in the bar before. This can be seen in the original at the end of No. 8, as shown in Figure 111 below. As such, the arrangement has the first fermata replaced by a caesura and the second fermata removed as shown in Figure 112.

Figure 111

Lehár's *The Merry Widow* - Original, No. 8, Bars 106-112

106 **langamer** **Allegro**

1. Fl.
Picc.
1. u. 2. Ob.
1. Klar. in A
2. Klar. in A
1. u. 2. Fag.
1. u. 2. Hr. in F
3. u. 4. Hr. in F
1. u. 2. Tpt. in F
1. 2. 3. Pos.
Gtp.
Pk.
Tpt.
Kl. Tr.
Gr. Tr. u. Bsk.
Hr.
Han. *(Mehr ruhig vorher)*
Dummes, dummes Rai-ter, sei-est, sei-est wei-ter. Dummes, dummes Rai-ten - man!
Dan.
1. Vl.
2. Vl.
Va.
Vc.
Cb.

Figure 112

Lehár's *The Merry Widow* - Arrangement, No. 8, Bars 106-112

106 **langamer** **Allegro**

Picc.
Cl.
Tpt. *cup mute*
Han.
Pno.
Vln. **langamer** **Allegro** *pizz.*
Via. *mf* *f* *ff* *pizz.*
Vc. *mf* *f* *ff* *pizz.*
Cb. *mf* *f* *ff* *pizz.*

Sil-ly, sil-ly horse-man, ride u-pon your course, man! Sil-ly, sil-ly ca - va - lier!

There are performance markings that are not in the original and these instructions need to be clearly written in the music. An example is the “wah-wah” effect that was described in section 4.3.5 earlier. The style and characteristics in which to perform the effect naturally is impossible to notate without the outcome sounding contrived. As such, it is preferable and more effective for the notation to depict the main line and to just include an expressive marking such as “with wah-wah effect”. This leaves room for the instrumentalist to recreate the stylistic idea in a way that is natural for them. For example, internationally acclaimed saxophonist Rob Buckland mentioned in his interview with conductor Clark Rundell for ConductIT²⁰ that much of stylistic jazz playing comes from an aural tradition and that it is often difficult to reflect that in the notation; they compare this to dialects of the same language whereby there may be different inflections and sound when speaking the same sentence (ConductIT, 2021).

Because the music is transposed down a tone, there are certain notes that are outside the normal range of the flute.²¹ Most of the time the notes are rewritten so that they are within range. However, there are some cases whereby the flute is requested to play a low B and this can be done if they have a B footjoint. Therefore, instead of replacing those notes with a rest, I have notated these notes with a bracket to indicate that while it is preferable to have these notes where possible, it is optional. An example is in No. 12 as seen below in Figure 113.

Figure 113

Lehár's The Merry Widow - Arrangement Flute Part, No. 12, Bars 61-66



²⁰ ConductIT is a free online resource for conductors funded by the EU Erasmus+ Programme. It was built by the Royal Northern College of Music, Stavanger University, Aveiro University, and the Open University.

²¹ The lowest note for a flute is typically C.

4.3.8 Purpose and Audience Enjoyment

“The main point I wish to make is that we do not just enjoy an operetta because of its relevance to us today, we also take pleasure from its being a social and cultural document that enhances our understanding of the time in which it was written.”

- Derek Scott (2019, p. 87)

There were three main purposes for producing this arrangement of *The Merry Widow*: 1) for the amateur singers in OperaViva to have the experience of performing a fully-staged opera live with an instrumental ensemble; 2) for the production to be able to be performed in a variety of venues, including those that were small; and 3) for the audience to enjoy a version of the opera that had a reimagined soundscape that reflected the setting and staging. As such, it was important that the singers had adequate amounts to do in the arrangement, while still ensuring that they were still achievable for them. The arrangement also had to be suitable for travel and work in venues where space might be tight. Hence, the decisions in the ten factors had to reflect all this such as choosing the right instrumentation that worked both musically and logistically such as not using any instruments that were too big or cumbersome. It needed careful consideration to ensure that the music highlights the colours that might have been heard during the Jazz Age without changing the original musical material too much that might put off the singers and audiences who were used to the original version. It was important to keep this balance for the enjoyment of the audiences and singers.

Furthermore, by taking on what I have learnt from the questionnaires used in *La bohème*, the audience and musicians involved in *The Merry Widow* were given questionnaires to respond to and the results are shown in the next section below. The questionnaire was different from those used in *La bohème* to include questions that were more specific to the act of reimagining the opera as well as to account for any possible shortcomings that were highlighted previously.

4.4 Feedback from Questionnaire

4.4.1 Introduction

The musical work explored in this current chapter is my own arrangement of Lehár's *The Merry Widow*. As mentioned previously in section 2.2.10 and 3.4, there is no scholarship considering the perception of listeners with regards to how decisions in creating these arrangements were made. Existing scholarship has been concerned with the creation process rather than the listening process. This chapter presents a questionnaire study that was undertaken with an audience listening to my arrangement of *The Merry Widow* live. Similar to the questionnaire on *La bohème*, participant numbers were too low to make statistically significant observations in most cases. However, the results from the questionnaire will hopefully allow for some understanding of the audiences', singers', and instrumentalists' perception of the arrangement. The questionnaire also explores how audiences feel about hearing a popular work which has been reimagined.

4.4.2 Research Questions

1. How well did the arrangement convey the story, given that this work is a reimagination?
2. How effective was the arrangement (for example, to what extent did audiences consider this successful, enjoyable and/or preferred), including the consideration of the concept of reimagination?
3. How comfortable was the arrangement for the musicians (i.e., how well suited was it for their instrument or voice type)?

4.4.3 Methods

Ethical Consideration.

This questionnaire was granted ethical approval by the Royal Northern College of Music Research Ethics Committee.

Participants.

There were 56 participants; 11 musicians (6 instrumentalists and 5 singers) and 45 audience members who either performed or attended the concerts on 28th, 29th, and 30th April 2023 at Mossley Hill Club, St Mary's College, and Heswall Hall respectively. These were ticketed performances by the community opera society, OperaViva. All three questionnaires (for audience, instrumentalists, and singers) asked about participants' enjoyment and pacing of the opera. Musicians (instrumentalists and singers) answered questions that were more specific to the performance such as stamina and details in the parts. The questionnaires for the respective groups can be found in Appendix 5.

The participants performed or watched my newly created arrangement of Lehár's *The Merry Widow*. Participation in the questionnaire was optional and the audience members could choose to answer the questionnaire pertaining to the arrangement by filling in the printed survey forms that were laid out on their seats before the performances, which were collected after. The instrumentalists and singers were sent the links to their respective questionnaires after both performances had been completed. The musicians' responses were captured using the survey tool Online Surveys. In contrast with those surveyed following *La bohème*, most of the questions were now answered by responding to a Likert scale.

The performance was in three parts, Act I, Act II, and Act III. The intermission was after Act I and there was a short break of five minutes between Act II and III. The 45 audience members who opted to complete the questionnaire represented 15.7% of the 286 total audience members at the concerts. The 6 instrumentalists who took part represented 50% of the 12 instrumentalists who performed.²² The 6 singers who took part represented 30% of the 20 singers.

²² There were only eight instrumentalists at each performance.

4.4.4 Results

Responses were reviewed for anomalies. As with the responses to the questionnaire for *La bohème*, one of the participants in the audience group for *The Merry Widow* mistook the Likert scale as meaning the opposite (they interpreted the 1 and 7 as opposite ends of the scale). The participant responded that they enjoyed the arrangement but gave consistent low scores on later questions specific to the arrangement. As such, the ratings given by this participant have been inverted. Descriptive statistics and overviews of the data will be given, and where statistical tests were run to address the research questions above, these are also listed below. These results will then be interpreted in light of the research questions above.

On the original version of *The Merry Widow*.

On average, most of the audience members had not seen a performance of *The Merry Widow* before (yes I have seen this before=17, yes I have seen parts of it=1, no I have not seen it before=27, Not sure=0), the opera was also mostly unknown by the instrumentalists (rating of familiarity on a scale of 1-7, 7=I know the piece well: M=1.67, SD=0.82) and was slightly known by the singers (rating of familiarity on a scale of 1-7, 1=do not know the original at all, 7=know the original well: M=4.33, SD=2.66).

Comparing the arrangement to the original.

When asked if participants enjoyed the original work more or this new version, on average the audience members who have heard at least some of the original enjoyed the arrangement slightly more (rating on a scale of 1-7, 1=enjoy the arrangement less than the original, 7=enjoy the arrangement more than the original: n=17, M=4.6, SD=1.48), most of the instrumentalists did not know the opera well enough to compare the two, and only 3 of the 6 singers who know the original *The Merry Widow* well enough and enjoyed the arrangement more than the original (n=3, M=5.33, SD=2.08).

The audience gave an average rating of 6.02 to the question of whether they felt that the music reflected the atmosphere of the story (1=the music did not reflect the atmosphere effectively,

7=the music did reflect the atmosphere effectively: $M=6.02$, $SD=1.35$). The singers also felt similar with an average rating of 6.33 ($M=6.33$, $SD=0.82$).

The audience mostly enjoyed the performance of the arrangement (on a scale of 1-7, 1=no, I did not enjoy it, 7=yes, I enjoyed it: $M=5.93$, $SD=1.39$).

Coherence and pacing of the story.

Participants were asked to rate the extent to which the story was coherent on a 7-point Likert scale (1=it did not make sense, 7=it did make sense). Results demonstrated that, on average, the story largely made sense to the audience ($M=5.37$, $SD=1.67$). Perceptions about whether the pace of the action felt suitable were also gathered (1=pace was too slow, 7=pace was too fast). The audience felt that the pacing of the story was just very slightly faster than they would have liked ($M=4.12$, $SD=1.26$) and the singers felt that the pacing was slightly slower than they would have liked ($M=3.67$, $SD=0.52$).

On the arrangement.

The audience felt that the orchestral accompaniment of the arrangement was mostly effective in supporting the voices ($M=5.93$, $SD=1.78$). The singers felt that the orchestra supported their voices ($n=6$, $M=4.83$, $SD=2.14$). The audience also felt that the instruments had musical material which worked well for them ($M=5.67$, $SD=1.62$).

In general, the musicians enjoyed the arrangement, with only 1 singer answering "no" ($n=12$, Yes=11, No=1, Not sure=0). The instrumentalists found that their parts suited their instrument well ($n=6$, $M=6.17$, $SD=0.75$). They also felt that their part works well with the rest of the ensemble ($n=6$, $M=6.17$, $SD=0.98$).

With regards to stamina, the singers felt that the arrangement was less challenging than "just right" ($M=2.83$, $SD=1.17$).

On the reimagination.

Of the audience members who have heard the original before, the arrangement felt neither similar to a previously heard version nor to a new arrangement (on a scale of 1-7, 1=similar to

previous version(s) heard previously, 7=like a new arrangement: $n=12$, $M=4.08$, $SD=1.62$). Of the audience members who have not heard the original before, the arrangement felt like a balance between a reimagination and a tradition performance (on a scale of 1-7, 1=feels like a reimagination, 7=feels like a traditional performance: $n=18$, $M=4.11$, $SD=1.49$).

The audience felt that the music mostly suited the setting and staging of the opera, which was set in the 1920s ($M=5.59$, $SD=1.60$). The singers also mostly felt the same ($M=5.17$, $SD=1.83$). When asked how well their parts worked in terms of setting the mood, scene, and atmosphere of the music, instrumentalists mostly felt that it worked well ($M=6.67$, $SD=0.82$).

Open-ended Responses.

Audience members were invited to fill in open-ended text boxes to answer the following: 1) If they enjoyed this more or less compared to the original and why?; 2) If they had seen the opera before, to what extent did the arrangement feel like a new arrangement and to what extent was it similar to versions heard previously and why?; 3) If they have not seen the opera before, to what extent did this feel like a reimagination and to what extent did it feel like a traditional performance?; 4) How effectively did the orchestral accompaniment support the voices?; 5) Did they enjoy the performance and why?; 6) What does atmosphere mean to them?; 7) To what extent does the atmosphere of the music suit and staging of the opera and why?; 8) If there was anything in the music that they liked or did not like; and 9) A list of the instruments they have heard and their importance. These open-ended text boxes were a new addition to the questionnaire as these responses were not gathered from the performance of *La bohème*. This was done so that it gave the audience members an opportunity to voice their opinions on why after they gave a certain rating on the Likert scale.

Two notable results will be discussed: 1) What people meant by atmosphere, given that there were statistically significant results on two elements around the results regarding atmosphere (see below); and 2) Audience perception of the instruments they heard and the instruments that they felt were most important.

When asked what atmosphere meant to them, the audience answers had three main themes (all text responses—qualitative data—were analysed using thematic analysis). The first was that the atmosphere reflected the mood. The second was that the atmosphere was affected by everything about the performance such as the lighting, music, and setting of the stage, with two responses even answering with just one word, “everything”. Finally, the concept of atmosphere was also linked to the audience’s perception of the success of the performance, with responses that said “v. good” and “romantic!” while some even commented that the venue did not create the correct atmosphere. Therefore, it is important that arrangers think about these various points when arranging, such as ensuring that the music is always reflecting the atmosphere of the scene and where appropriate, being involved in making sure that the setting on stage is most appropriate (and these instructions may even be included in the score).²³

Overall, audience members identified the instruments used in the arrangement accurately. Responses to the two questions of how they decided which instruments had an important role and why were varied. However, common themes emerged such as the important instruments being considered to be the instruments that played the longest, and the instruments that contributed to the mood and atmosphere, with some commenting that all instruments were equally important. This suggests that the instruments that the arranger chooses are identifiable and crucial because they can be important in setting the mood and atmosphere of the entire arrangement. However, it is also clear from the data that different audience members identified different instruments as being important in different ways either depending on the duration they were used or how they reflected the mood of the overall storyline.

Correlations.

As was found with the audience survey following the performance of the new arrangement of *La bohème*, there was a statistically significant correlation between the responses to the

²³ This might not always be possible as the arranger might not be involved in the performance process and is solely focused on just producing the score. For *The Merry Widow*, I had a more significant involvement as I was also conducting the performances.

questions “How well did the music reflect the atmosphere of the story? [1=did not reflect, 7=reflects well]” and “How effectively did the orchestral accompaniment support the voices in this performance? [1=unsupported, 7=well-supported]” ($r(44) = 0.804, p < 0.001$). There were also three other statistically significant results found in this survey, which weren’t present in the survey of the *La bohème* audience:

1. A correlation between the questions “Did the story make sense in this arrangement (could you understand what was happening)? [1=did not make sense, 4=not sure, 7=make sense]” and “How was the pacing of the story? [1=too slow, 4=just right, 7=too fast]” ($r(44) = 0.316, p < 0.05$).
2. A correlation between the questions “Did the story make sense in this arrangement (could you understand what was happening)? [1=did not make sense, 4=not sure, 7=make sense]” and “How well did the music reflect the atmosphere of the story? [1=did not reflect, 7=reflects well]” ($r(42) = 0.412, p < 0.01$).
3. A correlation between the questions “If no, to what extent did this feel like a reimagination and to what extent did it feel like what you would expect from a traditional performance? [1=feel like a reimagination, 7=feels like a traditional performance]” and “Did you enjoy the performance? [1=no, 7=yes]” ($r(44) = 0.491, p < 0.05$).

4.4.5 Limitations, Discussion, and Conclusion

Limitations.

There are certain limitations in this study that might affect the results obtained in the questionnaire. Similar to the questionnaire for *La bohème*, the sample size of participants is small, which means that there can be a lot of “noise” in the data. A single negative response can cause a significant change in the average result, making it difficult to understand if they were issues from the arrangement or from other factors. In addition, participants might use certain questions to voice any

displeasure they might have or give reasons that were unrelated to the arrangement. For example, one audience member gave a low rating of 3 (on a scale of 1-7, 1=enjoy this less, 7=enjoy this more) when asked if they enjoyed this more or less than the original, but when asked why in the next question, gave a response saying “my hearing was better 40 years ago”. There were also contradicting remarks by the audiences and the singers. 3 of the 6 singers thought that the ensemble accompaniment supported the voices extremely well throughout, while the other 3 thought that the ensemble overpowered the voices at times. This was the same among the audiences as well with both with feedback that said “very good subtle accompaniment” and “orchestra was very good + gave a light, professional performance” contrasting with others that said “orchestra too loud - poor acoustics in this venue” and “overpowered singing in places”. Finally, similar to *La bohème*, as I was also the conductor of the project, the musicians may have felt inclined to give a more positive response to this study if they enjoyed working with me and vice versa. There was a lovely audience member that came up to me before the start of one of the performances with a completed questionnaire that had responses that were extremely positive; this response was obviously not included as it clearly was not influenced by the performance at all.

Discussion.

The research questions will be addressed in turn:

How well did the arrangement convey the story, given that this work is a reimagination?

The results suggest that the arrangement managed to convey the story well for most people. This suggests that the reimagination of the instrumental ensemble and the setting of the opera did not impair the storyline. This means that reimagining opera previously written for a different time period might be a worthwhile project that allows for the exploration of more current themes as well as music that is more relatable, in this case, creating jazz-influenced sounds.

How effective/successful/preferred was the arrangement, including the consideration of the concept of reimagination? The audience participants who knew at least some of the original version seemed to enjoy the arrangement more. However, the group sizes were too small to run

statistical tests, so further testing would need to be undertaken before definite conclusions could be reached. The singers also enjoyed the arrangement slightly more than the original as well. However, this was again a very small sample size.

Reflecting from *La bohème*, the question on audience enjoyment included a Likert scale instead of multiple choices so that it was easier to allow for t-tests to be run. Most audience members enjoyed the performance except for two people who gave a rating of 3, and five people who were indifferent and gave a rating of 4. It was noteworthy that the audience on average felt that the pacing of the story was almost just right (just slightly faster) while the singers felt that the pacing was slightly slower. This was most likely because the audience constantly had the storyline moving for them with the musical numbers being linked by the dialogue by the main cast. However, the singers were only involved in their respective numbers and would be spending a substantial amount of time between their items (especially if they are chorus members) as it was mostly the main cast involved in the dialogues. They may have also been more familiar with the Operatic Society Version, which had drastically more involvement of the chorus and their judgement might have been made in light of this.

It was interesting to note that there was a mixture of views on whether the singers and the instrumental voices were in balance or not, even within the responses from the same performance venue. This discrepancy between the responses might be due to the fact that the venues were small and at times the location of where the audience members were sat affected their overall experience of the performance. It was most likely that the singers were more overpowered the closer the audience member was to the instrumental ensemble, especially at Mossley Hill Club where there were audience members who sat immediately next to the ensemble. However, it was not possible to verify this in the questionnaire responses as they were anonymous and were submitted into a box when they exited the venue. It was also important to account for the fact that the majority of the singers were amateurs or semi-professionals as compared to the instrumental ensemble which consisted of freelance musicians. As such, there might have been a likelier tendency for the singers

to be overpowered as their voices might not have carried across as effectively as the instrumental ensemble.

The reimagination of the instrumentation and their usage seemed to be an effective choice to reflect the change in period for the opera's setting. The audience seem to appreciate that the atmosphere created by the music seems to reflect the setting and staging of the opera in the 1920s. There were also a few mentions of how they enjoyed the use of the trumpet in the arrangement, with responses such as "liked the trumpet in particular" and "trumpet playing the melody line (good)".

There were two correlations that were interesting to note. The first was that how the audience rated whether or not the story made sense in the arrangement also significantly relates to how well the music reflected the atmosphere of the story. This is an important result as it showed that in a reimagination, it was more likely for the story to make sense to the audience the better the music reflected the atmosphere. This also showed that the arrangement was effective as the audience generally felt that the music reflected the atmosphere of the story and that the story also largely made sense. The second correlation showed that with audience members who did not know the original opera, they were more likely to enjoy the performance if it felt more like a traditional performance instead of a reimagination. This arrangement, which is a reimagination, can be considered a success because the audience response was quite balanced with a rating of 4.11 as those who had not seen it before neither felt that it was like a reimagination or a traditional performance.

How comfortable was the arrangement for the musicians? In general, the musicians found the arrangement comfortable. The instrumentalists found that the parts written for them worked well, which was to be expected as this arrangement allowed for the rewriting process to be a lot more flexible, allowing for the writing of each individual part to be much clearer. Of the three singers who knew the opera in the original form well, two of them really enjoyed performing this. One of them mentioned in one of their open-ended responses: "Clearer story, score more upbeat". The one

singer who did not enjoy performing this version mentioned that “the script, which appears to be an American version, is greatly inferior”; however, it was important to note that the book and lyrics used were based on the first popular performances in London that ran for more than 800 shows in its premiere theatre. This response was likely from a singer who had learnt a different version before for another production and did not enjoy the process of relearning the text and structure.

Conclusion.

The results from this questionnaire indicates that producing an arrangement that reimagines the sound world of the original can be effective. The reduced forces in this arrangement did not seem to negatively affect the perception of the opera and was generally preferred by the singers who participated in the questionnaire, which is a heartening response as there was an initial scepticism among the singers at the idea of reimagining the work. What was difficult to account for was the varying abilities of the singers where they were at times covered by the instrumentalists despite the reduced number of eight—the venues in which the opera was performed did not help with this. Again, the results from this questionnaire paints a positive outlook similar to those from *La bohème* whereby they are more open to variations from the norm. All this makes it paramount that the arrangements are of the best quality. While it is definitely a good idea for opera companies to consider such arrangements which would allow productions to be performed in a wider variety of venues and create a different performance experience for audiences, it is important that the venues are also suitable for the productions. Heswall Hall and St Mary’s College were acceptable venues because they had a stage and a relatively large open space respectively. However, Mossley Hill Club was not as it was an extremely small room and there were more people in the venue than it could have realistically accommodated. These results and discussions above also suggest that reimaginings might be a method of breathing fresh life into the famous classic operas.

In general, the increased use of the Likert scale in the questionnaire for *The Merry Widow* compared to the ones for *La bohème* instead of multiple choices was much better as it accounts for the strength/intensity of people’s choices and the numbers obtained also allowed for correlations.

There was also a greater use of open-ended questions which resulted in a richer and more in-depth collection of data from the participants. Participants were able to give their views on what affected the result they gave on the Likert scale. However, there might have been too many open-ended questions in the questionnaires for *The Merry Widow* in which some of them are closely similar resulting in answers often either not directly answering the question or answering a different question in the questionnaire instead. Therefore, it was important that questionnaires for audiences do not have too many open-ended questions which might confuse the participants. It can also be difficult to obtain feedback from audiences and the number of participants as compared to the total number of audiences in both questionnaires reflect that. With the hope of obtaining a larger response, instead of using a QR code like for *La bohème*, the questionnaires were printed and placed on the audience seats before they arrived. However, there were not significantly more responses for *The Merry Widow*. It was most probably because the questionnaire was longer compared to the one for *La bohème*. As such, future questionnaires should consider having fewer questions so that they are much more focused. This would hopefully encourage a greater number of responses.

4.5 Knowledge Gained

The process from the arranging to the performing of *The Merry Widow* with OperaViva has generated more new knowledge that is relevant to the thesis. This built upon what was learnt from the arrangement of *La bohème* and I approached the arrangement process from a different angle; the arrangement was a reimagination that was produced and performed by a community operatic society consisting of semi-professional and amateur singers. Despite that, the proposed ten factors were still found to be relevant and successfully considered and applied during the creation of this arrangement. They still provided a comprehensive list that I as the arranger could consider, but their considerations were different and covered a contrasting range of aspects such as a deeper focus in the choices of instruments and the methods in which they were employed to recreate a different vision from the original. This was due to the fact that the success of the arrangement was to

reimagine a sound world that hinted at the Jazz Age and to ensure that it would work well with singers of varying abilities, unlike *La bohème* which was intended to create a similar sound world to the original and was performed by a group of professional musicians. *The Merry Widow* is also a number opera and had different structural considerations from *La bohème*. It is again notable in this arrangement that the ten factors are not mutually exclusive; a particular factor that is being considered may result in features that could be discussed in the other. For example, the ways in which a particular line is reallocated may have implications on the dynamics to be indicated and how it would affect the balance, as discussed in section 4.4.6. Finally, the questionnaire that was newly developed for *La bohème* was edited and developed for this reimagination which provided multiple insights into the success of the arrangement and ways in which the arrangement or the performance might be made better. The process of producing this arrangement suggests an approach in which arrangers might be able to produce a reimagination by discovering and highlighting the elements that they want to change within the factors.

Chapter 5: Conclusion and Future Direction

“A serious orchestrator is never really satisfied. Even if the sounds obtained are exactly those desired, one can always seek new and different tonal possibilities.”

- Alfred Blatter (1997, p.421)

5.1 Conclusion

While Blatter is right in that a serious orchestrator should never really be satisfied, an arranger should not only seek new and different tonal possibilities but also explore all possible alternatives with regards to the ten factors proposed. As mentioned in Chapter 1, throughout history, chamber arrangements of opera have helped to bring music to the wider community. As such, this original research intends to fill the gaps which currently exist regarding how one should approach arranging an existing operatic work and to highlight the factors that are important for the arranger to consider. This is because many arrangements are often poorly executed resulting in time being wasted before and during rehearsals. Often the changes are pencilled in with the indications of what is omitted or rewritten poorly indicated, which makes effectively realising the arrangements result in a loss of rehearsal time. Arrangements that come with a full score of the reduced instrumentation with clearly prepared parts are an exception. Hence, there is a need for practical, informed, and clear professional arrangements. Scholarly articles on the chamber arrangements are limited with a few notable ones by Kwon (2016), Parks (1999), Meyer (2000), and Sun (2006). However, they only focus on specific pieces and do not discuss arrangement as a whole process and they do not offer a comprehensive view on what should be considered when producing an arrangement or consider the concept of reimagination. The orchestration books by Berlioz and Strauss (1948), Rimsky-Korsakov (1922), Piston (1955), Alder (2002), and Blatter (1997) are useful in relation to knowledge of the properties of each instrument and their typical scoring. While these books form a valuable basis for producing an arrangement, they do not directly address the issue of producing a chamber arrangement from an originally larger work. Furthermore, none of them are

specific to opera arrangements or the effects these may have on audience perception and enjoyment. Therefore, this research project provides methods to re-realise opera through arrangements for chamber ensemble so that they can be used by organisations with financial and logistical limitations (resulting in a need for a smaller ensemble, for example), to explore the ways to produce a direct reduction and reimagination and to gauge the success of these arrangements through audience and performers responses. These ideas were explored through the arrangement and performances of Puccini's *La bohème* and Lehár's *The Merry Widow*. The following research questions were addressed and shall now be discussed in turn.

What forms can an opera arrangement take and what are the factors an arranger should consider when producing an opera arrangement for chamber ensemble?

I proposed in Chapter 1 that there are three main categories of the types of arrangement that exist. The first is a *Direct Reduction* which is an arrangement that aims to keep as much of the composer's intention as those with regards to timbre and atmosphere. The second is a *Reimagination* in which an arrangement takes the original musical material and reinvents it. This means that decisions on orchestration and instrumentation become fluid, and depending on the scope of the project, even the overall storyline and structure might be changed. The third is a *Hybrid with Synthesised Sounds* which is an arrangement that uses a combination of real musicians and synthesised sounds. While the latter is not fully explored in this thesis, for example, this could be explored by producing an opera with "Hokkien Techno Influence" as briefly discussed in section 5.2 below.

In this thesis I have proposed ten factors which an arranger should consider when producing an opera arrangement. They are: 1) Structure, 2) Atmosphere and Feel, 3) Instrument Choice, 4) Timbre, 5) Reallocating Lines and Dealing with Divisi and Multiple Stops, 6) Dynamics and Balance, 7) Performance Markings, 8) Modern Notation and Typesetting, 9) Reimagination, and 10) Purpose and Audience Enjoyment. Depending on the type of arrangement that is being produced, it is important

to note that the three categories and ten factors mentioned above are not mutually exclusive. The decision about instrumentation—which can depend on the financial, and overall vision of the production—is also fundamental as this can easily affect the ability in which the arranger is able to effectively tackle the challenges faced in the other factors. This can be seen from the arrangements of *La bohème* and *The Merry Widow*.

How can we practically use these factors to produce two new arrangements, taking into account the fact that the arrangements should also be able to be performed with limited resources and/or in community settings (often involving amateur musicians)?

In order to explore how these factors can be practically used, I produced two new arrangements in the process. They are Puccini's *La bohème* and Lehár's *The Merry Widow*. The arrangement of *La bohème* mostly explores what it meant to produce a direct reduction, although there was an overlap with the concept of a reimagination in the overall structure of the opera, as a large section of it has been removed and the total number of singers was reduced to four cast members. It was the first time that the factors were used in a practical manner in the conception and production of an arrangement. These factors were found to be successfully applied during the creation of this arrangement as they provided a comprehensive list to consider. An important highlight from the list was regarding timbre (see section 3.3.4 above). I brought in research from the field of music perception and demonstrated that the Taxonomy of Orchestral Grouping Effects (TOGE) proposed by McAdams et al. (2022) was useful in analysing music to help inform my decisions for certain sections of the arrangement. I believe that this is the first use of the TOGE from music psychology research in analysing music and making decisions for the subsequent arrangement. The arrangement explored the various methods I employed and the ways in which the various instruments were used, especially with the reallocations of lines. The process of undertaking this also enabled me (as a conductor and arranger) to develop better processes for the arrangement of the second opera.

The arrangement of *The Merry Widow* was different from *La bohème* as it explores what it means to produce a reimagination. This opera was also arranged for and performed by an amateur opera company in Liverpool, while *La bohème* was arranged for and performed by professional musicians in Singapore. As such, the parameters for the requirements of the show were already fundamentally different. Furthermore, the production of *The Merry Widow* also needed to travel. The ten factors were essential in the creation of the arrangement, although the significance of the factors was varied and different from those brought up in *La bohème*. This further demonstrated that the factors can still be successfully applied regardless of what the intended outcome of the arrangement is. The arrangement was an opportunity to create a version of the opera that had sounds that were inspired by the Jazz Age and this was reflected through the instrumentation, the music instructions, and the way in which the various musical lines were allocated by creating some kind of connection through the motifs. This arrangement, therefore, had a greater emphasis on the factor of reimagination.

As can be seen in both operas, the factors relating to atmosphere and feeling (see section 3.3.3 and section 4.3.2 above) were crucial in producing both arrangements. However, there was a focus on trying to recreate the original atmosphere intended by Puccini in *La bohème* while the focus in *The Merry Widow* was to create an atmosphere of being in Paris in the 1920s by hinting at the sounds of dance music of that time. This also links to the factor regarding reallocation of lines, which involves careful consideration (see section 3.3.5 and section 4.3.5 above). *La bohème* focuses on reallocating the lines so that the colours generated by the performance of the arrangement are similar to those intended in the original by the composer. However, the arrangement of *The Merry Widow* is a reimagination and as such, is not expected to adhere to the composer's original intention as strictly as in other forms of arrangement and mainly focuses on allocating the lines so as to achieve the goals of the reimagination and ensuring the ensemble is balanced within itself. The production of these two arrangements also further demonstrates that the factors are not mutually

exclusive. Part of the last factor on purpose and audience enjoyment will now be explored in the next question below, regarding audience perception below.

What are audiences and performers' impressions when listening to these arrangements?

After the performances of both *La bohème* and *The Merry Widow*, audience members were asked to participate in a questionnaire to collect data on their perception of the arrangement. As mentioned in section 3.4.1, there are many studies exploring the listening experience of audiences using a questionnaire. However, these studies are mainly aimed at exploring how and why people listen (Dearn et al., 2017), the cultural value of live music (Behr et al., 2016), and audience participation and experience (Toelle & Sloboda, 2021). Empirical research by arts organisations has often been undertaken to understand the audience experience, but few have been concerned with the effects of a specific piece of music, or a well-known piece of music in a new form. The two questionnaires in this thesis, however, explore how participants perceive an arrangement of an originally larger operatic work. Although participant numbers were too low to make statistically significant observations in most cases, the results from the questionnaire give us some understanding of the audiences', singers', and instrumentalists' perception of the arrangement.

La bohème involved the first usage of this questionnaire for audience and performers. The results from this questionnaire provide an indication that producing an arrangement that reduces the duration and orchestration of an original, well-known work, can be effective. The reduced forces did not seem to negatively affect the perception of a famous opera such as *La bohème*, and this new arrangement was even preferred by some audience members. This means that it might be a good idea for opera companies to consider smaller scale productions of such works in which the arrangements are carefully and thoughtfully undertaken, which would allow for performance experiences that are more intimate for the audiences (a smaller ensemble, who can perhaps be closer to the audience). The results also suggest that audiences might prefer productions that are shorter in duration, and further studies should be taken to explore this as it would affect the

continuity of building up future new audiences. All the data, discussions and conclusions drawn from this questionnaire aid us in making sure that the arrangement is effective and also help us to discover what is important to both the audience and performers.

The Merry Widow involved a similar questionnaire but was updated to also explore the process of the reimagination as well as to account for any shortcomings that were discovered in the questionnaire for *La bohème*. The questionnaire design for this opera was improved upon from *La bohème* by having fewer multiple-choice questions and changing most of them to Likert scales so that correlations could be run between the different questions. The questionnaire also had added questions regarding how the audience perceived the reimagination of the opera, for example, questions asked whether the change in instrumental colours affected the atmosphere and if that change suited the setting. Finally, there were more open-ended response sections for the participants to explain why they responded in a certain way. Again, the data from the questionnaires seem to suggest that the arrangement was a success for the audience and musicians involved. Data also suggested that a reimagination done well can be extremely effective for audience members who were unfamiliar with the original. While the arrangement plays a significant role, the questionnaire also shows that the venue as well as the staging and setting can play a large part in the enjoyment for the audience.

Overall, the use of questionnaires can be a useful tool in obtaining a general sense of the participants' perception of an arrangement. It is a tool that I believe many arrangers do not use and might be quite a significant way for them to get anonymous feedback which might in turn help improve future arrangements. However, it was important to note that in both questionnaires for *La bohème* and *The Merry Widow*, the percentage of participants as compared to the total number of audience and performers was low. I assumed that the use of technology with scanning the QR code in Singapore (*La bohème*) might have restricted audience members to fill them in after response numbers were low, and as such, I decided it was more practical to provide printed copies that were placed on every audience's seat in Liverpool (*The Merry Widow*). However, the number of responses

were similar. As there seems to be a general tendency for the audience to resist participating in questionnaires, I believe that future questionnaires will need to be a lot shorter in length and with the questions more concise. As such, questionnaires may only be useful for more general feedback and perception of audiences. It might result in more useful data with more depth if a small pool of individuals were selected for an interview after the performances instead. Future arrangements should make use of this technique—surveying the audience at the first performance in order to judge the extent to which the arrangement has been undertaken successfully.

5.2 Future Directions

This research has brought together different fields of musicology, music perception and psychology, music theory, as well as practices such as arranging and conducting. Through this process of learning from the various different fields, there are many exciting new future directions where research in producing opera arrangements (or any reduced-size arrangements) might be carried out. It would be a fruitful avenue to explore how timbre perception and research may be linked with the process of orchestration and rearranging. Reymore's (2022) paper on instrumental timbre trait profiles might lead to more intricate research on timbre perception research by drawing links between perceived and imagined sounds of particular instruments. This would also allow for arrangers to find possible substitutes when creating arrangements in order to recreate sounds, almost like how ingredients are often substituted in recipes when cooking to create an outcome that is as effective. Furthermore, creating experiments related to the use of the TOGE by McAdams et al. (2022) would be a good way to develop a deeper exploration into how different orchestrations and even different performances of the same orchestration might result in different groupings. Having communicated with McAdams over email, this is also an avenue of research that is of great interest to him (McAdams, personal communication, Jul 2, 2022). This would give deeper insights into methods (the how and why) in which timbre is grouped when we listen to music. This could have implications for the way in which arrangements might be orchestrated in the future to create certain

timbral effects and also for the way conductors may rehearse a piece so as to achieve the desired perceived outcome. An example of an experiment design that I have formulated can be found in Appendix 1.

There are many opportunities for further exploration of the variety of arrangements that are possible, especially in terms of producing those that may be conceived of as *Hybrid with Synthesised Sounds* as well as *Reimaginings*. At times these two might also go hand in hand. For example, as mentioned in section 2.2.10, I was recently contacted by a TV production company in Singapore regarding the possibility of re-realising Donizetti's *L'elisir d'amore* (1832) for a smaller audience but also including local elements such as Singlish²⁴ and also "Hokkien Techno influences". The use of technology (creating synthesised sounds for the techno elements) and also reimagining the opera to produce an arrangement might be an effective way to bridge the gap with audiences by making the subject matter or music more relatable. Furthermore, there are other exciting avenues to explore such as creating an arrangement that would be performed by dancers instead of singers. For example, there is a 1975 version of *The Merry Widow* that was specially created for Australian Ballet that uses the same musical material as the opera (medici.tv, 2018) as well as Matthew Bourne's *The Car Man* (mentioned in section 2.2.9) which is based on Bizet's *Carmen*. It would be interesting to document the process of creating such an arrangement as well as to compare the effectiveness of the ten factors in producing it.

In conclusion, there is often a tendency for people to attend performances of well-known work as there is less "risk" involved with regards to their enjoyment of the programme and a feeling that it is often more enjoyable to listen to music that one is already familiar with (Price, 2022). This means that (as has been mentioned throughout this thesis) producing arrangements of well-known operas is a worthwhile project even if they are reimagined in a different way as there might be less risk involved. Therefore, it is important that the production of arrangements is carefully considered,

²⁴ Singlish is an "unofficial" national creole. An informal version of English spoken in Singapore incorporating elements of various Chinese dialects, Tamil, and Malay (Tien, 2014).

so that the process for putting on a production is as painless as possible and accounts for the restrictions imposed (e.g., due to financial or logistical reasons), while maximising the enjoyment of both the audience and musicians. In line with the quote by Blatter (1997) at the start of this chapter, one is never really satisfied and there are endless possibilities that are just waiting to be discovered.

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Appendix

Appendix 1: Timbre Perception Experiment Design

As mentioned by McAdams (2019b), “timbre perception is at the heart of orchestration practice” (p. 212). A key role as an arranger is to consider the importance of instrumental timbre by exploring how that translates from the original composition as well as between the various sections within a piece. For an arrangement to be successful, whereby success is in trying to achieve the same goals as the original, it is important to know how the music is aurally perceived. As part of this experiment, I will be using the aforementioned method of analysis, the TOGE. Analysis of the piece will be carried out independently by two researchers by listening to a recording of a particular piece with the score. The piece should be 5 minutes or less in length and has a variety of timbre changes, covering as many of the groupings where possible. Over several meetings, results will be compared, and the two researchers will reach a consensus and produce a final annotated score (Annotated Score 1) with all the groupings indicated.

This final annotated score would be used as the source material to produce an arrangement for ten instrumental parts: flute, oboe, clarinet, trumpet, percussion, piano, violin, viola, cello, bass. The arrangement process would be documented by a diary, which would then be thematically analysed. The arrangement would be recorded and the recording together with the score of the arrangement would go through the same analysis process carried out earlier in the original. The result of analysis would be the groupings indicated in this second annotated score of the arrangement (Annotated Score 2). Annotated Score 1 and Annotated Score 2 would then be compared for similarities and discrepancies. This process together with the analysis of the diary would hopefully give a deeper insight into the perception of timbre groups for a reduced-size arrangement and interrogate the methods used in the arranging process. It would also give us a brief insight into which bits of the arrangement works, and which does not.

Appendix 2: Musicians' Initiative Proposal and Funding Application

What are the project objectives?

This project aims to promote greater appreciation and awareness of operatic works among the general public through an intimate and immersive performance. This project explores human relationships, discussing the connections that are all so relevant today. It aims to be thought-provoking about our lives by exploring relevant themes that affect our relationships with technology, love, and death. This project also seeks to blur the lines between performers and audiences in Singapore. Through this, we are planning to move away from conventional ways audiences consume performances by performing them in a way that speaks to everyone. Furthermore, as we believe that opera can speak to everyone, the first two operas will be sung in English and there will be subtitles for all, which would allow for greater comprehension by the local audience. This will involve a triple bill of contrasting operas:

1) Samuel Barber - *A Hand of Bridge* (Singapore premiere)

This is a one-act opera telling the tale of two unhappily married couples playing a hand of bridge, during which each character has an arietta in which they profess their innermost desires. This deals with themes such as jealousy, envy, infidelity, and unrequited love. It draws on the relationship with oneself; the disconnect between what one's life is (reality) and what one would like it to be (expectation).

2) Gian Carlo Menotti - *The Telephone*

This is a comic opera in one act by Menotti, who also wrote the libretto for *A Hand of Bridge*, that tells the tale of Ben visiting Lucy with the hope of proposing to her before his trip. However, despite his attempts to get her attention, she is always distracted by conversations on the telephone. Although first premiered in 1947, this conflict of technology bringing us closer yet also ironically pushing us apart is still so pertinent today. In this light-hearted tale, we will explore our relationship with inanimates by using technology such as mobile phones to reimagine a setting that is relevant to today. This will include the audience using mobile devices as part of the opera.

3) Puccini, arr. Melvin Tay - *La bohème* (World-Premiere of new arrangement)

This project seeks to bring to life a new commission. An abridged version of Puccini's crowd-pulling opera, *La bohème*, focuses on the relationship between Rodolfo and Mimi, ending with her death as she is slowly consumed by a deadly illness. This story traverses prominent themes that have been timeless throughout history; the fundamental aspects of human relationships: falling in love, falling out of love, and dealing with loss and death. The format of the triple bill of short operas, (partially sung in English with the use of technology and mobile devices) reaches out to the younger members of the public as well as opera lovers. In line with MI's mission statement, this project aims to develop new audiences. It also seeks to promote artistic endeavours by young Singaporean musicians. Conducting this project would be Melvin Tay, a Singaporean conductor currently based in the UK (See CV for more details). It will also involve promoting young singers establishing themselves in the field, as well as providing opportunities for orchestra musicians. In order to reach the general public, we will promote this project through various avenues. Firstly, we will be using MI's social media presence on Facebook, Twitter, and Instagram. Secondly, with posters at major arts venues. And finally, by using digital and print media on various art platforms. The promotion of the project will be packaged as an impactful triple bill (three for the price of one!) of human relationships presented in a uniquely immersive way.

How do you plan to achieve your objectives?

In order to create this immersive experience for the audience, we move away from traditional performing venues that have a clear division between audience and performer but instead use a venue that allows more flexibility in using the space, creating a 360-degree experience. Keeping in line with Safe Management Measures (SMM), MI will create an interactive space where audiences will become part of the performance through the use of their digital devices and monitors that will be placed around the venue. (Menotti - *The Telephone*). The performers will be using mobile phones, and the contents on the phone will also be projected onto a screen for the audience,

allowing the audience to recognize themselves in the performers. Furthermore, throughout this opera, the singers would occasionally break the fourth wall, sometimes gesturing and speaking with the audience.

This triple bill will be performed by a chamber orchestra in order to create an intimate setting. A brand-new arrangement for *La bohème* will be a re-realization of the opera for a small orchestra (flexible size of between 10-30 instrumentalists) with sections of it being reimagined so that it would be more accessible by today's audience. This is done by Singaporean conductor Melvin Tay, currently doing PhD-level research in this field. The use of chamber arrangements is a unique new direction that is gaining momentum in the operatic world (accelerated by the onset of the pandemic) as it allows large work to be performed by smaller forces in a more intimate setting. It will be condensed to under an hour while still keeping the essence of the story intact and will feature all the famous tunes. In line with the mission statement of MI, the project aims to provide young Singaporean conductors and pre-professional musicians an opportunity to perform the staple operatic repertoire.

The 3 operas are interconnected by the way human relationships define us in today's modern world. The presentation of the triple bill will be innovated to present 3 basic relationships through the use of monitors and digital devices in combination with live performers: 1) Human-Self (*A Hand of Bridge*); 2) Human-Inanimate objects (*The Telephone*); and 3) Human-Human (*La bohème*).

How will you measure the outcome of your project?

Ticket sales and audience numbers would be the main measure of our outreach to the general public. MI aims to have a 90% capacity in each of the shows. The production of a reduced new version of *La bohème* would be an outcome of this project. The efficacy of this arrangement will be studied through data collected from the musicians and audiences. This will usher in a global movement of reduced repertoire of the great western classical composers. Another measure would

be the number of young artists participating in the project. MI aims for 60% of the orchestra to be professional music students, 10% of mentors and the remaining made up of amateur musicians. A selected number of audience members from each performance will be surveyed about their experience during the performers. This will allow us to judge the enjoyment levels of the immersive experience. By analysing the data collected, MI will be able to create future performances that are more innovative. Performers of the project would also be asked to fill in a feedback questionnaire about their experience in the project regarding their development over the course of the project as well as for future project and talent development.

Appendix 3: Questionnaires for *La bohème*

Title: Re-realising Opera Performance – Questionnaire on opera arrangements

Date: 15/17 October 2021

Introduction

Thank you for considering taking part in this research project, undertaken as part of Melvin Tay's PhD project, under the supervision of Dr Michelle Phillips. The questionnaire will only take between 5-10 minutes. Through this, I am hoping to find out your perception of the arrangement of Puccini's *La bohème* that was just performed. In doing so, I hope to find answers to the following questions:

1. How well did the new arrangement convey the story?
2. How effective/successful/preferred was the arrangement?
 - a. Atmosphere/Story
 - b. Emotional impact
 - c. Instrument choices and balance
3. How comfortable was the arrangement to read (notation and music direction in the score)?
4. What are the perceived differences between this arrangement and the original?

The data obtained from the questionnaire will hopefully allow for a deeper insight into the perceptions of such arrangements and allow for future productions of such arrangements to be more effective.

Why have you been chosen?

I have asked you to respond to my questionnaire because you are an audience member/orchestra musician/singer.

Informed consent

Your participation in this research is voluntary, and you may withdraw from the study at any time if you wish. By submitting a completed questionnaire, however, you are giving your informed consent to participate in my study. You do not have to answer any question that you do not wish to answer.

What will I do with your data?

The data you provide will be anonymous (separated from your name) and confidential (not disclosed to anyone else). I may publish reports based on my findings, but you will not be identifiable from the data included.

The data themselves will be stored securely for 10 years. If I wish to re-use your data within this time period, I will seek your permission to do so. At the end of the period your data will be destroyed.

Contact for further information

If you would like to know more about this research, please contact me at melvin.tay@student.rncm.ac.uk or my supervisor michelle.phillips@rncm.ac.uk.

If completing this questionnaire has raised any issues of concern for you, you can seek help from the following sources:

- RNCM Health and Wellbeing team
- RNCM Counselling team

This project has been reviewed and approved by the RNCM Research Ethics Committee.

Questionnaire for Audience:

1. What is your age?
2. Would you describe yourself as a musician? If so, how many years of formal training of classical music did you have?
[options: yes / no] [open textbox]
 - Is there anything you would like to say about your musical training?
[open textbox]
3. Have you seen a performance of La bohème before (whether this was live or recorded)?
[options: yes / no / I have seen parts of this but not a full performance / not sure]
 - If yes, do you enjoy this more or less compared to the original, and why?
[1=enjoy this less, 7=enjoy this more]
[open textbox]
4. Did the story make sense in this arrangement (could you understand what was happening)?
[1=did not make sense, 4=not sure, 7=make sense]
5. How was the pacing of the story?
[1=too slowly, 4=just right, 7=too fast]
6. What elements of the performance helped to convey the story? (Select all that apply)
[Music / Set / Stage Directions / Text]
 - If you would like to comment on why, please do so here.
[open text box]
7. This is an arrangement of the full opera. To what extent did it feel like a reduced/shortened/new version of an existing work, and to what extent did it feel like a complete work in its own right?
[1=it felt like a reduced/shortened/new version, 7=complete work in its own right]
8. How effectively did the orchestral accompaniment support the voices in this performance?
[1=unsupported, 7=well-supported / 8=I don't know]
 - If you would like to comment on why, please do so here.
[open text box]
9. How well did the music reflect the atmosphere of the story? [1=did not reflect, 7=reflects well]
 - What does atmosphere mean to you?
[open text box]
10. Did you enjoy the performance? [yes/no/not sure]
 - If you would like to comment on why, please do so here.
[open text box]

Questionnaire for Singers:

1. Do you enjoy this arrangement of La bohème?
[options: yes / no / not sure]
2. How well do you know the original version of La bohème?
[1=not at all, 7=very well]
 - Did you enjoy performing this arrangement more or less than the original score, and why?
[1=enjoyed this less, 7=enjoyed this more]
[open text box]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]
3. Did the plot of the opera in this shortened form feel coherent?
(Coherent meaning that the story connects well and makes sense between the different acts.)
[1=not coherent, 7=coherent]

- If you would like to comment on why, please do so here.
[open text box]
4. How was the pacing of the story?
[1=too slowly, 4=just right, 7=too fast]
 5. What elements of the performance did you feel helped to convey the story? (Select all that apply)
[Music / Set / Stage Directions / Text / Costumes]
 - If you would like to comment on why, please do so here.
[open text box]
 6. How effectively did the orchestral accompaniment support your voices?
[1 = unsupported, 7=well-supported]
 - If you would like to comment on why, please do so here.
[open text box]
 7. With regards to stamina, how challenging was the arrangement?
[1=not challenging, 4=just right, 7=extremely challenging]
 - If you would like to comment on why, please do so here.
[open text box]

Questionnaire for Orchestra Musicians

1. Do you enjoy this arrangement of La bohème?
[options: yes / no / not sure]
2. How well do you know the original version of La bohème?
[1=not at all, 7=very well]
 - Do you enjoy this arrangement more or less compared to the original, and why?
[1=enjoy this less, 7=enjoy this more]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]
3. How well does your part suit your instrument?
[1=not well, 7=very well]
 - If you would like to comment on why, please do so here.
[open text box]
4. How well do you feel your part works with the rest of the ensemble?
[1=not well, 7=very well]

Appendix 4: Productions by Amateur Opera Societies in the North of England²⁵

<p><u>Opera Viva, Merseyside</u> (Opera Viva, n.d.)</p> <p>2013: Bizet – Carmen 2014: Mozart – The Marriage of Figaro 2015: <u>Lehár – The Merry Widow</u> 2016: Tchaikovsky – Eugene Onegin 2017: Verdi – Rigoletto 2017: Mozart – Don Giovanni 2018: Mascagni – Cavalleria Rusticana Strauss – Prince Orlovsky’s Ball (Die Fledermaus Act II) 2019: Verdi – La Traviata 2021: Donizetti – L’elisir d’amore 2023: <u>Lehár – The Merry Widow</u></p>	<p><u>City of Manchester Opera</u> (City of Manchester Opera, n.d.)</p> <p>2009: Mascagni – Cavalleria Rusticana 2011: Verdi – La Traviata 2012: Smetana – The Bartered Bride 2013: Verdi – Macbeth 2015: Offenbach – The Tales of Hoffmann 2016: Bizet – Carmen 2017: Mozart – The Magic Flute 2018: <u>Lehár – The Merry Widow</u> 2019: Mascagni – Cavalleria Rusticana Leoncavallo – Pagliacci 2022: Puccini – La bohème</p>
<p><u>Preston Opera</u> (H. Harrison, personal communication, September 17-22, 2019)</p> <p>2011: Verdi – A Masked Ball 2012: Verdi – Aida 2013: Verdi – La Traviata 2014: Offenbach – La Belle Hélène 2015: Verdi – Nabucco 2016: Mozart – The Magic Flute 2017: <u>Lehár – The Merry Widow</u> 2018: Bellini – Norma 2019: Verdi – Macbeth 2020: Bizet – Carmen</p>	<p><u>Sheffield City Opera</u> (Sheffield City Opera, n.d.)</p> <p>2008: Bizet – Carmen 2009: Puccini – La bohème 2010: Donizetti – L’elisir d’amore 2011: Mozart – The Magic Flute 2012: Gounod – Faust 2013: Mascagni – Cavalleria Rusticana Gilbert & Sullivan – HMS Pinafore 2014: Bizet – Carmen 2015: Massenet – Cinderella 2017: Donna and her Mobile (music by Verdi, Bizet, Puccini, etc) 2019: Women of Steel</p>
<p><u>Bentley Operatic Society</u> (Bentley Operatic Society, n.d.)</p> <p>2011: <u>Lehár – The Merry Widow</u> 2012: Sullivan – HMS Pinafore 2013: Moncton & Talbot – The Arcadians 2014: Sullivan – Iolanthe 2015: Strauss – Die Fledermaus 2016: Sullivan – The Sorcerer 2017: Sullivan – HMS Pinafore 2018: Sullivan – The Gondoliers 2019: Fiddler on the Roof</p>	<p><u>York Opera</u> (York Opera, n.d.)</p> <p>2003: Bizet – Carmen 2004: Strauss – Die Fledermaus 2005: Mascagni – Cavalleria Rusticana Leoncavallo – Pagliacci 2006: Donizetti – L’elisir d’amore ... 2013: Verdi – Nabucco 2013: Orff – Carmina Burana Mozart – The Marriage of Figaro 2014: Gilbert & Sullivan – The Pirates of Penzance 2015: Strauss – Die Fledermaus 2016: Puccini – Turandot 2017: Verdi – La Traviata 2017: Gilbert & Sullivan – Patience 2018: Bizet – Carmen 2019: Mozart – The Marriage of Figaro</p>

²⁵ This list is not exhaustive as there are many Amateur Opera Societies in the North of England

Appendix 5: Questionnaires for *The Merry Widow*

Title: Re-realising Opera Performance – Questionnaire on opera arrangements

Date: 28/29/30 April 2023

Introduction

Thank you for considering taking part in this research project, undertaken as part of Melvin Tay's PhD project, under the supervision of Dr Michelle Phillips. The questionnaire will only take between 5-10 minutes. Through this, I am hoping to find out your perception of the arrangement of Puccini's *La bohème* that was just performed. In doing so, I hope to find answers to the following questions:

1. How well did the new arrangement convey the story?
2. How effective/successful/preferred was the arrangement?
 - a. Atmosphere/Story
 - b. Emotional impact
 - c. Instrument choices and balance
3. How comfortable was the arrangement to read (notation and music direction in the score)?
4. What are the perceived differences between this arrangement and the original?

The data obtained from the questionnaire will hopefully allow for a deeper insight into the perceptions of such arrangements and allow for future productions of such arrangements to be more effective.

Why have you been chosen?

I have asked you to respond to my questionnaire because you are an audience member/orchestra musician/singer.

Informed consent

Your participation in this research is voluntary, and you may withdraw from the study at any time if you wish. By submitting a completed questionnaire, however, you are giving your informed consent to participate in my study. You do not have to answer any question that you do not wish to answer.

What will I do with your data?

The data you provide will be anonymous (separated from your name) and confidential (not disclosed to anyone else). I may publish reports based on my findings, but you will not be identifiable from the data included.

The data themselves will be stored securely for 10 years. If I wish to re-use your data within this time period, I will seek your permission to do so. At the end of the period your data will be destroyed.

Contact for further information

If you would like to know more about this research, please contact me at melvin.tay@student.rncm.ac.uk or my supervisor michelle.phillips@rncm.ac.uk.

If completing this questionnaire has raised any issues of concern for you, you can seek help from the following sources:

- RNCM Health and Wellbeing team
- RNCM Counselling team

This project has been reviewed and approved by the RNCM Research Ethics Committee.

Questionnaire for Audience:

1. Have you seen a performance of *The Merry Widow* before (whether this was live or recorded)?
 [options: yes / no / I have seen parts of this but not a full performance / not sure]
 - If yes, do you enjoy this more or less compared to the original, and why?
 [1=enjoy this less, 7=enjoy this more]
 [open textbox]
 - If yes, to what extent did this feel like a new arrangement and to what extent was it similar to the version(s) you have heard previously? And why?
 [1=similar to version(s) heard previously, 7=like a new arrangement]
 [open textbox]
 - If no, to what extent did this feel like a reimagination and to what extent did it feel like what you would expect from a traditional performance? And why?
 [1=feels like a reimagination, 7=feels like a traditional performance]
 [open textbox]
2. Did the story make sense in this arrangement (could you understand what was happening)?
 [1=did not make sense, 4=not sure, 7=make sense]
3. How was the pacing of the story?
 [1=too slowly, 4=just right, 7=too fast]
4. How effectively did the orchestral accompaniment support the voices in this performance?
 [1=unsupported, 7=well-supported / 8=not sure]
 - If you would like to comment on why, please do so here.
 [open text box]
5. Did you enjoy the performance? [yes/no/not sure]
 - If you would like to comment on why, please do so here.
 [open text box]
6. How well did the music reflect the atmosphere of the story?
 [1=did not reflect, 7=reflects well]
 - What does atmosphere mean to you?
 [open text box]
7. To what extent did the atmosphere of the music suit the setting and staging of the opera?
 [1=does not suit the setting/staging, 7=suits the setting/staging]
 - If you would like to comment on why, please do so here.
 [open text box]
8. Is there anything about the music you did or did not like in particular?
 [open text box]
9. Please list all the instruments you heard in the music.
 [open text box]
 - Please list all the instruments that you think had an important role.
 [open text box]
 - How did you decide which instruments had an important role?
 [open text box]
 - Why do you think they had an important role?
 [open text box]

- To what extent did it feel like the instruments had music material which worked well for them in terms of setting the mood, scene and atmosphere?
[1=did not work well, 7= worked well]

Questionnaire for Singers:

1. Do you enjoy this arrangement of *The Merry Widow*?
[options: yes / no / not sure]
2. How well do you know the original version of *The Merry Widow*?
[1=not at all, 7=very well]
 - Did you enjoy performing this arrangement more or less than the original score, and why?
[1=enjoyed this less, 7=enjoyed this more]
[open text box]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]
3. How well did the music reflect the atmosphere of the story?
[1=did not reflect, 7=reflects well]
 - What does atmosphere mean to you?
[open text box]
4. To what extent did the atmosphere of the music suit the setting and staging of the opera?
[1=does not suit the setting/staging, 7=suits the setting/staging]
 - If you would like to comment on why, please do so here.
[open text box]
5. How was the pacing of the story?
[1=too slowly, 4=just right, 7=too fast]
6. How effectively did the orchestral accompaniment support your voices?
[1 = unsupported, 7=well-supported]
 - If you would like to comment on why, please do so here.
[open text box]
7. With regards to stamina, how challenging was the arrangement?
[1=not challenging, 4=just right, 7=extremely challenging]
 - If you would like to comment on why, please do so here.
[open text box]

Questionnaire for Orchestra Musicians

1. Do you enjoy this arrangement of *The Merry Widow*?
[options: yes / no / not sure]
2. How well do you know the original version of *The Merry Widow*?
[1=not at all, 7=very well]
 - Do you enjoy this arrangement more or less compared to the original, and why?
[1=enjoy this less, 7=enjoy this more]
[open text box]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]

3. How well does your part suit your instrument?
[1=not well, 7=very well]
 - If you would like to comment on why, please do so here.
[open text box]
4. How well do you feel your part works with the rest of the ensemble?
[1=not well, 7=very well]
5. How well do you feel your part works in terms of setting the mood, scene, and atmosphere of the music?
[1=not well, 7=very well]

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- 1) OperaViva's adaptation of *The Merry Widow*:

https://drive.google.com/file/d/1cijFQHjaoA7s_lylR0ol39R05mcsQ5jh/view?usp=sharing

- 2) Vocal score of the arrangement of *La bohème*:

https://drive.google.com/file/d/1K7suLQkuXr7BiLBZWd8RrflRi3URL1P5/view?usp=drive_link

- 3) Vocal score of the arrangement of *The Merry Widow*:

https://drive.google.com/file/d/1dhUskYWMnsr41Yy6jeGv68fQA5xRda76/view?usp=drive_link

Folder with all of the above documents: https://drive.google.com/drive/folders/1wauSovvx2c1-9XXE-OIQg5TkHMPkzE9n?usp=drive_link

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3. Arrangement of Lehár's *The Merry Widow* score
4. Video Recording of Lehár's *The Merry Widow*

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E.g., *Puccini's La bohème - Original Score, Act I, p. 9*

For my own arrangement:

[Composer]'s [Opera Title] - Arrangement [Part if applicable], [Musical number/Act and Bar Number(s)]

E.g., *The Merry Widow - Arrangement, No. 1, Bars 109-114*

For other arrangements:

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Abstract

Chamber arrangements of large-scale works have been gaining popularity in the last decade with professional groups, educational institutions, and amateur opera societies, especially as they reduce costs and allow for performances in small venues. Their use also increased as they allowed for social distancing during the Covid-19 pandemic. However, many arrangements are often poorly executed, and scores include indications pencilled in haphazardly, resulting in time being wasted before and during rehearsals. Therefore, this thesis suggests alternative approaches and explores how we can re-realise opera performance by using chamber arrangements. It will explore the methods which may be used in producing these arrangements, illustrated by my own arrangements and performances (I also conduct the performances) of two operas, a 65-minute version of Puccini's *La bohème* that was performed in November 2021 and Lehár's *The Merry Widow* that was performed in April 2023.

There is little literature on how a chamber arrangement of an opera might be made, with reduced forces and reduced duration. Hence, in order to construct a framework for my own arrangement, I proposed a list of ten factors to consider when producing an opera arrangement. I also documented my process of arranging the two operas with regards to the ten factors. And finally, I designed a questionnaire that would be able to capture useful data from the audience, singers and instrumentalists involved in the performances. By undertaking this research, I found out that the ten factors were comprehensive in making sure that all aspects of producing an opera arrangement were considered. They consider the entire journey from the genesis of a project regarding its purpose and vision, which leads onto the arranging process, and finally towards the performance, after which, feedback is obtained. There is much that arrangers may learn from the research presented in this thesis such as the methods by which I employed the use of current timbre research to analyse an original score through the listening process and translating that into my own arrangement.

Acknowledgements

I would like to thank my supervisory team: Dr Michelle Phillips, Professor Adam Gorb, Dr Adam Swayne, Dr Simon Clarke, and Dr Benjamin Bowman (MMU) for all their invaluable counsel and insights. Thanks also go to Professor Mark Heron, Professor David Horne, and Professor Jane Ginsborg for the additional support and guidance.

Thank you to Alvin Seville Arumugam (Artistic Director of Musicians' Initiative) for commissioning me to produce the arrangement of Puccini's *La bohème* and inviting me to conduct the production.

Thank you also to the fantastic committee and every single musician in the orchestra, and to director Tang Xinxin and the cast members, Teng Xiang Ting, Jonathan Charles Tay, Felicia Teo, and Martin Ng for bringing the production to life.

To the lovely people of OperaViva, thank you for performing the arrangement and having the courage to put on a reimagined version of Lehár's *The Merry Widow*. I am grateful for the time and effort put in by David Palmer, Vivienne Sharp, Norah Button, Alexandra Thackray, Jim Craig, and every single member of the company for all the work they have put in. Thank you to all the instrumentalists involved in the production (Robert Chester, Anna Tulchinskaya, Olga Eckert, Ben Cartlidge, Jeanette Szeto, Rhainna Wade, Hermione Smith, Saulo Roberto, Leila Marshall, Kristine Healey, Beth Nichol, Johanna Leung, Peter Athans, and Sebastian Williman).

Finally, thank you to all my family and friends for all their patience and unyielding support throughout this entire process, for without their encouragement none of this would have been possible.

List of Performances

Puccini - *La bohème*

Arrangement commissioned by Musicians' Initiative

Dates and Venue: 15th/17th October 2021, Gateway Theatre, Singapore.

Director: Tang Xinxin

Cast: Mimi - Teng Xiang Ting; Rodolfo - Jonathan Charles Tay; Musetta - Felicia Teo; and Marcello - Martin Ng

Instrumental Ensemble: Musicians' Initiative

Lehár - *The Merry Widow*

Arrangement produced for and performed by OperaViva

Dates and Venue: 28th April 2023 - Mossley Hill Club, L18 4PT; 29th April 2023 - St Mary's College, L23 5TW; 30th April 2023 - Heswall Hall, CH60 0AF

Directors/Producers: Alexandra Thackray, David Palmer, Jim Craig, Vivienne Sharp

Cast: Hanna - Bernadette O'Keefe/Pamela Ashcroft; Danilo - David Palmer; Camille - Alexandra Thackray; Valencienne - Lauren Estlin/Eva Edwards; Baron Zeta - Steve Riordan; Njegus - Freddie Ligertwood; St Brioche - James Fleming; Cascada - Peter McColgan; and the chorus of OperaViva

Instrumental Ensemble: Freelance instrumentalists from the North West England

Violin - Anna Tulchinskaya, Olga Eckert, Ben Cartlidge; Viola - Jeanette Szeto; Cello - Rhianna Wade, Hermione Smith; Bass - Saulo Robertson; Piano - Robert Chester; Flute/Piccolo - Leila Marshall, Kristine Healey; Clarinet/Saxophone - Beth Nichol, Johanna Leung; Trumpet - Peter Athans, Sebastian Williman

Personal Context

I am a professional conductor having worked with a variety of ensembles such as the BBC Philharmonic, Royal Liverpool Philharmonic Orchestra (RLPO), Manchester Camerata, Northern Ballet, London Voices, and many more. As the current music director of OperaViva, an amateur opera company in Liverpool, I have conducted staged productions of Verdi's *La Traviata* (1853), Donizetti's *L'elisir d'amore* (1832), and more. I have also acted as the assistant conductor for the premiere production of Gorb's *The Path to Heaven* (2018) and for the RLPO's concert production of Verdi's *Falstaff* (1893). As an arranger, I have made multiple professional arrangements such as Bizet's *Carmen Suite No. 1* (1885/2017) and *No. 2* (1886/2017) for a chamber ensemble and was also recently commissioned by Kolbotn Konsertorkester, Norway, to arrange excerpts from Puccini's *Tosca* (1899/2020) and two Spanish songs, Chapi's *Carceleras* (1889/2020) and Montsalvatge's *Canto Negro* (1945/2020), for voices and wind orchestra. For this PhD, I created and performed arrangements of Puccini's *La bohème* (1896/2021) and Lehár's *The Merry Widow* (1905/2023), commissioned by Musicians' Initiative, a professional ensemble in Singapore, and OperaViva respectively. At the point of submission, I am in the middle of producing an arrangement of Poulenc's *La Voix Humaine* (1958/2023) that has been commissioned by Pegasus Opera, London.

My experience as a professional conductor and arranger, together with my work in opera, resulted in my interest in this topic and led to me pursuing this PhD in 2020. As conductors, we are exposed to reduced-size arrangements on a regular basis for a variety of reasons such as the financial restraints of not being able to engage a larger ensemble, existing groups of smaller ensembles wanting to perform a larger work (eg. a chamber orchestra wanting to play a Mahler symphony), and for conducting education (in which an arrangement can make an expensive experience much cheaper). It is through this lens, that of a professional conductor, that I discovered that there was a gap in the knowledge, literature, and quality of producing such arrangements. Arrangers need to consider a broader range of factors. As such, this became an opportunity to bring together my experiences with existing research on music perception research and of course, orchestration.

Chapter 1: Overview

“Whereas purists maintain that no one should tamper with the music of the past, history answers with very strong reminders that transcription is perhaps as old as composed music itself.”

- Samuel Adler (2002, p. 666)

While chamber arrangements have always occurred throughout history, they started to gain popularity at the beginning of the 20th century when Schoenberg founded the *Verein für musikalische Privataufführungen* (Society for Private Musical Performances) on 23 November 1918. They had the aim of promoting modern music (Stuckenschmidt, 2018) where orchestra works were often reduced to suit whatever small instrumental ensembles were available (Meyer, 2000). Even before this, albeit in a less structured way, since the Baroque period, composers have been known to adapt pieces of their contemporaries and predecessors and orchestrate these for whatever instruments were available (Adler, 2002). Both Erwin Stein¹ and Benjamin Britten have created reduced orchestrations of selected movements from Mahler’s first three symphonies, and an arrangement of Bizet’s *Jeux d’Enfants* by Finck which put “this charming music within the grasp of Theatre Orchestras, often shamefully undersized” (Warrack, 1944, p. 362). In recent years, Aurora Orchestra have performed many of such arrangements: Bartok’s *Miraculous Mandarin Suite*, Mahler’s *Das Lied von der Erde*, and more (Rye, 2017; Tonkin, 2019).

Throughout history, chamber arrangements of opera have helped to bring music to the wider community. Even in the 19th century, composers often had to be flexible depending on the venue, especially in Italy where “the budget did not allow for hiring a large ensemble and where the size of the theatre often dictated the use of a smaller group” (Harwood, 1986, p. 111). Composers often “wrote for a certain size orchestra and some of these instruments can easily be dropped with very little rearrangement and negligible loss of effect” (Warrack, 1944, p. 363). In the last decade,

¹ Stein has also created a reduced arrangement of Mahler’s Fourth Symphony.

chamber arrangements have again been gaining popularity with professional groups, education institutions, and amateur opera societies, because they reduce costs, allow for performances in small venues, and also allowed for social distancing during the Covid-19 pandemic. This is also in light of the fact that many arts organisations are under threat with arts funding being precarious, such as the major cuts to public funding announced by Arts Council England in November 2022 and the fact that there has been a 46% reduction of government funding for the arts in real terms since 2005 in the United Kingdom (Musicians' Union, 2023). Scottish Opera put on a touring production of Donizetti's *Elixir of Love* in 2016 where the entire orchestral score was reduced to a string trio, horn, and guitar, which helped take the "opera out of the cities and out across Scotland" (Smyth, 2016, para. 6). Reduced scores are also often used by music colleges: the Royal Northern College of Music's production of Humperdinck's *Hansel and Gretel* in 2018 used an arrangement by Derek Clark (Beale, 2018), and the University of South Dakota have used arrangements for multiple of their productions (L. Viquez, personal communication, December 1, 2019). Professional groups have also performed from arrangements of popular works, for example, during the Covid-19 pandemic, Michigan Opera Theatre put on a one-hour chamber-sized arrangement of Wagner's *Götterdämmerung* (Ross, 2020).

However, many arrangements are often poorly executed resulting in time being wasted before and during rehearsals. Chamber arrangements of operas often use a copy of the original full score with the changes pencilled in with the indications of what is omitted or rewritten often poorly indicated. This can be seen in Figure 1 which is the first page of the full score of Bizet's *Carmen* (1875) for 11 players (string quintet, wind quintet, and percussion) by Pocket Publications, one of the main providers of such arrangements in the UK. Individual instrumental parts also often use original existing parts with the additions pencilled in (T. Burke, director of Pocket Publications, personal communication, November 21, 2019). The string parts usually stay the same and this becomes an issue when there is divisi in the original (as the reduced ensemble may only have one instrumentalist per part), especially when the arrangement is intended for a string quintet, and the

parts are often unclear, as notes would be scratched out and missing lines are written in by hand. Sometimes, the transpositions for the wind instruments are in the wrong key (L. Viquez, personal communication, December 1, 2019). As such, effectively realising such arrangements often results in a loss of rehearsal time. Arrangements that come with a full score of the reduced instrumentation with clearly prepared parts are an exception as these are usually specially commissioned for specific projects such as Stephen McNeff's *Carmen* (2014) for Mid Wales Opera (published by Edition Peters) or Laura Bowler's *The Flying Dutchman* (2023) for OperaUpClose tour. Hence, there is a need for practical, informed, and clear professional arrangements. This project aims to suggest alternative approaches and explores how we can re-realise opera performance using chamber arrangements.

Figure 1

First page of Pocket Publications arrangement of Bizet's Carmen²

1. Prelude

Allegro giocoso. $\text{♩} = 110$.

The musical score is arranged in a standard orchestral format. The woodwind section (Flute, Piccolo, Oboes, Clarinets in A, Bassoons) is at the top, followed by the brass section (Horns in A and E, Trumpets in A, Trombones). The percussion section (Tympani, Triangle, Drums and Cymbals) and Harp are in the middle. The string section (Violins I, Violins II, Violas, Cellos, Basses) is at the bottom. The score includes dynamic markings such as *ff* and *ott.* (pencil). The tempo is *Allegro giocoso* with a metronome marking of $\text{♩} = 110$. The key signature has two sharps (F# and C#).

² As shown, the woodwind players play their original part (the bassoon has extra notes pencilled in), while the horn plays the trombone part (also with the indication pencilled in the score). This score is intended for 11 instrumentalists.

Before going further, it is worth acknowledging that the word “arrangement” can mean slightly different things to different people. Encyclopædia Britannica has a more general definition whereby arrangement refers to “any adaptation of a composition to fit a medium other than what it was originally written, while at the same time retaining the general character of the original” (Britannica, 1998). However, both Alfred Blatter and Samuel Adler (two authors of widely used books on orchestration and instrumentation) give a more specific definition but also a rather different definition of what an arrangement means. Blatter (1997) states that it “incorporates both transcribing and a certain amount of composition” (p. 388) while Alder (2002) believes that it “involves more of a compositional process, since the previously existing material may be as little as a melody” (p. 667). Transcribing on the other hand is “a literal transference of a previously composed work from one musical medium to another” (Adler, 2002, p. 667). Therefore, it is paramount that the definition of the term arrangement is consistent throughout this thesis; its definition henceforth will be similar to Encyclopædia Britannica's and will be used as an umbrella term to refer to any work that has originated from a previously composed work for a different musical medium (including concepts of orchestration, composition, and transcription). We will further explore the types of arrangement in this context in Chapter 2.

There are four notable scholarly articles that explore chamber arrangements. The first is by Junghwan Kwon (2016) on the difference between Mahler's *Symphony No. 4* (1902) and Klaus Simon's arrangement (2007) for fifteen musicians. Kwon discusses how Simon compensates for the smaller string section, and how the winds compensate for the absence of brass instruments (Kwon, 2016). The second by Richard Parks (1999) explores how the arrangement (1920) of Debussy's *Prélude à L'après-Midi D'un Faune* (1894) was undertaken, which was used by Schoenberg's Society for Private Musical Performances. The third is by Felix Meyer (2000) exploring Webern's arrangements of his own piece, *Six Pieces for Orchestra* (1909), in which Meyer discusses how Webern adapted his own work for various ensemble sizes; the piece has a large orchestra version (1909), a slightly smaller revised orchestra version (1928) and an even smaller chamber ensemble

version (1920). Finally, a paper by Sun Ai-Kuang (2006) on Schoenberg and Riehn's chamber transcription (1983) of Gustav Mahler's *Das Lied von der Erde* (1909). The papers only focus on the methods employed by the arrangers for these specific pieces. As such, they do not offer a comprehensive view into what should be considered when producing an arrangement and also do not consider any process of reimagination. Besides these four papers, there is limited academic writing about how chamber arrangements are produced, especially in the context of opera, and no existing research on the effect of arrangement on audience perception and enjoyment.

I have explored five prominent books on orchestration. All five books have extremely useful detail relating to the properties of each instrument and their typical scoring, as well as the special effects of each instrument type. However, the texts are limited in that while they do discuss various possible orchestration techniques, the main focus tends to be with regards to producing a new composition. There may be a few chapters on arrangement, but they are either about rewriting from a smaller to bigger medium or between two specific mediums (e.g., wind band to orchestra or vice versa in Adler's book). First, Berlioz and Strauss's (1948) *A Treatise on Modern Instrumentation and Orchestration* mainly discusses the instruments and their usage. It also has a section on the voice from a more compositional point of view i.e., which voices to choose and how to write for them. Second, Rimsky-Korsakov's (1922) *Principles of Orchestration* discusses the balance between voice and ensemble as well as doubling voices with instruments. However, the author's points gravitate towards large orchestral writing as he talks about being careful not to overpower the voice with instrumental writing. The requirements are often the opposite in chamber arrangements where it is important to support the individual voices instead. Third, Walter Piston's (1955) *Orchestration* has a relevant chapter on "background and accompaniment," although this mainly discusses the full orchestra setting with interesting points of balance within the ensemble but without specifics to voice or opera. Fourth, Samuel Adler's (2002) *The Study of Orchestration* again mainly discusses scoring from a composition point of view. However, it includes a short chapter on "Transcribing to Various Available Instrumental Combinations." Ideas from the chapter include reducing the work to

a piano score (or piano four-hands) and using that to carefully re-orchestrate the piece to whatever instrumental combination one is writing for. Other notable points include the suggestion of using the piano as another orchestral instrument, and ideas relating to writing for amateur musicians who might have problems in the extreme registers. Finally, Alfred Blatter's (1997) *Instrumentation and Orchestration* similarly discusses arranging from "only a lead sheet; a melody and a set of simple chords" (p. 410), and states that the arranger's job is to "assemble all of the missing material" (p. 410). While the contents may be useful for any arranger, much of it needs to be looked at from a new set of lenses when taking into the context of producing a reduced arrangement instead of orchestrating from a smaller work. An important point raised is the importance of being able to "locate the various musical lines to be found in the composition" (p. 329), something to be discussed more in detail in section 2.2.5 below.

These books form a useful basis when producing arrangements, as they provide an understanding of how to utilise an instrument when scoring a piece. However, they do not directly address the issue of producing a chamber arrangement from an originally larger work. Producing such an arrangement involves a method of rewriting, so as to maintain balance within the ensemble and to manage the power of the ensemble in relation to the voice. Many of these papers and books ignore a wide variety of other factors that an arranger should consider; these texts do not explore how one should reallocate the lines (see sections 2.2.5, 3.3.5, and 4.3.5 below), nor do they attempt to engage in research that explores how instrumental timbres are perceived (see sections 2.2.4, 3.3.4, and 4.3.4 below) or with research on audience perception (see sections 2.2.10, 3.4, and 4.4 below).

1.1 Aims

This original research in this thesis intends to fill the gaps which currently exist regarding how one should approach arranging an existing operatic work and to highlight the factors that are important for the arranger to consider. Therefore, the outcome of this project is to re-realise opera

through arrangements for chamber ensemble so that they can be used by organisations, especially those with financial and logistical limitations. It aims to explore what it means to re-realise opera performances by delving deeper into two of the three categories mentioned in Chapter 2, *Direct Reduction* and *Reimagination*. Therefore, this project interrogates what it means to maintain the composer's intention and what it means to reimagine an opera. By evaluating the factors that should be considered in producing a usable opera chamber arrangement and exploring ways in which to gauge the success of the arrangement by inviting audience responses, it aims to promote better quality access to opera for performers and audiences through the publication and performance of these new arrangements. As part of this project, two operas have been arranged: Giacomo Puccini's *La bohème* and Franz Lehár's *The Merry Widow (Die Lustige Witwe)*.

1.2 Questions

The project addresses the following questions:

- 1) What forms can an opera arrangement take and what are the factors an arranger should consider when producing an opera arrangement for chamber ensemble?
- 2) How can we practically use these factors to produce two new arrangements, taking into account the fact that the arrangements should also be able to be performed with limited resources and/or in community settings (often involving amateur musicians)?
- 3) What are audiences and performers' impressions when listening to these arrangements?

Chapter 2: Study of Arrangements

2.1 Types of Arrangements

In categorising the types of arrangement that exist, I have devised three main categories: 1) *Direct Reduction*: an arrangement that aims to keep as much of the composer's intentions such as with regards to timbre and atmosphere; 2) *Reimagination*: an arrangement that takes the original music material and reinterprets it – decisions on orchestration and instrumentation therefore become fluid; 3) *Hybrid with Synthesised Sounds*: an arrangement that uses a combination of real musicians and synthesised sounds, often used in musicals (see examples discussed below in section 2.1.3). While these categories are presented here as separate, arrangements might fall into a category that is a combination of two as is later discussed in my arrangement of Puccini's *La bohème* in Chapter 3. In the following sections I will discuss how previous literature has defined an arrangement, and outline where I feel existing thinking does or does not adequately represent this practice as a whole.

2.1.1 Direct Reduction

Blatter (1997) proposes two approaches of transcribing; the first is to recreate the sound of the original composition in the new medium and the second is taking the stance that the original version is only one of the many possible versions of the piece. The first approach produces a direct reduction, an arrangement whereby the arranger transcribes a work that is initially for a large ensemble and reduces its instrumentation while still maintaining as much of the composer's intention as possible. Examples of direct reductions include the arrangement (1920) of Debussy's *Prélude à L'après-Midi D'un Faune* (1894) for Schoenberg's Society for Private Musical Performances and the many versions of Mahler's various Symphonies, some of which have been mentioned in Chapter 1. With opera arrangements, there are many available but they vary in their success and are often plagued with issues that were mentioned in Chapter 1.

2.1.2 Reimagination

Blatter's second approach to transcribing would be similar to producing an arrangement that would be considered a reimagination. However, a reimagination should encompass much more than Blatter's brief definition, as it should also take into account a variety of other factors such as the structure, setting, staging, libretto, and many more, and not just the medium itself. All of these factors are relevant when such an arrangement is made. A reimagination takes the original music material and interprets it, sometimes in a way that makes it more accessible or relevant, and as such, instrumentation and orchestration choices become much more fluid. To some extent, this also becomes an act of creative composition.

2.1.3 Hybrid with Synthesised Sounds

This type of arrangement uses a combination of both live musicians and synthesised sounds. This is an approach currently used by musical theatre groups with pit ensembles for music theatre becoming smaller (Meffe, 2011). Synthesisers were first used to supplement live musicians, which led to the virtual orchestras that could be operated by a single musician and produce tones of various instruments and respond to real-time tempo changes (Gibbs, 2019). There are two main versions of virtual orchestra technology. The first is by Realtime Music Solutions which has a "technologist" dictate the tempo while the computer plays back sounds that have been sampled and pre-programmed (Bianchi & Campbell, 2000). The second is by Music Arts Technology whereby "the music is controlled by a musician at the keyboard, but their playing triggers a multitude of sounds that mimic as many instruments as desired" (Gibbs, 2019, p. 284). Ableton Live, a digital audio workstation, is also used in Broadway orchestras to "trigger preprogrammed musical segments and to digitally process vocals and acoustic instruments in real time" (Gibbs, 2019, pp. 274-275).

Use of such technology encompasses an ethical dilemma which has also hit productions in Broadway and West End. Virtual orchestras were created for the "sole purpose of saving money by hiring one musician to play the music of an entire orchestra" (Gibbs, 2019, p. 284) which was a

significant issue in the 2003 Broadway musicians' strike (Mulder, 2009). An example is Andrew Lloyd Webber's *The Phantom of the Opera* (1986), which once had the largest ensemble in the West End. The number of musicians in the pit was reduced in 2021 from 27 to 14 with some traditional instrumental sounds being replaced by keyboard effects, which has resulted in concerns that there will be less jobs for musicians in this field in future (Roberts, 2021).

In the opera world, there has not been a widespread use of such an approach, i.e., the use of synthesised sounds. One main reason may be that the voices and instruments in musical theatre groups are often all amplified, which makes balance much easier with virtual instruments as this can easily be tweaked by a sound engineer. For example, a Broadway staging of Puccini's *La bohème* in 2003 included the use of two electronic keyboards, equipped with Music Arts Technology's virtual orchestra, in their 28-piece orchestra but with the company performing with body microphones (Jones, 2003; Hofler, 2003). On the other hand, opera singers most often sing acoustically (with no amplification), and the use of virtual instruments might cause challenges when trying to balance or support the sound (in terms of adjusting the sound levels throughout a performance). A hybrid arrangement with synthesised sounds would require a separate more in-depth look into its potential in the opera world as well as the ethical challenges faced when using it. This category of arrangement therefore has significant challenges around the usage of digital technology, which could be considered to be a separate issue to that of the craft and responsibilities of the arranger. Therefore, this thesis will only focus on the first two categories of arrangements.

2.2 The Ten Factors

Adler (2002) believes that to master the art of transcription one needs to have:

1. *a thorough knowledge of all the instruments (their capabilities and the characteristics of different parts of their range) used in the piece you wish to transcribe as well as in the transcription you wish to make;*
2. *an intimate knowledge of the piece's structure, including its formal details;*

3. *an insight into the orchestral style of the composer whose work is to be transcribed, or if that composer has not written for orchestra, familiarity with the orchestral practices of the era in which the composer lived;*
4. *a love for the work to be transcribed;*
5. *a valid reason to transcribe a particular work (p. 667).*

Adler highlights some important points to consider but I would argue that there are a few more additional points that need to be explored. Whether an arrangement of this nature needs to be written with the familiarity of the orchestral style or practices of the era it was written in is also debatable; it could be argued that a fresh approach to an arrangement without the baggage of past traditions is also valuable. Therefore, I propose ten factors which I believe are important to consider when producing an opera arrangement, many of which have not previously been discussed or even considered in previous scholarship on arranging practice. Two considerations are worth bearing in mind: 1) Depending on the type of arrangement that an arranger is hoping to produce, some of these factors might be more relevant than others, and 2) While it is important to note that the factors are not mutually exclusive, this list is intended to enable the arranger to consider all that might be essential. The ten factors (which will be discussed in turn below) are: 1) Structure, 2) Atmosphere and Feel, 3) Instrument Choice, 4) Timbre, 5) Reallocating Lines and Dealing with Divisi and Multiple Stops, 6) Dynamics and Balance, 7) Performance Markings, 8) Modern Notation and Typesetting, 9) Reimagination, and 10) Purpose and Audience Enjoyment.

2.2.1 Structure

It is essential for the arranger to be extremely familiar with the structure (the overall form) of the original work. Therefore, this also includes being familiar with the libretto. Regardless of whether the structure is changed in the arrangement, a familiarity with the layout of the work will help and affect the rest of the ten factors. It is then important to consider the overall structure of

how the arrangement will be produced as compared to the original early in the process. One would need to decide whether to keep the full narrative, a truncated version with a coherent narrative, or even just the highlights. During this stage, it is crucial to consider the elements that constitute the coherency of the overall end-product; is it the tempo, the harmony, the narrative, or a combination of the above and more? It is important to know the intricate details of the original work's structure if the arranger is intending to make structural changes to the work. One needs to consider whether the opera is a number opera, an opera consisting of "individual sections or 'numbers' that can readily be detached from the whole" (Grove Music Online, 2001), or an opera of continuous music. When deciding which numbers in a number opera to keep and the order in which they are presented can affect the outcome of the performance. Often, the numbers might not be performed in an order that is different from the sequence in which they have been published. While this is something that changes between productions depending on various reasons such as tradition or stage direction by the director, it is important that the arranger is aware of the various formats so that the possibilities are explored.

In a number opera, the plot is either driven by recitative or by dialogue. Where there is dialogue between the numbers, it is important that the following is considered when arranging; "the moment of transition from speech to musical number has long been recognized as dangerous - as a juncture likely to disturb audience absorption" (Abbate & Parker, 2015, p. 149). Knowing the libretto as well as working with the producer and director (or another librettist who might be revising the libretto) is important so that the numbers and the text work well together. Examples will be explored in the commentary of the arrangement of *The Merry Widow* in Chapter 4. When an opera has continuous music, it can be much more straightforward when producing an arrangement if there is no change in the overall structure from the original. However, unlike the number opera which already has each small section individually packaged and defined, producing an arrangement of a continuous opera becomes trickier if there is an adjustment to the form as this needs to be dealt with carefully so that the flow and/or contrast between sections are still coherent and clear when

sections are being rewritten or removed. In certain cases, structural changes may result in alteration to the plot. Examples will be explored in the commentary of the arrangement of *La bohème* in Chapter 3. Not only is the coherence of the narrative important, it is also important to consider the tonality and whether a transition section needs to be written or a particular section needs to be rewritten in a different key.

Opera is frequently driven by the story and it is important to look carefully into the libretto in order to consider this when arranging. Familiarity with the plot and character can affect a wide range of other factors such as the atmosphere and feel (see section 2.2.2 below), the instrument choices (see section 2.2.3 below), as well as any reimagination process (see section 2.2.9 below). Having a concrete idea of narrative structure at each particular moment allows the arranger to have a clear conception of the atmosphere and feel each section is supposed to create. This will allow for an informed choice on the techniques to employ in the arrangement and also for a contrast between the sections. Furthermore, this will inform the instrument choices of the entire arrangement so that the arranger will be able to select the appropriate instruments to evoke the outcome intended; this will inform the decisions made with regards to instrumental pairing or which instrument to use so that there is a contrast between the different sections. Finally, this clarity of the original will help with the reimagination process as it will allow the flexibility of knowing what can be changed.

2.2.2 Atmosphere and Feel

It is necessary to consider what it means to maintain the same atmosphere or feeling of a particular section in an arrangement when compared to the original. This can either mean that it is written in a way that maintains the same “vibe” as the original or rewritten in a way that changes it when reimagining an opera. This is a difficult quality to conceptualise and assign a procedure for, yet it is one that is often necessarily and importantly assumed that an arranger will prioritise. With a direct reduction, on a surface level, it means that the musical material itself is left untouched; the harmony and musical motifs are not changed. Despite the reduction in the size of the ensemble, it is

important to find ways to maintain the essence and character of the original. Often, arrangers are meticulous in making sure that the harmony and musical motifs are similar to the original but in doing so the music sometimes loses the atmospheric characteristics achieved in the original. Pierre Boulez (1987) expresses that practical descriptions in books on orchestration are divorced from their context. For example, he mentions that Berlioz's book on orchestration shows a close but incoherent link between symbolism and affectivity; Berlioz makes the analogy that the lowest register in the clarinet sounds "hollow" but also compares it to the sombre feeling of anguish. Chapter 3 will explore how I attempt to recreate the same atmosphere and feeling as the original through my arrangement of *La bohème*.

With reimaginings, it is essential that the new arrangement creates a different atmosphere and feeling, and to do so might involve changing the harmony, musical motifs, or ostinato parts to achieve the desired outcome. For example, in the 2020 English National Opera Drive-in production, sections were broken up with "interludes of excerpted orchestral Puccini backed by hip hop beats" (Scott, 2020) which gave the production a music festival atmosphere. More examples will be explored in the section 2.2.9 on reimagination below. Chapter 4 will explore how I attempted to refashion *The Merry Widow* in such a way that changes the atmosphere of the music from a 19th-century ballroom into a 1920s jazz club. It is therefore important to note that knowing the overall atmosphere and feel the arrangement is attempting to portray will influence the instrumentation choices.

This factor also brings up an interesting point because of the terminology. There is an issue of shared vocabulary; what this means for one person could be different for the next. How can we maintain something that is elusive, intangible, not easily translatable between people, and does not have clear links to existing research? What changes the "feeling" or "vibe", and what does not? Or does everything change it in some way? Much of what is discussed here also ties in closely with section 2.2.4.

2.2.3 Instrument Choice

While this might be limited by other concerns such as the production's budget or an existing ensemble instrumental line-up, choosing the right number and types of instruments in an arrangement is a significant decision that can quickly become a limiting factor. When it comes to the string section, there is a tradition for most arrangements to use a quintet (two violins, one viola, one cello, one bass); is that the best combination of strings or would having a trio (violin, viola, cello) or quartet (violin, viola, cello, bass) be better? The former is what often happens as it is the most straightforward way to duplicate the original string parts which would be for Violin I, Violin II, Viola, Cello, and Bass, which would save the arranger a lot of time when transcribing as they would be able to copy over most of the original string parts into the arrangement, except for situations whereby this may be hindered by divisi markings. There are various existing arrangements of operas that diverge from this norm, especially in a situation whereby the original work is so large that the reduced arrangement would be totally different; for example, Laura Bowler's *The Flying Dutchman* (2023) uses a string trio of violin, cello, and bass (OperaUpClose, 2023). Another is Stephen McNeff's *Carmen* (2014) which uses a string quartet of violin, viola, cello, and bass. This combination was probably chosen to cover the entire string range and allow enough overlap between the instruments to accommodate doubling where needed.

It is important when producing a direct reduction to think about whether there are crucial instruments that need to be kept in the arrangement in order to recreate something that is similar to the original in terms of timbre and texture, which we will also explore in section 2.2.4. And when producing a reimagination, deciding on which instruments would create the desired effect that will fit the overall artistic vision of the new work. Quite often these will be instruments in the wind and brass sections, as these will most likely be the sections with the greatest reduction in the number of individual parts. While not related to operatic repertoire, there are admirable examples of chamber arrangements of orchestral pieces that compensate for the reduced ensemble size with an informed choice of instruments. For example, Debussy's *Prélude à l'après-midi d'un faune* has a total of nine

distinct instrumental colours by using three flutes, two oboes, an English horn, two clarinets, two bassoons, four horns, two harps, strings, and antique cymbals while the chamber arrangement made for Schoenberg's Society for Private Musical Performances has almost as many with a total of seven by using a flute, an oboe, a clarinet, a harmonium, a piano, a string quintet, and antique cymbals (Parks, 1999). By ensuring that there is still a large number of distinct instrumental colours (only two less than the original), this enables the arranger to still have a wide available palette to use in order to create a version that closely resembles the original.

The selection of instrument choices can be crucial, as there can be important representations or associations to particular instruments that might be important in the telling of the opera narrative. Instruments might be inherently represented on stage by the opera. For example, in Donizetti's *L'elisir d'amore*, the character Dulcamara has an assistant who plays a trumpet fanfare to announce his arrival, and this is also represented in the music both times when he appears in front of the townspeople. This might of course be easily changed to a different instrument if the director accommodates that and just requests the assistant on stage play an instrument represented in the ensemble instead. However, the use of the trumpet in this context does not just signify the instrument that the assistant plays but also mimics heraldry by using the trumpet to mark or signify ceremonial or important events, which might be taken to represent the ironic satirical yet humorous representation of Dulcamara appearing to be more important than he is. Certain instruments also have important symbolic significance in music of that time and should be retained in the arrangement where possible. For example, the hallowed significance of the trombone by the German musical public in the eighteenth century resulted in Mozart using it in *Idomeneo*, *Don Giovanni*, and *Die Zauberflöte* to enhance sacred moments in each work (Dueppen, 2012). Furthermore, instrumental significance can be important when producing a reimagination. For example, McNeff wanted to create a sound in *Carmen* that reminded people of a bar "on a good Saturday night with a band in" by using instruments like saxophone, guitar, and marimba (Carmen Abroad, 2018, 0:56).

I believe it is important that at least one instrument in the arrangement needs to be a polyphonic instrument. This does not include the typical string instruments such as the violin which is usually monophonic, as its polyphonic nature is much more limited by the possibilities of multiple stopping. McNeff uses a guitar in *Carmen* (Bizet, 2014), while Bowler uses an accordion in *The Flying Dutchman* (OperaUpClose, 2023). More commonly however, is the use of either the piano, harmonium, or harp. A polyphonic instrument is crucial to make up for the reduced numbers especially when arranging from a larger work. However, it is still important to treat it like another orchestral instrument which might be able to add body to sections, provide arpeggiated accompaniments, or occasionally doubling solos. A harp part could also be rendered by a polyphonic instrument such as the guitar or piano. The use of harmonium or accordion is also a popular choice as they offer the ability to sustain chords which could support and complement well with wind or brass instruments. However, while I understand the appeal of the sustaining quality, I personally feel that they are often unsuitable for a direct reduction (although they have been used in many reduced symphonic works) as they have a very distinct instrumental colour that drastically changes the sound of the ensemble from the original. For example, in Schoenberg's arrangement (1921) of Strauss's *Rosen aus dem Süden* (1880) for string quartet, piano, and harmonium, the harmonium covers much of the brass and woodwind parts. The result is an overall drastic change in the sound as the arrangement loses the colour of the woodwinds and brass instruments in which the harmonium does not effectively substitute.

Finally, it is important to decide the key that the music is to be played in, as this will affect both the instrumentalists and singers. Transposing to a higher or lower key, while perhaps rare, does happen for certain operas or specific sections/arias for various reasons. Sir Charles Mackerras performed Donizetti's *Lucia di Lammermoor* with sections of the music restored to the original higher keys in which the composer wrote (Crutchfield, 1999); it was initially lowered so that the highest note in the soprano aria is brought to an E-flat from an F (Gramophone, 1998). Dame Joan Sutherland sang the Queen of the Night aria from Mozart's *Die Zauberflöte* in C-minor instead of the

original D-minor in the early 1960s (Crutchfield, 1999). In the 1990s, Placido Domingo would sing sections in the role of Canio in Leoncavallo's *Pagliacci* in a lower key (Davis, 1999). There is a common tradition for tenors to sing Rodolfo's aria, "*Che Gelida Manina*", from *La bohème* in a lower key so that they can carry the top note with ease; Rolando Villazon often does so in his performances and can also be heard when he sang in the movie version of the opera (Dornhelm, 2008). As such, knowing the tradition whereby sections or arias might need a transposition option would be helpful to include in any arrangement. It would also be essential if the arranger knows the singers who will be singing in the initial performance of the arrangement. Furthermore, knowing the type of company that is going to sing the arrangement is also helpful. For example, there is a version of *The Merry Widow* (1958) which has the story and lyrics adapted by Phil Park with the music adapted and arranged for large orchestra by Ronald Hanmer which had the music being a whole tone lower than the original so as to accommodate amateur operatic and dramatic societies (Scott, 2019). Selection of the right key might include range considerations whereby a particular low note in a particular instrument needs to be within range or for scoring options whereby certain passages might allow the winds to double at an octave without becoming too high (Blatter, 1997).

Therefore, when producing a direct reduction, are the same instruments needed to recreate something that is similar to the original, especially in terms of timbre and texture (explored further in section 2.2.4)? When producing a reimagination, what choice of instrument would create the desired effect that will fit the overall artistic vision (explored in section 2.2.9)? These considerations are an important part of the thinking of an arranger.

2.2.4 Timbre

“...timbre perception is at the heart of orchestration practice...”

- Dr Stephen McAdams (2019b, p. 212)

Timbre is “thought of as any property other than pitch, duration, and loudness that allows two sounds to be distinguished” (Siedenburg et al., 2019), and is “a rather vague word that implies a multiplicity of perceptual qualities” (McAdams & Goodchild, 2017, p. 129). This topic of timbre is linked to the previous two points of atmosphere and feel, and instrument choice. This factor offers a fantastic opportunity to draw different fields on this topic together, for example, professional practice and research on music perception.

A recent paper by Dr Lindsey Reymore (2022) characterised the timbre trait profiles for 34 instruments common in the Western orchestra by using a 20-dimensional model. The model is intended to suggest what is to be the closest timbral neighbour of an instrument based on each instrument’s characterisation. Such a model might be an interesting tool to use in any reorchestration process as timbre research develops; currently, such decisions by an arranger are likely based on people’s generic imagined sounds for each instrument and do not account for the changes in timbre due to loudness/intensity, articulation, or extended techniques. Boulez (1987) touched upon these aesthetic issues:

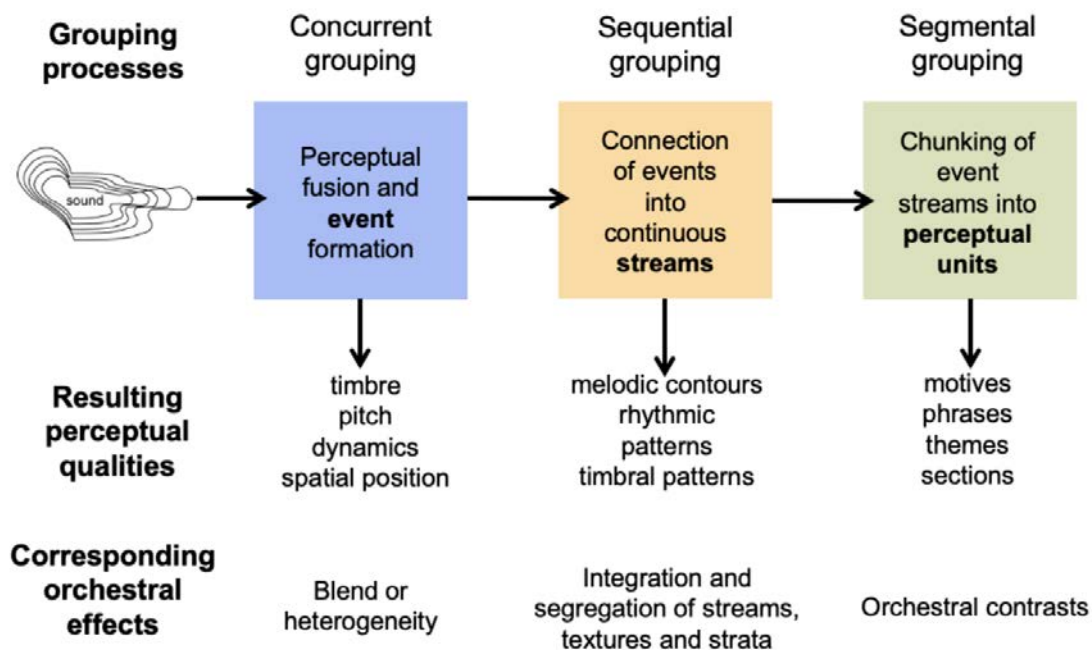
Even when one deals with the perception of sound phenomena and their quality, it is mostly a question of perception in isolation, exempt from any context. I feel that the truly artistic value of timbre is fundamentally forgotten using this approach. On the other hand we have the subjective, artistic manner of dealing with timbre, as a constituent of a musical language, along with the aesthetic and formal criteria which relate to it. This leads us to an opposite difficulty, namely the impossibility of linking instinctive feelings about the qualitative aspect to a more reasoned appraisal of the quantitative. (pp. 161-162)

Orchestration books already offer suggestions on alternative instruments that can be used. For example, Blatter's book offers a list of instrument substitutions that can be valuable especially if "a particular instrument is not available or if one just wishes to contrast or blend on instrument with one or more other instruments with similar or related sounds" (Blatter, 1997, p. 385). For example, he suggests that a high piccolo could be replaced by violin harmonics, or a low English horn might be replaced by either a viola or a clarinet with bassoon and muted horn. However, lists like this are not exhaustive and many of these combinations or solutions are in the hands of the arranger.

McAdams and Bregman (1979) realised that intentions when orchestrating a piece are related to auditory grouping processes. McAdams (2019b) discusses how timbre can be a structuring force in music and has come up with different categories in which instrumental timbre and textures can be grouped together through the process of listening; in this process, sounds are "grouped together into musical events in concurrent grouping, whether these events are connected into musical streams in sequential grouping, and how listeners chunk event streams into musical units such as motifs, phrases, or themes in segmental grouping" (ACTOR Project, n.d.). This can be seen in Figure 2 which shows the three main auditory grouping processes: concurrent, sequential, and segmental (Bregman, 1990; Goodchild & McAdams, 2021; McAdams, 1984). Through this, McAdams et al (2022) proposes a Taxonomy of Orchestral Grouping Effects which will be further explored in the arrangement of *La bohème* in section 3.3.4 below.

Figure 2

Auditory Grouping Processes (McAdams et al., 2022, Example 2)



For an arrangement to be successful, whereby success is considered to result from trying to achieve the same goals as the original, it is important to know how the music is aurally perceived. This is a factor which is not currently given any consideration in existing scholarship on the practice of producing an arrangement, but one which is ever more possible to consider, given the growth of the field of music psychology. This suggestion of the taxonomic categories and grouping processes by McAdams might help to streamline the approach and processes used by arrangers. In doing so, arrangers would be able to closely resemble the similarities and contrasts of timbre and texture between the different lines and sections in the arrangement compared to the original. It would be interesting in the future to develop a method to use these groupings described by McAdams in the reorchestration process which will be further discussed in section 5.1 below and also in Appendix 1. While timbre perception research has made many exciting breakthroughs in terms of new knowledge of how different instruments are perceived, this research is still considered to be in its early stages and a frequent challenge is that timbre “is a perceptual property, not a physical one”

(McAdams, 2019a, p. 23), which makes it difficult to measure. As such, it will be fascinating to see how progress in the field of timbre perception will influence the future of orchestration practices.

In some sense, a method and taxonomy of grouping of instrumental sounds is often already used by arrangers in the reorchestration process. In my arranging process regarding *La bohème* (Chapter 3), I will explore how arrangers can make use of some of the grouping process to analyse scores which can also help when dealing with reallocating lines, as well as analysing the outcomes from different scoring techniques. More of this will be discussed in the next factor in section 2.2.5.

2.2.5 Reallocating Lines and Dealing with Divisi and Multiple Stops

Deciding how to reallocate the various instrumental lines from an original work to an arrangement can be a daunting task for any arranger, especially if the string section will only be one-per-part in the new work. This factor considers the ways in which different parts can be allocated to different instruments, which may sometimes involve readjusting or removing octaves and might involve the revoicing of chords. In the arranging process, the theme of dealing with divisi and multiple stops appears often. The ways in which the divisi in parts can be redistributed or rewritten in the arrangement must be carefully handled, not least in a section that only uses the string section; adding a non-string instrument in the arrangement to cover a missing line may vastly change the perceived timbre of the overall section. The arranger must make an important decision on whether the colour of the section is most important or making sure all the notes are there and it can be difficult to find the suitable compromise. Elgar's *Nimrod* from *Variations on an Original Theme* is a good example; as seen in Figure 3, the first eight bars of the movement start with only strings but with the divisi in the second violins, viola, and cellos. George Morton's (2016) arrangement for 15 instrumental parts deals with this divisi by allocating some of the extra lines to the clarinet, bassoon, and first horn as seen in Figure 4; he attempts to balance the wind and brass instruments by indicating "*ppp*", one dynamic level less than the strings (more on this topic can be found in section 2.2.6, entitled Dynamics and Balance). However, in doing so, the arrangement loses the

characteristic strings-only opening of the movement of the original and also the drastic contrasts of colour that occurs when the winds and horns enter in the ninth bar of the movement. My assumption is that Morton probably wanted to prioritise the presence of all the musical lines at the expense of maintaining the string-only opening colour. The use of the bassoon adds a distinct timbre quality in this orchestration, and he probably decided that the entry of the flute in the ninth bar is significant enough to bring about the contrast. Arrangers face similar challenges frequently and will need to have the conviction that what they have done is the best possible course of action.

Figure 3

Elgar - Variations on an Original Theme, Nimrod (Elgar, 1899)

IX.
(Nimrod.)

The image displays two pages of a musical score for the movement 'IX. (Nimrod.)' from Elgar's 'Variations on an Original Theme'. The left page shows measures 33 and 34, and the right page shows measures 34 and 35. The score is for a full orchestra, including Flauti I & II, Violini I & II, Violoncelli, Trombe & Tubi, Timpani (in E, B, F), Trombe & Trombe, and Corno. The tempo is marked 'Adagio'. The score shows a transition from a string-only texture to a full orchestral texture starting at measure 33. The right page shows the continuation of the music, with various dynamics and articulations.

Figure 4

Elgar (arr. Morton) - Variations on an Original Theme, Nimrod (Elgar, 2016)

In addition, dealing with multiple stops can become quite an important consideration when deciding which notes to include or remove so that the arrangement sounds authentic while still ensuring an efficient rehearsal process can take place, as well as an ease of performance. Having notes in a double, triple, or sometimes quadruple stops on open strings may be more successful as these would have better sustaining power (Adler, 2002) and can be much easier to perform even by very inexperienced players (Blatter, 1997). Where open strings are not involved, it is most common for double stops to consist of thirds, sixths, or octaves (Sevsay, 2013). It is especially important to account for where there might be possible key changes from the original in the arrangement; a key change can change a relatively easy double or triple stop into a fiendishly tricky one. It is important to make sure that the orchestra does not sound lacking or incomplete because of missing notes (especially if listeners are familiar with the original) and to explore the different ways to compensate for that.

Furthermore, it is important to reallocate lines in a carefully thought-out manner so that the arrangement maintains a distinct characteristic of the original in a direct reduction. Schoenberg stipulated, when his students arranged for his Society of Private Musical Performances, that they should remove all doublings from the original and eliminate divisi within sections and where possible reallocate them to another instrument or keyboard (Parks, 1999). However, it might not always be ideal to remove all doublings, especially when these are among the string instruments. Doubling can be useful when a specific line in the original is played by a large viola section, but in an arrangement, the arranger might be able to obtain a lush sound by doubling the part on violin and cello where the range allows. Simon uses a similar technique in his arrangement of Mahler's *Symphony No. 4* (2007) whereby he occasionally adds passages for the viola or bass to obtain a more substantial sound to compensate for the smaller string section (Kwon, 2016). In Chapter 3 and 4, I will explore the various techniques I have employed when reallocating the lines in the two operas.

2.2.6 Dynamics and Balance

When producing a contemporary arrangement, it is important that the dynamics are clear, specific, and consistent. For example, certain composers of the past especially those during the late-Classical and Romantic period often use extreme dynamic indications of “*ppppp*” or “*ffff*” is sometimes been referred to anecdotally by musicians today as “Italian hysterics” (A. Gorb, personal communication, 2021) and as a volume instruction outside of a certain range is not useful to musicians today as it would be physically impossible. In a letter to publisher Giulio Ricordi in October 1895, Puccini wrote that “as for the *pp* and *ff* in the score, if I have overdone it, it is because, as Verdi says, when you want *piano* you put *pppp*” (Vaughan, 1960, p. 3). Some might argue that this extreme range does not only encompass the volume instruction but also includes the quality and characteristic of the sound requested. For example, Tchaikovsky's *Symphony No. 6* has an illustrative example as seen in Figure 5, whereby the clarinet starts with “*ppp*” and gets to “*ppppp*” this section finishes with the bassoon indicated “*pppppp*”, the bassoon part is often substituted by a bass

clarinet to get the required softness. In most performances, this section does not sound softer than other sections indicated “*ppp*” but has a distinct unique colour that sets a different atmosphere instead. As such, I have kept the dynamic range in my arrangements between “*ppp*” and “*fff*”, with both of those extremes being used minimally; they are only used at the biggest or most intimate moments. Where I believe the performance should have an additional different quality to the sound, I often add an emotional adjective as an additional expression marking.

Figure 5

Tchaikovsky - Symphony No. 6, Full Score, Movement I (Tchaikovsky, 1945)

The image displays a page of a musical score for Tchaikovsky's Symphony No. 6, Movement I. The score is arranged in a system with multiple staves. The top staff is for Clarinet 1 in A (Klar. 1 in A), marked 'Solo' and 'dolce possibile'. The second staff is for Flute 1 and 2 (Fag. 1,2), marked 'a 2' and '1. Solo'. The third staff is for Horns in F (1,2 in F, Hrn., 4 in F). The fourth staff is for Percussion (Pk.). The fifth staff is for Violin 1 (Viol. 1), marked 'divisi'. The sixth staff is for Violin 2 (Via.). The seventh staff is for Viola (Vc.). The eighth staff is for Cello (Kb.). The score is marked 'Adagio mosso (♩ = 60)' and 'ritardando molto'. Dynamic markings include 'ppp' and 'fff'. The score also includes performance instructions such as 'Solo', 'dolce possibile', 'a 2', and '1. Solo'.

Dynamic indications such as crescendos and diminuendos are often vague in where they start and end in some of the original scores. Figure 6 below shows an example of the original violin part from Lehár's *The Merry Widow* (1906). The dynamic markings are quite clear at certain moments, but the instructions between bars 13 to 36 are vague. Besides the starting dynamic of piano, there is not any other clear indication in this section except for relatively indistinct markings of crescendo and decrescendo. A contemporary arrangement should therefore have a much clearer indication of the dynamic instructions. While these changes may be editorial, they are important, as

they allow for the reading of the music to be much more efficient, as the vagaries of such instructions are removed.

Figure 6

Lehár's *The Merry Widow* - Original Violin 1 Part, No. 5 Duet (Lehár, 1906)

Nr. 5. Duett

Allegretto
con sord.

fz

pizz. *f*

arco *p*

div.

Langsam
div.

p

Furthermore, when the orchestration is reduced, especially with the string size being hugely diminished compared to the wind and brass section, it is important to make sure that the different sections within the ensemble are well-balanced. The dynamics for certain instrumental families such as the brass needs to be rewritten to account for their ability to overpower the orchestra in louder moments. So often in an arrangement for string quintet and wind quintet, the winds tend to be too dominant. Dynamics in each instrumental part can be a sensitive factor when working with a smaller ensemble and can greatly affect balance. Both the dynamic indication and the orchestration will have to reflect this phenomenon.

Finally, it is important to ensure the balance between the voice and ensemble. It is often an issue in such arrangements where the voice is not supported by the orchestra because of the reduced numbers. While it is usually up to the conductor/music director in the moment to ensure

that the balance between voice and ensemble is supportive but not overpowering, a clear indication in the score to help with this balance will make the overall process much more efficient, more often than not, by ensuring that the dynamics are not too soft. Sometimes, with a one-per-part string section, the effect of having muted strings might be overshadowed by an imbalance between the singers and ensemble and it might be more effective to have the strings play the passages in an ordinary fashion instead (Sun, 2006). In my arrangements, I tend to leave these in as optional depending on a variable string size and the quality of voice; their effective usage might only truly be decided in the rehearsal process.

2.2.7 Performance Markings

Performance markings refer to the articulation, expression, technical markings, and any other instructions indicated in the score. Written articulation was notated in scores at a relatively late stage in the history of music publication, with written articulations often being inconsistent and ambiguous (Lawson & Stowell, 2004). In the original score for *La bohème*, the articulation markings for the wind and brass instruments are often not consistent with those in the strings. Techniques requested by composers of the past may not have the same standardised instructions that are understood by musicians today. Arrangers need to consider how markings that appear in the original might be effectively translated in a contemporary modern arrangement. It is important for these markings to be immediately understandable by performers of today. Specific examples of these will be explored in Chapter 3 and 4.

2.2.8 Modern Notation and Typesetting

“One worthwhile suggestion that can be offered is to have the orchestrator read through each instrumentalist’s part. Two items should be checked: playability and performer satisfaction.”

- Alfred Blatter (1997, p. 422)

The previous two factors are linked to this one, notation and typesetting. When producing an arrangement, it is important that the notation is treated like that of a contemporary composition. This is so that the score and the parts are immediately familiar and easily readable by the performers of today as “bad layout–poor spacing and ill-judged page-turns, for instance–can hinder a good performance” (Gould, 2011, p. xi). Burke mentioned that it is producing the parts that consume the most time when producing arrangements for Pocket Publications as they need to be proofread and checked for page turns and instrument changes (T. Burke, personal communication, 2020).

There are many books that offer guidance on the best way to present the music and parts to the musicians. Blatter (1997) offers advice in his book on explaining how the score and parts should be prepared and laid out so that it is clear and suitable to be performed. Elaine Gould’s (2011) *Behind Bars* is a useful resource as it examines the various traditions and rules with score and parts preparation, proposes conventions that are clear and uncomplicated, as well as recommendations that are based on her experience working with composers and musicians. An example is with the portrayal of rests. It can be seen in *La bohème*, whereby the original (see Figure 7) does not use dotted rests in compound time and instead uses a crotchet and quaver rest separately instead. This makes initial reading of the music much more difficult. Gould (2011) suggests that it would be much easier to read if the rests within a beat are combined as seen in my arrangement (see Figure 8) and makes reading of it much more efficient.

Figure 7

Puccini's *La bohème* - Original Score, Act I, pp. 34-35

10 Allegro

FL. Ob. Cl. in La Fag. In Fa Cori in Fa

(Dalla porta di mezzo entrano due garzoni, portando l'uno provvisto di clichebbiglie di vino, e l'altro un fascio di legna. Al rumore i tre innanzi al camino si vedono con grida di meraviglia ed sbucano sullo provvisto parlato dai garzoni e lo depongono sul tavolo; Colline prende la legna e la porta presso il camino.)

MAR. COLL. VIOL. V. I. V. II. V. CL.

10 Allegro

Ob. Cl. in La Fag. In Fa Cori in Fa T. I. T. II. in Fa

ARGA

(comincia a far scura) (con entusiasmo) (Schauand extra con aria di trionfo)

ROD. Le do - vi - sto d'e - na - ra - ra il do - stin ci do - sti -

(gridate) (con entusiasmo)

MAR. Noè! Le do - vi - sto d'e - na - ra - ra il do - stin ci do - sti -

COLL. Le do - vi - sto d'e - na - ra - ra il do - stin ci do - sti -

VIOL. V. I. V. II. V. CL.

Figure 8

Puccini's *La bohème* - Arrangement, Act I, Bars 224-240

(There's a knock at the door. At the door is a package from his uncle; a Christmas present consisting of food, bottles of wine, cigars and fireworks.)

Marcello (incidentally): "Un regalo di mio zio"

224 Allegro

5

5

229

21

FL. Ob. Cl. In. Hrn. Trp. Fag. Rod. Mar. Vn. I. Vn. II. Vla. Vc. Dbl.

(sorpresa) *f* *ritard.* Leg. sul

Le do - vi - sto d'e - na - ra - ra il do - stin ci do - sti -

(sorpresa) *f* *ritard.* Leg. sul

Si - ga - ol - Bo - dot Bo - dot La bo - va di

Modern scores are notated very differently today and while this is always changing, it is important that the scores are notated as clearly and specifically as possible, while still making sure that the information provided is not overwhelming for the musicians.

2.2.9 Reimagination

Reimagination with regards to opera arranging can take various forms. One could alter the structure of the original by reworking the sections in various ways to make a new unique version which might also involve altering the number of cast members involved. A version of this will be explored in Chapter 3 where we explore my arrangement of Puccini's *La bohème* that has been shortened and with certain sections rewritten to make it a coherent piece. Reimagination could also be altering the "feel" of the music and in doing so changing the genre; this could include introducing new instrumental timbres and textures that are not in the original. For example, Stephen McNeff's arrangements of *Carmen* include a guitar, alto saxophone, and muted trumpet to create a burlesque feel (Power, 2014). Furthermore, there is also the possibility of rewriting the libretto to make the story more relevant today. The process of reimagination may tie in with or will bring together many of the aforementioned points. For example, OperaUpClose's recent touring production of Wagner's *The Flying Dutchman* rearranged by Laura Bowler for eight instrumentalists features a combination of the three aforementioned points: a change in the structure including a reduction in the number of cast members to just five singers, instrumental changes (accordion and instrumental members singing), and a new English version by Glyn Maxwell based on an original concept by director Lucy Bradley (OperaUpClose, 2023). This version tweaks the plot from a seaman condemned to sail the sea for eternity to a modern-day refugee tale set in a dystopian modern-day England. This innovative version made use of the instrumental ensemble as part of the setting while occasionally changing their outfits to fit the story, interacting with the cast, as well as singing as a chorus. As such, there are many other ways a reimagination can happen and the end-product is only limited by the imagination of the arranger and the brief they are given. Another example in recent years is Opera

North's production of Monteverdi's *L'Orfeo* (1609) (Opera North's entitled their 2022 production as *Orpheus*) that was "reinvented for an orchestra of baroque, classical and Indian instruments, and rescored for a cast of Indian and western classical singers" (Kenton & Tilden, 2022) featuring Baroque instruments such as the theorbo and lute as well as Indian classical instruments such as the esraj, tabla and many more (Opera North, 2022).

There are also more radical versions of reimaginings that take opera into a different medium such as staging it with dancers instead of having singers. An example is Matthew Bourne's *The Car Man* which was described as "a steamy pulp-fiction take on the Opera Carmen" (Roy, 2022) features a live orchestra with orchestration by Terry Davies (New Adventures, n.d.). Reimaginings that go beyond structural and instrumentation choices usually involve a team of creatives to produce the new recreation such as collaborations with stage directors, choreographers, and producers.

Therefore, it is important to think about what form the reimagined arrangement is going to take; it is important to consider whether the narrative is going to be changed, how the changed narrative is going to affect the structure of the opera, and whether the feeling and atmosphere of the opera is going to change which in turn influences the instrument choice and timbre considerations when creating the arrangement. It is also important to consider its purpose and the audience's enjoyment, bringing us to our final factor.

2.2.10 Purpose and Audience Enjoyment

Despite being the last item on the list, this factor should probably be and is most likely the first thing an arranger considers when producing an arrangement. The purpose of producing an arrangement is very important. Is it because of financial constraints? Is it to make it possible to perform in a smaller venue? During the Covid-19 pandemic period, was it to allow for social distancing? While originally not reduced for this purpose, my arrangement of *La bohème* (Chapter 3) was one of the first operas to be performed in Singapore since the pandemic occurred as it allowed

for social distancing. Is there a specific brief from the organisation commissioning the arrangement? For example, I was recently contacted by a TV production company in Singapore asking whether I might be able to arrange music to reimagine Donizetti's *L'elisir d'amore* in a Singaporean context by including "Hokkien Techno influences" so as to create a show that introduces opera as relatable to a local audience (P. Goh, personal communication, 2023). A reduced-size arrangement is usually used so that it can either be performed by a group that has financial constraints or be performed in a variety of venues. In certain cases, a chamber arrangement allows amateur musicians to become familiar with these works as it allows them to put on performances of it by reducing the cost, such as my arrangement of *The Merry Widow* (Chapter 4). If the purpose of the arrangement needs to consider portability, so that these works can be easily performed in a variety of venues, the arranger needs to take into account the instrumentation choices and numbers as well as the right type of doubling for a small space. Chapter 3 and 4 explores the reception and perception of the arrangements of *La bohème* and *The Merry Widow* through questionnaire responses from the performers and audiences.

It is also important to consider what the desired effect from the audience is. Opera as a medium allows for original themes to take on new relevance to events of today; for example, Puccini's *Tosca* may take on new resonance today when "exploitive sexual relationships by powerful men in the public eye have come under the spotlight" (Wilson, 2021, p. 190). OperaUpClose's *The Flying Dutchman* reimaged Wagner's original setting it in a dystopian England hardening its borders against refugees, making it difficult not to draw links with the current United Kingdom's Home Office's harsh and severe anti-immigration measures (Evans, 2023). The meaning of specific operas changes over time and will continue to do so, which makes knowing the purpose of producing an arrangement ever more important. It was impossible not to see the relevance of *La bohème* during the Covid-19 pandemic; Scottish Opera (2020) put on a production of the opera in 2020 with clear parallels drawn to the pandemic.

Does opera have a role in the community? Music can be a medium for social bonding; Cross (2014) coined the term *floating intentionality* in which “we experience music as though it exhibits intentionality or ‘aboutness,’ but precisely what music may be ‘about’ is variable and particular to an individual” (p. 8). To what extent should the choice of opera challenge us? Should music be an emotional outlet, or should it make people feel uncomfortable to spark change? Emotions felt during performances may have significant impact on people; in fact, performances of sad music can be a way to create a safe environment to experience sadness. Huron (2011) suggests that sadness invoked by sad music might have an accompanying positive effect. Exposure to sad music might allow for depressive realism, a phenomenon that suggests we are most realistic when sad (Alloy & Abrahamson, 1979), allowing for more accurate self-appraisals and more realistic assessments (Brown & Mankowski, 1993) and it is in this state that prolactin is released which “produces feelings of tranquillity, calmness, well-being, or consolation” (Huron, 2011, p. 151). Because of the breadth of this topic, these are subjects that will not be fully explored in this thesis, but they are important for the arranger to keep in mind. In the end, an arrangement needs to bring to life an artistic vision; an effective arrangement will do so and help surmount any logistical and financial constraints.

Chapter 3: Commentary on the arrangement of Puccini's *La bohème*

3.1 Background

The arrangement of Puccini's *La bohème* was commissioned by Musicians' Initiative in Singapore for their 2021 opera performance after discussion about collaborating on an opera production together. The opera was selected because it is considered one of the most popular operas today; on OperaBase, an online database that documents opera activities in over 900 opera companies worldwide, Puccini's *La bohème*³ has been in the top 5 most performed operas for all years between 2018 and 2023 (OperaBase, n.d.), and has featured in many different lists of the top or greatest operas (Allison et al., 2019; ClassicFM, 2018; Gramophone, 2022).

The initial concept was to put on an opera production that was reduced in both duration and size (singers and instrumentalists) so that this would facilitate an immersive performance experience for the audience (the term immersive is used here to mean the integration of the audience with the performers, see section 3.3.8 below for more details). *La bohème* was a suitable choice, as the story still flows when it is presented in this abridged version with the cast reduced to only four roles: Mimì, Rodolfo, Marcello, and Musetta. The arrangement is a direct reduction, with a slight reimagination. The original work consists of approximately 120 minutes of music, which corresponds to a full running time of 150 minutes, including the intermission and short breaks between acts. In my arrangement, this is reduced to approximately 70 minutes of music, which allows for a full running time of 80 minutes without intermission but with short set changes between acts; that is 58.3% of the original music duration, and 53.3% of the full show. To maintain a coherent storyline, the arrangement focused on Rodolfo's and Mimì's relationship (with a secondary focus on Marcello's and Musetta's relationship). This allowed for significant sections that were not crucial to their stories to be removed. This also allowed for greater flexibility and reduced the cost of the production. However, while the Covid-19 global pandemic prevented the realisation of an immersive experience

³ A synopsis of the full opera can be found on the Opera North website here: <https://www.operanorth.co.uk/whats-on/la-boheme/#story>

due to the requirements of social distancing (as the performers could not interact with the audience), the performance of this arrangement was still able to go ahead as it allowed for social distancing by the performers due to the significantly reduced numbers. *La bohème* was performed in Italian (with English surtitles) as a double bill with Menotti's *The Telephone* that was performed in English.

3.2 Other Known Arrangements

The arrangement has 13 instrumental parts: flute (piccolo), oboe, clarinet, bassoon, horn, trumpet, piano, percussion, and string quintet; the piano part should also work with a harp instead if preferred. The source material used for this arrangement is the full score published by Ricordi in 1920.

There are multiple existing well-known arrangements of *La bohème*. The first, published by Pocket Publications, is for 12 musicians: string quintet, wind quintet, harp, and percussion. However, the arrangement uses exact copies of the original score, with changes pencilled in. As such, this results in a multitude of challenges as mentioned in chapter 1. There is an arrangement used by Scottish Opera (2020) by Jonathan Dove, which had a similar (but not as substantial) reduction in the structure as mine (see section 3.3.1 below), but still requires a larger cast and orchestra of seven singers and 15 instrumental parts; the production used a larger string section. Another existing arrangement by Daniel Llewelyn James in 2019 is also for 12 musicians: flute (piccolo), oboe (cor anglais), clarinet (bass clarinet), bassoon, horn, percussion, piano (celesta), and string quintet (Puccini, 2019). It could be argued that this arrangement (especially in the strings) results in certain sections losing their characteristics. For example, in the final duet of Act I, James' arrangement removes the tremolos in the strings to account for their reduced numbers which results in the section losing its "quivering" quality to set the atmosphere of the couple falling in love. This can be seen in Figure 9 and 10. More on this difference to be explored in section 3.3.2 and 3.3.4 below. An arrangement by Jonathan Lyness (1999) is again for 12 musicians: flute (piccolo), clarinet, bassoon,

horn, trumpet, percussion, harp, and string quintet. I believe that the extra part in my arrangement makes a significant difference; James' arrangement only has one brass instrument (horn) and as such sacrifices the brass timbre, which is a key part of the original score, while Lyness' arrangement is missing an oboe which means its distinct instrumental colour is missing from the arrangement. In light of these existing arrangements, my own work is most likely the first of its kind as it not only has a reduced duration with a substantial amount of music removed, it also only needs four of the principal vocal roles. This allows for the arrangement to be versatile in being able to be performed in more intimate venues with a small cast and ensemble.

Figure 9

Puccini's *La bohème* - Original Score, Act I, p. 110

Arpa *Parmonioso*

RODOLFO (*volgendosi, scorge Mimi avvolta come da un nimbo di luce, e la contempla, quasi estatico*)
dolcissimo, pp
 O so-a-ve fan-ciul - la, o dol-ce

MAR. (*molto lontano, ma quasi gridato*)
 Tro-vò la po-e-si - a!

Viol. I. *divisi* *arco* *pp*

Viol. II. *divisi* *arco* *pp*

Vcllo. *divisi* *arco* *ppp*

Cb. *ppp* *pizz.* *Largo sostenuto* ♩ = 58

41 P. R. 110

Figure 10

Puccini's *La bohème* - James' Arrangement, Act I, Final Duet, p. 158

The musical score for Figure 10 is a page from a chamber arrangement of Puccini's *La bohème*, Act I, Final Duet, page 158. It features the following parts and markings:

- Rod. (Rodolfo):** Vocal line with lyrics: "O so-a-ve fan-ciul - la, o dol - ce vi - so di mi-te cir-con".
- Mar. (Musetta):** Vocal line with lyrics: "Tro-vò la po - e - si - a".
- Pno. (Piano):** Accompaniment marked *ppp armonioso*.
- Vln. I (Violin I):** Accompaniment marked *pp* with *(pizz.)* and *arco* markings.
- Vln. II (Violin II):** Accompaniment marked *pp* with *arco* markings.
- Vla. (Viola):** Accompaniment marked *pp* with *arco* markings.
- Cello:** Accompaniment marked *pp* with *arco* markings.
- Bass:** Accompaniment marked *pp* with *(pizz.)* markings.

3.3 The Arrangement Process

As mentioned in Chapter 1 and 2, there is little literature on how a chamber arrangement of an opera might be made with reduced forces and reduced duration. Therefore, the arrangement was made with the framework of the aforementioned ten factors. Alongside them, I kept notes in a diary to document my own personal progress when arranging from which the main points will be featured in this section of the paper. The factor on modern notation and typesetting will not be included as it has already been discussed in Chapter 2. The discussion on a reimagination will not have its own individual section either as this arrangement is predominantly a direct reduction; most of what is being reimagined will be discussed in the next section 3.3.1. Finally, I designed a questionnaire that would be able to capture data from the audience, singers, and instrumentalists involved in the performances in section 3.4.

3.3.1 Structure

In order to reduce the duration and numbers of musicians needed in this arrangement, it was important to consider the overall structure of the music. I started by working with the libretto and vocal score⁴ to reduce the overall duration of the music. Without including the chorus, the original version has 10 significant roles: Rodolfo, Mimì, Marcello, Musetta, Schaunard, Colline, Benoît, Alcindoro, Parpignol, and a customs sergeant. The arrangement removed the chorus and many of these roles, leaving only Rodolfo, Mimì, Marcello, and Musetta; this meant that a significant change needed to be made to the structure and libretto to account for this. This process started with choosing the sections in the four acts that I would keep in order to create a coherent storyline, while removing plot points and characters that are extraneous. The result is structure of three parts: Part I consists of Act I and II which is set on Christmas Eve (Act I is at Rodolfo and Marcello's apartment and Act II is at Cafe Momus), Part II is Act III which is set outdoors in late February, and Part III is Act IV which is set a few months later back at the apartment.

Act I.

In the original version, Act I opens with four struggling bohemians living together; it starts with Rodolfo and Marcello before they are joined by Colline and Schaunard. Schaunard arrives with riches he made from a job; this is a significant moment as the fortune allows them to dine at Cafe Momus in Act II. In the arrangement, these were given to Marcello as a present from his uncle instead as it was set on Christmas eve (see Figure 11). With the removal of Schaunard and Colline, lines that were essential in their part were rewritten for Rodolfo and Marcello, and the rest of their music was removed (see Figure 12 and 13). Benoît the landlord arrives to collect rent immediately after in the original as well; this has been entirely removed. From the arrival of the riches to the moment Marcello leaves to Cafe Momus without Rodolfo, this entire section has been rewritten and

⁴ A link to the vocal score produced by me and used for the production can be found here: <https://drive.google.com/file/d/1K7suLQkuXr7BiLBZWd8RrflRi3URL1P5/view?usp=sharing>

truncated (refer to pages 17-23, bars 224-284 in arrangement submitted) so that it is coherent and flows.

Figure 11

Puccini's *La bohème* - Arrangement, Vocal Score, Act I

(There's a knock at the door. At the door is a package from his uncle; a Christmas present consisting of food, bottles of wine, cigars and firewood.)

Marcelol (incredulously): "Un regalo di mio zio!"

5 Allegro
f deciso

Figure 12

Puccini's *La bohème* - Original Vocal Score, Act I, pp. 23-24

RUDOLPH
Alz. destined yet to know.
stin ci de - sti - nò. (Exeunt the two boys)

MARCEL
 fa - ted yet to know.
stin ci de - sti - nò.

SCHAUNARD
(enters with a triumphant air.) (throwing some coins on the ground)
tonante Such wealth in the ba - lance Outweighs the Bank of
La ban.ca di Fran - cia per vo - i si sbi.

COLLINE
 fa - ted yet to know.
stin ci de - sti - nò.

MARCEL
(Picking up the coins) (Incredulously)
 Tin me - dals? in.
Som pes - si di

SCHAUNARD
 France.....
lan - cia.

COLLINE
 Then take them, then take them!
Rac - cat - ta, rac - cat - ta!

24 RUDOLPH
(bowing)
 King Louis Phi.
Lu - i - gi Fi.

MARCEL
 ..spect them!
- lat - ta!.. (showing one to Marcel)

SCHAUNARD
gridato
 You're deaf, then? or blind? What face do they show?
Sei sor - do?.. Sei tip - po?.. Quest'uomo chi è?

p leggiero

Figure 13

Puccini's *La bohème* - Arrangement, Vocal Score, Act I

The image displays a musical score for Act I of Puccini's *La bohème*. It features three systems of music. The first system includes vocal lines for Rodolfo (Rod.) and Marcello (Mar.) with piano accompaniment. Rodolfo's lyrics are "stin ci de - sti - nò." and Marcello's are "La ban-ca di Fran - cia per vo - i si sbi-lan - cia. Rac-cat-ta, rac". The second system continues the vocal lines with Rodolfo singing "Son pez - zi di lat-ta!" and "Lu-i-gi Fi" and Marcello singing "cat-ta! Sei sor - do?...Sei lip - po?... Quest'uo-mo chi è?". The piano accompaniment includes a *p leggero* marking. The score is written in G major and 3/4 time.

Furthermore, there is a moment in the original of Act I between Mimi's aria, and Mimi and Rodolfo's duet whereby Marcello, Schaunard and Colline interrupt them by shouting (from offstage) to Rodolfo to hurry up and join them at Cafe Momus. This is shortened in the arrangement to only include Rodolfo so that the scene flows more effectively.

Act II.

In the arrangement, Act II contains the most significant reduction as the original greatly involves the chorus. Originally set in the Latin Quarter before they enter Cafe Momus in Paris, the arrangement only focuses on Cafe Momus. Instead of the opening chorus scene that sets the stage for the Latin Quarter, the arrangement starts with Rodolfo, Mimi, and Marcello dining at the cafe before the arrival of Musetta. Musetta's arrival music is played before jumping straight into her famous aria "Quando me'n vo". The act ends in this arrangement without the chorus ending (see Figure 15).

Figure 14

Puccini - La bohème - Original Vocal Score, Act II, pp. 154-156

154 (Musetta and Marcel embrace with much fervour)

MUSSETTA *stent.* a Tempo sostenuto *Meno*
bring another pair! *gol* Marcel...
pro - sta, va! va! Marcel... lo...

MIMI *stent.*
of Mar - cel! *- lo!*
di Mar - cel - - lo!

RUDOLPH *stent.*
- pen - - - dous!
- pen - - - da!
he hastily buttons up)

ALCINDORO *stent.* (hurries off the stage)
Mu - set.ta! Shame!
Mu - set.ta! Vo,!

MARCEL
meet... thee, O my love! *En.chantress!*
-prir, ad a - prir! St.re - na!

SCHAUNARD *stent.*
as a play, as a play!
- pen - - - da!

COLLINE *stent.*
- pen - - - dous!
- pen - - - da!

col canto *fff tutta forza* *allarg.* *pp dolcissimo*
a Tempo sostenuto *Meno*

155 (to Mimi in amazement as they both rise)

RUDOLPH *pp*
The bill!...
Il conto?!

SCHAUNARD *pp* (a waiter brings in the bill) (in amazement)
Here's the final tabeaa! The bill!... What a
Siamo all'ultima scena! Il conto?! Co.st

COLLINE (in amazement)
The bill!...
Il conto?!

SCHAUNARD (after looking at it he hands it round)
bother!
presto? Let's see... Ve diam!

COLLINE
Who bade him bring it?
Chi l'ha ri - chiesto?!

Allegro alla marcia
Ogni battuta di 2 equivale a un quarto di 4
Drums begin in the distance
ancora più lento
sempre pp

1545494 155494

156 *Allegro alla Marcia* ♩=132
The Tattoo (far away at first; but gradually approaching)

(Drums) *pp*

RUDOLPH (examining the bill)
Heav'n! Out with your coppers!
Ca.ro! Fuori il da-na-ro!

SCHAUNARD
Out with your coppers! Col. li. ne, Ru.
Fuori il da-na-ro! Col - li - ne, Ro.

COLLINE (examining the bill)
Heav'n! Out with your coppers!
Ca.ro! Fuori il da-na-ro!

RUDOLPH I've
Ho

MARCEL
We've not a rap!...
Siamo all'u.sciu.to!

SCHAUNARD I say!
-dolph and you, Mar.cel! Co - me?
-dol fo e tu Mar.cel?

STREET ARABS (hastening from the right)

Sop. WORK-GIRLS 'Tis the tat-too!
La rit-ra - ta!

Ten. STUDENTS (hurrying out of the Café Momus) 'Tis the tat-too!
La rit-ra - ta!

'Tis the tat-too!
La rit-ra - ta!

1545494

Figure 15

Puccini - La bohème - Arrangement Vocal Score, Act II

The image displays a page from a vocal score for Act II of Puccini's *La bohème*. It features four vocal staves: Musetta (Mus.), Mimì (Mim.), Rodolfo (Rod.), and Marcello (Mar.), and a piano accompaniment. The score is in G major and 3/4 time. The tempo markings are *allarg.* and *a tempo*. The lyrics are in Italian. A rehearsal mark [11] is present above the first staff. The piano part includes dynamic markings such as *pp dolcissimo* and *fff tutta forza*. The score concludes with a double bar line.

Musetta: *allarg.* t'an-dreb-be il mio co - re ad a - - - pris! *a tempo* Mar-

Mimì: lo ve - do... ben ell' è in-va-ghi - ta di Mar-cel - - - lol (Musetta and Marcello embrace passionately)

Rodolfo: lo ve - do... ben in - va-ghi-ta Mar - cel - - - lol *stent.*

Marcello: ...t'an-dreb-be il mio co - re ad a - pris... ad a - pris! *allarg.* *a tempo*

Musetta: cel - lol

Marcello: Si - re - nal!

Piano: *pp dolcissimo*, *fff tutta forza*, *fff tutta forza*, *m.d.*

Act III.

Act III has the least changes with regards to the structure. The introduction of the act is shortened to remove the chorus, and the ending of it was shortened by removing the argument between Marcello and Musetta.

Act IV.

Similar to Act I, because of the absence of Schaunard and Colline, a large section has been cut that is not relevant to the storyline. The act starts with Marcello and Rodolfo speaking about Musetta and Mimì, who have left them before jumping to the arrival of Musetta with Mimì, who is unwell and dying. Similarly, the lines in this act originally belonging to Schaunard and Colline are reallocated to Marcello and Rodolfo, or the text adjusted so that it makes sense.

Leitmotifs.

“Leitmotif, then, is not just a musical labeling of people and things (or the verbal labeling of motives); it is also a matter of musical memory, of recalling things dimly remembered and seeing what sense we can make of them in new context.”

- Thomas Grey (2008, p. 114).




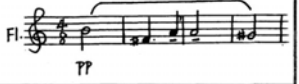


A leitmotif can be considered to be a short phrase or theme used to represent a person, object, place, idea, sentiment, or supernatural force, and is transformable to symbolise changes in emotions or different situations (Whittall, 2001). Puccini is known to often use leitmotifs to describe his characters as well as their feelings and emotions. It is important when deciding the structure of the entire opera to consider the leitmotifs related to the important characters and sentiments so that they are properly represented even in an arrangement that is of reduced duration. Min Ho (1994) wrote a paper on the leitmotifs in Puccini’s operas. One of the operas he focused on was *La bohème* whereby he numbers the leitmotif, highlights each time they reappear, and describes how they have been transformed. This resource is helpful to ensure that the motifs are heard and retained in the arrangement as they often signify important moments (it is important that they are not removed from the overall structure) especially the first time they appear. The way they are present is crucial so that any subsequent versions of it make sense when they appear later in the work. There are many memorable leitmotifs in *La bohème* and Ho identifies 12 of them.

An important leitmotif relates to Mimì’s illness which is a significant narrative point of the opera and this leitmotif appears five times (see Figure 16 for all five times it appears); this is Leitmotif No. 4 in Ho’s (1994) paper. The first time this is heard happens when Mimì and Rodolfo meet for the first time and Mimì coughs and faints as she enters the apartment. This motif is set up for the listener as soon as Mimì is first introduced in the story. This motif is not heard again until the second half of the opera with its appearances becoming more often to signify the illness getting worse. The second time in Act III happens after Rodolfo discovers Mimì hiding in the corner after

telling Marcello that she is sick and he cannot help her. The third time happens when Mimi is saying farewell to Rodolfo in Act III and at the point where the music is most emotional (*agitando un poco* in the score) and slightly more agitated, this motif is heard. The fourth is in Act IV when Mimi's death is close and when she has a few final moments alone with Rodolfo; the rhythm here is augmented and the dynamic extremely soft as she is on her deathbed. The fifth and final time has the rhythm and dynamic similar to the original, during which Mimi suddenly suffers from a spasm of pain after she started drifting off when reminiscing about their first meeting. Every appearance of this leitmotif is kept in the arrangement even with the reduced structure because it plays an important narrative element from the first appearance to its last. As such, where possible and relevant, in the arrangement of this opera, it was important to try and keep most of the leitmotifs' appearances. Furthermore, they need to be carefully treated in the arrangement because they can be an important factor in maintaining the atmosphere and feel of the overall operatic narrative.

Figure 16

Leitmotif No. 4 - List of appearances in *La bohème* (Ho, 1994)

First Time		Second Time	
Table 4.23		Table 4.24	
Meter	3/4	Meter	3/4
Rhythm	<i>Allegro agitato</i> 	Rhythm	<i>Lo stesso movimento</i> 
Key	G major (at this point)	Key	B ^b major.
Tempo	Allegro agitato.	Tempo	Lo stesso movimento
Dynamic	p, f.	Dynamic	fp.
Instruments and Voices	clarinet in A and violin.	Instruments and Voices	flute, oboe, English horn, clarinet in B ^b and violin.
Dramatic Situation	Rodolfo remains to finish an editorial; someone knocks at the door. Mimi, a neighbour, indicates that her candle is out and she asks Rodolfo to relight it. Rodolfo lets her enter. Mimi coughs and Rodolfo places her on a chair.	Dramatic Situation	Mimi speaks to Marcello. Rodolfo enters while Mimi hides in a corner. Rodolfo tells Marcello that Mimi is dying. She needs better living conditions and he feels guilty because he cannot help. Mimi coughs and sobs. Rodolfo lets her come inside but Mimi refuses because she cannot stand the smell.
Page Number	81.	Page Number	292.
Rehearsal Number	25.	Rehearsal Number	24 (Act Three).
Table 4.25		Table 4.26	
Third Time		Fourth Time	
Meter	3/4	Meter	4/8
Rhythm	<i>Andantino</i> 	Rhythm	
Key	G major.	Key	A major.
Tempo	Andantino	Tempo	Molto meno (Allegro moderato agitato).
Dynamic	mf, p, pp.	Dynamic	pp.
Instruments and Voice	clarinet in B ^b , violin and Mimi.	Instruments and Voices	flute, oboe, English horn, clarinet in A, bassoon and Mimi.
Dramatic Situation	Mimi is singing an aria "Farewell" to Rodolfo.	Dramatic Situation	Mimi feels that death is close and she wants to spend her last moments with Rodolfo. Musetta finds Mimi outside the garret. Rodolfo and Marcello place Mimi on the bed. Mimi sings "My darling Rodolfo, oh let me stay with you".
Page Number	294.	Page Number	367.
Rehearsal Number	26 (Act Three).	Rehearsal Number	12 (Act Four).
Table 4.27		Table 4.28	
Fifth Time		Sixth Time	
Meter	3/4	Meter	3/4
Rhythm	<i>All^o moderato</i> ♩=120 	Rhythm	<i>All^o moderato</i> ♩=120 
Key	G major.	Key	G major.
Tempo	Allegro moderato ♩=120	Tempo	Allegro moderato ♩=120
Dynamic	f, p.	Dynamic	f, p.
Instruments and Voices	flute, oboe, English horn, clarinet in A and violin.	Instruments and Voices	flute, oboe, English horn, clarinet in A and violin.
Dramatic Situation	Mimi and Rodolfo enjoy the recollection of their first meeting. Suddenly, Mimi suffers from spasms and on alarmed Rodolfo raises her up.	Dramatic Situation	Mimi and Rodolfo enjoy the recollection of their first meeting. Suddenly, Mimi suffers from spasms and on alarmed Rodolfo raises her up.
Page Number	397	Page Number	397
Rehearsal Number	25 (Act Four).	Rehearsal Number	25 (Act Four).

3.3.2 Atmosphere and Feel

I have tried to maintain the same atmosphere as the original where possible. This meant that, on a surface level, the musical material itself is left untouched; the harmony and musical motifs are not changed. The motifs and the way they are presented (as mentioned earlier in section 3.3.1) are especially important as they relate to the character, the drama, and the atmosphere of the music. Furthermore, despite the reduction in the size of the ensemble, I was aiming to maintain the signature Puccini sound that is an “ingenious amalgam of orchestral and vocal richness” (Tommasini, 2018, para. 13). Puccini’s music has a richness and warmth that reflects the narrative of the story. Puccini uses various methods to create the various atmospheres in the music that reflect the text such as using tremolos in the background texture, using syncopations to create a sense of tension, as well as using specific articulation markings to reflect the feeling of certain sections. It is important in the arrangement that these effects are maintained. As mentioned earlier in section 3.2, James’ arrangement (see Figure 10 above) loses its “quivering” quality as there are sections where tremolos are removed to compensate for the smaller ensemble size. Ensuring that these sonic features are kept in the arrangement ensures that these qualities come through which will in turn affect the “feel” of the section; therefore, in my arrangement, the tremolos are maintained (see Figure 17). It can also be noted in this section of my arrangement that all the strings play the tremolos together at a very soft dynamic of *ppp* in contrast with James’ arrangement which only has the cello holding a long note. In the original, Puccini has the full viola and cello section playing; it is the quality from a large number of string instruments playing the tremolo softly that creates this warm quivering effect. Therefore, in order to create something similar, it was important to compensate for the reduced string section in the arrangement by ensuring that multiple parts play at a soft dynamic.

Figure 17

Puccini's *La bohème* - Arrangement, Act I, Bars 630-632

23

630 *Largo sostenuto* $\text{♩} = 58$

Fl. *ppp*

Cl. *pp*

Bsn. *ppp*

Hn. *pp*

Tpt. *pp*

Timp. *ppp*

Pno. *p armonioso*

Rod. *p dolciss.*

Mar. (molto lontano, ma quasi gridato)

O so-a-ve fan - ciul - la, o dol - ce vi - so di mi-te cir-con

Tro - vò la po - e - si - a!

23

Largo sostenuto $\text{♩} = 58$

Vln. I arco *ppp*

Vln. II arco *ppp*

Vla. arco *ppp*

Vc. arco *ppp*

Db. arco *ppp*

pizz.

These factors which I discuss in this thesis as important to consider in an arrangement are not mutually exclusive. So much of atmosphere and feel in the music is related to how timbre is perceived, how the various lines are then reallocated, and how the dynamics and balance are managed so that the outcome maintains the textural, timbral, and harmonic qualities; all of these will be explored further in sections 3.3.4, 3.3.5, and 3.3.6 below.

3.3.3 Instrument Choice

The original version of *La bohème* was scored for strings (violin I, violin II, viola, cello, bass), a piccolo, two flutes, two oboes, an English horn, two clarinets, a bass clarinet, two bassoons, four horns, three trumpets, three trombones, a bass trombone, percussion (timpani, snare drum, triangle, cymbals, bass drum, xylophone, glockenspiel, chimes), and an off-stage band of four piccolos, six trumpets and two snare drums. The arrangement is written for strings (violin I, violin II, viola, cello, bass), flute (doubling piccolo), oboe, clarinet, bassoon, horn, trumpet, piano and percussion (timpani, snare drum, triangle, cymbals, bass drum, glockenspiel). It initially started life by only having the string quintet, flute, clarinet, horn, piano, and percussion. However, during a conducting masterclass on 13 April 2021 at the Royal Northern College of Music, three arias in the initial arrangement were used and workshopped; they used a larger string section (3.3.3.3.1). The arrangement worked well but, because of the larger string section, it felt as if the work could afford to have more wind and brass instruments added to balance with the string section. Similarly, the production in Singapore of my own arrangement was performed by a similar-size string section (4.3.2.2.1). An oboe, a bassoon, and a trumpet were therefore added to supplement the instrumentation choice while still ensuring that the arrangement would still work even if only performed by a string quintet. These instruments were used so that there were three additional distinct instrumental colours that could allow for a great colouristic palette in the arrangement. In section 3.3.5 below, I will explore in greater detail the characteristics of specific instruments such as the clarinet, horn, and piano that facilitate the reallocation of lines and help with dealing with issues with divisi.

3.3.4 *Timbre*

Taxonomy of Orchestral Grouping Effects.

As mentioned in section 2.2.4 above, in some ways a method and taxonomy of grouping of instrumental sounds is often already used by arrangers in the reorchestration process even if that might have been done unconsciously. For an arrangement to successfully translate from the original, the arranger has to analyse the music to decide how the various music lines work together; whether they blend together, contrast each other, or if they are transforming⁵ in some way. In doing so, the arranger would be able to create a similar effect in the arrangement. Using the Taxonomy of Orchestral Grouping Effects (TOGE)⁶ proposed by McAdams et al. (2022), I intend to demonstrate how it might be useful in the analysis process and how it might offer possibilities in helping with the arranging process. This is also a useful method as it does not merely rely on the score but also relies on the listening process and makes use of the latest research in the field of music psychology.

The TOGE provides a foundation for “a perception-based approach to orchestration analysis” (para. 1.3) which might be a useful tool for arrangers when studying the original orchestral score. As such, before demonstrating some of these analyses with examples from *La bohème*, here are the brief explanations of the various taxonomies. First, according to McAdams et al. (2022), one way in which listeners may perceive parts of the orchestral texture is termed Concurrent Grouping which “governs what components of sounds are grouped together into musical events” (para. 3.2) and involves both Blend and Non-Blend (see Figure 18). There are two types of Blend: 1) Timbre Augmentation: “fusion in which one dominant instrument is embellished or colored by a subordinate instrument or group of instruments” (para. 4.5); 2) Timbre Emergence: “when a fusion of different instruments results in the synthesis of a new timbre that is identified as none of its constituent

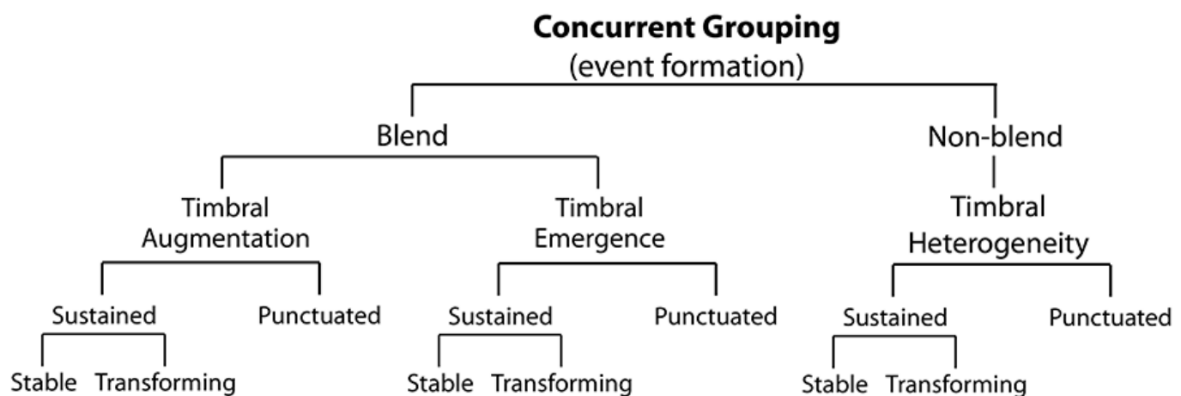
⁵ Transforming in this context means that the instrumentation changes over the duration of a passage.

⁶ More information on McAdams et al. (2022) research on the TOGE with sound clips of examples can be found at <https://timbreandorchestration.org/tor/modules/taxonomy/orchestral-grouping-effects/introduction>

instruments, creating a new sonority” (para. 4.9). In Non-Blend, there is Timbre Heterogeneity which is “when the parts written for instruments satisfy auditory grouping principles ... but do not blend completely and some instruments or groups of instruments are consequently heard independently due to their timbral dissimilarity” (para. 4.13). In these, “the effect can either be of short duration (punctuation) or the more continuous, and in the latter case the instruments involved can be stable or changing over time (transforming)” (para. 3.8).

Figure 18

Concurrent Grouping (McAdams et al., 2022, Example 3)

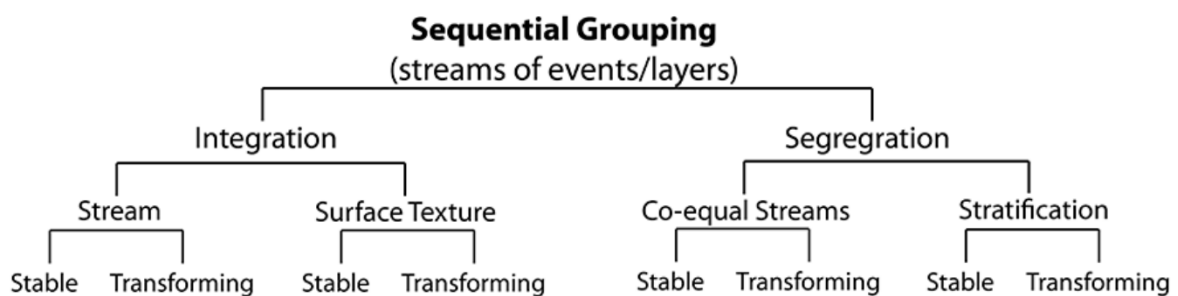


Next there is Sequential Grouping which “determines whether these events are connected into single or multiple streams, on the basis of which perception of melodic contours and rhythmic patterns occurs ... affect[ing] how streams are “chunked” into musical units, such as motives, phrases, and themes” (para. 3.2) and involves both Integration and Segregation (see Figure 19). There are two types of Integration: 1) Stream: “consistent timbre, register, dynamics across a sequence of notes helps them to be connected perceptually into an auditory stream” (para. 5.6); and 2) Surface Texture: “occurs when two or more instruments have different material—contrasting rhythmic figures and/or pitch material—but are integrated perceptually into a single surface texture” (para. 5.6). In Segregation, there are two main types: 1) Stream: “involving two or more clearly distinguishable voices (i.e., integrated streams) with nearly equivalent prominence or salience”

(para. 5.12); and 2) Stratification: “occurs when two or more different layers of musical material are separated into more and less prominent strands. Most often one hears foreground and background, but at times a middleground is also present” (para. 5.16). In any of these, they can either be stable or transforming.

Figure 19

Sequential Grouping (McAdams et al., 2022, Example 12)

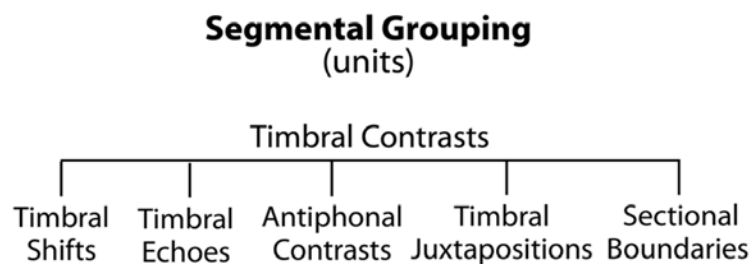


Finally, there is Segmental Grouping which “involves the hierarchical “chunking” of event sequences into musical units that one usually associates with motifs, cells, and phrases, but it can also apply to groups of streams or layers in the creation of section boundaries ... provoked by sudden changes in a number of musical parameters such as loudness, pitch register, timbre, and surface texture” (para. 3.10). There are currently five types of Timbral Contrasts (see Figure 20): 1) Timbral Shifts: “can be conceived of as an orchestral “hot potato,” wherein a musical pattern is reiterated with varying orchestrations of similar prominence; that is, a repeated phrase is “passed around” the orchestra” (para. 6.3); 2) Timbral Echoes: “involves a repeated musical phrase or idea with different subsequent orchestrations” (para. 6.4); 3) Antiphonal Contrasts: happens “when musical materials require an alternating call-and-response pattern” (para. 6.5); 4) Timbral Juxtapositions: “occur when sonorities are set against another one in close succession with different instrumentations, registers, and musical textures” (para. 6.6); 5) Sectional Boundaries: “large-scale sections in music are formed on the basis of similarities in register, texture, and instrumentation (i.e., timbre), and that changes in

one or more of these parameters, along with more formal considerations, create boundaries between sections” (para. 6.7).

Figure 20

Segmental Grouping (McAdams et al., 2022, Example 22)



Examples of TOGE.

In this next section, I will use the TOGE to demonstrate an analysis of various sections from *La bohème* and how their usage might be translated into the arranging process. The recording of *La bohème* by the Berlin Philharmonic conducted by Herbert von Karajan, featuring Luciano Pavarotti as Rodolfo and Mirella Freni as Mimì (Puccini, 1895/1972) will be used as the basis of this analysis process. The following example is taken from the first eight bars from Mimì’s aria in Act I which can be segregated into three main lines (Sequential Grouping) that are perceived as a Segregation manifesting as a Stratification, as can be seen in Figure 21 below; in this section, the foreground is in red (melody), the middle ground is in purple (syncopation), and the background surface texture is in blue.

Figure 21

Puccini's *La bohème* - Original Score, Act I, pp. 103-104, Sequential Grouping

(Key: Red - Foreground; Purple - Middleground; Blue - Background)

Within each of these lines there is also further Sequential Grouping. I will start by exploring the first line in the foreground as shown in Figure 22 below. In the first four bars, there are four instrument types playing this line: flute, English horn, clarinet, and violins (Violin I and Violin II). Aurally, they are mostly in a stable integrated stream (Sequential Grouping) through a sustained stable blend (Concurrent Grouping). They only diverge in the moments which are circled in orange below where each instrument's timbre can be heard coming through distinctly from the stream as they are playing something different. For me personally (which is not to say that my own perception is generalisable or relevant to anyone else), the entry of the English horn did not seem to have a transforming effect as I did not perceive any drastic change in the recording at its point of entry. In the subsequent four bars, the same group of instruments seem to still be in a stable integrated

stream through a stable sustained blend with a transformation through the addition of two horns highlighted in red and green in Figure 22 below. However, the two horns join this stream with a non-blend through a stable sustained heterogeneity (Concurrent Grouping) because of its distinct instrumental colour as well as the displacement of the notes slightly by syncopation in the second and third bar of its entry.

Figure 22

Puccini's *La bohème* - Original Score, Act I, pp. 103-104, Segregation Line 1

(Key: Red - Foreground of stable integrated stream; Orange - texture coming out from stream; Green - Two horns joining the stream resulting in a stable sustained heterogeneity)

Therefore, using the analysis above, I attempted to recreate this in my arrangement as seen in Figure 23 below. Because the English horn did not have an impact on how I perceived the sound in the recording of the original score, I did not find a substitute for it in the third and fourth bar of this

section in the arrangement. However, the horns joining the stream in the fifth bar of the original had a significant impact. As such, in the arrangement, I have made use of the trumpet to create this heterogeneity contrast in this stream with its distinct brass timbre as well as ensure that the syncopation is distinctly marked in the second and third bar of its entry. This rhythmic distinction was left out in the arrangement by James (see Figure 24).

Figure 23

Puccini's La bohème - Arrangement, Act I, Bars 581-588

(Key: Red - Foreground of stable integrated stream; Green - Non-blend of trumpet joining the stream resulting in a stable sustained heterogeneity)

The image displays a musical score for Puccini's *La bohème*, Act I, bars 581-588. The score is divided into two systems. The top system includes Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Ban.), Horn (Hn.), Trumpet (Tpt.), Piano (Pno), and Mimi's vocal line. The bottom system includes Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.).

The score is annotated with a red box highlighting the main melodic stream across all instruments, and a green box highlighting the trumpet's entry in bar 585. Performance instructions include "Andante sostenuto molto", "poco allarg.", "pp cresc poco a poco", "ff tutta forza", "Aspetta sord.", and "con grande espansione". The vocal line includes the lyrics: "ma quan-do vien lo sge - lo, il pri-mo so - le è mi - o... il pri - mo ba - cio del - la - pri - le è mi - o!".

Figure 24

Puccini's *La bohème* - James' Arrangement, Act I, p. 149

The second and third lines are the one in purple and blue respectively in Figure 25 below.

The second line is the syncopation originally starting in the horns in the first four bars before transforming into an amalgamation of horn and trumpet in the next four. The aural result from the recording is a transforming integrated stream (Sequential Grouping) through a form transforming sustained blend (Concurrent Grouping). In the arrangement, because of the multiple notes in the horns, I used the piano instead (see section 3.3.5 below for more detail on usage of piano in the arrangement) before adding the viola and cello to account for the trumpet entry in the original and I

also gave this stream more weight in the climax of this phrase as shown in Figure 26 below. The third line is the rest of the “padding” in the orchestration which is a mixture of long notes and tremolos which may be perceived as an integration manifesting as a transforming sustained surface texture (Sequential Grouping). This again is realised in the arrangement through a similar mixture of long notes and tremolos as shown in Figure 26 below.

Figure 25

Puccini’s *La bohème* - Original Score, Act I, pp. 103-104, Segregation Line 2 and 3

(Key: Purple - Middleground; Blue - Background)

The image displays two pages of a musical score for Puccini's *La bohème*, Act I, pages 103 and 104. The score is for the original orchestration and includes staves for various instruments: Flute (Fl.), Oboe (Ob.), English Horn (C. Ingl.), Clarinet in C (Cl. in La), Clarinet in Bb (Cl. b. in La), Bassoon (Fag.), Horn in F (in Fa), Horn in C (in Fa), Trombone (T. b. in Fa), Trombone in C (T. b. in Fa), Trombone in Bb (T. b. in Fa), Trumpet in C (Tr. in C), Trumpet in Bb (Tr. in Bb), Violin (Viol.), Viola (V. lo), Violoncello (Vc.), and Contrabass (Cb.). The music is marked 'Andante sostenuto molto' and 'Andante sostenuto molto'. The score includes dynamic markings such as *pp*, *cres.*, *a poco*, *ff*, *tutto forza*, *poco allarg.*, *dim.*, *ppp*, and *mf*. The score is annotated with segregation lines: purple lines for the middleground and blue lines for the background. The score is divided into two systems, with the first system on page 103 and the second system on page 104. The first system includes the vocal line for Mimì, with the lyrics: 'ma quando vien lo age - lo il primo sel è mi - o...'. The second system includes the vocal line for Mimì, with the lyrics: 'Il pri - mo ha - do del - l'a - pri - lo è mi - o... Il pri - mo'. The score is marked with 'P. R. 110' and 'P. R. 110'.

Figure 26

Puccini's *La bohème* - Arrangement, Act I, Bars 581-588, Segregation Line 2 and 3

(Key: Purple - Middleground; Blue - Background)

The image shows a musical score for Puccini's *La bohème*, Act I, Bars 581-588. The score is arranged for a full orchestra and includes vocal lines for Mimì and Mimi. The score is annotated with a key: Purple for Middleground and Blue for Background. The score is divided into two systems, each starting with a box containing the number 20. The first system includes Flute I, Oboe, Clarinet, Bassoon, Horn, Trumpet, Piano, and Mimì. The second system includes Violin I, Violin II, Viola, Violoncello, and Double Bass. The score is marked 'Andante sostenuto molto' and 'poco allarg.'. The vocal lines are marked 'si alza' and 'con molta anima' for Mimì, and 'con grande espansione' for Mimi. The instrumental lines are marked with dynamics such as 'pp cresc poco a poco' and 'ff tutta forza'.

It is interesting to note that when using this method of instrumental timbre perception to analyse the score, it became apparent to me that there always seems to be an overlap between the various lines. For example, there is an impression of overlap between the line in red with the line in blue through the Violin II, which not only plays the melody but also adds to the surface texture with its tremolos. Similarly, when the two horns join the melody in the original a few bars later, this results in an overlap between the line in red and the line in blue with its syncopations. Therefore, I found it important to ensure that this subtle feature of overlapping is achieved in my arrangement as well. The researchers themselves do acknowledge that the categories “may not always be clean cut in cases of lesser grouping strength and might depend on both performance [and the recording] nuances and the analyst’s interpretation” (McAdams et al., 2022, para. 7.4). The method in which I have employed the TOGE differs from most current usage, as they “generally work in teams of two

analysts who first do individual analysis and then compare analyses to arrive at a consensus ... ambiguous cases are brought to a larger team for discussion and resolution” (McAdams et al., 2022, footnote 26). My own research applies this model in a new way as it is not practical or feasible for an arranger to have a team of analysts, and it is hitherto unexplored by other research practitioners. It is therefore dependent on the arranger’s own interpretation and hence also allows for this process to be a creative one. I propose that the model can be used as an in-depth tool by arrangers in making decisions about how to allocate musical material to other instruments during the arranging process.

3.3.5 Reallocating Lines and Dealing with Divisi and Multiple Stops

This consideration is linked to those discussed above as having a clear image on how the various lines are distinguished will be helpful in reallocating lines as well as dealing with divisi. The methods discussed in the previous section may be explored further in future as a method for arrangers to analyse the music before starting the arranging process. Following on, this section highlights the techniques used to overcome various challenges when producing the arrangement when it comes to reallocating lines and dealing with divisi that were written in the original; there are often more lines in the original compared to the number of available instruments (or parts) in the arrangement (often due to logistical and financial constraints) and it is important to make informed decisions on the techniques to employ.

Throughout *La bohème*, it is common for the strings to have parts that are in divisi and multiple parts for each instrument type in the woodwind and brass. This means that when arranging for a smaller ensemble, there is a challenge of making sure that the multiple parts are reallocated or accounted for. An example of dealing with divisi in the strings is near the start of Act I, where the viola and cello parts are divided into four distinct lines in the original (see Figure 27). However, most of the other instruments in the arrangement are already covering a different part. As the significance of this line is more in its rhythmic intention than the exact notes, the viola and cello in the

arrangement play only the top and bottom line which are written in octaves (see Figure 28). These octaves mean that the same notes are reinforced and come through the overall texture of the ensemble in the arrangement better. The middle parts in the original are less important and not likely to be missed because the piano in the arrangement highlights the harmony of the chords.

Figure 27

Puccini's *La bohème* - Original Score, Act I, p. 9

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 9. The score is arranged in a standard orchestral format with multiple staves. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet in Sib (Cl. in Sib), Bassoon (Fag.), Horn in F (Corni in Fa), Arpa (Arpa), Rodolfo (ROD.), Mimi (MAR.), Violin (Viol.), Violoncello (Vc.), and Contrabasso (Cb.). The score includes various musical notations such as dynamics (p, pp, pizz.), articulation (pizz.), and performance instructions (I. solo, I. II.). The lyrics for Mimi are: "Quelle scioeche fo-re-ste che fan sot-to la ne-ve? ne-ste da un pez-zo non ri-cc-ve. Ro-".

Figure 28

Puccini's *La bohème* - Arrangement, Act I, Bars 106-111

The musical score for Figure 28 shows the orchestral and vocal parts for bars 106-111 of Puccini's *La bohème*. The score is arranged for a full orchestra and vocal soloists. The instruments listed are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Piano (Pno.), Rodolfo (Rod.), Mimì (Mar.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The vocal parts include lyrics in Italian. The arrangement uses dynamic markings such as *p*, *pp*, and *mp*, and includes pizzicato (*pizz.*) markings for the strings. The score is in 3/4 time and features a key signature of two flats.

It is crucial where possible to ensure that important harmony notes are being covered and the rest may then be removed. For example, during Mimì's aria in Act I, the violins' pizzicato is in divisi with four distinct lines in the original (see Figure 29). In the arrangement, the top three lines are allocated to Violin I, Violin II, and Viola part (see Figure 30). In this scenario, I felt that it was possible to leave out the fourth line from the original Violin II part because it doubles the top line an octave lower; the notes of this fourth line are also at the same pitch of what is being sung by Mimì. The top line is often the most important to maintain in the arrangement, as pitch discrimination⁷ and sensitivity increases the higher the pitches are (Campbell & Greated, 1994), making it the easiest line for the ear to pick up immediately on first listening.

⁷ This is the ability to detect changes in the pitch of a tone.

Figure 29

Puccini's *La bohème* - Original Score, Act I, p. 102

Fl. *I.* *poco rall.*

Arpa *pp* *col canto*

MIMI *poco rall.:*.....
ca - me - ret - ta: guar - do sui tet - ti e in cie - lo,
divisi

Viol. *pp* *divisi*

V. 1º *pp poco rall.*

Vc. *pp* *pp poco rall.*

Figure 30

Puccini's *La bohème* - Arrangement, Act I, Bars 575-580

Fl. *poco rall.*.....

Pno. *ppp*

Mimi *poco rall.*.....
ca - me - re - ta: guar - do sui tet - ti e in cie - lo,
pizz.

Vln. I *pizz.* *pp* *poco rall.*.....

Vln. II *pizz.* *pp*

Vla. *pizz.* *pp*

Vc. *pizz.* *pp* *arco*

Another example can be found earlier in that act where the violins in the original are written divisi with four distinct lines (see Figure 31, from the fourth bar). Similarly, the top three of these lines are in the Violin I, Violin II, and Viola parts in the arrangement (see Figure 32); the fourth line is an octave lower than the top line and was removed from the arrangement.

Figure 31

Puccini's *La bohème* - Original Score, Act I, pp. 34-35

Figure 32

Puccini's *La bohème* - Arrangement, Act I, Bars 232-239



The musical score for Figure 32 shows the orchestration for Act I, Bars 232-239 of Puccini's *La bohème*. The score includes parts for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Piano, Trombone, Maracas, Violin I, Violin II, Viola, Violoncello, and Double Bass. The music is in 3/4 time and G major. The score features various dynamics (p, f, piz.) and performance instructions (ben ritmato, f gridato, con entusiasmo). The lyrics for the Maracas part are: Leg-na! (sorpreso) f gridato Leg-na! (con entusiasmo) Le do - vi - zie d'u - na fie - ra il de - stin ci de - sti - Si - ga - ri! Bor - dol! Bor - dol!

It is a challenge to condense the multiple brass parts for two brass instruments (trumpet and horn) and still maintain a consistent brass colour. One method I came up with to deal with the multiple lines is by creating a “brass sandwich” in which the trumpet takes the top line while the horn takes the bottom line of any series of brass chords in the original while having the piano (or any other instrument available) fill in the rest of the chord. This works effectively as the brass colour on both ends is augmented by the piano filling out in the harmony in the middle. There are various moments in the arrangement where this technique is used. One example is at the end of the first section in Act I. In the original, there are four horns playing the syncopated brass line in four distinct lines (see Figure 33). In the arrangement, the trumpet, horn, and piano takes on these notes in the manner of a brass sandwich (see Figure 34); an additional feature is that the brass only joins in and augments these chords from bar 208 where the crescendo starts so that this rhythmic line does not become too prominent at the start and the brass colour carries the phrase to the end of it. The brass

sandwich allows for the chords to maintain the distinct brass colour while maintaining the harmonic quality by using the piano to “fill-up” the chords.

Figure 33

Puccini’s *La bohème* - Original Score, Act I, p. 16

This musical score page (Figure 33) is from Puccini's *La bohème*, Act I, page 16. It features a full orchestral score on the left and vocal parts on the right. The orchestral parts include Flute (Fl.), Oboe (Ob.), Clarinet in B-flat (Cl. in Sib), Bassoon (Fag.), Horns in F (in Fa), Trumpets in F (Corni in Fa), Trombones (ROD.), Violin (Viol.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Cb.). The vocal parts include Marcello, with lyrics: "Puzza la te-la di - pin - ta. Il mio dram - ma. l'ar-den-te mio dram - ma ci scal - di. (con comico spavento) MARCELLO Vuoi legger-lo for - se? Mi ge - li." The score includes performance markings such as *rit.*, *a tempo*, and *p*.

Figure 34

Puccini’s *La bohème* - Arrangement, Act I, Bars 204-214

This musical score page (Figure 34) is an arrangement of Puccini's *La bohème*, Act I, bars 204-214. It features a full orchestral score. The orchestral parts include Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bon.), Horn (Hn.), Trumpet (Tpt.), Piano (Pno.), Trombone (Rod.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The score includes performance markings such as *rit.*, *A tempo*, *p*, *mp*, *mf*, *pp*, *ppizz.*, and *arco*. The lyrics for the vocal part are: "No. Puz-za la te-la di - pin - ta. Il mio ram - ma. l'ar - den-te mio dram - ma ci scal - di. Ros-so? sulla IV. corda rit. A tempo Vuoi leg-ger-lo for - se? Mi ge - li." The score includes performance markings such as *rit.*, *A tempo*, *p*, *mp*, *mf*, *pp*, *ppizz.*, and *arco*.

Another example is at the very end of the opera in Act IV when Rodolfo realises that Mimì has passed. At this point, large brass chords are sounded in the original by a full section of horns, trumpets and trombones as seen in Figure 35. However, as such a complement of instruments is not available in the arrangement, I used four instruments instead: trumpet, horn, oboe, and bassoon. Again, as a brass sandwich, the trumpet takes the top line of the chords while the horn takes the bottom line. The rest of the notes are filled in by the oboe and bassoon; the oboe at this range has a “rich, reedy quality” (Blatter, 1997, p. 100) while the bassoon in this range is considered “horn-like” and blends well with other instruments (Blatter, 1997). Their distinct instrumental colour complements the brass instruments and fills out the chords from within, as can be seen in Figure 36.

Figure 35

Puccini's *La bohème* - Original Score, Act IV, pp. 406-407

The image displays a page of a musical score for Act IV of Puccini's *La bohème*, pages 406-407. The score is written for a full orchestra and includes vocal parts for Rodolfo and Marcello. The tempo is marked "Largo sostenuto" and the dynamics are "tutta forza".

The orchestral parts shown include:

- Flute (Fl.)
- Oboe (Ob.)
- Clarinet in G (Cl. in G)
- Clarinet in Bb (Cl. in Bb)
- Bassoon (Fag.)
- Trumpet in F (Tr. in F)
- Trombone in F (Tr. in F)
- Trombone in Bb (Tr. in Bb)
- Trumpet in Bb (Tr. in Bb)
- Drum (Piatto solo percusso con la mazza)
- Arpa (Arpa)
- Violin (Vl.)
- Viola (Vla.)
- Violoncello (Vcl.)
- Contrabasso (Cb.)

The vocal parts shown include:

- RODOLFO: "Mimì... Mimì..."
- MARCELLO: "I. solo" and "Coraggio!"

The score includes detailed musical notation, including notes, rests, and dynamic markings. The page number 407 is visible in the top right corner.

Figure 36

Puccini's *La bohème* - Arrangement, Act IV, Bars 427-435

The musical score for Act IV, Bars 427-435 of Puccini's *La bohème* is presented in a full orchestral arrangement. The score is divided into two systems. The first system includes staves for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Tpt.), Timpani (Timp.), Cymbals, Piano (Pno.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vcl.), and Contrabass (Cb.). The second system includes staves for Oboe (Ob.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Tpt.), Rodolfo (Rod.), Mimì (Mim.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vcl.), and Contrabass (Cb.). The score is marked 'Largo sostenuto' and 'ff tutta forza'. The lyrics are in Italian, with English translations provided for Mimì's part. The score is arranged for a full orchestra and vocal soloists.

From my experience as a conductor, the timbre of the highest instrument in any phrase or melody is heard distinctly compared to the instrument that is supporting it, as long as the supporting instrument does not have a timbre that is more distinct. This is also supported by Chon and Huron (2014) in which they state that “a sound that was easy to identify in isolation was also easy to identify when presented with another concurrent sound” (p. 4) which also means that “listeners would be more confident of identifying more salient timbres” (p. 4). This works well when rewriting sections that originally have multiple parts in the same instrumental family. An example is in Act I when Mimì has dropped her keys, and both Rodolfo and herself are looking for them. Puccini passes the phrase between two pairs of instruments playing in thirds: a pair of oboes and a pair of clarinets (see Figure 37). In my arrangement, in order to create a similar contrast where the phrase still

sounds like it is being passed between the oboe and clarinet, the lower line in each phrase is played by the flute, whereas the sole oboe and clarinet play the original higher lines. The flute in this role and at this range effectively supports the colour of the instrument it is reinforcing as shown in Figure 38. This method of using the highest voice as the basis of contrast between different instrument colours can be a significant tool when the arranger has limited instruments but still wants to create the contrasts between the sections.

Figure 37

Puccini's *La bohème* - Original Score, Act I, pp. 86-87

The image displays two pages of a musical score for Puccini's *La bohème*, Act I, pages 86 and 87. The score is arranged for a full orchestra and vocal soloists. The instruments listed on the left are Oboe (Ob.), Clarinet in B-flat (Cl. in Sib.), Clarinet in A (Cl. in A), Bassoon (Fag.), Arpa (Arpa), MIMI (soprano), RODOLFO (baritone), Violin I (Viol. I), Violin II (Viol. II), Viola (Vcllo), and Cello/Double Bass (Cb.). The vocal lines include Italian lyrics such as "Cer - chi! (urla nel tavolo, vi depono il suo candelero e si mette a cercare la chiave, brancicando le mani sul pavimento)" and "Co - sa di - ce, ma le pa - rei Cer - co!". The instrumental parts feature performance markings like "p dolce e legato", "poco rit.", and "a tempo". The page numbers 29 and 87 are visible at the top of the respective pages.

Figure 38

Puccini's *La bohème* - Arrangement, Act I, Bars 424-437

The image shows an arrangement of the musical score for Puccini's *La bohème*, Act I, bars 424-437. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Piano (Pno.), MIMI (soprano), RODOLFO (baritone), Violin I (Vin. I), Violin II (Vin. II), Viola (Vla.), Cello/Double Bass (Vc. / Db.). The vocal lines are identical to those in Figure 37, including the lyrics "Cer - chi! (urla nel tavolo, vi depono il suo candelero e si mette a cercare la chiave, brancicando le mani sul pavimento)" and "Co - sa di - ce, ma le pa - rei Cer - co!". The instrumental parts feature performance markings like "p dolce e legato", "poco rit.", and "A tempo". The page number 11 is visible at the top of the page.

Furthermore, it is important to consider the way in which individual instruments are effectively used in the arrangement. Firstly, the clarinet can be versatile and flexible in its usage, as it not only is able to stand out when needed as a soloistic instrument but it can also be inconspicuous and “blend with other instruments more readily than any other woodwind” (Blatter, 1997, p. 108). It also has the ability to play in the extreme dynamic ranges “greater than any other wind instrument in terms of extremes” (Blatter, 1997, p. 108). An example can be found in Act I where the clarinet is used to supplement and blend with the string section. The Violin II part in the original (see Figure 39) is indicated as *divisi* and the bottom line is played by the clarinet instead in the arrangement (see Figure 40). This allows Violin I to focus on performing the solo, while the rest of the strings with the clarinet covers the other notes in this section of the music especially when the string section performing it is only a quintet. The Violin II part has the original Violin I, the clarinet has the original Violin II top line (original), the Viola has the original Violin II bottom line, and the Cello has the original Viola part.

Figure 39

Puccini's La bohème - Original Score, Act I, p. 77

23 Andantino $\text{♩} = 92$ 77

Arpa

ROD. *Cinque minu - ti. Co - s'è il mestier.*

MAR. *re - sto per termi - nar l'ar - ti - co - lo di fon - do del Ca - storo.*

Viol. I *I solo senza sordina.*

Viol. II *Fa presto.*

Vcllo *I solo*

(prende dal tavolo un lume e va ad aprire l'uscio; Marcello, Schanhard e Colline escono e scendono le scale)

ROD. *Cinque minu - ti. (nell'uscio)*

MAR. *tar - di u - drai che so - rol* *Tagliacorta la coda al tuo Ca -*

Viol. I *I solo*

Vcllo

Figure 40

Puccini's La bohème - Arrangement, Act I, Bars 285-298

In another example, the clarinet instead takes on a more soloistic role by taking on the countermelody that was originally in the Violin I part (see Figure 41 and Figure 42). However, with its ability of blending easily, its use here is effective in the arrangement as it lightly highlights the line without giving it too much prominence. This allows the Violin I and Violin II parts in the arrangement to take on the divisi in the original Violin II part, while the Viola and Cello in the arrangement take on the divisi in the original Viola part. This effectively handles the various divisi in the original string parts. The accompaniment lines remain in the string instruments while the countermelody is lightly highlighted by the clarinet. This technique uses the given instrumentation of the arrangement by highlighting the hierarchy of the lines without detracting too much from the original. It introduces a more distinct instrumental colour to create this separation.

Figure 41

Puccini's *La bohème* - Original Score, Act I, p. 89

Figure 41 shows the original score for Act I, page 89 of Puccini's *La bohème*. The score includes parts for Clarinet (CL), Cor Anglais (Corai), Arpa, Mimi, Rodolfo (RODOLFO), Violin (Viol.), and Viola (Vio). The tempo is marked 'Andante affettuoso' with a metronome marking of 58. The score features various dynamics such as 'pp', 'ppp', and 'ppp dolce', and includes performance instructions like 'con sordina' and 'a tutti, il più piano possibile e ben legato'.

Figure 42

Puccini's *La bohème* - Arrangement, Act I, Bars 461-474

Figure 42 shows the arrangement for Act I, Bars 461-474 of Puccini's *La bohème*. The score includes parts for Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Mimi (Min.), Rodolfo (Rod.), Violin I (Vin. I), Violin II (Vin. II), Viola (Via.), and Viola (Vc.). The tempo is marked 'Andantino affettuoso' with a metronome marking of 58. The score features various dynamics such as 'pp', 'ppp', and 'ppp dolcissimo', and includes performance instructions like 'con sord.' and 'pizz.'

The horn is not only able to highlight important brass lines where needed, it can also act in a supporting capacity when used in its low-to-middle register at a low-to-medium dynamic range. The horn is adept at taking on a role that involves sustaining a note to create some depth of warmth to the texture. For example, in the introduction of Act III, the viola creates a sense of sustained line and warmth in the original (see Figure 43). In my arrangement, this part is reallocated to the horn in

order to achieve a similar characteristic as a solo instrument in this smaller ensemble (see Figure 44).

This reallocation frees up the viola to play the pizzicato line that was divisi in the original Violin II part that doubles the piano.

Figure 43

Puccini's La bohème - Original Score, Act III, p. 241

Figure 44

Puccini's La bohème - Arrangement, Act III, Bars 30-44

Furthermore, the horn is often able to replace the original second clarinet part in a way that balances and blends with the first clarinet. This combination between the two instruments works really well as long as it is not in the extreme ranges for the horn and does not involve technical passages such as fast running notes or large interval leaps. For example, in Act I when Mimì and Rodolfo first meet, the clarinet and horn duo is used in the arrangement to replace the two clarinets in the original (see Figure 45 and Figure 46).

Figure 45

Puccini's *La bohème* - Original Score, Act I, p. 80

80

Cl. in La Lento *cres.*

MIMÌ (bussa timidamente alla porta) (di fuori) *pp dolce.*

SONI. (alzandosi) Di grazia, mi s'è spento il lume. (corre ad aprire)

ROD. Chi è là? Una donna! Ecco.

Viol. *pppp* *divisi* *cres.*

Vla. *pppp* *divise* *cres.*

Vc. *pppp* *arco* *cres.*

Cb. *pppp* *arco* *cres.*

Cl. in La *poco rit.*

MIMÌ (sull'uscio con un lume spento in mano) Vor. reb. be? Non occorre. (insistendo)

ROD. S'accomodi un momento. La prego, en-tri.

Viol. *dim.* *pp* *poco rit.*

Vla. *dim.* *pp* *poco rit.*

Vc. *dim.* *pp* *poco rit.*

Cb. *dim.* *pp* *poco rit.*

F. R. 110 *poco rit.*

Figure 46

Puccini's *La bohème* - Arrangement, Act I, Bars 323-329

323 Lento *pp* *mp* *pp* *poco rit.*

Cl. *pp* *mp* *pp*

Hrn. *pp* *mp* *pp*

Mim. (di fuori) Scu. si. Di gra-zia, mi s'è open-to il lu-me. Vor-reb-be? Non oc-cor-re.

Rod. (alzandosi) Chi è là? U na don-na! Ec-co. S'ac-co-mo-di un mo-men-to. La pre-go, en-tri.

Viol. I *pp* *mp* *poco rit.*

Viol. II *pp* *mp* *poco rit.*

Vla. *pp* *mp* *poco rit.*

Vc. *pp* *mp* *poco rit.*

Db. *pp* *mp* *poco rit.*

The versatility of this duo is also useful where certain dovetailing is needed. At the end of Act I, the viola in the original holds a G for a substantial number of bars (see Figure 47). This is carried in the arrangement by the clarinet and horn taking turns to dovetail and therefore hold the note continuously (see Figure 48). Again, this helps by freeing up viola in the arrangement to take on the lower line of the original Violin II part which ensures that all the divisi from the original are covered.

Figure 47

Puccini's *La bohème* - Original Score, Act I, pp. 119-120

This musical score excerpt covers measures 58 to 120 of Puccini's *La bohème*. It features vocal parts for Mimì and Rodolfo, and instrumental parts for Flute, Clarinet, Horn, Piano, Violin I, Violin II, Viola, Violoncello, and Contrabasso. Mimì's lyrics include "(maliziosa) Curioso! Obbe-di - soo, si - gnor...". Rodolfo's lyrics include "(con molta grazia a Mimì) p *dolcissimo* Dammi il braccio, mia pic - ci - na...". The score includes performance directions such as "Sostenuto", "divisi", "pizz.", "pp", "pppp", and "Sforzato". The tempo is marked $\text{♩} = 58$. The page number "F. R. 110" is visible at the bottom.

Figure 48

Puccini's *La bohème* - Arrangement, Act I, Bars 659-666

This musical score excerpt covers measures 659 to 666 of the arrangement for Puccini's *La bohème*. It features instrumental parts for Flute, Clarinet, Horn, and Piano, and vocal parts for Mimì and Rodolfo. Mimì's lyrics include "(maliziosa) Cu-rio-so! Ob-be-di - soo, si - gnor...". Rodolfo's lyrics include "(con molta grazia a Mimì) p *dolcissimo* Dam-mi il brac-cio, mia pic - ci - na...". The score includes performance directions such as "Sostenuto", "pp", "ppp", "pizz.", and "Sforzato". The tempo is marked $\text{♩} = 58$. The page number "F. R. 110" is visible at the bottom.

However, due to the reduced instrumentation in such an arrangement, there are certain moments whereby the arranger will have to make the difficult decision of removing elements that are in the original. There may be certain reasons why one might do so; there might not be a suitable instrument to cover the allocated line, and using one of the other instruments might cause more issues than benefit such as by changing the intended instrumental colour too drastically or causing a particular line to stick out. At the end of Rodolfo's aria in Act I, the ending is played by two flutes and a clarinet in the original (see Figure 49). However, in my arrangement, it was the best option for the flute to have its original top part while the clarinet takes the original bottom flute part (see Figure 50). These two lines were also more suitable because they are in sixths. It did not seem right to have the original clarinet part in any of the other wind instruments (oboe, bassoon) as their distinct instrumental tone would change the atmosphere greatly, especially when the dynamic is pianissimo at this intimate moment. Using any other instrument for these notes would stick out too much from the texture because of the reduced ensemble size and it was more important to maintain the unified string sound contrasting against the lighter and more neutral wind colours of the clarinet and flutes.

Figure 49

Puccini's *La bohème* - Original Score, Act I, p. 98

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 98. The score is for the ending of Rodolfo's aria. It features multiple staves for various instruments and voices. The instruments listed on the left are Flute (Fl.), Clarinet in B-flat (Cl. in Sib), Clarinet in B-flat (Cl. b. in Sib), Horn in F (Corni in Fa), Arpa, Violins (Viol.), Viola (v.le), Voice (Vo.), and Cello/Double Bass (Cb.). The score is marked 'allarg.' and 'dim. e allargando sempre'. The lyrics for Mimi are '(e un po' titubante, poi si decide a parlare) (sempre seduta) con semplicità Si. Mi'. The score is numbered 35 at the top and bottom.

Figure 50

Puccini's *La bohème* - Arrangement, Act I, Bars 531-533

The musical score for Figure 50 is arranged in a standard orchestral format. It includes parts for Flute (Fl.), Clarinet (Cl.), Piano (Pno.), Mimi, Rodolfo (Rod.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The tempo is marked 'A tempo' and the dynamics are 'pp' (pianissimo). The score shows a melodic line for Flute and Clarinet, piano accompaniment, and vocal lines for Mimi and Rodolfo. The arrangement includes a section marked 'senza sord.' (without mutes) for the strings.

Also, there are certain moments that would be most effective if the strings-alone colour is maintained without the addition of any woodwinds or brass. Hence, it would be inadvisable to add any additional instruments not from the string family to cover a particular line as that might cause an imbalance and give that line a greater prominence compared to the others that remained in the string parts. An example is in Act I after Mimì recovers from fainting and Rodolfo is admiring Mimì's beauty. In the original, there are only extremely quiet strings with Puccini giving the instruction of "*pp il più piano possibile*". The strings are intended to just add a sense of warmth during this moment (see Figure 51). If one were to transcribe from the original note for note, a string quintet would not suffice and additional instruments would need to be used to cover everything. Therefore, in the arrangement, the strings still have the same chords as the original but it is voiced in a slightly different manner so as to achieve a similar effect without adding other non-string instruments (see Figure 52).

Figure 51

Puccini's *La bohème* - Original Score, Act I, pp. 82-83

Figure 52

Puccini's *La bohème* - Arrangement, Act I, Bars 363-373

Another example that works better as a string-only section in the arrangement is at the introduction of Rodolfo's aria in Act I. The orchestra sets up a sense of warmth immediately before their hands meet and Rodolfo starts singing about how cold Mimì's hands are. In the original, this section was written for violin, viola, cello, and bassoon (see Figure 53) which works well because the solo bassoon is balanced with a full-sized orchestra string section. However, this intimate moment would be less effective in the arrangement as the bassoon would stick out when accompanying a string quartet of violins, viola, and cello (or even a small string section). Therefore, the bassoon was left out of the arrangement and the note (which is also the same as the cello in the original) is played

in the bass instead (see Figure 54). The divisi in the Violin II part resulted in the various lines being reallocated with the cello taking on the original Viola part and the viola with the original lower Violin II part.

Figure 53

Puccini's *La bohème* - Original Score, Act I, p. 88

This musical score for Figure 53 shows the original instrumentation for Act I, p. 88 of Puccini's *La bohème*. The score includes parts for Clarinet in B-flat (Cl. in Sib), Bassoon (Fag.), Mimi's vocal line, Violin I (Viol.), Violin II (Viol. II), Viola (V. II), and Voice (Vo.). The vocal line includes the lyrics: "(china a terra, cerca sempre a tastoni: in questo momento Rodolfo si è avvicinato ed, abbassandosi esso pure, la sua mano incontra quella di Mimi)". The score features various performance markings such as *rall.*, *sempre*, *dim. e rall. molto stent.*, *f*, *pp stacc.*, and *ppp stacc.*. The bottom of the score is marked "E.R. 110".

Figure 54

Puccini's *La bohème* - Arrangement, Act I, Bars 454-460

This musical score for Figure 54 shows an arrangement of Act I, Bars 454-460 of Puccini's *La bohème*. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The score features performance markings such as *rall.*, *f espressivo*, *arco*, *f*, *p dim.*, and *pp*. The bottom of the score is marked "PP".

Therefore, it might be preferred to leave out instruments to ensure that the reduced size ensemble is balanced within itself. In the original, the start of Mimi's aria in Act I opens with the full orchestra string section being complemented with a harp that is doubled by two clarinets and two flutes (see Figure 55). However, in an arrangement that is for a string quintet (or a small string section), this would cause an imbalance with the combination of wind instruments and harp being too prominent. Therefore, the wind instruments were not included in this aria's opening and only the piano plays those notes as the harp did in the original (see Figure 56). This ensures that the notes still contrast with the strings but also balance well without overpowering this soft opening of the aria. Furthermore, the violins and violas have four bars in this section that is indicated as *divisi* in the original. In order to replicate these string chords in the arrangement, the chords played are revoiced by keeping the highest five notes so that it sounds as similar to the original as possible with the Violin I and Violin II parts in the arrangement written as double stops (most of them involving either open strings or being in sixths).

Figure 55

Puccini's La bohème - Original Score, Act I, p. 99

The image displays two systems of a musical score for Puccini's *La bohème*, Act I, page 99. The score is in 3/4 time, marked "Andante lento" with a tempo of 40. It features Mimi's vocal line with Italian lyrics, and instrumental parts for Flute (Fl.), Clarinet in La (Cl. in La), Arpa (Harp), Violin (Viol.), Viola (Vla.), Violoncello (Vcl.), and Contrabbasso (Cb.). The score is divided into two systems. The first system shows the beginning of the aria, with Mimi singing "chia.ma.no Mi . mi,mai il mio so.me è la.ci . a..... La sto.ris mia è bre.vu...". The second system continues the aria, with Mimi singing "..... A te.ia.oa se.ta ri.cumo in casee fue.ri... Son tran.quilla e lie.ta ed è mio". The score includes various performance markings such as "ppp", "f", "crescendo", and "rit."

Figure 56

Puccini's *La bohème* - Arrangement, Act I, Bars 534-544

The musical score for Figure 56 shows the vocal line for Mimì and the piano accompaniment for bars 534-544. The tempo is marked 'Andante lento' with a tempo of quarter note = 40. The vocal line includes the lyrics: 'chia-ma-no Mi-mi, ma il mio no-me è Lu-ci-a... La sto-ria mia è bre-ve... A te-la o a se-ta ri-ca-mo in ca-sa e fuo-ri... Son tran-qui-la e lie-ta ed è mio'. The piano accompaniment includes staves for Pno., Vln. I, Vln. II, Vla., Vc., and Db. The piano part features a tremolo in the strings and a syncopated line in the piano.

On the other hand, there might be certain lines when arranging a specific section that are quite prominent and demands for a fuller treatment in the reduced ensemble. These lines should therefore be doubled in other parts. As such, it is crucial to make sure the parts that are now left out are reallocated appropriately. An example is at the very initial moment where Rodolfo and Mimì meet and she is about to faint. The tremolo in the strings sets the mood with a background “shiver” as well as lay the foundation for the leitmotif that represents Mimì’s illness to be played on top by the clarinet. In the original, this tremolo line is played by the full string section of violins and cello, while the viola has a syncopated line (see Figure 57). In order to compensate for the reduced number of strings, the viola in the arrangement doubles the bottom line of the original Violin II part so that there is a greater number on the tremolo. The syncopated line, which is more of a rhythmic texture, is shifted onto the piano instead (see Figure 58). Doing so helps rebalance the ensemble by giving the tremolo more presence to support the clarinet while still keeping the rhythmic texture by using the piano which is slightly “percussive”.

Figure 57

Puccini's *La bohème* - Original Score, Act I, p. 81

Allegro agitato a 2 *accel. sempre*.....

Ob.

Cl. in La *sensibile, espressivo, con voce omogenea*

Fag. in Fa

Corni in Fa

Arpa

MIMI (entra, ma subito è presa da soffocazione) (tossisce)

ROD. (premuroso) No... nul . la . Impalli - di - sce!

Viol. *unifi*

V. lo *unite* *accel. sempre*.....

Vo.

Cb. *pizz.* *Allegro agitato* *accel. sempre*.....

Figure 58

Puccini's *La bohème* - Arrangement, Act I, Bars 330-335

Allegro agitato *accel.*.....

Ob.

Cl. *mp sensibile, espressivo, con voce omogenea*

Fag.

Tpt.

Pno.

Mim. (entra, ma subito è presa da soffocazione) (tossisce)

Rod. (premuroso) No... nul - la . *Allegro agitato* Si sen - te ma - le? *accel.*..... Im - pal - li - di - sce!

Vln. I

Vln. II

Vla.

Vc.

Db. *pizz.*

Another example is also in Act I when Rodolfo and Mimì are looking for her keys. It is important to take any opportunity to double up on important lines where possible if it makes the overall balance and musical intention better. In the arrangement, the Violin II part doubles the Viola part in bar 412 to compensate for the reduced string size (see Figure 59 and Figure 60). This also gives the line a strong forward direction into bar 413.

Figure 59

Puccini's *La bohème* - Original Score, Act I, p. 85

The image displays a page of a musical score for Puccini's *La bohème*, Act I, page 85. The score is arranged in a standard orchestral format with vocal parts. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet in Sib (Cl. in Sib), Bassoon (Fag. in Fa), Horns (Corni in Fa), Violin (Viol.), Viola (V. lc), Violoncello (Vc.), and Contrabass (Cb.). The vocal parts are for Mimì (MIMI) and Rodolfo (ROD.). The score includes various musical notations such as dynamics (pp, p, mp, mf, f), articulation (pizz., arco), and performance instructions like "(ripete con grazia, avvicinandosi ancora cantamente)". The lyrics for Mimì are "Disgra-zia! Im - por - tu - na è la vi -" and for Rodolfo "O - ve sa - rà?". The page number "P.R. 110" is visible at the bottom, and a circled "28" appears in two locations: above the Flute staff and below the Contrabass staff.

Figure 60

Puccini's *La bohème* - Arrangement, Act I, Bars 409-416

The musical score for Figure 60 shows the orchestration for Act I, Bars 409-416 of Puccini's *La bohème*. The score is in 3/4 time and features a key signature of one flat. The instruments included are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Tpt.), Piano (Pno.), Minion (Min.), Rodolfo (Rod.), Violin I (Vln. I), Violin II (Vln. II), Viola (Via.), Cello (Vc.), and Double Bass (Db.). The score includes dynamic markings such as *mf*, *p*, *pp*, *f*, and *mp*, and performance instructions like "ripete con grazia, avvicinandosi ancora cautamente" and "arco". The lyrics for Mimì and Rodolfo are: Mimì: Dis - gra - zia - tal! Im - - por - - tu - na è la - vi -; Rodolfo: O - ve sa - rà? The score is divided into two systems, with a measure rest of 10 measures indicated between the systems.

When reallocating the lines in the arrangement, the important lines should be highlighted by making sure the melody line is distinct and then reallocating or removing any of the supporting lines. In Act III, while Rodolfo is explaining to Marcello about Mimì's illness and about his inability to care for her because of his poverty, Puccini uses the woodwinds, horns, harp, and strings extremely softly in the original to accompany the voice. They all have the same rhythm and the instruments either play repeated notes in the chord or the melody (see Figure 61). The Violin I and Violin II parts of the original are divisi. As such, it was more important that they had the melody notes in the arrangement with the Violin I, Violin II, Cello, and oboe parts given the melody (see Figure 62). The rest of the instruments are allocated the harmony notes instead: viola, trumpet, and flute start on an F, and the horn, clarinet, and bassoon starts on a D.

Figure 61

Puccini's *La bohème* - Original Score, Act III, p. 285

285

Fl. I. *pppp con stanchezza* *cres.* *poco rall.*
II. *pppp con stanchezza* *cres.*

Ob. I. *pppp con stanchezza* *cres.*
II. *pppp con stanchezza*

C. Ingl. *pppp con stanchezza* *cres.* *poco rall.*

Cl. b. in Si b. *pppp con stanchezza* *ppp* *poco rall.*

Fag. I. *pppp con stanchezza* *cres.*
II. *pppp con stanchezza*

in Fa *a tempo* *pppp* *cres.* *cres.* *poco rall.*
Corni in Fa *pppp con stanchezza* *pppp*

G. Cassa *pppp* *pppp*

Arpa *vibrato* *poco rall.*

MIMI *a tempo* *p*

ROD. *a tempo* *poco rall.*
La mia stanza è una tana squal . li da . . . Il fuoco ho spento . . . Ventrò e l'aggira il

Viol. *pppp con stanchezza* *cres.* *cres.*
divisi *pppp con stanchezza*

Viola *pppp con stanchezza* *cres.* *cres.*
divise *pppp con stanchezza*

Vo. *pppp con stanchezza* *cres.* *poco rall.*
tutti *a tempo* *arco*

Cb. *pppp con stanchezza* *pp* *poco rall.*

22 P. R. 110

Figure 62

Puccini's *La bohème* - Arrangement, Act III, Bars 310-313

The musical score for Figure 62 is a page from an orchestral arrangement of Puccini's *La bohème*, Act III, bars 310-313. It features a full orchestral score with vocal parts for Mimi and Rodolfo. The score is written in E-flat major and 3/4 time. The tempo is marked 'A tempo' and 'poco rall.'. The dynamic markings are 'ppp con stanchezza' and 'cresc.'. The score includes staves for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Piano, Mimi, Rodolfo, Violin I, Violin II, Viola, Violoncello, and Contrabass. The vocal parts for Mimi and Rodolfo are also shown with lyrics in Italian.

The piano is one of the most versatile instruments in the arrangement but its utilisation should be treated carefully. If too much piano is used, it can become tiresome with the instrumental colour drawing strong association to the music call rehearsals of an opera whereby the repetiteur plays piano reduction using a vocal score (A. Gorb, personal communication, 2021). When implemented in the right way, the piano enables the arrangement to become much more effective. Alder (2002) mentioned that instead of the piano part having the reduction from beginning to end, the arranger should “use the piano as another orchestral instrument, to lend body to tutti sections, provide arpeggiated accompaniments, render the harp parts, take occasional single line solos, or double solos, perhaps in the higher register” (p. 742). The original harp parts are mostly translatable onto the piano; while it might be tempting to add staccato markings onto the piano part to mimic the harp’s plucking, it is from personal experience when rehearsing *La bohème* that the legato

playing of the piano sounds closer to the harp because of the resonance. This was originally how the piano part was written in Act IV from bar 297 and it only sounded closer to what I had envisaged when the pianist was requested to ignore the staccato markings (see Figure 63).⁸

Figure 63

Puccini's La bohème – Arrangement Piano Part, Act IV, Bars 297-304



The piano is also effective when taking on a single line when accompanying or doubling high staccato lines in the winds (especially the flute). This works effectively in the opening section of Act I when the piano plays a similar rhythmic motif with the winds and supports the piccolo in sixths (see Figure 64). In the original, this is played by the piccolo and two flutes, with the two oboes and two clarinets playing repeated notes (see Figure 65).

Figure 64

Puccini's La bohème - Original Score, Act I, p. 11

⁸ The staccato markings have been removed in the arrangement submitted.

Figure 65

Puccini's *La bohème* - Arrangement, Act I, Bars 126-137

Figure 65 shows a musical score for Puccini's *La bohème*, Act I, Bars 126-137. The score is an arrangement and includes parts for various instruments: Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Tpt.), Timpani (Timp.), Piano (Pno.), Rodolfo (Rod.), Marceline (Mar.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The score features dynamic markings such as *ff*, *p*, *pp*, and *ppp*. A Piccolo part is also indicated. The lyrics for Marceline are: "che non cre-do al su - dor del - la fron - te." and "Ho diac - cia - te le di - - ta...".

Another example is from Mimi's aria in Act III where a motif is played by two flutes in the original (see Figure 66). In the arrangement, this is played by a flute and also doubled by the piano in the arrangement (see Figure 67). This works extremely well as the articulation and timbre of the piano and flute at that register go well together.

Figure 66

Puccini's *La bohème* - Original Score, Act III, p. 295

Figure 66 shows the original score for Puccini's *La bohème*, Act III, p. 295. The score includes parts for Flute I (Fl. I.), Flute II (Fl. II.), Clarinet in La (Cl. in La.), Mimi, Violin (Viol.), and Violoncello (Vc.). The score features dynamic markings such as *pp*, *ppp*, and *a tempo*. The lyrics for Mimi are: "...scol - ta. Le poche robe a.du.na che lascia' spar - se. Nel mio ess.".

Figure 67

Puccini's La bohème - Arrangement, Act III, Bars 372-375

The musical score for Figure 67 consists of seven staves. From top to bottom, they are: Flute (Fl.), Clarinet (Cl.), Piano, Mimi (Mim.), Violin I (Vln. I), Violin II (Vln. II), and Viola (Vla.). The piano part (Piano) is marked *pp leggerissimo* and features a prominent tremolo texture starting at bar 372. The vocal line for Mimi includes the lyrics: "scel - ta. Le po - che ro - be a - du - na che la - sciai spar - - se. Nel mio cas -". The string parts (Vln. I, Vln. II, and Vla.) are marked *pp* and provide a sustained harmonic background.

Furthermore, the piano can lend body to the tutti sections by taking on anything rhythmic or textural. In Mimi's aria in Act I, there is a section in the original where the four horns play chords in the background to create a syncopated texture (see Figure 68). This is one of the moments in Puccini's music where the music has a sense of warmth that feels like the sound is hugging the listener. In order to achieve this effect, it has a larger number of instruments playing long sustained lines very softly with a background rhythmic texture of syncopations and tremolos. In the arrangement, the piano takes on and gives weight to the rhythmic syncopated texture which enables the horn to lend body to the soft yet full-bodied section (see Figure 69) as this section requires as many instruments as possible to sustain a line softly.

Figure 68

Puccini's *La bohème* - Original Score, Act I, p. 103

Figure 69

Puccini's *La bohème* - Arrangement, Act I, Bars 581-584

3.3.6 Dynamics and Balance

In the previous section (3.3.5), it was discussed that the arranger should ensure that when reallocating lines the result should be balanced within the ensemble. This can be done by making sure that each line is suitably represented and anything that the arranger considers superfluous can be removed. In order to further help with this internal balance, it is important that the dynamics written for the woodwinds and brass are adjusted to maintain this balance as well. For example, before Musetta's entry in Act II, the off-beat quavers in the brass of the original are written as *ff* (see Figure 70). However, to ensure that the brass (as well as bassoon and percussion) does not overpower the ensemble, these are written a dynamic lower in the arrangement (see Figure 71).

Figure 70

Puccini's *La bohème* - Original Score, Act I, p. 177

Allegro moderato $\text{♩} = 132$
brillante, con fuoco

16

Fl. *ff*

Ob. *ff*

Cl. in Si b *ff*

Fag. *ff*

in Fa *ff*

Cori in Fa *ff*

Timp. *ff*

(all'angolo di Via Mazzarino appare una bellissima signora dal fare civettuolo ed allegro, dai sorrisi provocante. Le vien dietro un vecchio signore pomposo, pieno di pretese negli abiti, nei modi, nella persona)
(con sorpresa vedendo Musetta)

ROD. Oh! Muset.ta!

(si lascia cadere sulla sedia)

MAR. tos. sico! Essa!

(con sorpresa)

SCHAU. Oh! Muset.ta!

(con sorpresa)

COLL. Oh! Muset.ta!

Viol. *f*

V. la *f*

Ve. *f*

Cb. *f*

16 Allegro moderato $\text{♩} = 132$
brillante, con fuoco

Figure 71

Puccini's *La bohème* - Arrangement, Act I, Bars 165-168

6 Allegro moderato $\text{♩} = 132$

Fl. *ff*

Ob. *ff*

Cl. *ff*

Bsn. *ff*

Hrn. *f*

Tpt. *f*

Perc. *f*

Rod. *Ob! Mu- set - ta!*

Mar. *(He slumps down in his chair) ton - si- col' Es- sal*

6 Allegro moderato $\text{♩} = 132$

Vln. I *ff*

Vln. II *ff*

Vla. *ff*

Vcl. *ff*

Cb. *ff*

Furthermore, it is important for string pizzicato to be indicated at a higher dynamic. In my personal experience as a conductor, in most pieces, especially when the orchestration is most dense, the pizzicato sound is often covered; in these situations, I almost always have to request for those notes to be played at least a dynamic or two higher than written for them to be heard. As such, throughout this arrangement, where suitable, any pizzicato lines are written at a slightly higher dynamic than those indicated in the original. This is also done to account for the smaller string section. For example, immediately before Mimì and Rodolfo meet for the first time in Act I, the strings have pizzicato in various bars with *pp* indicated (Figure 72). In the same section of the

arrangement, the dynamics are marked a level higher at *p* (Figure 73). They are only marked a dynamic higher as the orchestration is still rather sparse at this point. Doing so helps to make rehearsals more efficient as less will need to be said.

Figure 72

Puccini's *La bohème* - Original Score, Act I, p. 79

Figure 72 shows a page of musical notation from Puccini's *La bohème*, Act I, page 79. The score is for the original version. It features several staves: Clarinet in B-flat (Cl. in Sib.), Violoncello (Vc.), Contrabasso (Cb.), Flute (Fl.), Clarinet in La (Cl. in La), Horn (Corni in Fa), Violin (Viol.), and Viola (Vla.). The tempo is marked "Allegretto". The score includes Italian lyrics and stage directions: "(Rodolfo chiude l'uscio, depono il lume, sgombra un angolo del tavolo, vi colloca calamaio e carta, poi siede e si mette a scrivere, dopo avere spento l'altro lume rimasto acceso.)" and "(Rodolfo scrive, s'interrompe, pensa, ritorna a scrivere.)". Dynamics include *ppp*, *p*, and *ppp*. Performance markings include "pizz." and "Allegretto".

Figure 73

Puccini's *La bohème* - Arrangement, Act I, Bars 305-318

Figure 73 shows a page of musical notation from Puccini's *La bohème*, Act I, Bars 305-318. The score is for an arrangement. It features several staves: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The tempo is marked "Allegretto". The score includes Italian lyrics and stage directions: "(Rodolfo chiude l'uscio, depono il lume, sgombra un angolo del tavolo, vi colloca calamaio e carta, poi siede e si mette a scrivere, dopo avere spento l'altro lume rimasto acceso.)" and "(Rodolfo scrive, s'interrompe, pensa, ritorna a scrivere.)". Dynamics include *p*, *pp*, and *p*. Performance markings include "pizz." and "Allegretto".

In a contemporary arrangement, it is also important for the arranger to ensure that the dynamics in the score are as specific as possible. Throughout the original score, there are moments where the dynamics are vague and should be indicated more clearly in the arrangement which would again help the rehearsal process be more efficient. For example, at the start of Act I, the dynamic markings are unclear in the original (see Figure 74). As such, in the arrangement, the dynamics in this section are written in a more explicit manner to ensure that it is clear where the “*p subito*” is written and also signifies the target dynamic (see Figure 75).

Figure 74

Puccini’s *La bohème* - Original Score, Act I, p. 6

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 6. The score is for a full orchestra and includes a vocal line for M. Riquet (MAR.). The instruments listed are Flute (Fl.), Oboe (Ob.), Clarinet in La (Cl. in La), Bassoon (Fag. in Fa), Horns in F (Corni in Fa), Trumpets in F (Tr. in Fa) and Bb (Tr. in Fa), Trombone (Tr. in Bb), Triangle (Triang.), Arpa (Arpa), Violin (Viol.), Viola (V. in C), Violoncello (Vcllo), and Contrabasso (Cb.). The score is marked 'a tempo' at the beginning. Dynamic markings include 'p' (piano) and 'pp' (pianissimo). There are also markings for 'arco' and 'pizz.' (pizzicato). A vocal instruction '(torna al lavoro)' is written above the MAR. part. The page number 'P.R. 410' is at the bottom.

Figure 75

Puccini's *La bohème* - Arrangement, Act I, Bars 67-75

The musical score for Figure 75 is a full orchestral arrangement for Act I, bars 67-75 of Puccini's *La bohème*. It features the following instruments and parts:

- Flute (Fl.):** Part 1, marked *p*.
- Oboe (Ob.):** Part 1, marked *p*.
- Clarinet (Cl.):** Part 1, marked *p*.
- Bassoon (Bsn.):** Part 1, marked *p*.
- Horn (Hn.):** Part 1, marked *p*.
- Trumpet (Tpt.):** Part 1, marked *p*.
- Piano (Pno.):** Part 1, marked *p*.
- Maracas (Mar.):** Part 1, marked *onl.*
- Violin I (Vln. I):** Part 1, marked *p*.
- Violin II (Vln. II):** Part 1, marked *f*.
- Viola (Via.):** Part 1, marked *f*.
- Violoncello (Vc.):** Part 1, marked *f*.
- Double Bass (Db.):** Part 1, marked *p*.

The score includes various dynamic markings such as *p*, *p sub.*, *mp*, and *f*, and performance markings like *pizz.* and *arco*. The tempo is marked *A tempo*.

3.3.7 Performance Markings

It is not only the dynamic markings that need to be carefully translated when producing the arrangement, but also some of the performance markings; some of those in the original *La bohème* might be considered superfluous today. For example, pizzicato notes in the strings do not need to have staccato indication as well; the same is true in some of the percussion writing such as for the snare drum and xylophone. This can be seen in Figure 76 below. As such, these non-essential staccato indications are removed in the arrangement.

Figure 76

Superfluous indications of staccato

Left – Act I, pizzicato strings; Right – Act II, snare drum

Furthermore, some of the techniques requested by Puccini would not be notated the same way today. For example, as seen in Figure 77 below, Puccini would write “*col crine*” (with horsehair), and “*col dorso dell’ arco*” (with the back of the bow). Today, string players are used to seeing “*ord.*” (*ordinario*, or ordinary) and “*col legno*” (with wood) instead.

Figure 77

Puccini’s La bohème - Violin Parts, Act II

Top line - original notation; Bottom line - arrangement notation

Finally, it is important to note that the markings in the original score published in 1920 have often not been copied from the manuscript accurately with “an average of from 40 to 50 small changes on each and every page of the score” (Vaughan, 1960, p. 1). One of the many examples mentioned by Vaughan (1960) is in Act I, where the copyist must have standardised the articulation in the winds with a staccato on the first note (see Figure 78, bar 3). However, the staccato markings are only in the second oboe and second clarinet part in the manuscript so as to increase the clarity of the repeated notes (see Figure 79). Therefore, it is important for the arranger to have a clear concept of how the arrangement should sound instead of fully relying on the markings indicated in the original score.

Figure 78

Puccini's La bohème - Original Score, Act I, p. 6

The image shows a page of a musical score for Puccini's *La bohème*, Act I, page 6. The score is written for a full orchestra and chorus. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet in G (Cl. ingl.), Clarinet in Bb (Cl. b. in Sib), Bassoon (Fag.), Trumpets and Trombones (Trombe e Fagotti), Arpa, Chorus (CORO), Violini (Viol.), Violoncello (Vcl.), and Contrabbasso (Cb.). The score includes various musical markings such as dynamics (pp, p, mf, f), articulation (staccato), and performance instructions (e.g., 'segue ancora pizz. a tutti', 'arco', 'dim.'). The lyrics are in Italian, including 'COLLINE (se ne viene al ritrovo, agitando trionfalmente un vecchio libro)' and 'VENDITORI AMBULANTI Fioriallebellè! Fioriallebellè!'. The page number 'P. R. 110' is visible at the bottom.

Figure 79

Manuscript Articulation (Vaughan, 1960, p. 6)

Example 3

The image shows a musical score for woodwinds, labeled 'Example 3'. It consists of five staves: Flutes, Piccolo, Oboes, and Clarinet Bb. Each staff contains a series of notes with various articulation marks, including slurs, accents, and breath marks, illustrating the manuscript's articulation style.

3.3.8 Purpose and Audience Enjoyment

The purpose of producing this arrangement was initially to enable a performance that would allow for an immersive experience for the audience. The reduced-size orchestra and smaller cast meant that the performance space can be used more effectively by bringing the audience into the performance space of the singers. This meant that the orchestra would have been able to put on a performance that gave a unique experience for the audience in an intimate space. However, the duration of the Covid-19 pandemic meant that, although the performers and audience could not interact as much as planned (in order to achieve the effect of immersion), this arrangement allowed for this performance to still go ahead because it catered for social distancing among the musicians.

On a practical note, a clear purpose also helped Musicians' Initiative in their bid for various grants resulting in this project being supported by two funding bodies in Singapore, National Arts Council and Arts Fund. Doing a grant application is a process that almost every creative practitioner has to go through at some point in their career, all over the world. The initial conception of this project (see Appendix 2) was a Triple Bill exploring relationships featuring Samuel Barber's *A Hand of Bridge* (1959), Gian Carlo Menotti's *The Telephone* (1947), and my own arrangement of *La bohème*. The production was to be thought-provoking as the three operas are linked by the way human relationships define us today. *A Hand of Bridge* broaches our relationship with oneself, *The*

Telephone deals with our connection with technology, and *La bohème* explores the bond between people: falling in love, falling out of love, and dealing with loss and death. The character Mimi is consumed by a deadly illness which is also apt coming out of a period where many have passed from a deadly lung disease. Watching such a production might be a cathartic experience for audiences who have lost their loved ones to Covid-19 through the experience of depressive realism (as discussed earlier in section 2.2.10).

It was my initial intention for *La bohème* to be performed with a suitable English translation so that there is an immediacy of comprehension by the local audience which would allow them to focus on the dramatic elements on stage and listen to the music without relying on surtitles. My belief is that this would have enhanced the audience's experience of the opera. Nonetheless, the artistic team of Musicians' Initiative decided against the idea with the reasoning that the original Italian text works better musically. There is much to debate on whether opera should be performed in the original or local language.⁹ Because of the breadth of the topic, it is not explored in this thesis. It is, however, important for the arranger to keep in mind as the overall comprehension of the opera can impact the enjoyment of the audience.

Finally, it was important to have an idea of what the musicians and audience thought about the production. This will be explored in the next section where I collated and analysed the audience's and musicians' feedback through the questionnaires.

3.4 Feedback from Questionnaire

3.4.1 Introduction

There are many studies exploring the listening experience of audiences, in which data is obtained using a questionnaire. These studies have largely aimed at exploring how and why people listen (Dearn et al., 2017), the cultural value of live music and "how audiences, artists and other

⁹ For example, see papers by Mateo (2013) and Martin (1968).

participants in live music value their experience” (Behr et al., 2016, p. 7), and themes of experiences by “audience members at a concert of participatory, contemporary, classical music” (Toelle & Sloboda, 2021, p. 70).

Empirical research executed by arts organisations has often been undertaken to understand the audience experience, but few have been concerned with the effects of a specific piece of music, or a well-known piece of music in a new form. When such studies are undertaken, they are usually a discussion about brand new pieces of music, and they explore the nature of the works being performed and how they are perceived. For example, Toelle and Sloboda (2021) explore the participants’ perception of experiencing contemporary pieces by Huang Ruo and Christian Mason in which audience participation was a part of the performance instructions. The current study, however, explores how participants perceive an arrangement of an originally larger operatic work.

The musical work explored in this current chapter is my own arrangement of Puccini’s *La bohème*. There is no scholarship considering the perception of listeners with regards to how decisions in creating these arrangements were made. Existing scholarship is concerned with the creation process rather than the listening process. As such, this chapter presents a questionnaire study that was undertaken with an audience listening to my arrangement of *La bohème* live. Although participant numbers were too low to make statistically significant observations, the results from the questionnaire will hopefully allow for some understanding of the audiences’, singers’, and instrumentalists’ perception of the arrangement. This will in turn enable us to explore how to create effective arrangements in the future and better understand the benefits of such arrangements, in terms of the experiences of these stakeholders. The questionnaire also explores how audiences feel about hearing a popular work which has been truncated (and rearranged), which does not often happen in reduced opera arrangements (i.e., existing arrangements usually keep the same duration).

3.4.2 Research Questions

1. How well did the arrangement convey the story, given that this work is a reduction in duration from the original?
2. How effective was the arrangement (for example, to what extent did audiences consider this successful, enjoyable and/or preferred)?
3. How comfortable was the arrangement for the musicians (i.e., how well suited was it for their instrument or voice type)?

3.4.3 Methods

Ethical Consideration.

This questionnaire was granted ethical approval by the Royal Northern College of Music Research Ethics Committee.

Participants.

There were 51 participants; 16 musicians (12 instrumentalists and 4 singers) and 41 audience members who either performed or attended the concerts on 15th and 17th October 2021 in the Gateway Theatres in Singapore. These were professional ticketed performances. All three questionnaires (for audience, instrumentalists, and singers) asked about participants' enjoyment and pacing of the opera. For the musicians (instrumentalists and singers), it had questions that were more specific to the performance such as stamina and details in the parts. The questionnaires for the respective groups can be found in Appendix 3.

The participants performed or watched my newly created arrangement of Puccini's *La bohème*. Participation in the questionnaire was optional and the audience members could choose to answer the questionnaire pertaining to the arrangement of *La bohème* by scanning the QR code available throughout the venue and in the programme booklet after the performances. The instrumentalists and singers were sent the links to their respective questionnaires after both performances had been completed. The audiences' and musicians' responses were captured using

the survey tool, Online Surveys. Most questions were given on a Likert scale, with a few using multiple choice options.

The performance was part of a show titled "Double Bill: The Pursuit of Happiness" by Musicians' Initiative, a professional orchestra in Singapore, that featured Menotti's *The Telephone* and this 65-70-minute arrangement of Puccini's *La bohème*. Due to the Covid-19 pandemic, the performance of the operas had to happen without an intermission and as such, in order to reduce the overall duration, Barber's *A Hand of Bridge* was removed which turned the initially proposed triple bill to a double bill.

The 41 audience members who opted to complete the questionnaire represented 19.0% of the 216 total audience members at the concerts. The 12 instrumentalists who took part represented 60% of the 20 instrumentalists. All 4 singers took part.

3.4.4 Results

Responses were first reviewed for anomalies. It appeared that one of the participants in the instrumentalists group mistook the Likert scale as meaning the opposite (they interpreted the 1 and 7 as opposite ends of the scale). The participant responded that they enjoyed the arrangement but gave consistent low scores on later questions specific to the arrangement. As such, the ratings given by this participant have been inverted.

Descriptive statistics and overviews of the data will be given, and where statistical tests were run to address the research questions above, these are also listed below. These results will then be interpreted in light of the research questions above.

On the original version of *La bohème*.

On average, most of the audience members had not seen a performance of *La bohème* before (Yes I have seen this before=11, yes I have seen parts of it=5, no I have not seen it before=24, Not sure=1), and the piece was also mostly known by the instrumentalists (rating of familiarity on a

scale of 1-7, 7 = I know the piece well: $M=3.67$, $SD=1.92$) and the singers (rating of familiarity on a scale of 1-7, 7 = I know the piece well: $M=5.75$, $SD=0.5$).

Comparing the arrangement to the original.

When asked if participants enjoyed the original work more or this new reduced version (1 = original, to 7 = new), on average the audience members who have heard at least some of the original enjoyed the arrangement more ($n=16$, $M=5.13$, $SD=1.59$), 7 of the 11 instrumentalists who had played all or part of the original *La bohème* before enjoyed the arrangement slightly more than the original on average ($M=4.29$, $SD=1.38$) and the singers slightly enjoyed the arrangement more than the original ($M=4.25$, $SD=1.71$).

The audience gave an average rating of 6.1 to the question of whether they felt that the music reflected the atmosphere of the work (1 = the music did not reflect the atmosphere effectively, 7 = the music did reflect the atmosphere effectively: $M=6.1$, $SD=0.900$).

Coherence and pacing of the story.

As the arrangement is a reduced version of the original, with a large section of the original being removed, it was important to ask listeners whether they felt that the story still made sense in this arrangement. Participants were asked to rate the extent to which the story was coherent on a 7-point Likert scale (1 = it did not make sense, 7 = it did make sense). Results demonstrated that, on average, the story largely made sense to the audience (average rating 5.95). Perceptions about whether the pace of the action felt suitable (1 = pace was too slow, 7 = pace was too fast), so as to reflect if the arrangement managed to retain the important story telling element of the original effectively were asked. The audience felt that the pacing of the story was just very slightly faster than they would have liked (average rating 4.32) and the singers felt that the pacing was slightly faster than the original (average rating 5.3).

When asked whether the arrangement felt like a complete work in its own right, the audience on average slightly agreed ($n=41$, $M=4.44$, $SD=1.60$).

On the arrangement.

The audience felt that the orchestral accompaniment of the arrangement was effective in supporting the voices ($n=41$, $M=6.02$, $SD=1.11$). The singers felt that the orchestra supported their voices ($n=4$, $M=5.25$, $SD=1.5$; three singers rated 6, one singer rated 3).

In general, the musicians enjoyed the arrangement, with only 1 singer answering "no" ($n=16$, $Yes=15$, $No=1$, $Not\ sure=0$). The instrumentalists found that their parts suited their instrument well ($n=12$, $M=6.33$, $SD=0.778$). They also felt that their part works well with the rest of the ensemble ($n=12$, $M=6.42$, $SD=0.669$).

With regards to stamina, the singers felt that the arrangement was slightly less challenging than "just right" ($n=4$, $M=3.75$, $SD=1.26$).

Correlations.

Various questions in the audience questionnaire indicated some sense of what the audience found to be 'effective' about the arrangement. These were questions 2, 5, 6 and 7 in the survey respectively:

2. Did the story make sense in this arrangement (could you understand what was happening)?
5. This is an arrangement of the full opera. To what extent did it feel like a reduced/shortened/new version of an existing work, and to what extent did it feel like a work in its own right?
6. How effectively did the orchestral accompaniment support the voices in this performance?
7. How well did the music reflect the atmosphere of the story?

These questions were analysed to see if there was a sense that listeners rated multiple of these highly (i.e., there were correlations evident when a test was run to check the extent to which these ratings varied in line with one another), in other words, to see if audience members had a general sense of 'effectiveness', which impacted on multiple of their responses.

There were statistically significant correlations between audience responses to questions 5 and 6 ($r(41) = 0.432, p < 0.01$) and between questions 6 and 7 ($r(41) = 0.385, p < 0.05$). These results therefore suggest that people who found the arrangement to feel like a complete work were also more likely to feel that the orchestral accompaniment supported the voices well. They were also more likely to rate the extent to which the orchestral accompaniment supported the voices and the extent to which the music reflected the atmosphere of the story in line with one another. Therefore, there is some indication that audience members found the arrangement to be effective in more than one way if the above questions might be considered as representative of effectiveness.

No other statistically significant correlations were found between questions 2, 5, 6 and 7. This suggests that there is some evidence of listeners having a sense of the 'effectiveness' of the arrangement, which manifested itself in multiple questions.

3.4.5 Limitations, Discussion, and Conclusion

Limitations.

There are certain limitations in this study that might affect the results obtained in the questionnaire. The sample size of participants might be considered small as the performances happened during the Covid-19 pandemic and had a smaller audience than usual. With small sample sizes, there can be more 'noise' in the data, i.e., one response which is very different to others can have a large effect on averages. For example, one of the singers' responses was negative compared to the others and it is difficult to understand whether it was due to the arrangement or from other issues. In addition, comments made by the stage director during the music rehearsals regarding the absence of certain sections in this truncated arrangement might have influenced some of the responses of the singers. For example, a response in the open-ended section mentioned that "The quartet in Act 3 was left out which was a pity..." is probably influenced by comments made by the director during rehearsals. Finally, as I was also the conductor of the project, the musicians may have

felt inclined to give a more positive response to this study if they enjoyed working with me and vice versa.

Singapore has a rapidly growing opera culture but does not have a strong one when compared to other cities; a single opera company in the UK is more likely to undertake more productions a year than in Singapore. Opera North has eight productions in their 2022-2023 season (Opera North, 2022). However, the “flagship company of the western opera in Singapore”, Singapore Lyric Opera, only performed one fully staged opera with orchestra and chorus in 2019 (Singapore Lyric Opera, 2022). Other opera companies in the country such as New Opera Singapore also only perform one fully staged opera a year (New Opera Singapore, 2022). As such, it would be interesting to see if these results would be similar to performances in another country with a more prominent operatic culture.

Discussion.

The research questions will be addressed in turn:

Despite reduction in duration from the original, how well did the arrangement convey the story? The results above suggest that the arrangement managed to convey the story well for most people. The audience generally agreed that the story made sense to them despite there being a large reduction in content in the arrangement compared to the original work. This suggests that condensing well-known operas in this way could be a worthwhile project that may appeal to audiences, albeit that these were limited sample sizes, and more data are needed to draw any reliable conclusions.

How effective/successful/preferred was the arrangement? The audience participants who knew at least some of the original version seemed to enjoy the arrangement more. However, the group sizes were too small to run statistical tests, so further testing would need to be undertaken before definite conclusions could be reached. The singers also enjoyed the arrangement slightly more than the original as well. However, this was again a very small sample size.

All the audience members except one (who selected 'not sure') chose the answer 'yes' when asked if they enjoyed the performance (the options were yes, no, and not sure). This meant that it was not possible to check whether there were different levels of enjoyment of engaging with this arrangement depending on whether participants knew the original score of *La bohème*. In future, a Likert scale may be a better option for enjoyment ratings, to allow for t-tests to be run on the different groups so as to be categorised in terms of their knowledge of the original work.

Despite a 41.7% reduction in the duration of music taken from the original, it was interesting to note that the audience on average felt that the pacing of the opera was 'just right'; the average rating was just a bit higher than just right (M=4.32). A reason might be that our average attention span has decreased compared to audiences of the past with the onset of the digital age, as "the high pace and potential information overload of social media, its use might lead to decreased attention span" (Studen & Tiberius, 2020, p. 6).

However, it is also noteworthy that the singers had a different view from the audience with every single one of them feeling that the pacing of the story was too fast. Probably as performers, they might have felt that their character development was either moving too fast or did not have enough time to take place. They may also have been more familiar with the original score than the average familiarity of the audience, and hence their judgement was made in light of this benchmark.

How comfortable was the arrangement for the musicians? In general, the musicians found the arrangement comfortable. The arrangement meant that there was a reduction in the length of the music, but the key moments of the opera crucial to the story were kept. This meant that most of the important arias, duets, trios, and quartets which are usually the more tiring sections for singers were featured. The reduction in length also meant that there was less time to rest between sections. However, it is notable that most of the singers felt that, with regards to stamina, the arrangement was not tiring.

Conclusion.

The results from this questionnaire provide an indication that producing an arrangement that reduces the duration and orchestration of an original, well-known work, can be effective. The reduced forces did not seem to negatively affect the perception of a famous opera such as *La bohème* and was even preferred by certain audience members. It is therefore even more important the arrangements of such nature are undertaken meticulously so that it comes across effectively. Arrangements have sometimes been frowned upon especially from the mid-20th century during the so-called “age of authenticity” which was believed to have originated from “the progressive artistic insecurity of [the] age that has gradually turned [the] search for authenticity into a compulsion” (Keller, 1969, p. 23). However, the results from this seem to paint a positive outlook that audiences today seem to be moving towards a place where they are more open to variations from the norm, making it ever more important to make sure that such arrangements are of the best quality. This means that it might be a good idea for opera companies to consider smaller scale productions of such works in which the arrangements are carefully and thoughtfully undertaken. This would allow productions to be performed in a wider variety of venues and create different performance experiences that are potentially more intimate for the audiences.

These results and the discussion above might also signal that future productions could aim to be shorter in duration so that they might effectively capture the audience's attention, as it has been remarked that a “two- or three-hour classical music performance can feel like a workout” (Quito, 2017). Chief classical music critic of The New York Times, Anthony Tommasini has noted that “live classical music requires concertgoers to listen and focus, often for lengthy stretches, [and] has long seemed off-putting to many potential aficionados” (Tommasini, 2015). It might be more effective for productions to consider performing works of shorter duration so as to maintain and build not only a younger audience, but also cater to the needs of the people today to stay relevant. More research needs to be done in finding out the average attention span or concentration of audiences today when watching opera and listening to classical music, as there have been comments

from performers and audiences that concerts today are feeling too long compared to the shorter concerts experienced during the middle of the Covid-19 pandemic. For example, after performing many shorter concerts without intermission during the pandemic, world-renowned pianist Stephen Hough has commented that removing intervals and having 60- to 80-minute concerts might be beneficial to the focus of both audiences and performers (Hough, 2020), and this was something he has advocated for even before the pandemic (Hough, 2016).

Further studies should be undertaken to explore the experience by audiences of concerts differing from the established format of classical music. It might be that the current traditional way of having concerts or full-length operas would only cater to the "converted" (those already familiar with the work) but not to the general public. This would be important research to the continuity of building up newer audiences in the future, and in doing so, it might paradoxically help build future audience's attention spans, allowing for longer concerts in the future as according to Jonathan Berger, professor of music at Stanford University, "the process of listening to music could be a way that the brain sharpens its ability to anticipate events and sustain attention" (Baker, 2007).

3.5 Knowledge Gained

This journey from the initial proposal of the triple bill to Musicians' Initiative to being commissioned to produce a new arrangement and performing it generated much new knowledge which is central to the current thesis. Having proposed the ten factors which should be considered during the arranging process, this is the first time that I used them in a practical manner in the conception and production of the arrangement. These factors were found to be relevant and successfully considered and applied during the creation of this arrangement, in that they provided a comprehensive list that I as the arranger could consider. Other new knowledge resulting from this arranging process includes my growing awareness that categorisation of arrangements may not be as clear-cut as it seems, as what I refer to above as a direct reduction can also overlap with the concept of a reimagination, for example, the changes made to the structure in this arrangement of

La bohème in which a coherent story was still produced with the structure changed resulting in a 41.7% reduction in the total amount of music from the original. It is also notable that the ten factors which I have conceived of are not mutually exclusive, especially those on atmosphere and feel (see section 3.3.2), instrument choice (see section 3.3.3), timbre (see section 3.3.4), reallocating lines and dealing with divisi and multiple stops (see section 3.3.5), and dynamics and balance (see section 3.3.6). This can be seen most clearly in section 3.3.5 above where I demonstrate how reallocating the lines affects the other factors involved. Regarding timbre (section 3.3.4), I explored how the latest research from the field of music perception research can be used in the discipline of orchestration and arranging, making use of work undertaken by McAdams et al. (2022) and many more. I believe this is the first known use of the TOGE from this music psychology research in analysing music and making decisions for the subsequent arrangement. Finally, this is the first usage of my newly developed questionnaire for audience members and performers, which provided multiple insights into the success of the arrangement and production, resulting in many ideas regarding how future performances can be made more effective and enjoyable. Future arrangements of well-known works could make use of this technique—surveying the audience at the first performance in order to judge the extent to which the arrangement has been undertaken successfully (or not).

Chapter 4: Commentary on the arrangement of Lehár's *The Merry Widow*

4.1 Background

The arrangement which I made of Lehár's *The Merry Widow*¹⁰ (*Die Lustige Witwe*) (1905) was produced and performed by OperaViva for their 2023 opera production. OperaViva is a community opera company based in Merseyside who perform their productions in different places throughout the county. Cast and company include semi-professionals and amateur singers, with the instrumental ensemble being made up of various freelance instrumentalists from North West England. As their music director, I chose the opera because it appears regularly on the list of operas that are most often performed by operatic societies in the North of England (see Appendix 4) and also because it has a substantial chorus part. The survival of most amateur opera societies is dependent on their chorus because of membership subscriptions (H. Harrison, music director of Preston Opera, personal communication, 2019). *The Merry Widow* is one of the most popular operettas¹¹ worldwide. When it received its London premiere in 1907, it "played nearly 800 times at Daly's Theatre, and some Londoners were reported to have seen the show more than 100 times" (Metropolitan Opera, n.d.). It is also number 51 in the list of *100 classical music recordings you must own* on ClassicFM (n.d.). The 2022/2023 season has seen multiple amateur operatic societies in the United Kingdom stage the opera, such as Opera Worcester, Bath Opera, St Albans Chamber Opera and also OperaViva. Its popularity means that there are different versions of the opera available as well as arrangements (see section 4.2 below).

Discussion with the artistic committee of OperaViva concluded that the opera production was to be set in France in the 1920s and the score would be reimagined to reflect the Jazz Age through the alteration of the instrumentation and orchestration by hinting at the sounds that might have been heard in music at that time (see section 4.3.2 and 4.3.3 below). The overall structure was

¹⁰ A synopsis of the full opera can be found on the Opera North website here: <https://www.operanorth.co.uk/whats-on/the-merry-widow/#story>

¹¹ Operetta is a "light opera with spoken dialogue, songs and dances" (Lamb, 2001).

mostly kept the same as the original with minor changes (see section 4.3.1 below). The performances took place on 28th, 29th, and 30th April 2023 at Mossley Hill Club, St Mary's College, and Heswall Hall respectively. The company used the original English translation of the libretto by Basil Hood and Adrian Ross, which was used for the first London production in 1907 (Hood & Ross, 2019). However, because of the archaic nature of some of the themes and the incoherence of the source material at times, the text was reviewed and edited by various members of the company (see section 4.3 below).

4.2 Versions and Other Known Arrangements

This source material used for this arrangement was the original orchestral parts published in 1906 by Doblinger (Lehár, 1906). It was common for conductors of operettas before 1940 to use a vocal score with handwritten indications of instrumentation and instrumental solos (Scott, 2019). As such, the only publicly available version of the full score (Lehár, 2005) was published by Doblinger in 2005 and cannot be used as a source material as it is still in copyright in the UK.¹² As with the nature of many operas, there are many different versions of *The Merry Widow*. The opera's libretto by Viktor Léon and Leon Stein is based on a French play, *L'attaché d'ambassade*, by Henri Meilhac and this was first performed in Vienna in 1905. This was later adapted in 1907 by Basil Hood and Adrian Ross which was used both at the West End, London and on Broadway, New York (Scott, 2019). In 1958, two different English versions were published; the first is by Christopher Hassall based on the original Doblinger edition published in Vienna (Scott, 2019), and the other is sometimes also known as the "Operatic Society Version" (Lehár, 1958) published by Glocken Verlag Ltd which has the story and lyrics adapted by Phil Park with the music adapted and arranged for large orchestra by Ronald Hanmer. As will be further explored in the next section 4.3 below, OperaViva used Hood and Ross's

¹² This full score may still be in copyright in the United Kingdom because of the 25-year copyright term on typographical arrangements.

libretto as it was out of copyright to be a starting point which was further edited and adapted for the production.

There are other notable arrangements that exist. The first is by Phil Parks and Ronald Hanmer as mentioned above. This arrangement included significant edits such as various numbers being structurally rewritten with additional chorus parts. Most of the music in the arrangement is a whole tone lower than the original as it was designed to appeal to amateur operatic societies (Scott, 2019). It was also written for a large orchestra of a flute, two clarinets, one oboe, one bassoon, two horns, two trumpets, two trombones, percussion, a harp, and a complete string section. This makes it less feasible to be used by operatic societies today as they have the financial constraints of mainly being funded by their own membership subscriptions. Another version for two violins, viola, cello, and piano produced by Pocket Publications was used by Opera Worcester (Opera Worcester, 2023); this was probably a bespoke version for the production as it is not a product featured on their website. Having seen the production on 22 February 2023, I feel as though the arrangement sounded sparse, as the piano was filling in most of the missing lines and sounded like the string quartet was playing the original parts from the full score with the piano using the vocal score to fill in the missing sections. This is often the case when there are only five instrumentalists available, probably due to logistical (size of venue as there was no orchestra pit) and financial constraints (being a community opera group). Third is a version by Reduced Opera Orchestrations which is for one flute (doubling piccolo), one oboe, one clarinet, one bassoon, two horns, one trumpet, timpani, three percussion (glockenspiel, side drum tambourine, tam-tam, triangle, cymbals, bass drum), harp, and string section. The main reduction for this version is in the woodwinds and brass section as “all other instruments are as the composer wrote them” (Reduced Opera Orchestration, n.d.). This arrangement is still meant for a relatively large ensemble that needs twelve instrumentalists and an additional string section, as the percussion, harp, and string parts are left untouched. Finally, there are numerous other versions that feature selections from the opera such as the one arranged for theatre orchestra (1907) by Richard Klugescheid, a version for orchestra (1907) arranged by Henry

Higgs and orchestrated by Daniel Goffrey, and also many others for other ensemble such as wind ensembles and brass bands. I believe that my arrangement is probably the only one that features a reimagination for a small ensemble size of eight instrumentalists.

4.2.1 Libretto and Translation

As producing a suitable translated libretto can be a mammoth task, it was decided by the production team that the company would use an existing version that is out of copyright and adapt it to be more suitable for their performance. The libretto and source used for the production is based on the book by Basil Hood and the lyrics by Adrian Ross. The adaptation for this production that can be found in Appendix 6 was edited by Alexandra Thackray, David Palmer, Vivienne Sharp, and myself. In the English book, the names of characters were changed such as the widow being called Sonia instead of Hanna, the baron is called Popoff instead of Zeta, and the country they are all from is called Marsovia instead of Pontevedro but we decided to revert the names back to the original Viennese version instead. This decision was made because the audiences were more familiar with the original names which are more widely used. Changes were also made because the references, speech, and jokes may be considered archaic and unsuitable for contemporary sensitivities as the original London production was set in 1907. For example, there was also certain violent imagery in some of the text that has been removed such as “if someone courts another’s wife, he will be shot, of course” (Hood & Ross, 2019, p. 16), as well as references to beating someone black and blue with a cudgel (Hood & Ross, 2019). Furthermore, some of the dialogue was lengthy and it was decided to try and reduce the amount of talking between the musical numbers. For example, there is a section in Act II where Danilo is looking for the owner of a fan. In Hood’s version, this interaction involved the character Njegus (Nisch) and his involvement in this scene may be considered superfluous and was thus removed. It was important to make sure that the overall story was finalised before working on the music as it would affect the order of the musical numbers.

4.3 The Arrangement Process

The process of arrangement will be discussed using the list of ten factors proposed in Chapter 2. Similarly, factors on modern notation and typesetting will not be included as this has already been discussed in Chapter 2. Factors on Instrumental Choice and Timbre will be combined in section 4.3.4. Finally, there was a questionnaire (based on the one used for the performances of *La bohème* and was edited to suit this performance) that captured data from audience, singers, and instrumentalists involved in the performances and this is explored in section 4.4.

4.3.1 Structure

As *The Merry Widow* is a number opera,¹³ it was important to consider the musical numbers that were going to be in the arrangement as well as the order in which they would appear. Especially for an opera with many different versions and alterations, it is important for the arranger to have a clear idea of what the overall skeleton of the work is going to look like. Table 1 below shows the comparison between the original Viennese version compared to the English version by Hood & Ross that was used for the premiere productions at the West End, London and on Broadway, New York. The first two acts are similar between the two versions besides the variations in the name of the characters¹⁴ and some minor discrepancies. For example, in No. 1, the opening is sung by the Baroness in the English version while it is sung by the Baron in the Viennese version. In No. 5, the English version is a solo piece for Camille while it is a duet by Camille and Valencienne in the Viennese version. The musical material, however, is the same. It is from the end of Act II onwards where the versions significantly differ. The English version does not have an Entr'acte at the end of Act II. The opening three numbers of Act III are similar for both versions except for No. 14 where

¹³ Previously mentioned in section 2.2.1, a number opera consists of “individual sections or ‘numbers’ that can readily be detached from the whole” (Grove Music Online, 2001)

¹⁴ The character names in the original Viennese version differ from the English version by Hood & Ross (2019). For example, Hanna and Valencienne in the Viennese version are Sonia and Natalie in the English version respectively.

instead of Valenciennes singing with the grisettes, there is an additional grisette Zozo in the English version that takes on this role. The English version also has two additional numbers in this act, "*Butterflies*" and "*Quite Parisian*". The Viennese version has an additional "*Reminiscence*" number which is musically similar to the opening interlude of Act III.

In this arrangement, I decided to create a version that is a combination of both (see Table 2 below); the characters and their appearance in the music are mostly based on the Viennese version so that the music would work with most text regardless of the translation that is being used. As such, No. 1 opens with the baron singing instead of the baroness, No. 5 is a duet for Valenciennes and Camille, and the "*Entr'acte*", "*Interlude*" and "*Reminiscence*" number is included. However, in No. 4, the Viennese version has a bridge section of 16 bars that is not included in the English version (highlighted blue in Figure 80 below) and the English version is also repeated twice. Therefore, No. 4 in the arrangement is based on the English version as the text from Hood & Ross fits it much better. I have also included the number "*Quite Parisian*" from the English version as a musical number for Njegus (Nisch in the English version) and this is placed slightly higher in the order before the introduction of the grisettes in this arrangement. "*Butterflies*" from the English version was not included as it felt inappropriate for the musical style of the reimagination and did not fit the intended night club atmosphere (see section 4.3.2). Instead, the arrangement included a number from another Lehár opera, *Giuditta* (1934), entitled "*On my lips every kiss is like wine*" rearranged for two sopranos and two altos for the four stronger singers in the group of Grisettes for the production. After the finale in Act III, the director requested music for the cast and company to exit (No. 18) which is an excerpt from a short dance section in No. 7.

Table 1

Comparison of musical numbers between Viennese and English version

Viennese Version	English Version
<u>Act I</u>	<u>Act I</u>
1. Introduction	1. Opening Chorus
1a. Ball Music	1a. Ball Music
2. Duet <i>"So kommen Sie"</i> Valencienne and Camille	2. Duet <i>"A Dutiful Wife"</i> Natalie and Camille
3. Entrance Song and Chorus <i>"Bitte, meine Herren"</i> Hanna	3. Entrance Song and Chorus <i>"In Marsovia"</i> Sonia
3a. Ball Music	3a. Ball Music
4. Aria <i>"O Vaterland"</i> Danilo	4. Song <i>"Maxim's"</i> Danilo
5. Duet Valencienne and Camille	5. Song <i>"Home"</i> Camille
6. Finale	6. Finale
<u>Act II</u>	<u>Act II</u>
7. Introduction, Dance, and Song Hanna	7. Opening Chorus and Song <i>"Vilia"</i> Sonia
8. Duet <i>"Heia, Mädels, aufgeschaut"</i> Hanna and Danilo	8. Duet <i>"The Cavalier"</i> Sonia and Danilo
9. March-Septet <i>"Wie die Weiber man behandelt"</i>	9. March-Septet <i>"Women"</i>
10. Scene and Dance Duet Hanna and Danilo	10. Duet Sonia and Danilo
11. Duet and Romance Valencienne and Camille	11. Duet and Romance <i>"Love in my heart"</i> Natalie and Camille
12. Finale	12. Finale
12a. Entr'acte	
<u>Act III</u>	<u>Act III</u>
12b. Interlude	13. Opening Scene
13. Dance Scene	13a. Cakewalk
14. Grisetette Song	14. Song and Chorus <i>"The Girls at Maxim's"</i> Zozo
14a. Reminiscence	15. Dance and Chorus <i>"Butterflies"</i> Fifi
15. Duet <i>"Lippen schweben"</i> Hanna and Danilo	16. Song and Chorus <i>"Quite Parisian"</i> Nisch
16. Final Song	17. Valse Duet <i>"I love you so"</i> Sonia and Danilo
	18. Finale

Table 2*Musical Numbers in the Arrangement*¹⁵

Arrangement	
<u>Act I</u>	
1. Introduction	
1a. Ball Music	
2. Duet " <i>A Respectable Wife</i> "	
	Valencienne and Camille
3. Entrance Song and Chorus " <i>In Marsovia</i> "	
	Hanna
3a. Ball Music	
4. Song " <i>Maxim's</i> "	
	Danilo
5. Duet	
	Valencienne and Camille
6. Finale	
<hr/>	
<u>Act II</u>	
7. Opening Chorus and Song " <i>Vilia</i> "	
	Hanna
8. Duet " <i>The Cavalier</i> "	
	Hanna and Danilo
9. March-Septet " <i>Women</i> "	
10. Scene and Dance Duet	
	Hanna and Danilo
11. Duet and Romance " <i>Love in my heart</i> "	
	Valencienne and Camille
12. Finale	
12a. Entr'acte	
<hr/>	
<u>Act III</u>	
12b. Interlude	
13. Cakewalk	
14. Song " <i>Quite Parisian</i> "	
	Njegus
15. Song and Chorus " <i>The Girls at Maxim's</i> "	
	Valencienne
15a. Quartet " <i>On my lips every kiss is like wine</i> "	
15b. Reminiscence	
16. Valse Duet " <i>I love you so</i> "	
	Sonia and Danilo
17. Finale	
18. Exit Music	

¹⁵ The vocal score produced by myself and used for the production can be found here:
<https://drive.google.com/file/d/1dhUskYWMnsr41Yy6jeGv68fQA5xRda76/view?usp=sharing>

Figure 80

Lehár's *The Merry Widow* - Original Vocal Score (Lehár, 1906, pp. 25-26)

The image displays two pages of the original vocal score for Lehár's *The Merry Widow*. The left page shows the vocal parts for Tenor (Tn) and Soprano (Sopr) with piano accompaniment for Viola and Corno. The right page shows the vocal parts for Tenor (Tn) and Soprano (Sopr) with piano accompaniment for Flute (Fl), Clarinet (Clar), and Corno. Several sections of the score are highlighted with blue boxes, indicating areas that were removed or modified during staging rehearsals.

During the staging rehearsals, it was discovered that certain sections of the music were too long and at times superfluous. They were removed from the final arrangement. For example, in No. 10, the duet between Danilo and Hanna in which they are mainly speaking on top of the music and at the end they dance and hum the tune together. There is a *Kolo*, a Slavic dance, that was in the original but this was removed because it took a long time. Furthermore, in No. 14, in Njegus's number, the chorus response was removed after discussing with the director as it came across as repetitive.

Finally, in order to accommodate the voices of the singers who were mostly semi-professionals and amateurs, most of the music was transposed down by a tone so that the voices did not have to go too high which meant that they were able to give more power when singing. This also ensured that the cast had the power and stamina to do the shows back-to-back for three nights in a row. Only No. 4 was kept in the original key as it was the requested preference of the singer.

4.3.2 Reimagination

As this concept (as discussed in the ten factors above) was going to have a significant influence on the arrangement, it was crucial to consider the reimagination process early on. It was important to decide the parameters that were going to be changed and those that were to be kept the same. The overall structure of the work was kept similar to the original as discussed earlier in section 4.3.1. Discussion with the artistic committee of OperaViva resulted in the decision that the production would be set in 1920s France and the music would hint at a period of the Jazz Age through the usage of various instrumental colours and harmony. Through this work, I also wanted to reflect the influence of Jazz on European composers such as Kurt Weill and Darius Milhaud (explored later in section 4.3.3). However, as this was produced for an amateur opera company, I had to ensure that it did not deviate too far from the version of *The Merry Widow* that they were used to. Most of the elements that were reimaged were in the choices of instruments (see section 4.3.4), the way in which these instruments were employed and orchestrated (see section 4.3.5), and the harmony was only modified in sections that did not have any involvement of the singers. It was also intended, following discussion with the directors and producers, for Maxim's in Act III to feel like it was set in a cabaret night club and for the music to reflect that. Therefore, using this overall concept of how the reimagination was going to look, it was then important to ensure that the arrangement created the right atmosphere and feel which is discussed in the next section.

4.3.3 Atmosphere and Feel

Jazz started to gain popularity throughout the world at around 1920 to 1930 and this has been loosely known as the Jazz Age. According to Tucker and Jackson (2020), "local jazz bands had sprung up everywhere" and had "also made an impact on European composers of concert music" (The Jazz Age section, para. 2). Examples of these are Darius Milhaud's *La Création du Monde* (1923) in which he used "elements of jazz—rhythmic, melodic, instrumental—in one work" (Bauer, 1942, p. 149) and Kurt Weill's music in Bertolt Brecht's play, *The Threepenny Opera* (1928), in which there is

the influence of modern dance music (jazz) of the time (Hinton, 1990). A song written for the play, *Mack the Knife*, has become a jazz standard and has been recorded by popular names such as Louis Armstrong and Ella Fitzgerald. Specific instrumental colours that are associated with this crossover are the use of an alto saxophone to “replace” the viola in the string section in Milhaud’s piece or the muted trumpet in the music of Weill’s *The Threepenny Opera*. Paris was a significant hotspot for the reception of African American jazz at this time because “French consumer culture was, on the one hand, increasingly shaped by American entertainment culture ... and on the other hand, by cultural forms to which one attributed African origins, a result of colonialism” (Schmeisser, 2007, p. 106). Jazz had spread throughout Paris in the 1920s, and “the new music was particularly associated with the red-light district of Montmartre and was viewed by some as a threat to the traditional ‘chanson.’ For a time it was banned by the Parisian police” (Wynn, 2007, p. 9). The association with jazz works especially well in Act III which is set in Maxim’s, a nightclub in Paris. Therefore, I wanted to create an atmosphere with the arrangement of how it might sound if an orchestrator of the opera had been influenced by the sounds of jazz at that time. The arrangement is intended to sound like a band at a nightclub on a Saturday night in Paris, especially when the opera scene moves to Act III being set in Maxim’s. It is important to note that the arrangement is not a “jazz” version of *The Merry Widow* but is instead an arrangement that uses the original musical material to hint at the sounds of dance music of the time, creating the feeling of being surrounded by the prevalence of the sounds and colours. Hence, in order to recreate this, the music has to reflect the timbres of instruments that might have been associated with creating this atmosphere and feel, leading us to the next factor on instrument choice.

4.3.4 Instrument Choice and Timbre

The instrumental choices and the timbre associated with them are important to consider. As mentioned earlier in section 2.2.3, the instrumentation can easily become a limiting factor and must be carefully considered. A logistic constraint due to the variable yet extremely tight spaces of the

various performance venues (see Figure 81 below) and the budget available for hiring instrumentalists resulted in the final number of eight. It was therefore crucial that the arrangement still allowed a breadth of colours even with the limited numbers. Hence, the arrangement for *The Merry Widow* was for eight instruments: a flute (doubling piccolo), a clarinet (doubling alto saxophone), a trumpet, a piano, a violin, a viola, a cello, and a bass. The original version has two flutes (both doubling piccolo), two oboes, two clarinets, two bassoons, four horns, two trumpets, three trombones, glockenspiel, timpani, percussion (triangle, side drum, bass drum, cymbals), harp, and strings, with an on-stage band of strings and tamburica.¹⁶ It was decided that the arrangement would not have any percussion because of the limited performance space as well as the logistical issue of hiring and travelling with a set of percussion instruments. As this is a reimagination, it was still possible to make the music come to life without the use of any percussion instrument.

Figure 81

Photo of performance at Mossley Hill Club



¹⁶ Tamburica (Tamburitza/Taburizza) is a family of long-neck lutes popular in southern and central Europe (March, 2012).

Inspiration for the instrumentation choices came from Stephen McNeff's arrangement of Bizet's *Carmen* (2014) which was described as having "smoky atmosphere" and as a "burlesque, ironic cabaret" (Power, 2014). In that, he scored for a flute (doubling piccolo), a clarinet (doubling alto saxophone), another clarinet (doubling bass clarinet), a trumpet, a guitar, a percussion, a violin, a viola, a cello, and a bass. In order to keep the number of instruments in the ensemble down, I have used a string quartet similar to McNeff instead of the usual string quintet normally seen in such arrangements. However, this quartet was not the typical string quartet of two violins, viola, and cello, but instead consists of violin, viola, cello, and bass. This meant that the string section in this arrangement covered the entire range possible for string instruments. Furthermore, the use of the bass is preferred as it is a foundation in jazz/jazz-inspired work, especially "through the depth and penetration of its tonal quality" (Feather, 1957, p. 164). It was important that the ensemble setup had alto saxophone and trumpet, as inspired by their usage by Milhaud and Weill (as mentioned above in section 4.3.3). The alto saxophone is an appropriate addition because it was sometime in the late 1920s that "it cross[ed] the line successfully [into jazz] after decades of identification principally with brass bands" (Feather, 1957, p. 131). It is also known to have a versatility in both a "classical" style and a "jazz" style; for example, the Yamaha (n.d.) website writes on the different types of saxophones:

With jazz, the ideal instrument allows players to express their individuality ... The raspy tones and buzz of the instrument contribute to the texture of the music. With classical music, the player must perform with the many other instruments in the orchestra, and so they prefer an instrument with a clean, finely controlled pitch ... the instrument can appear to be almost as straight as a clarinet. (para. 1)

This is also reflected in Reymore's (2022) paper on timbre trait profiles in which the saxophone had a less consistent rating compared to other instruments most likely due to this difference; this meant that the image of what a saxophone sounds like between different people is

not consistent. This is similar for the trumpet with its flexibility, especially evident through the use of mutes, with “a quiet and almost ethereal tone ... from the so-called Harmon mute ... and the growl or ‘wa-wa’ effect is produced by the rubber plunger” (Feather, 1957, p. 105). More on this effect will be discussed in section 4.3.5 with examples of its usage in the arrangement. Finally, the piano is a regular feature in jazz as it provides “the outlet for triply rich expression in the fields of melody, rhythm and harmony, while all the horns, capable of but one note at a time, are limited to the first two of these” (Feather, 1957, p. 85). Together, these eight instruments seem to be a good combination to create the sound I have envisioned for the arrangement.

4.3.5 Reallocating Lines and Dealing with Divisi and Multiple Stops

This is at times easier than producing the direct reduction of *La bohème* as the aim of the arrangement of *The Merry Widow* is not to recreate the same sounds intended by Lehár, but to recreate a totally different sound world. This makes the reallocation of lines in this situation a different kind of creative process as there is no previous baggage and the main restriction is limited by the pre-existing musical material, the available instruments in the ensemble, and the scope which the reimagination allows. It was important to highlight the various important lines to make sure that they translate well for the ensemble available while recreating the intended sound. Also, as this was written for eight musicians instead of a large orchestra, it was important to ensure that there was suitable balance between the lines between the strings, the woodwinds, and the brass. Finally, it was crucial to include the relevant performance markings in the various parts, especially in the solo lines to make sure that the intended character of the reimagination comes through. Examples will be shown later in this section.

As mentioned in section 4.3.1, most of the musical numbers in the arrangement have been brought down a tone making multiple stopping in the strings problematic. In the original key, Lehár often uses multiple stops which are idiomatic for the instrument. For example, as seen in Figure 82 below which is an example from No.1 in the original, the violin has a quadruple stop in bar 116, a

triple stop in bar 119, and a quadruple and double stop in bar 120. The writing for this works really well as he uses a lot of the open strings on the violin; the low G and D in the quadruple stops, the D in the triple stop, and the low G in the double stop; the fingerings for the stopped notes are also straightforward. However, when the music is brought down a tone (see Figure 83 below), the lowest note in the quadruple stop becomes unplayable as it is out of range (lowest note in violin is a G), there is a reduced number of open strings and the stopped notes have awkward fingerings after the transposition. As such, most of the multiple stops in the strings for this arrangement were removed and the chords are reorchestrated across the ensemble.

Figure 82

Lehár's The Merry Widow - Original Violin I, No. 1, Bars 116-120



Figure 83

Lehár's The Merry Widow - Violin I, No. 1, Bars 116-120, transposed down a tone



Similar to the case of the arrangement of *La bohème*, it was at times essential in this arrangement for lines to be doubled by more instruments to compensate for the reduced ensemble size. An example is from bar 81 of No. 3 as seen below in Figure 84. The melody sung by Hanna needs to be supported by something substantial and this is done by using the violin, viola, and cello doubling the voice in octaves. In the original, this is played by the cello section and a clarinet while

the rest of the string section creates the waltz beat. Although the beat is important, it is secondary to making sure that the melody is well supported. As such, the arrangement has the bass and piano playing the waltz beat instead, with the flute and clarinet focusing on the ornamentations.

Figure 84

Lehár's The Merry Widow - Arrangement, No. 3, Bars 81-87

The musical score for Figure 84 consists of eight staves. The top staff is for Flute (Fl.), marked 'pp' and 'D Valse'. The second staff is for Clarinet (Cl.), also marked 'pp' and 'D Valse'. The third staff is for Horn (Han.), with lyrics: 'that is how we wed, there's no - thing more that need be said.' The fourth staff is for Piano (Pno.), marked 'p'. The fifth staff is for Violin (Vln.), marked 'D Valse'. The sixth staff is for Viola (Vla.), marked 'D Valse'. The seventh staff is for Violoncello (Vc.), and the eighth staff is for Double Bass (Db.).

There is a versatility in the viola for a string quartet like this. While it can take on viola-specific lines and solos, it can also take on various capacities within the ensemble. The viola might be used as a “second violin” in certain sections by doubling the violin rhythmically in octaves or in harmony; second violins in a full orchestra often have this role. For example, as seen in Figure 84 above and Figure 85 below, the viola doubles the violin at an octave throughout this passage. In contrast, the viola can also act as part of the lower string section, while the violin plays a different

line. For example, in another passage in No. 3 as shown in Figure 86, the violin plays the melody line while the viola joins the cello and bass in playing the accompaniment.

Figure 85

Lehár's The Merry Widow - Arrangement, No. 3, Bars 69-76

Figure 85 shows a musical score for bars 69-76 of Lehár's *The Merry Widow* Arrangement, No. 3. The score includes parts for Clarinet (Cl.), Horn (Han.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The Clarinet part features a melodic line with a 'rit.' marking and a 'C' time signature change. The Horn part has lyrics: 'us get mar-ried now, I've a horse and a rig. My fa-ther has a cow, and your mo-ther has a'. The Piano part is marked 'p'. The Violin, Viola, Cello, and Double Bass parts are marked 'mf' and 'f'.

Figure 86

Lehár's The Merry Widow - Arrangement, No. 3, Bars 121-125

Figure 86 shows a musical score for bars 121-125 of Lehár's *The Merry Widow* Arrangement, No. 3. The score includes parts for Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The Violin part is marked 'Mazurka' and 'F'. The Viola, Cello, and Double Bass parts are marked 'pp'.

It was important to consider the pizzicato in the strings to make sure that they are able to have an appropriate amount of power to balance with the rest of the ensemble. An example is in the introductory opening bars of No. 4 whereby the strings were simplified to crotchets and quavers in

the arrangements so that they are able play at a louder dynamic as seen in Figure 87 below. The strings in the original as shown in Figure 88 have to play repeated semiquavers as pizzicato. If replicated in the arrangement, this introduction will not come across as effectively due to the lack of power from plucking repeated notes. However, the strings play semiquavers later in this musical number when the dynamic is written “*pp*” and does not require much power.

Figure 87

*Lehár's The Merry Widow - Original Score, No. 4, Bars 1-4*¹⁷

The musical score for Figure 87 is for five string parts: 1. Violinen, 2. Violinen, Violen, Violoncelli, and Kontrabässe. The tempo is marked **Allegretto**. The key signature has one sharp (F#) and the time signature is 2/4. The score shows repeated semiquaver patterns in the upper strings, with dynamics ranging from *mf* to *p*. Markings for *pizz.* and *arco* are present.

Figure 88

Lehár's The Merry Widow - Arrangement, No. 4, Bars 1-4

The musical score for Figure 88 is for four string parts: Violin, Viola, Violoncello, and Double Bass. The tempo is marked **Allegretto**. The key signature has one sharp (F#) and the time signature is 2/4. The score shows repeated semiquaver patterns in the upper strings, with dynamics ranging from *mf* to *p*. Markings for *pizz.* and *arco* are present.

¹⁷ Note that the full score is used for illustration purposes only as clarified in section 4.2, the arrangement was made from the parts that are out of copyright.

The trumpet is employed in a myriad of ways in the arrangement. At times, the trumpet is used sparingly to add a distinct colour contrast, sometimes with the various mutes (cup, straight, and Harmon). For example, in No. 1 as seen below in Figure 89, the trumpet with a cup mute is added to lightly support Cascada's singing. This creates a timbre contrast from the flute and clarinet in the bars before reflecting the character change of the text.

Figure 89

Lehár's The Merry Widow - Arrangement, No. 1, Bars 65-76

The use of the trumpet with a Harmon mute is significant in this arrangement. The first appearance of this is in No. 4, as seen in Figure 90 below. There is a performance instruction for the music to be played “*sensually, with wah-wah effect*” to recreate sounds that might have been heard by various jazz trumpeters from that time. Joe “King” Oliver¹⁸ who was a leading cornet¹⁹ player in jazz and often created the “wah-wah” effect by using “his hand to manipulate his Conn ball mute,

¹⁸ Oliver, 1881-1938, was a mentor to renowned jazz trumpeter, Louis Armstrong.

¹⁹ The difference between cornet and trumpet jazz musicians are largely academic at that time, in that they are often used interchangeably and often indistinguishable (Feather, 1957).

moving it in and out of the bell to alter his sound ... [but it was] an awkward technique and can wreak havoc with a player's intonation" (Aldag, 2002, p. 17). This resulted in the Harmon mute being invented by Tom Harmon to reduce the difficulties of intonation when producing the effect that Oliver was popularising (Aldag, 2002). I have associated the trumpet's use of the Harmon mute and the "wah-wah" effect in this arrangement with Maxim's to create the feeling and atmosphere of a "smoky" jazz/night club. Often, this is where Danilo sings "I'm happy at Maxim's ...".

Figure 90

Lehár's The Merry Widow - Arrangement, No. 4, Bars 32-44

The musical score for Figure 90 consists of ten staves. The top staff is for Flute (Fl.), followed by Clarinet (Cl.), Trumpet (Tpt.), Danila (Dan.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The tempo is marked 'Langsamer' (slower) at the beginning of the section. The trumpet part is marked 'harmon mute' and 'mp sensually, with wah-wah effect'. The piano part is marked 'p'. The Danila part includes the lyrics: 'cent. I'm hap-py at Ma-xim's, where fun and fro-licbeams. With all the girls I chat-ter, I laugh and kiss and flat-ter. Lo-lo, Do-do, Jou-jou, Clo-clo, Mar-got, Frou-frou! For'. The score shows various dynamics such as *mf*, *p*, and *mf* throughout the piece.

This melody/motif in the trumpet with a Harmon mute is most prominent in Act III where it is set in Maxim's. When it appears "properly" in No. 12b (the introductory number of Act III) and No. 14a, the two numbers open with just the trumpet and piano to create the sense of a jazz duo playing music in the background of a nightclub. The harmony of the accompaniment is modified slightly

from the original to include sevenths and ninths to add to the atmosphere. No. 14a is the most extended version of this as the melody is repeated twice; the first has the string quartet coming in quietly with the voices of the grisettes as seen below in Figure 91 before going into the second time that is the same as that which is written in No. 12b.

Figure 91

Lehár's *The Merry Widow* - Arrangement, No. 15b, Bars 1-18

The musical score for Figure 91 is arranged in a system of staves. The top system includes Flute, Trumpet in Bb, and Piano. The Flute part is marked *Andante* and *p*. The Trumpet part is marked *harmon mute* and *p sensually, molto vibrato*. The Piano part is marked *p*. The second system, starting at bar 9, includes Flute (Fl.), Clarinet (Cl.), Trumpet (Tpt.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The Flute part is marked *p*. The Clarinet part is marked *p*. The Trumpet part is marked *harmon mute* and *p sensually, molto vibrato with wah-wah effect*. The Piano part is marked *ppp*. The Violin part is marked *pp*. The Viola part is marked *pp*. The Violoncello part is marked *pp*. The Double Bass part is marked *pp*. The Piano part also includes the instruction *Grisettes: "la, la, la..." (with the melody)*.

The trumpet with a Harmon mute followed by the alto saxophone is also used during intimate moments to reflect Danilo and Hanna's feelings for each other. For example, in No. 6 as shown below in Figure 92, they start dancing together for the first time in a slow waltz. The melody is first played by a trumpet with a Harmon mute and is later passed onto the alto saxophone. I have used the combination of these two instruments to represent special moments between Hanna and Danilo throughout the arrangement. For example, a waltz in No. 10 in which they are both dancing together is played by the alto saxophone and then the trumpet with a Harmon mute as shown in Figure 93 below. This same melody also opens the final duet in Act III before Danilo finally declares his love for Hanna in No. 16, as seen below in Figure 94.

Figure 92

Lehár's The Merry Widow - Arrangement, No. 6, Bars 415-430

The musical score for Figure 92 is a page from an arrangement of 'The Merry Widow' by Franz Lehár, specifically for No. 6, bars 415-430. The piece is a waltz in 3/4 time, marked 'Valse moderato'. The score is arranged for a full orchestra and includes the following parts:

- Flute (Fl.):** Rests throughout the section.
- Clarinet (Cl.):** Rests until bar 425, then plays a melodic line starting with a piano (*p*) dynamic.
- Trumpet (Tpt.):** Plays the main melody from bar 415 to 425, marked with a 'harmon mute' and 'pp with wash-wash effect'. The melody is then passed to the alto saxophone.
- Horn (Han.):** Rests throughout the section.
- Piano (Pno.):** Provides harmonic support with chords, marked *pp*.
- Violin (Vln.):** Plays a rhythmic accompaniment, marked *pp*.
- Viola (Vla.):** Plays a rhythmic accompaniment, marked *pp*.
- Violoncello (Vc.):** Plays a rhythmic accompaniment, marked *pp* and *pizz.*
- Double Bass (Db.):** Plays a rhythmic accompaniment, marked *pp* and *pizz.*

The score is divided into two systems. The first system covers bars 415-430, and the second system covers bars 431-430. The tempo and mood are indicated as 'Valse moderato'.

Figure 93

Lehár's *The Merry Widow* - Arrangement, No. 10, Bars 145-161

Figure 93 shows a musical score for an arrangement of 'The Merry Widow' by Lehár, specifically bars 145-161. The score is divided into two systems. The first system (bars 145-152) features a Flute (Fl.) part, an Alto Saxophone (Alto Sax.) part, and a string section consisting of Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The Flute part is marked 'Valse lento rit.' and 'p dolce'. The Alto Saxophone part is marked 'p dolce'. The string parts are marked 'p' and 'pizz.'. The second system (bars 153-161) features an Alto Saxophone (Alto Sax.) part, a Trombone (Tpt.) part, and the same string section. The Alto Saxophone part is marked 'p dolce, with wah-wah effect'. The Trombone part is marked 'p dolce, with wah-wah effect'. The string parts are marked 'p' and 'pizz.'. The score is written in 3/4 time and includes various musical notations such as notes, rests, and dynamic markings.

Figure 94

Lehár's *The Merry Widow* - Arrangement, No. 16, Bars 1-17

Figure 94 shows a musical score for an arrangement of 'The Merry Widow' by Lehár, specifically bars 1-17. The score is divided into two systems. The first system (bars 1-8) features an Alto Saxophone (Alto Saxophone) part, a Violin (Violin) part, a Viola (Viola) part, a Violoncello (Violoncello) part, and a Double Bass (Double Bass) part. The Alto Saxophone part is marked 'Valse moderato' and 'p dolce'. The Violin part is marked 'Valse moderato' and 'p'. The Viola part is marked 'p'. The Violoncello part is marked 'pizz.' and 'p'. The Double Bass part is marked 'pizz.' and 'p'. The second system (bars 9-17) features an Alto Saxophone (Alto Sax.) part, a Trombone (Tpt.) part, a Violin (Vln.) part, a Viola (Vla.) part, a Violoncello (Vc.), and a Double Bass (Db.). The Alto Saxophone part is marked 'p dolce, with wah-wah effect'. The Trombone part is marked 'p dolce, with wah-wah effect'. The Violin part is marked 'arco'. The Viola part is marked 'arco'. The Violoncello part is marked 'pizz.' and 'p'. The Double Bass part is marked 'p'. The score is written in 3/4 time and includes various musical notations such as notes, rests, and dynamic markings.

The alto saxophone is also used again in this way in No. 10 for a different melody, where it is an intimate duet between Hanna and Danilo in Act II. At this point, it signifies the moment where they are about to dance together again. It then passes on to the trumpet with a Harmon mute playing the Maxim's melody where Danilo jokingly sings about it to Hanna. This can be seen in Figure 95 below. This is reprised in No. 12 as seen in Figure 96 below, but this time Danilo is angry with Hanna for leading him on and storms off to Maxim's. The use of the saxophone and trumpet with a Harmon mute together is associated with the tension of their feelings for each other throughout this arrangement.

Figure 95

Lehár's The Merry Widow - Arrangement, No. 10, Bars 89-100

The musical score for Figure 95 is for the arrangement of No. 10, Bars 89-100 from Lehár's *The Merry Widow*. The score is in 2/4 time, key of D major, and marked *Allegretto Moderato*. It features the following parts and markings:

- Alto Saxophone:** Melody starting at bar 89, marked *mf sensually* and *f*.
- Trumpet:** Enters at bar 95 with a *harmon mute*, marked *p sensually, molto vibrato*.
- Dan. (Danilo):** Lyrics: "Dan: Perhaps you prefer a Frenchman?" (bar 95), "He'll bring you to Maxim's, where fun and fro-lic beams..." (bar 98).
- Piano:** Accompaniment, marked *ppp* at bar 95.
- Violin:** Accompaniment, marked *f* and *p*.
- Viola:** Accompaniment, marked *f* and *p*.
- Violoncello:** Accompaniment, marked *f* and *p*.
- Double Bass:** Accompaniment, marked *f* and *p*.

Figure 96

Lehár's *The Merry Widow* - Arrangement, No. 12, Bars 387-401

The musical score for Figure 96 is divided into two systems. The first system, covering bars 387-401, begins with a tempo change from *Allegro* to *Andante*. It features a vocal line with lyrics: "Where will you be go - ing? Danie! Where...? Where I won't see you a - gain." The instrumental parts include Clarinet (Cl.), Trumpet (Tpt.), Horn (Han.), Dan., Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The second system, covering bars 293-303, changes to a tempo of *Allegretto* and includes lyrics: "I'll go off to Ma - xim's! I'm done with lo - vers' dreams. The girls will laugh and greet me, they will not trick and cheat me. Lo -".

Throughout the opera, there are moments where there is a fanfare-like motif that reflects the start of various sections in order to direct everyone's attention to the scene. No. 7, which is the start of Act II, is an example and this part of the arrangement works effectively when this is played by a trumpet and a clarinet doubles it in octaves as shown in Figure 97 below. Another example is in No. 15, as shown in Figure 98 below. This is effective as the clarinet adds depth to the trumpet at the lower octave to give it a greater weight in this smaller size ensemble. In the original, these sections were written for two trumpets and four horns. The combination of these two instruments is also useful in other sections associated with the usage of brass instruments such as the march section from bar 291 in No. 6.

Figure 97

Lehár's The Merry Widow - Arrangement, No. 7, Bars 1-4

Polonaise

Flute

Clarinet in A

Trumpet in B

Piano

Violin

Viola

Violoncello

Double Bass

Figure 98

Lehár's The Merry Widow - Arrangement, No. 15, Bars 50-53

50

C Trio

Cl.

Tpt.

Val.

Lo. Do. Jou.

Frou. Clo. Mar.

Vln.

Vla.

Ri - tan -

Throughout the arrangement, I made use of the variety of instrumental colours to create interest as well as contrast within a musical number. An example is in No. 2 which has five distinct instrumental timbres to carry the melody and double the voices; the alto saxophone, the trumpet with a cup mute, the woodwinds (flute and clarinet), the strings, and strings when playing pizzicato. They are used to demarcate the different sections in the phrase. After the short introduction, the song starts with Valencienne singing that she is “*a respectable wife*”. As it felt appropriate for the start of this section to be marked by a distinct change in colour, the alto saxophone doubles the voice subtly (at a piano dynamic) but expressively (as indicated by the “*expressive*” performance marking) as seen in Figure 99. The saxophone makes a brief reappearance at the end of bar 47 where there is a mention again about being a respectable wife. When there is a slight change in the mood whereby the text is more questioning and uncertain (“*I lose if I love you, and what are you winning? Ah! Break off this folly, where it’s just beginning!*”), the trumpet with a cup mute (supported by the violin and viola rhythmically in harmony) is introduced to double the voice in order to give it a feeling of ambiguity as seen in Figure 100. The woodwinds and pizzicato strings then take over the phrase as the music becomes lighter and quicker from bar 53.

Figure 99

Lehár’s The Merry Widow - Arrangement, No. 2, Bars 33-40

The musical score for Figure 99 shows the instrumental arrangement for bars 33-40. The Alto Saxophone part is marked *p expressive* and plays a melodic line that doubles the vocal line. The vocal line is in French: "I'm a respectable wife, A secure, pre-dict-a-ble life. It brings but trouble and danger, to listen to love from a stranger. My". The piano part is marked *pp* and provides harmonic support. The string parts (Vln, Vla, Vc, Db) are marked *pp* and play a rhythmic accompaniment. The tempo is marked *Allegretto moderato*.

Figure 100

Lehár's *The Merry Widow* - Arrangement, No. 2, Bars 48-53

The musical score for Figure 100 shows the arrangement for bars 48-53. The instruments and their parts are as follows:

- Flute (Fl.):** Rests throughout the section.
- Alto Saxophone (Alto Sax.):** Rests throughout the section.
- Trumpet (Tpt.):** Plays a melodic line with a *cup mute* and *mf molto vibrato* marking.
- Violin (Vln.):** Plays a melodic line with *mf* and *rit.* markings.
- Viola (Vla.):** Plays a melodic line with *mf* and *rit.* markings.
- Violoncello (Vcl.):** Plays a melodic line with *arco* and *mf* markings.
- Double Bass (Db.):** Plays a melodic line with *arco* and *mf* markings.
- Piano (Pno.):** Provides harmonic support with chords and arpeggios.
- Vocal Line:** Lyrics include: "wife? I lose if I love you, and what are you win - ning? Ah! Break off this fol - ly, while it's just be - gin - ning! Take".

Similar to the arrangement of *La bohème*, the piano is one of the most versatile instruments in the arrangement but its utilisation should be treated carefully. It was important that the piano was used sparingly but effectively. In this arrangement, it was used to render some of the harp parts where it was needed as the notes transfer across to the piano quite idiomatically. Furthermore, the piano was also useful in this arrangement to lend its weight to certain sections. For example, in No. 7, there is a particular section whereby the four string instruments are playing *col legno*, where they have to use the wood of their bow to hit their strings. The result is a rather percussive effect that has more of a hitting sound than pitch. Therefore, the piano was utilised to play the same chords at the same time to reinforce the strings so that both the percussive effect and pitch is heard in equal measure as shown below in Figure 101.

Figure 101

Lehár's The Merry Widow - Arrangement, No. 7, Bars 38-49

The musical score for Figure 101 consists of seven staves. The top two staves are for Flute (Fl.) and Clarinet (Cl.), both in 2/4 time. The Flute part begins with a rest in bar 38 and then plays a melodic line starting in bar 39. The Clarinet part also begins with a rest in bar 38 and then plays a similar melodic line. The Piano (Pno.) part is a rhythmic accompaniment of chords, starting in bar 38. The bottom four staves are for Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.), all in 2/4 time. These parts are marked 'col legno' and play a rhythmic accompaniment of chords, starting in bar 38. The tempo is marked 'Vivace' and the dynamics are 'f' (forte).

In addition, the piano is able to act as a contrasting voice in the arrangement. An example is in No. 7 whereby a motif is played by two oboes and is answered by two flutes in the next bar in the original. In order to create a similar effect of contrasting colours in this small ensemble, the arrangement has the piano in the first bar and the response in the next bar is played by flute and clarinet as seen in Figure 102 below. The piano works extremely well in this situation lending an extra set of colours to contrast with, especially since it is able to play multiple notes at once.

Figure 102

Lehár's *The Merry Widow* - Arrangement, No. 7, Bars 150-153

The musical score for Figure 102 shows bars 150-153. The tempo is marked 'a tempo' and the dynamics are 'pp'. The score includes parts for Flute (Fl.), Clarinet (Cl.), Horn (Han.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). The lyrics for the Horn part are: 'Sud - den - ly a tre - mor ran, right through the love - bewildered man, As be - fore her feet he lay, she va - nished in the wood a - way,'.

Finally, the arrangement compensates for the missing timpani by making use of the cello, bass, and piano. For example, in the original at the start of No. 3, there is a timpani roll. In order to recreate the feeling of suspense created by this timpani roll, the arrangement uses the piano playing tremolo octaves in the left hand which blends well with the octaves in the cello and bass, as shown in Figure 103 below. This is done a few times throughout the arrangement. Another example is in no. 12 as shown in Figure 104 below.

Figure 103

Lehár's *The Merry Widow* - Arrangement, No. 3, Bars 1-6

Figure 104

Lehár's *The Merry Widow* - Arrangement, No. 12, Bars 85-90

4.3.6 Dynamics and Balance

There are moments where the various lines are reallocated in the arrangement so that there is a better balance between the different elements. The opera starts immediately without an overture in No. 1 with only a quick introduction. The arrangement uses the entire ensemble at the beginning of this opera in order to create an impact that signifies the start of the opera by making it

as full sounding as possible. Due to drastic reduction in the number of instruments compared to the original, the writing in the arrangement is as “clean” as possible by ensuring there is nothing that is written in excess. This is done by making sure that doublings are kept to a minimum and used for specific reasons, especially when the parts are covered by the voices. For example, from bar 109 in No. 1, the entire cast and chorus sings the melody. This is doubled by two oboes, two clarinets, and a cello section in the original. However, as seen in Figure 105, this is only doubled by one cello in the arrangement. This allows the other instruments in the arrangement to focus on the other lines to ensure the balance with the full set of voices on stage. This principle was maintained throughout the arrangement.

Figure 105

Lehár’s The Merry Widow - Arrangement, No. 1, Bars 109-116

The musical score for Figure 105 consists of the following parts:

- Fl.** (Flute): Melody line with dynamics *f*, *mf*, *p*, and *f*.
- Cl.** (Clarinet): Melody line with dynamics *f*, *mf*, *p*, and *f*.
- Val. Styl.** (Violin/Style): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- Ol. Paras.** (Oboe/Parasol): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- Cam. St. B.** (Camerata/Stage Bass): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- Zeta** (Zeta): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- Cas. Kro.** (Cas. Kro.): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- S. A.** (Soprano/Alto): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- T.** (Tenor): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- B.** (Bass): Melody line with lyrics: "Our kind ex-pres-sions might con-tent him, but that's a most un-like-ly chance. So let us try to re-pre-sent him, Pon-te-ve-dro here in France." Dynamics include *f*, *mf*, *p*, and *f*.
- Pno.** (Piano): Accompaniment line with dynamics *f*, *mf*, *p*, and *f*.
- Vln.** (Violin): Melody line with dynamics *f*, *mf*, *p*, and *f*.
- Vla.** (Viola): Melody line with dynamics *f*, *mf*, *p*, and *f*.
- Vc.** (Cello): Melody line with dynamics *f*, *mf*, *p*, and *f*.
- Db.** (Double Bass): Melody line with dynamics *f*, *mf*, *p*, and *f*.

No. 1a, which is exactly the same as No. 3a, is a light waltz to accompany the cast when they deliver their dialogue between the numbers. In the original, there are two options in which these numbers can be played. It might be performed by a string quintet if the instrumentalists were on stage as part of the scene or by the orchestra in the pit which consisted of the same string parts with added woodwind instruments. It was most likely only written for strings if the instrumentalists were onstage so that they would not take up too much space and Lehár probably did not want the music to detract from the dialogue by being too loud. As this arrangement is intended to be effective in a variety of venues, it is most likely that the instrumental ensemble will share the same space as the stage. This was the case for the performances with OperaViva. Therefore, as seen in Figure 106 below, the ornamentation that was written in the clarinet part in the original was not included in this arrangement. In the arrangement as seen below in Figure 107, the viola harmonises with the melody in the violin. The piano is added softly (written *pp* as compared to *mf* in the strings) to supplement the pizzicato in the cello and bass in order to create a richer harmony. The writing here is written very subtly so that the music will not overpower the voices that will be speaking. There is also a cue written in the right hand of the piano so that if it is desired, the entire number can be played by the piano alone without the strings.

Figure 106

Lehár's The Merry Widow - Original Clarinet Part, No. 1a, Bars 1-13



Figure 107

Lehár's *The Merry Widow* - Arrangement, No. 1a, Bars 1-13

The image shows a musical score for five instruments: Piano, Violin, Viola, Violoncello, and Double Bass. The Piano part is labeled 'Walzer (cue in right hand)' and starts with a piano (*pp*) dynamic. The Violin and Viola parts are also labeled 'Walzer' and start with a mezzo-forte (*mf*) dynamic. The Violoncello and Double Bass parts are marked 'pizz.' (pizzicato) and start with a mezzo-forte (*mf*) dynamic. The score covers bars 1 through 13.

Quite often the dynamics in the arrangement are different from the original so that it would work for this particular ensemble. For example, in No. 6, in order to ensure that the ensemble does not overwhelm the voices on stage even with the smaller ensemble, a diminuendo is added in bar 438 with “*p*” indicated in bar 439 so that Hanna would be able to be heard above the texture. This is important as the violins are also playing high in the register. This can be seen in Figure 108 below.

Figure 108

Lehár's *The Merry Widow* - Arrangement, No. 6, Bars 432-441

The image shows a musical score for nine instruments: Flute (Fl.), Alto Saxophone (Alto Sax.), Trumpet (Tpt.), Horn (Hrn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vcl.), and Double Bass (Db.). The Piano part is marked 'pp' and includes the lyrics 'You're a ve - ry bad man...'. The Violin and Viola parts are marked 'mf' and 'p'. The Violoncello and Double Bass parts are marked 'p'. The score covers bars 432 through 441.

4.3.7 Performance Markings

There are discrepancies and a lack of clarity in the way fermatas and caesuras are indicated throughout original music. At certain points, it is unclear whether a fermata or caesura is intended, as can be seen in No. 4 as seen in Figure 109 below where there is both. A fermata may sometimes be put above a caesura to indicate a longer pause between the sections. However, as the length of this would be at the discretion of the conductor, it would be superfluous to indicate it in this way. As such, the arrangement just has the caesura. This can be seen below in Figure 110.

Figure 109

Lehár's The Merry Widow - Original, No. 4, Bars 7-10

The image displays a page of a musical score for an orchestral piece, specifically bars 7 through 10. The score is arranged in a standard orchestral format with multiple staves. The instruments listed on the left are: 1. Fl., Picc., 1. Ob., 2. Ob., 1. Klar. in A, 2. Klar. in A, 1. Fag., 2. Fag., 1. u. 2. Hr. in F, 3. u. 4. Hr. in F, 1. u. 2. Ttp. in F, 1. 2. 3. Pos., Pk., Trgl., Hf., Dan., 1. Vl., 2. Vl., Va., Vc., and Kb. The music is written in a key signature of two sharps (D major) and a 2/4 time signature. The score shows various musical notations including notes, rests, and dynamic markings such as *mf* and *p*. A fermata is placed above the piano part in bar 7, and a caesura is also indicated above it. The word "Exzellenz!" is written above the piano part in bar 7. The score ends with a double bar line and a fermata in bar 10.

Figure 110

Lehár's *The Merry Widow* - Arrangement, No. 4, Bars 8-11

The musical score for Figure 110 consists of nine staves. The top staff is Piccolo (Picc.), followed by Clarinet (Cl.), Trumpet (Tpt.), Danzoni (Dan.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The tempo is marked 'Allegretto moderato'. The lyrics are: 'My fa - ther - land calls out to me, I ought to work from one to'. The score shows various dynamics (mf, p) and articulations (pizz., arco). The score is divided into two systems, with the second system starting at bar 8. The first system ends at bar 7, and the second system starts at bar 8. The score shows various dynamics (mf, p) and articulations (pizz., arco). The score is divided into two systems, with the second system starting at bar 8. The first system ends at bar 7, and the second system starts at bar 8. The score shows various dynamics (mf, p) and articulations (pizz., arco).

Furthermore, there are moments in the original whereby there are pauses indicated on the bar lines which makes the intention of the musical outcome unclear. It is hard to tell whether Lehár intended for there to be a break of silence between the bars or whether the musicians were meant to linger longer on the last note in the bar before. This can be seen in the original at the end of No. 8, as shown in Figure 111 below. As such, the arrangement has the first fermata replaced by a caesura and the second fermata removed as shown in Figure 112.

Figure 111

Lehár's *The Merry Widow* - Original, No. 8, Bars 106-112

106 **langamer** **Allegro**

1. Fl.
Picc.
1. u. 2. Ob.
1. Klar. in A
2. Klar. in A
1. u. 2. Fag.
1. u. 2. Hr. in F
3. u. 4. Hr. in F
1. u. 2. Tpt. in F
1. 2. 3. Pos.
Gtp.
Pk.
Tpt.
Kl. Tr.
Gr. Tr. u. Bsk.
Hr.
Han. *(Mehr zurück gehen)*
Dummes, dummes Rai-ter, sei-est, sei-est wei-ter. Dummes, dummes Rai-ten-mann!
Dan.
1. Vl.
2. Vl.
Va.
Vc.
Kb.

Figure 112

Lehár's *The Merry Widow* - Arrangement, No. 8, Bars 106-112

106 **langamer** **Allegro**

Picc.
Cl.
Tpt. *cup mute*
Han.
Pno. *pp*
Vln. *mf* **Allegro** *pizz.*
Via. *mf* *f* *ff* *pizz.*
Vc. *mf* *f* *ff* *pizz.*
Db. *mf* *f* *ff* *pizz.*

Sil-ly, sil-ly horse-man, ride u-pon your course, man! Sil-ly, sil-ly ca - va - lier!

There are performance markings that are not in the original and these instructions need to be clearly written in the music. An example is the “wah-wah” effect that was described in section 4.3.5 earlier. The style and characteristics in which to perform the effect naturally is impossible to notate without the outcome sounding contrived. As such, it is preferable and more effective for the notation to depict the main line and to just include an expressive marking such as “with wah-wah effect”. This leaves room for the instrumentalist to recreate the stylistic idea in a way that is natural for them. For example, internationally acclaimed saxophonist Rob Buckland mentioned in his interview with conductor Clark Rundell for ConductIT²⁰ that much of stylistic jazz playing comes from an aural tradition and that it is often difficult to reflect that in the notation; they compare this to dialects of the same language whereby there may be different inflections and sound when speaking the same sentence (ConductIT, 2021).

Because the music is transposed down a tone, there are certain notes that are outside the normal range of the flute.²¹ Most of the time the notes are rewritten so that they are within range. However, there are some cases whereby the flute is requested to play a low B and this can be done if they have a B footjoint. Therefore, instead of replacing those notes with a rest, I have notated these notes with a bracket to indicate that while it is preferable to have these notes where possible, it is optional. An example is in No. 12 as seen below in Figure 113.

Figure 113

Lehár's The Merry Widow - Arrangement Flute Part, No. 12, Bars 61-66



²⁰ ConductIT is a free online resource for conductors funded by the EU Erasmus+ Programme. It was built by the Royal Northern College of Music, Stavanger University, Aveiro University, and the Open University.

²¹ The lowest note for a flute is typically C.

4.3.8 Purpose and Audience Enjoyment

“The main point I wish to make is that we do not just enjoy an operetta because of its relevance to us today, we also take pleasure from its being a social and cultural document that enhances our understanding of the time in which it was written.”

- Derek Scott (2019, p. 87)

There were three main purposes for producing this arrangement of *The Merry Widow*: 1) for the amateur singers in OperaViva to have the experience of performing a fully-staged opera live with an instrumental ensemble; 2) for the production to be able to be performed in a variety of venues, including those that were small; and 3) for the audience to enjoy a version of the opera that had a reimagined soundscape that reflected the setting and staging. As such, it was important that the singers had adequate amounts to do in the arrangement, while still ensuring that they were still achievable for them. The arrangement also had to be suitable for travel and work in venues where space might be tight. Hence, the decisions in the ten factors had to reflect all this such as choosing the right instrumentation that worked both musically and logistically such as not using any instruments that were too big or cumbersome. It needed careful consideration to ensure that the music highlights the colours that might have been heard during the Jazz Age without changing the original musical material too much that might put off the singers and audiences who were used to the original version. It was important to keep this balance for the enjoyment of the audiences and singers.

Furthermore, by taking on what I have learnt from the questionnaires used in *La bohème*, the audience and musicians involved in *The Merry Widow* were given questionnaires to respond to and the results are shown in the next section below. The questionnaire was different from those used in *La bohème* to include questions that were more specific to the act of reimagining the opera as well as to account for any possible shortcomings that were highlighted previously.

4.4 Feedback from Questionnaire

4.4.1 Introduction

The musical work explored in this current chapter is my own arrangement of Lehár's *The Merry Widow*. As mentioned previously in section 2.2.10 and 3.4, there is no scholarship considering the perception of listeners with regards to how decisions in creating these arrangements were made. Existing scholarship has been concerned with the creation process rather than the listening process. This chapter presents a questionnaire study that was undertaken with an audience listening to my arrangement of *The Merry Widow* live. Similar to the questionnaire on *La bohème*, participant numbers were too low to make statistically significant observations in most cases. However, the results from the questionnaire will hopefully allow for some understanding of the audiences', singers', and instrumentalists' perception of the arrangement. The questionnaire also explores how audiences feel about hearing a popular work which has been reimagined.

4.4.2 Research Questions

1. How well did the arrangement convey the story, given that this work is a reimagination?
2. How effective was the arrangement (for example, to what extent did audiences consider this successful, enjoyable and/or preferred), including the consideration of the concept of reimagination?
3. How comfortable was the arrangement for the musicians (i.e., how well suited was it for their instrument or voice type)?

4.4.3 Methods

Ethical Consideration.

This questionnaire was granted ethical approval by the Royal Northern College of Music Research Ethics Committee.

Participants.

There were 56 participants; 11 musicians (6 instrumentalists and 5 singers) and 45 audience members who either performed or attended the concerts on 28th, 29th, and 30th April 2023 at Mossley Hill Club, St Mary's College, and Heswall Hall respectively. These were ticketed performances by the community opera society, OperaViva. All three questionnaires (for audience, instrumentalists, and singers) asked about participants' enjoyment and pacing of the opera. Musicians (instrumentalists and singers) answered questions that were more specific to the performance such as stamina and details in the parts. The questionnaires for the respective groups can be found in Appendix 5.

The participants performed or watched my newly created arrangement of Lehár's *The Merry Widow*. Participation in the questionnaire was optional and the audience members could choose to answer the questionnaire pertaining to the arrangement by filling in the printed survey forms that were laid out on their seats before the performances, which were collected after. The instrumentalists and singers were sent the links to their respective questionnaires after both performances had been completed. The musicians' responses were captured using the survey tool Online Surveys. In contrast with those surveyed following *La bohème*, most of the questions were now answered by responding to a Likert scale.

The performance was in three parts, Act I, Act II, and Act III. The intermission was after Act I and there was a short break of five minutes between Act II and III. The 45 audience members who opted to complete the questionnaire represented 15.7% of the 286 total audience members at the concerts. The 6 instrumentalists who took part represented 50% of the 12 instrumentalists who performed.²² The 6 singers who took part represented 30% of the 20 singers.

²² There were only eight instrumentalists at each performance.

4.4.4 Results

Responses were reviewed for anomalies. As with the responses to the questionnaire for *La bohème*, one of the participants in the audience group for *The Merry Widow* mistook the Likert scale as meaning the opposite (they interpreted the 1 and 7 as opposite ends of the scale). The participant responded that they enjoyed the arrangement but gave consistent low scores on later questions specific to the arrangement. As such, the ratings given by this participant have been inverted. Descriptive statistics and overviews of the data will be given, and where statistical tests were run to address the research questions above, these are also listed below. These results will then be interpreted in light of the research questions above.

On the original version of *The Merry Widow*.

On average, most of the audience members had not seen a performance of *The Merry Widow* before (yes I have seen this before=17, yes I have seen parts of it=1, no I have not seen it before=27, Not sure=0), the opera was also mostly unknown by the instrumentalists (rating of familiarity on a scale of 1-7, 7=I know the piece well: M=1.67, SD=0.82) and was slightly known by the singers (rating of familiarity on a scale of 1-7, 1=do not know the original at all, 7=know the original well: M=4.33, SD=2.66).

Comparing the arrangement to the original.

When asked if participants enjoyed the original work more or this new version, on average the audience members who have heard at least some of the original enjoyed the arrangement slightly more (rating on a scale of 1-7, 1=enjoy the arrangement less than the original, 7=enjoy the arrangement more than the original: n=17, M=4.6, SD=1.48), most of the instrumentalists did not know the opera well enough to compare the two, and only 3 of the 6 singers who know the original *The Merry Widow* well enough and enjoyed the arrangement more than the original (n=3, M=5.33, SD=2.08).

The audience gave an average rating of 6.02 to the question of whether they felt that the music reflected the atmosphere of the story (1=the music did not reflect the atmosphere effectively,

7=the music did reflect the atmosphere effectively: $M=6.02$, $SD=1.35$). The singers also felt similar with an average rating of 6.33 ($M=6.33$, $SD=0.82$).

The audience mostly enjoyed the performance of the arrangement (on a scale of 1-7, 1=no, I did not enjoy it, 7=yes, I enjoyed it: $M=5.93$, $SD=1.39$).

Coherence and pacing of the story.

Participants were asked to rate the extent to which the story was coherent on a 7-point Likert scale (1=it did not make sense, 7=it did make sense). Results demonstrated that, on average, the story largely made sense to the audience ($M=5.37$, $SD=1.67$). Perceptions about whether the pace of the action felt suitable were also gathered (1=pace was too slow, 7=pace was too fast). The audience felt that the pacing of the story was just very slightly faster than they would have liked ($M=4.12$, $SD=1.26$) and the singers felt that the pacing was slightly slower than they would have liked ($M=3.67$, $SD=0.52$).

On the arrangement.

The audience felt that the orchestral accompaniment of the arrangement was mostly effective in supporting the voices ($M=5.93$, $SD=1.78$). The singers felt that the orchestra supported their voices ($n=6$, $M=4.83$, $SD=2.14$). The audience also felt that the instruments had musical material which worked well for them ($M=5.67$, $SD=1.62$).

In general, the musicians enjoyed the arrangement, with only 1 singer answering "no" ($n=12$, Yes=11, No=1, Not sure=0). The instrumentalists found that their parts suited their instrument well ($n=6$, $M=6.17$, $SD=0.75$). They also felt that their part works well with the rest of the ensemble ($n=6$, $M=6.17$, $SD=0.98$).

With regards to stamina, the singers felt that the arrangement was less challenging than "just right" ($M=2.83$, $SD=1.17$).

On the reimagination.

Of the audience members who have heard the original before, the arrangement felt neither similar to a previously heard version nor to a new arrangement (on a scale of 1-7, 1=similar to

previous version(s) heard previously, 7=like a new arrangement: $n=12$, $M=4.08$, $SD=1.62$). Of the audience members who have not heard the original before, the arrangement felt like a balance between a reimagination and a tradition performance (on a scale of 1-7, 1=feels like a reimagination, 7=feels like a traditional performance: $n=18$, $M=4.11$, $SD=1.49$).

The audience felt that the music mostly suited the setting and staging of the opera, which was set in the 1920s ($M=5.59$, $SD=1.60$). The singers also mostly felt the same ($M=5.17$, $SD=1.83$). When asked how well their parts worked in terms of setting the mood, scene, and atmosphere of the music, instrumentalists mostly felt that it worked well ($M=6.67$, $SD=0.82$).

Open-ended Responses.

Audience members were invited to fill in open-ended text boxes to answer the following: 1) If they enjoyed this more or less compared to the original and why?; 2) If they had seen the opera before, to what extent did the arrangement feel like a new arrangement and to what extent was it similar to versions heard previously and why?; 3) If they have not seen the opera before, to what extent did this feel like a reimagination and to what extent did it feel like a traditional performance?; 4) How effectively did the orchestral accompaniment support the voices?; 5) Did they enjoy the performance and why?; 6) What does atmosphere mean to them?; 7) To what extent does the atmosphere of the music suit and staging of the opera and why?; 8) If there was anything in the music that they liked or did not like; and 9) A list of the instruments they have heard and their importance. These open-ended text boxes were a new addition to the questionnaire as these responses were not gathered from the performance of *La bohème*. This was done so that it gave the audience members an opportunity to voice their opinions on why after they gave a certain rating on the Likert scale.

Two notable results will be discussed: 1) What people meant by atmosphere, given that there were statistically significant results on two elements around the results regarding atmosphere (see below); and 2) Audience perception of the instruments they heard and the instruments that they felt were most important.

When asked what atmosphere meant to them, the audience answers had three main themes (all text responses—qualitative data—were analysed using thematic analysis). The first was that the atmosphere reflected the mood. The second was that the atmosphere was affected by everything about the performance such as the lighting, music, and setting of the stage, with two responses even answering with just one word, “everything”. Finally, the concept of atmosphere was also linked to the audience’s perception of the success of the performance, with responses that said “v. good” and “romantic!” while some even commented that the venue did not create the correct atmosphere. Therefore, it is important that arrangers think about these various points when arranging, such as ensuring that the music is always reflecting the atmosphere of the scene and where appropriate, being involved in making sure that the setting on stage is most appropriate (and these instructions may even be included in the score).²³

Overall, audience members identified the instruments used in the arrangement accurately. Responses to the two questions of how they decided which instruments had an important role and why were varied. However, common themes emerged such as the important instruments being considered to be the instruments that played the longest, and the instruments that contributed to the mood and atmosphere, with some commenting that all instruments were equally important. This suggests that the instruments that the arranger chooses are identifiable and crucial because they can be important in setting the mood and atmosphere of the entire arrangement. However, it is also clear from the data that different audience members identified different instruments as being important in different ways either depending on the duration they were used or how they reflected the mood of the overall storyline.

Correlations.

As was found with the audience survey following the performance of the new arrangement of *La bohème*, there was a statistically significant correlation between the responses to the

²³ This might not always be possible as the arranger might not be involved in the performance process and is solely focused on just producing the score. For *The Merry Widow*, I had a more significant involvement as I was also conducting the performances.

questions “How well did the music reflect the atmosphere of the story? [1=did not reflect, 7=reflects well]” and “How effectively did the orchestral accompaniment support the voices in this performance? [1=unsupported, 7=well-supported]” ($r(44) = 0.804, p < 0.001$). There were also three other statistically significant results found in this survey, which weren’t present in the survey of the *La bohème* audience:

1. A correlation between the questions “Did the story make sense in this arrangement (could you understand what was happening)? [1=did not make sense, 4=not sure, 7=make sense]” and “How was the pacing of the story? [1=too slow, 4=just right, 7=too fast]” ($r(44) = 0.316, p < 0.05$).
2. A correlation between the questions “Did the story make sense in this arrangement (could you understand what was happening)? [1=did not make sense, 4=not sure, 7=make sense]” and “How well did the music reflect the atmosphere of the story? [1=did not reflect, 7=reflects well]” ($r(42) = 0.412, p < 0.01$).
3. A correlation between the questions “If no, to what extent did this feel like a reimagination and to what extent did it feel like what you would expect from a traditional performance? [1=feel like a reimagination, 7=feels like a traditional performance]” and “Did you enjoy the performance? [1=no, 7=yes]” ($r(44) = 0.491, p < 0.05$).

4.4.5 Limitations, Discussion, and Conclusion

Limitations.

There are certain limitations in this study that might affect the results obtained in the questionnaire. Similar to the questionnaire for *La bohème*, the sample size of participants is small, which means that there can be a lot of “noise” in the data. A single negative response can cause a significant change in the average result, making it difficult to understand if they were issues from the arrangement or from other factors. In addition, participants might use certain questions to voice any

displeasure they might have or give reasons that were unrelated to the arrangement. For example, one audience member gave a low rating of 3 (on a scale of 1-7, 1=enjoy this less, 7=enjoy this more) when asked if they enjoyed this more or less than the original, but when asked why in the next question, gave a response saying “my hearing was better 40 years ago”. There were also contradicting remarks by the audiences and the singers. 3 of the 6 singers thought that the ensemble accompaniment supported the voices extremely well throughout, while the other 3 thought that the ensemble overpowered the voices at times. This was the same among the audiences as well with both with feedback that said “very good subtle accompaniment” and “orchestra was very good + gave a light, professional performance” contrasting with others that said “orchestra too loud - poor acoustics in this venue” and “overpowered singing in places”. Finally, similar to *La bohème*, as I was also the conductor of the project, the musicians may have felt inclined to give a more positive response to this study if they enjoyed working with me and vice versa. There was a lovely audience member that came up to me before the start of one of the performances with a completed questionnaire that had responses that were extremely positive; this response was obviously not included as it clearly was not influenced by the performance at all.

Discussion.

The research questions will be addressed in turn:

How well did the arrangement convey the story, given that this work is a reimagination?

The results suggest that the arrangement managed to convey the story well for most people. This suggests that the reimagination of the instrumental ensemble and the setting of the opera did not impair the storyline. This means that reimagining opera previously written for a different time period might be a worthwhile project that allows for the exploration of more current themes as well as music that is more relatable, in this case, creating jazz-influenced sounds.

How effective/successful/preferred was the arrangement, including the consideration of the concept of reimagination? The audience participants who knew at least some of the original version seemed to enjoy the arrangement more. However, the group sizes were too small to run

statistical tests, so further testing would need to be undertaken before definite conclusions could be reached. The singers also enjoyed the arrangement slightly more than the original as well. However, this was again a very small sample size.

Reflecting from *La bohème*, the question on audience enjoyment included a Likert scale instead of multiple choices so that it was easier to allow for t-tests to be run. Most audience members enjoyed the performance except for two people who gave a rating of 3, and five people who were indifferent and gave a rating of 4. It was noteworthy that the audience on average felt that the pacing of the story was almost just right (just slightly faster) while the singers felt that the pacing was slightly slower. This was most likely because the audience constantly had the storyline moving for them with the musical numbers being linked by the dialogue by the main cast. However, the singers were only involved in their respective numbers and would be spending a substantial amount of time between their items (especially if they are chorus members) as it was mostly the main cast involved in the dialogues. They may have also been more familiar with the Operatic Society Version, which had drastically more involvement of the chorus and their judgement might have been made in light of this.

It was interesting to note that there was a mixture of views on whether the singers and the instrumental voices were in balance or not, even within the responses from the same performance venue. This discrepancy between the responses might be due to the fact that the venues were small and at times the location of where the audience members were sat affected their overall experience of the performance. It was most likely that the singers were more overpowered the closer the audience member was to the instrumental ensemble, especially at Mossley Hill Club where there were audience members who sat immediately next to the ensemble. However, it was not possible to verify this in the questionnaire responses as they were anonymous and were submitted into a box when they exited the venue. It was also important to account for the fact that the majority of the singers were amateurs or semi-professionals as compared to the instrumental ensemble which consisted of freelance musicians. As such, there might have been a likelier tendency for the singers

to be overpowered as their voices might not have carried across as effectively as the instrumental ensemble.

The reimagination of the instrumentation and their usage seemed to be an effective choice to reflect the change in period for the opera's setting. The audience seem to appreciate that the atmosphere created by the music seems to reflect the setting and staging of the opera in the 1920s. There were also a few mentions of how they enjoyed the use of the trumpet in the arrangement, with responses such as "liked the trumpet in particular" and "trumpet playing the melody line (good)".

There were two correlations that were interesting to note. The first was that how the audience rated whether or not the story made sense in the arrangement also significantly relates to how well the music reflected the atmosphere of the story. This is an important result as it showed that in a reimagination, it was more likely for the story to make sense to the audience the better the music reflected the atmosphere. This also showed that the arrangement was effective as the audience generally felt that the music reflected the atmosphere of the story and that the story also largely made sense. The second correlation showed that with audience members who did not know the original opera, they were more likely to enjoy the performance if it felt more like a traditional performance instead of a reimagination. This arrangement, which is a reimagination, can be considered a success because the audience response was quite balanced with a rating of 4.11 as those who had not seen it before neither felt that it was like a reimagination or a traditional performance.

How comfortable was the arrangement for the musicians? In general, the musicians found the arrangement comfortable. The instrumentalists found that the parts written for them worked well, which was to be expected as this arrangement allowed for the rewriting process to be a lot more flexible, allowing for the writing of each individual part to be much clearer. Of the three singers who knew the opera in the original form well, two of them really enjoyed performing this. One of them mentioned in one of their open-ended responses: "Clearer story, score more upbeat". The one

singer who did not enjoy performing this version mentioned that “the script, which appears to be an American version, is greatly inferior”; however, it was important to note that the book and lyrics used were based on the first popular performances in London that ran for more than 800 shows in its premiere theatre. This response was likely from a singer who had learnt a different version before for another production and did not enjoy the process of relearning the text and structure.

Conclusion.

The results from this questionnaire indicates that producing an arrangement that reimagines the sound world of the original can be effective. The reduced forces in this arrangement did not seem to negatively affect the perception of the opera and was generally preferred by the singers who participated in the questionnaire, which is a heartening response as there was an initial scepticism among the singers at the idea of reimagining the work. What was difficult to account for was the varying abilities of the singers where they were at times covered by the instrumentalists despite the reduced number of eight—the venues in which the opera was performed did not help with this. Again, the results from this questionnaire paints a positive outlook similar to those from *La bohème* whereby they are more open to variations from the norm. All this makes it paramount that the arrangements are of the best quality. While it is definitely a good idea for opera companies to consider such arrangements which would allow productions to be performed in a wider variety of venues and create a different performance experience for audiences, it is important that the venues are also suitable for the productions. Heswall Hall and St Mary’s College were acceptable venues because they had a stage and a relatively large open space respectively. However, Mossley Hill Club was not as it was an extremely small room and there were more people in the venue than it could have realistically accommodated. These results and discussions above also suggest that reimaginings might be a method of breathing fresh life into the famous classic operas.

In general, the increased use of the Likert scale in the questionnaire for *The Merry Widow* compared to the ones for *La bohème* instead of multiple choices was much better as it accounts for the strength/intensity of people’s choices and the numbers obtained also allowed for correlations.

There was also a greater use of open-ended questions which resulted in a richer and more in-depth collection of data from the participants. Participants were able to give their views on what affected the result they gave on the Likert scale. However, there might have been too many open-ended questions in the questionnaires for *The Merry Widow* in which some of them are closely similar resulting in answers often either not directly answering the question or answering a different question in the questionnaire instead. Therefore, it was important that questionnaires for audiences do not have too many open-ended questions which might confuse the participants. It can also be difficult to obtain feedback from audiences and the number of participants as compared to the total number of audiences in both questionnaires reflect that. With the hope of obtaining a larger response, instead of using a QR code like for *La bohème*, the questionnaires were printed and placed on the audience seats before they arrived. However, there were not significantly more responses for *The Merry Widow*. It was most probably because the questionnaire was longer compared to the one for *La bohème*. As such, future questionnaires should consider having fewer questions so that they are much more focused. This would hopefully encourage a greater number of responses.

4.5 Knowledge Gained

The process from the arranging to the performing of *The Merry Widow* with OperaViva has generated more new knowledge that is relevant to the thesis. This built upon what was learnt from the arrangement of *La bohème* and I approached the arrangement process from a different angle; the arrangement was a reimagination that was produced and performed by a community operatic society consisting of semi-professional and amateur singers. Despite that, the proposed ten factors were still found to be relevant and successfully considered and applied during the creation of this arrangement. They still provided a comprehensive list that I as the arranger could consider, but their considerations were different and covered a contrasting range of aspects such as a deeper focus in the choices of instruments and the methods in which they were employed to recreate a different vision from the original. This was due to the fact that the success of the arrangement was to

reimagine a sound world that hinted at the Jazz Age and to ensure that it would work well with singers of varying abilities, unlike *La bohème* which was intended to create a similar sound world to the original and was performed by a group of professional musicians. *The Merry Widow* is also a number opera and had different structural considerations from *La bohème*. It is again notable in this arrangement that the ten factors are not mutually exclusive; a particular factor that is being considered may result in features that could be discussed in the other. For example, the ways in which a particular line is reallocated may have implications on the dynamics to be indicated and how it would affect the balance, as discussed in section 4.4.6. Finally, the questionnaire that was newly developed for *La bohème* was edited and developed for this reimagination which provided multiple insights into the success of the arrangement and ways in which the arrangement or the performance might be made better. The process of producing this arrangement suggests an approach in which arrangers might be able to produce a reimagination by discovering and highlighting the elements that they want to change within the factors.

Chapter 5: Conclusion and Future Direction

“A serious orchestrator is never really satisfied. Even if the sounds obtained are exactly those desired, one can always seek new and different tonal possibilities.”

- Alfred Blatter (1997, p.421)

5.1 Conclusion

While Blatter is right in that a serious orchestrator should never really be satisfied, an arranger should not only seek new and different tonal possibilities but also explore all possible alternatives with regards to the ten factors proposed. As mentioned in Chapter 1, throughout history, chamber arrangements of opera have helped to bring music to the wider community. As such, this original research intends to fill the gaps which currently exist regarding how one should approach arranging an existing operatic work and to highlight the factors that are important for the arranger to consider. This is because many arrangements are often poorly executed resulting in time being wasted before and during rehearsals. Often the changes are pencilled in with the indications of what is omitted or rewritten poorly indicated, which makes effectively realising the arrangements result in a loss of rehearsal time. Arrangements that come with a full score of the reduced instrumentation with clearly prepared parts are an exception. Hence, there is a need for practical, informed, and clear professional arrangements. Scholarly articles on the chamber arrangements are limited with a few notable ones by Kwon (2016), Parks (1999), Meyer (2000), and Sun (2006). However, they only focus on specific pieces and do not discuss arrangement as a whole process and they do not offer a comprehensive view on what should be considered when producing an arrangement or consider the concept of reimagination. The orchestration books by Berlioz and Strauss (1948), Rimsky-Korsakov (1922), Piston (1955), Alder (2002), and Blatter (1997) are useful in relation to knowledge of the properties of each instrument and their typical scoring. While these books form a valuable basis for producing an arrangement, they do not directly address the issue of producing a chamber arrangement from an originally larger work. Furthermore, none of them are

specific to opera arrangements or the effects these may have on audience perception and enjoyment. Therefore, this research project provides methods to re-realise opera through arrangements for chamber ensemble so that they can be used by organisations with financial and logistical limitations (resulting in a need for a smaller ensemble, for example), to explore the ways to produce a direct reduction and reimagination and to gauge the success of these arrangements through audience and performers responses. These ideas were explored through the arrangement and performances of Puccini's *La bohème* and Lehár's *The Merry Widow*. The following research questions were addressed and shall now be discussed in turn.

What forms can an opera arrangement take and what are the factors an arranger should consider when producing an opera arrangement for chamber ensemble?

I proposed in Chapter 1 that there are three main categories of the types of arrangement that exist. The first is a *Direct Reduction* which is an arrangement that aims to keep as much of the composer's intention as those with regards to timbre and atmosphere. The second is a *Reimagination* in which an arrangement takes the original musical material and reinvents it. This means that decisions on orchestration and instrumentation become fluid, and depending on the scope of the project, even the overall storyline and structure might be changed. The third is a *Hybrid with Synthesised Sounds* which is an arrangement that uses a combination of real musicians and synthesised sounds. While the latter is not fully explored in this thesis, for example, this could be explored by producing an opera with "Hokkien Techno Influence" as briefly discussed in section 5.2 below.

In this thesis I have proposed ten factors which an arranger should consider when producing an opera arrangement. They are: 1) Structure, 2) Atmosphere and Feel, 3) Instrument Choice, 4) Timbre, 5) Reallocating Lines and Dealing with Divisi and Multiple Stops, 6) Dynamics and Balance, 7) Performance Markings, 8) Modern Notation and Typesetting, 9) Reimagination, and 10) Purpose and Audience Enjoyment. Depending on the type of arrangement that is being produced, it is important

to note that the three categories and ten factors mentioned above are not mutually exclusive. The decision about instrumentation—which can depend on the financial, and overall vision of the production—is also fundamental as this can easily affect the ability in which the arranger is able to effectively tackle the challenges faced in the other factors. This can be seen from the arrangements of *La bohème* and *The Merry Widow*.

How can we practically use these factors to produce two new arrangements, taking into account the fact that the arrangements should also be able to be performed with limited resources and/or in community settings (often involving amateur musicians)?

In order to explore how these factors can be practically used, I produced two new arrangements in the process. They are Puccini's *La bohème* and Lehár's *The Merry Widow*. The arrangement of *La bohème* mostly explores what it meant to produce a direct reduction, although there was an overlap with the concept of a reimagination in the overall structure of the opera, as a large section of it has been removed and the total number of singers was reduced to four cast members. It was the first time that the factors were used in a practical manner in the conception and production of an arrangement. These factors were found to be successfully applied during the creation of this arrangement as they provided a comprehensive list to consider. An important highlight from the list was regarding timbre (see section 3.3.4 above). I brought in research from the field of music perception and demonstrated that the Taxonomy of Orchestral Grouping Effects (TOGE) proposed by McAdams et al. (2022) was useful in analysing music to help inform my decisions for certain sections of the arrangement. I believe that this is the first use of the TOGE from music psychology research in analysing music and making decisions for the subsequent arrangement. The arrangement explored the various methods I employed and the ways in which the various instruments were used, especially with the reallocations of lines. The process of undertaking this also enabled me (as a conductor and arranger) to develop better processes for the arrangement of the second opera.

The arrangement of *The Merry Widow* was different from *La bohème* as it explores what it means to produce a reimagination. This opera was also arranged for and performed by an amateur opera company in Liverpool, while *La bohème* was arranged for and performed by professional musicians in Singapore. As such, the parameters for the requirements of the show were already fundamentally different. Furthermore, the production of *The Merry Widow* also needed to travel. The ten factors were essential in the creation of the arrangement, although the significance of the factors was varied and different from those brought up in *La bohème*. This further demonstrated that the factors can still be successfully applied regardless of what the intended outcome of the arrangement is. The arrangement was an opportunity to create a version of the opera that had sounds that were inspired by the Jazz Age and this was reflected through the instrumentation, the music instructions, and the way in which the various musical lines were allocated by creating some kind of connection through the motifs. This arrangement, therefore, had a greater emphasis on the factor of reimagination.

As can be seen in both operas, the factors relating to atmosphere and feeling (see section 3.3.3 and section 4.3.2 above) were crucial in producing both arrangements. However, there was a focus on trying to recreate the original atmosphere intended by Puccini in *La bohème* while the focus in *The Merry Widow* was to create an atmosphere of being in Paris in the 1920s by hinting at the sounds of dance music of that time. This also links to the factor regarding reallocation of lines, which involves careful consideration (see section 3.3.5 and section 4.3.5 above). *La bohème* focuses on reallocating the lines so that the colours generated by the performance of the arrangement are similar to those intended in the original by the composer. However, the arrangement of *The Merry Widow* is a reimagination and as such, is not expected to adhere to the composer's original intention as strictly as in other forms of arrangement and mainly focuses on allocating the lines so as to achieve the goals of the reimagination and ensuring the ensemble is balanced within itself. The production of these two arrangements also further demonstrates that the factors are not mutually

exclusive. Part of the last factor on purpose and audience enjoyment will now be explored in the next question below, regarding audience perception below.

What are audiences and performers' impressions when listening to these arrangements?

After the performances of both *La bohème* and *The Merry Widow*, audience members were asked to participate in a questionnaire to collect data on their perception of the arrangement. As mentioned in section 3.4.1, there are many studies exploring the listening experience of audiences using a questionnaire. However, these studies are mainly aimed at exploring how and why people listen (Dearn et al., 2017), the cultural value of live music (Behr et al., 2016), and audience participation and experience (Toelle & Sloboda, 2021). Empirical research by arts organisations has often been undertaken to understand the audience experience, but few have been concerned with the effects of a specific piece of music, or a well-known piece of music in a new form. The two questionnaires in this thesis, however, explore how participants perceive an arrangement of an originally larger operatic work. Although participant numbers were too low to make statistically significant observations in most cases, the results from the questionnaire give us some understanding of the audiences', singers', and instrumentalists' perception of the arrangement.

La bohème involved the first usage of this questionnaire for audience and performers. The results from this questionnaire provide an indication that producing an arrangement that reduces the duration and orchestration of an original, well-known work, can be effective. The reduced forces did not seem to negatively affect the perception of a famous opera such as *La bohème*, and this new arrangement was even preferred by some audience members. This means that it might be a good idea for opera companies to consider smaller scale productions of such works in which the arrangements are carefully and thoughtfully undertaken, which would allow for performance experiences that are more intimate for the audiences (a smaller ensemble, who can perhaps be closer to the audience). The results also suggest that audiences might prefer productions that are shorter in duration, and further studies should be taken to explore this as it would affect the

continuity of building up future new audiences. All the data, discussions and conclusions drawn from this questionnaire aid us in making sure that the arrangement is effective and also help us to discover what is important to both the audience and performers.

The Merry Widow involved a similar questionnaire but was updated to also explore the process of the reimagination as well as to account for any shortcomings that were discovered in the questionnaire for *La bohème*. The questionnaire design for this opera was improved upon from *La bohème* by having fewer multiple-choice questions and changing most of them to Likert scales so that correlations could be run between the different questions. The questionnaire also had added questions regarding how the audience perceived the reimagination of the opera, for example, questions asked whether the change in instrumental colours affected the atmosphere and if that change suited the setting. Finally, there were more open-ended response sections for the participants to explain why they responded in a certain way. Again, the data from the questionnaires seem to suggest that the arrangement was a success for the audience and musicians involved. Data also suggested that a reimagination done well can be extremely effective for audience members who were unfamiliar with the original. While the arrangement plays a significant role, the questionnaire also shows that the venue as well as the staging and setting can play a large part in the enjoyment for the audience.

Overall, the use of questionnaires can be a useful tool in obtaining a general sense of the participants' perception of an arrangement. It is a tool that I believe many arrangers do not use and might be quite a significant way for them to get anonymous feedback which might in turn help improve future arrangements. However, it was important to note that in both questionnaires for *La bohème* and *The Merry Widow*, the percentage of participants as compared to the total number of audience and performers was low. I assumed that the use of technology with scanning the QR code in Singapore (*La bohème*) might have restricted audience members to fill them in after response numbers were low, and as such, I decided it was more practical to provide printed copies that were placed on every audience's seat in Liverpool (*The Merry Widow*). However, the number of responses

were similar. As there seems to be a general tendency for the audience to resist participating in questionnaires, I believe that future questionnaires will need to be a lot shorter in length and with the questions more concise. As such, questionnaires may only be useful for more general feedback and perception of audiences. It might result in more useful data with more depth if a small pool of individuals were selected for an interview after the performances instead. Future arrangements should make use of this technique—surveying the audience at the first performance in order to judge the extent to which the arrangement has been undertaken successfully.

5.2 Future Directions

This research has brought together different fields of musicology, music perception and psychology, music theory, as well as practices such as arranging and conducting. Through this process of learning from the various different fields, there are many exciting new future directions where research in producing opera arrangements (or any reduced-size arrangements) might be carried out. It would be a fruitful avenue to explore how timbre perception and research may be linked with the process of orchestration and rearranging. Reymore's (2022) paper on instrumental timbre trait profiles might lead to more intricate research on timbre perception research by drawing links between perceived and imagined sounds of particular instruments. This would also allow for arrangers to find possible substitutes when creating arrangements in order to recreate sounds, almost like how ingredients are often substituted in recipes when cooking to create an outcome that is as effective. Furthermore, creating experiments related to the use of the TOGE by McAdams et al. (2022) would be a good way to develop a deeper exploration into how different orchestrations and even different performances of the same orchestration might result in different groupings. Having communicated with McAdams over email, this is also an avenue of research that is of great interest to him (McAdams, personal communication, Jul 2, 2022). This would give deeper insights into methods (the how and why) in which timbre is grouped when we listen to music. This could have implications for the way in which arrangements might be orchestrated in the future to create certain

timbral effects and also for the way conductors may rehearse a piece so as to achieve the desired perceived outcome. An example of an experiment design that I have formulated can be found in Appendix 1.

There are many opportunities for further exploration of the variety of arrangements that are possible, especially in terms of producing those that may be conceived of as *Hybrid with Synthesised Sounds* as well as *Reimaginings*. At times these two might also go hand in hand. For example, as mentioned in section 2.2.10, I was recently contacted by a TV production company in Singapore regarding the possibility of re-realising Donizetti's *L'elisir d'amore* (1832) for a smaller audience but also including local elements such as Singlish²⁴ and also "Hokkien Techno influences". The use of technology (creating synthesised sounds for the techno elements) and also reimagining the opera to produce an arrangement might be an effective way to bridge the gap with audiences by making the subject matter or music more relatable. Furthermore, there are other exciting avenues to explore such as creating an arrangement that would be performed by dancers instead of singers. For example, there is a 1975 version of *The Merry Widow* that was specially created for Australian Ballet that uses the same musical material as the opera (medici.tv, 2018) as well as Matthew Bourne's *The Car Man* (mentioned in section 2.2.9) which is based on Bizet's *Carmen*. It would be interesting to document the process of creating such an arrangement as well as to compare the effectiveness of the ten factors in producing it.

In conclusion, there is often a tendency for people to attend performances of well-known work as there is less "risk" involved with regards to their enjoyment of the programme and a feeling that it is often more enjoyable to listen to music that one is already familiar with (Price, 2022). This means that (as has been mentioned throughout this thesis) producing arrangements of well-known operas is a worthwhile project even if they are reimagined in a different way as there might be less risk involved. Therefore, it is important that the production of arrangements is carefully considered,

²⁴ Singlish is an "unofficial" national creole. An informal version of English spoken in Singapore incorporating elements of various Chinese dialects, Tamil, and Malay (Tien, 2014).

so that the process for putting on a production is as painless as possible and accounts for the restrictions imposed (e.g., due to financial or logistical reasons), while maximising the enjoyment of both the audience and musicians. In line with the quote by Blatter (1997) at the start of this chapter, one is never really satisfied and there are endless possibilities that are just waiting to be discovered.

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Appendix

Appendix 1: Timbre Perception Experiment Design

As mentioned by McAdams (2019b), “timbre perception is at the heart of orchestration practice” (p. 212). A key role as an arranger is to consider the importance of instrumental timbre by exploring how that translates from the original composition as well as between the various sections within a piece. For an arrangement to be successful, whereby success is in trying to achieve the same goals as the original, it is important to know how the music is aurally perceived. As part of this experiment, I will be using the aforementioned method of analysis, the TOGE. Analysis of the piece will be carried out independently by two researchers by listening to a recording of a particular piece with the score. The piece should be 5 minutes or less in length and has a variety of timbre changes, covering as many of the groupings where possible. Over several meetings, results will be compared, and the two researchers will reach a consensus and produce a final annotated score (Annotated Score 1) with all the groupings indicated.

This final annotated score would be used as the source material to produce an arrangement for ten instrumental parts: flute, oboe, clarinet, trumpet, percussion, piano, violin, viola, cello, bass. The arrangement process would be documented by a diary, which would then be thematically analysed. The arrangement would be recorded and the recording together with the score of the arrangement would go through the same analysis process carried out earlier in the original. The result of analysis would be the groupings indicated in this second annotated score of the arrangement (Annotated Score 2). Annotated Score 1 and Annotated Score 2 would then be compared for similarities and discrepancies. This process together with the analysis of the diary would hopefully give a deeper insight into the perception of timbre groups for a reduced-size arrangement and interrogate the methods used in the arranging process. It would also give us a brief insight into which bits of the arrangement works, and which does not.

Appendix 2: Musicians' Initiative Proposal and Funding Application

What are the project objectives?

This project aims to promote greater appreciation and awareness of operatic works among the general public through an intimate and immersive performance. This project explores human relationships, discussing the connections that are all so relevant today. It aims to be thought-provoking about our lives by exploring relevant themes that affect our relationships with technology, love, and death. This project also seeks to blur the lines between performers and audiences in Singapore. Through this, we are planning to move away from conventional ways audiences consume performances by performing them in a way that speaks to everyone. Furthermore, as we believe that opera can speak to everyone, the first two operas will be sung in English and there will be subtitles for all, which would allow for greater comprehension by the local audience. This will involve a triple bill of contrasting operas:

1) Samuel Barber - *A Hand of Bridge* (Singapore premiere)

This is a one-act opera telling the tale of two unhappily married couples playing a hand of bridge, during which each character has an arietta in which they profess their innermost desires. This deals with themes such as jealousy, envy, infidelity, and unrequited love. It draws on the relationship with oneself; the disconnect between what one's life is (reality) and what one would like it to be (expectation).

2) Gian Carlo Menotti - *The Telephone*

This is a comic opera in one act by Menotti, who also wrote the libretto for *A Hand of Bridge*, that tells the tale of Ben visiting Lucy with the hope of proposing to her before his trip. However, despite his attempts to get her attention, she is always distracted by conversations on the telephone. Although first premiered in 1947, this conflict of technology bringing us closer yet also ironically pushing us apart is still so pertinent today. In this light-hearted tale, we will explore our relationship with inanimates by using technology such as mobile phones to reimagine a setting that is relevant to today. This will include the audience using mobile devices as part of the opera.

3) Puccini, arr. Melvin Tay - *La bohème* (World-Premiere of new arrangement)

This project seeks to bring to life a new commission. An abridged version of Puccini's crowd-pulling opera, *La bohème*, focuses on the relationship between Rodolfo and Mimi, ending with her death as she is slowly consumed by a deadly illness. This story traverses prominent themes that have been timeless throughout history; the fundamental aspects of human relationships: falling in love, falling out of love, and dealing with loss and death. The format of the triple bill of short operas, (partially sung in English with the use of technology and mobile devices) reaches out to the younger members of the public as well as opera lovers. In line with MI's mission statement, this project aims to develop new audiences. It also seeks to promote artistic endeavours by young Singaporean musicians. Conducting this project would be Melvin Tay, a Singaporean conductor currently based in the UK (See CV for more details). It will also involve promoting young singers establishing themselves in the field, as well as providing opportunities for orchestra musicians. In order to reach the general public, we will promote this project through various avenues. Firstly, we will be using MI's social media presence on Facebook, Twitter, and Instagram. Secondly, with posters at major arts venues. And finally, by using digital and print media on various art platforms. The promotion of the project will be packaged as an impactful triple bill (three for the price of one!) of human relationships presented in a uniquely immersive way.

How do you plan to achieve your objectives?

In order to create this immersive experience for the audience, we move away from traditional performing venues that have a clear division between audience and performer but instead use a venue that allows more flexibility in using the space, creating a 360-degree experience. Keeping in line with Safe Management Measures (SMM), MI will create an interactive space where audiences will become part of the performance through the use of their digital devices and monitors that will be placed around the venue. (Menotti - *The Telephone*). The performers will be using mobile phones, and the contents on the phone will also be projected onto a screen for the audience,

allowing the audience to recognize themselves in the performers. Furthermore, throughout this opera, the singers would occasionally break the fourth wall, sometimes gesturing and speaking with the audience.

This triple bill will be performed by a chamber orchestra in order to create an intimate setting. A brand-new arrangement for *La bohème* will be a re-realization of the opera for a small orchestra (flexible size of between 10-30 instrumentalists) with sections of it being reimagined so that it would be more accessible by today's audience. This is done by Singaporean conductor Melvin Tay, currently doing PhD-level research in this field. The use of chamber arrangements is a unique new direction that is gaining momentum in the operatic world (accelerated by the onset of the pandemic) as it allows large work to be performed by smaller forces in a more intimate setting. It will be condensed to under an hour while still keeping the essence of the story intact and will feature all the famous tunes. In line with the mission statement of MI, the project aims to provide young Singaporean conductors and pre-professional musicians an opportunity to perform the staple operatic repertoire.

The 3 operas are interconnected by the way human relationships define us in today's modern world. The presentation of the triple bill will be innovated to present 3 basic relationships through the use of monitors and digital devices in combination with live performers: 1) Human-Self (*A Hand of Bridge*); 2) Human-Inanimate objects (*The Telephone*); and 3) Human-Human (*La bohème*).

How will you measure the outcome of your project?

Ticket sales and audience numbers would be the main measure of our outreach to the general public. MI aims to have a 90% capacity in each of the shows. The production of a reduced new version of *La bohème* would be an outcome of this project. The efficacy of this arrangement will be studied through data collected from the musicians and audiences. This will usher in a global movement of reduced repertoire of the great western classical composers. Another measure would

be the number of young artists participating in the project. MI aims for 60% of the orchestra to be professional music students, 10% of mentors and the remaining made up of amateur musicians. A selected number of audience members from each performance will be surveyed about their experience during the performers. This will allow us to judge the enjoyment levels of the immersive experience. By analysing the data collected, MI will be able to create future performances that are more innovative. Performers of the project would also be asked to fill in a feedback questionnaire about their experience in the project regarding their development over the course of the project as well as for future project and talent development.

Appendix 3: Questionnaires for *La bohème*

Title: Re-realising Opera Performance – Questionnaire on opera arrangements

Date: 15/17 October 2021

Introduction

Thank you for considering taking part in this research project, undertaken as part of Melvin Tay's PhD project, under the supervision of Dr Michelle Phillips. The questionnaire will only take between 5-10 minutes. Through this, I am hoping to find out your perception of the arrangement of Puccini's *La bohème* that was just performed. In doing so, I hope to find answers to the following questions:

1. How well did the new arrangement convey the story?
2. How effective/successful/preferred was the arrangement?
 - a. Atmosphere/Story
 - b. Emotional impact
 - c. Instrument choices and balance
3. How comfortable was the arrangement to read (notation and music direction in the score)?
4. What are the perceived differences between this arrangement and the original?

The data obtained from the questionnaire will hopefully allow for a deeper insight into the perceptions of such arrangements and allow for future productions of such arrangements to be more effective.

Why have you been chosen?

I have asked you to respond to my questionnaire because you are an audience member/orchestra musician/singer.

Informed consent

Your participation in this research is voluntary, and you may withdraw from the study at any time if you wish. By submitting a completed questionnaire, however, you are giving your informed consent to participate in my study. You do not have to answer any question that you do not wish to answer.

What will I do with your data?

The data you provide will be anonymous (separated from your name) and confidential (not disclosed to anyone else). I may publish reports based on my findings, but you will not be identifiable from the data included.

The data themselves will be stored securely for 10 years. If I wish to re-use your data within this time period, I will seek your permission to do so. At the end of the period your data will be destroyed.

Contact for further information

If you would like to know more about this research, please contact me at melvin.tay@student.rncm.ac.uk or my supervisor michelle.phillips@rncm.ac.uk.

If completing this questionnaire has raised any issues of concern for you, you can seek help from the following sources:

- RNCM Health and Wellbeing team
- RNCM Counselling team

This project has been reviewed and approved by the RNCM Research Ethics Committee.

Questionnaire for Audience:

1. What is your age?
2. Would you describe yourself as a musician? If so, how many years of formal training of classical music did you have?
[options: yes / no] [open textbox]
 - Is there anything you would like to say about your musical training?
[open textbox]
3. Have you seen a performance of La bohème before (whether this was live or recorded)?
[options: yes / no / I have seen parts of this but not a full performance / not sure]
 - If yes, do you enjoy this more or less compared to the original, and why?
[1=enjoy this less, 7=enjoy this more]
[open textbox]
4. Did the story make sense in this arrangement (could you understand what was happening)?
[1=did not make sense, 4=not sure, 7=make sense]
5. How was the pacing of the story?
[1=too slowly, 4=just right, 7=too fast]
6. What elements of the performance helped to convey the story? (Select all that apply)
[Music / Set / Stage Directions / Text]
 - If you would like to comment on why, please do so here.
[open text box]
7. This is an arrangement of the full opera. To what extent did it feel like a reduced/shortened/new version of an existing work, and to what extent did it feel like a complete work in its own right?
[1=it felt like a reduced/shortened/new version, 7=complete work in its own right]
8. How effectively did the orchestral accompaniment support the voices in this performance?
[1=unsupported, 7=well-supported / 8=I don't know]
 - If you would like to comment on why, please do so here.
[open text box]
9. How well did the music reflect the atmosphere of the story? [1=did not reflect, 7=reflects well]
 - What does atmosphere mean to you?
[open text box]
10. Did you enjoy the performance? [yes/no/not sure]
 - If you would like to comment on why, please do so here.
[open text box]

Questionnaire for Singers:

1. Do you enjoy this arrangement of La bohème?
[options: yes / no / not sure]
2. How well do you know the original version of La bohème?
[1=not at all, 7=very well]
 - Did you enjoy performing this arrangement more or less than the original score, and why?
[1=enjoyed this less, 7=enjoyed this more]
[open text box]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]
3. Did the plot of the opera in this shortened form feel coherent?
(Coherent meaning that the story connects well and makes sense between the different acts.)
[1=not coherent, 7=coherent]

- If you would like to comment on why, please do so here.
[open text box]
- 4. How was the pacing of the story?
[1=too slowly, 4=just right, 7=too fast]
- 5. What elements of the performance did you feel helped to convey the story? (Select all that apply)
[Music / Set / Stage Directions / Text / Costumes]
 - If you would like to comment on why, please do so here.
[open text box]
- 6. How effectively did the orchestral accompaniment support your voices?
[1 = unsupported, 7=well-supported]
 - If you would like to comment on why, please do so here.
[open text box]
- 7. With regards to stamina, how challenging was the arrangement?
[1=not challenging, 4=just right, 7=extremely challenging]
 - If you would like to comment on why, please do so here.
[open text box]

Questionnaire for Orchestra Musicians

1. Do you enjoy this arrangement of La bohème?
[options: yes / no / not sure]
2. How well do you know the original version of La bohème?
[1=not at all, 7=very well]
 - Do you enjoy this arrangement more or less compared to the original, and why?
[1=enjoy this less, 7=enjoy this more]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]
3. How well does your part suit your instrument?
[1=not well, 7=very well]
 - If you would like to comment on why, please do so here.
[open text box]
4. How well do you feel your part works with the rest of the ensemble?
[1=not well, 7=very well]

Appendix 4: Productions by Amateur Opera Societies in the North of England²⁵

<p><u>Opera Viva, Merseyside</u> (Opera Viva, n.d.)</p> <p>2013: Bizet – Carmen 2014: Mozart – The Marriage of Figaro 2015: <u>Lehár – The Merry Widow</u> 2016: Tchaikovsky – Eugene Onegin 2017: Verdi – Rigoletto 2017: Mozart – Don Giovanni 2018: Mascagni – Cavalleria Rusticana Strauss – Prince Orlovsky’s Ball (Die Fledermaus Act II) 2019: Verdi – La Traviata 2021: Donizetti – L’elisir d’amore 2023: <u>Lehár – The Merry Widow</u></p>	<p><u>City of Manchester Opera</u> (City of Manchester Opera, n.d.)</p> <p>2009: Mascagni – Cavalleria Rusticana 2011: Verdi – La Traviata 2012: Smetana – The Bartered Bride 2013: Verdi – Macbeth 2015: Offenbach – The Tales of Hoffmann 2016: Bizet – Carmen 2017: Mozart – The Magic Flute 2018: <u>Lehár – The Merry Widow</u> 2019: Mascagni – Cavalleria Rusticana Leoncavallo – Pagliacci 2022: Puccini – La bohème</p>
<p><u>Preston Opera</u> (H. Harrison, personal communication, September 17-22, 2019)</p> <p>2011: Verdi – A Masked Ball 2012: Verdi – Aida 2013: Verdi – La Traviata 2014: Offenbach – La Belle Hélène 2015: Verdi – Nabucco 2016: Mozart – The Magic Flute 2017: <u>Lehár – The Merry Widow</u> 2018: Bellini – Norma 2019: Verdi – Macbeth 2020: Bizet – Carmen</p>	<p><u>Sheffield City Opera</u> (Sheffield City Opera, n.d.)</p> <p>2008: Bizet – Carmen 2009: Puccini – La bohème 2010: Donizetti – L’elisir d’amore 2011: Mozart – The Magic Flute 2012: Gounod – Faust 2013: Mascagni – Cavalleria Rusticana Gilbert & Sullivan – HMS Pinafore 2014: Bizet – Carmen 2015: Massenet – Cinderella 2017: Donna and her Mobile (music by Verdi, Bizet, Puccini, etc) 2019: Women of Steel</p>
<p><u>Bentley Operatic Society</u> (Bentley Operatic Society, n.d.)</p> <p>2011: <u>Lehár – The Merry Widow</u> 2012: Sullivan – HMS Pinafore 2013: Moncton & Talbot – The Arcadians 2014: Sullivan – Iolanthe 2015: Strauss – Die Fledermaus 2016: Sullivan – The Sorcerer 2017: Sullivan – HMS Pinafore 2018: Sullivan – The Gondoliers 2019: Fiddler on the Roof</p>	<p><u>York Opera</u> (York Opera, n.d.)</p> <p>2003: Bizet – Carmen 2004: Strauss – Die Fledermaus 2005: Mascagni – Cavalleria Rusticana Leoncavallo – Pagliacci 2006: Donizetti – L’elisir d’amore ... 2013: Verdi – Nabucco 2013: Orff – Carmina Burana Mozart – The Marriage of Figaro 2014: Gilbert & Sullivan – The Pirates of Penzance 2015: Strauss – Die Fledermaus 2016: Puccini – Turandot 2017: Verdi – La Traviata 2017: Gilbert & Sullivan – Patience 2018: Bizet – Carmen 2019: Mozart – The Marriage of Figaro</p>

²⁵ This list is not exhaustive as there are many Amateur Opera Societies in the North of England

Appendix 5: Questionnaires for *The Merry Widow*

Title: Re-realising Opera Performance – Questionnaire on opera arrangements

Date: 28/29/30 April 2023

Introduction

Thank you for considering taking part in this research project, undertaken as part of Melvin Tay's PhD project, under the supervision of Dr Michelle Phillips. The questionnaire will only take between 5-10 minutes. Through this, I am hoping to find out your perception of the arrangement of Puccini's *La bohème* that was just performed. In doing so, I hope to find answers to the following questions:

1. How well did the new arrangement convey the story?
2. How effective/successful/preferred was the arrangement?
 - a. Atmosphere/Story
 - b. Emotional impact
 - c. Instrument choices and balance
3. How comfortable was the arrangement to read (notation and music direction in the score)?
4. What are the perceived differences between this arrangement and the original?

The data obtained from the questionnaire will hopefully allow for a deeper insight into the perceptions of such arrangements and allow for future productions of such arrangements to be more effective.

Why have you been chosen?

I have asked you to respond to my questionnaire because you are an audience member/orchestra musician/singer.

Informed consent

Your participation in this research is voluntary, and you may withdraw from the study at any time if you wish. By submitting a completed questionnaire, however, you are giving your informed consent to participate in my study. You do not have to answer any question that you do not wish to answer.

What will I do with your data?

The data you provide will be anonymous (separated from your name) and confidential (not disclosed to anyone else). I may publish reports based on my findings, but you will not be identifiable from the data included.

The data themselves will be stored securely for 10 years. If I wish to re-use your data within this time period, I will seek your permission to do so. At the end of the period your data will be destroyed.

Contact for further information

If you would like to know more about this research, please contact me at melvin.tay@student.rncm.ac.uk or my supervisor michelle.phillips@rncm.ac.uk.

If completing this questionnaire has raised any issues of concern for you, you can seek help from the following sources:

- RNCM Health and Wellbeing team
- RNCM Counselling team

This project has been reviewed and approved by the RNCM Research Ethics Committee.

Questionnaire for Audience:

1. Have you seen a performance of *The Merry Widow* before (whether this was live or recorded)?
 [options: yes / no / I have seen parts of this but not a full performance / not sure]
 - If yes, do you enjoy this more or less compared to the original, and why?
 [1=enjoy this less, 7=enjoy this more]
 [open textbox]
 - If yes, to what extent did this feel like a new arrangement and to what extent was it similar to the version(s) you have heard previously? And why?
 [1=similar to version(s) heard previously, 7=like a new arrangement]
 [open textbox]
 - If no, to what extent did this feel like a reimagination and to what extent did it feel like what you would expect from a traditional performance? And why?
 [1=feels like a reimagination, 7=feels like a traditional performance]
 [open textbox]
2. Did the story make sense in this arrangement (could you understand what was happening)?
 [1=did not make sense, 4=not sure, 7=make sense]
3. How was the pacing of the story?
 [1=too slowly, 4=just right, 7=too fast]
4. How effectively did the orchestral accompaniment support the voices in this performance?
 [1=unsupported, 7=well-supported / 8=not sure]
 - If you would like to comment on why, please do so here.
 [open text box]
5. Did you enjoy the performance? [yes/no/not sure]
 - If you would like to comment on why, please do so here.
 [open text box]
6. How well did the music reflect the atmosphere of the story?
 [1=did not reflect, 7=reflects well]
 - What does atmosphere mean to you?
 [open text box]
7. To what extent did the atmosphere of the music suit the setting and staging of the opera?
 [1=does not suit the setting/staging, 7=suits the setting/staging]
 - If you would like to comment on why, please do so here.
 [open text box]
8. Is there anything about the music you did or did not like in particular?
 [open text box]
9. Please list all the instruments you heard in the music.
 [open text box]
 - Please list all the instruments that you think had an important role.
 [open text box]
 - How did you decide which instruments had an important role?
 [open text box]
 - Why do you think they had an important role?
 [open text box]

- To what extent did it feel like the instruments had music material which worked well for them in terms of setting the mood, scene and atmosphere?
[1=did not work well, 7= worked well]

Questionnaire for Singers:

1. Do you enjoy this arrangement of *The Merry Widow*?
[options: yes / no / not sure]
2. How well do you know the original version of *The Merry Widow*?
[1=not at all, 7=very well]
 - Did you enjoy performing this arrangement more or less than the original score, and why?
[1=enjoyed this less, 7=enjoyed this more]
[open text box]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]
3. How well did the music reflect the atmosphere of the story?
[1=did not reflect, 7=reflects well]
 - What does atmosphere mean to you?
[open text box]
4. To what extent did the atmosphere of the music suit the setting and staging of the opera?
[1=does not suit the setting/staging, 7=suits the setting/staging]
 - If you would like to comment on why, please do so here.
[open text box]
5. How was the pacing of the story?
[1=too slowly, 4=just right, 7=too fast]
6. How effectively did the orchestral accompaniment support your voices?
[1 = unsupported, 7=well-supported]
 - If you would like to comment on why, please do so here.
[open text box]
7. With regards to stamina, how challenging was the arrangement?
[1=not challenging, 4=just right, 7=extremely challenging]
 - If you would like to comment on why, please do so here.
[open text box]

Questionnaire for Orchestra Musicians

1. Do you enjoy this arrangement of *The Merry Widow*?
[options: yes / no / not sure]
2. How well do you know the original version of *The Merry Widow*?
[1=not at all, 7=very well]
 - Do you enjoy this arrangement more or less compared to the original, and why?
[1=enjoy this less, 7=enjoy this more]
[open text box]
 - Have you performed the opera in its full orchestration before?
[options: yes / no / parts of it]

3. How well does your part suit your instrument?
[1=not well, 7=very well]
 - o If you would like to comment on why, please do so here.
[open text box]
4. How well do you feel your part works with the rest of the ensemble?
[1=not well, 7=very well]
5. How well do you feel your part works in terms of setting the mood, scene, and atmosphere of the music?
[1=not well, 7=very well]

Appendix 6: Links to other relevant documents

- 1) OperaViva's adaptation of *The Merry Widow*:

https://drive.google.com/file/d/1cijFQHjaoA7s_lylR0ol39R05mcsQ5jh/view?usp=sharing

- 2) Vocal score of the arrangement of *La bohème*:

https://drive.google.com/file/d/1K7suLQkuXr7BiLBZWd8RrflRi3URL1P5/view?usp=drive_link

- 3) Vocal score of the arrangement of *The Merry Widow*:

https://drive.google.com/file/d/1dhUskYWMnsr41Yy6jeGv68fQA5xRda76/view?usp=drive_link

Folder with all of the above documents: https://drive.google.com/drive/folders/1wauSovvx2c1-9XXE-OIQg5TkHMPkzE9n?usp=drive_link