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Gustav Mahler's First Trombone

An exploration of how trombone-related practices have developed since the premiere of Mahler's Third Symphony in 1902

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1 ABSTRACT

Key words: Mahler, trombone, orchestral excerpt, solo.

This thesis project will explore the development of performance practice, sound and style since the 1st trombone solo in Mahler's Third Symphony. My research into topics such as instrument design, conductors and recording technology will hopefully show how and why the performance of this excerpt has developed over the last century. I will also perform and record some excerpts from the solo, imitating selected versions ranging from the earliest recordings to the most recent recordings. The analysis of these recordings will help in discussing the practicalities from both performance and pedagogical perspectives. The study of an excerpt in this manner will deepen my understanding of the music and I will evaluate the ways in which this has enriched my own performance of this excerpt.

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2 INTRODUCTION

The inspiration behind this research project comes from a YouTube video uploaded by principal trombone of the Royal Philharmonic Orchestra (London), Matthew Gee, where he records and compiles six different live versions of the iconic trombone solo from Ravel's Bolero.[1] Each version is an imitation of a previous trombonist's interpretation on the excerpt which stems as far back as the first ever recording of Bolero's masterpiece in 1930, conducted by Ravel himself.

As well as delivering a high standard imitation of each version, he also comments on and highlights differences in sound, articulation, phrasing, glissandi, vibrato, etc. that really make the versions individually unique. These interesting notes make it easier for the audience to know what they are listening for.

Additionally, the simple act of bringing together four historical interpretations of the solo, back to back, gives the audience a broader and more fulfilling picture of how the interpretation of Bolero has developed since its first recording (both from a trombonist's and a conductor's perspective). Matt Gee elevates the Bolero solo from merely another audition excerpt to being an interesting focal point for study of historical performance and interpretation.

As a music student who studies the trombone, this video became an interesting starting point for discussion on how we approach the preparation and performance of orchestral excerpts, especially ones that are as exposed in setting as Bolero. It made me think about how easily we absorb certain traditions, styles and nuances in our playing, from external sources (especially our teachers), without much thought. How much of our development as orchestral musicians is based on what our teachers tell us is the right way and how much is from our own informed opinions on what the composer wanted, based on quality research?

[1]"Matthew Gee, Trombone – The Bolero Challenge," YouTube video, 14.01, "Septura's Brass Tube," June 6, 2016, https://www.youtube.com/watch?v=cCQ3XHi-RsI.

Of course, one may argue that, as students, we need our teachers to guide us on how to play our instruments and what musical decisions to make so that we have a good foundation and musical grounding before we can begin to think more for ourselves. Having said that, it is important to remember to question our purpose as orchestral musicians; should the ultimate goal be to contribute to the development and growth of orchestral traditions with our own experience and researched opinions? Or do we dare to go further and challenge these traditions, based on our experiences and opinions? If there is something to observe from the history of classical music, it is that if we strive only to copy and reproduce what has been done before, then we can expect things to stay the same.

It was this thought that brought me to embark on my own challenge; my own collection of recordings in different styles and interpretations, except this time, playing the trombone solo from Mahler's Third Symphony. Can this style of research inform me in my own unique interpretation of the Mahler 3 solo? Could the results of this research be, in some way, applicable to other excerpts in the audition repertoire? Is one interpretation better than another, or are the musical choices simply presented more convincingly? These are some of the questions I will explore in this project.

3 METHODS

3.1 Research methods

A lack of early recordings of Mahler's third symphony (first published recording was not until 1950) is reflected in the amount of writing and research on performance practices in the early years. It is therefore difficult to know exactly how Mahler traditions developed and more specifically, how orchestral trombone playing was influenced in style and character. One way I have tried to get around this has been to create a dialogue with other academics and trombonists who have leads and/or are more knowledgeable on the topic. Whilst these conversations may not give me an abundance of primary evidence and sources, it paints a picture and shows the gaps; the questions that have been asked already in this field, to what extent they have been answered and by whom they have been asked.

3.2 Recording methods

When it comes to listening to my selected recordings of Mahler's third, I endeavored to create a system/method to make both the listening and recording processes as effective and efficient as possible. As seen in *fig. 1*, I have marked up the excerpt into sizeable chunks. My intention is that I will be able to use these "musical chunks" and reference points when swapping between the recordings, which will hopefully make comparison, recording and analysis more straightforward.

3.3 Figures of musical examples

Excerpt 1 - Movement I: 2 measures after [13] to [17]
Trombone 1

Figure 1: Trombone excerpt no. 1

Excerpt 2 - Movement I: Pickup to [33] to 2 measures after [34]

Trombone 1

Figure 3: Trombone excerpt no. 2.

Excerpt 3 - Movement I: 1 measure before [58] to 5 measures before [62]

Trombone 1

Figure 2: Trombone excerpt no. 3.

4 BACKGROUND

4.1 Mahler and his Third Symphony

Gustav Mahler is one of the most celebrated symphonic writers in classical music, alongside composers such as Beethoven and Brahms. His music has a way of capturing the fluidity and complexity of human emotion that is frequently described as universal, all-encompassing and manic. The expansive nature of his music is reflected often in his orchestration and, by extension, in the sheer numbers often required to perform one of his symphonies. The Third Symphony exemplifies this; it calls for over 200 musicians (including chorus and soloists') and performances typically last about 100 minutes.[2] If we then apply this context to the significance of writing an extensive trombone solo in three parts, it is understandable why this excerpt is such a 'main-stay' in job auditions world-wide.[3] With this in mind, it is easy to see why there are is abundance of resources from highly regarded trombonists on how one might approach playing the excerpt and who have almost certainly done a myriad of research themselves on why they might play it a certain way.

Another topic of importance, which will be explored in this thesis, is instruments. The development of trombone manufacturing from the late 19th century onwards will have influenced aspects of performance practice, styles and trends which will in turn have affected approaches to the playing and performance of excerpts like Mahler 3. Although, it is valuable to add that the composition of Mahler's symphony (and Mahler himself) will have had an impact on how performance style and instrument design and manufacture.

Perhaps what is less obvious then, is why there seems to be such a strong divide between those who practice and perform orchestral excerpts and those who study the historical elements and musical context. Music history modules are often a compulsory element at music conservatoires and higher education institutes, no matter where you are in the world, but how often are you taught to

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[2] Gustav Mahler, *Symphony No. 3 D Minor*, ed. Eulenburg (Mainz: Schott Music, 2008).
[3] Greg Lisemby, "Preparing for Orchestral Auditions," *ITA Journal* 18 no. 3 (1990).

directly apply this knowledge to the performance side of your education, in a meaningful way? That does not mean to say that instrumental teachers who teach the importance of context don't exist, of course, but rather this; how important is it to our performances that we have a balance between our teachers' guidance and our own decisions based on meaningful research?

4.2 Compostion and early sketches

Firstly, it is important to note that there is some mystery behind the construction of Mahler's Third Symphony, particularly with respects to the first movement. After completing a first draft of the symphony in 1894, Mahler finalised the score across two summers (1895 and 1896) in Steinbach, Austria. The composition of the first movement (part one) was intermittent and ongoing alongside movements II-VI (part two). The original sketches and manuscripts for the first movement are few and fragmented, which makes it difficult to tell exactly how the music was put together chronologically. However, it is known that initial manuscripts date back to 1895 with some fragments as far back as 1893 whereas its completion happened well into the final stages during the summer of 1896.[4]

4.3 Premiere in Krefeld

Mahler's Third Symphony premiered six years in 1902 after its completion at a festival in Krefeld, Germany. As well as being the day of the premiere of Mahler's huge symphonic work, it was also the first time Mahler met Willem Mengelberg, one of Mahler's most significant peers as someone who knew Mahler's music intimately and who would go on to promote and conduct Mahler's works himself.[5]

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[4] Milijana Pavlović, "Return to Steinbach: An Unkown Sketch of Mahler's Third Symphony," *Il Saggiatore Musicale* 17, no. 1 (2010): 43-52, accessed April 22, 2020, www.jstor.org/stable/43030043.
[5]"1902 Concert Krefeld 09-06-1902 – Symphony No. 3 (Premiere)," Mahler Foundation, last modified December 31, 2019, https://mahlerfoundation.org/mahler/plaatsen/germany/krefeld/1902-krefeld-09-06-1902.

Franz Dreyer, at just 25 years of age, premiered the enigmatic trombone solo. He would later go on to be invited, without audition, to the Vienna Philharmonic where Mahler was director.[6] It would not be unfeasible to presume that Mahler had been impressed by Dreyer's performance in Krefeld that year. Dreyer stayed with the orchestra until 1945, despite Mahler inviting him to work in New York with him in 1909.[7]

4.4 Assistants and conducting peers

In the years surrounding the completion of the score and early performances, Mahler had contact with a handful of peers who also conducted and/or composed. These figures proved to be important in the dissemination of Mahler's music outside of Germany, which would then set the wheels in motion for development and adaptation of his music that proceeded in the following years.

Willem Mengelberg

Although already familiar with Mahler's music on manuscript, the 1902 premiere of Mahler's Third was the Mengelberg's first live experience of it, including the man himself. Gripped by Mahler's music, Mengelberg would go on to consistently promote and conduct his music in Amsterdam and, later, New York.

Given the size of production required to put on a performance of Mahler's Third Symphony, it seems right that Mahler was extra keen when Mengelberg offered him a chance to go to Amsterdam and conduct the Royal Concertgebouw himself where Mengelberg was chief conductor. The offer came just a year after its premiere and even with a promise to rehearse the orchestra thoroughly beforehand.[8]

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[6] Christoph Wagner-Trenkwitz, *A Sound Tradition: A short history of the Vienna Philharmonic Orchestra* (Vienna: Amalthea Signum Verlag, 2017).
[7] Zoltan Roman, *Gustav Mahler's American Years, 1907-1911: A Documentary History*, (1989)
[8] "Willem Mengelberg (1871-1951)," last modified April 6, 2020, https://mahlerfoundation.org/mahler/personen-2/mengelberg-willem-1871-1951

There are many interesting and note-worthy aspects of Mengelberg's conducting style and musical tastes, but one of particular interest here is his taste for heavy portamento. It is a great shame indeed that there is no recording available of Mengelberg conducting Mahler 3 as it would've been interesting to see how his taste for portamento would apply to the trombone solo at *Fig. 3g*, if at all. Unfortunately, the only scores Mengelberg recorded of Mahler's are his 4th Symphony, the *Adagietto* from his 5th symphony and *Lieder eines Fahrenden Gesellen*, none of which includes the trombones.[9]

4.5 Mahler tradition

The question of whether or not there exists a strongly identifiable Mahler tradition is one that can be debated. It is however, important to identify the difference between conducting traditions and playing traditions; although they are both connected and influence each other to varying degrees, both exist individually in their own foundations.

Willem Mengelberg, as chief conductor of the Royal Concertgebouw Orchestra from 1895-1945, played a very big part in creating a Mahler tradition in Amsterdam. Mengelberg on several occasions invited Mahler to Amsterdam to conduct his own works, although he often had to turn them down because he was busy. Despite this, Mengelberg would often programme Mahler's symphonies. However, in 1903, Mahler took up Mengelberg's offer to conduct his Third Symphony with the Concertgebouw Orchestra, where Mengelberg had done an astounding job in the preceding years of really elevating the standard of playing within the orchestra. Mengelberg was so taken and gripped by Mahler's music that would often make descriptive annotations in his own scores of Mahler's intentions and thoughts from the rehearsals, which he attended.[10]

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[9] *Discography of American Historical Recordings*, s.v. "Mengelberg, Willem," accessed August 8, 2020, https://adp.library.ucsb.edu/names/102170.

[10] "Studying Performance Practice Through Sound Recordings: Gustav Mahler," last modified June 10, 2019, https://guides.library.yale.edu/hsrperformancepractice.

In fact, one of Mengelberg's annotations provide us with perhaps one of the most programmatic descriptions of the famous trombone solo in the first movement. Close to the trombonist's first solo entry (*fig. 1.a)* he writes '*Stimme des Todes ruft Predigt'* which translates to 'Proclamation by the Voice of Death'.[11] It may not be a specific performance direction, but it does give us an idea of an image and mood to accompany the excerpt. Perhaps words like dramatic, mournful and powerful come to mind when one reads 'Proclamation of Death'. Of course, there is no evidence that Mahler or Mengelberg ever communicated these words to any one trombonist themselves, but it is not unreasonable to think that they would be able to convey these sorts of emotions to the soloist whilst conducting this passage.

5 INSTRUMENTS

5.1 German trombones

There are various models and types of the old German trombones that were being played on in the early 1900s, but in essence, they were instruments made from soft, thin metal with a metal crown around the rim of the bell called a 'kranz', which helped with better stability in the louder dynamics. The instrument that today is most likely regarded as the epitomy of german trombone tradition is the Kruspe "Prof. Weschke" trombone, designed by Paul Weschke in cooperation with the firm of Kruspe in Erfurt.[12]

[11] Peter Franklin, *The Mahler Companion*, (New York: Oxford University Press, 1999).
[12] Hannes Vereecke and Sebastian Krause, "Eduard Kruspe's Prof. Weschke Model Trombone," *Historic Brass Society Journal*, 27, (2015).

Figure 4: Bell section of the "Prof. Weschke" trombone.

However, as there is lack of evidence that the specifications for this trombone came much earlier than 1925, it is highly possible that the instruments being played on during and before were large-bore German trombones. One aspect that all German instruments of this era seem to exhibit is that they are not able to handle the same level of decibel level compared to modern instruments. However, this meant that the German trombones would often produce a denser and more compact sound in softer dynamics.[13]

It is often difficult to compare sounds between different instruments in a way that is objective and measurable. The instruments themselves are straight-forward to analyse in terms of weight, density and size which of course affects the sound they produce. However, the way in which a player produces a tone on a trombone is a huge variable. Even if you gather a group of players of very similar technical ability, they will all have differently shaped mouths, lips and teeth, which will make a difference to individual production of sound and timbre. One way in which we can conduct an objective analysis of this is by measuring input-impedance. Input-impedance, in this context, is the ratio between pressure and flow of air at the mouthpiece.[14]

[13] Yale University Library, "The German Trombone," last modified November 8, 2003, https://www.jayfriedman.net/articles/the_german_trombone.
[14] Vereecke and Krause, "Eduard Kruspe's Prof. Weschke Model Trombone," 9.

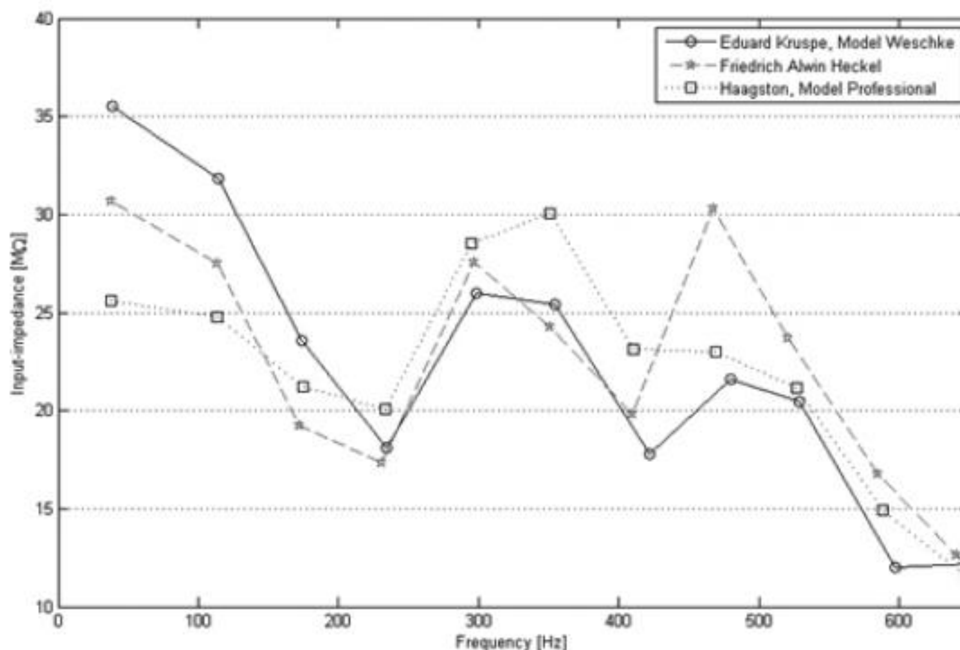

Figure 5: Comparison of input impedances of three trombones.

In a study of musical properties of the Weschke trombone by Vereecke and Krause, they take three different trombones and compare their input-impedance; the Weschke trombone (Erfurt, ca. 1952), a wider-bore trombone of the period by Friederich Alwin Heckel (Dresden, ca. 1935) and modern professional-model trombone by Haagston (Mank, 2007). A higher resonance peak generally indicates a better response since there is more energy retained in the instrument. As displayed *fig. 10*, the Weschke shows the strongest initial resonance, followed by the wider-bore and then by the Haagston.

The two input-impedance peaks that follow the initial peak represent the overtones of a fifth and higher. Here, the Haagston shows the strongest resonance, followed by the wider-bore and Weschke, respectively. This means that, whilst the Weschke displays strong initial resonance compared to the others, the most modern trombone (Haagston) has the best possibility for ease of flexibility.

Whilst this data might not give us a characterization of acoustical properties, it does reflect some common thoughts had by professional musicians about the differences between playing modern and period German instruments.

5.2 American trombones

The differences in sound and resonance between German and American trombones in relation to decibels might have something to do with the increasing tendency from players to play louder and bigger over the decades. This has to do with a few things; bigger halls, larger works calling for greater number of musicians, a desire to make things more exciting the previously. Jay Friedman (principal trombone, Chicago Symphony Orchestra) is someone who, despite being better known as an experienced performer on a very high level, has spent a lot of time looking into the differences between German and American models of trombone and the advantages and disadvantages of each. On a blog article from November 3rd, 2003, he wrote:

> *The German trombone sound is quite different from the American sound. The modern American type trombone has a tremendous ability to focus the sound in louder dynamics. There is a core in the middle of the sound that can become a laser beam if not carefully controlled. At softer dynamics, the sound tends to spread and lose resonance. The bells on these horns are much thicker and harder than the classic German style trombones. The classic German style trombones, on the other hand, seem to have an even sound spectrum across the bell with much less core and more resonance in softer dynamics. It is difficult to produce the kind of fortissimos needed for today's big orchestral sound with these instruments because of the thinness and softness of the metal. However, the soft dynamics produce a dense, saturated sound.*[15]

[15] Yale University Library, "The German Trombone."

German trombones had more core in the sound and it seems that once could not play on them too brutally before the sound would begin to unhinge. With this in mind, Mahler's frequent use of accented *fortissimo* might not have been taken as literally then as it is now on more modern and American instruments which accommodate better to a louder and more articulated style of playing.

5.3 Manufacture and use of German trombones today

There are an increasing number of instrument manufacturers today who make an effort to implement features of old German trombones such as the Weschke with some companies even specializing in creating exact replicas (e.g. Thein, Lätzsch, Meinl, Voigt). However, the metal that was used to manufacture this trombones from a century ago is extremely rare to come by now, so most modern day copies or inspired instruments do not possess the same material qualities. This means that, no matter how perfect the replica, the sound will not be as it was in the early 1900s.

6 RECORDINGS

6.1 Early recording technologies

The first commercial recording of any Mahler Symphony was his Second Symphony in 1924, conducted by Oscar Fried who first met Mahler in 1905. The recording was an extreme venture at the time, given that it was made with acoustic recording technologies available at the time, with horns instead of the microphones commonly used today for orchestra recordings. [16]

By the time Mahler's third began to be recorded and broadcast by various different orchestras in the late 40s/early 50s, the orchestra recording scene had moved on to using microphone set-ups. The two leading 'traditional' techniques for orchestra recording, which are both still used today, are the 'Blumlein' and

[16] Yale University Library, "Studying Performance Practice Through Sound Recordings: Gustav Mahler."

'Decca tree' methods.[17] Before explaining these methods, it is important to quickly note a few microphone types and their pick up patterns; i.e. the 'hearing' capabilities of the most common microphones. This will be important in understanding how the recording industry developed certain orchestra recording techniques.

Omni-directional microphones are equally sensitive to sound in all directions. Bi-directional microphones hear sound best from two directions (front and back). Uni-directional microphones hear sound best from one direction (the front).

The "Blumlein pair" was developed by Alan Blumlein while working as an engineer for EMI in the 30s and is a recording method, which captures a stereo image. Although Blumlein used omni-directional microphones for this technique at the time, it wasn't long before bi-directional or 'figure of 8' microphones the ideal when recording using this method. The "Blumlein pair" uses two bi-directional microphones arranged in an X-Y configuration (see fig. below). One microphone captures the sound for the right channel and the other for the left channel; this gives us a stereo image.[18]

The use of bi-directional microphones instead of uni- or omni-directional microphones is important in orchestral recordings, as the bi-directional microphones in an XY configuration are more capable of capturing the ambience and acoustics of a venue, as well as natural reverb and a wider acoustic image of the orchestra.

Engineers who worked at Decca Studios developed the 'Decca tree' method later in the 50s, which uses a suspended t-shaped bar to hold three omni-directional microphones up in the air. In this particular set up, the omni-directional microphones each serve a different role in capturing a stereo image. The microphone on the left is fed to the left channel, microphone on the right is fed to

[17] Steve Jennings-X, "Orchestral Recording: Revisiting and refining classic techniques," *Mix*, January 1, 2006, accessed August 9, 2020. https://www.mixonline.com/recording/orchestral-recording-365592.
[18] "The Blumlein technique explained – Stereo Recording 101," Music Production Nerds, accessed August 10, 2020, https://musicproductionnerds.com/blumlein-mic-technique.

the right channel and microphone in the middle is fed equally to both. The whole 'Decca tree' is typically suspended by about 8-10 feet above the conductor. The distancing of three microphones in this manner opens up the mixing possibilities in post-production.[19]

Despite the Blumlein and Decca methods being 70+ years old, their core concepts and techniques remain a staple foundation for most orchestra recording engineers today. Over the years, engineers have continued to use these techniques and simply added 'spot' mics elsewhere in the room or studio to augment the aural image captured by the main microphone set-ups.

It is important to note, however, that the earliest recording we have of Mahler's third (1947, Adrian Boult conductin the BBC Symphony Orchestra), was in fact a radio broadcast, which was not preserved by the orchestra itself. Instead, musicologist Edward Agate recorded the transmission from his home, onto acetate discs.[20] This means that the very unique, almost bombastic explosion of sound that we hear in the beginning of the trombone solo (7:04) is probably because of the lack of post-production and mixing opportunities, rather than mic placements.[21]

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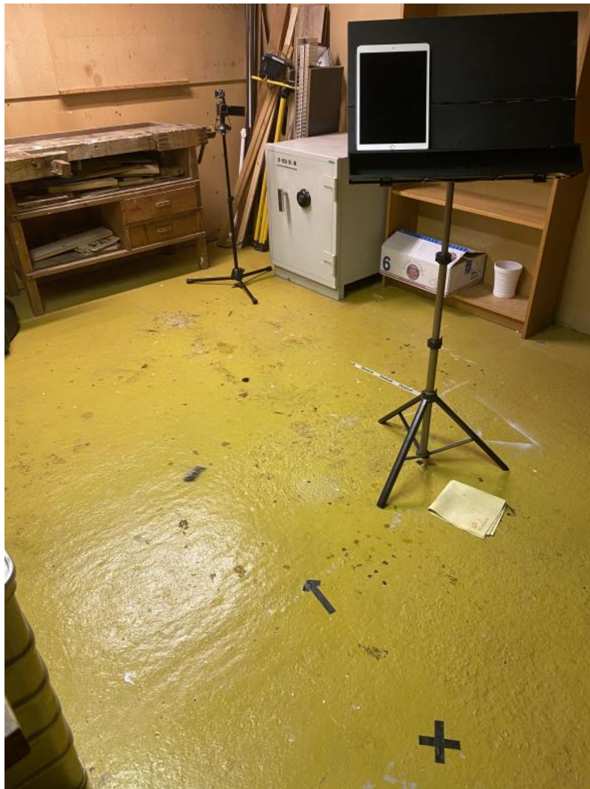
[19] Gareth Haines, "Microphones: The Decca Tree Technique," Tape Op, accessed August 10, 2020. https://tapeop.com/interviews/46/microphones-decca-tree-technique/.

[20] Jon Tolansky, Liner notes for *Symphony No.3,* BBC Symphony Orchestra, Adrian Boult, Testament SBT21422, 1947, 2008, 2 compacts discs.

[21] "Mahler: Symphony Nr. 3 [Boult, 1947] Kathleen Ferrier," YouTube video, 1:38:00, "Muzikazaile", Jan 6, 2014. https://www.youtube.com/watch?v=Ldpd38i7xf8.

6.2 My recording set-up



In the beginning of this project, my idea was simply to create a video of 6 different interpretations of the Mahler 3 solo, in a very similar fashion to Matthew Gee's Bolero video as a sort of entertaining and thought-provoking resource for trombonists from all areas and professions. Since then, my research has taken me along a different path. My focus has now shifted away from looking for a specific outcome or output, and more towards an inward look at the creative process. Subsequently, I have chosen six versions of the solo and recorded them in segments, in a way that allows me to analyse shorter passages as I might do in the practice room on a regular day. This way, I am able to focus more on style, phrasing and articulation, rather than focusing my energies on creating something polished from start to finish.

6.3 List of Audio Files

Key:

Bold text / Original
Italic text / My recording

Ex. **Audio 1: Fig.1** = Original recording
Audio 4: Fig.1 = My recording

1947: Adrian Boult, BBC Symphony Orchestra

Audio 1: Fig.1
Audio 2: Fig.2
Audio 3: Fig.3

Audio 4: Fig.1
Audio 5: Fig.2
Audio 6: Fig.3

1950: Hermann Scherchen, Vienna Symphony Orchestra

Audio 7: Fig.1

Audio 8: Fig.2
Audio 9: Fig.3

<u>1953: Charles Adler, Vienna Symphony Orchestra</u>

Audio 10: Fig.1
Audio 11: Fig.2
Audio 12: Fig.3

Audio 13: Fig.1a
Audio 14: Fig.1b
Audio 15: Fig.1c
Audio 16: Fig.1d
Audio 17: Fig.1e
Audio 18: Fig.1f

Audio 19: Fig.2a
Audio 20: Fig.2b
Audio 21: Fig.2c
Audio 22: Fig.2d

Audio 23: Fig.3a
Audio 24: Fig. 3b
Audio 25: Fig. 3c
Audio 26: Fig.3d
Audio 27: Fig. 3e
Audio 28: Fig. 3f
Audio 29: Fig. 3g

<u>1960: Herman Scherchen, Rundfunk Sinfonie Orkester</u>

Audio 30: Fig.1
Audio 31: Fig.2
Audio 32: Fig.3

Audio 33: Fig.1a
Audio 34: Fig.1b
Audio 35: Fig.1c
Audio 36: Fig.1d
Audio 37: Fig.1e
Audio 38: Fig.1f

Audio 39: Fig.2a
Audio 40: Fig.2b
Audio 41: Fig.2c
Audio 42: Fig.2d

Audio 43: Fig.3a
Audio 44: Fig.3b

Audio 45: Fig.3c
Audio 46: Fig.3d
Audio 47: Fig.3e
Audio 48: Fig.3f
Audio 49: Fig.3g

<u>1975: James Levine, Chicago Symphony Orchestra</u>

Audio 50: Fig.1
Audio 51: Fig.2
Audio 52: Fig.3

Audio 53: Fig.1a
Audio 54: Fig.1b
Audio 55: Fig.1c
Audio 56: Fig.1d
Audio 57: Fig.1e
Audio 58: Fig.1f

Audio 59: Fig.2a
Audio 60: Fig.2b
Audio 61: Fig.2c
Audio 62: Fig.2d

Audio 63: Fig.3a
Audio 64: Fig.3b
Audio 65: Fig.3c
Audio 66: Fig.3d
Audio 67: Fig.3e
Audio 68: Fig.3f
Audio 69: Fig.3g

<u>1981: Klaus Tennstedt, Minnesota Symphony Orchestra</u>

Audio 70: Fig.1
Audio 71: Fig.2
Audio 72: Fig.3

Audio 73: Fig.1a
Audio 74: Fig.1b
Audio 75: Fig.1c
Audio 76: Fig1d
Audio 77: Fig.1e
Audio 78: Fig.1f

Audio 79: Fig.2a
Audio 80: Fig.2b
Audio 81: Fig.2c
Audio 82: Fig.2d

Audio 83: Fig. 3a
Audio 84: Fig. 3b

2003: Riccardo Chailly. Royal Concertgebouw Orchestra

Audio 85: Fig.1
Audio 86: Fig.2
Audio 87: Fig.3

Audio 88: Fig.1a
Audio 89: Fig.1b
Audio 90: Fig.1c
Audio 91: Fig.1d
Audio 92: Fig.1e
Audio 93: Fig.1f

Audio 94: Fig.2a
Audio 95: Fig.2b
Audio 96: Fig.2c
Audio 97: Fig.2d

6.4 Early recordings of Mahler's Third (1947-1953)

This era of recordings was the most challenging to work with in some respects. There were a lot of obstacles such as audio quality, style and instrument equipment that I had to overcome. With these earlier recordings, a lot of the trombonist's sound brighter and perhaps even harsher than the sound that I am accustomed to hearing. That comes from a combination of different equipment (peashooters and German trombones) and how the solo trombone was captured during this earlier stage of recording technologies and techniques.

One glaringly obvious matter that should be addressed first, is the instrument. For example, the trombonist in Boult's recording has a much brighter and 'edgier' sound than my own, which is likely due to a big difference in instrument model. They were likely playing on a British peashooter from that period, which is much smaller and made from much thinner metal than my big and darker sounding Bach 42b. As discussed in the 'Instruments' portion of this document, instruments made from a thinner metal are less able to handle louder volumes

and so, are more likely to ‘explode’ with sound. Subsequently, the same can be said for the other three recordings by Scherchen, Adler and Beinum with the Vienna Symphony and Royal Concertgebouw; the trombonists in these recordings were almost definitely playing on an instrument much smaller and brighter sounding than my own.

Another thing, which stuck out to me, in particular was the length of notes. Nowadays, trombonists across the world will often endeavor to play the solo as broadly and full-length as possible, whereas these earlier recordings demonstrate a very different approach. For example, in Boult’s recording at *fig. 3c (Audio 3, 1:04)*, the triplets are played in a much more detached fashion than you would hear from almost any principal trombonist today. You can hear in my own recording of *fig.3c (Audio 6, 0:31)*, that even my notes are still a bit too long by comparison. Another obvious difference between my recording and Boult’s recording is sound. You can hear more of this detached style of playing in Scherchen’s recording as well, *fig.3c (Audio 9, 0:55)*. Again, the triplets here sound quite detached, even though there is no written instruction from Mahler indicating shorter notes; only accents are written above the triplets, which should affect articulation, not note-length.

Whilst listening to and imitating these earlier recordings, it became clear to me that perhaps trombonists from this period had a very different sense of how long an unmarked note should be. Some might simply put this down to a lack of orchestral discipline or that perhaps ‘now we know better’, but I would perhaps argue that it was down to a sudden change in role. The trombonists of these times had not been accustomed to having solos this long or expressive within an orchestral context. Simply put, it was still very new and novel.

Another example of where I noticed peculiar lengths of notes was in the Adler recording at *fig.2c (Audio 11, 0:28, Audio 21)* where the quarter note upbeats are almost shortened to make sure that there is no sense of legato or slur where it is not written.

6.5 Later recordings (1960-1979)

As one listens to these later recordings, you can begin to notice how styles begin to merge and there are fewer distinguishing factors between versions. Of course, instruments at this stage are still quite different, but it's interesting to see how we start hear trombonists play this solo in a more expressive, perhaps nuanced way.

For example, in Scherchen's 1960 recording with the Rundfunk Sinfonie, although the trombonist's style and tempos are not so conventional in the opening, we can hear a more soloistic style compared to the earlier recordings; more risks are being taken, and more rubato is used. If you listen to *fig.1b (Audio 30,* 0:29) from the original recording the tempo here is quite free and the trombonist pulls it back and pushes it forwards, especially in the triplets in bars 2 and 3 of rehearsal mark 14. In the 2nd excerpt, the lyrical part of the solo, we can hear the quarter notes being very slightly stretched in *fig.2b (Audio 31*, *0:13),* making the melody sound a little more lamenting and beautiful. Although this trombonist plays this more legato compared to earlier recordings, there is still some 'space' between the quarter notes, which you will hear clearly if you compare it to my recording of the same segment (Audio 40), where my notes a not quite as detached as theirs.

If you listen to the same lyrical section from Levine's 1975 recording with the Chicago Symphony Orchestra, you will hear that the trombonist here (Jay Friedman) connects the quarter notes in *fig.2a* and *fig.2b* (Audio 51) very smoothly with a controlled legato tongue. The same segments are also stretched

even longer compared to the trombonist in Scherchen's 1960 recording, without compromising on note lengths.

This version of the lyrical section played by Jay Friedman is also the version, which stays truest to Mahler's very meticulous markings, particularly in dynamics. When recording this section myself, *fig.2a-d (Audio 59-62)*, with Friedman's version as a point of reference, it is the one that I found most natural to play because it aligns pretty well with how I have been taught to play it by most of my teachers. To me, this section really comes to life when every detail comes through in the playing; the crescendos marked at the beginning of each whole note plays a key role in releasing that tension created from the preceding upbeat quarter notes.

Even though this version from 1975 is 45 years old, it's not an entirely unreasonable assumption to say that it had a great influence on the trombone 'hive mind' on playing Mahler's Third. Today, Jay Friedman is a very well-known and respected teacher and performer who still holds the same position with the Chicago Symphony and has even written a few articles and blog posts of his own, regarding the same solo from Mahler's Third.[22]

6.6 Modern recordings (1980-2016)

As we arrive to the end of the 20th century, one can clearly hear the journey that recording technologies have made since that first recording in 1947. With better (and probably more) microphones set up for recordings, it has become easier and easier to hear key aspects such as articulation, sound and dynamics – not just from a trombone perspective, but the entire orchestra.

The next recording I studied, was Klaus Tennstedt's 1981 recording with the Minnesota Symphony Orchestra. Despite it being recorded in the 80s, I found that the trombonist sounded just as bright and present-sounding as earlier

[22] "Mahler – Symphony No. 3," last modified Jul 1, 2001, https://www.jayfriedman.net/articles/mahler_3.

recordings, even considering the vastly improved audio quality (i.e. *fig.1a, Audio 70, 0:10)*. In this instance, however, it is important to note that this was a live recording (like many of the other recordings) and so, the scope for mixing or affecting balance in these instances is very limited. Of course, the trombonist also plays the ***f*** and ***ff*** passages remarkably loudly, so this contributes to this very assertive sound we hear. To be clear, the sound is much fuller than that of the trombonists from earlier recordings, even though the sound is piercing (an American orchestral trombonist in the 80s is likely to be playing on a instrument with a much larger bore than the German trombones likely used in the European Orchestras of the 40s/50s). If you listen to my 'version' of *fig.1 (Audio 73-78)* of Tennstedt's recording, you will hear that this trombonist's sound from the 1981 recording is much more similar to my own sound compared to the trombonists from earlier recordings (on smaller instruments).

Skipping ahead 22 years, we come to the final recording of this selection, Riccardo Chailly's 2003 recordings with the Royal Concertgebouw Orchestra. This recording is not live, but is one of the few examples I have selected of a 'studio' recording. As this is a studio recording, there is much more opportunity and chances for studio engineers to change mix and balance within particular moments in the symphony. The fact that there are so many silences in this movement at just the right moments makes it easy to do so. Just listening to the opening (*Audio 85*, *0:09),* you can hear the how to balance between the trombone and the orchestra is much more satisfying to listen to. With this equal balance between soloist and accompaniment, the whole passage (*fig.1)* sounds much more grounded, powerful and mysterious.

In the lyrical section (*fig.2, Audio 86),* we hear a similar nuance and attention to detail, which we heard from Jay Friedman in the 1975 recording. Despite the clear differences in audio quality between these two recordings, which are 28 years apart, the similar intentions, articulations, style and phrasing are clearly heard. This is particularly evident if you compare *fig.2b* from both recordings (*Audio 51, 0:14, Audio 86, 0:18)* and even from comparing my own recordings of the same passages (*Audio 60, Audio 95)*.

7 REPORT OF FINDINGS

7.1 Overview

As I progressed through these different recordings from 1947-2003, I found different clues in each version which I used to paint a clearer picture of how this solo developed over time and what conclusions one could draw from this.

Using my own performance as a tool for analysis has proven useful in identifying moments of interest from the original recordings and how they might apply to my own playing and understanding. In addition to this, I was able to use the knowledge I gathered in the earlier stages of this project regarding history, technologies and instruments, and apply it into context to produce a more informed and well-rounded analysis. This has helped me to better understand my own playing style and musical approach to this excerpt and has allowed me to consider other possibilities away from those that are handed to me in lesson or master class settings. This part of the project gave me the opportunity to formulate opinions and draw conclusions based on my own research and investigation.

In the first category of recordings from 1947-1953, it was quite clear to me that many elements of the recordings where in their early stages. It was, therefore, a necessity to have basic knowledge of instruments and recording technologies from this period in order to properly analyse these performances without being distracted by the sound and recording qualities. For me, this meant that I could focus a bit more on how the trombonist phrased and articulated in their playing, rather than being solely preoccupied with how 'bombastic' their loud playing sounded which is perhaps more a result of instrument and technology limitations. For example, I was able to identify shorter note-lengths in some phrases, which I didn't like so much. This was evident when I listened to my own performance where I am trying to imitate this.

The second category of recordings show a progression in interpretation; one where players are becoming more virtuosic, more expressive and nuanced in

their approaches, matching better to the music that Mahler wrote. This 'nuance' is evident, not only in musicality, but in sound. We can hear the trombone developing into a larger, heavier and darker-sounding instrument overall (this solo is particularly low in the register if you consider that it was written for 1st trombone, not 2nd). Whilst analysing these recordings, I found the spectrum of expression a useful tool for my own development of interpretation, as I was often very inspired by many of the different musical decisions and directions being made and how boldly they were presented. Through imitation, it became so clear to me just how much an instrumentalist must exaggerate something in order for it to come across to the audience. There were many instances where I thought a musical idea was expressive and 'just right', but in order to imitate it, I felt as though I had to exaggerate it tenfold. It has made me reconsider the lengths one has to go to in order to present a convincing musical idea to the listener, especially as an orchestral musician sitting in the back of the orchestra.

Analysing the final selection of recordings from 1980-2016 felt like coming full circle as I returned to a sound and style that felt more natural to me. It also made me consider how much this could be due to instruments and how much the trombone has generally changed since 1947. After having researched the basic acoustical properties between old German trombones and a modern trombone in section 5.1, it occurred to me that perhaps the importance of projecting sound in the quieter dynamics of the lyrical section would not only be a logical decision, but also a musical decision based on the fact that the older German trombones from Mahler's time produced a more compact and fuller sound in the softer dynamics.

Before Mahler wrote his Third symphony, there were little to no solos for trombone in the orchestral repertoire – and none of them were as exposed and low in the trombone range as this one. It is apparent just how important this solo has been to the development of many different aspects of trombone playing. As I reflect on my research findings, it's interesting to see just how much there is to consider within a historical context and how relevant it is to someone performing this music today.

8 CONCLUSION

The initial research statement of this thesis was 'An exploration of how trombone-related practices have developed since the premiere of Mahler's Third Symphony in 1902'. Throughout the research, listening, studying and recording of this project, this topic has developed further than I imagined. Not only have I explored how trombone-related practices have developed since Mahler's Third, I have discovered new avenues for thought, study and playing with a depth and detail that I would have never otherwise explored as an orchestral musician.

The research methods throughout have pushed me to think of my vocation as more than just 'performance-based'. Having the time and space to explore such an array of topics, from technology to instruments, has brought me to make new connections, strengthening my understanding of the music in a way that practicing all day in a room would not.

My findings from this project have made me question 'tradition', how we teach it and how we advocate for creating something new in the old. Based on my own experience, I think the performance field has a lot to gain from a deeper understanding of the literature; beyond learning its history for the sake of knowing, but so that we can apply our knowledge of the past to create new music, not just repeat decades and centuries of the same. With this, I hope I have made some discoveries that could be directly applied in a way that is useful for other students, professionals and teachers when approaching orchestral excerpts.

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