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A Score of Voices: Creating and Scoring an Original Film With A cappella Choir

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A SCORE OF VOICES: CREATING AND SCORING AN ORIGINAL FILM WITH A CAPPELLA CHOIR

By

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ABSTRACT

Film scores typically feature large instrumental ensembles, sometimes with choir added at pivotal moments. Rarely, however, is the choir entrusted with a greater percentage of the score, and far too scores explore the sonic potential that vocal music has to offer. In fact, in a recent study of 800 films, none contained a score that was completely c. Thus, the body of unaccompanied choral film scores is practically non-existent. This curious gap in repertoire inspired me to create the documentary *Downstream* (2023) and score it entirely with an unaccompanied choir. The full score to this new work is contained within this thesis, along with a cursory analysis and historical overview of choral music in film. Finally, as a template and test case for other composers, I provide insight and analysis into my own creative process and unique challenges and benefits afforded by vocal ensembles in film.

ACKNOWLEDGMENTS

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CHAPTER 1 – CHORAL MUSIC IN FILM

A study of the many uses of choral singing in film scores reveals a number of interesting trends. According to Micah David Bland, in the last decade, about 65% percent of all choral music in film occurred during action/conflict scenes, travel/scenic moments, diegetic moments, or credits. This does not include the category of pre-conflict scenes which would bring that percentage well above 70%.[1] Additionally, the choir was commonly used to portray moments of epicness or grandeur. To further understand where these trends have come from it is important to explore the history of choir in film.

The use of choir in film dates to at least the early 1930s, according to film historian Rudy Behlmer;[2] however, this wouldn't have been possible without a few developments from the previous decade. Silent films were moving from solo piano accompaniments to larger ensembles, and choral music (in films) was on the rise.

The increased use of choirs in the 1920s can be attributed to two different things. First, the emergence of synchronized sound led to an increase in original scores and the

[1] Micah David Bland, "Choral Music in Film." (Diss., University of Southern California, 2021), 12.

[2] Jon Burlingame, "An Idea in Chorus With Hollywood," *Los Angeles Times*, May 7, 2000.

emergence of large classical orchestras.[3] Second, the emergence of the Hall Johnson Choir in 1925, a choir consisting primarily of African Americans, and their frequent appearance in films throughout the golden age of film. According to Eugene Thamon Simpson in, *Hall Johnson: His Life, His Spirit, and His Music*, "The Hall Johnson Choir was the only choir in the history of the American cinema to become a movie star." Between 1929 and 1946 the Hall Johnson Choir was featured in 37 films.[4]

Throughout the choir's Hollywood run, composers featured the Hall Johnson Choir in traditional ways that aligned with the roles of the chorus in 19th-century theater. It is well known that composers Max Steiner and Erich Wolfgang Korngold, who were educated in the Viennese musical tradition, "created a worldwide enduring impact on the traditions of film scoring."[5] Max Steiner, who was well-acquainted with theater, operettas, and early Broadway shows, would have been aware of choral traditions in 19th-century theater including singing during curtain risers/closers, scene-setting, or moments of action.[6]

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[3] Micah David Bland, "Choral Music in Film," 12.

[4] Eugene Thamon Simpson, "The Hall Johnson Choir: Star of the Silver Screen," in *Hall Johnson: His Life, His Spirit, and His Music* (Lanham, MD: Scarecrow Plus, Inc., 2008), 108.

[5] Anna K Windisch, "Roxy, Riesenfeld & Rapée: How The Concert Hall Orchestra Conquered New York's Broadway Movie Theaters," in *Austria and America: Cross-Cultural Encounters 1865-1933* (Wien: LIT Verlag, 2014), 73.

[6] Charles Lineberger, "Kate Daubney. Max Steiner's Now Voyager: A Film Score Guide," *The Journal of Film Music* 1, no. 1 (2002): 113.

TRENDS OF CHORAL MUSIC

Choirs are commonly used as a curtain riser/closer. “Particularly in pictures from the golden age, choruses often provided an inspirational, surging finale.”[7] The Hall Johnson Choir frequently appeared on or off camera while credits rolled and even today this is a common place for choirs to appear in film. Micah David Bland analyzed 209 films between 2010 and 2019 in his dissertation and found that a choir was featured 17.44% of the time during credits.[8] In many instances, a choir was used in moments that lack dialogue, therefore their appearance in credits comes to no surprise.

Choirs can be used as a scene-setting tool to introduce plot, cultural atmosphere, and location. Frequently the Hall Johnson Choir, composed primarily of African Americans, portrayed oppressed slaves or impoverished farmers. Many of these films took place either during or after slavery in the south. In these instances, the choir was often built into the plot as characters on screen.[9] The choir also helped to create cultural atmospheres with language. In *Lost Horizon* (1937), composer Dimitri Tiomkin had the Hall Johnson Choir sing nonsense words while depicting the lost city of Shangri-la. It was neither Tibetan nor English and, “thus another Hollywood tradition was born: film

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[7] Jon Burlingame, “An Idea in Chorus With Hollywood.”

[8] Micah David Bland, “Choral Music in Film.” 12.

[9] Eugene Thamon Simpson, “The Hall Johnson Choir: Star of the Silver Screen.” 114.

choruses belting out perfectly nonsensical prose with utter conviction."[10] Scene-setting choirs are still prevalent in films of the last few decades. Choirs are commonly used to "…transport viewers to an upcoming physical location, holiday, or cultural atmosphere."[11] This is true for films such as *The Lion King* (1994), *The Lord of The Rings* (2001, 2002, 2003), and *Home Alone* (1990). According to Bland, 13.82% of the choral scores between 2010 and 2019 used a choir for travel and scenic moments.[12]

A long-standing trend of the choir in film is its role as diegetic music. The term 'diegetic' refers to a sound that characters in a scene can hear and respond to.[13] As discussed previously, the Hall Johnson Choir was often featured on screen as characters including a church choir in *Samson (Short)* (1941) and plantation workers in *It Happened in New Orleans* (1930). According to Bland's analysis of 50 different films from the 1950s, 35 of them contained choral singing. Of all the moments that contained choral music, 72% of the time featured diegetic singing. Although diegetic music exists today, it has declined to 7% for films between 2010 and 2019.[14] Credits, travel/scenic scenes, and

[10] Tim Carmody , "A Short History (and Future) of Choir Music in Movies," kottke.org. December 8, 2021

[11] Micah David Bland, "Choral Music in Film." 13.

[12] Ibid., 12.

[13] MasterClass, "Diegetic Sound and Non-Diegetic Sound: What's the Difference?," MasterClass, September 3, 2021

[14] Micah David Bland, "Choral Music in Film." 12.

diegetic music account for three of the four most popular trends of choral music in today's film scores. Each of these trends has existed in film since the 1930s and continues today.

Unlike the previous trends, the action chorus did not become popular in film until the 1970s. Greater technological advancements like CGI helped pave the way for larger action sequences. Since the 1970s, composers have more frequently have employed chorus during scenes of conflict due to the "…increase of over-the-top action sequences of the last few decades."[15] According to Bland, roughly 15% of choral music that exists in 1970s films is tied to conflict. Since then, that number has risen to 26% in films from 2010 to 2019.[16]

Although many compositions feature an epic chorus, none have had as much of a lasting impact on the epic choir stereotype as Carl Orff's "O Fortuna."[17] "O Fortuna was featured in 108 televised instances between 1970 and 2018 including television shows, movies, trailers, and TV ads.[18] The first film to use "O Fortuna" was *Excalibur* (1981) in which a chorus is used to ramp up the tension of battle. The use of this composition during epic moments is so overdone that TVtropes.org refers to the piece as "one of the

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[15] Micah David Bland, "Choral Music in Film." 19.

[16] Ibid., 12.

[17] Carl Orff. Carmina Burana. Schott, 1937.

[18] David B Clem, "0 Fortuna' and the Mythic Medieval: A Study in Multimedia Receptions" (dissertation, 2020) 127.

most overused trailer songs in history, a standard snippet for whatever we want to suggest as an epic movie."[19]

UNACCOMPANIED CHORAL MUSIC

Most of the music discussed thus far deals with chorus and orchestra, but what about unaccompanied choral scores? Existing trends seem to favor instruments over voices in film scores. Despite this trend, fantastic unaccompanied scores appear in films such as *The Gallant Hours* (1960)*, 2001: A Space Odyssey* (1968)*, Koyaanisqatsi* (1982), and *Swiss Army Man* (2016), all of which will be analyzed in chapter two. Despite their use of unaccompanied choir, each of these films features instruments as well.

Film scores that are purely unaccompanied are rare or practically non-existent. Baraka May, an in-demand vocalist for many films, has sung for 98 films since 2011. Amongst all the scores she has encountered, she has never sung for a film score that uses only choir.[20] Of the 800 films analyzed by Mika David Bland for his dissertation, 491 contained a choir, but none were made with only unaccompanied choir.[21]

Bland's paper sheds a lot of light on the trend, duration, and use of choral music in film; however, his findings shed little light on unaccompanied choral music in film.

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[19] "O Fortuna / Standard Snippet," TV Tropes, accessed March 7, 2023.

[20] Moore, Zachary. Baraka May. Personal, February 12, 2023.

[21] Micah David Bland, "Choral Music in Film." 8.

Because most film scores combine choir with instruments, Bland's analysis is skewed towards accompanied choral music. To demonstrate this, I chose to look at ten scores on Bland's list with larger amounts of singing. In Table 1.1 I compared the total amount of singing from each film, according to Bland, with the amount of unaccompanied singing that I found. As can be seen, in six of the films unaccompanied singing represents less than 10% of the total choral singing while only two films represent 50% or greater. Between these ten films, an average of 18.5% of the total choral singing was unaccompanied and thus loosely representative of unaccompanied choral singing. Therefore, the dramatic domains such as scene changes, conflict, diegetic singing, and credits are largely a reflection of accompanied choirs.

Table 1.1. Comparing accompanied choral cues with unaccompanied cues

Film	Total Choral Singing	Unaccompanied Singing	Percent of total singing
The Power of One (1992)	40:51	15:08	35%
Lord of the Rings: Return of the King (2003)	31:36	00:36	1%
The Gallant Hours (1960)	31:40	17:46	56%
Lord of the Rings: The Fellowship of the Ring (2001)	29:37	0:00	0%
Lord of the Rings: The Two Towers (2002)	22:12	0:00	0%
Armageddon (1998)	23:50	0:14	0.9%

Table 1.1 (continued)

Film	Total Choral Singing	Unaccompanied Singing	Percent of total singing
Empire of the Sun (1987)	24:49	1:28	5%
Ivan the Terrible (1944)	24:10	16:03	66%
Angels and Demons (2009)	19:29	1:08	5%
Amistad (1997)	19:26	4:13	21%

In addition to dramatic domains, it is important to understand how composers use unaccompanied choirs in film. I will explore a couple of similarities between the films in Table 1.1 including how they create cultural atmospheres or go against the grain.

Four of the films used diegetic singing to express a cultural atmosphere with folk melodies, hymn-like singing, or communal singing. In each of the *Lord of the Rings* films (including the original books by J. R. Tolkien) it is commonly accepted that Hobbits represent the Celtic culture.[22] The use of drinking songs, modal music, and highly ornamental folk melodies are found In *Lord of the Rings: Return of the King* (2003). In another film, *The Power of One* (1992), groups of South Africans sing hymn like pieces throughout the film. In *Amistad* (1997) a group of slaves sing "Yahweh" while on board the "Amistad."

[22] David C Phillips, "Uses of Celtic Legend and Arthurian Romance in J. R. R. Tolkien's 'The Lord of the Rings'").

Homophonic hymns and their lyrics appear to provide context for a film's location and plot. For example, *The Gallant Hours* (1960) opens with a type of navel hymn sung by a solo tenor and male chorus. While the camera pans across hundreds of naval men (illustrated in Figure 1.2) the lyrics (shown in Figure 1.1) depict loss. The homophonic texture and male chorus create the aesthetic of a naval hymn and military culture. Likewise, in the opening scene of *The Power of One* (1992) Hans Zimmer places a viewer in South Africa with the sound of an authentic South African choir.[23] The hymn is sung in combination with an image of an African map and the sound of animals. The language Zimmer uses appears to be a dialect of the region. Although a different film, John William's composition "Dry Your Tears, Afrika" from *Amistad* (1997), has a similar hymn-like feel. Though the composition takes place during the credits, the piece adds to the film's overall feel. The words, which were by Ivorian novelist Bernard Binlin, instill a sense of national pride and power.[24]

[23] Christian Clemmensen, "The Power of One," FilmTracks, March 24, 2010.

[24] Dr. Y., "Dry Your Tears African! – Words from Bernard Dadié," African Heritage: A blog about African history, and heritage, through audio and video files, April 19, 2021.

Figure 1.1. Lyrics to “Away He Went”

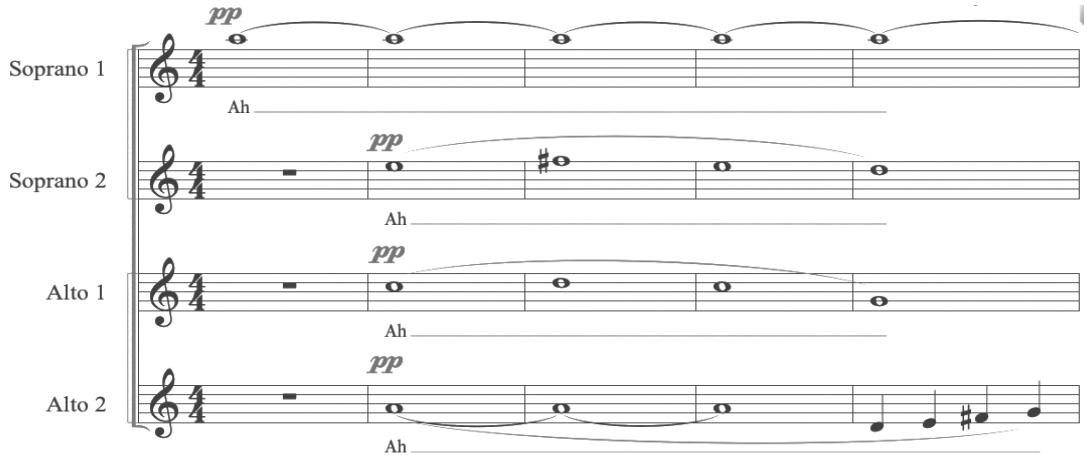
"I knew a lad who went to sea,
And left the shore behind him,
I knew him well, that lad was me,
But now I cannot find him.

Away, away, away he went
And left the shore behind him.”

Figure 1.2. "The Gallant Hours" title screen

Aside from creating a cultural atmosphere, the second trend I observed was the use of soft dynamics, harmony, or slow-moving textures to contrast emotional grandeur. In *Angels and Demons* (2009) Hans Zimmer uses an ethereal-sounding choir to depict a helicopter rising to the sky carrying a nuclear bomb over Vatican City (illustrated in Figure 1.3). Strikingly, Zimmer uses an extremely soft dynamic and a pure-sounding

Figure 1.3. Track 6: “Science and Religion.” 7:55 - 8:17



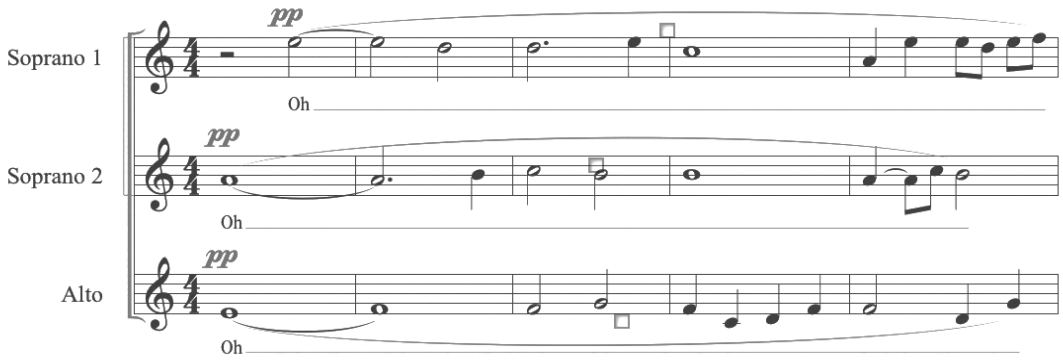
Source*:* Transcription provided by the author using the original motion picture soundtrack.

treble choir for one of the largest climaxes in this film. Additionally, the lack of rhythmic energy also contrasts with the intensity of the scene. The use of modal mixture creates an unworldly atmosphere in this emotionally intense moment. In *Empire of the Sun* (1987) John Williams uses unaccompanied choral music to depict the surreal moment of Christian Bale’s character walking around a stadium filled with pillaged treasures. Like Hans Zimmer, John Williams uses soft dynamics in combination with slow-moving rhythms to contrast the emotion of the scene (Figure 1.4). The slow polyphonic texture creates a free-flowing feel and contributes to the surreal nature of the cue.

These films demonstrate a couple ways in which composers use unaccompanied choir to create a cultural atmosphere or contrast emotionally heightened moments. It should also be mentioned that each of the moments analyzed occurs with little to no

dialogue. Choir is typically used in scenes with little dialogue, but perhaps this is even more prevalent for unaccompanied cues. Although there are connections between each of these films, the body of research is too small to draw any definitive conclusions related to unaccompanied choral trends. The only conclusion that could possibly be drawn is that unaccompanied choral music is used far less than accompanied. Later, in chapter four, I will discuss how each of these similarities influenced the creation of my film score.

Figure 1.4. Track 6: “The Return To The City.” 4:10 - 4:31



Source*:* Transcription provided by the author using the original motion picture soundtrack.

CHAPTER 2 – AN ANALYSIS OF UNACCOMPANIED CUES

Though unaccompanied music is sparse in film, a few scores have stood out that deserve closer analysis including *The Gallant Hours* (1960), *2001: A Space Odyssey* (1968), *Koyaanisqatsi* (1982), and *Swiss Army Man* (2016). I have chosen these scores based on a variety of criteria including the amount of unaccompanied singing, textures, timbre, harmonic language, and how the music interacted with dialogue. In this chapter, I will explore the inspiration of each score and analyze the amount of unaccompanied singing, timbres, textures, dramatic domains, and how unaccompanied singing interacts with dialogue to guide my own writing process (discussed in chapter four). To complete this analysis, I use original scores, transcriptions, and timed data from each film. My process for gathering the timed data included watching the film and starting or stopping a timer when choral singing occurred. I then made notes of the texture and dialogue based on what I heard. This process does leave room for error and therefore, the data should be viewed as approximations.

THE GALLANT HOURS (1960)

The Gallant Hours is a historical fiction film directed by Robert Montgomery with music by Roger Wagner. The story centers around U.S. Navy Admiral William J. Halsey as he completes his final day in the Navy. Throughout the film, Halsey reflects o

his greatest military challenge, the Battle of Guadalcanal. The film is reflective and focuses on the strategy of battle rather than actual fighting sequences.

An unusual element to this film score is its dependence upon choir rather than an orchestra. During production, there was a large musician strike which resulted in a choral-heavy score.[25] It is plausible that Roger Wagner, who is largely remembered as a choral conductor, was hired as a composer because of the strike; however, Wagner also possessed a significant amount of scoring experience including 87 episodes for the 1950 television series, *I Married Joan.*[26] It is unknown how large of a role the chorus would have played prior to the strike; however, we do know that the strike resulted in a choral-heavy score.

While watching the film, I sought to understand how dialogue interacts with unaccompanied choir to guide my own writing and expand the potential of underscoring. A vast majority of the unaccompanied underscore features men's choir; however, a mixed choir is briefly used. Although several reasons may exist for, primarily, using a men's choir as an underscore, perhaps lower vocal frequencies are a contributing factor. Beyond the ensemble, a soloist is featured briefly during dialogue. The decision to use a

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[25] Retro, Cinema. "Review: 'The Gallant Hours' (1920) Staring James Cagney; Kino Lorber Blu-Ray Edition." Cinemaretro, May 17, 2016.

[26] William Belan, "An Interview with Roger Wagner," *Choral Journal*, August 1991, 12.

soloist during dialogue was a bold choice and will be touched upon later in this chapter. Finally, Wagner uses homophonic textures almost exclusively when accompanying dialogue. Perhaps a lack of contrapuntal textures contributes to a successful underscore because the music minimally interferes with the natural rhythms of dialogue.

While most of the unaccompanied singing worked well, a few moments were distracting. This is most pronounced at 00:03:07 when a soprano soloist's high melody competes with the narrator's speaking voice. A person can only take in one conversation at a time and listening to a narrator and soloist is a lot like listening to two conversations and being forced to choose between the two.[27] Also, because the soloist enters while the narrator is speaking, an individual's attention is momentarily interrupted. A similar solo appears at 01:52:19 but instead is placed between the dialogue creating less distraction. In another moment, at 01:30:40, range, dynamics, and vowels distract from the scene's dialogue. Halsey, the main character, is reflecting on radio communications while the choir is underscoring the intensity of the scene. Simple changes such as avoiding a soloist or changing a vowel could potentially have changed the success of these moments. These are questions that will be further explored in chapter 4.

Stereo mixing would have also been a simple solution for musical distractions; however, Dolby stereo did not exist until 1975. According to Rafael Abreu, "Ken

[27] Colin Smith, "Our Ability to Focus on One Voice in Crowds Is Triggered by Voice Pitch," Imperial College London, October 10, 2017.

Russell's *Lisztomania* (1975) was branded the first Dolby Stereo film, using the Left-Center-Right channel system. Previous mono films had sound coming from only one place."[28] Because *The Gallant Hours* was released in mono, the sound effects, Foley, and music all share one sonic space and, occasionally, compete with one another.

Despite a few examples, a lot of the music for *The Gallant Hours* works well. The use of men's choir and lower ranges helps keep a lot of the vocal frequencies under the dialogue while a homophonic texture, used 96% of the time, keeps the underscore from being distracting. By using longer rhythmic values and fewer rhythmic shifts, the music was able to coexist with the dialogue.

Compositionally, this score is the most conventional and traditional of the four scores in this analysis. The most interesting aspect revolves around the unique use of choir verses instruments. This score is a rare example of a choir serving as the main ensemble for a film score. It allows one to consider the potential of choral music in film. This score sheds light on the relationship between unaccompanied voices and dialogue.

2001: A SPACE ODYSSEY (1968)

The score for Stanly Kubrick's *2001: A Space Odyssey* is composed of preexisting music that the director chose to use instead of an original score. Although

[28] Rafael Abreu, "What Is Dolby Stereo — History of Game-Changing Sound in Film," Studiobinder, September 26, 2021.

Alex North was hired to write the score, Kubrick felt that the temporary place-holder music was a better fit.[29] Although plenty of theories exist surrounding Stanley Kubrick's use of music, the director intentionally left this film up to interpretation. In Kubrick's words,

> I intended the film to be an intensely subjective experience that reaches the viewer at an inner level of consciousness, just as music does; to "explain" a Beethoven symphony would be to emasculate it by erecting an artificial barrier between conception and appreciation… I don't want to spell out a verbal road map for *2001* that every viewer will feel obligated to pursue…[30]

Although the music was not written for the film, Kubrick's use of pre-existing music appears to be symbolic, particularly his use of choral music. The most prominent instance of unaccompanied choral music is György Ligeti's "Lux Aeterna", which is said to symbolize the "voice of the universe."[31]

While studying Ligeti's piece and its use in *2001,* I was particularly interested in how it served larger symbolic roles both lyrically and textually and how I could incorporate these ideas in my own writing. The text of this composition is in Latin and speaks of eternal light. According to Patterson, a religious text is used "…to depict

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[29] Irena Paulus, "Stanley Kubrick's Revolution in the Usage of Film Music: 2001: A Space Odyssey (1968)." *International Review of the Aesthetics and Sociology of Music* 40, no. 1 (June 2009): 102.

[30] David W Patterson, "Music, Structures and Metaphor in Stanley Kubrick's '2001: A Space Odyssey.'" *American Music* 22, no. 33 (2004): 469.

[31] Ibid., 115.

extraterrestrial communication."[32] The religious nature of the text suggests a higher power. In the final moments of the film David Bowman, one of the main characters, lands in a mysterious, clean, white room decorated elegantly with high-end furniture and decor. The cleanliness and color of the room could suggest a heavenly space and may further explain the use of a religious text by Stanley Kubrick.

Patterson also speculates that "texture itself becomes a symbol for the perception of the universe as chaos."[33] This composition uses a canonic type of texture called micropolyphony. The opening 35 measures use the melody in Figure 2.1 canonically across an eight-part split of altos and sopranos. The composer uses varying rhythmic values to create a polyphonic texture. According to Ligeti, "I use canons so dense that one hears, not the polyphonic fabric, but a vertical homogeneity which changes unceasingly."[34]

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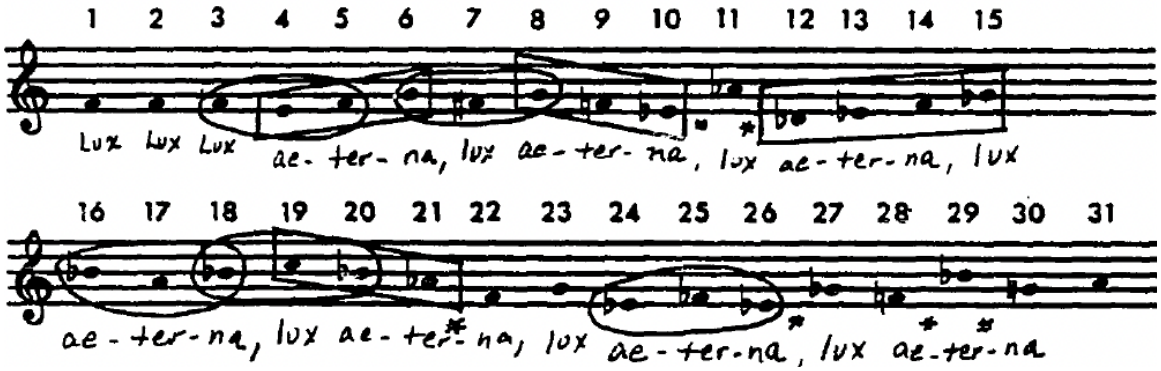
[32] David W Patterson, "Music, Structures and Metaphor in Stanley Kubrick's '2001: A Space Odyssey.'" 457.

[33] Ibid., 456.

[34] Jane Pipper Clendinning, "Contrapuntal Techniques in the Music of György Ligeti (Volumes I and II)." (Diss., Yale University 1989) 49.

Figure 2.1. Ligeti “Lux Aeterna” cannon



Source: Jane Pipper Clendinning, “Contrapuntal Techniques in the Music of György Ligeti (Volumes I and II)” 6.

The stepwise canonic motion illustrated in Figure 2.1, inevitably creates dissonance. The harmonic language of the treble voices, in combination with the word “lux”, creates a suspended shimmering sound that feels appropriate to the countless stars in the scene. Although “Lux Aeterna” was not written for this film, the music appears to serve a larger symbolic role representative of both images and themes within *2001: A Space Odyssey.* Ultimately, Ligeti’s writing served as an inspiration for my own film score and is discussed in chapter four.

KOYAANISQATSI (1982)

Directed by Godfrey Reggio, *Koyaanisqatsi* is an experimental documentary depicting the negative impacts of humanity on nature. ‘Koyaanisqatsi’ is a Hopi word

that translates to, “life out of balance.”[35] Reggio felt that the subject of the film was beyond words, so he used no dialogue, but only music and moving images to convey meaning.[36] The title happens to be the only spoken word in the entire film. The film is broken up into six thematic sections entitled, “Koyaanisqatsi,” Vessels,” “Cloudscape,” “Pruit Igoe,” “The Grid.” and “Prophecies.”

The score, written by Philip Glass, features a large amount of unaccompanied singing for the section titled, “Vessels” and focuses on motion, such as planes, cars, moving clouds, heat rising, and missiles. Glass's vocal inspiration came from an image of a plane at Los Angeles International Airport. He shares,

> In a strange sort of way, the voices became an aspect of the plane. Not the whole plane, because the plane itself is a tremendously huge and massive machine. Still, one of a plane's interesting qualities is its lightness; at moments, it actually seems to be lighter than air. So, I took that special facet of a plane in flight, its lightness, and made it the basis of the musical image, in part, by using voices.[37]

The energy, imagery, and textures within Glass’s choral score were unique elements that piqued my creative curiosity and ultimately guided my own compositional choices.

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[35] Charles Merrell Berg, “Philip Glass on Composing for Film and Other Forms: The Case of *Koyaanisqatsi*.” *Journal of Dramatic Theory and Criticism* 5, no. 1, (September 1, 1990): 310.

[36] Guest, Haden, Godfrey Reggio, and Phillip Glass. A Conversation With Godfrey Reggio And Philip Glass. Other. *Youtube*, October 8, 2019.

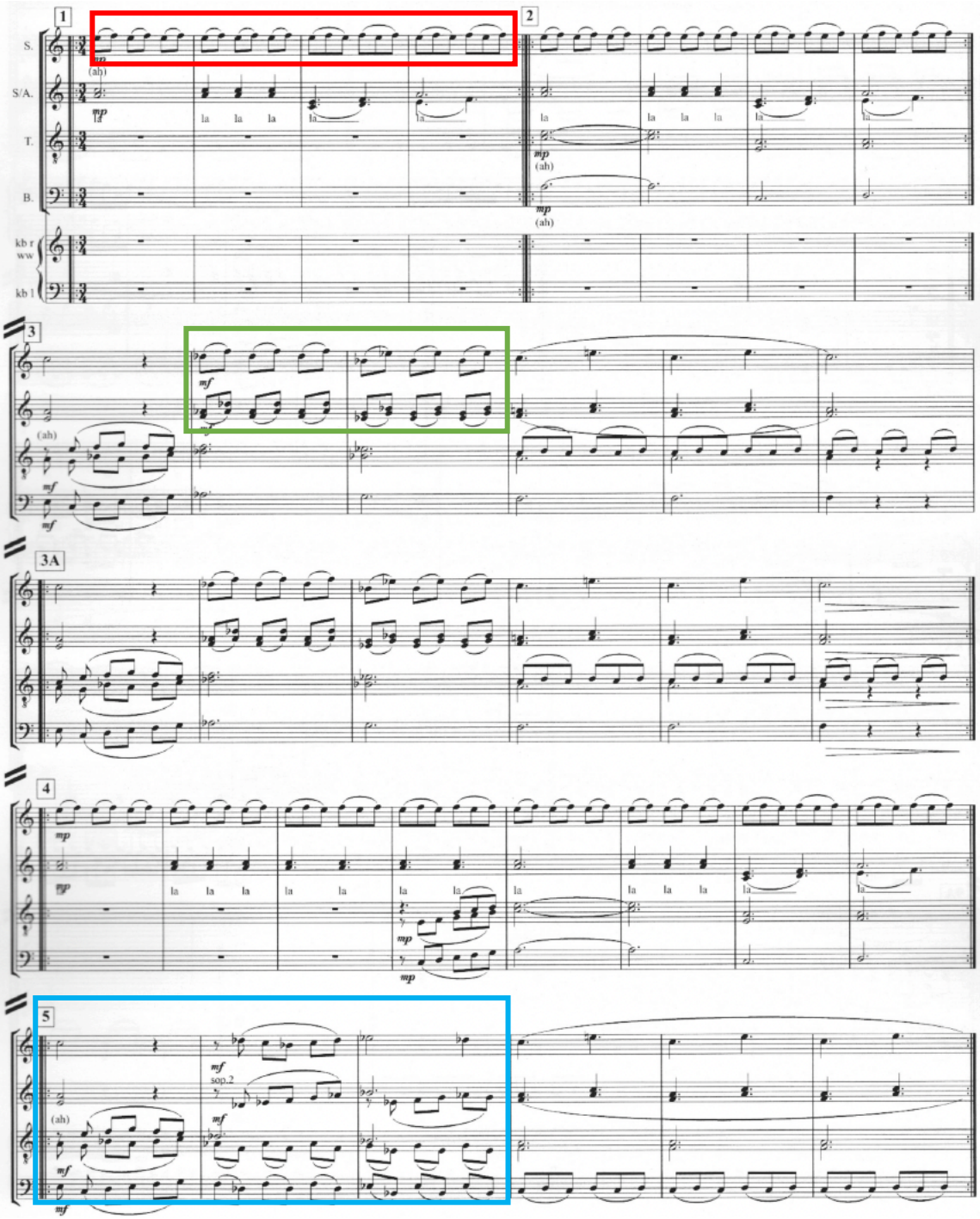
[37] Charles Merrell Berg, “Philip Glass on Composing for Film and Other Forms: The Case of *Koyaanisqatsi*” 309.

The range, meter, texture and quick rhythmic pulse of eighth notes create a feeling of weightlessness and energy. His use of an oscillating second creates a suspended floating feeling (illustrated in Figure 2.2) and is passed around to different voice parts. Another way that Glass may have achieved a feeling of weightlessness is by using metric shifts. By alternating between simple triple and compound duple, Glass creates a light, dance-like feel that prevails throughout this movement. Additionally, low registers are avoided in each of the voice parts and contributes to a feeling of lightness.[38]

The use of oscillating eighth notes and textures creates an unbounded and impressionistic feeling to the score (Figure 2.2). The sopranos and altos create a pulsating triadic texture that feels rhythmically untethered. Had Glass chosen to incorporate less rhythm, the music (illustrated in the green box of Figure 2.2) may have felt stagnant and grounded. The voices also maintain contrapuntal independence through contrary motion and staggered entrances (Figure 2.2).

[38] Alex Ross, "Sound and Vision ," Alex Ross: The Rest Is Noise, June 27, 2005,.

Figure 2.2. “Vessels.” mm. 1-29



Source: Phillip Glass, “Vessels,” in Koyaanisqatsi: Orchestra Version (New York, NY: Dunvagen Music Publishers, Inc., 1982), pp. 17-23.

The film frequently features imagery of cars driving on large highways and are occasionally dramatized with timelapse or slow-motion shots.[39] Beyond the obvious motion of transportation, there is additional motion such as heat rising off the tarmac as seen in Figure 2.3. The swirling and rising motion of the heat plays into the oscillating, weightless, and impressionistic feeling of the music. Footage of time-lapsed clouds on window panes also provides a similar feeling of floating and motion.

The textures, rhythms, and ranges used throughout this composition create an impressionistic feeling and highlight that feeling of weightlessness and motion captured in the cinematography. Ultimately, I sought to incorporate similar textures and rhythmic vitality within my own unaccompanied film score.

Figure 2.3. Heat rising on the tarmac

Source: 1 Reggio, Godfrey, director. Koyaanisqatsi. Zoetrope, 1982. 1 hr., 26 min.

[39] Guest, Haden, Godfrey Reggio, and Phillip Glass. A Conversation With Godfrey Reggio And Philip Glass. Other. *Youtube*, October 8, 2019.

SWISS ARMY MAN (2016)

Swiss Army Man, directed by Dan Kwan and Daniel Scheinert, is a survivalist drama-comedy about a man who uses a dead body as a tool kit to make his way home. The film's story is rather unconventional and allows for experimentation throughout, especially within the film's score, written by Andy Hull and Robert McDowell. Dan Kwan had this to say about the score,

> We told them you can do nothing but voices and hitting your body, smacking your face, hitting sticks and leaves, and things like that, that is your pallet and that is what you can use, but we don't want it to sound like college a cappella… we told them to, you know, yell so much that their throats got raspy, we wanted them to sound drunk… up until the end when sort of the real world seeps into their fantasy and into their magical Eden. We wanted to bring in more traditional score to sort of make you feel that transition… it just felt like a really fun way to use the music to narratively push the film forward.[40]

In addition to a large amount of unaccompanied singing, timbres, textures, and body percussion all contribute to the uniqueness of this score.

Like *The Gallant Hours,* the choral writing of *Swiss Army Man* interacts with dialogue often. To gain a larger perspective of how these two interact, I chose to analyze their relationship throughout the film. The score incorporates the largest amount of unaccompanied singing with dialogue. 56% of the score uses a texture other than homophony including polyphony, arpeggiations, and accompaniment textures. All the singing in this score is accomplished with male vocals; however, the composers

[40] Dan Kwan and Daniel Scheinert. Academy Conversations: Swiss Army Man. Other. *YouTube*. Oscars, July 18, 2016.

incorporate falsetto throughout, sometimes with extreme ranges. I enjoyed the variety of textures in this score and sought to incorporate a variety within my own score (discussed in chapter four).

To inform my own writing, I chose to analyze a few sections of the score using transcriptions. Immediately, the opening suggests an unconventional vocal score. Hank, the main character, sings the film's theme (Figure 2.4) on camera. The directors described the use of vocal music as a symbol for melodies within the main character's mind.[41] As Hank sings diegetic, his singing slowly transforms to non-diegetic. The solo incorporates scooping, intentionally bad intonation, breathiness, and raspiness. Unique timbres are used throughout the film along with body percussion. I found the use of timbre to be refreshing, and I discuss its influence on my score in chapter four.

Figure 2.4. Track 1: "Intro Song." 0:00 - 0:17

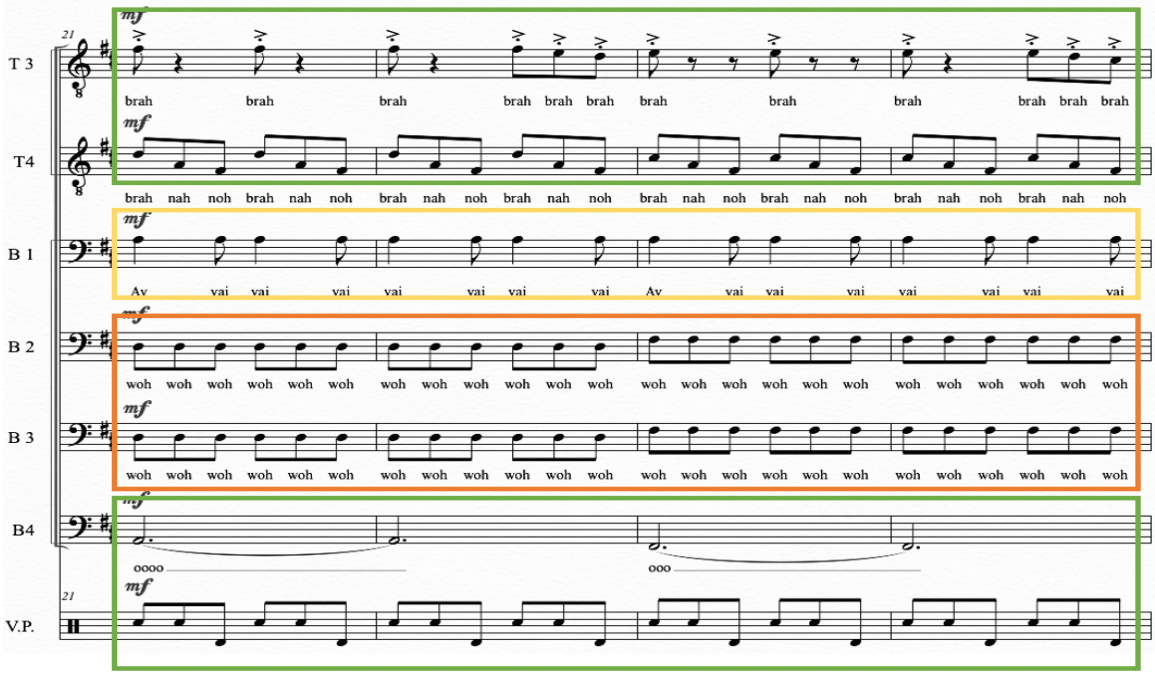
Source: Transcription provided by the author using the original motion picture soundtrack.

I found the diverse use of textures (polyphony, homophony, monophony, arpeggiations, and accompaniment textures), insightful. What I appreciate most about the

[41] Dan Kwan and Daniel Scheinert. Academy Conversations: Swiss Army Man. Other. *YouTube*. Oscars, July 18, 2016.

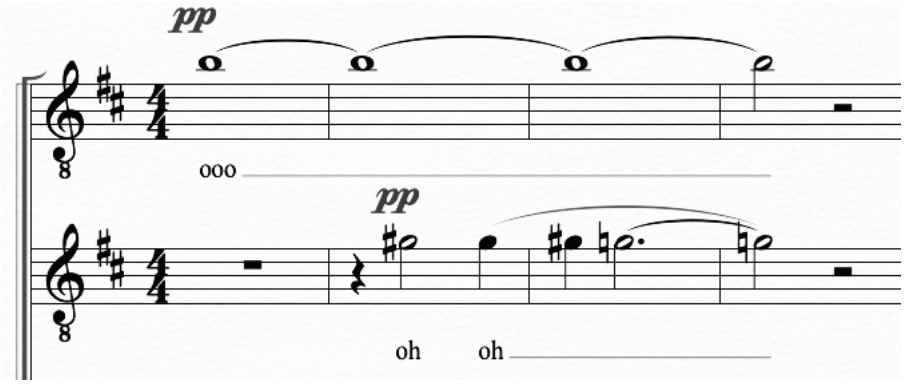
decision to incorporate multiple textures is that each creates rhythmic interest rather than monotony. For example, Glass's score uses a minimalist approach with constant oscillating eighth notes. Had he incorporated a larger variety of texture, his musical imagery may have felt more impactful. Personally, I felt a larger appreciation for the rhythmically energetic textures of *Swiss Army Man* because the score creates musical contrast with slower and simplistic moments. One example of this would be the contrast between Figures 2.5 and 2.6. Figure 2.5 illustrates an example of the unusual energetic accompaniment in this film, with the first layer marked in orange, followed by the arpeggiated tenor parts (in yellow and green). This is then contrasted by a slower contrapuntal texture in Figure 2.6.

Figure 2.5. Track 1: "Intro Song." 0:44-0:54



Source: Transcription provided by the author using the original motion picture soundtrack.

Figure 2.6. Track 4: "Hank Drinks." 0:00-0:18

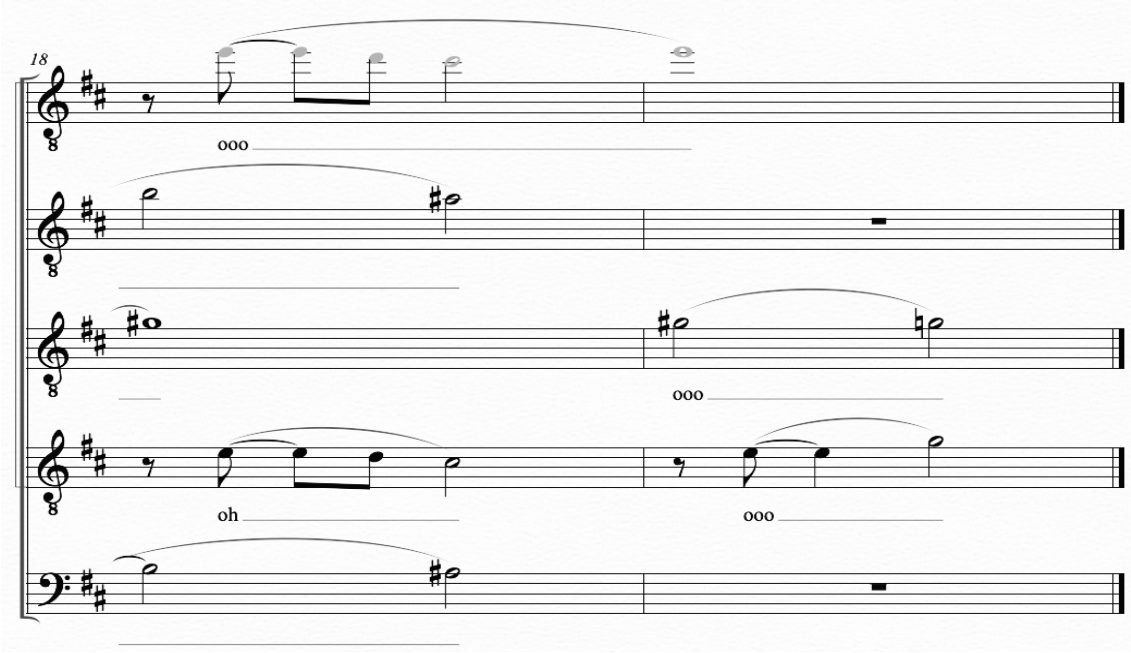


Source: Transcription provided by the author using the original motion picture soundtrack.

Unlike *The Gallant Hours* (1960), which was released in mono, *Swiss Army Many* was released in Dolby Atmos allowing for greater sound design and sonic organization. Often the vocals are panned to an area of the mix that does not conflict with the dialogue of the film. An example of this occurs at 00:12:35 of the film when Hank is dragging Manny's dead body on the beach.[42] The dialogue is panned to the left side of the mix while the choral parts, which contain soft lyrics and portamentos, are mixed to the right side. Although the choral parts are unique and interesting, the effective panning keeps the dialogue separated and clear for the audience. This film demonstrates how sound design can contribute to a successful underscore.

[42] Daniel Kwan and Daniel Scheinert, directors. *Swiss Army Man.* 00:12:35.

Figure 2.7. Track 4: "Hank Drinks." 1:17-1:27



Source: Transcription provided by the author using the original motion picture soundtrack.

Figure 2.7 is a transcription from the track “Hank Drinks.” This is a scene in which Hank drinks water that magically flows from Manny’s mouth. A mystical unworldly feel is depicted with borrowed harmonies and singing that appear to be microtonal. Likewise, microtonal singing is found in the lower vocal part of Figure 2.6. The composition is in B minor but provides an ethereal Dorian feel, similar to Hans Zimmer’s score for *Angels and Demons* (2012).

Although there is a clear progression for unaccompanied choral music and its use since the 1960s, there has yet to be an unaccompanied film score. *Swiss Army Man* (2016) was the closest of the four films to have an entirely unaccompanied score

followed by *The Gallant Hours* (1960). It is also worth mentioning that *Swiss Army Man* is the only score (of the four discussed in this chapter) that was not an anomaly for other reasons (musicians strike, thrown-out score, and art film with no dialogue). Additionally, each of the four films sheds light upon the potential of unaccompanied choral music through timbre, texture, and harmony and informed my compositional decisions (discussed in chapter four).

CHAPTER 3 – *DOWNSTREAM* (FILM SCORE)

Performance Notes:

Brightness and Darkness
How bright or dark a sound should be marked with a carrot, plus(es), or minus(es) in the lyrics. That marking should carry through until stated otherwise.

Very Bright = (++)
Bright = (+)
Neutral = (n)
Dark = (-)
Very Dark = (d)

Arrows
Arrows are used to show gradual transformations of vowels as well as the brilliance or darkness of vocal sound. If an arrow spans across a few words such as measure 12 of the Alto 2 and Tenor 1 lines, each of those words should gradually modify until reaching the end result.

General Notes
Unless stated otherwise, all consonances should not be over-enunciated. Consonances should be light and only used to give a speckle of color to rhythms and overall textures.

All "rrr" markings should be performed with the shape of an "ooo" vowel at the lips.

Pulse and Tempo
Absolutely no rubato should be in this score. Tempos should be followed strictly. Vocalists should anticipate the pulse from the conductor and should never be slightly off the beat.

Keeping the film's dialog in mind

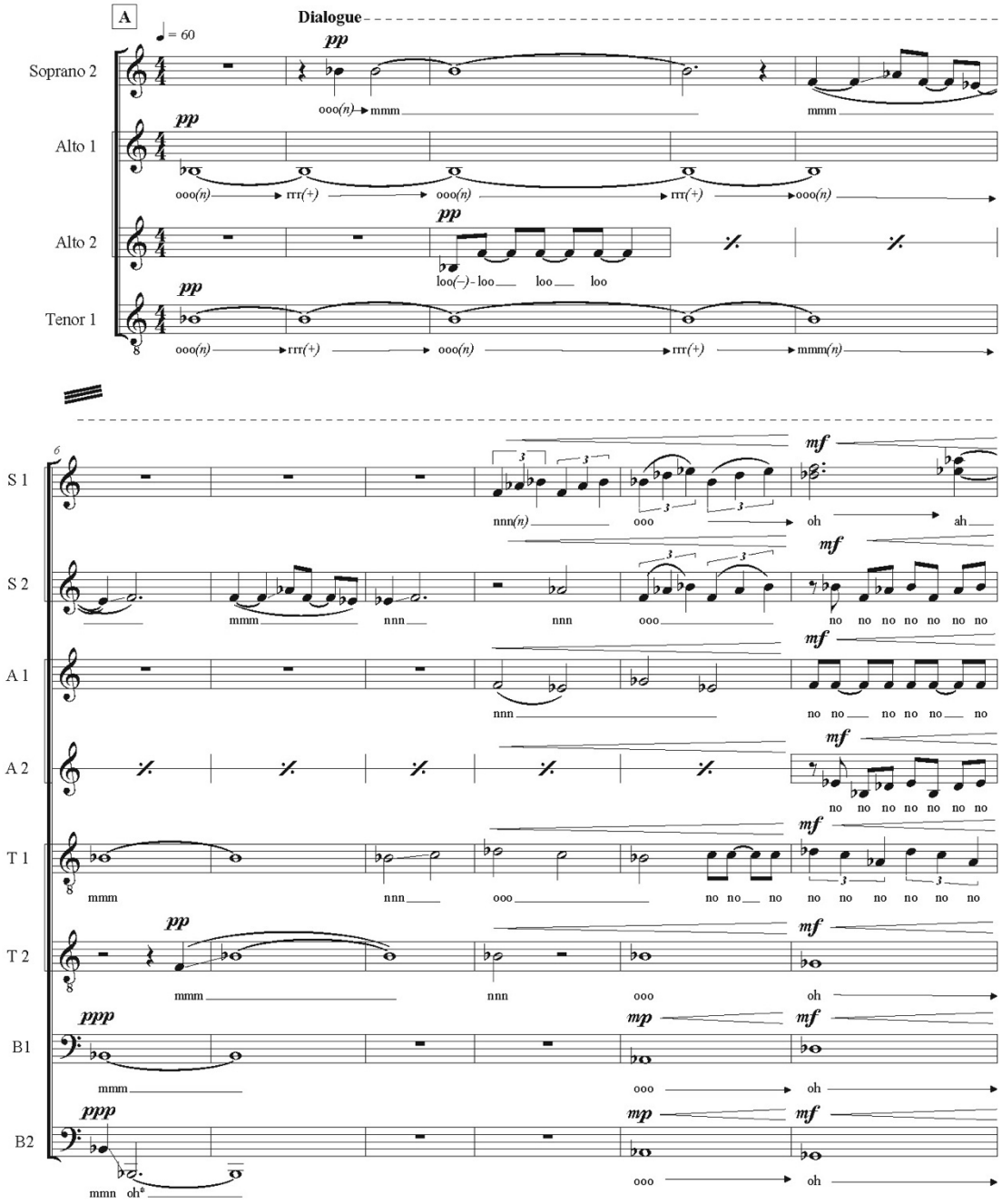
All letters are marked in the score. Vocalists need to take note of where dialog is happening and should try to be subtly expressive in these moments to not distract from the film's dialog (especially moving canonic lines). Additionally, vibrato should be kept minimal for moments that have dialog. Below, letters that are bold contain dialog (specific locations of dialog are marked more accurately in the score with dialog and a dotted line).

A = Intro of film. Newscasters talk about water quality and litter in interviews.
B = Title screen and drone shot of expansive sky and water.
C = No dialog, film transitions with tranquil canoeing shots.
D = Dialog introducing the various waterways being discussed in this film and how everything is connected.
E = B-roll of creeks with small amounts of trash.
F = Dialog about wind and rain's impact.
G = Short transition of highway and cars driving in a mysterious fog.
H = transition of time lapsed cup being swept away by flooding water.
I = dialog about large items and dumping.
J = B-roll Shots of larger items
K = Drone shots of Eagles and expansive lakes
L = Interview with river authority about the larger picture of pollution.
M = Dialog about e-coli
N = B-roll of wildlife and pollution
O = Dialog about how small actions can impact the larger world
P = Dialog about Keep Nacogdoches Beautiful
Q = transition to timelapse water and then dialog about water quality testing
R = Dialog about the world being a beautiful place and shots of nature
S = Colorful wide-angle shots and sunset shot
T = Dialog about how you can make the world a better place
U = Wide-angle and expansive shots of Sam Rayburn Lake.
V = Dialog about how we want our future generations to enjoy the beauty of this earth.

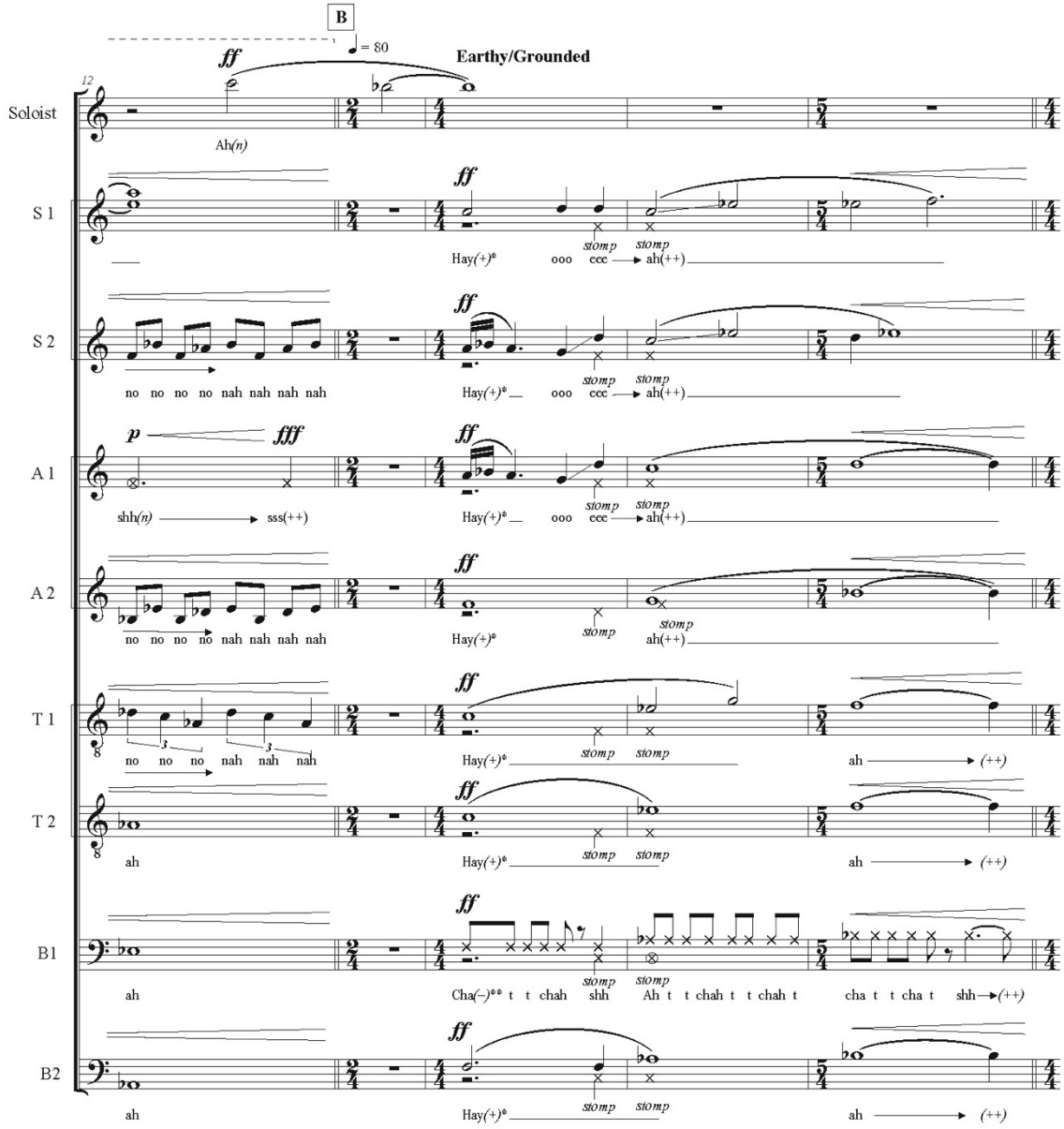
Downstream

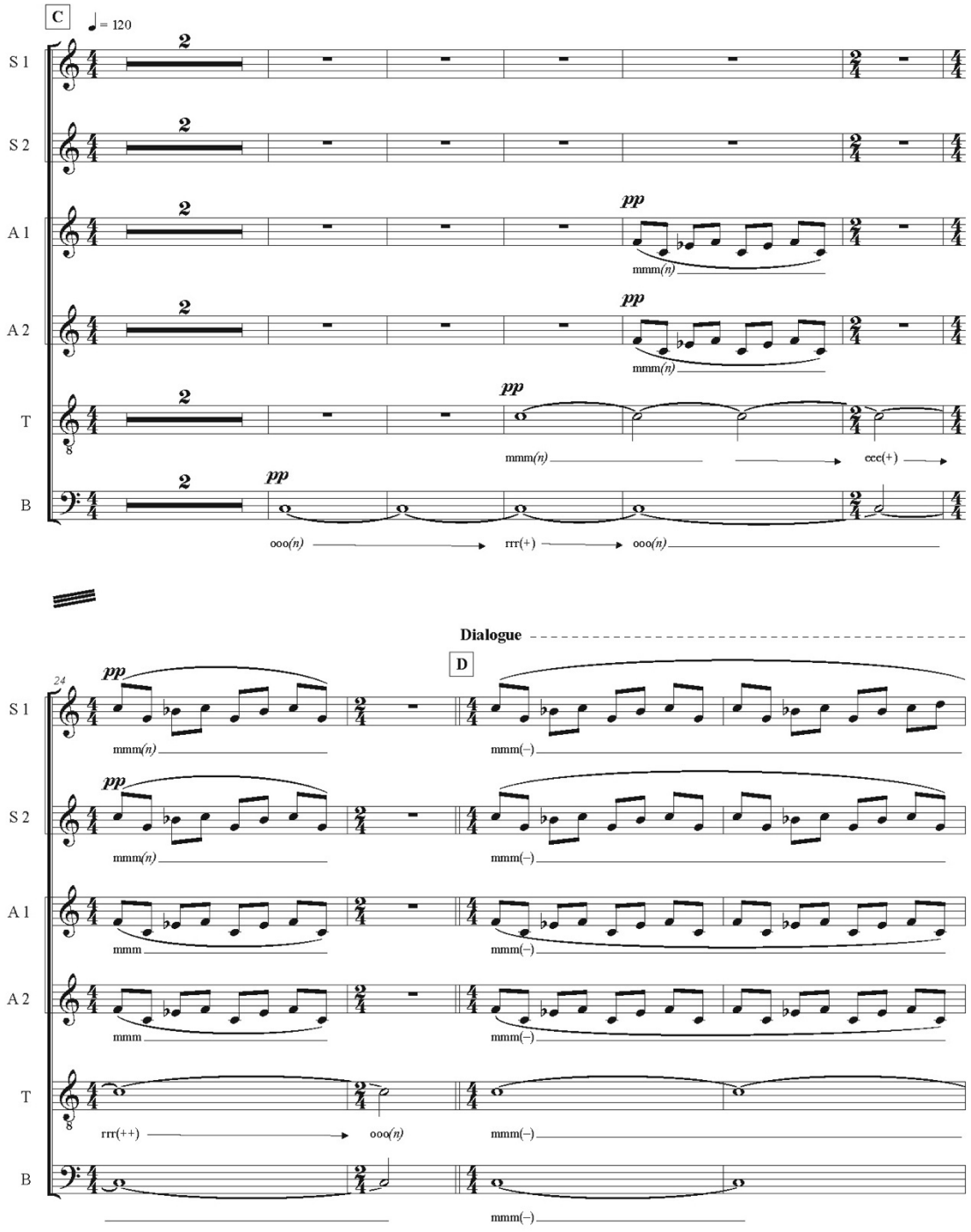
for SSAATTBB a cappella
duration: 10:21

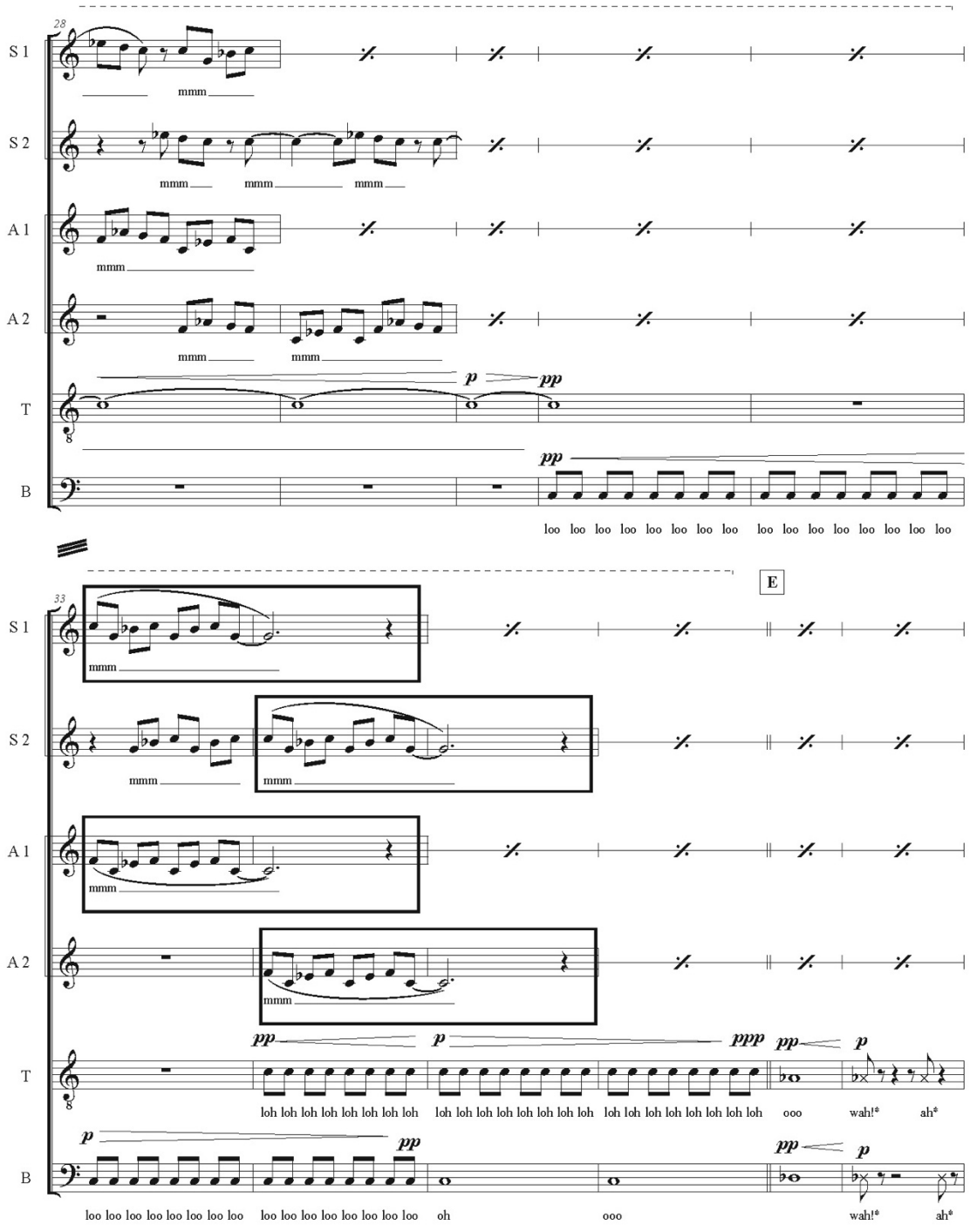
Music and Film by:
Zachary J. Moore

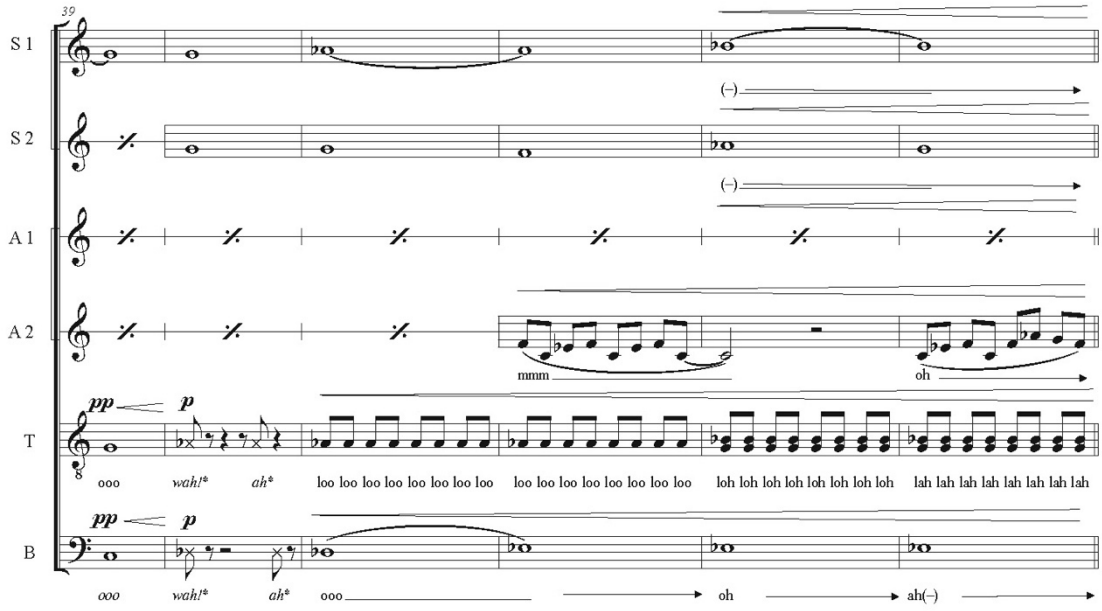


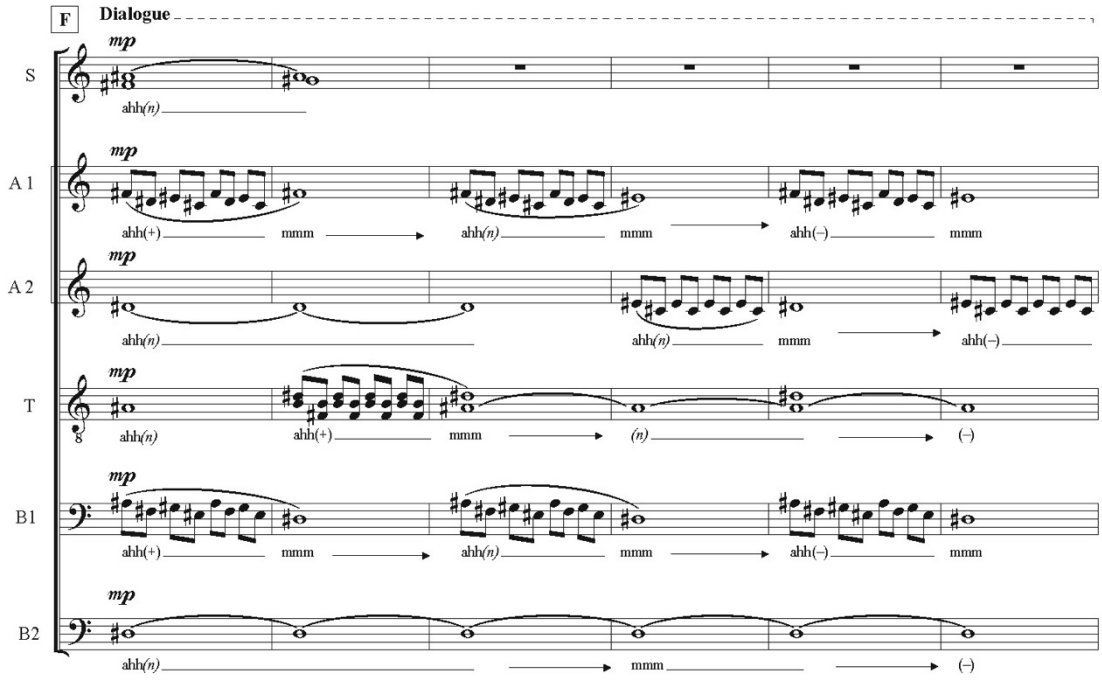
* = light vocal fry on marked pitch

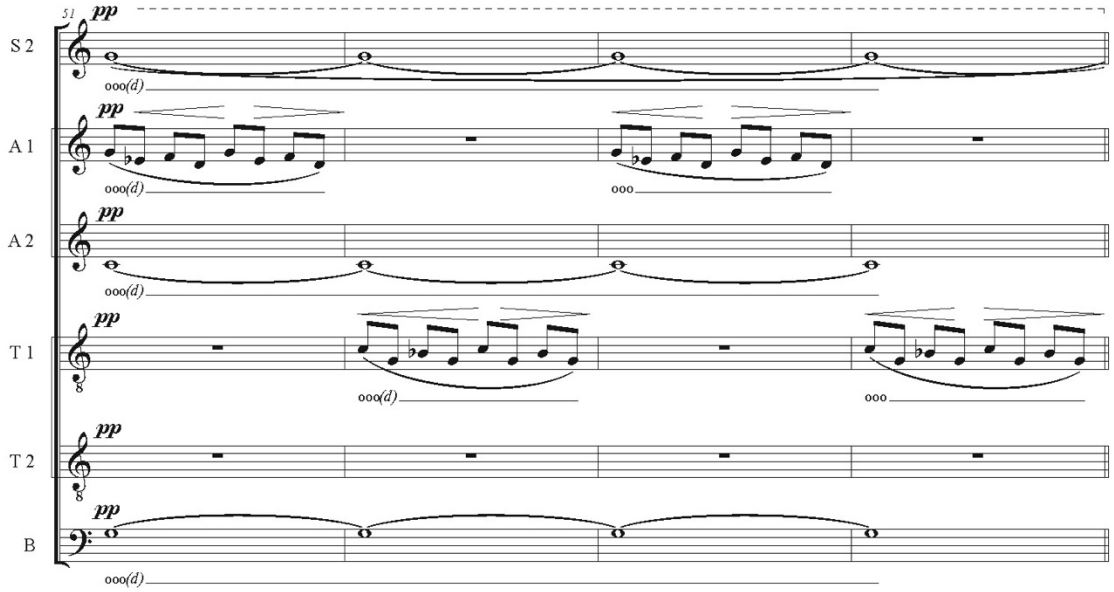

B
♩ = 80
Earthy/Grounded
Soloist
Ah(n)
S 1
Hay(+)* ooo ccc ah(++)
S 2
no no no no nah nah nah nah
A 1
shh(n) sss(++)
A 2
no no no no nah nah nah nah
T 1
no no no nah nah nah
ah (++)
T 2
ah
B1
Cha(–)** t t chah shh Ah t t chah t t chah t cha t t cha t shh (++)
B2
stomp

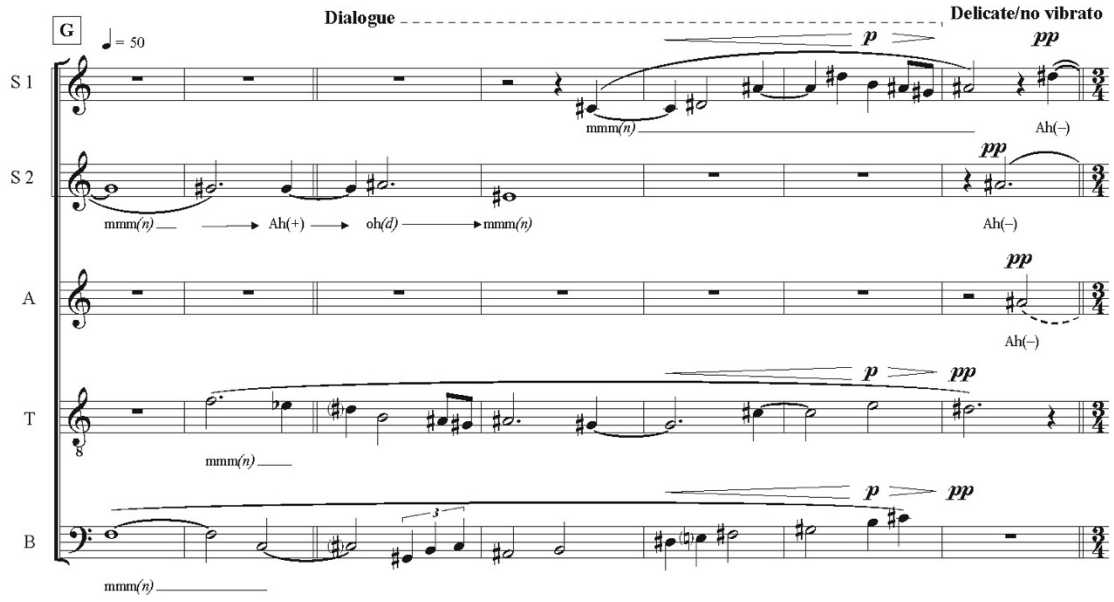

C
♩ = 120
S 1
S 2
A 1
A 2
T
B
2
pp
mmm(n)
ccc(+)
ooo(n)
rrr(+)
ooo(n)
Dialogue
D
24
mmm(–)
mmm
rrr(++)
ooo(n)

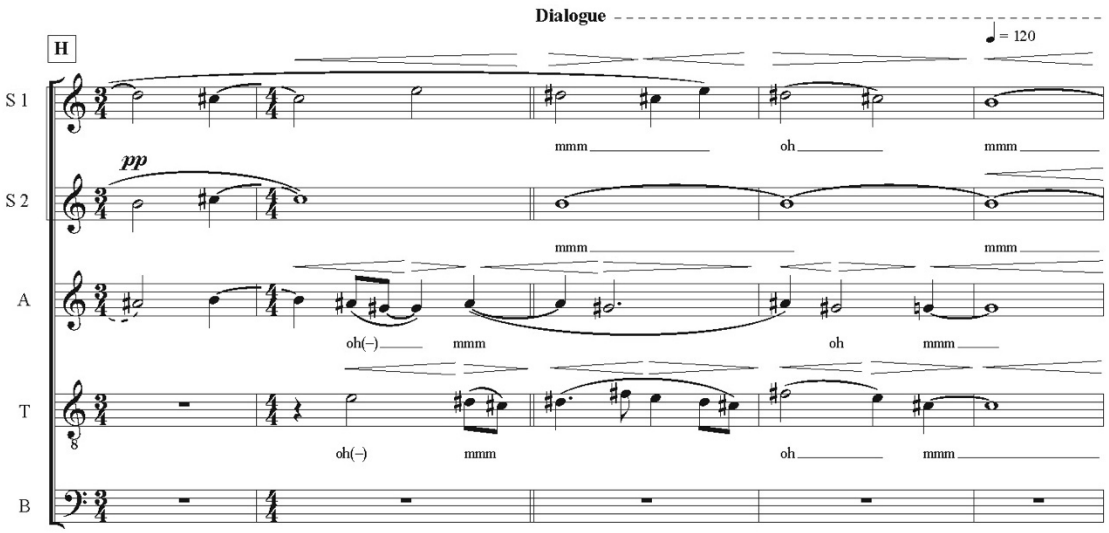

28
S 1
S 2
A 1
A 2
T
B
mmm
p
pp
loo loo loo loo loo loo loo loo loo loo loo loo loo loo loo loo
E
33
ppp
loh loh loh loh loh loh loh loh loh loh loh loh loh loh loh loh loh loh loh loh
ooo
wah!*
ah*
oh

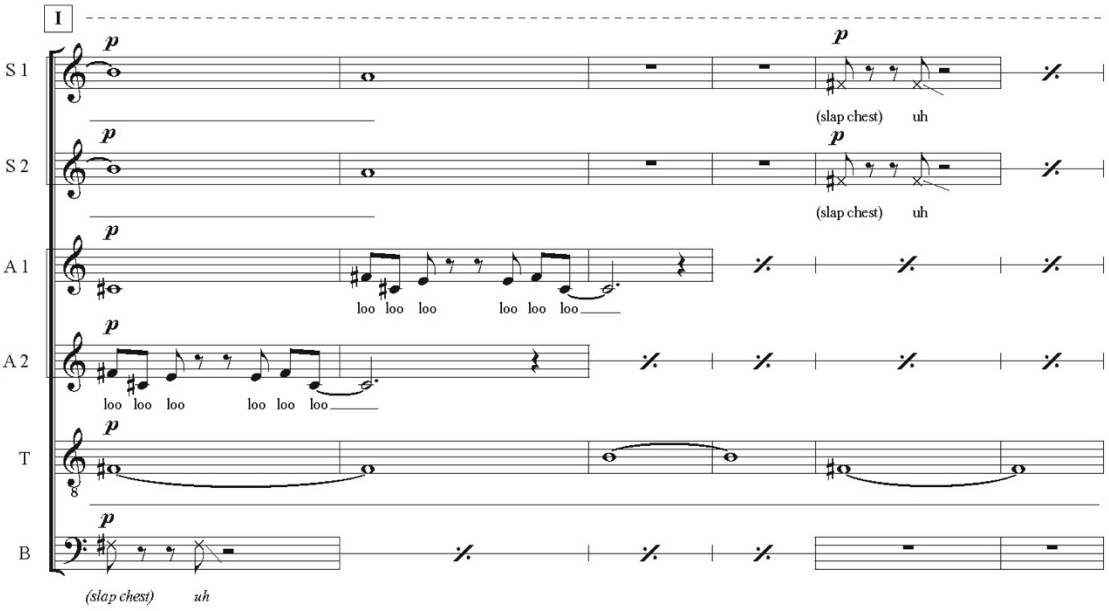

39
S 1
S 2
A 1
A 2
T
B
(–)
(–)
mmm
oh
pp
p
ooo
wah!*
ah*
loo loo loo loo loo loo loo loo
loo loo loo loo loo loo loo loo
loh loh loh loh loh loh loh loh
lah lah lah lah lah lah lah lah
pp
p
ooo
wah!*
ah*
ooo
oh
ah(–)

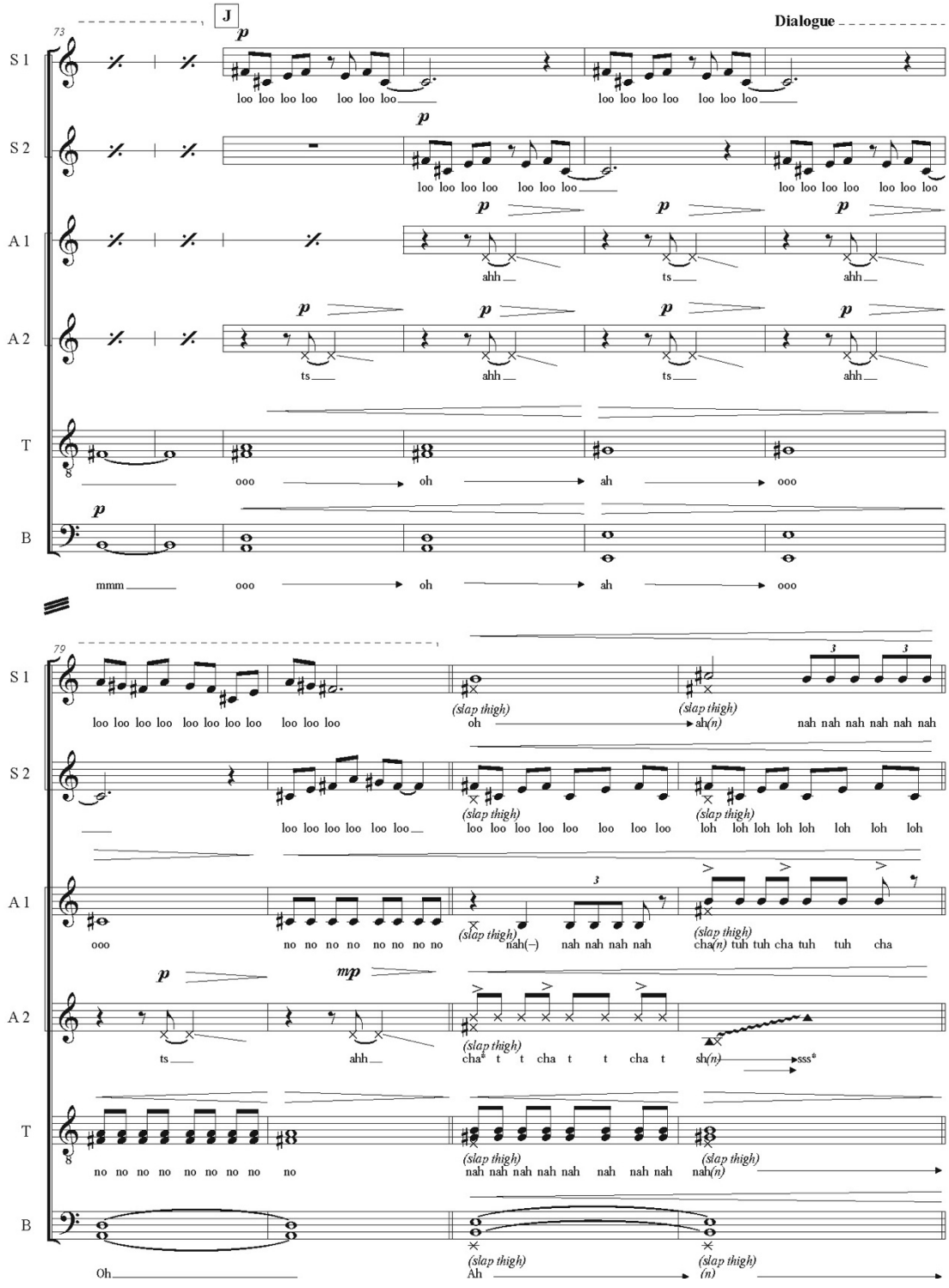

F
Dialogue
S
A 1
A 2
T
B1
B2
mp
ahh(n)
ahh(+)
mmm
ahh(n)
mmm
ahh(–)
mmm
ahh(n)
ahh(n)
mmm
ahh(–)
ahh(n)
ahh(+)
mmm
(n)
(–)
ahh(+)
mmm
ahh(n)
mmm
ahh(–)
mmm
ahh(n)
mmm
(–)

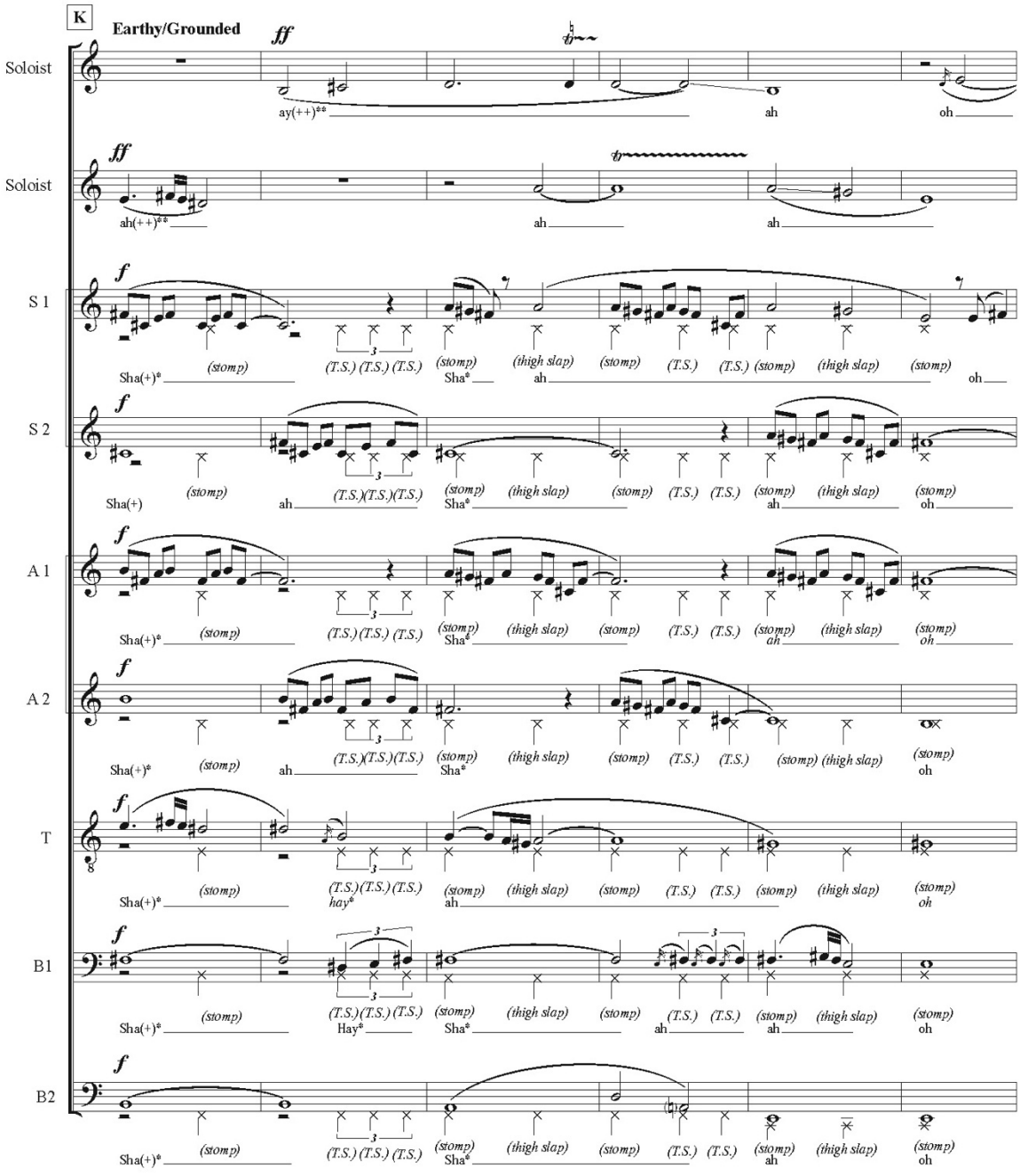

51
pp
S 2
ooo(d)
A 1
ooo
A 2
T 1
T 2
B

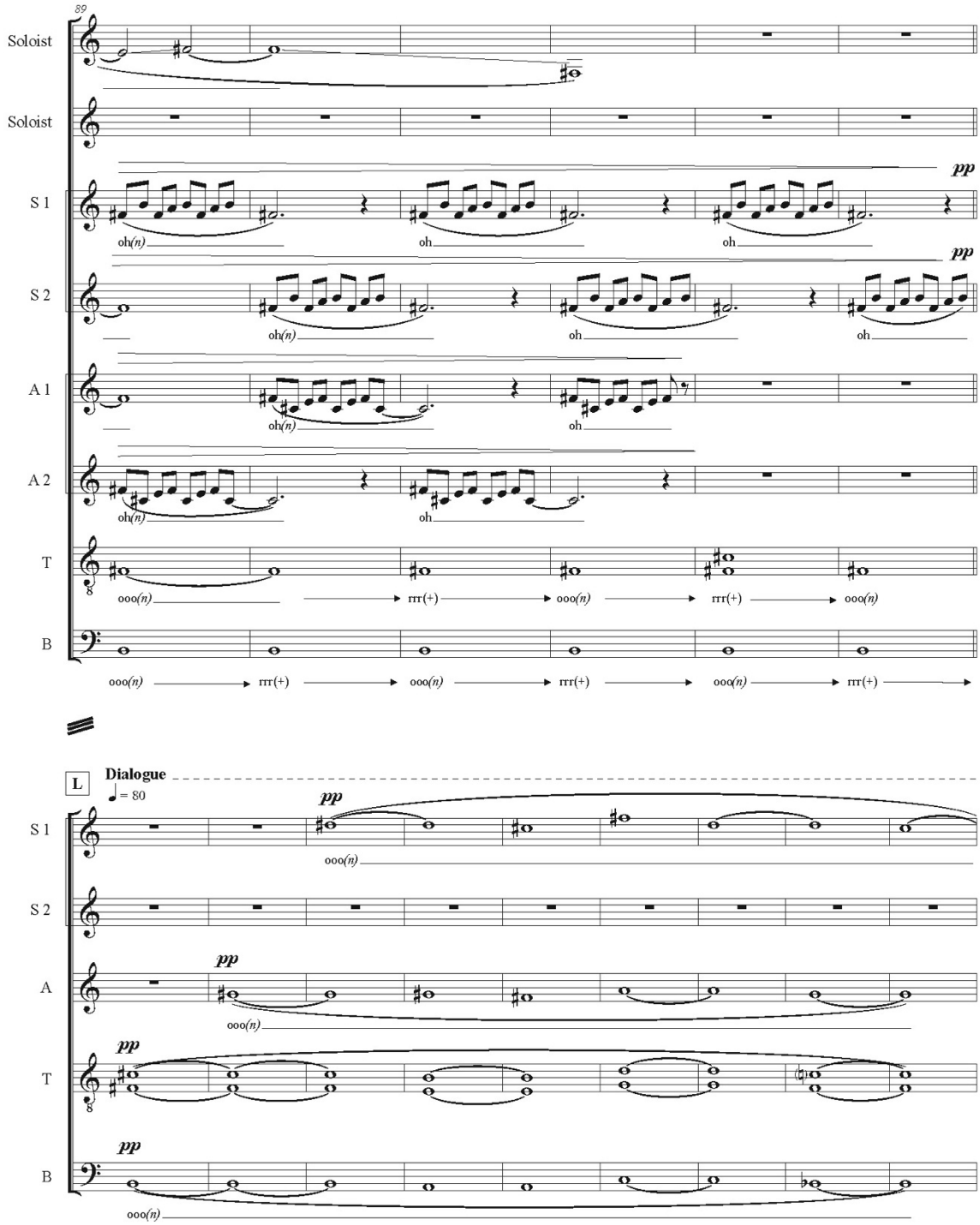

G
♩ = 50
Dialogue
Delicate/no vibrato
p
pp
S 1
mmm(n)
Ah(–)
S 2
Ah(+)
oh(d)
A
T
B

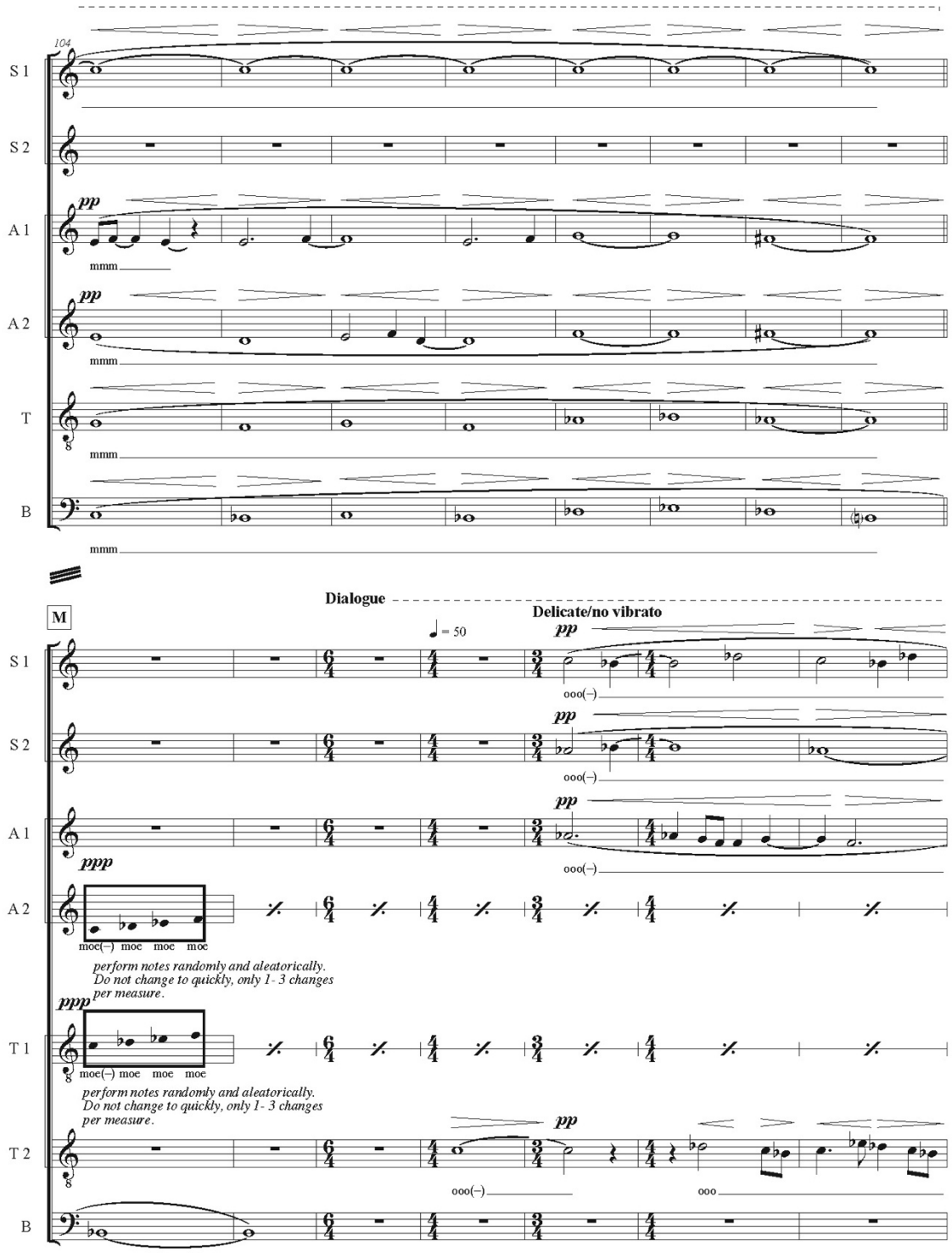

Dialogue
H
♩ = 120
S 1
S 2
A
T
B
pp
mmm
oh
mmm
mmm
mmm
oh(–)
mmm
oh
mmm
oh(–)
mmm
oh
mmm

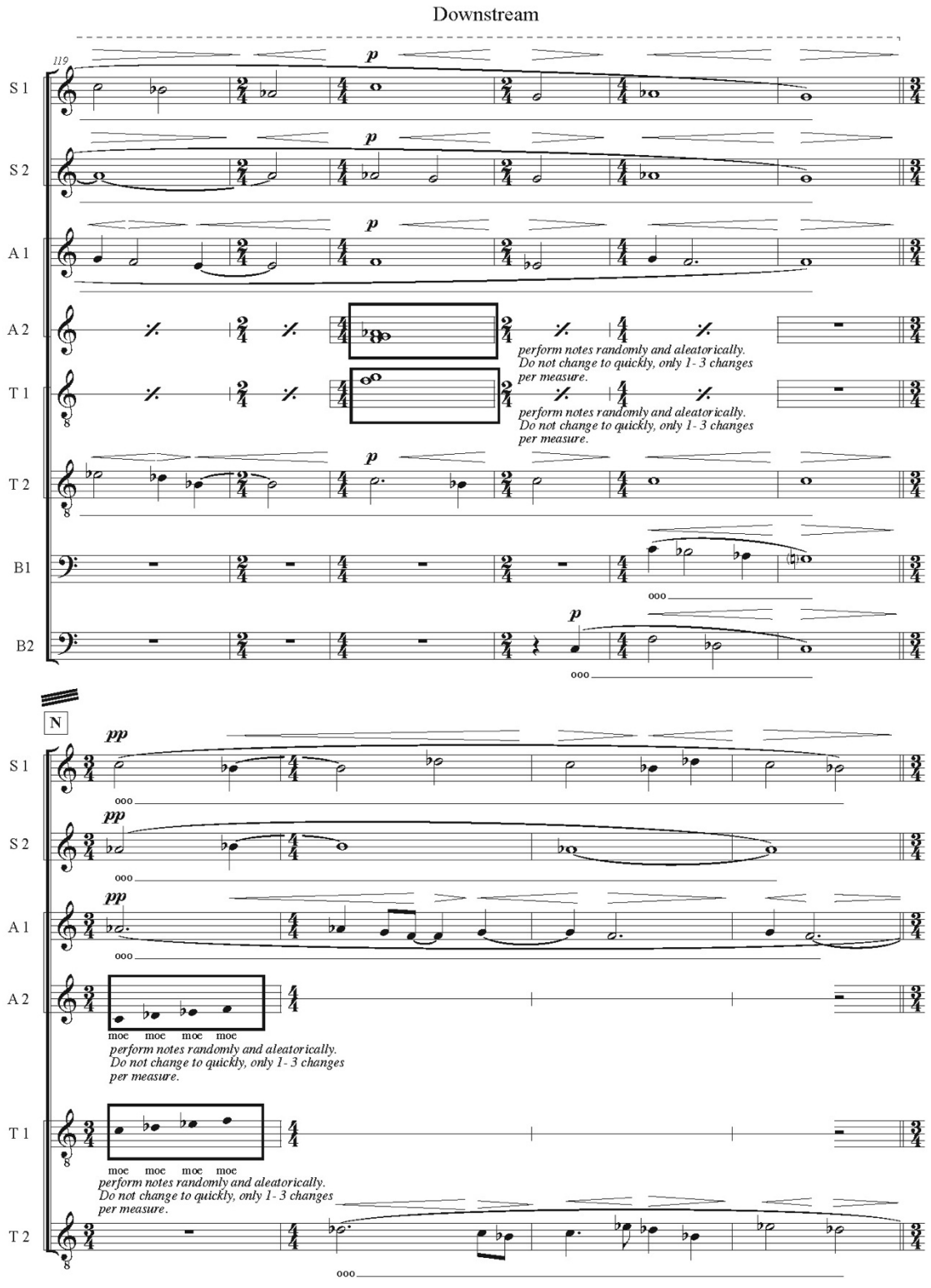

I
S 1
S 2
A 1
A 2
T
B
p
(slap chest)
uh
loo loo loo loo loo loo
(slap chest)
uh

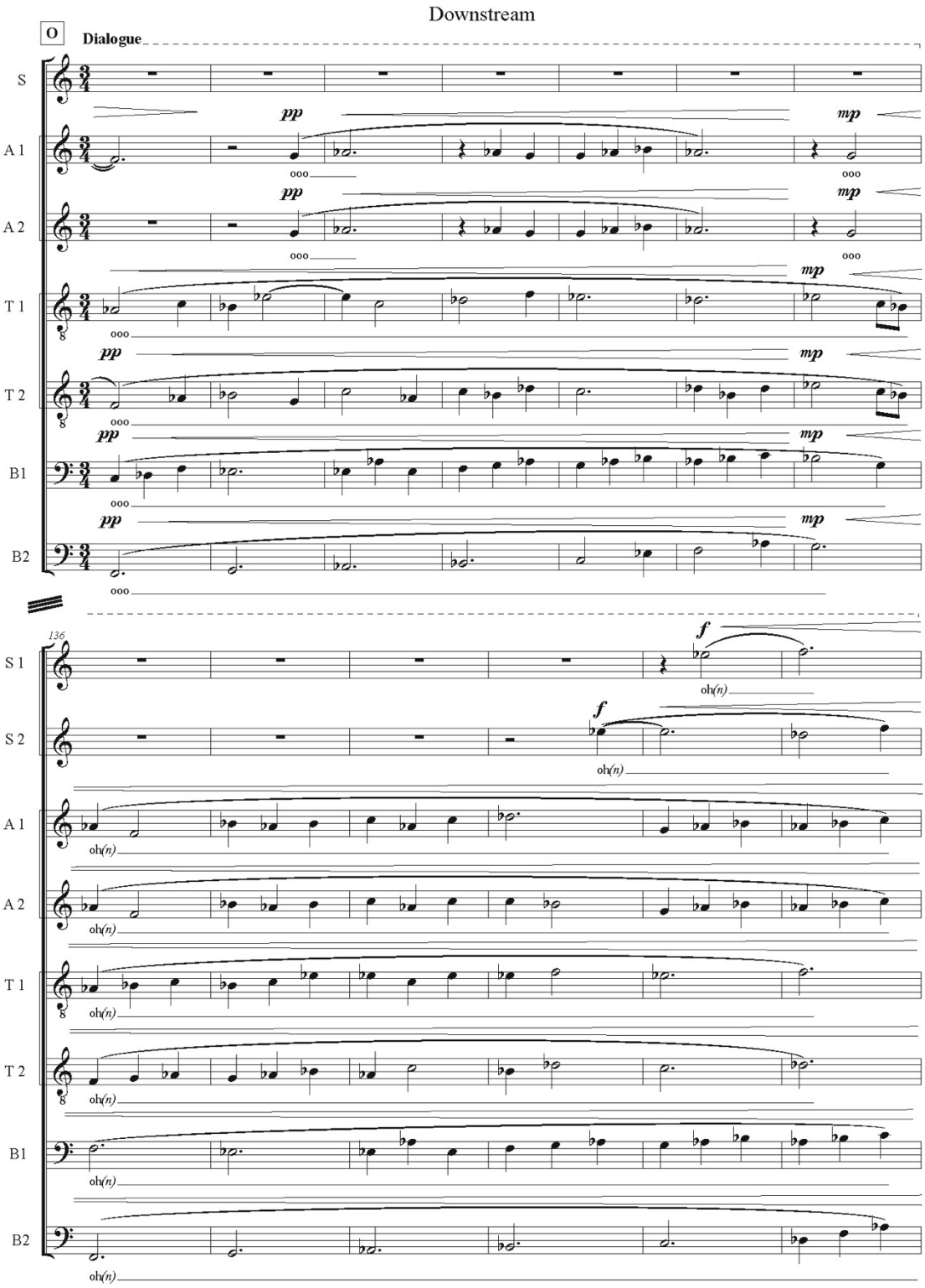

J
Dialogue
73
S 1
S 2
A 1
A 2
T
B
loo loo loo loo loo loo loo
ahh
ts
ooo
oh
ah
mmm
79
(slap thigh)
nah nah nah nah nah nah
loh loh loh loh loh loh loh
no no no no no no no
nah(–)
cha(n) tuh tuh cha tuh tuh cha
cha t t cha t t cha t
sh(n)
sss
Oh
Ah
(n)

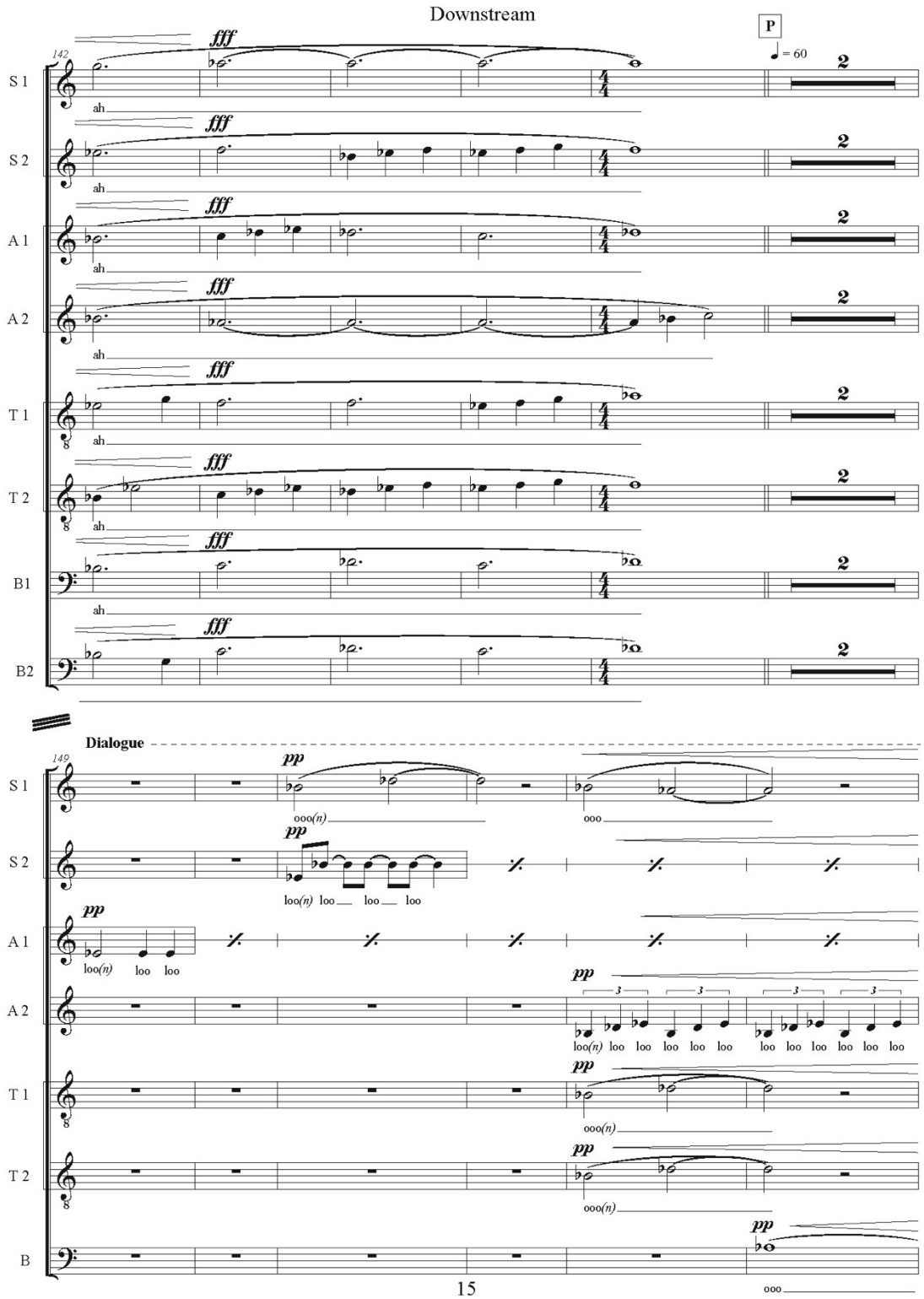

K
Earthy/Grounded
Soloist
Soloist
S 1
S 2
A 1
A 2
T
B1
B2

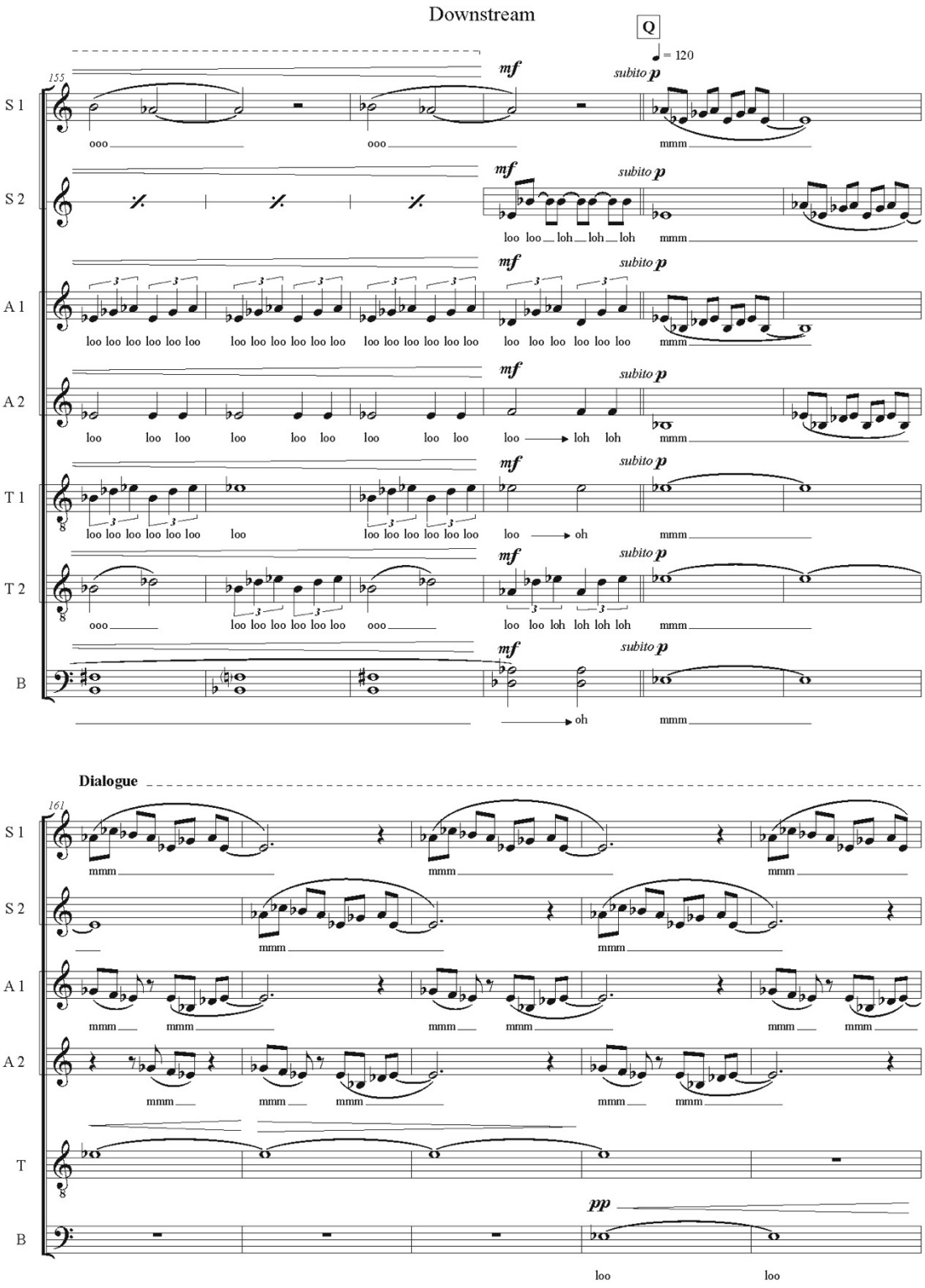

89
Soloist
Soloist
S 1
S 2
A 1
A 2
T
B
pp
oh(n)
oh
ooo(n)
rrr(+)
L
Dialogue
♩= 80
A

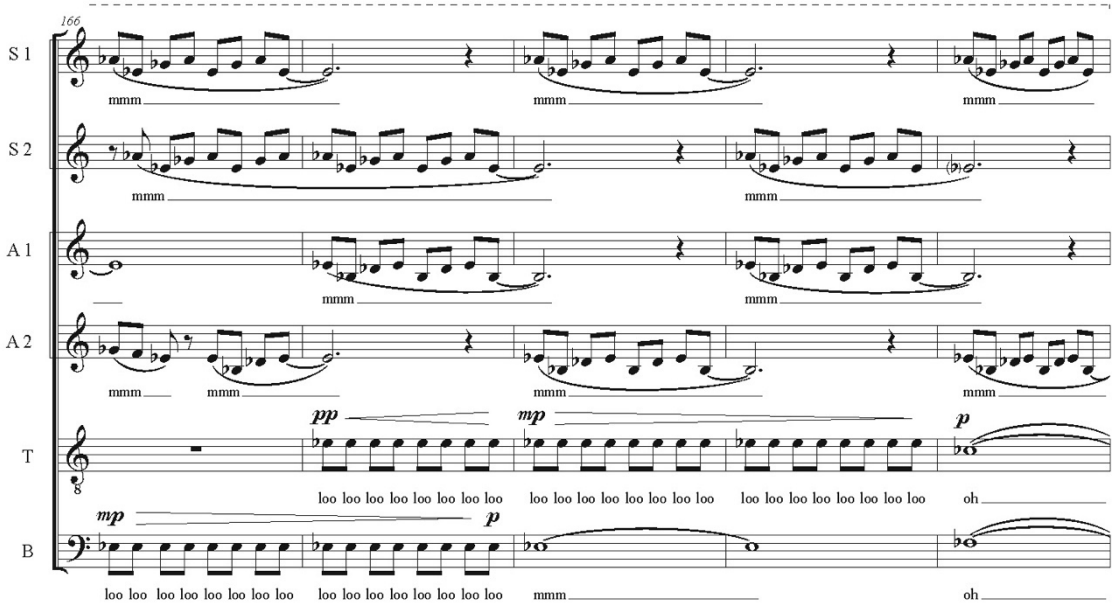

104
S 1
S 2
A 1
A 2
T
B
pp
mmm
Dialogue
M
Delicate/no vibrato
♩ = 50
ooo(–)
ppp
moe(–) moe moe moe
perform notes randomly and aleatorically.
Do not change to quickly, only 1- 3 changes
per measure.
T 1
T 2
ooo

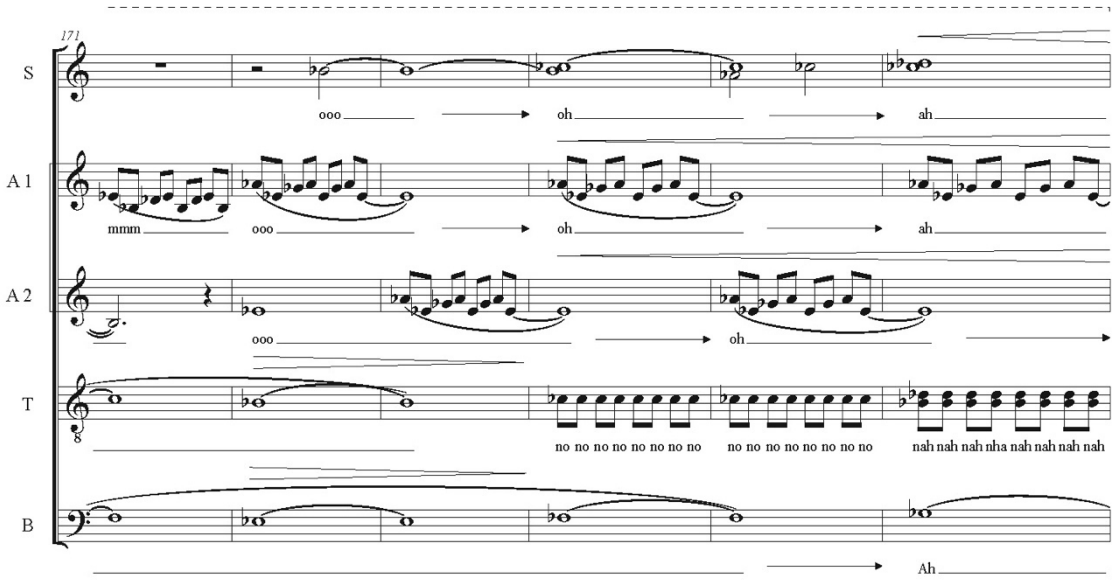

Downstream
119
S 1
S 2
A 1
A 2
T 1
T 2
B1
B2
p
perform notes randomly and aleatorically.
Do not change to quickly, only 1- 3 changes
per measure.
ooo
N
pp
moe moe moe moe

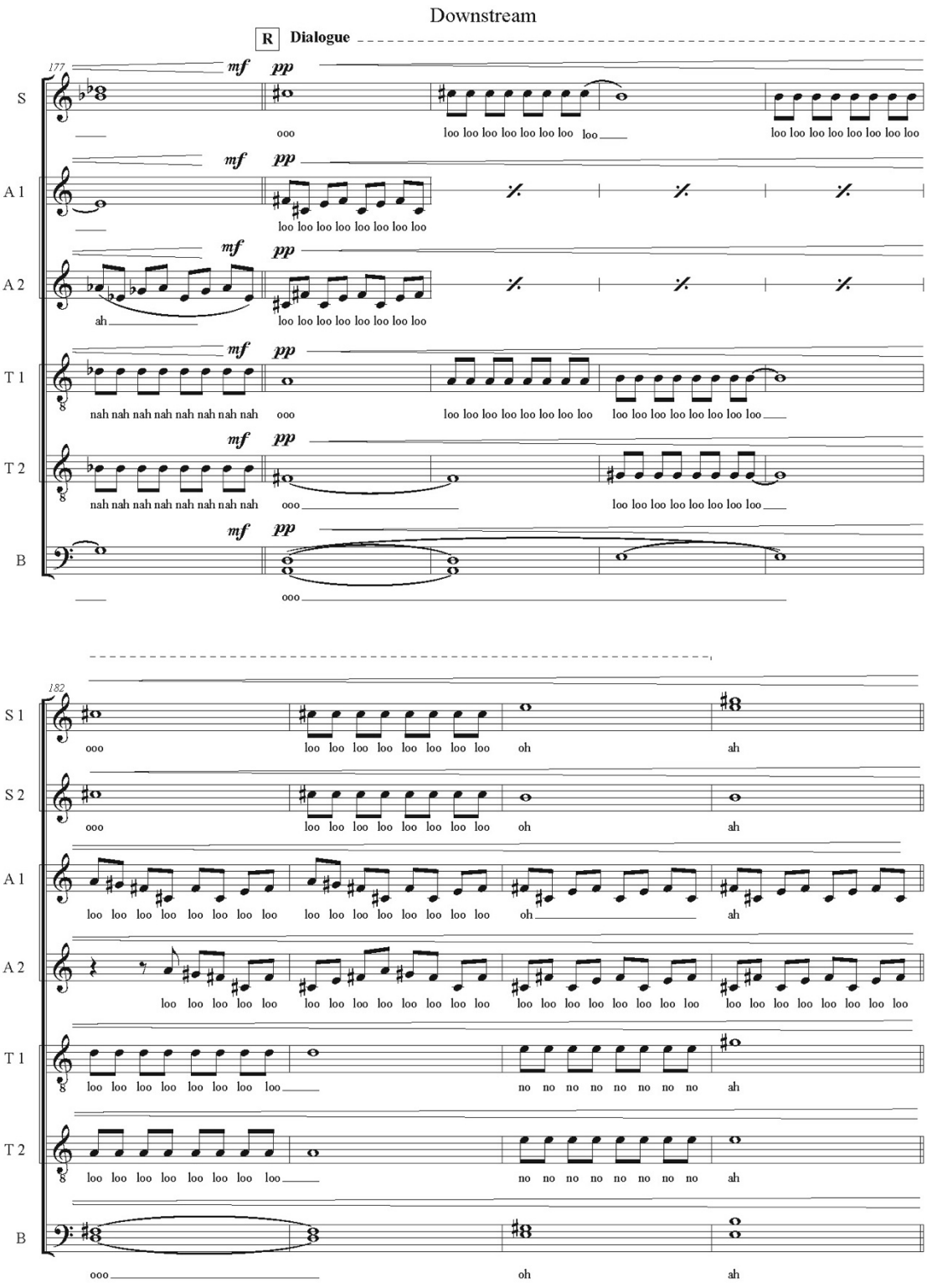

Downstream
O
Dialogue
S
A 1
A 2
T 1
T 2
B1
B2
pp
mp
ooo
136
S 1
S 2
f
oh(n)


Downstream
P
= 60
142
S 1
S 2
A 1
A 2
T 1
T 2
B1
B2
fff
ah
2
Dialogue
149
pp
ooo(n)
ooo
loo(n) loo loo loo
loo(n) loo loo
3
B
15

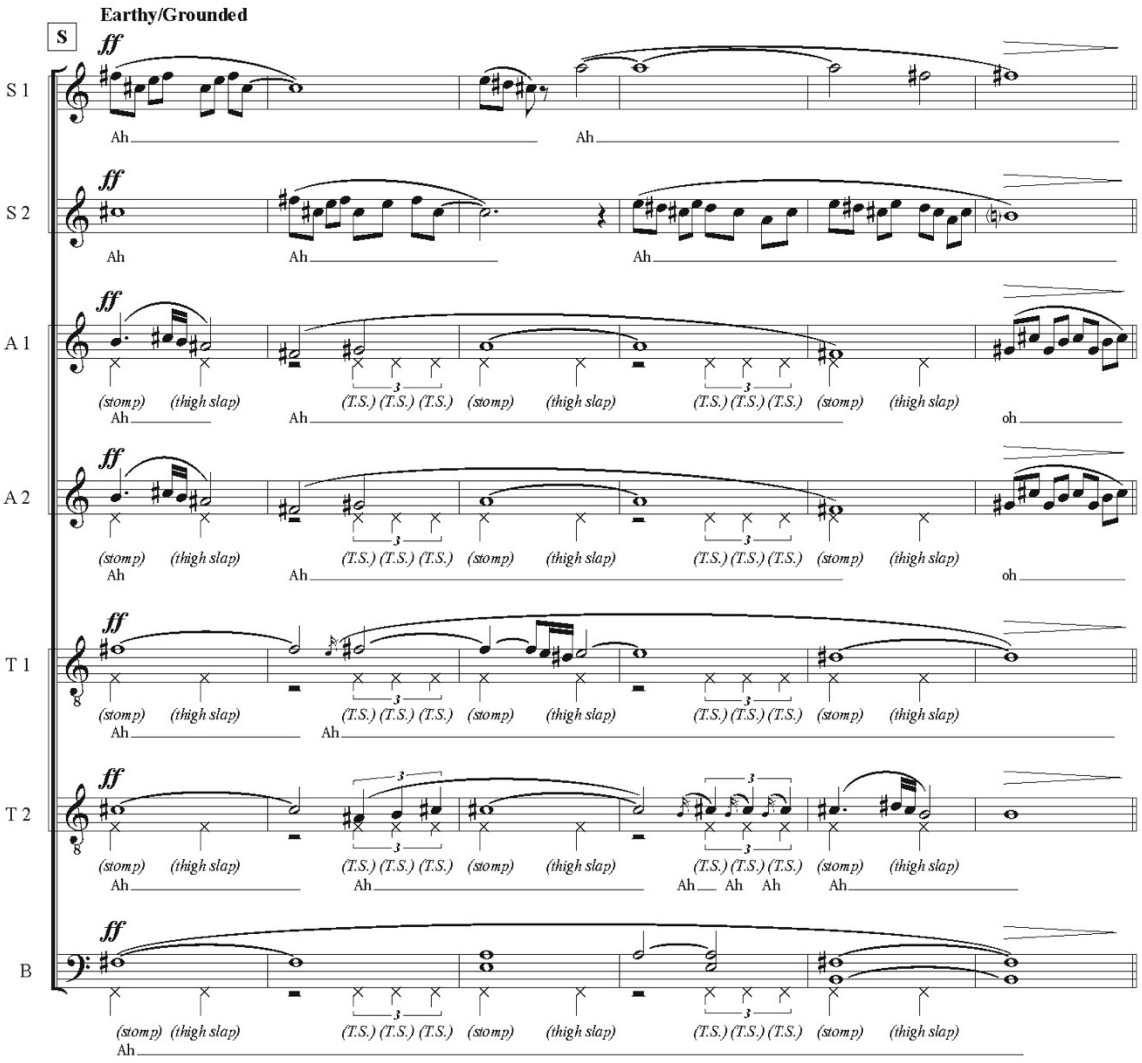

Downstream
Q
♩ = 120
155
S 1
S 2
A 1
A 2
T 1
T 2
B
mf
subito p
ooo
mmm
loo loo loh loh loh
loo loo loo loo loo loo
loo loo loo loo loo
loo loh loh
loo oh
loo loo loh loh loh
oh
Dialogue
161
mmm
pp
loo

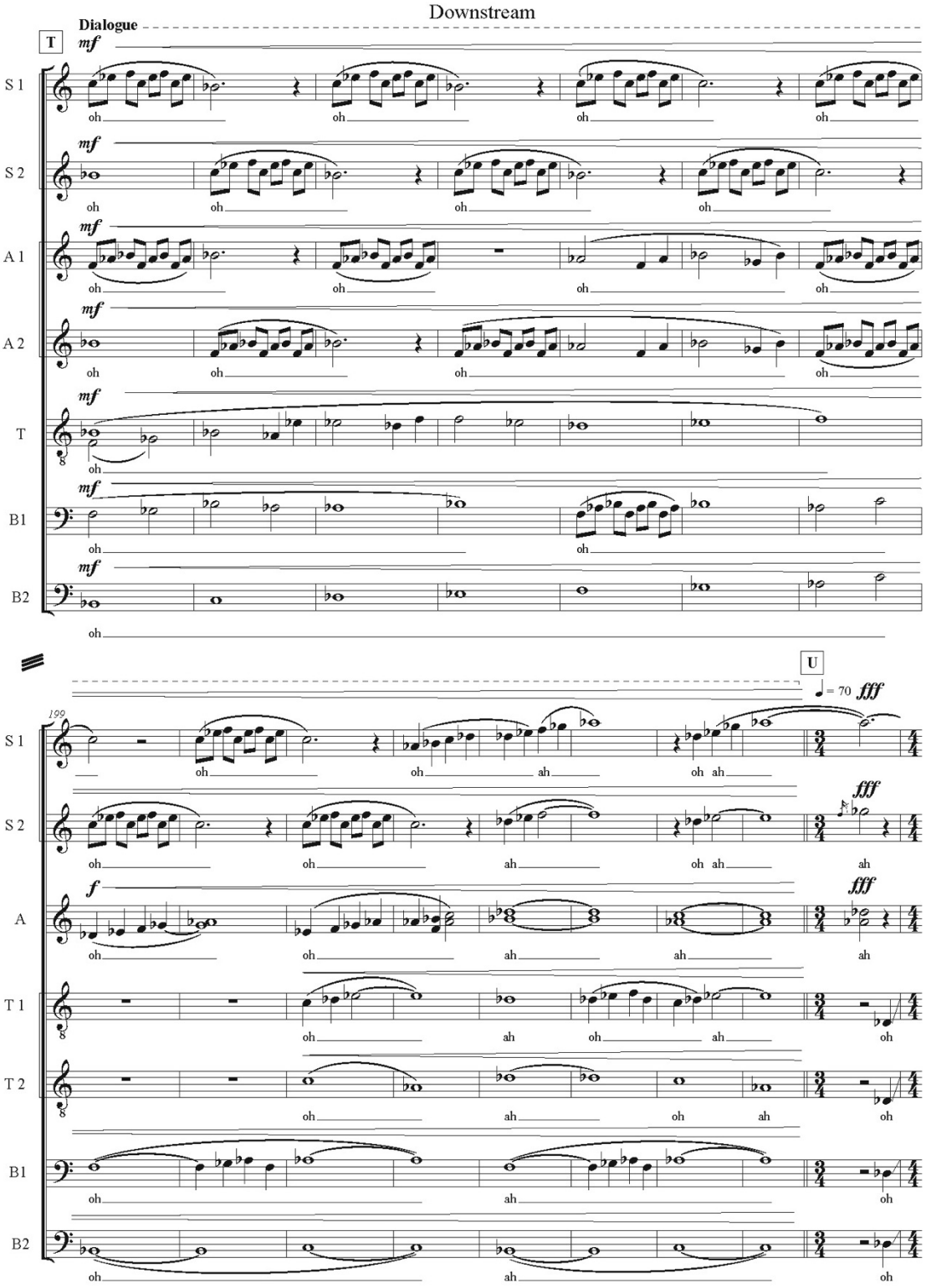

166
S 1
S 2
A 1
A 2
T
B
mmm
pp
mp
p
loo loo loo loo loo loo loo loo
oh

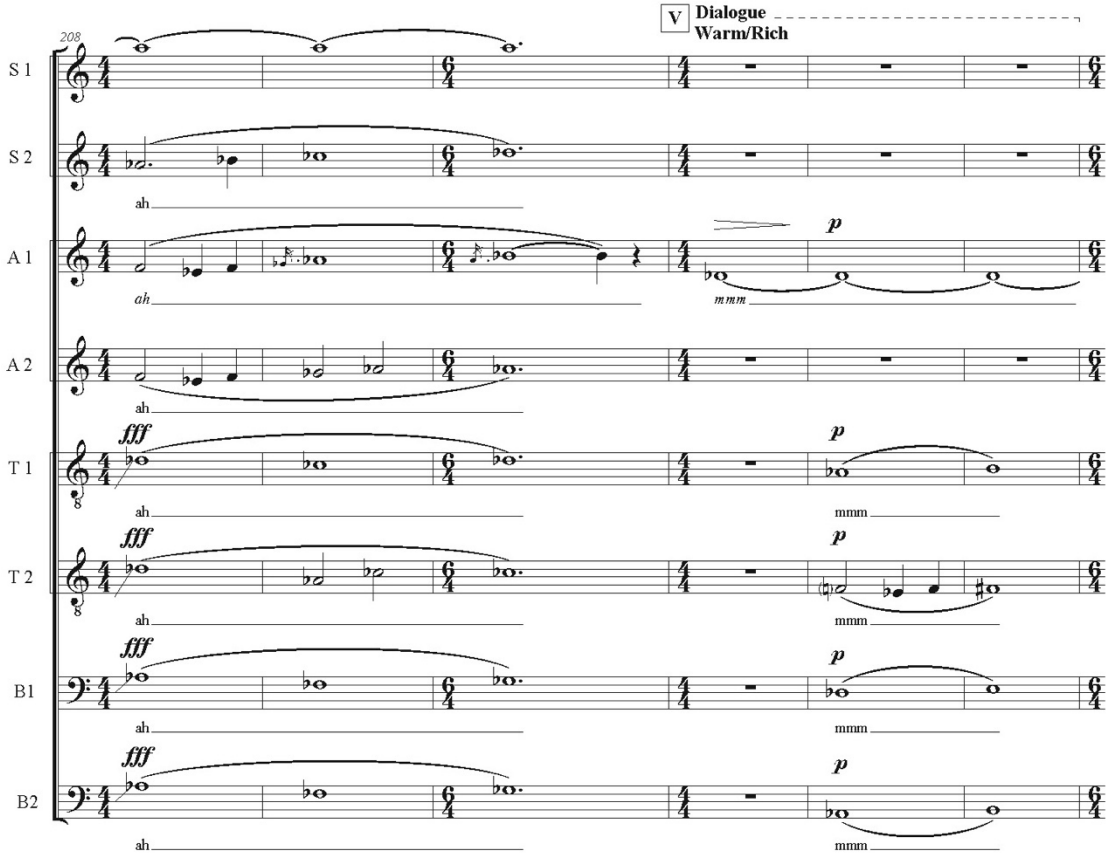

171
S
A 1
A 2
T
B
ooo
oh
ah
mmm
no no no no no no no no
nah nah nah nha nah nah nah nah
Ah

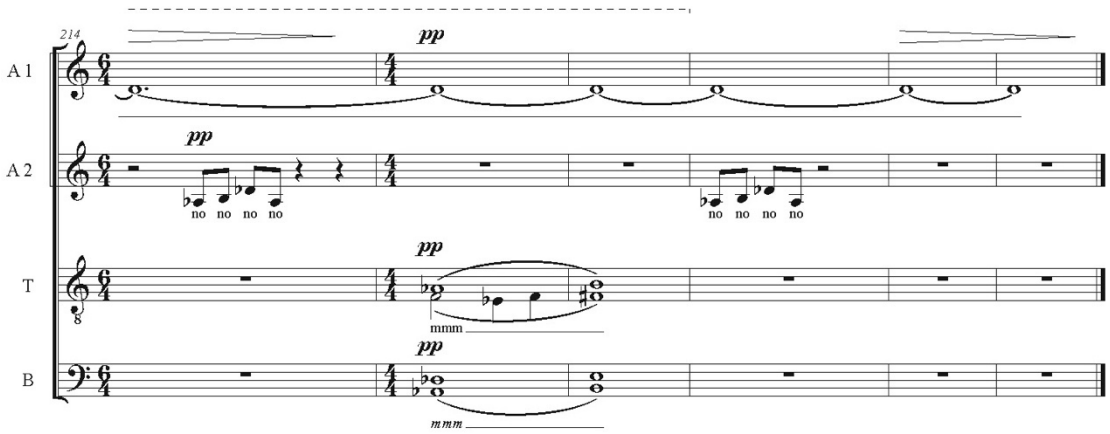

Downstream
R Dialogue
177
S
A 1
A 2
T 1
T 2
B
mf pp
ooo
loo loo loo loo loo loo loo loo
ah
nah nah nah nah nah nah nah nah
182
S 1
S 2
oh
ah
no no no no no no no no

Downstream


Earthy/Grounded
S
S 1
S 2
A 1
A 2
T 1
T 2
B
ff
Ah
oh
(stomp)
(thigh slap)
(T.S.) (T.S.) (T.S.)


Downstream
Dialogue
T
mf
S 1
S 2
A 1
A 2
T
B1
B2
oh
U
199
= 70
fff
ah
f
A
T 1
T 2


V Dialogue
Warm/Rich
208
S 1
S 2
A 1
A 2
T 1
T 2
B1
B2
ah
mmm
fff
p


214
A 1
A 2
T
B
pp
no no no no
mmm

CHAPTER 4 – CREATING THE FILM SCORE

It was my goal to create a score of unaccompanied choral music that enhanced my documentary. Choral ensembles are capable of a wide range of sounds and musical imagery which can be seen through the variety of textures and timbres in my piece. I also sought to demonstrate the versatility of a choral ensemble in relation to dialogue. Intrigued by the historic avoidance of choral music with dialogue, I deliberately chose to demonstrate the potential of various vocal sounds and textures in combination with spoken material. This chapter will discuss my process of writing from the early stages of research to an in-depth analysis of story structure, compositional structure, motivic material, harmonic techniques, textures, timbres, and text. Each of these elements were essential to the success of creating a cohesive and intentional film score.

CHOOSING THE FILM'S SUBJECT

After deliberation and research, I chose to create a documentary about water conservation in East Texas. Ultimately, I am extremely passionate about conservation and wanted my film to have a purpose and contribute to a better world. But beyond my personal passion, several additional factors went into my decision including music, time constraints, workload, budget, location, and filming permission.

Voices felt like the appropriate way to communicate an environmental topic to an audience in an inviting and familiar way. I also drew inspiration from *Koyaanisqatsi*

(1982) and its film score. The film's imagery is clearly political and, although the film had no dialogue, I felt like the choral music was abstractly communicating with me, perhaps because people are hardwired to listen to and interpret the sound of voices for emotion and meaning.[43] According to a journal article by Edward Jacek Gorezelańczyk and Piotr Podlipniak, *"*Singing is a primitive way of music realization previous to any kind of instrumental music, probably older than speech. But the ability to communicate by means of sounds is considerably evolutionary older than singing and speech."[44] I felt that, in addition to my film's dialogue, choir could communicate to my audience in a similar way to *Koyaanisqatsi*.

Another factor I had to consider in my choice of subject was my own workload and the time frame available to me to complete the project. Working on a thesis is a large undertaking and, ultimately, my focus was the film's composition and research. A film can quickly become complicated (script writing, auditioning actors, rehearsing with actors, etc.) and my goal was to pick a subject with minimal logistics. Considering I had never written a script, I felt it was best to avoid the extra complexities of doing so. Another aspect I sought to forgo was auditioning and rehearsing actors. Once again,

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[43] Guest, Haden, Godfrey Reggio, and Phillip Glass. A Conversation With Godfrey Reggio And Philip Glass. Other. *Youtube*, October 8, 2019.

[44] Mark Reybrouck, "Music and Its Inductive Power: A Psychobiological and Evolutionary Approach to Musical Emotions," *Frontiers in Psychology* 8, no. 492 (April 4, 2017): 4.

amidst writing a thesis, I felt that such an undertaking would extend my timeline. The appeal of a documentary was the absence of a concrete script as well as the ease of conducting interviews.

Another factor that impacted numerous decisions was my film's small budget. Keeping in mind my personal finances, I felt comfortable spending no more than $2500 on this film. This included the purchase of camera gear, lighting equipment, travel expenses, computer programs, recording my score, and unforeseen expenses including third-party footage or securing rights. This meant that hiring actors and traveling long distances was out of the question. In addition, to avoid further financial burden, I had to choose locations that were free to the public and allowed filming and photography. Receiving permission to film in a location can occasionally lead to large fees. The appeal of shooting a documentary in East Texas was the proximity to the subject and the number of public locations to film.

THREE-ACT-STRUCTURE

Unlike the typical timeline of film composition, I created a first draft of the entire score prior to shooting any film by composing to a three-act structure. Many narrative structures exist; however, according to a blog post by Jerry Jenkins, the three-act structure is the most popular narrative structure in film.[45] Alyssa Maio, a Los Angelis

[45] Jerry Jenkins. "7 Story Structures Any Writer Can Use." Web log. *Jerry Jenkins*. Jerry Jenkins, n.d. Accessed September 21, 2022.

screenwriter, discusses important plot points of a three-act narrative including the Act I climax, midpoint, Act II climax, and Act III climax.[46] As a guideline, Act I is typically 25% of the film, Act II is 50%, and Act III is the remaining 25%.[47] Each of these plot points, and their typical length, were used to guide the structure of my film score to create a cohesive relationship between the music and film. According to Royal S. Brown, "By reinforcing significant moments in a cinematic succession of images, whether held together by an apparent narrative or not, music has, via its tendency to narrativize, helped lead 'readers' of the cinema's iconic language(s) away from history and towards story."[48]

MUSICALLY EMPHASIZING PLOT POINT

To enhance the structure of my film, I chose to musically emphasize the midpoint and each of the act climaxes. Knowing that my documentary would be approximately ten minutes in length, I began to conceptualize what my composition would look like as a three-act structure. When my score was finished, the final duration was around 10:30. Figure 4.1 illustrates an ideal dramatic curve based on the percentage length of each act.

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[46] Alyssa Maio. *Three Act Structure*. *What Is The Three Act Structure? No Formulas Necessary*. Studio Binder, December 9, 2019. Accessed September 20, 2022.

[47] MasterClass. "How to Write Three Act Structure ." MasterClass, September 2, 2021.

[48]Royal S. Brown, "Overtones and Undertones: Reading Film Music." (Berkeley: University of California Press): 17.

The final structure to my score is illustrated in Figure 4.2. As shown, I shaped my score to closely resemble a three-act story structure. I emphasized the climax of each act in a variety of ways including higher vocal ranges, open vowels, body percussion, dynamics, chanting, and brighter timbres. While scoring, I knew the Act I climax would be used to reveal the film's title. I imagined an expansive, rich, and beautiful drone shot (Figure 4.3). It was essential for the choir to match the emotion of the scene with bright timbres, lush harmonies, and climactic vocal ranges. I also incorporated body percussion and chanting to emphasize the moment.

Figure 4.1. Ideal three-act story structure for "Downstream"

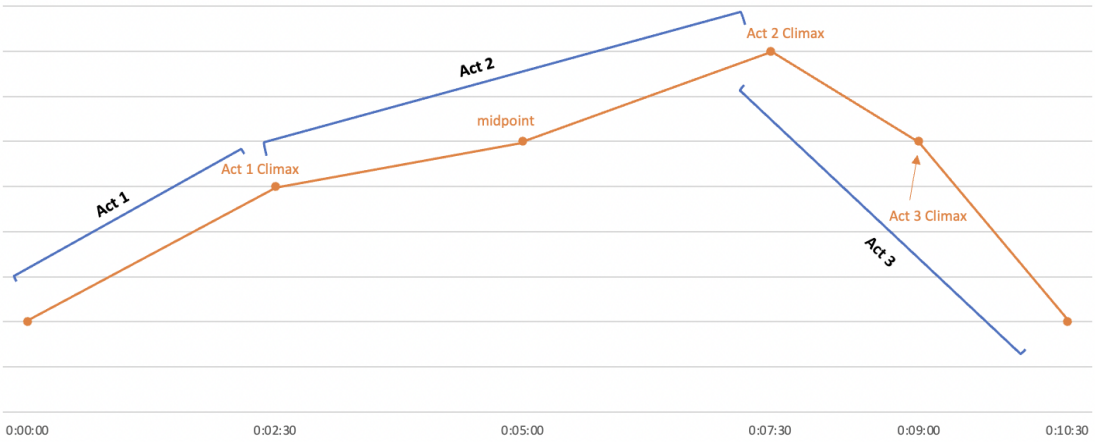


Figure 4.2. Actual three-act story structure for “Downstream”

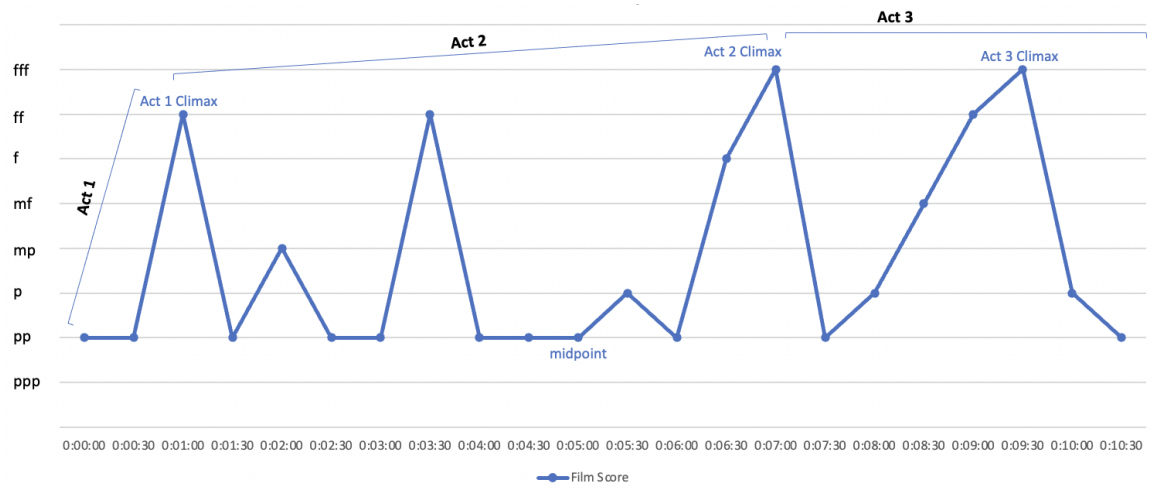
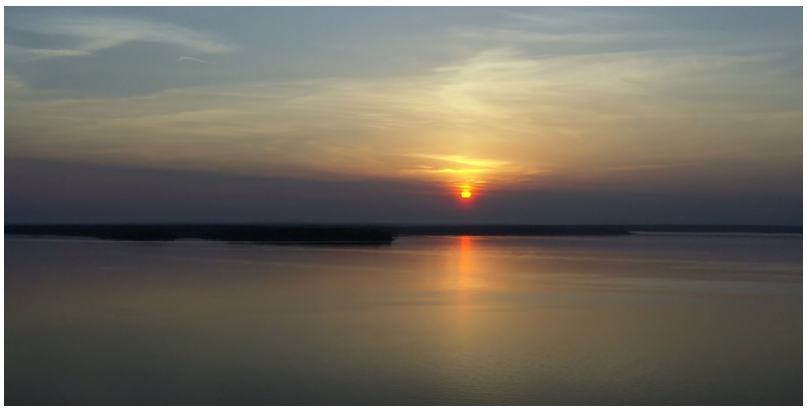


Figure 4.3. Act 1 Climax, drone shot



In a three-act structure, the midpoint is often treated either as a premature victory, or a failure.[49] Initially, I had scored this moment as a small victory similar to the Act I

[49] Darious Britt, “Story Structure Analysis - How to Train Your Dragon ,” Youtube, June 3, 2014.

climax; however, my opinion changed as the film began to take shape. A victory felt detrimental to the effectiveness of the Act II climax and the warmth of Act III. Musically, it felt redundant to repeat the material from Act I, especially because it also happens at the Act III climax. In terms of story structure, the optimism of Act III would feel more cathartic if Act II completely contrasted with it. Thus, I chose to rewrite my midpoint as a low point. As shown in Figure 4.2, the midpoint of my score occurs exactly at five minutes. This midpoint is further reinforced by a switch to an aleatoric compositional approach.

The typical Act II climax deals with building conflict and tension.[50] A crucial element of Act II is the "all is lost" moment. This is a moment where the film hits its lowest point. I wanted my documentary to convey the mounting impact of litter and water pollution. To capture the tension, I implemented ascending vocal lines, as seen in Figure 4.4, which build to dramatic vocal registers within each part. To create further tension, I implemented dissonance with passing tones amidst a minor chord progression. I also chose to illustrate the normalcy of littering, ironically, with triadic harmonies and a chorale writing style. This contrast was partially inspired by the unaccompanied excerpt from *Angels and Demons* (2009) discussed in chapter one. I enjoyed the tension that Hans Zimmer was able to create by juxtaposing his music with the conflict of the scene

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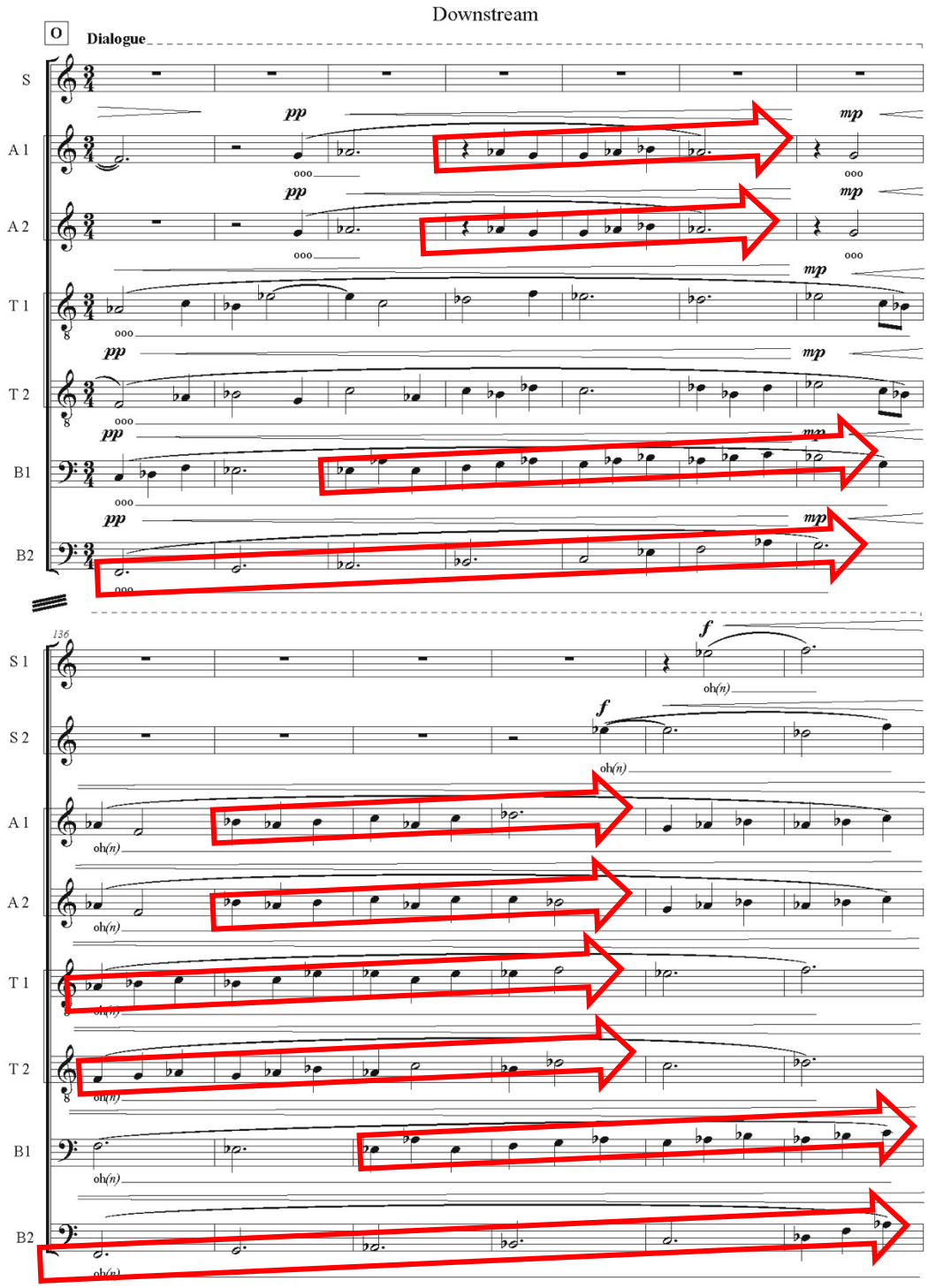
[50] Alyssa Maio. *Three Act Structure. What Is The Three Act Structure? No Formulas Necessary*.

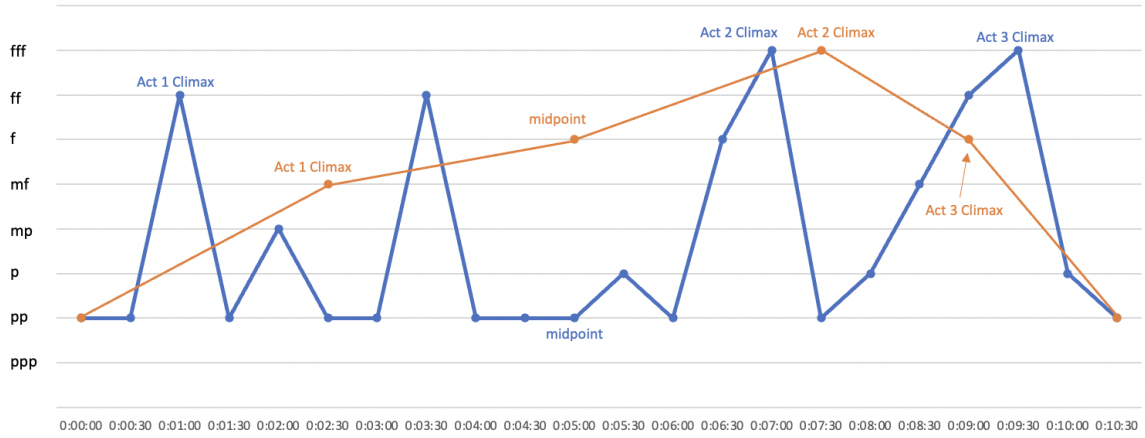
and sought to create a similar effect. The contrast of lush and rhythmically simplistic choral writing with horrific images of pollution was meant to create discomfort and further conflict between my score and the documentary.

Figure 4.4. Building towards Act II Climax, mm. 129-141



Traditionally, Act III is all about resolution and payoff.[51] Act III of my film presents ways in which people can be involved with conservation efforts. The climax features a bright image of students, posing proudly with their pile of collected litter, emphasized by the angelic sound of sopranos and altos. The tenors and basses then join to provide harmonic depth and perceived warmth with greater resonance to accompany a drone shot of Sam Rayburn Lake.

Figure 4.5. Comparing a typical three-act structure with the score's structure



I emphasized each of the act climaxes, as well as the midpoint, to provide appropriate pacing and structure to my film. A comparison between the trajectory of my score and a typical three-act structure appears in Figure 4.5. The trajectory of my Act II climax, midpoint, and Act III climax roughly aligns with the ideal structure of these

[51] Alyssa Maio. *Three Act Structure. What Is The Three Act Structure? No Formulas Necessary*.

various points. The Act III climax is slightly pushed back to accommodate the additional 30 seconds added to the initial goal of a 10-minute film.

Comparing the film score to the three-act structure shown in Figure 4.5, the largest difference is the Act I climax. I chose to shorten the length of Act I for a couple of reasons. The first was time constraints. Because the film was already short, I felt it would be beneficial to spend more time developing Act II. I also felt that I could afford a few compromises within the traditional scope of the Act I structure. Typically, Act I incorporates what is called an inciting incident, in which a hero makes a choice to go on an adventure; however, this felt odd for my documentary.[52] My film does not have a hero or portray a linear adventure, so I chose to exclude the inciting moment from my film. In the end, I felt it was more important to quickly introduce the subject and move on to Act II.

Because I wrote the score before the film and sought to create effective pacing and musical direction for my documentary, I chose to use a three-act structure to form a dramatic arc. By loosely following the pacing of a ten-minute story and emphasizing the midpoint and act climaxes I created a road map for my film to adhere to, thus providing a clear direction for the creation of my film.

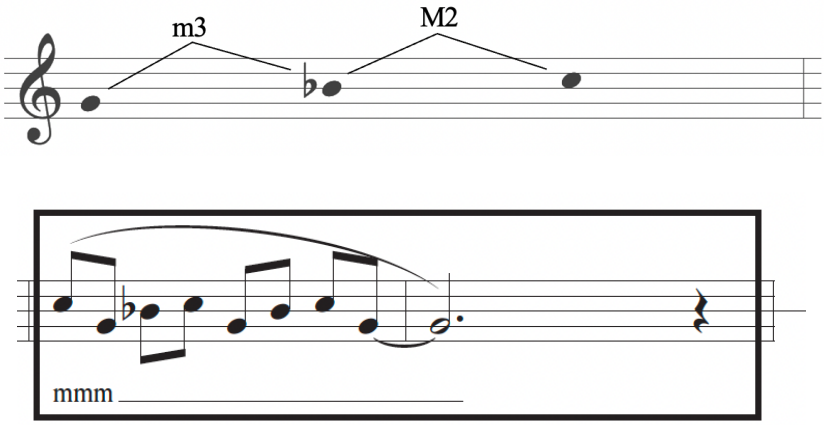
[52] Darious Britt, "Story Structure Analysis - How to Train Your Dragon ," Youtube, June 3, 2014.

MOTIVIC MATERIAL

Motivic material is tremendously important to the unity and imagery of this score. Figure 4.6 shows the pitch collection that is predominant throughout my score and, below the pitch collection, is an example of the main motive used throughout my score. The following paragraphs will discuss my choice of these pitches and how I presented and developed the material rhythmically and melodically to support imagery within my film.

I thought a pentatonic scale was important to capture the image of running water due to its lack of half steps. Half steps create tendency and direction within a scale which is why I felt the lack of semitones in a pentatonic scale could represent free-flowing water. Furthermore, I chose to use a minor pentatonic scale to capture a darker and more serious tone within the documentary.

Figure 4.6. Pitch collection and application



I manipulated my motivic idea rhythmically and melodically to capture the image of pollution. In Figure 4.7 rests are inserted to disrupt the rhythmic flow of melodic material and is paired with images of tires and furniture illegally dumped. This was to represent the disruption of flowing water by large items. I also captured the image of pollution by adding half steps to the pentatonic scale (illustrated in Figure 4.8). The addition of the second and sixth scale degree creates dissonance and contaminates the pentatonic scale and symbolizes the conflict of water pollution.

Figure 4.7. Rhythmically disrupting the motive, mm. 67-68

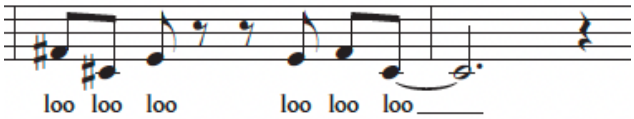
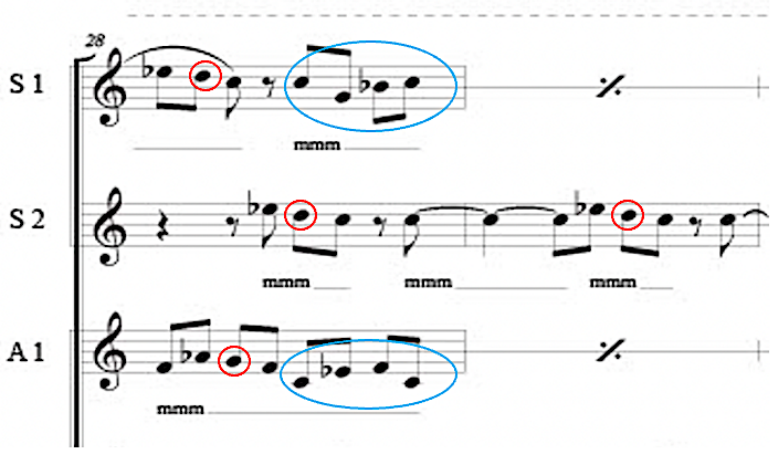
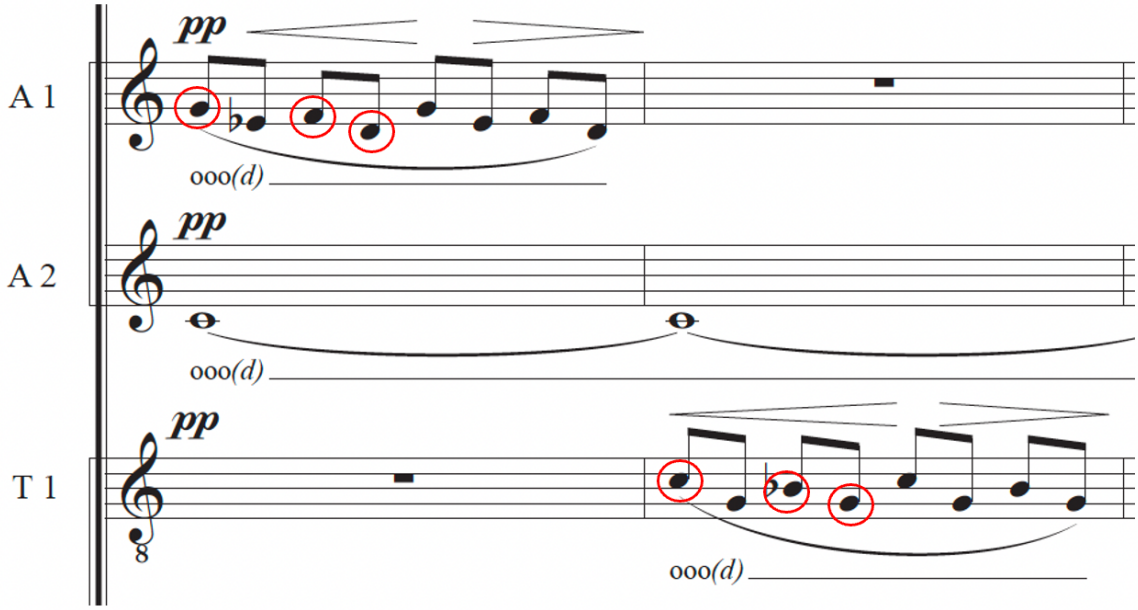


Figure 4.8. Introducing the second and sixth scale degrees, mm. 28-29



Beyond water pollution, I painted rain by using the retrograde of my main motivic idea, illustrated in Figure 4.9. When pairing the film with the score, I felt that the descending motion was appropriate for the image of falling rain.

Figure 4.9. Motivic idea in retrograde



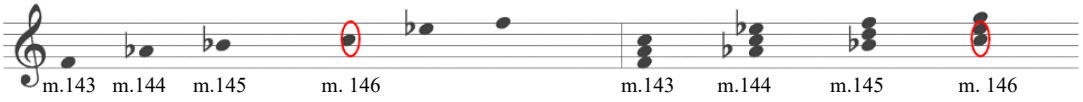
HARMONIC SHIFTS

Harmonic shifts are often very effective at reinforcing turning points in film. In Downstream, I used chromatic mediants, common chords, common tones, and general chromaticism to modulate at pivotal moments.

Each act is accentuated by a modulation to signify a new dramatic direction. I used the symmetrical quality of a pentatonic scale to modulate to a new tonal center in Act II. Figure 4.10 shows an F minor pentatonic scale next to a harmonic representation

of mm. 143-149. The red circle represents the landing point of the new tonal center for Act II. The new tonal center is then established with an extensive pedal tone. Act II shifts tonal centers by common chord modulation. Figure 4.10 also contains a harmonic analysis of m. 143-149 demonstrating the shift from Fm to Ebm. Because a large amount of my score is based on a pentatonic scale, I chose to provide further cohesion to my musical language by using it to modulate.

Figure 4.10. Harmonic shift mm. 143-149



	m. 143	m. 144	m. 145	m. 146	m. 147-148	m. 149
Fm:	i	VI	III	VI	Rest	vii
			Ebm:	VII	Rest	i

In another instance, a dramatic shift occurs at letter T. The music shifts downward from a B chord to a Bb chord creating musical anticipation. The score then gradually builds up to the Act III climax at Letter U. Harmonic shifts are integral in accommodating changes in flow throughout my film score.

Several shifts are synced with new conversations as illustrated in the Eb to d# shift at m. 45 (Figure 4.11). The chords preceding this in m. 41-44 build in intensity with dynamics, rhythm, and a type of predominant-to-dominant motion; however, rather than resolving to tonic, the energy catapults the audience into a new tonal center as the conversation shifts towards weather. In Figure 4.12 a surprising shift from g# to f# is accomplished using a half-diminished seventh chord. The melodic motion from C# to F# in the tenors acts as a type of dominant-to-tonic motion. Additionally, the alto's chromatic descent from G#, to G, and finally F# helps guide a listener to f#. Finally, the B natural in m. 66 of the soprano 1 acts as a common tone between the $C\#m7^{b5}$ and the $F\#m^{sus4}$ and leads to a resolution in m. 68.

Figure 4.11. Harmonic shift mm. 41-45

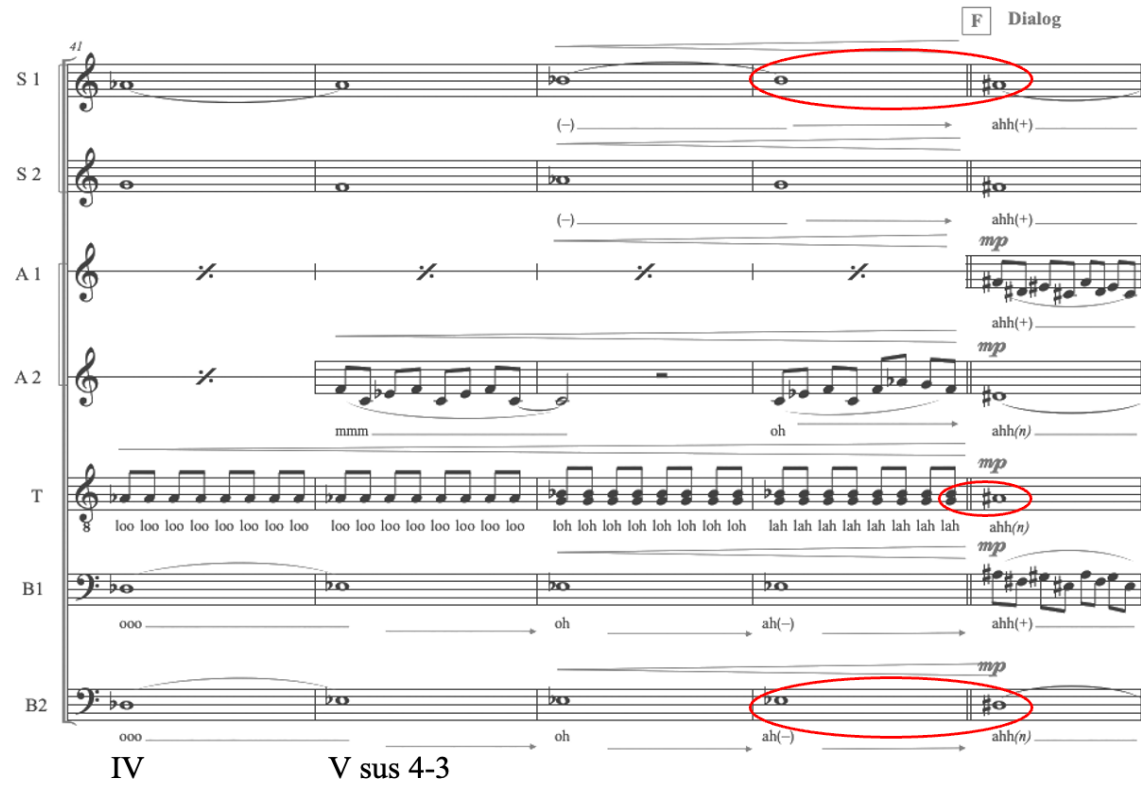
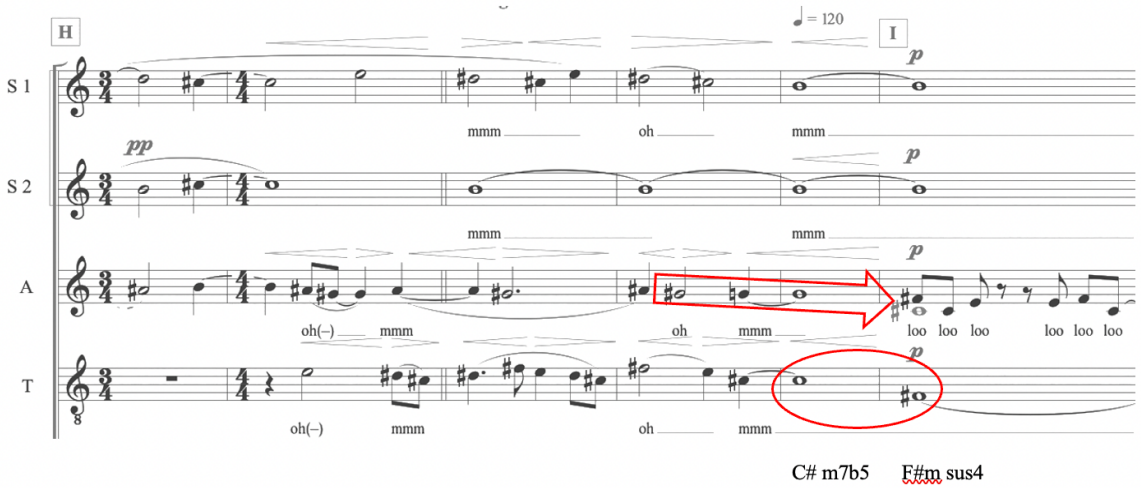


Figure 4.12. Harmonic shift mm. 63-67



In another instance, a chromatic-mediant shift reinforces R not only for changing speakers but to build momentum leading to the climax at letter S. Both the extreme harmonic and dynamic shift add energy to the speaker's dialogue when she says, "I think part of why I got into this lifestyle is, I love all the wild things and wild places that God has given us. I think He has given us such a beautiful green and blue earth."

TEXTURE AND HARMONIC TECHNIQUES

I used texture and harmony to communicate imagery and emotion. I was particularly interested in how textures interacted with harmonies to support a film. Additionally, I was influenced by the diverse use of energetic textures in the film *Swiss Army Man* (2016). I wanted to use textures, beyond homophony, to create meaning and variation within my score. On the other hand, *Gallant Hours* (1960) uses plenty of homophony and feels traditional. Table 4.1 compares my film to two different films and the amount of homophony each utilizes while underscoring with unaccompanied choir. The "other" category includes aleatoric textures, canonic textures, polyphony, accompaniment textures, and much more. It should be noted, my goal was not to avoid homophony but to use it intentionally by providing meaning and variety within my film. In the following paragraphs I will describe three specific examples of textures I used and the purpose each served to the film.

Table 4.1. Frequency of homophonic textures during unaccompanied underscores

Film Title	Homophonic/Monophonic	Other
The Gallant Hours (1960)	96%	4%
Swiss Army Man (2016)	44%	56%
Downstream (2023)	27%	73%

First, I used canonic textures to complement the imagery of waves, rippling, reflecting, and flowing water was inspired by Ligeti's micropolyphony in his "Lux Aeterna." Figure 4.13 portrays the watery image I hoped to achieve and illustrates a wave-like melodic motion. I also chose to alternate the texture to elicit a reflecting quality between the soprano and alto lines. I also enjoyed the shimmering nature of the canonic texture when it interacted with the pedal tone to create momentary dissonance.

Figure 4.13. Wave-like melodic motion, mm. 33-36

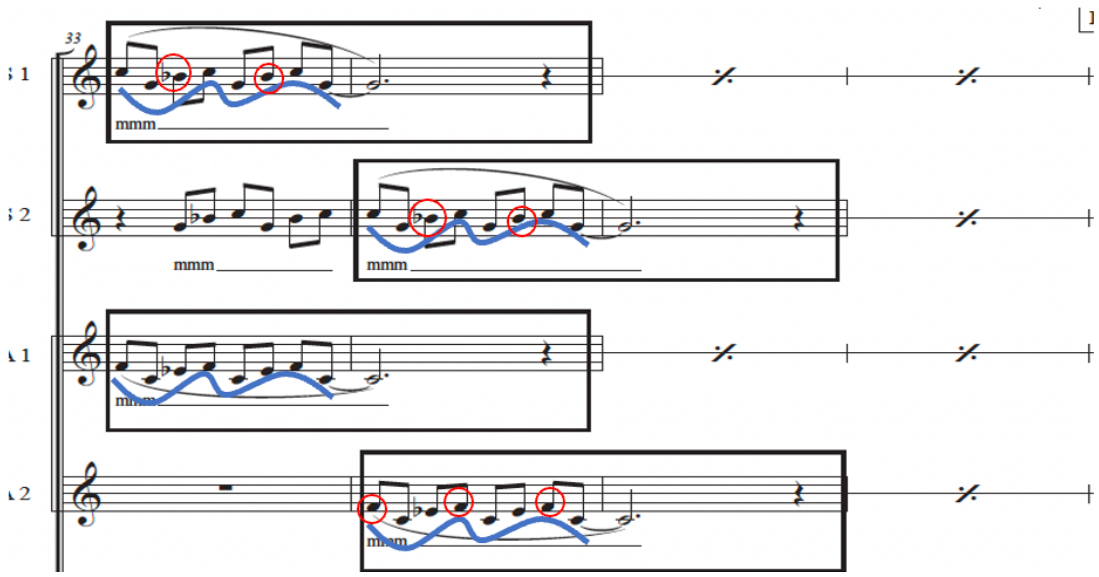
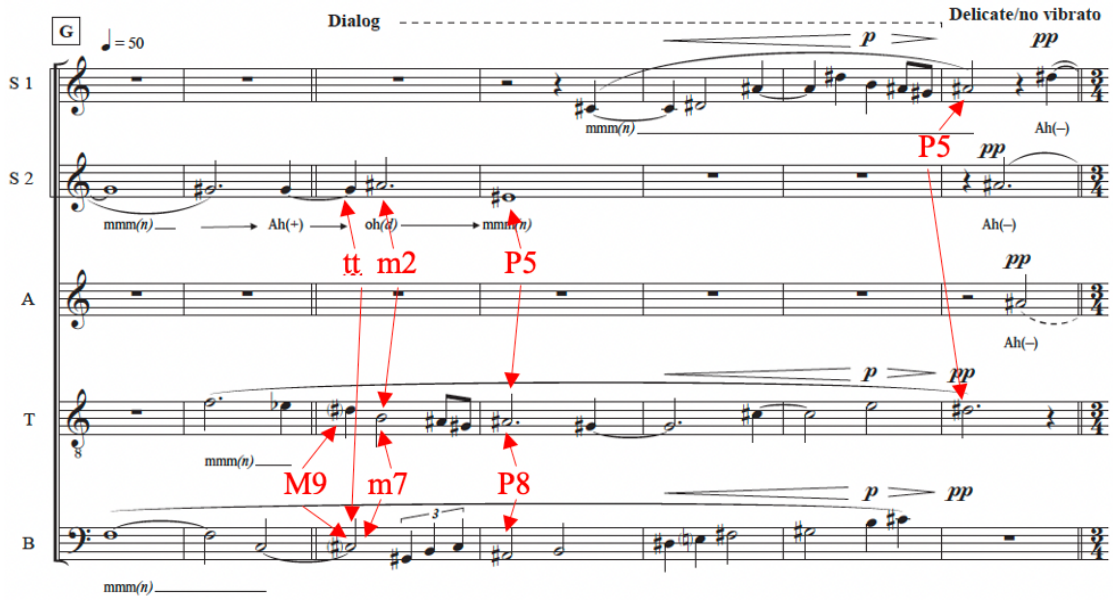


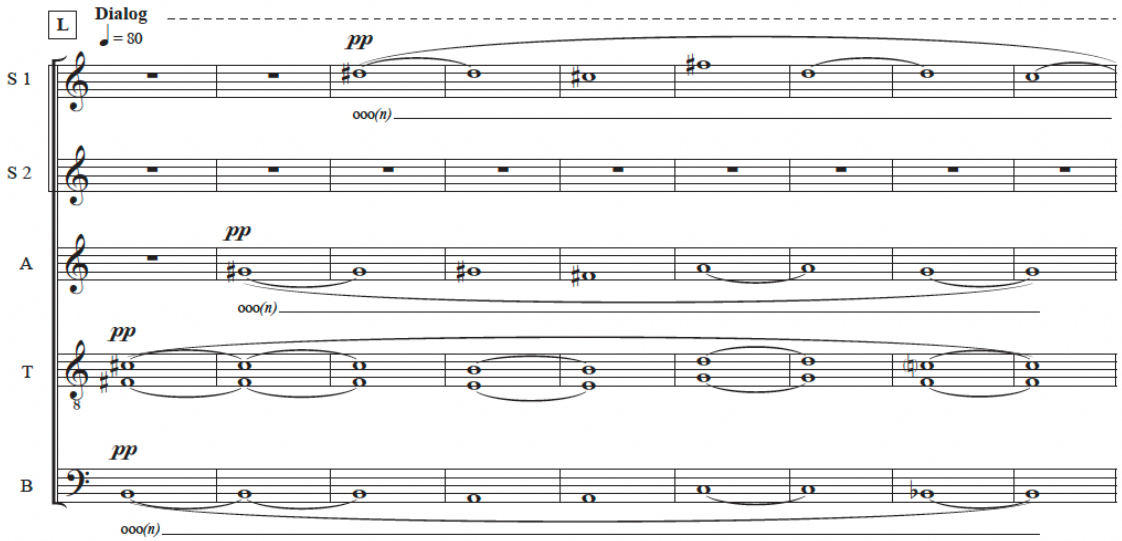
Figure 4.14. Polyphonic and dissonant music, mm. 55-61



Second, I used polyphony, sparse intervals, and dissonance to create a cold, disjunct, and empty feeling related to pollution. I hoped that a polyphonic texture would create less stability and further discomfort for an audience (illustrated in Figure 4.14). Within the polyphonic texture, I used perfect intervals to harmonically create emptiness within the music. In addition, parallel dissonant intervals create further instability and discomfort. Figure 4.14 is paired with the topic of littering.

I employed a similar polyphonic and harmonic language at the film's midpoint with the addition of an aleatoric texture to symbolize microorganisms amongst visible litter, represented by the polyphonic texture. The addition of an aleatoric cluster further polluted the texture to symbolize the compounded effect of impaired water quality.

Figure 4.15. Quintal harmonies, mm. 94-102

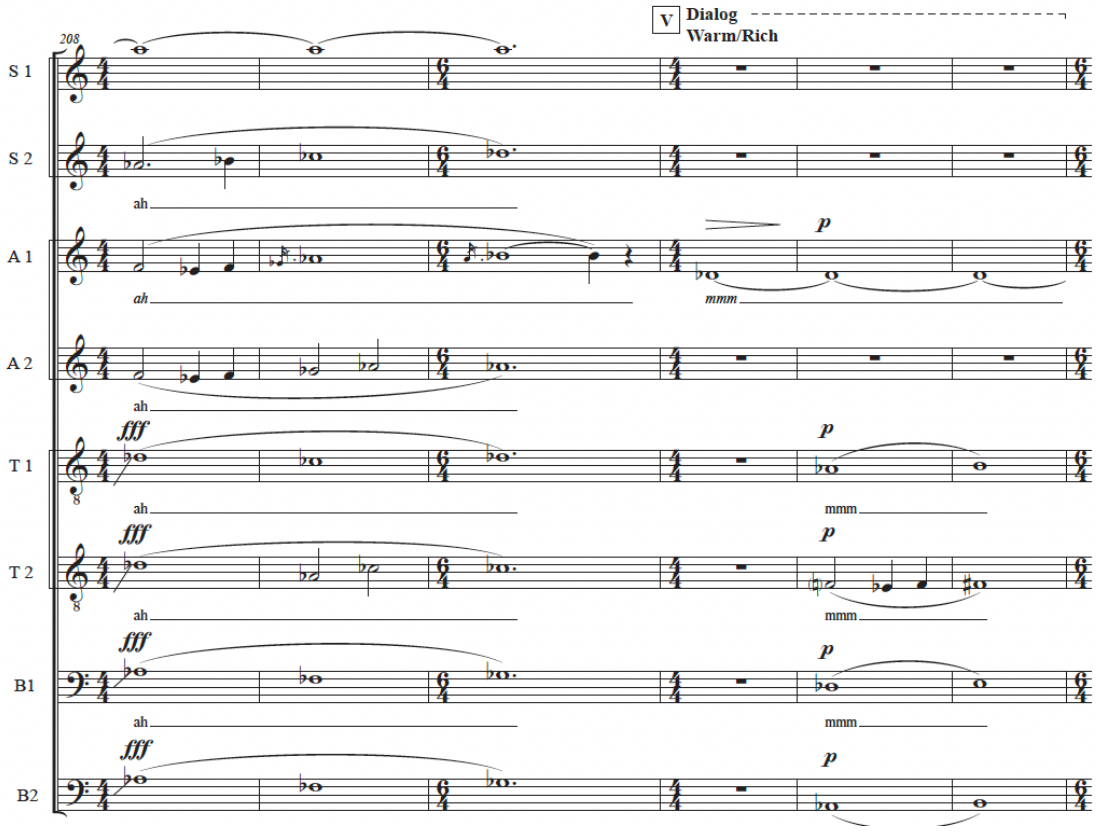


Finally, with roughly 70% of the score containing contrapuntal writing, homophonic textures are employed purposefully to create a sense of stability while harmony is used to communicate a specific feeling. In one instance, I used homophonic textures in combination with quintal harmonies to create a stable and neutral introduction for the Angelina & Neches River Authority, illustrated in Figure 4.15. Because quintal chords are constructed from stacked fifths, I felt the lack of thirds obscured any major or minor qualities, thus creating a neutral feel to the music. I also wanted this cue to feel credible and confident, so I used homophonic textures to create rhythmic stability.

I use homophonic textures with triadic harmonies to create a sense of warmth and stability. The long-sustained rhythms found in Figure 4.16 were meant to provide rhythmic stability while triadic harmonies create a rich and warm aesthetic to the film.

This cue depicts nature's beauty and hope for the future; therefore, I created a calm and lush atmosphere with major triads and a homophonic texture.

Figure 4.16. homophony and triadic harmonies, mm. 94-102



TEXT, TIMBRE, AND BODY PERCUSSION

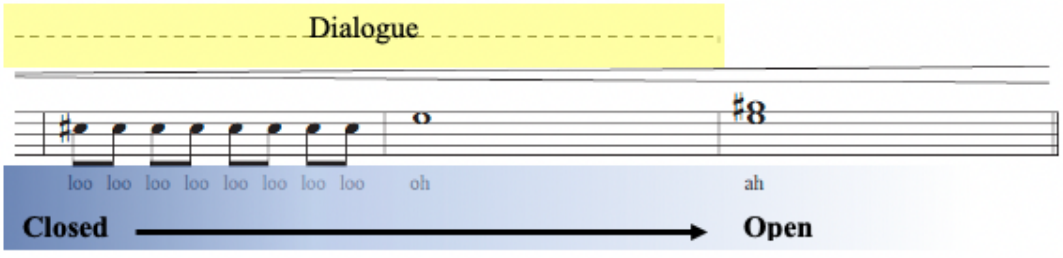
Text, timbre, and body percussion were essential components for creating an effective underscore. Because my film was not completed until after the first draft of my score, I refrained from adding any syllables until I had a better understanding of the

dialogue within the film. Syllables and text can greatly enrich a film's sonic complexity; therefore I carefully chose vowels and consonants that would effectively interact with the dialogue and imagery in my documentary and will explore a few of those choices.

I used closed vowels and voiced consonants such as "mmm" to minimize overtones during heavy dialogue. A voiced consonant is a consonant that requires the vocal folds to vibrate in order to produce its sound. Figure 4.17 illustrates how the text reacts to dialogue by transforming vowels. I instructed musicians to use consonants lightly and to not overly enunciate unless specified to prevent syllabic distraction from the dialogue on screen.

I employ open vowels, bright timbres, chanting, and over-enunciated syllables to fill the absence of dialogue. Similarly, I incorporate solos for moments with no dialogue to avoid any amount of distraction. The solo lines in Act II are intentionally dramatic using chest voice, open vowels, and bright timbres in the absence of dialogue.

Figure 4.17. vowels interacting with dialogue, mm. 183-185



Brighter or darker timbre was used to control the number of overtones. Darker timbres were used to dampen an underscore for dialogue. I was particularly concerned with busier textures competing with dialogue. Thus, I incorporated humming with a dark timbre, marked by "(-)" (shown in Figure 4.18). Moments with little to no dialog, such as the Act II climax in Figure 4.19, used an open vowel and bright timbres, marked by "(++)," to maximize the number of overtones.

Figure 4.18. voiced consonants, mm. 26-27

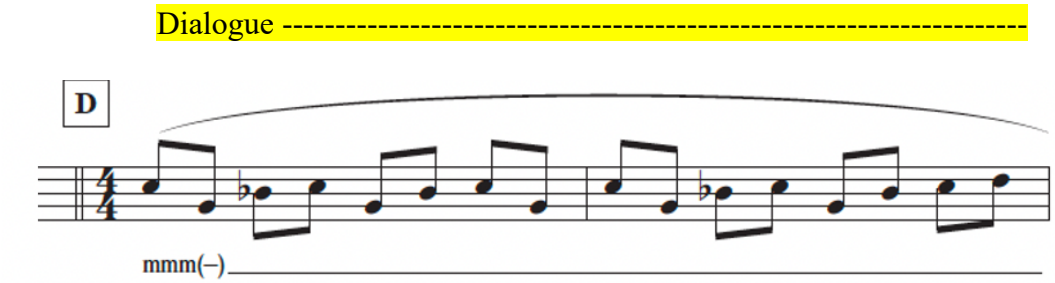
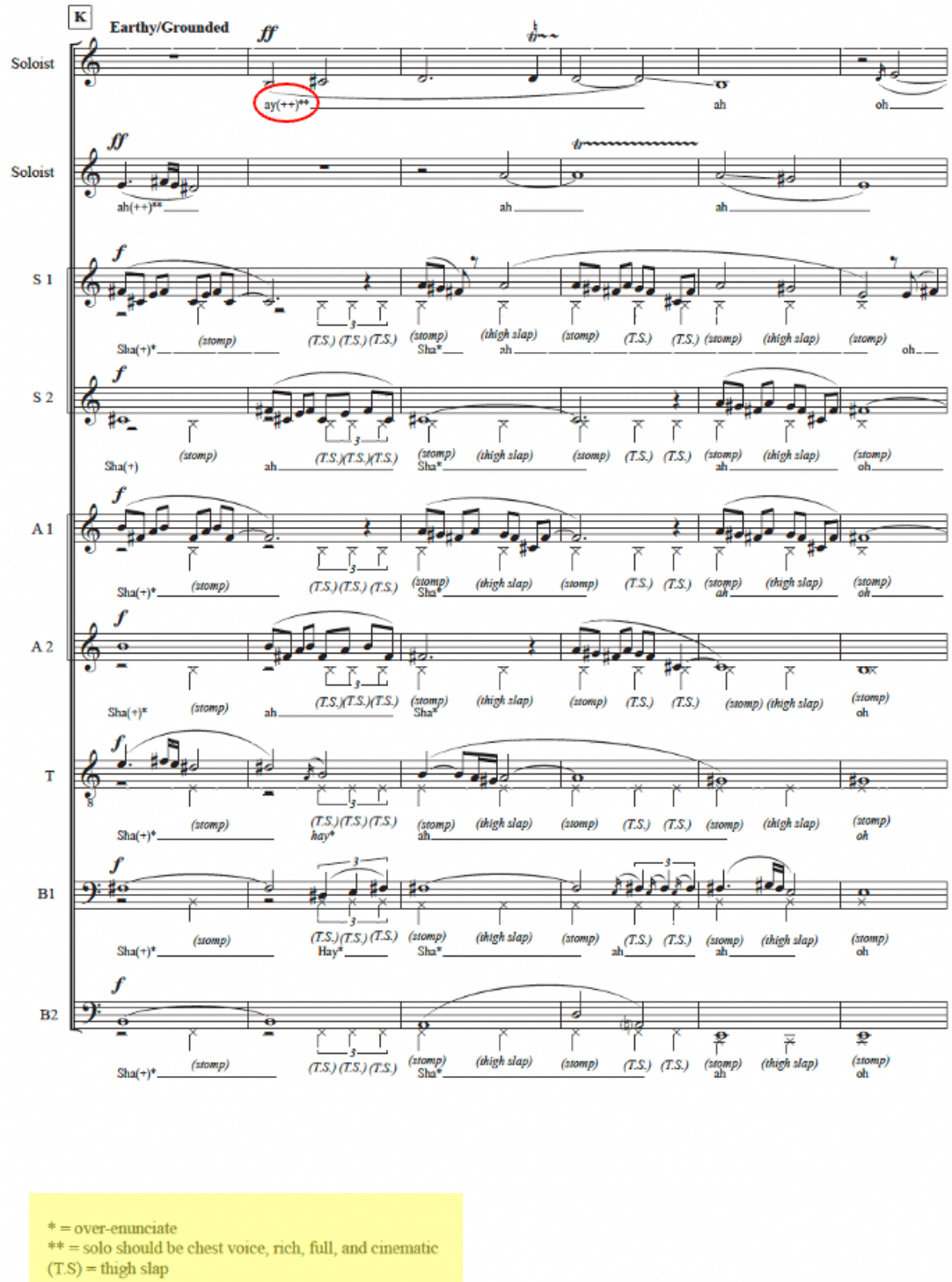


Figure 4.19. Text in the absence of dialogue, mm. 83-88



CONCLUSION

Many pros and cons of an unaccompanied choral film score were brought to my attention through the process of researching and creating a film score. While I faced several challenges, the most notable were mixing, text setting, and underscoring. I believe each of these challenges contributes to a lack of unaccompanied choral film scores and therefore I will discuss my own personal experience with each of these. Finally, I will share my opinion related to the overall success of my score and the direction I hope to see my own writing go in the future.

If I were to guess, I would imagine that most composers and directors would be concerned with a choral underscore. Personally, I never feel that singing distracts from the spoken dialogue in my film; however, this is not to say that my score was perfect. I do feel some elements were distracting at times, but I would attribute those distractions to rhythm or text rather than the act of singing. I believe that the sole use of choir leads to predictability and therefore, creates a less distracting underscore. To elaborate, many films incorporate choir but do so by sprinkling in singing intermittently throughout a film. When not consistently incorporated, a choral entrance can be surprising or dramatic and draw attention to itself. This is demonstrated with instruments in *Swiss Army Man* (2016), when an orchestra is suddenly incorporated in the final moments of the film. The music draws attention to itself because of the dramatic shift in the score. In *Downstream* (2023), however, I use choir consistently, and therefore the singing becomes secondary to the spoken dialogue and does not draw attention to itself.

One of the greatest challenges I faced in this process was setting text as it occasionally created distractions in my underscore. One spot, between measures 67 and 80, had to be toned back in post-production because the chanting and grunts were too distracting from the dialogue. Another moment I find particularly distracting occurs at measure 65 when the choir goes to an "oh" vowel. In my opinion, the brief transition from "mmm" to "oh" and then back to "mmm" is distracting because the "oh" sounds like an interjection to a sentence and momentarily draws the attention away from the dialogue.

Based on my experience with text, I would recommend two general rules when scoring for unaccompanied choir. First, when underscoring, one should be consistent and predictable with text decisions. Do not shift between different vowels or voiced consonances in drastic ways, if one must shift, it should be subtle with small oral and pharyngal adjustments. Second, lyrics, chanting, and unvoiced consonants (sounds made without the vocal chords) should be handled delicately, especially if they are sung with a speech-like rhythm and tempo. When possible, try to reserve lyrics, chanting, and unvoiced consonants for moments with little to no dialogue. Each of these guidelines are general recommendations and should change based on artistic vision. I believe text setting is a major concern for directors and composers who choose to use or avoid choral film scores.

Beyond text, another challenge I faced while creating my soundtrack was achieving a rich low-end. I consistently felt that the recording was not as deep and clear

as what an orchestra or synthesizer could achieve. I believe that the vocal range of my bass section and the recording techniques we used may have had a larger impact on the overall success of my low-end. One spot where I felt limited by vocal range was in measure six when the basses performed a vocal fry on a low Bb. Although some vocalists can perform this, most basses in our choir were unable to achieve a clear and resonant sound. Beyond vocal range, our recording technique may have also impacted the clarity of the final mix. Because we recorded the choir together, in one room, I had less control over the manipulation of each section due to sound bleed. Had we isolated each section, or at least the basses, I may have achieved a richer low-end. The challenge of recording and mixing a choir could perhaps be a reason for a lack of unaccompanied choral scores.

Overall, I think that *Downstream* (2023) was a success; however, I do believe the score could have been more effective. My largest critique is that this score feels more appropriate for an art film rather than a documentary due to rhythmic complexity, overdramatic sections, and the total amount of music. First, the texture at times feels too busy and outshines some of the dialogue in the film. In the future, I think it would be more effective to use graphic scoring to create subtle complexity and unique soundscapes rather than notated polyphony. Graphic scoring would also allow for more creativity and spontaneity in a recording session. Second, some of the sections feel overdramatic such as measures 136-146. I believe this is the result of the vocal register I wrote in, the size of the choir, and the dynamics I chose. Had this been recorded with a smaller chamber choir at a softer dynamic, this section may have felt less dramatic. In the future, I would try

varying the size of my ensemble as well as the density of my orchestration as it would potentially lead to less dramatic outcomes. Lastly, I think it would have been beneficial to incorporate less music in my documentary. When accompanying a film, music will always provide emotional direction for viewers. Because a majority of *Downstream* has music, I believe it comes across as over-emotional. That being said, this was a composition thesis and so the music had to play a larger role than perhaps most documentary film scores.

It was my goal to create music that enhanced my documentary and demonstrated the potential of an unaccompanied choral film score. I analyzed the use of story structure, compositional structure, motivic material, harmonic shifts, harmony, textures, timbres, and text in relation to the film's dramatic curve, imagery, and dialogue. It is my hope that this score sheds light on the potential of unaccompanied choral film scores and creates further opportunities for their incorporation. Unaccompanied choirs have a unique and diverse pallet of sound that deserves further exploration in film scoring.

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APPENDIX A:

Downstream (film)

https://www.youtube.com/watch?v=6el5lClQFtE
Directed and produced by the author 2023.

VITA

After Zachary James Moore completed his Bachelor's Degree in Music Education at The University of Wisconsin – Eau Claire, he went on to have a successful career as a composer and high school choral director. Since 2013, he has completed a total of 38 choral commissions and has published 17 of those works through Santa Barbara Music Publishing, Colla Voce Music LLC, and MusicSpoke. Beyond choral music, Zachary has also scored numerous films one of which, *Vertical Freedom* (2022), is featured on prominent streaming platforms including "Amazon Prime Video", "Apple TV," and "Vudu." In 2021, Zachary pursued his Master of Music degree at Stephen F. Austin State University and received his degree in May of 2023. For a complete biography, please visit zacharyjmoore.com

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