

**The Seven Wonders:
A Collaboratively Composed Work for Tuba and Percussion**

by

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Inception

This project started as a faint glimmer of an idea on a particularly dreary day in the early stages of the COVID-19 pandemic. While stuck at home, I was reflecting on my collegiate career with a newfound perspective as a more seasoned professional musician and began to sift through significant musical moments in my early life searching for a project idea. I wanted to cap off my DMA with something that was reflective of the journey I had traveled. Something that was both forward-looking and new, and yet also reflective of where I have been and the people that have inspired and helped me along the way. I had always wanted to create a recording but never had the time or resources to do so. But what should I record? I thought of doing a bunch of very challenging virtuosic solo repertoire, but there seemed to be something a little superficial and self-serving in that endeavor. I was struggling to find the proper reflective feel no matter which pieces I selected, or how I grouped and ordered them. I decided to take inventory of my most influential early musical memories, and I recalled a particular recital that turned out to be quite influential in my musical life.

I attended Illinois Wesleyan University (IWU) from 2003-2007, and I was unusually lucky to share a year with a huge number of highly gifted musicians and creative and intelligent people. The composition studio was led by Professor David Vayo, and in the class of 2007, there were seven composition students. Many of these people quickly became my friends both through shared experiences and our musical fraternity Phi Mu Alpha. There was one particular new music recital that this studio organized that I have many vivid memories of attending. The composers had decided to do a walking tour of the seven wonders throughout the music building. As I recall, the performances all looped so the audience was to tour each one as they progressed

through different areas of Presser Hall. Each composer had taken one of the wonders and created a musical experience that was centered around representing that wonder in some way. I vividly recall Luke Gullickson's rendition of the Hanging Gardens in a dimly but colorfully lit hallway outside Westbrook Auditorium, with tinkling sounds of palpitated water and whispered Tolkien-esque Elven language. I also recall the spectacle of Brian Baxter's depiction of the Colossus of Rhodes with timpani and other drums set on elevated platforms spanning a gap in the courtyard, reminiscent of a giant statue spanning the gap in a harbor. The recital challenged my expectations in terms of what I thought was possible in a concert and what I considered to be music. It was hugely influential in the way that thought about the experience of the audience.

It was in this recital I found my muse. I would rehash this idea, commissioning each of these composers to write me a piece in the same light, somehow reflecting on one of the ancient wonders. I was naturally drawn to percussion as a pairing because of the large number of colors, large dynamic range, rhythmic interest, and special effect sounds percussion can provide. I have also had many positive experiences collaborating with other percussionists in the past, so I was excited about those instrument combinations.

Of the seven original students in the class of '07 composition studio, five of them are still actively writing music and pursuing careers in the industry in various forms. I decided to also invite their professor (now retired) David Vayo as the sixth member of the commission. Initially, I thought I might try to write a piece myself to do the seventh. However, as I got into the project further, I realized the demands on my time and the number of new things I had to tackle were extensive. I decided to instead commission current composition student and DMA candidate Brianna Ware at UW-Madison to fill in the last slot. The composers were thrilled with the idea, so I organized a brief Zoom call in early October of 2020 to discuss who would be taking which

movement, as well as making a list of available resources in terms of staging and instruments. Soon after, the composers were paid their commission, and the idea had fully crystalized into a project.

Preparation

I was fortunate to settle on a project idea early in my course of study at UW-Madison so I was able to leverage several of my class assignments to help prepare for the work to be done. I made a point in my course of study to take the graduate level research methods course as early as I could. In that class, I had the opportunity to conduct research on the history of collaboratively composed pieces of music, and to do a presentation and paper on the musical and logistical challenges presented by creating music in this way. I was concerned that the project did not have enough of a unifying theme to help coalesce the music as a singular whole. The subject of the wonders was somewhat unifying, but the group had not discussed any musical threads other than instrumentation that would run through the whole work to help bring it together. I wanted to see what other composers had done to avoid these problems.

I came across several fascinating examples of compositions written in this way, the most notable of these was Franz Liszt's *Hexaméron*.¹ This was a piece that was composed by several leading pianists in Paris including Liszt, Carl Czerny, Henri Herz, Johann Peter Pixis, Sigismond Thalberg, and Frédéric Chopin. Liszt was also concerned about the musical unification of the work and had many different elements that helped draw the piece together. Thematically, *Hexaméron* referred to the six days of creation as a unifying theme for each of the composers to

¹ Rena Charnin Mueller, "Frédéric Chopin, Carl Czerny, Henri Herz, Franz Liszt, Johann Peter Pixis, Sigismond Thalberg," *Nineteenth - Century Music Review* 13, no. 2 (December, 2016): 358-361.

draw from. However, Liszt went a few steps further than I did by setting the formal structure as a theme and variations based on the Vincenzo Bellini opera theme “March of the Puritans,” which would naturally tie the movements in a musical way. In a brief analysis of the score, I discovered that Liszt also filled in between the variations with musical material that connected elements of the score from variation to variation to provide smooth transitions to the starkly different styles the composers brought forth. Liszt also ran into logistical problems with some of his collaborative composers. The work was intended to be a showpiece for a benefit concert to raise money for the poor in Paris, but Chopin had failed to finish his variation in time for the event, so the whole thing was scrapped for a now somewhat infamous piano “competition” between Thalburg and Liszt. Fortunately, Liszt was committed to and believed in the work enough to bring it on tour and perform and tinker with it over the years, which is why it is still known today.² This was a fascinating insight to many of the hurdles of collaboration I was about to face. The more people involved in the project the more logistical challenges can and do rear their heads.

Ultimately, I decided to stay the course as planned, and rely on the strength of my collaborative skills rather than changing the formal structure of the work. I realized that part of the artistic statement of the piece was to juxtapose and appreciate the hugely different sounds and textures that would come from seven different composers drawing from a single thematic element. In a way, I wanted to celebrate the many differences rather than smooth them over. The mission of the piece was different enough that I felt comfortable pursuing those challenges

²Dennis Bade, “Hexaméron, by Franz Liszt,” program Notes for Los Angeles Philharmonic, *Hexaméron*, Accessed March 07, 2023. Available at <https://www.laphil.com/musicdb/pieces/1930/hexameron>.

without putting up musical safeguards, hoping that the resultant work would present itself as a unified whole because of the common background and commitment of the musicians involved to create something meaningful.

I was also able to prepare for several other challenges I experienced in this project by using assignments in another course. In Susan Cook's 20th Century Literature course, I did an extensive study of several pieces utilizing tuba and percussion in order to search for sounds, textures, and techniques that might be helpful or useful as I went about my collaborations. I found quite a few interesting pieces and performed two of them on recitals required for my degree. The pieces I performed live were Marc Satterwhite's *And what rough beast...* for tuba and mixed percussion, and Gene Koshinski's *Get It* originally for bassoon and cajon. Rehearsing and performing these pieces reaffirmed my commitment to collaborating with percussion and I was excited about the musical possibilities that could be explored.

There were several other essential areas of preparation. Before starting my studies at UW-Madison, I had very little experience recording and editing audio. In order to prepare for the project, I conducted extensive research and experimentation regarding the acquisition of appropriate equipment, technology, and software needed to engineer and produce the recording. As a result of the asynchronous year in Low Brass Ensemble, I was required to use a Digital Audio Workspace (DAW) to edit and produce a recording to share with the rest of the ensemble. During that project, I did a deep dive into microphones and recording techniques for tracking tuba and percussion. This included looking at several projects similar to mine from other instrumentalists, as well as a few other dissertations that were very focused on specific techniques for recording tuba, such as the hugely helpful DMA project done by Joseph

Guimares.³ Guimares spent an extensive amount of time discussing recording techniques and creating comparative audio from dozens of different microphones and different microphone positions. His project saved me an immense amount of time and helped me home in on my preferred set-up much faster. I also familiarized myself with other recordings of brass and mixed percussion for ideas on different sounds and recording techniques. Mark Hetzler's body of work was particularly helpful in this regard as he had recorded a piece by David Vayo, one of my chosen collaborators. This research led to the purchase of the equipment I used to make this recording. The equipment I chose included a pair of King Bee II 34mm large diameter solid state condenser microphones from Neat Microphones. All of the audio was recorded in stereo for ease of mixing and in an effort to capture the full range of the tuba's complex sound. In addition, I acquired a Macbook Pro M1 to run ProTools, as well as a Motu M2 audio interface to provide phantom power to the microphones as well as to adjust gain levels. The interface had some important features that made monitoring sound pressure levels quite a bit easier than most of the other interfaces that I had researched. This would save me time and frustration in dialing in proper levels for each microphone, especially considering the huge volumes of sound from tuba and percussion. I found all the equipment I used on this project both affordable and highly effective.

I also spent some time considering which venue to record in, and after more experimentation, I chose to record all of the pieces in Lee/Kauffman rehearsal room at the Hamel Music Center. This location offered the advantages of being a large enough space for the tuba sound to fully develop, while also being dry enough to have the natural reverb manageable in

³ Joseph Guimares, "Considerations of Recording the Tuba," published May 10, 2018, accessed November 15, 2020, <https://josephguimaraes.com/tuba-recording-project>.

post-processing. The setting of the room was also much more soundproof from outside noise than other venues and the room was adjacent to all the needed percussion equipment. The microphone placement, based on my own experimentation aided by Guimares project, was always approximately ten to twelve feet off the ground, and ten to twelve feet away from the bell, with the mics facing in an x/y stereo pattern approximately 45 degrees offset of the direct line of my bell. I found this position to give me the type of resonant and beautiful sound that I was looking for without sacrificing the clarity of articulation. It also avoided the distinctive “bell fuzz” that results from recording a tuba straight down the axis of the bell. Repeating this setup was tricky and always took extra time to make proper adjustments, but by the end of the project, set-up times were minimal.

Mic placement for the percussion equipment was quite different from my strategy for tuba. I experimented during recording sessions and tried to mic the percussion in a way that would minimize the room noise and yet maximize the resonance and color of the instruments. I was particularly pleased with the sound that I was able to achieve from the marimba, as I moved the microphones rather close in order to capture a more immersive stereo effect, with the right channel focused more on the upper 2/3 of the keyboard, and the left on the lower 2/3. This placement was crucial in a few of the works as the marimba and vibes often played a key role as a solo voice and needed to have a much deeper personality and presence than a mic placement further away offered. In addition, many of the pieces benefited in color from the extra high-frequency percussive sounds of the mallets striking the bars, which offered a lot of interesting characteristics of the sound for the audience to explore. The closer mic placement was able to capture those sounds in a much more clear and more compelling way, and I was very pleased with the results.

There were many other preparations that were much more specific to individual movements in the score, and I will discuss those as they pertain to each movement. I will also give some biographical information on my collaborative composers, outline the nature of our collaborative efforts, and give a brief formal analysis of the movement in order to enhance the listening experience. I invite the reader to pull up a copy of each score, read the section detailing each movement's origin and collaborative efforts, and enjoy the recording.

The Seven Wonders for Tuba and Percussion

1. The Statue of Zeus by David Vayo

David Vayo is the Fern Rosetta Sherff Professor of Composition and Theory, Emeritus at Illinois Wesleyan University. Although I never had a class with him, he was the type of figure that had a strong influence on the culture of that school. He has a quiet sense of confidence and purpose in all his interactions, and a distinctly artistic and beautiful way of viewing the world around him. He strongly embodies a quote that features prominently on his website:⁴

“I listen mostly, trying not to interfere with the sounds inside.”

This ethos in many ways helps to describe Vayo as a person and artist. His pieces constantly search to utilize every available sound in a concert experience and to explore those sounds spatially in every conceivable facet. He often writes music that has a sense of program, pacing, and drama. In an interview with me, he commented that he enjoyed a sense of procedural presence that occurs with music and that he constantly sought to highlight the concert setting as a ritual and experience rather than just “here is a piece... let's sit down and play.” Many of his

⁴ David Vayo, “David Vayo,” accessed March 3, 2023, www.davidvayo.com

pieces explore space with specific lighting, staging, and action cues, so one can almost always count on something slightly unusual from a normal concert experience. He pointed at a few key examples from past pieces he wrote that embody this type of style. For instance, in a work called *Chambers* for viola, percussion, electric keyboard, conductor, and audience, he requests that the audience occasionally cover and cup their ears during different specific portions of the piece, creating a sort of *wah wah* individualized shaping of the sound. In another piece, *We Wonder as we Wander* for horn and harp, he utilizes the available space by having the horn play predominantly off stage, or from the lobby, or from different unseen areas of the hall so that the sound quite literally wanders around from the audience's perspective.⁵ Vayo brings this same type of staging, program, and ritual to his musical depiction of the Statue of Zeus.

In our initial meeting discussing the assignment of movements, Vayo was fairly non-committal in his attitude toward which movement was assigned to him. He was happy to take on whichever movement was last picked. During an interview with Vayo after completion of the score, I spoke with him about some of his reservations regarding the Statue of Zeus as a subject, and he commented that part of the challenge was that Zeus as a character in Greek mythology is not particularly likable. Zeus was quite often portrayed as ornery, jealous, rather prone to anger and violence, and constantly cheating on Hera. Generally... not a stand-up guy. Perhaps cultural norms can be blamed for the differences in values, but Vayo commented that in his plan for the score it took a while before he had settled on how to exactly portray the character of Zeus. During work on the score, Vayo's father unfortunately passed away, and Vayo commented that

⁵ In an interview with the author, March 03 2023.

perhaps this was a reason why he settled on a setting of a historical hymn to Zeus that describes the God of Thunder in a much more benevolent and fatherly sense.

As Vayo progressed through the score, he sent me several messages asking what my vocal range was, and if I was comfortable singing in other languages. Armed with that information, Vayo then asked me to find a student from UW's Classical Studies department to help with the project by finding and transliterating some ancient Greek hymns to Zeus. After a few attempts, I found a student that was willing to help by the name of Miranda Halsey. Halsey worked with Vayo extensively for several weeks, during which she sourced several hymns to choose from, transliterated them to provide singable text, and then did a word for word translation to help understand the literal meaning to effectively set the text to music. Ultimately Vayo chose to set a hymn by the ancient poet Aratus. The hymn is included below, Halsey's transliteration is in the left column, and a more general translation of the text from the Loeb Classical Library is in the right. As a brief side note, I am enormously thankful to Halsey for her contribution to the project. She has since graduated and is studying abroad, so I have still not been able to meet with her in person, but her hard work and commitment to understanding Vayo's intentions and giving him the exact information he needed were absolutely essential to the creation of this work. She even provided a recording of herself speaking the hymn in ancient Greek, which proved enormously helpful in my preparation to sing the text.

<p>Ek Dios archometa, ton oudepot' andres eomen arreton; mestai de Dios pasai men aguiyai, pasai d' anthropon agorai, meste de thalassa kai limenes; pante de Dios kechremetha pantos. tou gar kai genos eimen; ho d' epios anthropoisin dexia semainei, laous d' epi epios egeirei, mimneiskon biotoio, legei d' hote bolos ariste bousi te kai makeleisi, legei d' hote dexiai horai kai phuta gurosai kai spermata panta balesthai. autos gar ta ge semat' en ouranoi esterixen, astra diakrinas, eskepsato d' eis eniauton asteras hoi ke malista tetugmena semainoien</p>	<p>From Zeus let us begin, him do we mortals never leave unnamed; full of Zeus are all the streets and all the market-places of men; full is the sea and the havens thereof; always we all have need of Zeus. For we are also his offspring; and he in his kindness unto men giveth favourable signs and wakeneth the people to work, reminding them of livelihood. He tells what time the soil is best for the labour of the ox and for the mattock, and what time the seasons are favourable both for the planting of trees and for casting all manner of seeds. For himself it was who set the signs</p>
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<p>andrasin horaon, ophr' empeda panta phuontai. to min aei proton te kai hustaton hilaskontai. chaire, pater, mega thauma, meg' anthropoisin oneiar, autos kai protere genee. Charoite de mousai meilichai mala pasai; emoi ge men asteras eipein hei themis euxomenoi tekmerate pasan aoiden.</p> <p>Transliteration by Miranda Halsey (2022)</p>	<p>in heaven, and marked out the constellations, and for the year devised what stars chiefly should give to men right signs of the seasons, to the end that all things might grow unfailingly. Wherefore him do men ever worship first and last. Hail, O Father, mighty marvel, mighty blessing unto men. Hail to thee and to the Elder Race! Hail, ye Muses, right kindly, every one! But for me, too, in answer to my prayer direct all my lay, even as is meet, to tell the stars.⁶</p> <p>Translated by G.R. Mair (1921)</p>
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Vayo opens the piece by invoking a sense of musical ritual. It is sung in ancient Greek by the tubist, standing stage center facing the audience. The text addresses the other humans in the room and Vayo instructs the tubist to do the same. At the end of the first stanza, the tubist turns and plays a somber melody in response and preparation. In an interview, Vayo commented that he was hoping to make it clear that the tubist was facing an imaginary statue of Zeus and directing the instrumental music to the statue of the god. Vayo also utilizes a hidden percussion section that responds to the hymn using a thunder sheet and rolled trash cymbal, before the percussionist emerges with a lighting change. The second stanza progresses with the steady ostinato from the marimba and vibraphone, which gives the music feeling of the inevitable pull deeper into the ritual, the stanza ends in a moment of hanging suspense from two voices singing the prose in canon before the music suddenly erupts from unseen places in a powerful and furious response of activity. Vayo called for this response as pre-recorded background tracks with loud and low powerful tuba pedal B's from four different tuba parts panned in specific right and left channels. He also calls for percussive aleatoric sections from marimba, vibes, tam-tam, and bass drum that act as a rolling wall of powerful encompassing sound. A choir of voices and a

⁶ Aratus, *Hymn to Zeus*, trans. G. R. Mair, Loeb Classical Library 129, (London: William Heinemann,) 1921.

responding choir of high-range tubas extol the power and majesty of Zeus. As the hymn continues, more delicate sounds layer in response as the rolling wall dwindles into a sense of mystery and ominous power. A montage of images of Grecian architecture, nature, and art begins to flash, and the music continues to dwindle and dissolve in response to the display. The movement ends with plucked piano strings from the backing tracks and wind noises from the live performers, as a solitary voice from the backing track finishes the hymn. The final sounds are of an imaginary whispered all-vowel language spoken by live performers amplified through two tubas on stage as the lights and video fade to black.

This movement was incredibly challenging to put together, but I believe the work was worth it, as the drama and creative use of space is a fitting and compelling way to open the concert experience.

2. *Artemis* by Brian Baxter

Brian Baxter is currently the Executive Director of the Quad Cities Symphony. He resides in Davenport with his wife and children. Formerly, Baxter was the executive director the Chicago Youth Symphony Orchestra and also served on the board of directors as one of the founding members of the Chicago Composers Orchestra. He did his undergraduate degree with me at IWU in composition, and his masters at Roosevelt University in downtown Chicago. It was there that he and a group of his colleagues came up with the idea for the Chicago Composers Orchestra, which is a group dedicated to exclusively playing music by living composers, and routinely commissioning composers to write new works for orchestra. While there Baxter and a few of my other collaborators formed a new music ensemble called the Sissy Eared Mollycoddles and hosted small new music concerts in unusual locations in and around Chicago. In addition to being a highly gifted organizational manager, Baxter is also a percussionist and

composer. He is a dear friend, was my roommate for a year in college, and served with me on several different leadership councils during our time at IWU.

I have musically worked with Brian many times in the past, and I am quite familiar with his music and his style of writing. Baxter's music is usually highly rhythmic and often features extensive use of grooves and distinctive repeating patterns. In his string quartet *Roots Run Deep* a repeating sixteenth note pattern is used extensively as a musical building block and gets passed around the quartet. He also has an entire album *Book of Drum* which artistically uses drumbeats and drumming patterns to paint emotive pictures of his life in the city of Chicago, as well as reflect on deep human issues he was tackling at the time. The album is recorded exclusively on drum set which is played with a different collection of mallets, shakers, and found objects.⁷

In another piece Baxter wrote for me, *The Box of Justice*, a swing groove is used, and rhythm constantly plays a pivotal role in the thematic development and formal structure of the piece. He is more likely to focus on just a few musical structures and let them subtly evolve over time to maximize their musical output, rather than introducing a dizzying amount of new material and sounds. In my interview with him Baxter commented that he thought a key characteristic of his style required the audience to examine a musical structure many times, to hear an idea evolve through the course of time.⁸ He also enjoys combining grooves and scales that are not commonly used together to experience certain sounds and scales in relation to new patterns of time. In *Box of Justice* for tuba and percussion, the tuba part is written as a twelve tone line that has a sort of bluesy feel. To date it is the only swung serial-based composition I

⁷ Brian Baxter, "Book of Drum," accessed March 04, 2023, www.brianbaxtermusic.com/book-of-drum.

⁸ In an interview with the author, March 04, 2023.

have heard, and it certainly has a unique sound and feel. In that piece, Baxter relied on body percussion and other sound effects the tuba can create to convey a sense of percussive rhythm and swing.

Another important aspect of Baxter's work is that whatever inspires the piece often dictates its form, and *Artemis* reflects that approach. Baxter wanted to convey the temple as a place that existed in phases and through time, so he organized his composition around the history of the temple. He commented that the parallels of this building existing and then fading into memory the same way a piece of music is purely temporal were very real in his imagination while writing. The movement is organized into three distinct sections that mark three periods in the history of the temple itself. The temple was built by the Ionian immigrants, and thus Baxter decided to compose the piece using an Ionian scale. The opening sections of the work marked "Ionic Immigration" are meant to depict the slow construction of the temple, with imagined sounds of construction from the low drum rolls, and the slow ascension of the scale in the tuba line reaching new heights. The temple was first destroyed by a flood, and then later rebuilt by the Lydians. The second version of the temple was much grander in scale, so in the second section of the work Baxter introduced a much more colorful and active drum groove as well as some more metallic and shimmering vibraphone sounds to convey the temple's splendor. The beginning of the third phase of the history of the temple is marked after it was destroyed by a fire, likely set by an arsonist. The fire is embodied in a fast and frenzied drum groove without the presence of tuba, the tuba joins in following the fire to rebuild the temple once more in a more aggressive driving groove to illustrate the construction of the temple among the Ephesians. The piece ends in a much more glorious way with all the voices and drum set fully grooving on the original Ionian scale pattern. Baxter commented that he wanted to end the piece in a big and energetic way, as

this final third phase of the temple was likely at its most grandiose and awe-inspiring. True to Baxter's style, the piece never strays too far from its original Ionian melody, Baxter uses range, and the sonic quality of the tuba to convey the most important formal elements as the melody progresses through the history of the temple, and again the musical structures are highly derived and notated by a distinct groove. Each section is connected to the previous via a metric modulation, so the entire piece is rooted to its original meter. The piece is approachable and energetic, and very fun to play. It allows a full range of expression in the tuba's tessitura and again combines a simple scale pattern with a more driving and catchy almost rock-oriented drum groove.

3. *The Hanging Gardens of Babylon* by Benjamin Hjertmann

Ben Hjertmann is a vocalist and composer based in Asheville, North Carolina. Hjertmann was also a member of the class of 2007 at IWU. Hjertmann and I became well acquainted during our time as undergraduates, and more so when we both started graduate programs at Northwestern University after graduating from IWU. Hjertmann has written music for all different kinds of ensembles, he has large ensemble works that have been performed by ensembles from Northwestern University, University of Texas at Austin, Louisiana State University, Michigan State University, Central Michigan University, Kansas State University, Lawrence University, University of Nebraska Lincoln, New York University, and Texas Tech University. He has also composed extensively for chamber music groups and has collaborated with the PRISM Quartet, Axiom Brass Quintet, Third Coast percussion, and the Spektral Quartet among many others. He also formed and currently plays in several new music ensembles

including the previously mentioned Sissy Eared Mollycoddles, as well as the Grant Wallace Band and new music group Kong Must Dead.⁹

Stylistically, Hjertmann has always been intrigued by microtonality, even before starting his formal education at IWU. In his writing with Grant Wallace Band, Hjertmann frequently sings and writes using microtonal structures and various tuning systems. While at Northwestern University, Ben did his dissertation research on microtonal harmonic structures derived from sum and difference tones. In the past five years, Hjertmann has been enjoying thoroughly exploring Just Intonation in most of his new compositions and continues to push boundaries using the tuning system in more vocal and instrumental contexts.¹⁰ Hjertmann also enjoys connecting formal structures to the theoretical tenants of a Just Intonation system. For *The Seven Wonders*, Ben chose to tackle the Hanging Gardens of Babylon using Just Intonation. Because of the infrequency of this tuning system, a brief explanation its concepts is necessary to continue exploring the formal structures of Hjertmann's piece.

Just intonation can be summarized as any system of pitches that is based exclusively on the naturally occurring harmonic series, creating a consistent system of mathematical relationships between every scale degree of a given root pitch. These relationships can be expressed as ratios of a single constant. Say for instance A-440, using a system of just intonation, one could expect that the octave above A to be exactly double the hertz, so A-880. In between this octave are 12 pitches that are perfectly mathematically positioned using ratios of the 440 constant. Moving up a major scale, these ratios are: 9:8, 5:4, 4:3, 3:2, 5:3, 15:8, and 2:1 at the

⁹ Ben Hjertmann. "Ben Hjertmann, Composer," accessed March 07, 2023, www.benhjertmann.com

¹⁰ In an interview with the author, March 10, 2023

octave. The sounds of these ratios are subtly different from the equal temperament systems in use today, which allows quick transitions from different key centers using instruments with fixed pitches such as pianos, marimbas, xylophones, and glockenspiel. If these fixed pitch instruments were tuned perfectly in ratio with a given root, then they would not be able to change keys from any given tonic and would need to be retuned constantly in order to explore new key centers.

The practical result of using just intonation is not nearly as complicated or odd sounding as one expects, as these harmonic frequencies are already happening inside the overtone series. If anything, performing in Just Intonation feels much more stable and natural. Musicians frequently adjust individual pitches in a given chord using Just Intonation to simply find the most beautiful and resonant “in-tune” sound.

Hjertmann’s use of Just Intonation is much more extensive than this, as he bases his melodies on 11-limit and 13-limit scales, meaning only using the first eleven or thirteen harmonics of a pitch’s series. He also uses four different fundamental pitches for the piece and shifts between the fundamentals frequently in a few sections, meaning a given D might not be exactly the same as the D coming in the next bar. These scale degrees are expressed using a system of accidentals called Helmholtz-Ellis accidentals, as a way to help designate which versions of a pitch relative to its fundamental are being used. Hjertmann includes several cover pages detailing the system of notation and concepts used in this piece. Structurally speaking, in order for a tubist to effectively play *The Hanging Gardens*, only four different fingerings need be employed, as every note can be derived from one of four different harmonic series. In terms of practical performance, I used this system as much as I possibly could, although I occasionally used an equal temperament fingering to avoid an unfortunate tone quality of a given partial, or an odd quirk unique to my own instrument in order to find the best sound. The intonation tendencies

of the partials however are desired, as these are what naturally occurs in the series. In my particular instrument, however, there are a few different fingerings that result in very weak sounding partials, especially in the extreme upper harmonic series where most of *The Hanging Gardens* is written. I made the executive choice to sound more beautiful than be structurally perfect in those instances.

Hjertmann also applies Just Intonation to the percussion part. He calls for six different specifically tuned roto-toms, which are then retuned in between sections. The percussion part is enormously complex, and quite difficult. I would be remiss to not mention the heroic efforts of Trygve Lebaken in bringing this part to life. Hjertmann juxtaposes several different tuplets that rapidly transition from divisions of three, five, seven, nine and eleven. These subdivisions are also derived from the ratios expressed by the Just Intonation system. As a result, while being quite devilishly difficult, the groove that the percussion establishes never feels unnatural. Also, Hjertmann notes that the percussion part repeats itself within each section, so its absolutely meant to be felt as a cascading flow of interlocking subdivision rather than some sort of robotic aesthetic of perfection. In Lebaken's preparation of the score, we quickly discovered that the difficulty of the part outpaced his abilities given the time constraints. Rather than resort to performing with a computerized version of the score, I simply recorded Lebaken at a much slower tempo allowing him to still execute the various metric modulations and tuplet grooves with a much higher degree of accuracy while still creating a distinctly human "pocket." I then took Lebaken's recordings and digitally sped them up to the appropriate tempo as a backing track and added some reverb to help account for the severely shortened sustain from the drums. This approach was artistically significant in a number of ways, it was important to me to keep every aspect of the *Hanging Gardens* as natural as possible to keep the piece true its formal

structure. I also wanted to make sure to honor Lebakén's contribution to the project as an artist and musician rather than replace him with a midi track. In the end I am glad we chose to press on and capture what we could. "Robo-Trygve", as I affectionately named the track, sounds much better than any MIDI rendition I could have come up with.

Hanging Gardens is a piece that I find infinitely intriguing. Nearly every rhythmic aspect of the piece, including the various juxtaposition of tuplets, metric modulations, and even the tempo of the entire work is derived from the expressed ratios of the fundamental pitches. It is this formal elegance that makes Hjertmann's score just as fulfilling to study as it was to prepare and perform. He pairs these naturally occurring yet complex systems to evoke the sort of natural organic quality that must have been in the Hanging Gardens of Babylon, if such a place ever existed. The flowing melodic percussion writing evokes images of greenery cascading over high walls with flowing and echoing melodies bouncing around a conservatory of life and nature. The piece can be experienced in many ways, one can simply relax, and let the cascading rhythms and soaring lines wash over, making the work feel natural and elegant. Or should the mood strike, one can deeply listen, deriving and connecting the sounds through their ratios with one another, and enjoying the realization of complex mathematical patterns and relationships. Either way, the piece is satisfying. It was such a joy to be challenged and to grow from studying this piece, and it is one that I earnestly hope to revisit later in my career.

4. *Colossus* by Luke Gullickson

In terms of awards for quickest to the finish line, Gullickson gets first prize, and the contest was not close. After I pitched the wonders to the composers back in October of 2020, less than forty-eight hours later Gullickson contacted me with his submission. His email started with the phrase "decided to strike while the iron was hot". In hindsight I should not have been

surprised. He has always been a highly intelligent and decisive leader and composer. Gullickson has a decisive personality that makes him an excellent leader, and he was a natural choice to be the president of our fraternity. I collaborated with him extensively in several different leadership capacities during our undergraduate years. In addition to being a prolific composer, Gullickson is a gifted and virtuosic pianist, guitarist, and songwriter. He seems to seamlessly blend between genres in composition and is a leader in the new music scene in Albuquerque where he lives and works. He is the company manager of the Chatter Ensemble, which presents over 90 new music concerts each year. He frequently collaborates with Ben Hjertmann as a member of the Grant Wallace Band, and has enjoyed collaborating extensively with Houston Grand Opera, and Ensemble Del Niente in Chicago. Gullickson has degrees from IWU, as well as degrees in composition from University of Texas-Austin, and piano from the University of New Mexico.¹¹

In his approach to *Colossus*, Luke chose a decidedly minimalistic style. The movement is very simple, and short. The instrumentation consists only of sleigh bells, vibraphone with motor, and tuba. The sleigh bells have a single continuous jingle, while the vibraphone repeats a rather catchy ostinato that changes pitches every two bars of 1 1/4. The tuba always enters with each pitch change in long slow drawn-out crescendo and de-crescendo. Gullickson writes in the opening lines of the score for the performers to pay special attention to the interaction between the sounds being created especially between the tuba and vibraphone. He advises focusing on moments in each bar where the vibraphone sound might disappear and then re-emerge from the tuba sound. The piece continues in this way progressing through various harmonic changes and

¹¹ Luke Gullickson, "Biography," accessed March 09, 2023, www.lukegullickson.com/bio.

pitch interactions until it comes back exactly the same way it began and finishes with a long fading and vibrating note from the vibraphone.

My initial impressions of the piece were skeptical. The work seemed to come together quite quickly, and I was not convinced of the musical depth that was there. I was concerned that it would be out of place, or perhaps a bit too simple or underthought. In hindsight I do not think I could have been more incorrect in my skepticism. Gullickson's piece is wonderfully minimalistic, but perhaps cannot be fully classified as such, as the harmonies shift and evolve more quickly than other minimalistic pieces. There are some truly satisfying moments when the vibraphone splits into two notes in turn with a beautiful and rich low tuba sound. I felt strongly as a performer that I needed to think and feel out those peaks as much larger phrases, and I tried to approach the piece in a way that highlighted those special moments. It was clear that the piece also demanded a lot of attention to the actual physical sounds that were being created. Since there's so little happening, the music demands the listener to probe deeper into the nature of each sound, and I was careful to try and capture the individual instruments in a very intentional and detail-rich way. My collaborative percussionist Nick Bonaccio and I spent time experimenting with which set of sleigh bells to use, and how exactly to go about creating a washy jingle sound. Gullickson's score simply said "shake," but we settled for a sound that resulted from spinning bells around almost like a whisk in a bowl. It produced a dark, washy, round sound that was quite pleasing. We also chose the darkest sounding bells that we could so that it would blend more with other round and smooth sounds present. For the vibes, we settled on a medium-slow motor setting, it was important to me that the speed of the vibrato not be in relationship to the tempo at all, so the resultant sound almost feels polyrhythmic. I also recorded the vibraphone quite close so that the listener can really hear the attack and clang of the mallet hitting the metal

bar. All these decisions helped make the sounds a much more fascinating place to explore, and definitely helped sell the piece. For the recording I used the same F tuba that I used on all the other tracks. However, for the upcoming live performance, I am strongly considering performing the work on my contrabass instrument as the wider sound might interact a little more with the other instruments present. For the recording, the tuba part was surprisingly difficult to pull off, as it required such fine dynamic control. It was a very different kind of challenge than most of the other movements.

I think my favorite aspect of this piece is the sounds are the stars of the show and are quite fascinating all on their own. The work features very little traditional melody, and the music follows a very pleasing and satisfying harmonic progression. The movement's largest achievement is the way it invites the listener to soak in the details of each sound, and quietly observe as they interact. Every time I listen to *Collosus* I find myself drawn to the slowly changing soundscape, much like a sand art frame or a slowly spinning kaleidoscope. It was by far the easiest piece to put together and has become one of my favorite works to listen to and play. I chose to specifically place *Colossus* right in the middle of the seven-movement work so that it could span the gap of pieces, just like the ancient Colossus at Rhodes over the harbor. I hope the audience sees this movement, and its placement, as a simple nod to the wonder that inspired it and enjoys the relaxing and leisurely exploration of beautiful sounds that the movement offers.

5. *The Mausoleum* by Eric Malmquist

Eric Malmquist may have one of the most distinctive and recognizable styles of the commissioning group. His pieces are always approachable and heartfelt, and they have a certain singing and emotional quality. He is heavily influenced by minimalism, and his music embodies

a unique style the rest of his peer group has lovingly labeled as “Midwestimalism.” He also has a profound love and respect for early music and frequently writes for period instruments and small chamber choirs. Notably, he has written a sonata for tuba and piano which was commissioned by Scott Tegge from the Gaudete Brass Quintet. The piece was premiered by Tegge and was also performed on a recital by Chicago Symphony Orchestra tubist Gene Pokorny. Malmquist cites his chief influencers as composers Phillip Glass, Arvo Pärt, and John Taverner. He also finds himself drawn to the harmonic structures of Benjamin Britten, especially his opera *Peter Grimes*.¹²

Malmquist and I were roommates for our final year at Illinois Wesleyan University, and I recall sharing many thoughts about early music, performing, and composing with him. It was during this time he introduced me to the music of Arvo Pärt, for which I am grateful. I was fortunate enough to help premiere Malmquist’s first symphony as a conductor, which was a unique challenge, and our paths have continued to intersect musically and personally over the years. I commissioned both Malmquist and Baxter to write original pieces for my wedding in 2007, and both stood as groomsmen, as I stood in theirs. He is a dear friend and someone whom I genuinely respect and admire.

Malmquist chose to take on the Mausoleum at Hallicarnassus for this commission. In an interview I talked with him about his approach and how he chose to tackle this movement. Malmquist has always had a deep love of history, especially ancient history, and it did not surprise me in the least that he would have been very interested in discovering the specific history of the mausoleum and finding ways to incorporate the story of the structure into his

¹² In an interview with the author, March 09, 2023.

piece. He noted that the seven ancient wonders were largely Greek, except for the pyramids and the Babylonian hanging gardens. The mausoleum, by contrast, is not necessarily Greek in origin but was decorated and crafted by Greek artists, which is one of the reasons why it became grouped as one of the seven wonders. The purpose and inspiration for the building came from a neighboring territory of Lycia, which was notable for its numerous ornate and monumental tombs. The building stands as a blend of cultures and practices, Lycian in influence, inspiration, and purpose, but distinctly Greek in its adornments of many marble statues, columns, and facades. Malmquist said in an interview that he had the idea of creating and staging some sort of ritual to help represent the buildings' purpose as a tomb. The piece is basically through composed and almost programmatic with distinctive sections, but the melodies and textures in each section are absolutely related and evolve and interact as the piece progresses. He envisioned the tubist as a sort of high priest, and the marimba playing the part of a ritual dancer or congregational response. *The Mausoleum* opens with a melodic invocation by the tubist that is full of sweeping intervals and attention-grabbing dynamic markings. The music is free flowing as the intervals follow a successive pattern of fermatas and long holds. As the initial melody settles into a stable groove the marimba suddenly thrusts into the scene in an abrupt change of tempo and style. When I first received this music, this sudden and abrupt change seemed quite different from what I would have expected from a Malmquist score. I asked him about this in our interview, and he admitted that "it usually takes quite a bit for him to change a meter." He normally definitely enjoys fully exploring a given key or metric feel before moving on to anything else, which is one of the more distinctive minimalist qualities of his music. He mentioned that he consciously chose to break his usual form for this piece in an effort to do something different, but also to introduce the marimba as a second distinct character. The tuba

joins in with the marimba in a mixed-meter groove that has elements of the big singing intervals from the opening material. Following this interjection, the marimba dramatically passes the baton back to the tuba “high priest” who solemnly continues a sort of invocation or chant-like melody. The marimba provides a steady ostinato response, that gives the high priest a more rhythmic drive and edge compared to the earlier music. Together, the tuba and marimba slowly and gradually work into a frenzied agitation with a quickening tempo, grand crescendos, and rapidly frothing descending scale patterns. The energy culminates and peaks in another upwards sweeping dramatic leap from the tuba before dissolving and fading into the final melodic sequence. This final section embodies a sort of closing ceremony, or recessional from the ritual. Its melody is one that I labeled the “cave melody,” as it sounds like music for quiet and dark places. The melodic pattern evokes a sense of creepiness but peaceful slumber, appropriate for music meant to accompany a tomb. The pattern has a sense of continuing ad infinitum by ending on a leading tone to the initial pitch. The pattern is repeated three times, but one gets the sense of this music continuing to go on long after the silence of the conclusion. To round out the piece, the marimba moves from the unison melody with the tuba and repeats the opening lines of the high priest, only this time as a soft afterthought. The opening intervals continue to dwindle in volume and tempo, accompanying the endless cycle of the cave melody as the music quietly lays itself to rest.

So many aspects about this piece are easily identifiable as key components from Malmquist’s usual style. There are just two instruments and only a few simple melodic ideas that are fully explored and evolve in approachable and obvious ways as the piece progresses. The melodies are soaring, and all have a distinctive singing quality. However, rhythmically Malmquist broke his own mold in terms of the mixed meter interjections, frequent meter

changes, and rapid frothing energy that builds up to a very dramatic peak. The conscious decision to bring much more drama to the ritual by building distinctive interacting characters with their own personalities gives a distinctly programmatic quality to the work. In the end, despite these rhythmic outbursts, *The Mausoleum* is still rooted in Malmquist's very approachable singing style. It is a piece that I hope the audience will enjoy as much as I do. Malmquist's music has always been lovely to play, and my consistent feedback to him while working on this piece was that "it is just easy to make this sound great."

6. *L.H.O.A.* by James Klopfleisch

Perhaps the most challenging of all the movements was submitted by James Klopfleisch, who chose to write the movement depicting the Lighthouse of Alexandria. Klopfleisch is another member of the class of 2007 composition studio, and currently lives in California and works as an accountant for his day job. He is perhaps the most outrageously creative and barrier-destroying musician I have ever met. He is an endless source of creative ideas and deep perspective and has a unique passion for looking at music, sound, and performance experiences in new and creative ways. He is quite willing to try literally anything and completely unafraid of failure. His music often features extended techniques or alternate performance spaces. As an example, for one of his composition recitals, Klopfleisch had asked a whole bunch of students at the school of music to audition their car horn's panic button. After listening and cataloging about 20 different cars, he wrote a piece for car horn panic button dongle to be performed outside and instructed the performers to park their cars in various places around the quad in the middle of campus. Each performer was to trigger their alarm at certain times and in certain rhythms. Ultimately, the range of the dongles proved to be problematic, and we were unable to successfully perform the piece, but this never phased Klopfleisch. He simply moved on to the

next idea and kept creating. His primary instrument is string bass, and he has created and played bass with several new music groups. After completing his studies at IWU, Jim went on to study at the California Institute of the Arts, where he continues to be deeply inspired by what he calls the American Experimental Tradition. I asked him about specific influences that he felt highlighted his work in *L.H.O.A.*, expecting that he would probably need to think about where some of the ideas had come from, but he responded immediately with “Charles Ives”. He resonates strongly with Ives in terms of exploring the spaces between tonalities, tempo, and sounds. He cited a story of Ives standing between two marching bands moving towards each



Figure 1 "Erased De Kooning." - San Francisco Museum of Modern Art

other, and found the jarring tempi combined to be quite beautiful. In *L.H.O.A.* this influence is immediately seen and heard in the piece’s basic construction, which I will explore later. He also mentioned that he was heavily influenced by a drawing by artist Robert Rauchenberg and Jasper Johns called “Erased de Kooning.” The drawing is of a nearly blank piece of paper in a decorated frame. Rauchenberg had obtained a drawing in the style of abstract expressionism from

William de Kooning, and then simply erased it, leaving behind faint fragments of what was once there. Artist Jasper Johns then took the erased drawing and put it in a ornamental gilded frame, which has since been viewed as an essential component of the work.

These two influences proved to be essential in understanding the formal structures and artistic statement of the work. As Klopfeisch began to work on *L.H.O.A.*, he had commented that he wanted the piece to be intensely personal and rooted in our relationship and past experiences. He recalled that I was a religious person, and asked if I had any special songs or hymns that were particularly meaningful to me. Phillip Bliss's hymn *It is Well With My Soul* immediately came to mind, as that hymn is one of my most powerful musical memories. I lost a member of my extended family to cancer in 2002, and in the privacy of a small bereavement room, my family, aunts, uncles, cousins, and grandparents sang that hymn together in full SATB harmony. It was a powerful and defining moment in my life. I explained to Klopfeisch the lyrics to that hymn were a reaction to the poet losing all his children to a shipwreck. From there, the connection to the Lighthouse of Alexandria was obvious. Jim then asked me to help him collect recordings of members of my friends and family singing that hymn. That was the last assistance he needed, and Klopfeisch's artistic convictions took over. *L.H.O.A.* utilizes the recording of Bliss's hymn at a fairly slow tempo, then over the top of that track, Jim wrote two instrumental parts for tuba and mixed percussion (chimes and snare drum) in two completely separate tempi. The singers on that track progress through the hymn at 56 beats per minute, while the tuba is marked at 75 beats per minute, and chimes and snare are marked at 131 beats per minute. The music weaves in and out of sync in the same way Ives explored the places between juxtaposed tempi.

The tuba part is perhaps one of the most challenging pieces of music I have ever encountered and pushed my virtuosity farther than I could have imagined. Klopfeisch mentioned when he gave me the score that he was inspired to write something very virtuosic by a recital of mine he heard, and that he also used elements of chance and random number tables while he was writing the music. To be frank, this initially infuriated me, as I thought the reliance on

randomized creation is what resulted in what felt like an absurd difficulty level. I spent hours trying to audiate runs and extreme leaps, with what felt like very little progress. With a sense of frustration, I called Klopfleisch and asked him to help me with some insight. He mentioned that he was inspired by jazz saxophonist James Brandon Lewis, and after spending a good amount of time listening to Lewis' discography, I had unlocked the secret to performing *L.H.O.A.* as a series of intensely emotional gestures, rather than the perfection of randomized numbers.

It was not until after I had recorded the work that I learned the procedural chance and random number tables Jim mentioned were not used in the construction of the work, rather they were destructive in nature. As an accountant Klopfleisch has access to many volumes of published randomized numbers intended to remove bias while auditing large companies. He decided to use this randomized and unbiased "natural" force to weather his composition in a similar way to Rauchenberg and John's in "Erased de Koonig." Rather than completely erasing the work, which would be obviously pointless in a musical setting, he exposed his music to the number tables and erased portions of the score and individual parts as dictated by the numbers. The process reminded me of waves crashing against rocks, slowly aging and smoothing the stone, much like one would find at the base of a lighthouse. I found this idea endlessly fascinating, and it helped color the piece in a new light and has made me a much more effective performer of this work.

L.H.O.A. is unlike anything I have ever played before, as I fully expected coming from Klopfleisch. I think it is exactly as he hoped it would be: groundbreaking, creative, and virtuosic, and yet the story behind it is still intensely personal and human.

7. *Giza* by Brianna Ware

The final wonder and closing movement is *Giza*, by Brianna Ware. I chose to end with this piece for a few different reasons. First, Ware wrote for two percussionists instead of just one as was the original plan. I ended up having to share the percussion assignments anyway, so this worked out as a nice concluding element to feature all the performers present. Also, the pyramids at Giza are the only remaining wonder that can be seen and serves as a sort of theoretical bridge from confronting the unknown to connecting to reality, so I thought it might be an appropriate way to bring listeners back to the present. Also, Ware wrote a nice exciting, and virtuosic ending to the piece which would be a nice exclamation point to the entire work.

Brianna Ware is a standout in our commissioning group for a few reasons. Most importantly, she is the only composer I did not share an extensive personal past with. Originally, I had thought about writing the Giza movement myself, but I decided to ask her to join the group after realizing how much of my time and energy was being spent helping bring the other works to life and doing all the necessary scheduling and recruiting the project needed. I was also concerned that my compositional efforts might stand out as being somewhat lacking in direct comparison to my other much more experienced colleagues, and I was afraid of weakening the overall artistic value of the end product. I am still intrigued by this idea, and I have not set aside the idea of compositionally contributing to this project if I revisit it in the future, perhaps I can write some “Promenade” transitions to each movement a la Modest Mussorgsky’s *Pictures at an Exhibition*? Or fill in the gaps and blend the styles like Liszt did in *Hexaméron*? All are options, but they did not seem necessary for the completion of this work at this time.

In the end, collaborating with Ware was a better result for a few reasons. If it is not obvious by now, the heart and soul of this piece is not just about the seven wonders. Rather, the wonders are more of a focal point or a foil for celebrating the collegiate and artistic experience. I

had mentioned previously that the start of this project was the desire to celebrate my journey through higher education, and to look back and reflect on personal growth, and on the way that we as artists influence and challenge each other. I wanted to celebrate the intrinsic value of relationships, artistic vulnerability, and personal authenticity. Ware in many ways represents the continuation of these efforts. While I have not known her for long, she was my colleague for a year as she was finishing her DMA in composition at UW-Madison. In essence, she helps point the values that I extol not as distant memories of important experiences, but rather as current habitual practices that define me as an artist and person. I entered this degree fully expecting to engage with the artistic community, to be an influence in the school, and to allow myself to learn and grow from those around me. This piece and my musical relationship with Ware is one of many results of those efforts. It is an example of the collegiate experience not being a single period of time that dissolves into whatever the rest of life turns out to be, but rather a lifestyle of pursuing excellence, creating new things, and breaking boundaries, and generally being awesome. That is really what this piece is about for me.

Ware's contribution to the work starts off with a solo multi-phonetic tuba passage. She extensively uses C harmonic minor as a sort of tongue-in-cheek nod to the "Egyptian" sound of harmonic minor scales. The multi-phonetic passages give the opening lines a very exotic feel, and then sound almost like a far-off double-reed horn. Ware said in conversation that she meant the opening lines in the tuba to sound and feel "hot, like a wanderer trekking through the desert, the pyramids appear in the distance when the other two instruments come in, and the listener is taken back in time to when they were built." Ware introduces the other two percussionists on bongos and marimba. The marimba shines as a soloist with some energetic interjections from bongos

and tuba before the opening section concludes, and the bongos kick off into a driving rhythmic pattern that stays present all the way through to the end of the piece.

There is a long section of vamped unison rhythms from the bongos and marimba during this dance-like structure, and Ware made a unique choice to rhythmically represent the names of each of the rulers buried in the pyramids and paired phonetic rhythms to accompany each ruler as

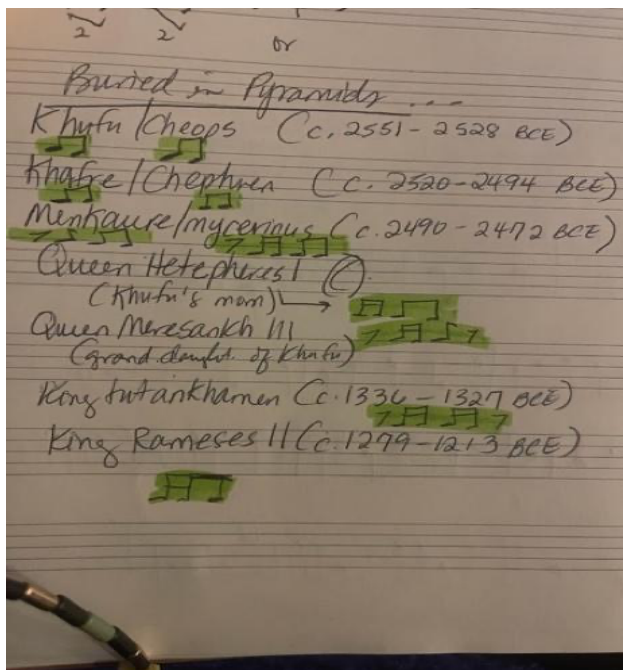


Figure 2 Ware's planning for the Giza movement. Provided by the composer.

shown in figure two. She decided to include the names above the parts so the performers would have a good idea of where the patterns were derived.

Following the rhythmic recitation of the buried rulers, the tuba takes over with a highly virtuosic section accompanied by driving dance like patterns in the percussion and finishes in a burst of energy for an exciting finish. This music is extremely virtuosic, yet also very approachable for the listener. This was an

entirely different kind of virtuosity than that was required for Klopfliesch's piece *L.H.O.A.*, as many of Klopfliesch's passages were highly gestural, and did not rely on accuracy but rather a commitment to style. In *Giza*, pure technique is on display. I had to have Ware revisit several sections during my preparation, and I recall her commenting that she wanted the "tuba to be just going crazy over the top of everything." The part does just that. It was very fun to play once I was able to piece things together and make some adjustments to make the most virtuosic

passages possible. It is certainly an exciting way to conclude the piece, and one that I hope will be in audience member's ears after they leave the hall.

Concluding Remarks and Future Plans

The Seven Wonders was a special challenge. Never in my life have I taken a project of this magnitude from faint glimmer of an idea to an actual artistic product. Parts of this process were easier than I imagined, while most were far more difficult. As a result of confronting these challenges, I was able to develop valuable experience. I became much more intimately familiar with recording technology, and was able to become fluent with some of the important computer programs in the music industry such as Pro Tools and Finale. I have learned an incredible amount from creating this recording and being involved in these commissions. I think perhaps more importantly, it helped foster a fire in my musicianship to continue to explore the subtle difference between “craftsman” and “creator.” I have always considered myself a fine craftsman of sound, but this project has certainly demanded much more of my creative musical self than any other I have attempted. I have enjoyed the process of growing and watching my work slowly become more efficient and effective. I am still in awe of many of the collaborators that I worked with, and I am humbled by the professionalism and artistry that they displayed. There is nothing quite like being inspired by watching a true professional at work. It took a tremendous amount of time and effort, but in the end, I am proud of all that we have accomplished with this project.

It is worth reflecting on if I was successful in my original goals and plans, or assessing if the planning and research I did at the start of the project paid off and influenced the whole. I think the answer is nuanced. Collaborative composition is not easy, or efficient. It is, however, rather unique. I think *The Seven Wonders* ended up being a very versatile musical offering that is hard to accurately define. Is it one piece? Or is it seven pieces? It functions well as a single

piece of music if one views it as a seven-movement suite. I made numerous decisions about how to present the piece to “sell” it as such. However, each individual piece easily stands independently as well. I noticed while putting together an order for the movements that several different options were possible, as each movement has a story arc all on its own. Three of the seven end on a quite loud pedal CC so they clearly are not saving drama for later. One could easily imagine any of the individual movements being programmed in a recital on their own, and perhaps they should be. It is interesting to me that some movements would be much easier to program and are far more likely to be performed again simply because they are logistically convenient. I would not hesitate to put *The Mausoleum* on a touring recital, as all that is required is a percussionist and a marimba. However, but it would be far more difficult to ever program *The Statue of Zeus* again because of the colossal effort and preparation of staging, lighting, and prepared backing tracks that is required. In the end, I am more than satisfied with this. Music can and should take its own course, and performers can and should play works that inspire them. I would have no problem if anyone wanted to play just one or two movements from the seven. I think the main question to ask is, do these works add value to each other when presented as a whole? What does the listener gain from hearing all the movements together, that they would not experience if hearing them alone? In my opinion as a performer, the total experience of *The Seven Wonders* offers a more distinct look behind the curtain. The unique quality and origin story of the idea is much more accessible when the movements are played in context with each other, and thus the true human heart of the piece becomes more readily accessible to the listener. They more clearly point to the relationships and shared inspiration that put the creative process in motion by inviting the listener to question why and how these pieces came to be. The additional depth of this contextual listening is one of the key components that I enjoy

discovering in music. The music is certainly fascinating all on its own, but the humans and lives of the people behind it are equally compelling, and putting together the origin story of a work together truly deepens and enriches the listening experience. I cannot help but notice that the actual seven wonders function in a similar sense. They all stand as architectural achievements and are noteworthy all on their own, but grouped together they invite deeper questions. Why do we as humans feel compelled to create things like this, and why were these structures built? How did the builders create these using the tools and technology they had? What does this tell us about the people that build it? I think the process of discovering and answering these questions would deepen the experience of visiting any one of these ancient sites.

As I put the finishing touches on *The Seven Wonders*, I find myself excited to create something new and even better in the future. There are other avenues I can continue to explore with this project, perhaps releasing these recordings on an album or finding a way to publish the score as a suite of seven pieces for others to perform. I am reminded of my former teachers' comment that works of art are "never finished, just abandoned." I am confident that I will revisit *The Seven Wonders* in the future, but for now it seems best to lay it down and come back with fresh perspective. I had always dreamed of creating a recording like *The Seven Wonders*, sometimes for the notoriety, other times because I thought I could create something that was artistically significant. I never thought that the recording would be exclusively new music. I hear my own thumbprints all over this work, and I am proud to say that much of it represents me as an artist and my journey through the collegiate experience. I hope that others who hear this recording or play these works are inspired to push boundaries and collaborate with their peers in new and interesting ways. Collaboration is not the easiest path, but in many ways, the challenge

is so deeply rewarding both personally and artistically. Without a doubt, the inevitable growth is worth all the struggles.

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