

A Brief History of Live Cinema and Rehearsal Considerations for *Metropolis Triptych*
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A BRIEF HISTORY OF LIVE CINEMA AND REHEARSAL CONSIDERATIONS
FOR *METROPOLIS TRIPTYCH*

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Abstract

Since the late 1970s, there has been a renewed interest in the music that accompany films from the Silent Film Era (1895–1930), sparking both the revival of original scores and the composition of new scores for silent films. These modern scores involve a diverse collection of artists, musical styles, and venues that—in combination with the silent film themselves—belong to a new genre termed *live cinema*. Since the mid-1980s, enthusiasm for live cinema has grown and can be an important vehicle of expression for composers. To better understand this genre, it is necessary to explore both the history and performance practice of the Silent Film Era, as well as the live cinema movement of today. These new film scores employ a variety of styles and instrumentation, yet few compositions are written for wind band. I have collaborated with composer Nathan Jones and film editor Chad Jacobsen to create and perform a work based on the film *Metropolis* (1927, dir. Fritz Lang). Our piece, entitled *Metropolis Triptych*, will include a 33-minute version of the original film, edited into three movements. It is our hope that this project will influence other composers and performers to produce similar works for wind band and film.

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Introduction

My interest in live cinema began at the 2011 College Band Directors National Association Conference at the University of Washington in Seattle, Washington. The University of Washington Wind Ensemble, under the direction of Dr. Timothy Salzman, premiered *from the language of shadows*, by composer Huck Hodges.¹ This composition is written for symphonic wind ensemble, two amplified pianos, three amplified contrabasses, and silent film. *from the language of shadows* met with mixed reactions from those wind conductors in attendance. Many in the audience thought the music too programmatic and the concept “kitschy.” Some, including me, found the performance intriguing and were inspired towards further exploration into the performance practice and history of composition for silent film.

The Silent Film Era 1895–1929

The original Silent Film Era is roughly defined as 1895–1929. The film industry began as a diverse collection of artists experimenting with the medium;² inventors like Auguste and Louis Lumière, as well as Thomas Edison, contributed to early innovations in film based on Eadweard Muybridges’ multi-camera technique.³ These early films were successful based on the novelty of the new medium and they generally prioritized spectacle over narrative. These films were most often an ancillary attraction that were

¹ Tim Salzman, “College Band Directors National Association Conference Performance,” Program notes from *from the language of shadows* (University of Washington, March 26, 2011).

² James Eugene Wierzbicki, *Film Music: A History* (New York: Routledge, 2009).

³ In a famous experiment through which demonstrated the details of a horse’s gait, he used twelve of his newly refined cameras that could be triggered with a single mechanism for the whole series. Roger Cicala; “Eadweard Muybridge: The photographic pioneer froze time and nature”, accessed April 8, 2016.

only a few minutes in length and not substantial enough to justify top billing; most were used as part of a larger entertainment production. As a consequence of the diversity of venues, length, and purposes of these early films, an overall disparity of technical standardization arose in their presentation.⁴

In 1902, Thomas Tally opened his Electric Theater in Los Angeles, California. This theater was essentially a small storefront that charged patrons a few cents for an hour of entertainment which included a collection of short films that changed weekly. Soon, many similar small theaters popped up across America. Film had a home of its own. As a writer for *The Saturday Evening Post* observed in 1907, “Today there are between four and five thousand [nickelodeons] running and solvent, and the number is still increasing rapidly.”⁵ These theaters had an impact on society—their entertainment was affordable, convenient, and most of the films’ messages transcended class and race. Since these works were essentially pantomime, even recent immigrants uncomfortable with English could understand and appreciate their stories. A columnist for the magazine *The Nation* remarked that the nickelodeon film was “devoid of high brow inclinations,” and represented “the first democratic art.”⁶

Early films’ focus on spectacle changed in 1906 with the release of Edison’s twelve-minute *The Great Train Robbery* (1906, dir. by Edwin S. Porter). This film was focused on narrative and not solely the spectacle of the visual image. By 1908, nearly

⁴ Rick Altman, “The Silence of the Silents,” *The Musical Quarterly* 80/4 (1996): 648–718.

⁵ Wierzbicki, *Film Music*, 29.

⁶ *Ibid.* 32.

ninety-six percent of all films would be narrative in nature, and it was these films that were so successful in the nickelodeon theaters across the country.⁷

The popularity of the nickelodeon theaters demanded an enormous number of films. As production studios flourished they soon formed the Motion Picture Patents Company (MPPC) to regulate the manufacture and distribution of film. The cartel formed by the MPPC became a powerful influence towards the production and distribution of film from 1905 to 1915. The majority of films produced under the MPPC umbrella were the single-reel type that was standard in the nickelodeon theaters.

Those studios that were not part of the MPPC began experimenting with longer, more complex films that did not fit in the one-reel parameter of a nickelodeon. These new films used complex subjects and story lines and were intended to be the main “featured” attraction for patrons. The studios then also cultivated a “star culture,” that promoted the actors involved in the production in hopes of building loyalty amongst their viewership.⁸ In 1915, the Federal courts ruled the MPPC violated the Sherman Antitrust Act and disbanded the organization, giving further freedom to those producing the new feature length films.⁹ Even as nickelodeons were prospering throughout the United States; other larger theaters, focused on the grandiose presentation of these new feature films, were

⁷ In 1905, one such theater opened in Pittsburgh, PA, named Nickelodeon because admission was five cents, and this was to become a generic title for similar theaters across the country. Wierzbicki, *Film Music*, 29.

⁸ Studios would market the actors of a film in hopes of building a following. Actors such as Douglas Fairbanks, Charlie Chaplin, Greta Garbo, and Buster Keaton were as big of draws as the films in which they starred. Thomas Elsaesser, *Metropolis* (London: BFI, 2000). 45-48.

⁹ Law passed in 1890 prohibiting business activities that are deemed anti-competitive. “Sherman Anti-Trust Act (1890),” accessed April 8, 2016

beginning to appear in the nation's major cities. These "picture palaces"¹⁰ employed greater luxury and comfort than the nickelodeons and exhibited longer, more involved shows. Feature films were to become the standard in theaters across the country.

Music in Silent Film

According to scholars Rick Altman and James Wierzbicki, there is a considerable amount of evidence that points to the presence of music at the earliest presentations of film.¹¹ At the initial showing of the Lumière brothers' films in 1895, for example, there was a paid accompanist from the theater, although there is no documentation of their role in the presentation. Although many enthusiasts assume that music was involved in all silent film showings, Altman and Wierzbicki believe that early film presentation may have only used a narrator or were shown without accompaniment at all. As the film industry continued to evolve, many venues began to use music and sound effects to add realism to the on-screen action.¹² Many film presentations would include a full musical accompaniment intended to portray a mood or emotion of a scene, this nondiegetic music was later termed underscore. The underscoring of film soon became popular with patrons and thus musical accompaniment would become commonplace. The instrumentation used for early film accompaniment would vary depending on the theater at which it was shown. Since many of these films were exhibited during vaudeville shows, it is likely that the pianist or small orchestra accompanying the live acts provided some music.¹³

¹⁰ Originally a British term to describe large, elaborate movie theaters built between 1910 and 1930.

¹¹ Altman, "The Silence of the Silents."; Wierzbicki, *Film Music*

¹² Wierzbicki, *Film Music*. 18.

¹³ Wierzbicki, *Film Music*, 21.

As film presentation evolved to the nickelodeon theaters, accompaniment remained diverse based upon each individual theater's resources. The transition from short one-reel films to the new feature-length films also included substantial changes in film presentation. Musical accompaniments grew in complexity and grandeur. Most films now included some form of musical accompaniment, although the quality was still inconsistent. By 1910, newspaper editorials and trade journals were publishing editorials on the need for higher quality accompaniments to films. These articles, and the growing demand for complex musical accompaniment, led to a greater standardization of accompaniment used in film exhibition.

As silent film reached its greatest popularity, theaters would open as early as noon and close at midnight, with up to four showings a day. These programs typically began with an overture by the orchestra, followed by a newsreel, a novelty music number, and an entertainer (such as a juggler, dancer or comedian), who would then be followed by the feature film. All of these parts relied on music as an indispensable component of the performance. The volume of music material needed for these presentations supported its own music industry.

Most performances of silent feature films involved a combination of improvisation, original compositions, and compiled materials (pre-existing photoplay, popular, and classical music). Typical productions might use up to 70 pieces of short music for a film, with some theaters housing libraries as many as 15,000 short pieces for their accompanists. As early as 1907, published encyclopedias of film music started to appear in theaters. These encyclopedias were collections of cue sheets with short melodic motives that were to be used in the accompaniment of film. The music in these

encyclopedias was termed “Photoplay music,” and the first such collection to be published was Giuseppe Becci’s *Kinobibliotek*, soon followed by Sam Fox’s *Moving Picture Series* compiled by J.S. Zamecnik.¹⁴ These series, and others like them, include cue music with titles like “Hurry Music (for duels)”, “Hurry Music (for mob and fire scenes)”, and “Hurry Music (for struggles),” which a pianist, organist, or conductor could use to improvise the soundtrack to the film.¹⁵ While small and mid-sized theaters would use a piano or organ, large venues would often use a greater variety of ensembles. First-class theaters in large metropolitan areas, like the Roxy and Radio City Music Hall in New York City, were the most elaborate; these theaters might have up to 6,000 seats, charge higher prices, and offer better overall productions. They often housed small orchestras of up to six violins, two violas, two cellos, one bass, one flute, one oboe, one clarinet, two horns, two trumpets, one trombone, drums, and piano, as accompaniments for their matinees. Special evening performances demanded larger orchestras, including full woodwind and brass sections, along with harp and percussion.¹⁶

On August 26, 1926, the Warner Bros. released *Don Juan* (1926, dir. Alan Crosland), which was the first feature length film to utilize the Vitaphone Corporation’s synchronized sound system. Because there were not yet enough theaters with Vitaphone projectors, *Don Juan* was only seen as intended by a small portion of the audiences across the United States. However, the following year, more theaters had acquired the

¹⁴ Maureen Furniss, “Sound and the Silent Film,” in *American Silent Film: Discovering Marginalized Voices*, eds. Gregg Bachman and Thomas J. Slater (Carbondale: Southern Illinois UP, 2002): 115–24.

¹⁵ Much of this photoplay music is now available for study because of the efforts of the Silent Film Sound & Music Archive. *Silent Film Sound and Music Archive*, accessed April, 9 2016. <http://www.sfsma.org>

¹⁶ Wierzbicki, *Film Music*, 62.

Vitaphone system and *The Jazz Singer* (1927, dir. Alan Crosland) became an unqualified success. This film, based on Alfred Cohn's *The Day of Atonement*, starred Al Jolson as a Jewish boy who attempts to become a vaudeville star. It used the Vitaphone sound-on-disc system that synchronized recorded sound to film. In the United States, silent films and the new "talkies" were to live briefly side-by-side following *The Jazz Singer's* release, but the new technology soon became standard practice and silent film was relegated to history. Over the next 50 years, innovations in the film industry would be fueled by the public's insatiable thirst for entertainment. The musicians, conductors, and composers employed by the silent film industry would be out of work by 1930 as a result of the changes in the industry and the onset of the Great Depression.

Film was an international phenomenon. Germany, France, and the Soviet Union, among other nations, had thriving film industries. Although each country developed its own style subservient to its national culture, international companies and partnerships did distribute films across national borders. Relying on pantomime and easily substituted title cards instead of spoken dialogue, the films traveled easily, without significant language barriers.

In France, much like in the United States, early film was largely a diversionary entertainment driven by spectacle, but many artists and filmmakers envisioned it as an artistic medium that could connect to high culture like literature and theater. In 1908, French businessman Paul Lafitte founded the *Studio Film d'art*. Lafitte hired director Charles Le Bargy to direct film adaptations of great literary works. To improve the narrative quality in these productions, the company hired great stage actors that would eventually transform the genre. It was *Film d'art* that made the literary film *L'Assassinat*

du Duc de Guise (1908, dir. Charles Le Bargy), which was the first film to have a score written specifically for it. A 77-year-old Camille Saint-Saëns was commissioned for this honor and thus the first classical art composer to write for the film medium.

Unfortunately, *L'Assassinat du Duc de Guise* was rarely performed with its prescribed score as local exhibitors made the decision as to what was actually used in their theaters. At the time, film presentation was not standardized and could vary according to a number of factors, including audience tastes and the number of showings in a given day. When *L'Assassinat du Duc de Guise* debuted in New York in 1910, the Saint-Saëns score was not included.¹⁷

Entr'acte is a film interlude originally created for Francis Picabia's Dadaist ballet *Relâche* (1924). French composer Erik Satie wrote the score to both the ballet and the interlude. This work is considered a last gasp of Dadaism and stands among the limited examples of music associated with this movement. The music illustrates a textural depth with some melodic interest, but is only intended as accompanimental, or as Satie described it, as "furniture music."¹⁸ The score is composed in Satie's simple and straightforward style. Referring to the film, John Cage would later explain that "to be interested in Satie one must be disinterested to begin with, accept that a sound is a sound and a man is a man, give up illusions about ideas of order, expressions of sentiment, and all the rest of our inherited aesthetic claptrap."¹⁹ Due to the montage nature of the film, the musical

¹⁷ Danya Oscherwitz and Mary Ellen Higgins, "Film D'art," *Academic Dictionaries and Encyclopedias*, accessed February 12, 2016. http://guide_to_cinema.enacademic.com/400/Film_d'art.

¹⁸ Fernand Lèger, 'Satie inconnu'. *Erik Satie: son temps et ses amis*, special number of *La Revue musicale* (June 1952): 137.

¹⁹ Douglas W. Gallez,, "Satie's 'entr'acte:' A Model of Film Music," *Cinema Journal* 16/1 (1976): 36–50.

form is dictated by the action on film, rather than modulation or thematic development. This lack of themematic structure or form might be *Entr'actes'* most Dadaist feature.

One of Germanys greatest contributions to the silent era was expressionist film, which was an extension of the German Expressionist movement in art. Films sought to express subjectivities, desires, and fantasies through lighting, irregular set design, and camera angles. German Expressionist thought was based on a premise that film becomes art only to the extent that film image differs from reality. *The Cabinet of Dr. Caligari* (1919, dir. by Robert Wiene) is considered the epitome of German Expressionism in film. Director, Robert Wiene employed German Expressionist painters to creat sets featuring erratic shapes, dark themes, and sharp lines that help to blur the line between subjectivity and reality.²⁰ The score for *The Cabinet of Dr. Caligari* was written by Giuseppe Becce, a composer of Italian birth who lived and studied in Berlin. Although he scored many of these expressionist films, he composed in the late Romantic style common in the era's films, rather than in an overtly expressionist style to match the other elements of the film.

The Soviet Union in the late 1920s was experiencing a cultural revolution in which the arts were evaluated according to their value in a communist society. As a result, state authority began to pressure artists for works that spoke to a broad public audience. Film during this time was deemed an important art because of its popularity, portability, and propaganda value. The Soviet organization in charge of film, *Lenfilm Studios*, sought to hire Russian composers to write their film scores. For the film *The New Babylon* (1929, dir. by Grigori Kozintesev), they hired composer Dmitry Shostakovich (1906-1975), a 23 year-old composer who had just premiered his First

²⁰ Thomas Elsaesser, *Metropolis* (London: BFI, 2000). 45-48.

Symphony (1925) to great critical acclaim. Shostakovich was employed as a pianist illustrator in the mid-1920s for a large Leningrad cinema house. Given his experience working as a film accompanist, the composer had extensive knowledge of the industry and deep convictions about its performance practice. Although he regularly performed using traditional cue sheets, he composed a complete score for *The New Babylon*.

Shostakovich expressed many of his ideas of film music in his article “About the Music to New Babylon.”²¹ In this article, he writes about his approach to writing for film a part of it on the errors of performance practice at this time. Shostakovich was especially concerned with the absence of standard presentation guidelines in the cinema houses. One particular issue was the varying speeds in which theaters projected film. Without a standard playback speed the written score and cues intended by the scores’ composer would not synchronize with the intended material on the screen.

Deterioration 1929–1980

The materials used by the film industry from the silent era until the 1950s was a nitrate film base developed in the 1880s by John Carbutt, Hannibal Goodwin, and Eastman Kodak. This nitrate film became standard due to its cost, availability and warm, vibrant visual images. Unfortunately, the film was also flammable and caused a number of dangerous fires both in storage facilities and theaters throughout America. The nitrate film decomposed over years into a dangerously flammable gas while the remaining material turned to dust and could auto-ignite under the right conditions. In 1978, for

²¹ Dmitry Shostakovich, “About the Music to New Babylon,” in *The Routledge Film Music Sourcebook*. in James Eugene Wierzbicki, Nathan Platte, and Colin Roust, (New York: Routledge, 2012). 61-64.

example, both the United States National Archives and Records Administration and the George Eastman House experienced fires in their film vaults. The resulting fires destroyed the negatives for 329 films and over 12.6 million feet of newsreel.²² In 1952, the Eastman Kodak Company completed a conversion of their factories to produce an acetate-based “safety” film. While much safer, this film stock also decomposed and faded quickly. Moreover, when exposed to heat or moisture, the film would break down and release an acid residue. This residue smelled like vinegar and so the problem was aptly named the “vinegar syndrome.” These film stock issues, along with negligence in storage and proper archiving have had drastic consequences for the preservation of early film; more than 90% of films made before 1929 and 50% of films made between 1929 and 1950 have been lost.²³

The Resurrection of a Genre: 1980–Present

In the 1970s, several film makers and historians began a movement to restore the silent films from the early part of the century to a viewable medium. The nitrate film used in early motion pictures was decaying in archives around the world, and even films made of the acetate-based “safety” film used in the 1950s were beginning to fade. The goal of this restoration was to transfer these films onto a polyester based film rated to last hundreds of years, or later to digital form.

²² In World War II many archived Soviet Silent Films were destroyed when the Lenfilm warehouses were bombed by the Germans in the siege of Leningrad. “The siege of Leningrad, 1941-1944”, accessed April 9, 2016, <http://www.eyewitnesstohistory.com/leningrad.htm>

²³ “Film Preservation.” The Film Foundation. Accessed March 8, 2015. <http://www.film-foundation.org/film-preservation>.

In 1968, filmmaker and historian Kevin Brownlow wrote a book entitled *As Parade's Gone By....* This book is one of the first on the subject of silent films and their demise.²⁴ As a result, Brownlow ignited the restoration movement and is considered a pioneer in the field of historical film preservation. In 1979, Brownlow met producer David Gill, and together they would collaborate on documentaries about the silent era, as well as the restoration of more than thirty silent films.

Brownlow and Gill were not alone in their efforts to restore silent films. National attention was raised through the efforts of many young filmmakers. The term, "New Hollywood" is used when describing these young directors and actors who wanted more artistic freedom and to escape the control of the large studios. Audiences at movie theaters were getting smaller and their average age was older, and the film industry was looking for ways to connect with a younger generation. The influence of the counter culture movement of the sixties and the popularity of French foreign films, compelled the studios to give these "New Hollywood" directors increased freedoms. These freedoms resulted in films that were focused on a realism of narrative and a challenge to the cultural norms. This new independence was very similar to the formation of United Artists studios in 1919 when filmmakers Mary Pickford, Charlie Chaplin, Douglas Fairbanks, and D.W. Griffith also sought more artistic control by forming an independent studio. These "New Hollywood" directors were aware of this history and sought to promote those silent films that shared their vision.²⁵ Led by Frances Ford Coppola, the directors and actors Woody Allen, Robert Altman, Clint Eastwood, Stanley Kubrick,

²⁴ Kevin Brownlow, *As Parade's Gone by...* (New York: Ballantine Books, 1970).

²⁵ "The Story of American New Wave Cinema, Part Three: New Hollywood". New Wave Film.com. accessed April 9, 2016.
<http://www.newwavefilm.com/international/new-hollywood.shtml>

George Lucas, Sydney Pollack, Robert Redford, and Steven Spielberg founded the Film Foundation, an organization dedicated to the preservation of silent film. The Board of Directors of the Film Foundation was to be a virtual “who’s who” of the film industry. The Foundation has been called “the leading organization devoted to fundraising, increasing awareness of preservation, and issuing grants to safeguard the country’s cinematic heritage.”²⁶

Awareness of these restoration efforts has been promoted by the enthusiasm garnered at silent film festivals. The Pordenone Film Festival in Pordenone, Italy, is the largest silent film festival in the world. Founded in 1982, it was the first festival of its kind; it supports the restoration of classic silent cinema, which has led to regular efforts to restore old film scores and write new ones. Experts from around the world are commissioned to provide the musical accompaniments for these films, ranging from solo piano to full orchestra in scope. The festival also offers a program for aspiring silent film composers to receive lessons from the festival’s featured performers.

The San Francisco Silent Film Festival (SFSFF) was founded in 1996 and has quickly grown to become the second largest in the world. Unlike most, the festival attempts to focus equal attention on film and its musical accompaniment. The SFSFF commissions many innovative composers with a diversity of styles, and the festival itself is a celebration of new sounds and approaches. Most recently, the festival has supported the restoration of original scores, such as Louis Gottschalk’s original score to *Broken*

²⁶ “Film Preservation,” The Film Foundation, accessed March 8, 2015, <http://www.film-foundation.org/film-preservation>.

Blossoms (1919, dir. D.W. Griffith) and Gottfried Huppertz's original score to *Metropolis* (1927 dir. Fritz Lang).²⁷

A New Sound to The Silents

A new enthusiasm toward the restoration of the silent film has also translated into a need for its musical accompaniment. This vast new opportunity for artistry has resulted in a fascinating diversity of style, instrumentation, and focus. Some of the earliest restorations were done under the aegis of the Film Foundation and the mass-market cinema backgrounds of its Board of Directors; as a result these films scores were composed with popular film music sensibilities and were focused on consumer appeal. Most often, scores utilized the modern cinematic model involving large orchestras and digital effects.

Others see film restoration as a historical endeavor with a deliberate interest in historical reenactment involving live musicians and original music. These artists work to provide an authentic performance either by using the original scores or by invoking the institution of historically informed performance practice; such performances are most often found in conjunction with various period festivals or historical landmarks.

An artistic approach to these cinematic scores seeks to use the inspiration of the stories and images of these films to make a new musical statements expression. These new artists view film scoring through a creative lens much like Honneger, Satie, and Saint-Saëns, and demonstrate a combination of diverse musical styles, ensembles, and production that form a unique artistic whole. For the purposes of this paper, it will be best

²⁷ "About the SFSFF," San Francisco Silent Film Festival, accessed April 23, 2015, <http://www.silentfilm.org/about>.

to classify the re-scoring movement into three categories: commercial, historical, and artistic.

Commercial

Carl Davis is a pioneer in commercially producing historical silent films with modern scores. Born in New York City in 1936, Davis entered the music business at a young age as a singer and conductor, touring with the Robert Shaw Chorale and conducting for the New York City Opera. However, his interests remained primarily in film music. His first—and most popular—score for visual media was his soundtrack for the miniseries *The World At War* (1973, dir. Anthony Hughes). It was this mini series that caught the attention of British film historian Kevin Brownlow, who asked Davis to write the score to his 13-part documentary, *Hollywood: A Celebration of American Silent Film* (1980).

This commission enticed Davis and his family to move to England, where he would see his career in film music blossom. Following production of the *Hollywood* series, the same creative team chose to restore the French film *Napoléon* (1927, dir by Abel Gance), with a re-imagined score influenced by the composer of the original score, Arthur Honegger. Although the original score to this film had been lost, Davis used Honegger's other compositions as a guide. The success of both the documentary and the subsequent release of the restored *Napoléon* encouraged more collaborative projects between Brownlow, Gill, and Davis. This association would produce three more documentaries for British Thames Television: *Unknown Chaplin* (1983), *Buster Keaton: A Hard Act to Follow* (1987), and *Harold Lloyd: The Third Genius* (1989). Throughout

the 1980s and 1990s, Brownlow, Gill, and Davis would collaborate to restore more than 50 silent films. Some of Davis' notable film credits include: *Ben-Hur* (1925, dir by Fred Niblo), *Broken Blossoms* (1919, dir. by D.W. Griffith), *The General* (1927, dir. Buster Keaton), *Greed* (1924, dir by Erich von Stroheim), *Intolerance* (1915, dir by D.W. Griffith), *The Phantom of the Opera* (1925 dir. by Rupert Julian), *The Strong Man* (1926, dir. by Frank Capra), and *The Thief of Bagdad* (1924 dir. by Raul Walsh).

Since most scores from the silent film era were lost, Davis was tasked with setting new music to these silent films. Although his musical style is similar to most blockbuster film composers of the late twentieth century, the influence of his opera background is apparent in his use of representative motives and larger thematic underscore. For *The Thief of Bagdad*, for example, Davis incorporates themes from Rimsky-Korsakov's *Scheherazade* (1888) and *The Invisible City of Kitezh* (1905). In his score for D.W. Griffith's sprawling historical epic *Intolerance* (1915), Davis requires a large orchestra but scores it into different chamber groups within the orchestra, using the full ensemble only sparingly. Davis' main theme for the work is set for small theater orchestra, while the Renaissance portion adds guitar and recorder, and the biblical story uses small string ensembles, with the sections connected through the regular recurrence of a main chorale-like theme.²⁸

²⁸ Carl Davis and John Tibbetts. "The Sounds of Silents: An Interview with Carl Davis," in *Reflections on American Music: The Twentieth Century and The New Millennium*, ed. Michael Saffle and James Heintze, vol. 16 of *Monographs and Bibliographies in American Music* (Hillsdale: Pendragon Press, 2000): 107–18.

Historical

A prime example of an historical approach to the accompaniment of silent cinema is the Mont Alto Motion Picture Orchestra. This group was founded in 1989 as a period music ensemble for the performance of ragtime and tango music. Based in Colorado, the Mont Alto Orchestra began to collaborate with film collector and theatre owner Al Layton of Golden, Colorado, who asked them to accompany one of his silent film presentations. This experience influenced the ensemble's future, as it now specializes in live cinema and collects many historical cue sheets from the original films, in addition to using their own materials. Rodney Sauer, pianist, improviser, and score compiler for the ensemble, has become a nationally recognized authority on the performance of photoplay music. His article entitled "Photoplay Music" was an exploration into the performance practices of silent movie accompaniments of the silent film era, and the first of its kind to be published in the *American Music Research Center Journal*.²⁹

Art

In addition to commercial composers and historians who are interested in restoration of the art and performance practice of the early twentieth century, there are also those who desire to use these silent films as a muse for their own artistic interpretations. Films such as *Metropolis* (1927), *The Hunchback of Notre Dame* (1923, dir. by Wallace Worsley), and F.W. Murnau's classic expressionist films *Nosferatu* (1922) and *Faust* (1926) have all been used as inspirations for new works.

²⁹ Rodney Sauer, "Photoplay Music", *American Music Research Center Journal* 8/9 (1998) 56-76.

Giorgio Moroder, a pioneer in the area of synthesizers and electronic music, could be viewed as the antithesis of the Mont Alto Picture Orchestra. Before his foray into film music, Moroder worked in the field of popular music. Known as the “Father of Disco,” he has been credited with popularizing that genre of popular music. Some of his earliest work was with Donna Summer on her hits such as “On the Radio,” “Last Dance,” and “Bad Girls.” These hits catapulted him into international fame, which resulted in collaborations with notable artists such as Queen, Led Zeppelin, and Elton John.

Moroder’s work with popular artists and his interest in film culminated in his involvement in film scores. At first, he was asked to compose single songs for scores; he created songs such as “Take My Breath Away” and “Danger Zone” for *Top Gun* (1986, dir. by Tony Scott), (“Take My Breath Away” and “Danger Zone”) and “Call Me” for *American Gigolo* (1980, dir by Paul Schrader). Soon he was asked to compose entire soundtracks for film. Moroder’s work on the film *Midnight Express* (1978, dir. by Alan Parker) won him an Academy award for Best Score in 1978.³⁰ His work on *Flashdance* (1983, dir. by Adrian Lyne), *Never Ending Story* (1984 dir. by Wolfgang Petersen), and *Scarface* (1983, dir by Brian De Palma) likewise received high acclaim for their use of synthesizers as the primary musical instrument.

In 1984, Moroder compiled a new score for the silent film *Metropolis*. This work included music from some of the most famous pop musicians of the day including; Pat Benatar, Jon Anderson, Adam Ant, Billy Squier, Loverboy, Bonnie Tyler, and Freddie Mercury. Although this work demonstrates more influence from mainstream popular music than from photoplay music, Moroder instituted revolutionary changes that were to

³⁰ “Biography,” Giorgio Moroder, accessed April 10, 2015, <http://www.giorgiomoroder.com/biography/>.

have a lasting impact on later live cinema artists. For instance, he substituted subtitles in place of the conventional intertitles. Moroder's use of subtitles, along with the decision to run the movie at 24 frames per second—as most silent films are thought to have been shot at 16 frames per second—sparked controversy among film historians and enthusiasts. To further distance this version of the film from what was acceptable to traditionalists, many referred to his restoration as the “Moroder version.” In the BFI Film Classic booklet on *Metropolis*, Thomas Elsaesser states that Moroder's version is “somewhere between a remake and a post-modern appropriation.”³¹ This new take on *Metropolis* remains intriguing in its use of popular music as its soundtrack. Although many silent film “purists” argue that it is not a legitimate version of the film, it still maintain the historical practice of compiling pre-existing music.

Metropolis opens with a steam whistle, which was commonly used as a signal for shift changes in the early industrial era; to represent this whistle, Moroder uses a dissonant chord from Freddie Mercury's “Love Kills.” He also employs mixing and recording manipulations of the original tunes to reflect the action on the screen; by shortening the original drum elements of Mercury's song, for example, he is able to mimic the marching of workers to their job. The uniqueness of this score is in his adaptation of pre-existing songs to the emotional and physical context of the original movie.

While Moroder embraced the MTV music video model of video entertainment, there were also groups for whom live cinema was their preferred avenue of performance.

³¹ Stephan Dalton, “I Feel Lang: Giorgio Moroder's *Metropolis* Reassessed,” *The Quietus* (August 4, 2012), accessed April 14, 2015, <http://thequietus.com/articles/09591-giorgio-moroder-presents-metropolis-fritz-lang-dvd>.

The Alloy Orchestra is one of the most prolific ensembles devoted to the performance live cinema. With more than 30 films in their repertoire, Roger Ebert has declared them to be “the best in the world at accompanying silent films.”³² The group consists of a trio of players: Terry Donahue—junk percussion, musical saw, and accordion; Ken Winokur—director, percussion, and clarinet; and Roger C. Miller—keyboard. Formed in December 1991 in Boston, their first film was *Metropolis* (1927), which premiered at the Coolidge Corner Theatre. The trio regularly performs at the San Francisco Silent Film Festival, Telluride Film Festival, and the New York Film Festival. Some of their most acclaimed film scores include: *Son of the Sheik* (1926, dir. by George Fitzmaurice), *He Who Gets Slapped* (1924, dir. by Victor Sjöström), *From Morning to Midnight* (1920, dir. by), *Underworld* (1927, dir. by Josef von Sternberg), *Phantom of the Opera* (1925, dir. by Rupert Julian), and *The General* (1927, dir. by Buster Keaton). Alloy’s unique instrumentation and their use of so-called “junk” percussion instruments is well suited to the diversity of moods and sound effects in their films. Although they are primarily live cinema performers, they have also released multiple videos and recordings of their work.

Wind Band

There are few examples of silent film with scores for wind bands. A recent addition to the literature is Huck Hodge’s (b. 1977) *from the language of shadows* (2010). Dr. Timothy Saltzman, along with twenty-four other university conductors, commissioned Hodge, an Assistant Professor of Composition at the University of Washington, to write the work for the University’s 2011 College Band Directors National

³² “Bio,” Alloy Orchestra, accessed April 7, 2015, <http://www.alloyorchestra.com/about/bio/>.

Conference performance. *from the language of shadows* is Hodge's only work for silent film; as he writes, "*shadows* was inspired from a show my wife took me to on a date night. The performance was by a group called Alloy Orchestra and the score they wrote for the film, *The General*, was exquisite."³³ The title, *from the language of shadows*, references a German documentary film that aired on German Public Television that detailed the making of F.W. Murnau's *Nosferatu* (1922). For his composition, Hodge wrote his score to be played alongside Murnau's *Faust* (1927). In reference to this film, Hodge has stated that his composition is "a musical reflection of images from F.W. Murnau's 1926 silent film version of the *Faust* legend. The film is a masterpiece of expressionistic cinema from the Weimar period and is striking for its extreme use of light and shadow and bizarre imagery."³⁴

Although Hodge had no background in silent cinema, his compositional process demonstrates a number of connections to the photoplay traditions. For starters, he uses sections of the score to illustrate moods and visual effects on the screen, then repeats those sections for the conductor to synchronize the work to the film. Each section of the score is then separated into the headings of the inter-titles that exist in the original work. The music uses both aleatory mixed with fully orchestrated sections similar to those in blockbuster cinema.

As of this writing, only *from the language of shadows* has been performed to any recognition from the profession. Still, the work is rarely performed, probably due to its unusual instrumentation and the logistical challenges of performing live cinema music.

³³ Tim Salzman, Program notes.

³⁴ "Huck Hodge," Columbia University, accessed April 27, 2015, http://music.columbia.edu/~hodge/News_Bio.html.

The catalyst for this project is to create a wind score to a silent film that could become part of the wind band repertoire.

Metropolis Triptych

The idea for this document and accompanying piece was conceived after stumbling upon a YouTube video of Club Foote Orchestra's promo for their new score to *Metropolis*.³⁵ As I researched the film, the ensemble, and other live cinema ensembles on YouTube, I realized that live cinema held considerable potential for wind band. I immediately sent the link to Nathan Jones and my mentor, Dr. Paul W. Popiel. Both were receptive and excited about the possibilities of a project pairing wind band accompaniment with film. Jones was also able to use this project as his final composition project for his Doctorate in Composition from the University of Kansas. *Metropolis Triptych*, this paper, and a public performance of the work by the University of Kansas Wind Ensemble are the final culmination of this project.

Original Metropolis

Metropolis (1927) by Fritz Lang was chosen specifically for our work. The film is widely accepted as one of the most iconic, groundbreaking films in early science fiction; its visionary interpretation of a city in the future, combined with a script that drips expressionist sentiment, transcends the nine decades since its release.

³⁵ Richard Marriott, "Club Foot Orchestra," Club Foot Orchestra, accessed March 3, 2015, <http://clubfootorchestra.com/>.

The film is set in 2027 in a futuristic dystopia where the privileged class play in an elaborately modern city with skyscrapers, airplanes, elevated roadways, lush gardens, and a vibrant nightlife. Simultaneously there is a working class that toils for long hours supplying the privileged with power and other materials needed for the city to run. Freder, who is the son of Joh Frederson, an administrator for the city, falls in love with Maria, who is of the working class. Freder follows Maria into the workers' city and witnesses a great explosion at the machine that supplies power, The Moloch Machine. It is here that he encounters the horrible conditions in which the workers endure. Freder then flees the workers' area and confronts his father Joh with these tragedies. Joh dismisses what his son witnessed and tells him that it is acceptable. Freder, frustrated, leaves his father and decides to join the workers in solidarity. He switches places with a worker who looks identical with him, worker 11811. After a hard day at the machines he is invited to a sermon. When he arrives, he realizes that that minister is Maria, with whom he has fallen in love. Maria tells the story of Babel; a parable in which religious leaders want to build a temple and, in doing so, abuse their followers, who are actually building it. She then tells of a prophetic "mediator" who will join the "head and hands with the heart."³⁶ Freder witnesses her sermon, and comes to the realization that he is the mediator, and reveals himself to Maria, who falls in love with him, too. During this entire encounter, Freder's father Joh and the evil scientist Rotwang are watching from a hidden chamber above. Rotwang offers to kidnap Maria and Joh accepts, but little does Joh know that Rotwang is planning to build an evil robot version of Maria to incite the workers to rebel against Joh. He does this and the workers destroy the machines that run

³⁶ Thea von Harbou, *Metropolis*. (London: Lorrimer Publishing, 1973), 130.

the city and cause a flood that threatens to kill all of the workers' children. Freder rescues Maria from Rotwang. They save the children from the flood and turn the workers upon the false Maria. The story ends with a battle between Freder and Rotwang, with Freder emerging victorious. The last scene shows the fulfillment of the prophecy as Freder links the hands of his father, the administrator, and the head of the workers.

Metropolis was produced near the end of an era of prosperity and success for the German film industry. In the wake of the nation's defeat in World War I, the nation's currency was deflated, allowing films to be produced relatively cheaply for audiences who were now desperate for entertainment after wartime isolationism. The heyday of German Expressionist film began with the success of such films as *The Cabinet of Dr. Caligari* (1919, dir. by Robert Wiene) and *Nosferatu* (1922, dir. by F.W. Murnau). German films flourished throughout the early 1920s until inflation of the *Reichsmark* made films too expensive to compete with those coming from Hollywood. This situation led the *Universum Film AG* (UFA), Germany's main production studio, to sign the *Parufamet Agreement* with MGM studios in the United States. UFA—in exchange for a loan and the possibility of future product distribution in the United States—guaranteed that MGM-made films would have a majority of the bookings in Germany, with an ultimately disastrous impact on Germany's film industry.³⁷

Metropolis was one of the first films made by UFA after the Parufamet Agreement. The studio's intent was to produce a blockbuster, much like the films that were coming out of Hollywood, thereby opening up a new export market in the United States. In accordance with Hollywood standards, UFA provided its largest

³⁷ Holger Bachmann, *Metropolis: Cinematic Visions of Technology and Fear*. (Rochester: Camden House, 2000) mm. 33-34

budget ever for the filming of *Metropolis* (800,000 Reichsmark). The sum accounted for over half of the studio's total budget, with the final cost of the movie exceeding 4.2 million Reichsmark. *Metropolis* was aggressively marketed at the time of its release and the fanfare was matched with critical and public anticipation for what was expected to be a cinematic spectacle. When released, the critical acclaim simply did not materialize and *Metropolis* became a box-office failure. Although praise was given to the visual spectacle of the movie, the script was universally panned for its confusing plot and lack of character development.³⁸

Thea von Harbou was the creative vision behind the script for *Metropolis*. She had been a collaborator with Fritz Lang on earlier films and the two eventually married. When Lang approached Harbou with the idea for this movie, she searched for inspiration by reading books on futuristic civilizations, including H. G. Wells' *When the Sleeper Wakens* and Jules Verne's *The Five Hundred Millions of the Begum*. She created both the screenplay and the novel of *Metropolis* simultaneously. Her narrative relied heavily on expressionist *pathos*, employing the theme of redemption while employing western archetypes common in expressionist literature, such as Jesus and the Pietà, and the hero Oedipus.³⁹ After *Metropolis*, von Harbou and Lang would separate both professionally and personally. In 1933 when the Nazis rose to power, Harbou would stay in Germany, while Lang would move to the United States; both remained active in the film industry.

The imagery of *Metropolis* is influenced by expressionist films like *Dr. Caligari's Closet*, but the film also uses visual and thematic ideas associated with the New

³⁸ Thomas Elsaesser, *Metropolis*, 10-11.

³⁹ Thomas Elsaesser, *Metropolis*, 12-17.

Objectivity movement in the visual arts.⁴⁰ This is evident in the imagery of the upper city which is then juxtaposed with the expressionistic sets of the worker's city.

In 1924, Fritz Lang and producer Erich Pommer took a trip to New York City for the premiere of their film *Siegfried's Death* (1923, dir. by Fritz Lang). By this time, work on *Metropolis* had already begun, but the trip succeeded in solidifying many of its themes in Lang's mind. Lang wrote of his first impressions from his trip New York:

I saw a street, lit as if in full daylight by neon lights and topping them, oversized luminous advertising, moving turning flashing on and off, spiraling...something which was completely new and near fairy-tale like for a European in those days, and this impression gave me the first thought of an idea for a town of the future.⁴¹

Much of this trip—and his first impressions of New York City—are portrayed in the city of *Metropolis* and illustrate his vision of the future.

During their visit to the United States, Lang and Pommer also traveled to Hollywood, California to meet with influential filmmakers and executives. They met with executives including Sam Goldwyn and Marcus Loew, directors Charlie Chaplin and Thomas Ince, and actors Mary Pickford and Douglas Fairbanks. It was Fairbanks who told Lang that he would not be successful until UFA marketed its stars in the United States. These meetings not only illustrate Lang's desire to produce a successful film both in Germany and worldwide, but how the trip also influenced many of his, and UFA's, decisions during the production of *Metropolis*.⁴²

⁴⁰ “An adherence to unsentimental reality and a focus on the objective world.” Encyclopædia Britannica Online, s. v., “Neue Sachlichkeit,” accessed March 07, 2016, <http://www.britannica.com/art/Neue-Sachlichkeit>.

⁴¹ Elsaesser, *Metropolis*. 9.

⁴² Note that these are some the same artists who formed United Artists. Elsaesser, *Metropolis*. 10-11.

Music also played an important role in *Metropolis*, both as post-production underscore, and as an accompaniment to the film. Gottfried Huppertz composed the accompanying score for the work, which reflects the influence of romantic composers such as Richard Wagner and Hector Berlioz. The original score stands in direct contrast to the film's expressionistic cinematography, but remains similar in nature to the other films of the period. Quotes of the "Marseillaise" and the "Dies Irae" are appropriately included in scenes, as was common practice in silent film scoring. The score is written for a full orchestra and includes a piano reduction for smaller venues. Additionally, a set of gramophone records⁴³ of the orchestra arrangements was made for use in theaters with that capability. The film's premiere in Berlin on January 10, 1927, included orchestral accompaniment with Huppertz conducting. During the filming, musicians—and sometimes the cast and crew themselves—were known to play sections of the score or other appropriate songs to accompany the actors. Musical terminology and organization were used as section titles in the script itself, and the script was organized like a symphony with three "movements": "Prelude," "Intermezzo," "Furioso"⁴⁴

Metropolis took over a year to film and was fraught with delay and changes. Much of this delay was caused by special effect demands. These were time consuming but ultimately innovative to the industry, as these effects would be used for many decades following the film's release. *Metropolis*, when finished, would measure over 4,189 meters of film, or two-and-a-half hours of screening time. Due to its length, this version only survived four months after its premiere; when it was sent to Paramount Pictures for

⁴³ A ten inch shellack disk that could store recorded sound. These discs were used in the late silent periods for film accompaniment with varying degrees of success. Peter Martland, *EMI: The First 100 Years* (London: B.T. Batsford, 1997) 24-25.

⁴⁴ Elsaesser, *Metropolis*. 27.

release in the United States, the film was shortened to 3,100 meters, or one-and-three--quarter hours. In order to maintain maintain the continuity of the film, Channing Pollock was hired to rewrite the titles and edit the storyline. His version focused on the Freder–Maria plot and edited out much of the story of Hel, Joh Fredersen and Rotwang’s shared love. Pollock also cut many of the flood and chase scenes. Pollock’s version was released in the U.S. and the British Commonwealth. After the lackluster performance of Lang’s original version in the German box office, UFA released another version of *Metropolis* similar to the Pollock edit, creating a total of three “official” versions of the film.⁴⁵

The existence of multiple edits and multiple versions for distribution resulted in industry disagreement as to what the authoritative version of *Metropolis* was, given that the original script and theme cards had been lost for so many years. In 1975 Enno Patala, the director of the Munich Film Museum, set out to restore the original *Metropolis* and purchased an annotated copy of Thea von Harbou’s script from Huppertz’s widow. Patala also discovered a censorship record from 1926 detailing the inter-titles used in the original film. He then acquired a copy of the film from an Australian collector—this was the version that he used in conjunction with the New York Museum of Modern Art’s archived film negatives to organize his restoration of *Metropolis*.⁴⁶

Incidentally, it was Giorgio Moroder who provided a portion of the funds for Patala’s restoration, hoping to use the work for a separate project. His contributions included financing the printing of the film from the original Museum of Modern Art’s negatives, the version that Patala manipulated for his final version. Still, even Patala’s

⁴⁵ Elsaesser, *Metropolis*. 30-42

⁴⁶ Ibid. 62-63

product could not be a faithful version due to the amount of film still missing from the original. In 2008, an archivist discovered a previously unknown copy of *Metropolis* at the Museo del Cine Pablo Ducrós Hicken in Buenos Aires, Argentina. Although the film was in poor condition, it quickly became clear that this version contained nearly 25 minutes of film that had been missing from contemporary productions. The Murnau Foundation led a restoration of the film under the supervision of Anke Wilkening. The finished product remains as close to the original 1927 premiere as possible, at the time of this writing. The score was subsequently restored and found to be the original orchestration by Huppertz. *Metropolis* was then re-released to the public where it took its rightful place in the canon of historic film.

Metropolis Reimagined

When Giorgio Moroder released his own version of *Metropolis* at the 1984 Cannes International Film Festival, he created an instant cult classic.⁴⁷ In the release, Moroder made several important changes. For starters, he edited the original film from 168 to 89 minutes. He also took liberties with the order of shots and the timing of iconic images in order to match it to the music that he scored. As discussed earlier, Moroder's soundtrack is also unique in that he used popular music artists to supply the stylized music for the film. The lyrics of the music supplied their own storyline for the film. As film historian Thomas Elsaesser states, Moroder "turned *Metropolis* above all into a

⁴⁷ The "Moroder Version" of *Metropolis* was the first wide release of the film in the United States. The original release in 1928 was for limited cities. Elsaesser, *Metropolis*. 37-38.

space to inhabit, rather than a story to follow or an ideology to work through and demystify.”⁴⁸

Moroder’s version of *Metropolis* was to inspire a generation of composers and performers to interpret their own versions of the film. A wide range of performers such as The Alloy Orchestra, The New Pollutants, Club Foote Orchestra, and Pink Floyd have since added their own voices to this science fiction icon. These new interpretations continue to add new life and increased awareness to this classic film.

Metropolis Triptych

Collaborators. Nathan Jones was born in 1983, in Broken Arrow, Oklahoma. His introduction to music flourished due to early piano lessons and his participation in both band and choir. Nathan excelled at music throughout high school and college. He earned a Bachelor of Music Education degree from Oklahoma State University. At OSU, Nathan would focus on percussion but would also remain active in the OSU Choirs and as an accompanist for solo recitals. It was at Oklahoma State that he began to compose choral music and percussion music, studying with Richard Prior and Mike D’Ambrosio.

After Oklahoma State, Nathan attended Westminster Choir College of Rider University where he studied composition with Stefan Young. At Westminster, Jones focused primarily on choral music and composed his first commercially successful work, *I would live in your love* (2008), which was recorded by The Westminster Choir under the direction of Dr. Joe Miller. This work was published by G. Schirmer and has been widely performed throughout the United States. Jones freelanced as a composer in the

⁴⁸ Elsaesser, *Metropolis*. 57.

New Jersey area before moving to Lawrence, Kansas to pursue a Doctorate in Composition at The University of Kansas. His principal teachers at Kansas include: Forrest Pierce, Kip Haaheim, and James C. Barnes.⁴⁹

Nathan Jones is as comfortable writing for band as he is for choir. His music reflects the intimacy and nuance of choral music, with the rhythmic intensity and harmonic variety of his instrumental influences. Jones's music demonstrates the diversity of his background. His unique voice is perfect for a project like *Metropolis Triptych*.

During our first planning meetings for *Metropolis Triptych*, Nathan and I determined that the 168 minutes of movie was simply beyond the scope of our project. The film would need to be edited. We felt justified in this decision given that many ensembles had already accomplished similar reductions successfully. Neither Mr. Jones nor I possessed the talent or ability to edit the movie to a manageable length. We needed to find a film editor who had the ability to shorten the movie's length while still maintaining the basic plot.

Chad Jacobsen is Recording Engineer and IT Support Staff for the Music Department at Iowa State University. He is in high demand as a recording engineer and has worked in studios around the world, having recorded for multiple artists on the Centaur and Innova record labels. Chad was consulted on this project because of his many contacts with the sound editing and technology community in the Des Moines area. Early in our conversations, we realized that Chad was a film enthusiast and had many innovative ideas for our project. His knowledge of music and film along with his technical expertise were a perfect fit to edit *Metropolis Triptych*.

⁴⁹ "About." Nathan Jones, accessed March 7, 2016, <http://www.nathanjonesmusic.com/about.html>.

One of the early challenges was to decide which storylines needed to be cut and how to include the iconic images from the movie, while shortening the overall production length. In an email exchange with Chad, he described the process:

The decision on what to cut is a tough one. *Metropolis* is one of the early films that “still works” in terms of pacing. Almost everything that the filmmakers included was required to tell the story. What I did, working with the rest of the team, was identify what parts of the story could get trimmed. There’s a sub-story about one of the workers ascending in society and spending a night out on the town, for example—those things are easy to cut. The rest of the decisions were really tough in that we don’t get quite all of the character development. Our calculus was pretty straight forward: use the smallest amount of material that could tell a coherent story.⁵⁰

Throughout the early creative process, Chad was asked to create different versions based on what Nathan asked for. First, he was asked to pause on certain images that were to be emphasized, then asked to shorten secondary plot themes. Organization and distribution of these versions was made more difficult in that all three collaborators were in different locations. About this Chad writes:

On the technical side, collaboration with this much high definition video could be problematic. We’d have multiple versions of the various movements—it was important to stay organized. I used a time code burn (the little black window with the specific time and frame on it) during the early editions so that we could all talk about *very* specific points that we liked or needed to change. Using Box.com with nearly unlimited storage also helped tremendously.⁵¹

⁵⁰ Chad Jacobsen, email message to the author, February 19, 2016.

⁵¹ Jacobsen, email.

Film.

As an homage to the original script, our movie and score are split into three movements: “Prelude” (13 minutes), “Intermezzo” (7 minutes), and “Furioso” (13 minutes). Lang’s musical organization of the original tableaux coincides with the three movements of our work. In the “Prelude,” the main characters of Freder, Maria, Joh Fredersen, and Rotwang are introduced along with two important plot lines of the disparaging conditions of the workers’ city in comparison with that of the upper city, and the relationship between Freder and Maria. Ancillary themes and plot lines such as Joh and Rotwang’s feud over Freders mother, and the adventures of worker 11811 have been de-emphasized or removed.

The “Intermezzo” begins with Maria preaching the parable of the Tower of Babel and speaking of the mediator who will unite the classes. Freder overhears this speech and is convinced that he is the mediator and falls in love with Maria. Both Rotwang and Joh Fredersen see this interaction and vow to stop it. Rotwang then kidnaps Maria and her likeness is copied onto his robot henchwoman. Much of Joh and Rotwang’s dialog has been removed, as well as the scenes of the bourgeois elite’s entertainment in the upper city.

“Furioso” begins with the false Maria rallying the workers to riot. Freder rescues the real Maria and they both set off to stop Rotwang’s evil plot. Eventually, through an extended chase and fight scene, the false Maria and the villain Rotwang are killed. The film ends with the leader of the workers and Joh Fredersen shaking hands while Maria proclaims her famous line, “The mediator between the head and the hands must be the

heart.”⁵² Much of the dialog between Maria and Rotwang were removed, as well as the scenes of the workers destroying the heart machine.

The Score. Like the film, the musical score is split into three movements: “Prelude,” “Intermezzo,” and “Furioso.” This split not only matches the tableaux that Fritz Lang used to organize his film, but also provides a broad musical structure to the work. The title *Metropolis Triptych* is a reference to visual art.⁵³

Although the harmonic language is primarily triadic, the work remains devoid of key center, with sections that display an insistent use of polychords and non-tonal scales.

When asked about the harmonic language of the overall piece Jones wrote:

Most of the materials, if not all, are drawn from the “Steam Whistle” chord which first occurs in m. 37 of Part 1. This complex harmony is the simultaneous sounding of the entire OCT_{0,1} collection, but scored in a way that is triadic. The collection is divided into C major, E-flat minor, and A dominant seventh chords. The A dominant harmony is in the lower voices and the upper voices feature the C major/E-flat minor clash. This relationship of harmonies by third (A – C#/C – E-flat) is the basis for many of the progressions throughout the piece.⁵⁴

As is common in modern film music, as well as Wagnerian Opera, the use of *leitmotif* for specific characters and settings is important in *Metropolis*. The main characters of Maria (Fig. 1), Freder (Fig.2), and Rotwang (Fig.3), and Joh Fredersen (Fig. 4 and Fig. 5), have their own leitmotifs, in addition to the Moloch/Machine Theme

⁵² *Metropolis*, dir. Fritz Lang. (Weimar: UFA): 1927/1992.

⁵³ A triptych is a three-panel painting or carving that depicts a scene in three sections, and this reference is particularly noteworthy in connection between sound and image displayed here.

⁵⁴ Nathan Jones, “Preface”, *Metropolis Triptych*, score 2016

(Fig. 5).⁵⁵**Maria's Theme**Fig. 1. "Prelude", *Metropolis Triptych*, mm. 143-150

Ob. *f*

Freder's ThemeFig. 2. "Prelude", *Metropolis Triptych*, mm. 114-118 clarinets, saxes

B♭ Cl. 1 *f*

B♭ Cl. 2 *f*

B♭ Cl. 3 *f*

B Cl. *f*

A.Sx. 1/2 *f*

T. Sx. *f*

B. Sx. *f*

Rotwang Theme:Fig. 3. "Prelude", *Metropolis Triptych*, mm. 395-400 brass

Tpt. 1

Tpt. 2/3

Hn. 1/2

Hn. 3/4

Tbn. 1/2

B-Tbn.

Euph.

Tuba

Joh Fredersen's Theme I

Fig. 4. "Prelude", *Metropolis Triptych*, mm. 255-257 bassoon



Joh Fredersen's Theme 2

Fig. 5. "Prelude", *Metropolis Triptych*, mm. 267-270 flute 1 and flute 2/3

44

267

Moloch's Theme

Fig. 6. "Prelude" *Metropolis Triptych*, mm. 201-207 trumpet 1 and trumpet 2/3

Intervallic relationships also help in the organization and portrayal of many situations and characters in *Metropolis Triptych*. The chromatic intervals of half steps and tritones occur prominently in scenes depicting machines and antagonistic characters (see the Rotwang and Moloch Machine themes (Fig. 3 and Fig. 6), while diatonic intervals of a perfect fourth, major second, and major third are used to depict the heroes Maria and Freder (Fig. 1 and Fig. 2).

“*Prelude.*” The “Prelude” begins with underscore to the opening titles, followed by the steam whistle. This whistle is important since most of the harmonic material for the work is based on the chord that Jones uses to coincide with the whistle. The chord spans a complete octatonic collection, but split into three tertian sonorities: C major, E-flat minor, and A major triads (Fig. 7). These chords establish the core harmonic relationships by thirds (A – C# and C – E-flat) that Jones uses for the rest of the piece.⁵⁶

Steam Whistle Chord

Fig. 7. “Prelude”, *Metropolis Triptych*, m. 37

The image shows a musical score for a steam whistle chord. It consists of two staves, a treble clef staff on top and a bass clef staff on the bottom. The treble staff contains three chords: E-flat minor (E-flat, G-flat, B-flat), C major (C, E, G), and A major (A, C#, E). The bass staff contains three chords: A major (A, C#, E), C major (C, E, G), and E-flat minor (E-flat, G-flat, B-flat). Brackets on the right side of each staff group the chords into three tertian sonorities: E-flat minor, C major, and A major.

“*Intermezzo.*” The “Intermezzo” begins with Rotwang and Joh Fredersen positioning themselves to eavesdrop on an organizational meeting of the workers. The film then moves to the meeting itself where Maria recounts the parable of the Tower of Babel, illustrating the separation between those who imagine and design an idea, and those who must work to turn that idea into reality. In the parable, Maria speaks of how the head and the hands need the mediator of the heart, and she tells the workers that they

⁵⁶ Jones, *Metropolis Triptych*.

must wait for their mediator to come. Freder, who is among the workers, realizes that he could be this mediator and reveals his idea to Maria who responds with love and hope. Rotwang and Joh Fredersen see this interaction and plot to kidnap Maria and stop the rebellion. The “Intermezzo” closes with Rotwang kidnapping Maria and stealing her likeness in a malicious subplot involving robots and intent on instigating a violent rebellion.

The score uses the same themes that were introduced in the “Prelude.” Maria’s theme is treated with grandeur and accompanied by great fanfare when Freder realizes his role in the struggle. One new musical element can be found not in thematic material, but in the accompaniment. Here, Jones manipulates the workers’ and Maria’s themes into a new, tango-like rhythmic motive. This motive contrasts the parable of Babel with that of the main plot. Elements of tango here are most closely represent in the emphasis on the downbeat and the upbeat of beat 2, coupled with the snare drum figure leading us into the next phrase (Fig.8).⁵⁷

Tango Rhythm

Fig. 8. “Intermezzo”, *Metropolis Triptych*, mm. 121–122 percussion

The image shows a musical score for percussion instruments. It consists of four staves: Mrb. (Maracas), Vib. (Vibraphone), Perc. 1 (Snare drum), and Perc. 2 (Cymbals). The snare drum part (Perc. 1) is the most prominent, showing a rhythmic pattern with a strong emphasis on the downbeat and the upbeat of beat 2. The other instruments provide accompaniment.

“*Furioso*.” The third movement, “*Furioso*”, is the final movement of *Metropolis Triptych*. This segment condenses the last hour and a half of film into a performance

⁵⁷ Jones, *Metropolis Triptych*.

time of thirteen minutes. Due to the large amount of editing, “Furioso” changes storyline and musical thematic material more often than the previous two movements. These frequent changes in scene make analysis difficult without context. Since the music is linked so closely with the on screen action I will analyze the musical and film activity using the scene titles from the score as a guide.

Scene 14: “False Maria!,” *Metropolis Triptych*, mm. 1-61

“Furioso” begins with the False Maria inciting the workers to rebel against their employers and destroy the machines that bring power to the city. Jones begins the score to this movement with a variation on the Moloch theme found in “Prelude” and ‘Intermezzo.’ The Moloch theme is stated in augmentation with rhythmic and melodic ostinato from the original Machine theme. The music materials in this section are not in a specific key signature. After the initial statement of the Moloch Theme, Jones uses various harmonic underscore to support the scenes depicting the gathering riot. In measure 46, there is a quote in the trumpets and the horns and another in the saxophones and low brass from the original *Metropolis* score by Gottfried Huppertz (Fig.9).

Scene 15: “Stoking the Riot,” mm. 62-122

Stoking the riot begins with a variation on the tango-like theme used for Joh and Rotwang in movement 2. The film shows the realization of their plot in the rebellion of the workers enflamed by the Robot Maria. This variation on the tango contains a different snare drum theme. Although not exact, this rhythm is is very similar to the snare music written for *Ionization* (1929) by Edgard Varése (1883-1965). Nathan Jones

purposely used this as I (Steven Smyth) consider *Ionization* one of my most favored pieces. At measure 92, the Machine theme returns as the film shows more of the workers

Huppertz Theme Example:

Fig 9. “Furioso”, *Metropolis Triptych*, mm. 46-49

city in turmoil. Starting at measure 104, Jones uses stratification (Fig. 10)⁵⁸ to layer the Machine, Tango, and Moloch themes together as the film does the same with its characters. When asked about this, Jones indicated that this was indeed an inspiration from Igor Stravinsky’s neo-classical works of the early twentieth century. To increase dramatic tension themes are stated a half step apart to create dissonance and confusion as the destruction is portrayed in the film.

⁵⁸ A layering of musical texture. “Definition-Stratification”. accessed April 9, 2016. <http://www.yourdictionary.com/stratification#k1AmbQuQvJJWHb2F.97>

Stratification Example

Fig 10. “Furioso”, *Metropolis Triptych*, mm. 117-122

The musical score for "Furioso" from *Metropolis Triptych*, measures 117-122, is presented below. The score is for a full orchestra and includes parts for Flutes, Oboe, Bassoon, Clarinets, Saxophones, Trumpets, Horns, Trombones, Euphonium, Tuba, and Timpani. Measures 117-122 are highlighted with black boxes, showing a complex texture with multiple instruments playing simultaneously. The score is in 2/4 time and features a key signature of one sharp (F#).

The highlighted section (measures 117-122) shows a dense orchestral texture. The Flutes (Fl. 1 and Fl. 2/3) play a melodic line with grace notes. The Oboe (Ob.) and Bassoon (Bsn. 1/2) play a similar melodic line. The Clarinets (B. Cl. 1, 2, and 3) play a rhythmic pattern. The Saxophones (A.Sx. 1/2, T. Sx., and B. Sx.) play a rhythmic pattern. The Trumpets (Tpt. 1 and 2/3) play a rhythmic pattern. The Horns (Hn. 1/2 and 3/4) play a rhythmic pattern. The Trombones (Tbn. 1/2 and B-Tbn.) play a rhythmic pattern. The Euphonium (Euph.) and Tuba play a rhythmic pattern. The Timpani (Timp.) play a rhythmic pattern.

Scene 16: “Kill the Machines!” mm. 123-181

This scene begins with the destruction of the Moloch Machine. To accompany this, Jones returns to the musical materials from the opening of “Furioso”. The Huppertz

original theme is now heard in its entirety from mm. 123-130. As the Moloch Machine is torn apart, Jones uses the corresponding Moloch theme in half-step sequence until the machine is destroyed where he uses large chords that are constructed in the same octatonic organization⁵⁹ found in the “steam whistle” chords found in the “Prelude” movement.

Scene 17: “The City Floods,” mm. 182-221

On film, this is where the real Maria is frantically working to save the children from their flooding homes caused by the destruction their parents wrought on the machines earlier in the film. This section is of particular musical interest because initially you hear the Maria Theme stated in A flat major, but then as uncertainty builds on screen, Jones repeats the theme but for the first time in Eb minor. This change colors your impression of Maria and builds doubt on her abilities to save these children. The materials from mm. 189- 199 are repeated underscore to accompany the scene where she is gathering the children. In measure 199 Freder’s theme appears as Maria is rushing to the warning gong for the workers city. Throughout the piece it is Freder’s theme that is used most often to depict acts of heroism. During this section, Maria activates the warning gong to gather the children. The warning gong is symbolized by the chime passage starting in measure 204. Unlike the steam whistle in movement 1, the sound is implied but not synchronized to the movie. In combination with the chimes is an accompanying harmonic structure where every measure has an ascending pitch harmonic

⁵⁹ Named octatonic because of its eight pitch classes. This scale alternates half and whole steps to construct a chord/scale that is related by thirds. “Collections and Scales”, accessed April 9, 2016, <http://openmusictheory.com/scales2.html>

structure to signify the water rising in the city. In measure 218, another homage to the original film and the use of “La Marseilles”. Huppertz used this theme to signify the workers and this music was used in the original film during this scene

Scene 18: “The City Loses Power,” mm. 222-243

As the city begins to lose power, Jones brings back the same themes used for the city scape scenes in the “Prelude”, only this time he scores the woodwind moving eighth notes with increasing dissonance and gradual transparency to underscore the lights beginning to disappear as they are in the film. At the very end of this section (mm. 238-242) Freder’s theme returns as he finds Maria in the courtyard with the children.

Scene 19: “Yes! You Are Maria!,” mm. 244-290

This scene is focused almost entirely on Maria, both Robot and Real. The section is all written using the theme and variations of the Maria theme. This music accompanies the rescue of the children from the workers city and the love now realized between Freder and Maria. Here, Jones uses increased dissonance and sequencing. The tension is building throughout both the music and the film towards the resolution of the story.

Scene 20: “You Fools! Where Are Your Children?,” mm. 291-322

The “La Marseilles” theme returns in measure 291 as the workers celebrate the destruction of the machines. Amidst their celebration the foreman garners their attention to question whether they realized that their children were now being threatened by the

destruction that they had caused. The remainder of this section shows the devastation of the workers city along with the final children being rescued by Maria and Freder.

Musically, this section is entirely based on the Machine and Moloch themes. Use of sequence and augmentation of these melodic materials give a sense of menace to match the action on screen.

Scene 21: “It’s the Witch’s Fault!” mm. 323-347

Scene 21 is there the angry mob of workers turn on the Robot Maria. They accuse her of being a witch and burn her at the stake. The musical accompaniment is particularly interesting as it is written in the style of Igor Stravinsky’s *Rite of Spring* (1913). The nature of the storyline and its sacrificial nature make the *Rite of Spring* reference particularly intriguing. This influence is apparent in the clarinet and saxophone writing (Fig. 11). While not an exact quote, it is very similar to Stravinsky’s writing.

Stravinsky-like Theme:

Fig. 11. “Furioso”, *Metropolis Triptych*, mm. 46-49

The musical score for Scene 21, "It's the Witch's Fault!" (measures 323-347), is presented for a woodwind section. The score includes parts for Clarinet in B \flat 1, Clarinet in B \flat 2, Clarinet in B \flat 3, Bass Clarinet, Alto Saxophone 1/2, Tenor Saxophone, and Baritone Saxophone. The music is in 2/4 time and features a key signature of one sharp (F#). The clarinet parts play a rhythmic, repetitive melodic line, while the saxophone parts play a more complex, syncopated rhythmic pattern.

Scene 22: “Freder to the Rescue,” mm. 348-380

This section ends the epic battle between the evil scientist Rotwang and Freder. This scene begins with a full statement of the Freder theme in G major. The remaining battle underscore is a series of statements of the Rotwang, Robot, Moloch and Freder themes layered together to depict a musical battle as well. This section ends with a final statement of the Moloch theme with an abrupt octatonic chord in measure 380 that corresponds to Rotwang falling off a roof and dying.

Scene 23: “Safe, At Last!,” mm. 381-394

The musical materials at measure 381 are the same as opened the beginning of the work in the “Prelude” and is the first time that this music appears other than the beginning stanza. Jones states that this is, “like a new beginning, much like in the narrative of the film where the path ahead is with the new love of Freder and Maria. In measure 388 Freder's theme is stated in D minor, the minor key is appropriate due to the apparent uncertainty he shows towards his role.

Scene 24: “Head & Hands Want to Join...,” mm. 395-412

When Maria sees Freder question his purpose, She gently reminds him of her prophesy and the parable of “Babel” that she told earlier in the film. To underscore this scene, Jones chooses the music that he used to underscore Babel in the “Intermezzo”. This is a great illustration to Jones’ ability to imply emotion and intent through his use of key and theme.

Scene 25: “The Mediator Between the Head & Hands Must Be the Heart!,” mm. 413-444

Finally, Freder’s theme returns in F major and reflects the resolve you see on screen where he joins his father and the leader of the workers hands. This concludes the story with the text, “The mediator between the head and hands, Must Be the heart”.

Following this statement of Freder’s theme, Jones writes an extensive coda with the theme to create a climatic ending and credits music.

Metropolis Triptych: Performance Considerations

When programming *Metropolis Triptych*, conductors must be aware of its musical, technical, and performance challenges. The performance of a film score can be a rewarding experience for audience and performers alike, but the very elements that help make this experience a unique one can also create problems.

The musical challenges of this piece are primarily with the tempi. Standard concert repertoire is accustomed to a human element of musical production, and so practices such as *accelerando* and *rallentando* are common. These tempo variations may be written into the score but often are a result of an musician’s interpretation. The challenge of film music—or with any music that must be synchronized—is the adherence to a strict, unwavering pulse. The nuanced manipulation of time that many musicians rely on for a convincing interpretation are no longer acceptable when performing a piece with film. The musical liberties of a synchronized work such as this must instead be accomplished solely using phrasing, dynamics, and articulation. The conductor too, must learn to make choices all within the context of tempo. This pulse issue is further

compounded by the fact that only the conductor hears the metronome and must react with pattern, followed by the visual interpretation of the ensemble, and finally the production of sound based on that interpretation. This communication takes time and causes the ensemble to be perpetually behind the conductor. It is necessary then, that the conductor understands this process and adjusts their pattern slightly in front of the heard pulse.

On top of this demand for strict tempo adherence, *Metropolis Triptych* presents a unique challenge with the inclusion of metric modulation. Jones’s intention was to make the transitions smoother by giving rhythmic figures that would anticipate the new tempo. In the “Prelude” movement there are three metric modulations (Fig. 12-14). In theory, these tempo changes seem logical and straightforward; unfortunately many musicians are not accustomed to these modulations and will need dedicated rehearsal time.

Trumpet Metric Modulation from 90 to 120 bpm:

Fig 12. “Prelude”, *Metropolis Triptych*, mm. 187–190



Bassoon Metric Modulation from 120 to 160 bpm:

Fig. 13. “Prelude”, mm. 231–236



Low Brass Metric Modulation from 160 to 120 bpm

Fig. 14. "Prelude", *Metropolis Triptych*, mm. 340 - 343

The image displays a musical score for the 'Prelude' section of *Metropolis Triptych*, measures 340-343. The score is arranged in a standard orchestral format with multiple staves. The brass section, including Tuba, Euphonium, Trombone, Horns, and Trumpets, is the primary focus. The Tuba and Euphonium parts show a clear metric modulation from 160 bpm to 120 bpm at measure 340, indicated by a change in the number of notes per measure and a dynamic marking of *ff*. The woodwinds (Saxophones, Clarinets, Bassoon) and strings (Violins, Violas) are also visible, with the Saxophones and Clarinets playing sustained chords. The score is written in a key signature of one flat and a time signature of 4/4.

For *Metropolis Triptych*, the click track is imbedded in the movie itself to insure true synchronization with the film. This metromone will change with time signature and tempo as indicated by the score.. There are three tempi within the work; quarter note = 90, 120, and 160. Musical transitions between these tempi are accomplished through either sustained chords, which effectively act as a fermata, or metric modulation as discussed above. Although the pulse is consistently written for the quarter note, much of

it can be felt in half time and can be conducted accordingly. Fortunately for the conductor, *Metropolis Triptych* is primarily written as underscore and is rarely used as sound effect. In measures 37 and 423 of the “Prelude”, the whistles have a corresponding chord and are important for an accurate performance. While the whistle at the beginning is fairly straightforward, those at the end are not due to the natural flexing of tempo in the bulk of the score that happened before the final whistles. These whistles are problematic due to the lyricism of the middle sections and a tendency for these passages to slow down; this may be a challenge to any group, but will be especially challenging to young ensembles attempting to perform this work. In future edits before publishing, I have suggested that Mr. Jones explore ways to make these passages simpler to allow for greater adherence to the tempo.

The source for the film and the metronome are the same and therefore can cause technical issues in practice and performance. A computer or DVD player must be available and in close proximity to the projector which also must be the appropriate distance from the screen to enable a useable picture. Such configuration may pose a particular challenge if the goal is to show the film above and behind the audience, which is the most optimal placement. If this arrangement is desired, an earpiece may be used that is connected to the same computer or DVD that used for the video. In our performance, we plugged a sound cable from the computer into the soundboard of the auditorium and then hooked it to a headphone amplifier on stage so that the conductor could hear the click track with the film. There is a built in twelve beat “count-off” to enable the conductor to have warning for when the film—and the music—is to begin. These challenges can be overcome with a knowledgeable auditorium staff or a local sound

expert. In rehearsal situations it may be easier for the conductor to use a separate metronome with the changes programmed or control manually. To sync the film while stopping and starting the ensemble for corrections is futile. It is important to use the metronome throughout the rehearsal process as the ensemble should get comfortable with the unwaivering pulse needed for synchronization to the film.

A final performance challenge of this piece is the stage lighting to be used. In our production we used two different systems, with players using stand lights during the performance of the piece so that the light setting in the hall could be very low to allow for true depth and sharpness of the picture to be viewed. When performing this piece in a large auditorium in which the piece is performed side by side with traditional concert band repertoire, it is advised to set the lights at fifty percent, allowing the players to see their music and the crowd to watch the film with relative ease.

Conclusion

The conception, realization, and performance of *Metropolis Triptych* has been a worthy and exciting journey of discovery for all involved. The experience of collaboration and creativity throughout the initial planning stages, through the writing and editing process, and finally the realization of our work has been educational. Few conductors get such input into the genesis of a piece, and even fewer get to see it evolve. For this, I am very grateful to my collaborators for both your lessons and your inspiration. *Metropolis Triptych* gives a new voice to an iconic film that has thrilled and intrigued audiences and musicians alike. The scores' harmonic language is contemporary yet grounded in the classical art tradition, while maintaining its storytelling relationship

to the original work. The essence of the original film remains intact, while careful editing allows it to be utilized on a standard-length concert. *Metropolis Triptych* is written at the technical level of high school bands and of sufficient musical quality to merit performance by advanced ensembles, and it is hoped that this project will become part of the canon of wind band repertoire, and will inspire others to pursue similar efforts with other films.

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