



Sonically Reimagining Charlie Chaplin's *The Immigrant* (1917)

Nicholas Escobar

Composition for Screen (MSc)

University of Edinburgh

## Instructions for Thesis Perusal:

Watch the film (file name: “FullFilm\_TheImmigrant\_NE”) prior to reading the thesis essay.

While reading the essay have the following open:

- The film file to be able to refer mentioned timecodes (in **bold**).
- The figures file to refer to specified numbered figures (file name “Figures\_TheImmigrant\_NE”)
- The audio file folder to listen to referenced pieces of numbered audio (file name **AudioExamples\_TheImmigrant\_NE**).
- The sound log to read further about how I produced the sound kits for this film (file name “SoundLog\_TheImmigrant\_NE”)

## Table of Contents

Introduction	4
Chapter 1: Crafting My Sound for a 103-Year-Old Classic	6
Chapter 2: The Rhythm of <i>The Immigrant</i>	13
Chapter 3: Improvising in a Fixed Medium	18
Appendices:	
Appendix I: My “Classical” Orchestra	22
Appendix II: Musical Motifs from <i>The Immigrant</i>	24
Appendix III: My Background in Recorded Sound Rhythms	26
Appendix IV: Fireworks in Prague	27
Appendix V: Automated Performance with Keyboard and Flute	28
Appendix VI: Remote Recording and Sampling the Violin	29
Works Cited	30



Figure X.1

## Introduction

Like this transparent, ghostly image (**Figure X.1**) my musical score for Charles Chaplin's seminal film *The Immigrant* is a kaleidoscope of sound, filled with layers of textures, rhythms and sounds. It's meant to confuse and at times disturb.

The process for creating this image began at the end of June 2020, when I drew a hectic collection of lines. I came across the term *double exposure*, while doing research on Sergei Eisenstein, which can be described as not just two images stacked on top of each other "but a continuation of the effect of persistence of vision."<sup>1</sup> I decided to create my own visual double exposure for *The Immigrant*.

---

<sup>1</sup> Robertson, Robert. "Synaesthesia." *Eisenstein on the Audiovisual: The Montage of Music, Image and Sound in Cinema*. London: I.B.Tauris, 2009. 141.

I watched the entire film without any sound and drew lines and shapes randomly with a pencil on four sheets of paper. I ended up with four puzzling pages that were harsh and violent (**Figure X.2**). I condensed these four images onto one sheet of paper. I watched the entire film again, armed with four different colored pencils (red, orange, green, blue) and visually reacted with color *overtop* my previous black and white reaction (**Figure X.3**). The result felt even more alive. It communicated a disturbing sense of dislocation and uncertainty.

Which brings me to the image that represents my thesis (**Figure X.1**). In Microsoft Word, I imported a close-up photo of the visual reaction and randomly adjusted the coloring options for the image. Suddenly I had an overly saturated colored distortion version of my visual reaction. The image had evolved. I began to layer screenshots from the film that I picked at random on top of different brightly colored close-ups and a full shot of the visual reaction. I chose the screenshots because they themselves were either double exposures (like the man, fish and Chaplin image) or distorted (like the main, blurred and ghostly image of Chaplin). In this sense I was picking split-second frames that suddenly felt modern and out-of-context in the best possible way.

The result is a series of images (**Figure X.4**), an evolving collection of layers leading to **Figure X.1**. Looking closely, Chaplin appears troubled. Charlie is not waddling around with his signature Tramp walk or puppeteering dancing bread rolls. He looks scared and distorted. As the viewer, we can see the visual chaos around and behind him as a representation of his memory. A split second look into Chaplin's own mind.

The crafting of **Figure X.1** cemented creative techniques that I've utilized throughout the last three months: The technique of freezing a moment in time and giving that moment a new context. The technique of *dislocation* and *relocation*. The technique of improvisation. And finally, the technique of layering.



## Chapter 1: Crafting My Sound for a 103-Year-Old Classic

### Known Composers in the Modern Silent Film Scoring Scene (and also Me)

For composer Ludovic Bource, the Oscar-winning score for the 2011 nearly silent film *The Artist* allowed him to “revisit and delve into different eras of music.”<sup>2</sup> He studied Richard Wagner and Pyotr Ilyich Tchaikovsky, and the French Romantics Maurice Ravel and Claude Debussy. He listened to 20<sup>th</sup> century film composers like Max Steiner and Erich Wolfgang Korngold, Bernard Herrmann and Alfred Newman. For an entire year he was “not only listening but studying the scores” from films like *Seahawk* (by Korngold) and *Citizen Kane* (by Hermann), looking at their methods of orchestration specifically.<sup>3</sup> He tried to “block everything else out”, not watching any films or listening to any music made after the 1940’s, attempting complete “immersion into that era”<sup>4</sup>. And he succeeded in crafting an authentic score that pays beautiful homage to the music from the early silent film era.

---

<sup>2</sup> Poland, David, interviewer. *DP/30: The Artist, Composer Ludovic Bource*, 13 Jan. 2012, 31:12 [youtu.be/VuxtHwhuqOY](https://youtu.be/VuxtHwhuqOY).

<sup>3</sup> *Ibid.* 31:30

<sup>4</sup> *Ibid.* 34:01

I saw composer Carl Davis conduct the Philharmonia Orchestra in London, playing his 1980 score for the monolith 1927 film *Napoleon*. His score matched the aesthetic and intension of the masterpiece, and also made the film feel incredibly authentic. Davis noted in the concert program that the score draws from Joseph Hayden, Wolfgang Amadeus Mozart and Ludwig Van Beethoven. The program listed 31 classical works by 12 composers that the *Napoleon* score directly draws from.<sup>5</sup> Davis himself composed two themes for the film, one for Napoleon and the other for Josephine. Davis has written or reconstructed scores for over 50 silent films in his career.<sup>6</sup>

I recently had email correspondence with film composer Neil Brand. He told me that when scoring films, he tries “to be a chameleon and make the music a specific world in which the film can exist.”<sup>7</sup> For example for Hitchcock’s 1929 film *Blackmail* he created a score that was “a mix of a [Miklos] Rozsa-style noir, Alex North-style jazz and a Malcolm Arnold lightness of touch in the early scenes” overall capturing the “crime film sound of the 1930’s”<sup>8</sup>. For the 1927 horror film *Cat and the Canary*, Brand drew from the “sound of a Universal horror of the 1930’s mixed with 60’s comedy/horror, hence harpsichord and pipe organ, and the Cat played on theremin”<sup>9</sup> In Brand’s view, his own musical style is “the use of 7<sup>th</sup> 9ths and 11ths to blur the line between major and minor, jazz and ‘classical’ writing.”<sup>10</sup> He also feels that the “musical world should be unique to each film, and the composer as subsumed as possible into that musical world”<sup>11</sup>. For him, a score’s job is “to bridge between the age, social mores and difficulties of the film and a modern audience.”<sup>12</sup>

Paul D. Miller (known as DJ Spooky the Subliminal Kid) composed the music for *Rebirth of a Nation*, his remix of, in Miller’s words, the “infamous and incendiary” D.W. Griffith 1915 film *Birth of a Nation*.<sup>13</sup> Miller sampled images from the film in a way similar to how he samples music for DJ gigs. He also digitally enhanced the film with overlaid schematic designs and images of circuitry. He mainly worked “with electronic and ambient material based around blues rifts.”<sup>14</sup>

---

<sup>5</sup> Program for Philharmonia Orchestra’s performance of “Napoleon” at the Southbank Centre, London, 6. Nov. 2016, 17

<sup>6</sup> About Carl Davis CBE. (2020, July 06). Retrieved August 27, 2020, from <https://carldaviscollection.com/about-carl-davis/>

<sup>7</sup> N. Brand (personal communication, August 25, 2020)

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> “DJ Spooky: Rebirth of a Nation (Promo Trailer).” CantaloupeMusicNYC, 10 Aug. 2015, 0:10, <youtu.be/kekndjW3O4>.

<sup>14</sup> DJ Spooky, Recasting ‘Birth of a Nation’. (2004, October 17), Retrieved August 27, 2020, from <https://www.nrp.org/2004/10/17/4112682/dj-spooky-recasting-birth-of-a-nation>

In 2016 he partnered with the string quartet the Kronos Quartet and sampled them playing his compositions. Musically he drew from blues, jazz and gospel.<sup>15</sup>

Like Brand mentioned, it's important to make the musical world unique to each film. For *The Immigrant*. I indeed crafted a sound world unlike anything I have composed before. Davis creates, arranges and reconstructs silent film scores that feel authentic and strongly entrenched in the era of the films. This is a practice that I partly employed, specifically with melodic writing. However, for *The Immigrant* I intentionally did not set out to compose an authentic score that could have been performed in 1917. I relate to Bource's technique of immersion. For my English Honors thesis at the University of Pennsylvania, I immersed myself in the era of 17<sup>th</sup> century semi-operas when I composed an original score for John Dryden's unfinished, and unscored, 1674 semi-opera *The State of Innocence*<sup>16</sup>. For *The Immigrant* however, I did not attempt total immersion into Chaplin's era, because I was very set on crafting my own 2020 sound for a 1917 film. I did revisit the Chaplin films *Modern Times* and *The Gold Rush* and also read biographical material on Chaplin to better understand him as an artist. I appreciate the work that DJ Spooky did on *Rebirth of a Nation*. He employed the use of modern production techniques like sampling, soundscapes and synthesizers while mixing in live instruments, which are all things that I did in *The Immigrant* score.

As for myself, I have previously composed music for silent films. In 2014, early in my composing career, I composed an orchestral original score for George Melies's 1901 film *Bluebeard*.<sup>17</sup> In 2019, I composed and improvised a piano accompaniment for the 1920 film *The Golem: How He Came into the World*, which I performed for a live audience.<sup>18</sup> I also composed, orchestrated and conducted a score for a short sequence from a 1920's Glaswegian film *What a Night!*.<sup>19</sup> For all three of these films, I sought to craft scores that felt authentic to their time.

When approaching scoring *The Immigrant*, I knew that I did not want to write a score that could have been played in a picture hall by a solo pianist or small orchestra in 1917. I wanted to allude to that type of music, but not feel pressed to emulate it exactly. I wanted to experiment and add a modern musical context to a film that has had countless scores composed for it over the last century. This was my way of having the music act as a "bridge between the age", in the words of Neil Brand.<sup>20</sup>

---

<sup>15</sup> "DJ Spooky: Rebirth of a Nation (Promo Trailer), 1:25. [youtu.be/kekndjW304](https://youtu.be/kekndjW304).

<sup>16</sup> See the University of Pennsylvania-produced video about my honors thesis here: <https://vimeo.com/270217107>.

<sup>17</sup> "Bluebeard", with my original score, can be viewed here: <https://youtu.be/TeWxlTAmBE>.

<sup>18</sup> Listen to my live performance on my Soundcloud here: <https://soundcloud.com/nicholasescobar/the-golem-how-he-came-into-the-world-1920-live-score-performance>

<sup>19</sup> View the film with my original score at this link: <https://vimeo.com/375860479>

<sup>20</sup> N. Brand (personal communication, August 25, 2020)



In summary, I wanted to create my own sound.

### **My “Orchestra” for *The Immigrant***

My sound world for *The Immigrant* is made up of the following elements, which will be explored throughout this paper:

- A “Classical” Orchestra <sup>21</sup>
  - Piano (s)
  - Strings (bass, cello, viola, violin)
  - Brass (cimbasso, contrabass tuba, trombones, horns, muted and unmuted trumpets, wah wah trumpets)
  - Woodwinds (flutes, oboe, bassoon, contrabassoon)
  - Picked Bass
  - Synths and Keyboards
- Live Violin
- Live-recorded Soundscapes (Nature and Streets)
- Unrealistic Foley
- Rhythms
- Live Flute <sup>22</sup>
- Composed Textures
- Sampled Instruments

This sound evolved in an organic fashion, growing more complex as I delved deeper into the emotion and narrative meaning of the film. Looking back, I would say the genres of music and artists that I drew from to craft this sound were atonal free jazz, Django Reinhardt’s gypsy jazz, Miles Davis, Tchaikovsky and Chopin.

### **The Melodic Motifs**

When scoring Charlie Chaplin’s 1917 film *Easy Street*, Neil Brand “tried to score the film in Chaplin’s own style.”<sup>23</sup> Brand told me that Chaplin “was a prodigious melodist” so he tried “to

---

<sup>21</sup> See breakdown of the different components of my “classical” orchestra in *Appendix I*.

<sup>22</sup> To read about the improvised flute, and the act of automated, gesture-based playing, see *Appendix V*

<sup>23</sup> N. Brand (personal communication, August 25, 2020)

give each moment its melody... and an old-school sentiment adding as much warmth as possible.”<sup>24</sup>

It was this exact sound that I tried to capture in my melodies for *The Immigrant*. An old school sentiment, with melodies that highlight each and every moment on an emotional level. After revisiting Chaplin’s *Modern Times* and *The Gold Rush* I noted how the melodies that Chaplin composed carried intense weight from a character and narrative perspective. The melodies make you feel what the silent Chaplin is feeling.

So I set out to compose melodies in Chaplin’s style. This film contains seven distinct different melodies.<sup>25</sup>

- Chaplin’s Theme
- Secondary Chaplin Theme
- Edna’s Theme
- The Dream Theme
- The Love Theme
- The Violence Theme
- The Coin Ballet Theme
- The Artist’s Themes

The Dream Theme is at the very heart of this entire film, partly because its meaning evolved throughout the composing process. This theme was present in one of my first demos from May 28, 2020 (**Audio 1.1**). I knew early on that the shot at 3:30 when Edna and Charlie make eye contact should be a large musical moment. I wanted the other musical elements to melt away revealing what became known as the Dream Theme, here played by the virtual horn.

The horn inspired the improvisational creation of the theme, which felt heroic and yet also intimate and emotional. Though it is in C major, it hits the 7<sup>th</sup> (B natural), 4<sup>th</sup> (F natural) and 6<sup>th</sup> (A natural) of the key, along with the 1<sup>st</sup> (C natural), 3<sup>rd</sup> (E natural) and 5<sup>th</sup> (G major) (**Figure 1.1**). So really it is a cluster chord that is also a melody.

I instinctually played this same melody they as they arrive at Ellis Island, partly because I just liked the sound of it being played on the piano. But at this point the meaning of the theme was entirely muddled, because I felt that the theme represented Charlie’s love for Edna.

---

<sup>24</sup> Ibid.

<sup>25</sup> For an analysis of Chaplin’s themes, Edna’s Theme, the Violence Theme, the Love Theme, the Coin Ballet Theme and the Artist’s Themes, see *Appendix II*.

Then I realized that the theme actually represented the idealistic dream of success in America.

Jimmy Gavin, who immigrated to America from Italy, recalled in an interview that people would say you “could find gold on the street” in America.<sup>26</sup> Catherine Hannon English, who immigrated from Poland at age 10, had visions of students in America “with beautiful ribbons in their hair.”<sup>27</sup> Both Catherine and Jimmy had imagery of America in their minds prior to arriving. The Dream Theme represents this hope. It is an idealistic melody and feels like it is reaching out for something better.

This theme *becomes* the coin in the second act of the film. At **11:09** when Charlie sees the coin on the street, the Dream Theme is played by the virtual wah-wah trumpet. It feels joking, like the coin is mocking him. At **15:37** when the waiters begin to beat up the drunk patron, the Dream Theme is played in a grand manner by a virtual string ensemble. Underneath this seemingly pretty and hopeful melody is a bizarre crazed soundscape reminiscent of the mess hall sequence on the boat and the harsh arrival to Ellis Island. Placing the melody on top of the violent soundscape of bombastic brass and mechanical rhythms asks the question: Is this what America is? Is this what you dream image of it ended up being? The Dream Theme returns again at **17:48** during the ballet-like sequence with the coin. The woodwinds trill the theme, and are purposefully clashing in a dissonant manner, essentially playing in two keys at once. The end result is a clashing, fake-sounding mess. But that is the point.

The Dream Theme goes through constant musical variations because it represents the nuanced concept of hope. It follows the characters’ relationship to this hope while journeying through hardship and pain.

### Putting It All Together

Though my own sound for this film evolved over the three-month process, the first demo I created on May 28<sup>th</sup> was the foundation: Charlie’s walk across the deck of the ship from **0:57-1:33 (Audio 1.2)**. I composed Beat 1 first.<sup>28</sup> Then I improvised a bassline underneath the rhythm. One of the interesting parts about this bassline is in measure 6 (**Figure 1.2**) The notes in this measure go from C to Eb to G and then to E natural. The E natural was actually a mistake I while

---

<sup>26</sup> Gutman, Herbert George. “Immigration, Migration, and First Impressions of New York, New York and the United States.” New York Immigrant Labor Oral History Project (OH.014), Tamiment Library and Robert F. Wagner Archive, [digitaltamiment.hosting.nyu.edu/s/nyciloh/item/292](http://digitaltamiment.hosting.nyu.edu/s/nyciloh/item/292). 3:00

<sup>27</sup> Sigrist, Paul E. “Catherine Remembers Her First Day in America.” Ellis Island Collection EI:118, National Parks Service, U.S. Department of the Interior, [www.nps.gov/elis/learn/education/oral-history-ei-116a.htm](http://www.nps.gov/elis/learn/education/oral-history-ei-116a.htm).

<sup>28</sup> See Chapter 2 for discussion on the rhythms.

improvising (I hit both Eb and E natural at the same time), but I loved the sound and I chose to keep it in. Improvising became a key ingredient for this compositional process.<sup>29</sup>

Many of the instruments in this demo became key elements of my sound for the score. The electric piano with the improvised glissando, the falling horns and the muted trumpet all became key musical players. Most of what you're hearing in this demo went unchanged for the entirety of this three-month process.

I was already well on my way to developing my own modern sound that felt improvised, dissonant and old-fashioned yet new.

---

<sup>29</sup> See Chapter 3 for discussion on improvisation in *The Immigrant* score.



## Chapter 2: The Rhythm of *The Immigrant*

One of the main sonic elements of this score is the bizarre percussion, which was crafted out of various recorded object rhythms. Edward Steiner writes in *On The Trail of the Immigrant* that the act of landing on the shores of the United States is a “hard, harsh fact, surrounded by the grinding machinery of the law, which sifts, picks and chooses.”<sup>30</sup> The term “grinding machinery of the law” stands out to me here. Even though I did not come across this text until later in my creative process, I feel like it perfectly encapsulates how the rhythms are functioning in this score. They are made up of sounds made with objects like a bike bell, doors, window blinds, a dog toy and chess pieces. Everyday objects suddenly become musically alive, creating a sound world that is unabashedly repetitive and relentless.

### Crafting a Sound Kit

I started recording sounds for *The Immigrant* on May 26, 2020. In total, I recorded over 800 individual sounds for this film score.<sup>31</sup>

Many of these sounds were recorded on *sound discovery sessions*. I’d take my microphone and walk around my house, trying to find interesting sounds. After these sessions I’d be left with

---

<sup>30</sup> Steiner, Edward. *On the Trail of the Immigrant*. Fleming H. Revell Company (London and Edinburgh), 1906, 72.

<sup>31</sup> See [“The Sound Log”](#) for a detailed list of the sounds that I recorded for *The Immigrant*.

longform audio recordings that I then edited (**Figure 2.1**). Though tedious work, I enjoyed sifting through and picking the sounds that piqued my interest. I created individual audio files out of each sound and named them in a specific manner. Some of the names are quite simple like “RecyclingBinSqueak” or “KeysDrop” while others are more specific like “CoilonShelf\_ScrapeHitDing”. For the recordings that I did of the dog toy, I had more creative names like “OutofBreath”, “INeedSomeAir” and “IWillTakeYouToCourt”.

Through crafting a sound kit, you can freeze small moments in time to be repeated, morphed and changed infinitely.

### Rhythms Out of Objects

I have made rhythms out of objects for projects before, and knew that I wanted to push my experimentation further with *The Immigrant*.<sup>32</sup> On May 26<sup>th</sup>, the day I officially began work on the score, I went on a sound discovery session around my house and recorded objects that eventually ended up in Beat 1 (**Figure 2.2**)

My process for crafting this rhythm only took 10 minutes. On May 27<sup>th</sup>, using the sound kit that I had just edited, I began dropping audio files into Logic. I began with the selection of “TissuePull” recordings. The “TurningOnLight” takes became a steady eighth note, hitting on the left and right side of the stereo image. I took the recording of the salad spinner, and spliced out small, half-second recordings and made those into eighth notes. They blended nicely with the tissue sounds. I created a rhythm out of four typewriter key recordings, at times layering all four audio files at once. The “melodic” line in this beat was made with the sound of magnetic wooden chess pieces hitting a chess board (**Audio 2.1**).

From there, I created an audio file of the full beat, and then randomly created seven audio files of smaller sections (**Audio 2.2**). “SmallerBeat1” consists only of the “TurningOnlight” rhythm and the “TypewriterKey” rhythm: this is the first sound that you hear in the film. These smaller parts of larger rhythms became the puzzle pieces that allowed for further beat creation.

In the case of Beat 1, it is in an irregular time signature, which was purposeful. It is made up of four measures, each with four beats, and then one measure with two beats. The result feels incomplete. When mixing time signatures while layering smaller rhythms, the measures blend together until there is no real rhythmic center. The downbeats of each measure disappear.

---

<sup>32</sup> For a brief overview of my past projects that included object rhythms, see *Appendix III*.

I created twelve rhythms for *The Immigrant*, but in actuality I created a limitless number of subsequent ones. I ended up accumulating over 50 smaller rhythm files. With this sandbox of sounds to play with, I was able to create rhythm experiments (**Audio 2.3**). As illustrated in **Figure 2.3**, this experiment is made up of smaller parts of six different beats. As the blending becomes more intense, the sense of a rhythmic center dissolves. The basis for this experiment was Beat 8 (**Audio 2.5**). However, I break up and stagger the smaller parts of that beat so that it becomes muddled and morphs into something else entirely.

The rhythm sequence during Charlie's dice rolling from **4:32-5:28** is especially complex. First watch the sequence in the film, and then take a listen to the isolated rhythm track (**Audio 2.5**) while looking at the full rhythm composition image (**Figure 2.4**) and its detail image (**Figure 2.5**). While the smaller sequence rhythms do repeat throughout, it never repetitive. This is due to the blending of time signatures. In **Figure 2.5**, you can see that full Beat 4 is repeated while also having smaller parts of it layered in at different intervals. This creates a cyclical effect.

Now watch the sequence in the film again, paying attention to how the rhythms interact with the other elements in the score. For me, the rhythms help drive the rest of the "orchestra". The bass is similarly lacking a rhythmic center, while the low brass is playing the Violence Theme at odd intervals. When the trilled trumpets enter, it doesn't feel like the downbeat to a measure. The rhythms provide a mechanical grinding beat that pilots the characters' lives.

The improvised creation of these complex rhythmic textures was directly caused by the process of dislocating (breaking apart) full beats and then relocating (joining) them with others.

### **Sound as Unrealistic Foley**

I also utilize the recorded sounds as unrealistic foley, in which unexpected sounds are synched to motions in the film. Many of these foleyed sounds frequently appear in the rhythms, like the bike bell and the dog toy. Therefore, the line between what is foley and what is rhythmic is frequently blurred.

Michel Chion's theory of synchresis is defined as the "spontaneous and irresistible weld produced between a particular auditory phenomenon and visual phenomenon when they occur at the same time."<sup>33</sup> The act of synchresis in my score makes it feel like a sound film from an alternate dimension. I liken my method of work to that of French filmmaker Jacques Tati, who

---

<sup>33</sup> Chion, Michel, et al. *Audio-Vision: Sound on Screen*. Columbia University Press, 1994, 63.

always “shot his films without sound and composed his soundtracks separately.”<sup>34</sup> The added sound was a way of “retouching his images by directing our eyes, sometimes by complicating or even undermining the visual evidence.”<sup>35</sup> Tati’s *Mon Oncle* “drew on all kinds of noises for human footsteps, including ping-pong balls and glass objects.”<sup>36</sup> When I watched some of *Mon Oncle*, I noticed this method of sound design adds an almost hyper-realistic feel, so carefully curated down to the millisecond.

My use of unrealistic foley make movements seem larger, gestures more violent and the voice alien. When a character points sharply with their finger, like the angry waiter at **15:25**, you hear the muted ringing of a bike bell. When Charlie places his winning hand on the table at **6:50**, you hear multiple layered recordings of bubble wrap. When Charlie eats beans daintily at **13:18**, you hear the squeaking of a door hinge, the wooden window blinds, and multiple recordings of scratched shells.

Through synchresis these sounds add meaning to the motions. The muted sound of a bike bell has an aggressive sense of simmering anger due to the ringing being impeded by my hand. The pulling of the wooden blinds line up with Charlie bringing the fork to his mouth, and as such they have a distinct forward momentum to their sound. The squeaking shells playfully imitate Charlie’s dainty act of biting the beans.

I first practiced this form of unrealistic foley with the hiccup scene beginning at **1:46**. As demonstrated by **Figure 2.6**, the finalized sequence included 100 separate audio files. These bits of audio came from almost every sound kit I recorded during my three-month process. I felt like this sequence set the sonic stage for the rest of the film, showing Charlie’s intense discomfort and featuring a crescendo of pain and confusion. Therefore, sounds that appear later in the film, like a broken smoke detector and shells, are inside this mélange of chaos.

I had initially scored this scene with hiccup sounds that I recorded. But I felt that these human sounds were not as effective, no matter how odd the hiccups sounded. Following the idea of a conditioned reflex, if an accordion is shown played on screen, without the audio, an audience “will instantly imagine the sound it makes as they are familiar with this instrument, and they normally experience it audiovisually.”<sup>37</sup> It is only neutralized when “the actual sound the object or person makes appears in the soundtrack” and in this case “the sound image disappears

---

<sup>34</sup> Rosenbaum, Jonathan. “Jacques Tati: Composing in Sound and Image.” The Criterion Collection, 28 Oct. 2014, [www.criterion.com/current/posts/3337-jacques-tati-composing-in-sound-and-image](http://www.criterion.com/current/posts/3337-jacques-tati-composing-in-sound-and-image).

<sup>35</sup> Ibid.

<sup>36</sup> Chion, *Audio-Vision: Sound on Screen*, 64

<sup>37</sup> Robertson, *Eisenstein on the Audiovisual: The Montage of Music, Image and Sound in Cinema*, 155



completely, as everyone in the audience hears the same accordion and the same music” and that any “room for inner individual imagining of the music has been lost.”<sup>38</sup> It becomes “overdefined and less evocative.”<sup>39</sup> This over definition was present when Charlie and the passenger were making actually human hiccups. It became far more evocative when I began adding sounds unrelated to hiccups, like the sound of a typewriter key. Initially I had the unrealistic foley blended with the hiccups (**Audio 2.6**), but then I cut out the real hiccups all together and built up the unrealistic foley, arriving at what is in the final score (**Audio 2.7**).

Now listen to the unrealistic foley in the dice-throwing sequence (**4.35-4.56**) on its own (**Audio 2.8**) and look at a screenshot of this sequence (**Figure 2.7**). On their own these sounds are disparate, and yet through the act of synchresis and surrounded by the other elements in the sound world, they truly bring the gestures of the characters to life. The sounds also make sonic sense in this world, because they are repeated with specific motions. They help make the film’s imagined world consistent. For example, the “PlasticSheetShake” lines up with Chaplin’s twirling arm, and the “BikeBell\_MutedDrumStick” percussive hit lines up with him blowing on the dice for good luck.

I liken the rhythms and sounds in my score to adding a fantastical veil across reality. In this sound world, screaming becomes plastic bags and fists are fireworks.<sup>40</sup> These normal sounds create a world that is out of step with reality, and consistently obstructive to the orchestral textures.

---

<sup>38</sup> Ibid, 155-156.

<sup>39</sup> Ibid, 156.

<sup>40</sup> For a discussion about my firework sonic motif, see *Appendix IV*



### Chapter 3: Improvisation in a Fixed Medium

I had the opportunity to speak with Peter Krasinski, a renowned musician and organ accompanist for silent films. He told me that improvising music to a film “makes it possible to speak directly to the audience” and for him the biggest compliment he can receive is to “be told that people forgot that I was playing.”<sup>41</sup> While at the University of Pennsylvania, I saw Peter musically accompany the 1925 silent film *Phantom of the Opera*. I was so taken by how the organ music melded perfectly with the film. At points it seemed organically attached, and I forgot it was all being improvised. That is truly the immersive quality of live silent film musical accompaniment.

In my experience improvising for a scene from *The Golem: How He Came into the World*, I came up with a few motifs for different characters and practiced those prior to performing. But when I was playing live to picture, I created musical gestures that I hadn't practiced, and I played with more vigor. There was an exhilaration to the live improvisation that forced me to react automatically to the film.

For *The Immigrant*, I wanted to replicate the personal connection with the audience that Krasinski described. I used improvisational technique throughout the three-month creation of this score. There were split-second decisions, one-take recordings, instinctual edits, and crazed solos all adding up to a personal improvisational reaction.

---

<sup>41</sup> P. Krasinski (personal communication, August 27, 2020)

## Improvising While Creating

Recording and editing sound kits is improvisation. Sound discovery sessions allowed me to experiment with making unique sounds with objects. The act of editing longform recordings had an improvisational edge because I made quick decisions on the takes I liked and the takes I didn't. I kept moving forward.

When recording the ambient soundscapes, whether it be out a window or in the woods, I started and stopped the recording on a whim, letting nature and the street noise progress unimpeded. Certain moments in the final film include unedited soundscapes that play as an underscore in real time. For example, at **8:41**, underneath the piano solo, you suddenly hear a mechanical whirring sound. This is the motor on a pontoon boat being lowered jerkily into the water. It is a part of my 27-second recording titled "OutOnWater3" in which the adjustments appear right at the end (**Audio 3.1**). I did not intend to include the motor sounds. My initial reaction was to cut them out, so they didn't distract from the piano. Then I realized that the whirring motor could represent the boat captain about to arrest Chaplin in the film. This "mistake" became the sequence's strength.

My use of composed textures shows how the end result of improvisation and experimentation can be unexpected. I created two new short compositions called Texture 1 and 2 (**Figure 3.1 and 3.2**) in which I incorporated sampled instruments and soundscape recordings (**Audio 3.2 and 3.3**). I made audio files of smaller sections from the textures and composed "Merged Texture 1" (**Figure 3.3 and Audio 3.4**). I repeated the process of making further smaller sections and used those to compose Texture 3 (**Figure 3.4 and Audio 3.5**). From there I composed "Merged Texture 2" which includes the atmosphere layer from Texture 3 being distorted and a pitch shifted (**Figure 3.5 and Audio 3.6**). The result is a terrifying evocative layered sound that is like a double exposure put to music.

Playing the sampled composed textures on the keyboard led to chaotic sounds that I as the musician had no real control over.<sup>42</sup> Adjusting the envelope and release on the sampler in Logic allowed for each pressed note on a keyboard to release an unwieldy sound burst. The chaotic sounds that you hear during the overture of the film includes layers from Merged Texture 1 played through a sampler (**Audio 3.7**).

Sampling allowed for me to experiment with layering as a way to reflect characters' memories. To do this I play sampled instruments of prior musical moments in the film. An example of this is

---

<sup>42</sup> For further discussion on improvising with my X-Key keyboard see *Appendix V*.

my sampling of the Dream Theme cue from the dining hall sequence at **3:30**. It is first played as a sampled instrument during the sequence at **8:00** with Charlie and Edna. It is low in the mix, but I have created a small snippet that is isolated (**Audio 3.8**). When sampled, this cue becomes a tableau of repeating material that blends together to the point of incoherence. This sound becomes a memory. Chaplin is thinking back to the first moment he saw Edna in the dining hall. But he is also looking at the money in his hand and thinking about his future. This sampled track plays once more in the finale, as Chaplin urges Edna to marry him. Though from a place of love, this act could also be driven by a desire to be married and begin the “ideal” life in America. Its presence in the finale makes his decision seem more nuanced.

The violin textures at the beginning of the film were crafted from smaller individual notes that I had Lily Honigberg perform and record.<sup>43</sup> Though they feel live, they are actually curated. I crafted the short simple phrases out of the individual recorded notes from the Dream Theme. To create the morphing synthesized violin texture, I began layering sounds from my violin sound kit, feeding some through filters, reversing others, placing textures on top of textures and ended up with takes similar to (**Audio 3.9**). The eventual result is a complex texture that was crafted in an improvisational manner from just one single instrument.

This rising tension of the overture represents confusion and worry. Edward Steiner describes how homesickness was “a real presence in the steerage; for there are the men and women who have been torn from the soil in which through many generations their lives were rooted.”<sup>44</sup> Emma Greinger, who immigrated from Italy at the age of 11 in 1925, reflected that “It was very disrupting, you know, to pack up and break up your home.”<sup>45</sup> The film’s opening depicts people who are sickened by boat travel and homesick for what they have left behind. Though this complex rising violin texture film includes the idealistic and hopeful Dream Theme, it is warped and full of anxiety. This rising cacophony represents the group mindset on the ship.

---

<sup>43</sup> To read more about how I created the violin sound kit, and conducted the remote recording session, see *Appendix VI*

<sup>44</sup> *Ibid*, 38.

<sup>45</sup> Sigrist, Paul E. “Emma and William Remember Packing.”, Ellis Island Collection EI-28, National Parks Service, U.S. Department of the Interior, [www.nps.gov/elis/learn/education/oral-history-ei-28.htm](http://www.nps.gov/elis/learn/education/oral-history-ei-28.htm).



## Conclusion:

*The Immigrant* was released on June 17th, just four months after the exclusionary Immigrant Act of 1917.<sup>46</sup> Amid this anti-immigration sentiment, Chaplin's film cast the immigrants as the protagonists and focused on their trials and tribulations while also alluding to the possibility of a prosperous future in America. Though largely a comedy, it does not hold back imagery of sickened passengers on the boat, violence at the arrival to Ellis Island, and intense poverty and hunger.

I sought to further this humanization by dehumanizing the sonic world. We are experiencing the film sonically through the characters' ears. Due to the feelings of discombobulation and worry, everything sounds distorted and upside down, memories become melodies, cars are heard streaming by as crickets sing, and ordinary sounds become a demon choir of rhythms never ceasing. My score is like a watery reflection, revealing a reflected sound world filled with layers upon layers of complex and warped material.

This process has cemented what I feel is my own musical sound. In sampling sounds and sketches, blending synthetic orchestral elements with live instruments, and improvising musical lines I could not normally compose note by note, I create musical palates that are unique and thought-provoking.

---

<sup>46</sup> Robertson, David. *Chaplin: His Life and Art*. McGraw-Hill Book Company, 1985, 202.

## Appendix I: My “Classical” Orchestra

### The Piano (s)

I use two piano virtual instruments in vastly different ways. While a slightly out of tune, scratchy and grainy piano (frequently processed through a crunchy amplifier) plays the crazed solo at **2:30** during turbulent dining hall sequence and during the fight in the restaurant at **15:32**, the Yamaha Grand plays in the more intimate moments between Charlie and Edna like at **8:00** and **14:04**. The distinct timbral differences between these two pianos help reflect what is occurring in the film.

### The Strings

I purposefully take one of the core sections of the classical orchestra and largely hide it and sparsely use it. Large ensemble string passages are hard to come by in this score. Only in the moment that Charlie sees Edna in the mess hall, the fight in the restaurant and the finale does the string ensemble play legato passages together. While I draw from the musical style of Chaplin’s time, I deliberately avoided emotional strings until I really needed them. When they do arrive, they feel almost out of place, like they are from a different score. They are a sugar coating on top of a largely chaotic and concerning soundscape.

### The Brass and Solo Horn and Solo Trumpets

The large low brass section is frequently bombastic, and almost solely plays short staccato notes throughout the score. They function as percussive sounds, the notes they are playing secondary in importance to the harsh punching quality that they provide. At **4:21** for example, the biting staccato notes that the cimbasso, contrabass tuba and tubas are playing are meant to be like percussive hits, the notes are secondary. Only at certain moments can you hear trilled trumpets (for example at **4:46** during the dice-rolling sequence), and there are only two moments in the score where legato brass are used in their entirety: when Charlie is saying goodbye to Edna on the boat at **10:35** (with the solo horn playing the Love Theme) and during the ending sequence starting at **23:47**.

The solo trumpets have a large presence in this score. The muted trumpet, which plays Chaplin’s main theme, sounds processed and synthetic. I let it really stick out in the mix, almost too close to the listener. The wah-wah trumpet sounds playful and demure and harkens back to music of the silent film and vaudeville.

## The Woodwinds

The woodwind section is quite small for most of this score. The bassoons provide a nice doubling with the staccato brass, while the trilled flute and oboes only appear in the second half of the film. In the finale, when the emotional Love Theme is played by the full orchestra, a larger woodwind section is present with clarinets and an English horn. However, they are overpowered by the rhythms and chaos happening around them.

## The Bass

The picked bass is one of the sonic stars of this score. There are two different bass tracks: one that sounds close up and personal, and another that is fed through an amp and has a lot of reverb added to it. This “distant” bass is used when Charlie first enters the restaurant at **11:25**. The main bass frequently plays crazed bass lines that are entirely devoid of a central key and even a central time signature. Like the rhythms in the score, the bass acts as a ticking clock, relentlessly moving forward.

## The Synthesizers and Keyboards

In addition to conventional orchestral instruments, this score features a number of synthesizers and keyboards. I use synths from Spitfire LABS’s sounds, specifically a collection of sounds that Spitfire created from whale songs. One of these synths plays Edna’s theme at **0:20**. The Groove Piano patch from Spitfire LAB’s has a large presence in the score, at one point providing the glissando lines for Chaplin’s motions at **18:15**. I liked the playful and synthetic quality of the keyboard’s sound and figured it would provide yet another interesting piano variation in the score.

## Appendix II: Musical Motifs from *The Immigrant*

### The Violence Theme:

This motif is mostly played harshly by the low brass, and is meant to represent the violent passenger, the boat captain and the angry waiter. To a larger extent it embodies those individuals that look down upon or intensely dislike Chaplin's character. The theme is intensely dissonant. I first composed the theme for the sequence starting at **4:21** when the angry passenger bangs his fist on the table. I used the cimbasso patch and improvised some close cluster chords, using a lot of 2<sup>nd</sup> intervals to make it especially ugly-sounding. I used that first take and divided up the different notes amongst the low brass. The result is a percussive and harsh sound that perfectly accented the angry passenger's erratic movements.

### Edna's Theme:

This theme was written later in the composition process for this film. I ended up writing a fairly simple melodic texture, just moving from the 5<sup>th</sup> to the 7<sup>th</sup> in the key of C major (G to B). You can hear it at 13:51 played by the violin, and 23:17 played by a slightly distorted piano. This theme feels gentle, somber and a bit defeated. Edna's character experiences great hardship on the boat, and her mother dies shortly after arriving in America. As a result, her character is carrying a lot of painful experiences and memories. I wanted the theme to capture this, but in a simple, straight forward manner.

### The Artist's Themes:

The Artist actually has two distinct melodies that frequently blend together. They are introduced for the first time at **20:13**. One is played by two solo virtual cellos panned left and right in the stereo image. I improvised the pompous, quick-moving melody to represent the Artist's drunkenness and his self-infatuation. I then divided up that melody between two different cello tracks, so that the melody moves from right to left with unrealistic preciseness. This furthers the sense of drunkenness. The second melody is played by the low brass and is a positive-sounding theme in C major that feels march-like and victorious. Both these melodies are placed in union with one another, frequently clashing, and the effect is an enveloping soundscape that feels too cheery, off-putting and off-kilter. The melodies are meant to question the Artist's earnestness in his interest in Charlie and Edna.

### The Coin Ballet Theme:

This sequence from **17:41-19:39** is comical and I wanted to capture this playfulness with another motif. The prominent bass line (later picked up by the low woodwinds and brass) is the melody



here. It represents the oblivious customer who enters with the coin Charlie thinks is rightfully his. The basis of the theme is a collection of heavy quarter notes (B, C, G and F#), that feel lumbering like an elephant.

### Charlie's Themes:

These two themes are both playfully comical and represent both Chaplin's character in this film and his Little Tramp persona throughout his career. The secondary melody is first introduced at **5:42** in the film, when Chaplin is shuffling the deck of cards. This theme uses fully diminished 7<sup>th</sup> chords and feels very much like it comes straight from the silent film era. It is played once more at **14:54** when Charlie turns to speak with Edna, showing his excitement. At **16:23**, after Charlie witnesses the customer beaten up, the melody plays as Charlie counts in his head the amount their meal will cost. The theme then dissolves when he realizes the coin has fallen out of his pocket. It is also played by a broken smoke detector sampled instrument at **19:28** to reflect his, unfortunately momentary, confidence that the coin he is paying with is real.

The main Chaplin theme was the first melody that I composed for *The Immigrant*. It is a short motif of only four notes (C, Bb, G, B natural), and plays constantly throughout the film, following Chaplin's character's emotional journey. The first appearance of the theme is played by the muted trumpet at **0:41** as he pulls the fish out of the water. It is a theme that can be infinitely molded. It can sound triumphant, defeated, playful and violent. If you look at the make-up of the theme, it goes against the listener's expectations. In the key of C, the motif first arrives at Bb and two notes later arrives at B natural, which is a sonic surprise. I felt this represented Chaplin's Tramp character well, because in my mind he is always defying expectations.

### The Love Theme:

This motif gradually evolves throughout the film. It first appears at the **8:00** in the film, as Charlie's face falls when he realizes that Edna is crying. The theme is tender, and intentionally cloying and emotional. I imagined this theme playing on set as Charlie and Edna acted out the gentle and nuanced scene. The motif is chromatic and features fully diminished 7<sup>th</sup> chords like the secondary Chaplin theme. In this sense it is musically dated and nostalgic. It plays once more when Chaplin is reunited with Edna at **14:03**, and finally it is played with a full orchestral sound in the finale, as Chaplin forcefully carries Edna to the marriage office.

### Appendix III – My Background in Recorded Sound Rhythms

Over the past three years, I have been experimenting more and more with the use of recorded sound rhythms.

When I scored a 2017 production of the play *The Wolves*, which is about a high school girls soccer team, I had recording sessions on a soccer field, recording the sound of a soccer ball hitting a chain-link fence, being kicked, being juggled, etc. I also recorded the sound of a crowd at a college soccer game. I used these live sounds, which related to the narrative of the play, to then create distinctive rhythms.<sup>47</sup>

I utilized recorded object rhythms in my scores for two short films by filmmakers Lucy and Max Nebeker titled *The Pallbearer* and *The Angler*. Lucy and Max are the founders of Castor Pollux Studios which is an independent production company that creates films that are inspired by the folklore of the Rocky Mountain Region in the United States. Because both shorts were rooted in the landscape, focusing on earth and water, I recorded sounds in a cornfield in Ohio and a lake in Maine. From these sounds I crafted rhythms unique and distinctive for each film.

In 2020, for an experimental film about lawnmowing titled *When Are You Going to Cut the Grass?*<sup>48</sup> I recorded the sounds of gardening equipment and kitchen equipment and made an entire score out of these sounds, (with just a few synthesizers).

---

<sup>47</sup> Hear “The Wolves” score at this link: <https://soundcloud.com/nicholasescobar/sets/the-wolves-original-theatrical-soundtrack>

<sup>48</sup> Hear the lawnmower-inspired score at this link: <https://soundcloud.com/nicholasescobar/when-are-you-going-to-cut-the-grass>

#### Appendix IV- Fireworks in Prague

The sound of fireworks exploding is an obvious sonic motif in my score for *The Immigrant*. I recorded these fireworks sounds in Prague, Czech Republic on New Year's Eve 2020.

When listening back to them during my compositional process, I realized that individual firework explosions were perfect for violent actions in the film. For example, at **4:25** when the angry passenger throws the die down on the table, we hear the firework for the first time. This violent sound adds weight to an action that in real life would not be accompanied by such a loud and disturbing sound.

During the restaurant fight at **15:36** these firework sounds are especially crucial, cutting through the seemingly beautiful Dream Theme being played by the string ensemble, and accenting the vicious violence of the seemingly comical stage punches.

And at 17:26, when the angry waiter hits Chaplin with his notepad, the sound of the firework is heard once more. Due to Chaplin's intense stress at this moment, this action carries more weight than it suggests without sound.

## Appendix V– Automatic Performance With a Keyboard and Flute

I've performed all of the sampled sounds in this score on a two-octave X-Key keyboard. It has very thin keys so as such I'm able to move my fingers across them quickly. This is how I execute, for example, the electronic piano's glissando motions that follow Chaplin as he brushes the baguette at **18:25**. I played these gestures live, playing random notes on the spot, trying to accent and amplify Chaplin's own movements and gestures. As another example, the crow caw sampled synth becomes the Artist's pompous persona, accenting his bowing at **20:26** and at **20:37** acting as his speaking voice. Through the performative nature of the X-Key, I was disconnected from the notes and more focused on musical motions and gestures, and these sampled sounds were a perfect vehicle for this.

I replicated this crazed glissando improvisational technique when playing the flute in this score. The improvisational flute textures that I played consisted of bizarre atonal trilled, glissandos, sharp screeches and sloppy articulation. I did not think about the notes, and only focused on off-the-cuff musical motions. I then pitched the tracks down at different intervals to create synthetic-sounding chords. The result is the flute texture that you hear during the walk across the deck at **0:57**. A synthetic-sounding flute sound that is entirely played live. It feels alien, and further reflects the sense of seasickness that Chaplin is feeling.

## Appendix VI– Remotely Recording and Sampling the Violin

It was a pleasure working with violinist Lily Honigberg on this score. I have worked with Lily before. She remotely recorded violin for a short film by Lucy and Max Nebeker that I scored in 2019 called *The Pallbearer*. As such, I already had experience conducting a remote recording session.

I had Lily play two notated cues. One was for the moment Charlie sees Edna in the dining hall (which is the Dream Theme), and the other was the ending sequence (which is the Love Theme) (**Figures A.1 and A.2**). For both cues, I made adjustments to the melodies and the musicality of the lines for live performance. The Dream Theme became far more virtuosic, ending in measures 18 and 19 with sped up triplets that feel melodramatic in the best possible sense. In notating out the Love Theme for the finale, I actually improvised the violin line with a virtual instrument to the picture to get the timing that I wanted. This ended up including odd mixture of time signatures, which feel correct when you listen to the violin, but look unnatural on paper. The off-kilter nature of the time signatures partnered with a beautiful-sounding idyllic violin creates an intriguing tension which highlights what I see as a move by Chaplin’s character to force Edna to marry him. It is significant that this live violin sounds strikingly human and real in a score that is largely synthetic and curated. I urged Lily to really lean into the romantic sound, employing exaggerated dynamics and overly emotional vibrato.

As a part of the remote recording session with Lily, I also notated out small musical phrases of different motifs from the film (**Image A.3**). I asked Lily to improvise dynamics, tempo and vibrato and do a number of different takes. I then had her record the Dream Theme in a variety of different ways, like pizzicato, spiccato and legato. Finally, I asked her to record the individual notes of the Dream Theme (C, B, F, G, E) separately. From there I created a sound kit of the individual notes and different musical phrases that I used to create the live violin textures throughout the film.

For example, I took different recorded takes of the Dream Theme and layered them together, overlapping them and slowing down some takes, while panning them to sound like multiple different violins playing at once. I decided to put this audio during the Ellis Island sequence, over the image of the Statue of Liberty at **9:53**. The result is a texture that feels highly improvised, as if it’s being played live by four violinists.

## Works Cited

Chion, Michel, et al. *Audio-Vision: Sound on Screen*. Columbia University Press, 1994.

DJ Spooky, Recasting 'Birth of a Nation'. (2004, October 17), Retrieved August 27, 2020, from <https://www.nrp.org/2004/10/17/4112682/dj-spooky-recasting-birth-of-a-nation>.

DJ Spooky: Rebirth of a Nation (Promo Trailer)." CantaloupeMusicNYC, 10 Aug. 2015, 0:10, <youtu.be/kekndjJW3O4>.

Gutman, Herbert George. "Immigration, Migration, and First Impressions of New York, New York and the United States." New York Immigrant Labor Oral History Project (OH.014), Tamiment Library and Robert F. Wagner Archive, <digitaltamiment.hosting.nyu.edu/s/nyciloh/item/292>.

N. Brand (personal communication, August 25, 2020).

P. Krasinski (personal communication, August 27, 2020).

Poland, David, interviewer. *DP/30: The Artist, Composer Ludovic Bourque*, 13 Jan. 2012. <youtu.be/VuxtHwhuqOY>

Program for Philharmonia Orchestra's performance of "Napoleon" at the Southbank Centre, London, 6. Nov. 2016, 17.

Robertston, David, *Chaplin: His Life and Art*. McGraw-Hill Book Company, 1985.

Robertson, Robert. "Synaesthesia." *Eisenstein on the Audiovisual: The Montage of Music, Image and Sound in Cinema*. London: I.B.Tauris, 2009. 141.

Rosenbaum, Jonathan. "Jacques Tati: Composing in Sound and Image." The Criterion Collection, 28 Oct. 2014, [www.criterion.com/current/posts/3337-jacques-tati-composing-in-sound-and-image](http://www.criterion.com/current/posts/3337-jacques-tati-composing-in-sound-and-image).

Sigrist, Paul E. "Catherine Remembers Her First Day in America." Ellis Island Collection EI-118, National Parks Service, U.S. Department of the Interior, [www.nps.gov/elis/learn/education/oral-history-ei-116a.htm](http://www.nps.gov/elis/learn/education/oral-history-ei-116a.htm).

Sigrist, Paul E. "Emma and William Remember Packing." Ellis Island Collection EI-28, National Parks Service, U.S. Department of the Interior, [www.nps.gov/elis/learn/education/oral-history-ei-28.htm](http://www.nps.gov/elis/learn/education/oral-history-ei-28.htm).

Steiner, Edward. *On the Trail of the Immigrant*. Fleming H. Revell Company (London and Edinburgh), 1906.