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MMus in Scoring for Film, Television and Video Games

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The Music of *Hugo*

Thesis Goal

Was the score written as intended for the movie, or was there significant music editing completed in order to accommodate late changes in the picture editing? The goal of this research is to accurately and thoroughly come to a conclusion for the aforementioned question through the proper identification, labeling and discerning of the music of *Hugo*.

The Story

Hugo is derived from the book *The Invention of Hugo Cabret*, by Brian Selznick. The movie was directed by Martin Scorsese and the music was composed by Howard Shore.

Hugo is based on a true story about a boy who lives alone in a train station in Paris in the 1930's. His father died in a fire in a museum so he was adopted by his belligerent alcoholic uncle. They lived in the walls of the train station where he taught Hugo how to wind and maintain the clocks of the station. The one thing Hugo chose to take with him to the train station after his father died was an automaton, which his father and he had been working to repair.

Hugo's uncle disappeared and left him alone to manage the clocks of the station. To pass the time, Hugo would steal clock parts from a clock store in the station in a desperate

attempt to bring the automaton to life. He had hopes that the automaton would give Hugo a secret message left by his father before he died. He does all this while averting the train station inspector and his dog, who finds young children alone in the train station and sends them to an orphanage.

In the beginning of the movie, the clock store owner, Georges Méliès, catches Hugo and forces him to empty his pockets. Hugo surrenders clock parts from his pocket and a notebook which his father used to record the process of restoring the automaton. The clock store owner, oddly obsessed with the contents of the notebook, keeps Hugo's notebook and vows to burn it that night as revenge for Hugo's stealing from the clock store.

Hugo follows the man home and meets Georges' goddaughter, Isabelle. Hugo tells her vaguely about the importance of his notebook, and she promises that she won't let the notebook be destroyed by her godfather.

Hugo returns to the clock store inside the train station the next day and demands his notebook back. Georges denies him, but after a few exchanges he agrees to give the notebook back if Hugo works for him in the clock store for an undetermined amount of time. Hugo works cleaning the shop and repairing clocks and various toys.

During this time, Hugo has been meeting with Isabelle secretly to scheme how to help him retrieve his notebook. Hugo tells her how much he loved going to movies with his father and she tells him how her godfather rejected the idea of her ever going to the movies. Hugo recalls a movie that he saw with his father, a film about the moon being shot in the eye with a bullet.

At one point, he notices a key on her necklace that would fit as the last missing piece to bring his automaton to life. He brings her into the walls of the train station to see where he keeps it. The key fit, and the automaton comes to life and draws a picture of a moon with a

rocket in its eye. The last thing the automaton does is sign the name of the artist who created the automaton do draw the picture. They discover it is the name of her godfather, Georges.

As their friendship develops, she introduces him to her favorite bookstore. They discover a book about famous movie directors that gives a biography of her godfather, which says he died in the war. An eavesdropping gentleman, Mr. Tabard, hears their debate over her very much alive godfather and shows disbelief, which turns into interest in meeting him. They agree and work out a plan to introduce the man to Isabelle's surprisingly famous godfather.

They meet at Papa Georges' house where the three of them are hesitatingly greeted by Georges' wife, Mama Jeanne, who the man recognizes as the star of many of the movies Georges directed. Mr. Tabard brought a film with him and gets consent to show it in secret while Georges is asleep. It is the film of the moon with a rocket shot into its eye. Georges awakes and is upset at the four of them for bringing back sad memories from his past life.

Georges explains how he got into making movies after being a successful magician. He tells a story about how he was very successful at making movies, but the World War took its toll on the movie making industry. He was forced to close the studio and sell many of his films, which were melted to make plastic products. Ashamed of his failure, Georges hid away at the clock shop in the train station ever since.

During Georges' recount of his past, he mentioned his dear automaton that he missed so much. He didn't know that Hugo had it at the train station. Hugo leaves the home to go back to the train station to bring back the automaton to give to Georges. While he is there, Hugo is arrested by the station inspector who tells him he will be sent to an orphanage. Hugo escapes the jail cell at the train station and a pursuit by the train station inspector and his dog. Hugo is eventually caught while running with his automaton, and he drops it onto the train rails below. He sees a train approaching, but jumps down to the rails anyway to try to save his

automaton; his connection between his father and his new family. The station inspector pulls Hugo out of harm's way at the last possible instant. While scolding him, Georges' family approaches them and escorts Hugo away from the station inspector. Hugo says that the automaton is now broken, but Georges, with a change of heart toward life, says it worked perfectly. He was then welcomed into the Méliès' home as a part of their family.

Hugo Cue List

Since I do not have access to the movie with the original timecode burned to the picture, I am using the Paramount logo sequence start as reference for 01:00:00:00. The first sounds of the movie can be heard at this instance. For a more specific reference, the very first frame of the inner workings of a clock at the beginning of the movie can be seen at 01:00:47:04 and set at 23.976 frames per second. This will be the reference for calibration to sync the timecode references listed in this paper to the actual movie. This information is beneficial for the use of recreating my sequence in Pro Tools for the possible purposes of further research, confirmation of my findings, or even rebuttal. The master cue list of *Hugo* can be found as a combination of the three cue lists seen on subsequent pages. The lists titled The Official Soundtrack of *Hugo*, Diegetic Music and Missing Cues can be combined to create a master cue list for the music of this movie.

Precision

The margin of error in re-editing the music and adding markers to the timeline was 1 frame or less. Sometimes music and dialogue or effects made entrances or endings of cues difficult to analyze. Without the original *Hugo* music editing DAW session, the precision of these cues are almost impossible to detect with absolute certainty.

Music Editing

At first glance, the music editing seems extensive in *Hugo*. This is most likely due to late changes in the film editing after the orchestra had been recorded. Sometimes the music in the soundtrack has different volume levels of sections and instruments than the music in the movie. This is evidence that music editing was completed using audio stems rather than one stereo (or 7.1 surround) track. Music editing can have freedom, flexibility and creativity when working with separate audio stem tracks.

According to Howard Shore, the music from the movie was edited to create the music for the official soundtrack. This can explain why there are cues of different length and content between the movie and the soundtrack. He explained that some cues were too short or would not stand alone well enough as a song in itself for an album. This is why he created entire songs for the soundtrack album out of a few short cues or added to thematic ideas that were intentionally not musically complete in the movie.

Official Soundtrack of *Hugo*

Listed below is the album order, published titles, play lengths, and number of edits to the final version of each track that appeared in the movie. I was able to reverse music edit the original recorded music using the stereo track from the actual movie and each individual track from the soundtrack in Pro Tools. The movie track was then lined up with individual tracks from the film soundtrack. Both tracks were then reviewed at the same time. When a change was heard, I would search further in the individual track to find a section that would match where the soundtrack left off. The individual track was then split, the section not present in the movie track was cut and then the individual track was re-aligned with the main stereo film track. This process was used for all 21 songs made available in the soundtrack.

| Track | Track Title | Album Time | Movie Time | Edits |
|-------|--------------------------------|----------------|--------------|------------|
| 01. | The Thief | 04:20 | 04:23 | 8 |
| 02. | The Chase | 02:50 | 02:08 | 12 |
| 03. | The Clocks | 04:28 | 03:02 | 14 |
| 04. | Snowfall | 01:50 | 01:01 | 6 |
| 05. | Hugo's Father | 03:24 | 03:13 | 6 |
| 06. | Ashes | 02:33 | 00:37 | 1 |
| 07. | The Station Inspector | 01:10 | 00:21 | 1 |
| 08. | Bookstore | 01:51 | 00:25 | 1 |
| 09. | The Movies | 01:29 | 00:52 | 1 |
| 10. | The Message | 04:36 | 02:46 | 11 |
| 11. | The Armoire | 02:32 | 02:16 | 18 |
| 12. | Purpose | 02:04 | N/A | N/A |
| 13. | The Plan | 02:48 | 00:56 | 4 |
| 14. | Trains | 02:50 | 01:57 | 7 |
| 15. | Papa Georges Made Movies | 01:52 | 01:27 | 5 |
| 16. | The Invention of Dreams | 06:29 | 00:58 | 8 |
| 17. | A Ghost in the Station | 06:00 | 03:36 | 32 |
| 18. | A Train Arrives in the Station | 03:25 | 01:46 | 9 |
| 19. | The Magician | 02:33 | 01:24 | 9 |
| 20. | Coeur Volant (featuring Zaz) | 04:19 | 03:56 | 1 |
| 21. | Winding it Up | 04:11 | 03:02 | 1 |
| | TOTAL: | 1:07:34 | 40:06 | 155 |

The total number of music edits from the original soundtrack to the finished movie was 155. After editing the music from the soundtrack to the movie timeline, it became clear that about 27 minutes and 28 seconds of music from the album was never present in the movie. Track 12, ironically titled “Purpose”, had no direct purpose in the album because none of the music from the 02:04 track was ever presented in the film. According to Shore, “Purpose” was a good fit for the soundtrack although the scene it was intended for was cut from the final version of the film.

The 155 music edits does not account for the music that was originally recorded that was not chosen to be a part of the soundtrack. Possible diegetic music editing was not included in this number as well. Without being able to obtain the original recordings for the entire soundtrack, it is difficult to track the amount of music edits that were completed for the entire movie. Given that forty minutes of music from the soundtrack resulted in 155 music edits, a conservative estimate of over 200 music edits were most likely completed in the film.

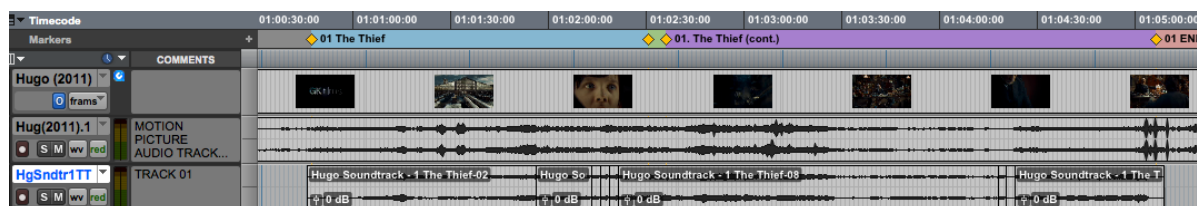
Given the known 155 music edits in *Hugo*, my theory is that the film was viewed by test audiences who thought it was too long, or this decision to cut sections came to fruition within the film production team after the score was recorded. Either of these theories are evident because of many reasons. First, some of the music edits slightly alter the flow of the tempo of the cue. This was covered by turning the music down low at some points and by using Foley to mask transitions between splices in the audio. The second reason why I believe that the film was shortened after the music was recorded is because the music was cut about 30 times and was only added to three times. The additions were probably made to fix transitions that were cut but did not flow to an adjacent section of the music cue. Another reason why I believe music was cut is because the final product resulted in a film length over two hours and this duration can test the patience of an audience. The final piece of evidence that shows the film was shortened at the end of post production is that the music in the

recorded soundtrack makes musical sense to the ear and tends to have a clear sense of direction and development. The final product obviously tampers with these musical phrasings. This is evident by hearing the music very low in the final dubbing mix. If no edits were needed I strongly believe the music would be more prominent, such as during The Chase (track 3). Mr. Shore stated that the film was test-screened around 12 times and changes had to be made to the film each time. He stated he always did his best to accommodate to the changes, be it re-recording the orchestra or editing the current music to stay in emotional congruence with the picture. Shore also stated that not all of the music recorded during the sessions at Abbey Road Studios made the final cut of *Hugo*.

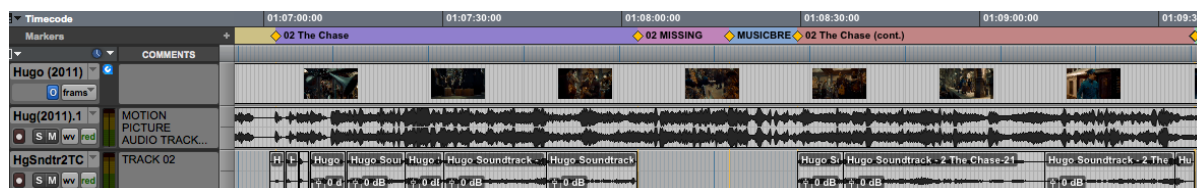
The music editing also shows that the accordion was not recorded at the same time as the orchestra. Mr. Shore confirmed this theory and added that a small ensemble (including the musette/accordion) was recorded several months before the orchestra parts were written. Overdubs of accordion were added and removed during certain parts of the music editing process. Having the accordion as a stem enabled the music editor to have the freedom of adjusting it to adjacent sections of music. Otherwise, entire sections of music might have been discarded if there was not an option to remove the accordion from a part or move it to a different part of the cue.

In the following screenshots, the music edits can be easily seen. Approximate timecode can be seen at the top, the movie video track is next, followed by the original stereo track from the movie, and then the edited soundtrack to match the original stereo track is seen on the bottom. The names of the audio can also be seen in the screen shots to allow for the replication of these edited cues. (Make sure the names of your *Hugo* soundtrack audio files exactly match the following audio file names so the Pro Tools 10 file included in this CE can sync the tracks accurately. For example Track 1 should be titled “Hugo Soundtrack - 1 The Thief.mp3” and so on. Check the track names in the following wave files for accuracy.)

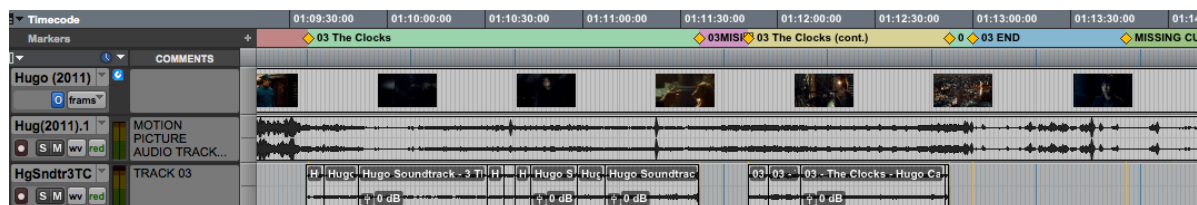
01. The Thief



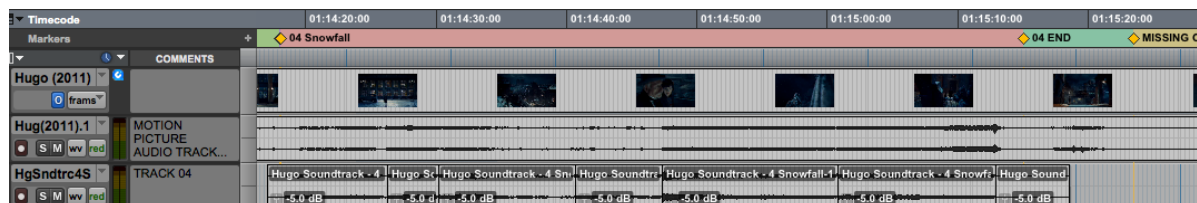
02. The Chase



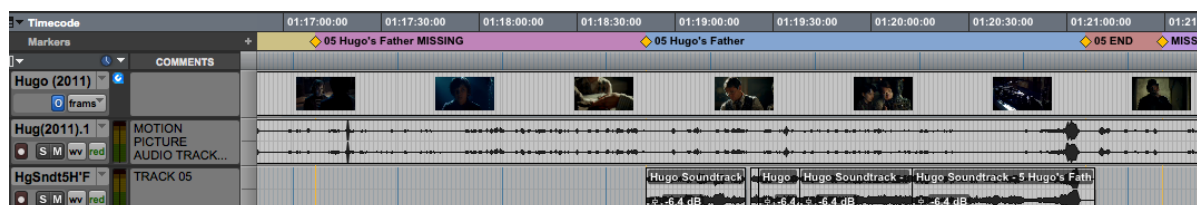
03. The Clocks



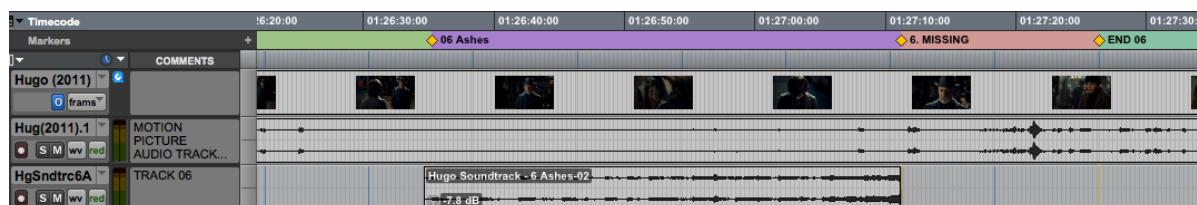
04. Snowfall



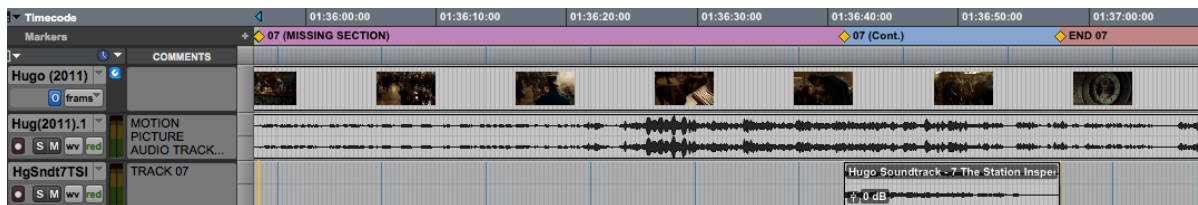
05. Hugo's Father



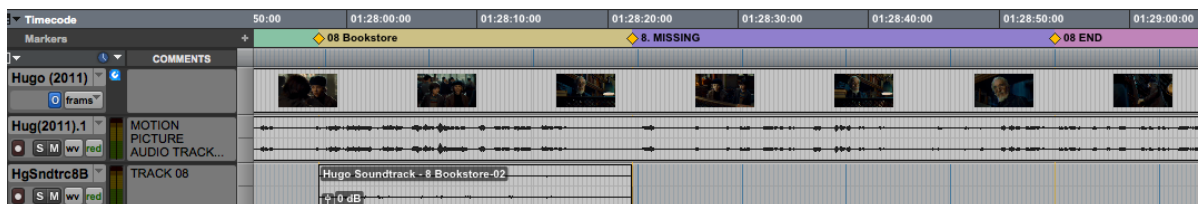
06. Ashes



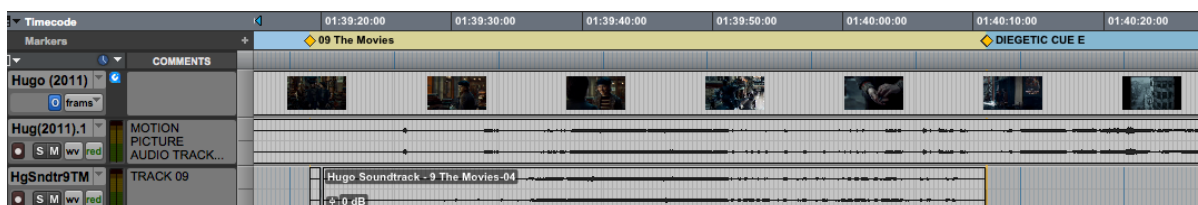
07. The Station Inspector



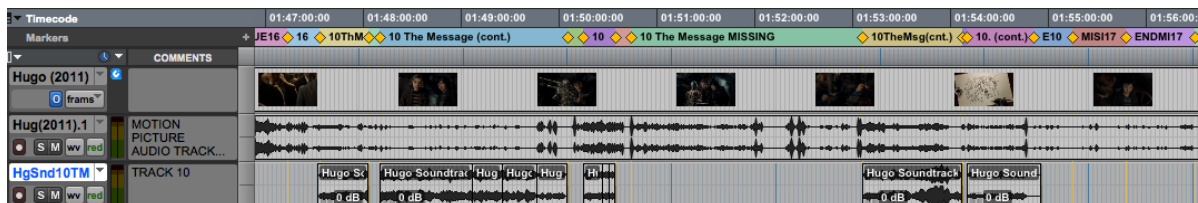
08. Bookstore



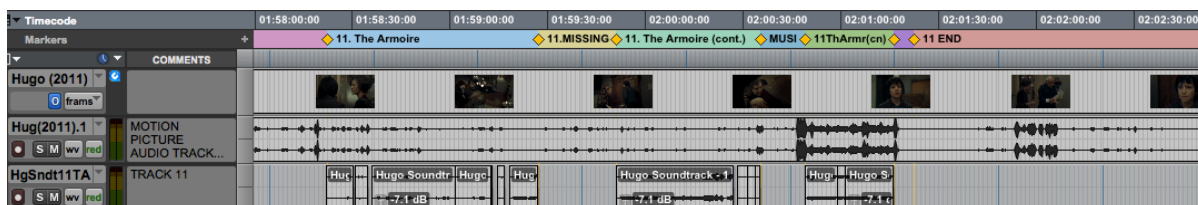
09. The Movies



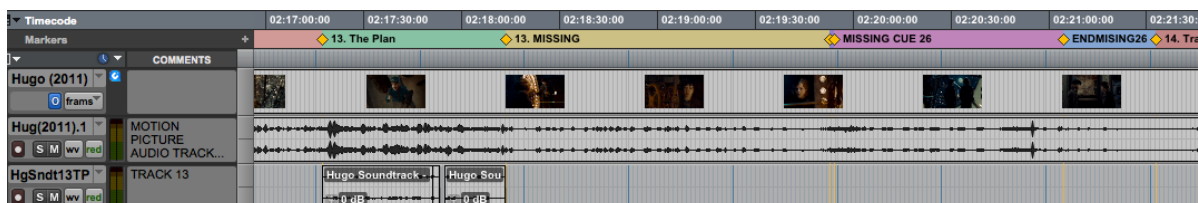
10. The Message



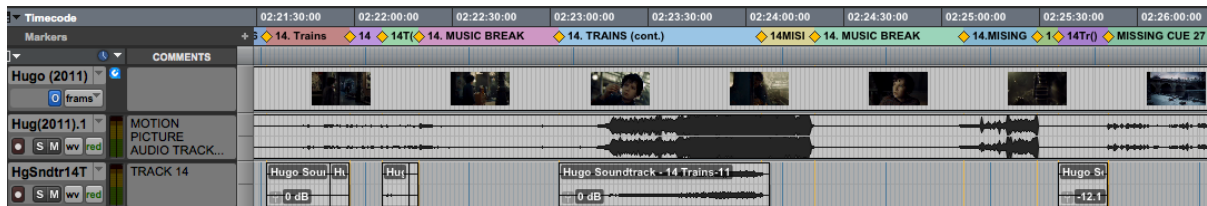
11. The Armoire



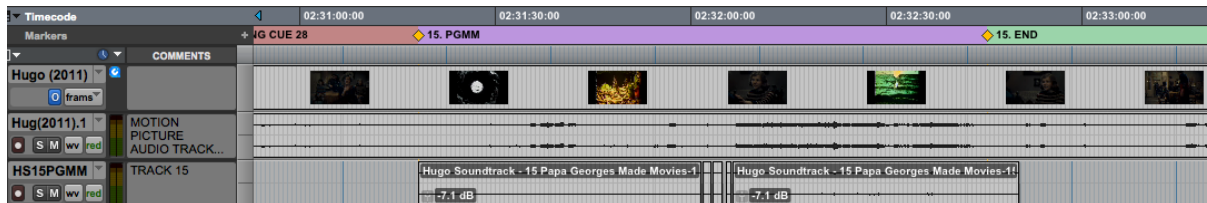
13. The Plan



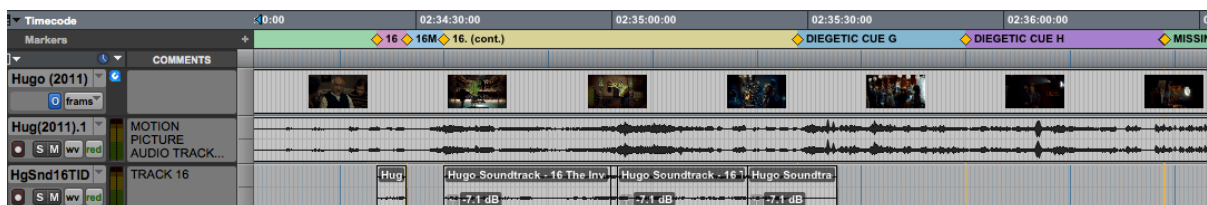
14. Trains



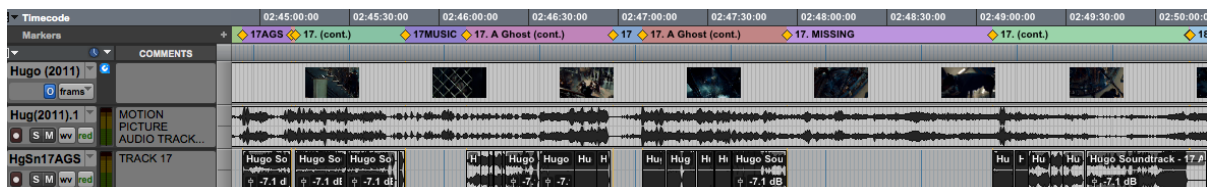
15. Papa Georges Made Movies



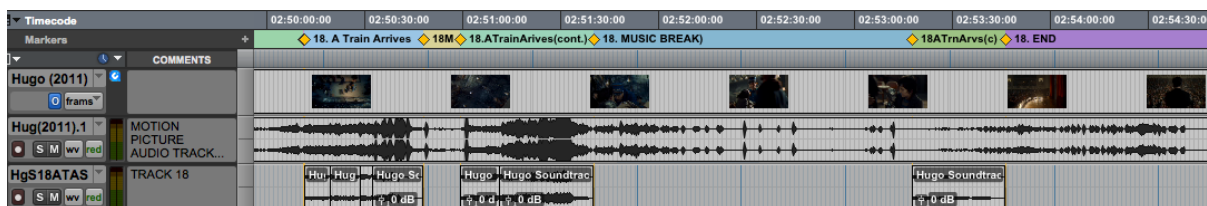
16. The Invention of Dreams



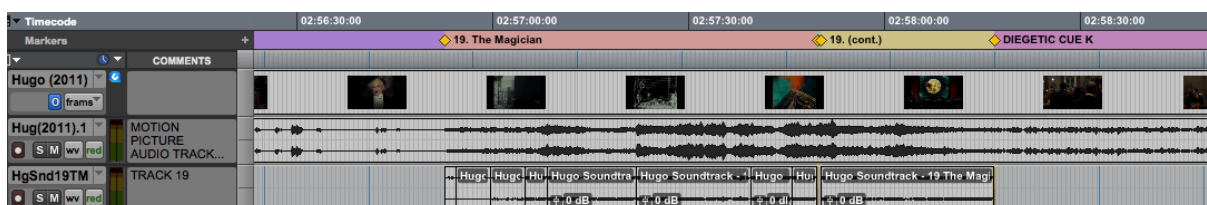
17. A Ghost in the Station



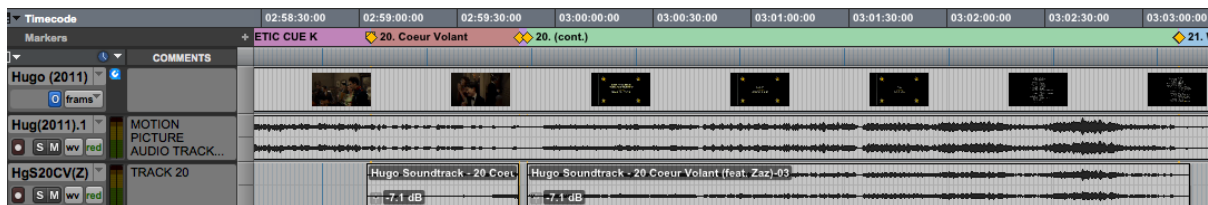
18. A Train Arrives in the Station



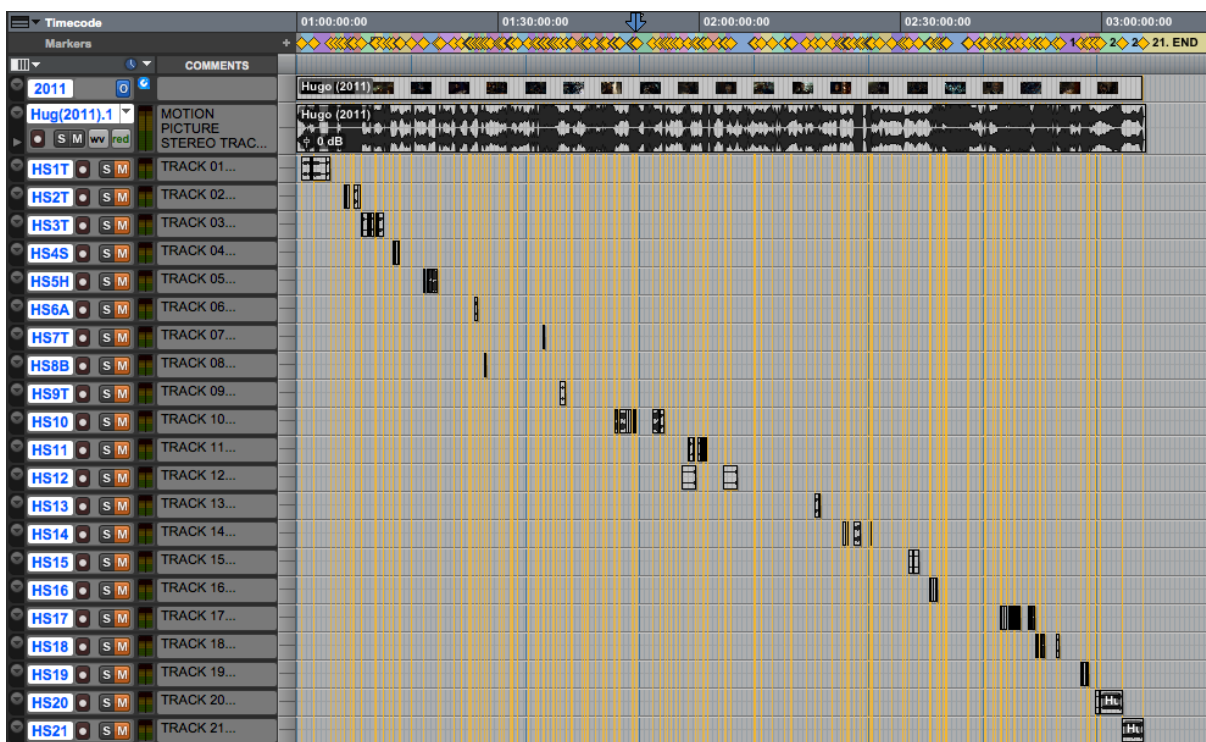
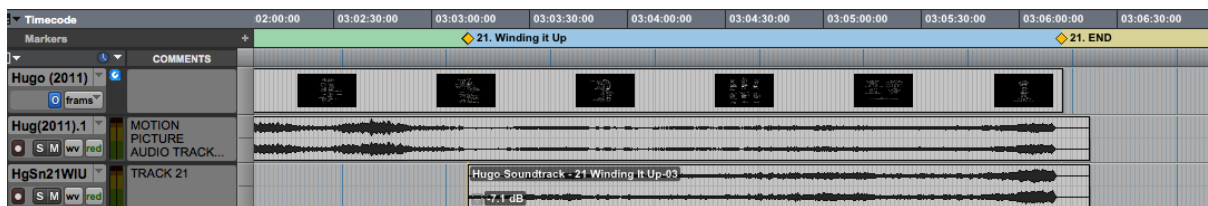
19. The Magician



20. Coeur Volant (featuring Zaz)



21. Winding it Up



Screenshot of entire session view of markers, cues and music edits of the movie Hugo in Pro Tools

Additional Music

There is additional music in some scenes that is not included in the soundtrack. This could be because they were too short (usually less than a minute) to be justified as a track on the album. Another possibility could be that they were written and added in later either by Howard Shore, music editor Jennifer Dunnington, or by a composer of additional music.¹ Given Mr. Shore's history of being a very experienced and thorough composer, it is more likely that he composed the music we hear in the movie that is not included on the soundtrack because of length or thematic significance. Howard Shore mentioned that a lot of music used, especially diegetically, were written by other composers from around the time period of the movie. Some of these pre-existing music pieces were re-recorded by Shore to accommodate the movie sequence.

Diegetic Music

The diegetic music in *Hugo* is sometimes heard through "live" musicians on screen. This can be seen and heard on Track 02 "The Chase" when the station inspector chases Hugo through the cafe in the train station. There is a live band playing. The playing stops when the station inspector falls onto the standup bass, demolishing it. From there, we can hear a pause in the music filled with the sounds of calamity. Once the chase resumes, non-diegetic music fills its place. Music played by "live musicians" in the cafe can also be heard in Diegetic Cues C and D, seen in the chart following. In the final scene of the movie, these musicians were featured "performing" in the curtain call scene at the Méliès' home in Diegetic Cue K.

Diegetic French music can also be heard over "radio speakers" in the train station out in front of the cafe. This music conveys a sense of peace and love, serving as the background to a side story for two courting couples. Clear examples of this background music can be

¹ http://www.imdb.com/title/tt0970179/fullcredits?ref_=tt_ov_st_sm

found below in Diegetic Cues A, F and J. The low volume, heavy reverb and heavy use of early reflections in these three cues makes it obvious that the cues were intended to be diegetic.

Sometimes the diegetic music is implied. The first example is Cue A when Georges winds up the mouse that Hugo fixed. The music sounds like a music box with a magic feel, and it could be implied that the music is coming from the mouse, which seems to move magically. The music is also panned narrowly and the reverb placement is congruent with the placement on the toy mouse. Diegetic music is also implied in Cue E when Hugo and Isabelle are watching the movie of the man climbing the building. The reverb placement and also the use of a bandpass EQ gives the feel that the music is supposed to be coming from the movie they are watching. At Cue G, the sounds of music from carousels and other attractions can be heard as Georges and Jeanne stroll about. This is proven to be diegetic by having the music low in the background with longer early reflections and a high pass in the EQ. Cue H is when Georges and Jeanne walk in to the “Cinema” carnival tent and watch the film “A Train Arrives at the Station”. A live piano player was playing along with the movie, even though the music was most likely pre-recorded. Music was also diegetically implied during the scenes in Diegetic Cue I, music at Star Films Studio. EQ, panning, reverb and early reflections assisted the piano in sounding like it was accompanying the actors as they filmed their movies, even though there was not a piano shown in these scenes.

| Cue Name | Start Time | End Time | Length (MM:SS) |
|-----------------|-------------------|-----------------|-----------------------|
| 01. The Thief | 01:02:30:14 | 01:02:36:03 | 00:06 |
| 02. The Chase | 01:07:47:09 | 01:08:17:22 | 00:30 |
| Diegetic Cue A | 01:23:31:14 | 01:24:33:15 | 01:02 |
| Diegetic Cue B | 01:31:59:15 | 01:32:10:07 | 00:11 |
| Diegetic Cue C | 01:32:58:21 | 01:34:34:08 | 01:36 |
| Diegetic Cue D | 01:35:41:05 | 01:35:56:11 | 00:15 |
| Diegetic Cue E | 01:40:11:02 | 01:40:56:02 | 00:45 |
| Diegetic Cue F | 02:04:48:17 | 02:08:12:08 | 03:24 |
| Diegetic Cue G | 02:35:28:14 | 02:35:54:07 | 00:26 |
| Diegetic Cue H | 02:35:54:07 | 02:36:24:18 | 00:30 |
| Diegetic Cue I | 02:36:56:07 | 02:40:03:05 | 03:07 |
| Diegetic Cue J | 02:42:45:02 | 02:43:45:21 | 01:01 |
| Diegetic Cue K | 02:58:16:23 | 02:59:03:14 | 00:47 |
| | | TOTAL: | 13:40 |

The length of diegetic music found in tracks 01 and 02 of the official soundtrack have already been accounted for in the Official Soundtrack Cue List. The total amount of diegetic music is 13 minutes and 40 seconds, but the length of diegetic music from tracks 01 and 02 must be deducted from the overall music time in the movie. Thus, we must only add 13 minutes and 4 seconds, which brings the total music in the movie to 53:04.

Missing Partial Cues

These cues are present as an addition to the motion picture soundtrack. The music given below was later edited to be added to, within, or after the music from the soundtrack as

an intent to modify the original music to better fit the picture. These sounds are not found on the actual music soundtrack.

| Track # | Start Time | End Time | Total Time (MM:SS) |
|----------------|-------------------|-----------------|---------------------------|
| 02. | 01:08:02:15 | 01:08:17:22 | 00:15 |
| 03. | 01:11:36:01 | 01:11:50:21 | 00:15 |
| 03. | 01:12:52:12 | 01:12:59:19 | 00:07 |
| 05. | 01:17:09:18 | 01:18:50:22 | 01:41 |
| 06. | 01:27:11:05 | 01:27:26:08 | 00:15 |
| 08. | 01:28:21:22 | 01:28:54:06 | 00:33 |
| 07. | 01:35:56:11 | 01:36:41:05 | 00:44 |
| 10. | 01:48:03:08 | 01:48:10:02 | 00:07 |
| 10. | 01:50:44:15 | 01:53:06:06 | 02:22 |
| 10. | 01:54:07:16 | 01:54:10:05 | 00:03 |
| 11. | 01:59:27:01 | 01:59:51:02 | 00:25 |
| 11. | 02:01:16:06 | 02:01:22:07 | 00:06 |
| 13. | 02:18:13:17 | 02:19:53:00 | 01:40 |
| 14. | 02:21:58:15 | 02:22:08:06 | 00:10 |
| 14. | 02:24:04:15 | 02:24:20:22 | 00:16 |
| 14. | 02:25:06:20 | 02:25:29:04 | 00:23 |
| 16. | 02:34:28:13 | 02:34:34:04 | 00:06 |
| 17. | 02:45:10:07 | 02:45:11:18 | 00:01 |
| 17. | 02:46:58:06 | 02:47:08:04 | 00:10 |
| 17. | 02:47:56:14 | 02:49:05:04 | 01:09 |

| | | | |
|-----|-------------|---------------|--------------|
| 18. | 02:50:47:20 | 02:50:59:09 | 00:12 |
| 19. | 02:57:49:20 | 02:57:50:05 | 00:01 |
| 20. | 02:59:49:04 | 02:59:51:13 | 00:02 |
| | | TOTAL: | 11:03 |

Given the original soundtrack and diegetic music, this brings the total music time in the movie to 01:04:07 (HH:MM:SS).

Missing Cues

These music cues are not present in the original motion picture soundtrack. They are independent cues not intended to be appended to the original 21 tracks. They are titled “MISSING CUE (01-33)” only because they are missing from the music soundtrack, and their significance should not to be dismissed by the title “MISSING”. Cue #05 and #14 have two parts each. These have been split into two different sections each, even though they are sonically the same cue. The pauses between the two sections where the music stops is deemed to be an edit instead of measures of rest in the music. Given this break, the space between the two sections will not be counted toward the total length of Cue #05 and #14. This is noted with “(cont.)”, abbreviating continued from a break in the music.

| Missing Cue # | TC START | TC END | Total Time (MM:SS) |
|---------------|-------------|-------------|--------------------|
| 01 | 01:05:44:06 | 01:06:29:04 | 00:45 |
| 02 | 01:13:46:19 | 01:14:18:03 | 00:32 |
| 03 | 01:15:23:12 | 01:17:09:08 | 01:46 |
| 04 | 01:21:29:06 | 01:23:31:14 | 01:58 |

| | | | |
|------------|-------------|-------------|-------|
| 05 | 01:24:33:15 | 01:25:38:12 | 01:05 |
| 05 (cont.) | 01:25:48:00 | 01:26:00:12 | 00:12 |
| 06 | 01:30:10:09 | 01:30:32:19 | 00:22 |
| 07 | 01:30:50:00 | 01:31:50:14 | 01:00 |
| 08 | 01:32:10:07 | 01:32:58:21 | 00:48 |
| 09 | 01:34:34:08 | 01:35:41:05 | 01:07 |
| 10 | 01:37:31:19 | 01:38:09:02 | 00:38 |
| 11 | 01:38:19:22 | 01:38:42:07 | 00:23 |
| 12 | 01:40:56:02 | 01:41:11:05 | 00:15 |
| 13 | 01:42:28:10 | 01:42:55:02 | 00:27 |
| 14 | 01:42:59:05 | 01:43:17:20 | 00:18 |
| 14 (cont.) | 01:43:26:01 | 01:44:35:21 | 01:10 |
| 15 | 01:45:36:04 | 01:45:54:11 | 00:18 |
| 16 | 01:46:12:18 | 01:47:13:08 | 01:01 |
| 17 | 01:55:15:04 | 01:55:47:23 | 00:32 |
| 18 | 01:56:30:07 | 01:57:06:13 | 00:36 |
| 19 | 02:02:53:00 | 02:03:53:04 | 01:00 |
| 20 | 02:03:56:14 | 02:04:48:17 | 00:52 |
| 21 | 02:08:12:08 | 02:08:25:09 | 00:13 |
| 22 | 02:08:27:18 | 02:09:12:15 | 00:45 |
| 23 | 02:09:19:17 | 02:10:50:21 | 01:31 |
| 24 | 02:12:42:16 | 02:13:39:22 | 00:57 |
| 25 | 02:13:48:21 | 02:15:58:13 | 02:10 |
| 26 | 02:19:54:09 | 02:21:04:10 | 01:10 |

| | | | |
|----|-------------|---------------|--------------|
| 27 | 02:25:51:02 | 02:26:59:05 | 01:08 |
| 28 | 02:30:22:12 | 02:30:42:04 | 00:20 |
| 29 | 02:36:24:18 | 02:36:43:19 | 00:19 |
| 30 | 02:36:43:19 | 02:36:56:07 | 00:13 |
| 31 | 02:40:17:19 | 02:41:48:00 | 01:31 |
| 32 | 02:42:35:03 | 02:42:45:02 | 00:10 |
| 33 | 02:43:45:21 | 02:44:10:05 | 00:25 |
| | | TOTAL: | 27:57 |

This brings the total music time in the entire movie to **01:32:04**. The length of the movie is 2:06:20. This translates to about 73% of the movie having music with picture. With 13:40 of diegetic music, 11% of the movie contains diegetic music. This is a good balance because a decent amount of the movie takes place in or around a café with live musicians. There is also a significant part of the story involving the making and showing of movies. Even though some of the movies shown were from the “pre-audio track” era, they have live musicians performing to the picture within the movie *Hugo*.

Instrumentation Notes

The following instruments were used in making the soundtrack of *Hugo*.
Approximately 88 musicians were involved in the recording process.² The score was recorded at Abbey Road Studios in London.

WOODWINDS: Piccolo, Flute, Pan Flute, Oboe, Clarinet, Bass Clarinet, Bassoon, Alto Saxophone

BRASS: French Horn, Trumpet, Trombone, Bass Trombone, Tuba

² <http://www.filmmusicmag.com/?p=8894>

PERCUSSION: Harp, Piano, Celeste, Bass Drum, Snare Drum (brushes and sticks),
Cymbals, Wind Chimes, Marimba, Glockenspiel, Tam Tam, Woodblock, Timpani, Trap Set

STRINGS: Violin I, Violin II, Viola, Cello, Bass, Acoustic Guitar

OTHER INSTRUMENTS: Musette (French Accordion) performed by Eddie Hession, Ondes
Martenot (French Theremin)

The following are notes from Howard Shore about instrumentation and orchestration for *Hugo*.

“The sextet was recorded separate from the orchestra over about 4 months at abbey road and each week I would do a session. I think I did 12 sessions in total with the sextet. It was almost one every week for 3 or for months. Basically, the score is essentially written for the sextet. It was piano, bass, guitar, kind of an antique percussion, like 20’s style theater percussion, Ondes Martenot, and Musette. The sextet was done on their own and I did that remotely from New York. Then I wrote the score and orchestrated it around the sextet. That became the score for the London Philharmonic and then I recorded the London Philharmonic and essentially put the two recordings together.”

Themes

Ten main themes are found in the movie *Hugo*. Since I do not have access to the original score, I can only apply generic titles for each theme. These titles have been invented only for the use of labeling each theme.

The themes shown on the following pages are first explained by how the music works for the picture. Then a brief note about the typical instrumentation is given. Next, the themes are listed in order of appearance with a short description of the event happening that is congruent with each thematic instance. When there are instances of themes appearing within themes, a brief note tells which new theme interrupts the current thematic idea. Follow the mentioned theme letter and relevant timecode to see where each thematic interruption occurs.

For example, under Theme G we see “01:23:00:00 Automaton in new home, then to E”. We then look to Theme E and find “01:23:14:00 Hugo’s father’s funeral”. Thus, it can be clearly seen that Theme G can be heard for 14 seconds before directly transitioning to Theme E.

Another important note is the occasional mention of “part.” and “vari.”. “Part.” means that this is only a partial idea from the theme, but it is still present or obvious enough to note. “Vari.” means that the basic underlying structure of the theme is present, but a variation of the melody may be present or the melody may be missing altogether. This is still clearly an idea derived from the original theme so it must be noted and labeled appropriately.

Occasionally, the thematic instances below will also have an instrumentation note beside them. This is to give support to their placement in a particular scene in the movie, which otherwise might seem out of place without given a stronger context for how it could possibly work appropriately with the picture.

These themes listed are labeled in no particular order of appearance or significance.

Theme A

Allegretto-Vivace

Theme A

This theme is used exclusively when we experience the awkward authority of the station inspector. His character is the obvious antagonist and a blatant minor triad to begin his theme highlights this.

Characteristics of instrumentation include drums, dark and low woodwinds, brass, and short articulations in the strings. Pauses between short military-like rhythms are common as well.

Theme A Instances

01:07:15:00 Station Inspector sends his dog to begin the pursuit of Hugo in the train station for the first time after hearing Georges' discontent at his toy booth

01:24:33:00 Inspector and Hugo at the post

01:35:56:00 Station Inspector catches orphan boy alone in the station (A lot of reverb)

01:42:59:00 Isabelle and Hugo encounter the station inspector

02:08:12:17 Station Inspector after finally speaking to Lisette

02:26:04:00 Station Inspector gets a call to learn that Hugo's Uncle has died

02:43:45:00 Hugo sees the Station Inspector in the station while attempting to retrieve his automaton for Georges

02:44:53:00 The Station Inspector catches Hugo and puts him in a jail cell in the train station

02:46:37:00 Hugo escapes the jail cell of the Station Inspector and a pursuit ensues

Theme B

Moderato

Em

5

9 B

13 Bm

Theme B

Theme B is used to highlight mysterious and pensive scenes that often involve short lapses in time. Examples of this are the opening scene of flying to and through the train station, Hugo following Georges home, and the lapse between when the bookstore owner tells them about the Film Academy Library and when they actually arrive. This cue is rarely heard under dialogue. Instrumentation usually involves piano playing the melody

(sometimes the accordion) with cello playing the arpeggios and basses playing accents to the cello line.

Theme B Instances

01:01:15:00 Opening shot, camera zooming in on train station in winter

01:03:27:00 First view of Georges standing alone at his toy booth in the train station

01:05:44:00 Georges makes Hugo take his notebook out of his pocket

01:14:36:00 Hugo continues to follow Georges home in the streets of Paris

01:15:23:00 (part.) Hugo sees Isabelle through a window in Georges home, then to F

01:15:29:00 (part.) Hugo tries to get Isabelle's attention, then to F

01:15:56:00 (part.) Isabelle comes out of her home to meet Hugo for the first time

01:20:16:00 Hugo's father in the museum alone while fixing something and hears a sound and turns around

01:48:00:00 (vari., part.) Hugo and Isabelle enter his living quarters in the station

01:54:31:00 (vari., part.) Automaton finishes writing "Georges Méliès", then to G

01:55:34:00 Hugo walks with Isabelle to her home with the automaton drawing

02:08:27:00 Hugo and Isabelle visit the Film Academy Library

02:21:33:00 Isabelle kisses Hugo on the cheek after they make a plan to fix Georges

Theme C

Allegro

1 5 9

Theme C

This is the main theme of *Hugo*. It is heard in the time leading up to the main title (see first Theme Instance). It is also the first song of the end credits (Featuring Zaz) and is the only non-diegetic cue with lyrics put to it. This theme conveys a sense of progress and hope throughout the movie. Being in a major key with constantly ascending harmony, it gives an uplifting feeling and a sense of musical progression. There is not a typical instrumentation for the melody of

Theme C but it utilizes most of the orchestra most of the time. Full string or brass sections typically carry the melody. To convey a sense of progress and hope for Hugo, a thin orchestration would not be congruent to this idea. Although, sometimes a simple piano with light accompaniment helps the listener understand these feelings when these scenes appropriately align with the music.

Theme C Instances

01:01:56:00 Movie opening sequence finishes and Hugo can be seen for the first time through the train station clock

01:10:14:00 Hugo enters his living quarters in the train station

01:12:11:00 (4/4 time) Hugo views Paris at sunset from the top of the clock tower and the main title appears

01:30:10:00 How to get the notebook back

01:31:14:00 Fix the broken toy mouse

01:32:49:00 Hugo starts working in the toy shop

01:35:02:00 (part.) Hugo waiting for automaton to work for the first time, then to E

01:49:24:00 Isabelle gives Hugo the key to start his automaton, then to E

01:50:44:00 The automaton starts writing for the first time (4/4 time, trumpet melody)

01:55:15:00 Hugo thanks the automaton for giving him the message, then to B

01:56:30:00 Hugo gives Mama Jeanne the drawing of the automaton

02:15:32:00 (4/4 time, vari.) Georges tells young Tabard that his studio is where dreams are made, then continues with the directing of his movie in progress

02:19:16:00 (4/4) Hugo suggests to Isabelle that they can try to fix Georges

Theme D

Moderato

Theme D

This theme is a feeling or reflection of sadness or loneliness. The tempo is typically slow and the instrumentation is mainly strings. The melody does not stray

far from the minor third degree of the key and the melody never resolves on the tonic. This keeps the theme feeling sad, lonely and unresolved. This is shown in the instances below, such as Hugo learning his father is dead, Hugo opening up his notebook that is now ashes, and Mama Jeanne reflecting with sadness after seeing a picture that reminded her of a time of emotional pain.

Theme D Instances

01:09:36:00 Hugo runs through the maze in the walls of the train station

01:13:48:00 Hugo begins following Georges through the train station to try to get his notebook back

01:21:29:00 Hugo learns his father is dead

01:26:35:00 Notebook of ashes

01:47:33:00 Hugo shows Isabelle where he lives

01:56:54:00 Mama Jeanne sits down in disbelief after seeing the automaton drawing

02:02:56:00 Hugo and Isabelle leave after discovering Georges' artwork chest, then to F

02:13:48:00 Professor Tabard tells the children that he has already met Georges, then to G

02:59:56:00 Last shot of the face of the automaton before end credits begin

Theme E

Andante

Theme E

Theme E is used almost exclusively for when we see or hear of a reference to Hugo's father. This idea is stretched when we hear this theme after Hugo talks about the bookstore owner giving him a book that Hugo read with his father. The

instrumentation is typically Spanish guitar for the melody and strings for the accompaniment.

It is interesting that this has a Spanish feel to it given the instrumentation and harmonies

because no back-story was ever mentioned in the movie that would link Hugo's father with a

Spanish reference. It does evoke a feeling of longing and fondness, while the melody

communicates how Hugo misses his father.

Theme E Instances

01:17:59:00 Hugo and his father talk about the automaton his father found, then to G

01:18:56:00 Hugo and his father figure out if they can fix the automaton, then to G

01:23:14:00 Hugo's father's funeral

01:35:22:00 (vari., part.) Hugo realizes the automaton still needs the key

01:49:35:00 Hugo tells Isabelle he thinks they're unlocking a message from his father in the automaton, then to D

02:18:18:00 Hugo sees the bookstore owner and tells Isabelle that he gave Hugo a book

Theme F

Moderato

Theme F

This theme is commonly used as a transitional theme and is rarely used by itself. It is not usually used to accompany dialogue. Depending on instrumentation, its intended mood can adapt to the scene.

Instrumentation can be flute, piano or accordion in the melody and low strings or harp in the accompaniment. String bass usually carries the bass line if present.

Theme F Instances

01:03:50:00 Isabelle seen for the first time at Georges' toy store

01:05:58:00 Georges starts to read the contents of Hugo's notebook at the toy booth

01:15:26:00 (part.) Hugo is watching the Méliès family through the windows in their home from the street below, then to B

01:15:33:00 Hugo throws a stone at Isabelle's window to get her attention, then to B

01:27:57:00 Going to the bookstore

01:39:39:00 An adventure with Isabelle at the movies

02:03:31:00 Isabelle thanks Hugo for the adventure that day

Theme G

Moderato

Theme G

This is a very haunting and mysterious sounding theme. This is the main theme for Hugo's automaton as its instances show below. Instrumentation is usually a solo instrument in the melody. This can be harp, piano, or Ondes Martenot, but never a solo brass or bowed string instrument. Supporting chords and harmonies can be minimal, such as when Georges notices drawings in Hugo's book, or fully orchestrated as when Hugo wakes from his dream and realizes that he is actually an automaton. Although short, Theme G is the most common thematic occurrence in *Hugo*.

Theme G Instances

- 01:06:08:00** Georges notices drawings of his automaton in Hugo's notebook
- 01:09:57:00** Hugo returns to his living quarters after evading the station inspector
- 01:17:34:00** Hugo sits down by his automaton
- 01:18:28:00** (part.) Hugo's father shows him what the automaton can do
- 01:19:38:00** Hugo and his father working together in his father's clock shop, then to B
- 01:23:00:00** Automaton in new home, then to E
- 01:34:34:00** Hugo winds automaton for the first time
- 01:47:46:00** Hugo and Isabelle enter his home in the station, then to B
- 01:54:17:00** The automaton writes "Georges Méliès", then to B
- 01:54:41:00** The automaton finishes writing and shuts down
- 02:14:24:00** Filming of an underwater movie by Georges as the Tabard brothers enter the studio building, then to C
- 02:25:06:00** Hugo wakes from his dream within a dream to see that he is an automaton
- 02:29:20:00** (vari.) Mr. Tabard tells Jeanne how she was lovely in Georges' movies

02:31:54:00 (vari.) Scene of Mama Jeanne sitting on a moon in one of Georges' movies and Isabelle points her out, then to I

02:32:26:00 Scene in Georges' movie when the rocket ship falls back into the ocean

02:53:33:00 (vari.) Lisette approaches the station inspector to comfort him after he let Hugo go into the custody of Georges at the train station

02:59:36:00 (part.) Isabelle is narrating while the automaton comes into view in Georges' home

Theme H

Allegro

Theme H

Theme H is used exclusively when reference is made to Jeanne and Georges' past life as magicians and movie makers.

The feeling it conveys is that of a stage or circus act with more full instrumentation, with trumpet in the melody. When a high register piano is used with light orchestration, it conveys a mystical music box-like nostalgic feeling, but still has a melody reminiscent of a magic trick. This could be because of the time signature in

three and atypical chord structure of the theme.

Theme H Instances

01:56:42:00 Mama Jeanne opens the folded paper that Hugo gave her of the drawing made by his automaton

02:29:40:00 Mama Jeanne admits to Mr. Tabard, Isabelle, and Hugo that she was in Georges' movies

02:34:34:00 Georges and Jeanne perform a magic trick at one of their early shows

02:57:53:00 Shooting of a rocket into the eye of the man in the moon at the movie ceremony honoring Georges

Theme I

Andante

5

9

13

Theme I

This theme is debatably the most warm and comforting of the themes of this film. It only appears a few times, but the instances below prove this feeling. The instrumentation is typically a celeste for the melody and string chords for the accompaniment.

Theme I Instances

02:31:18:00 Man in the moon can be seen while watching Georges' movie in their

home, then to G

02:32:06:00 Isabelle puts her hand on Jeanne's shoulder as they continue to watch George's movie in their home

02:59:03:00 Isabelle begins her narration at the final scene at the Méliès' home

Theme J

Vivace

The musical score for Theme J is written in 4/4 time with a 'Vivace' tempo. It features a melodic line in the treble clef and a bass line in the bass clef. The key signature has one flat (B-flat). The score is divided into four systems, each with four measures. Chord symbols are indicated above the treble staff: Dm, A, C#o, Dm, Eb7, A#7, F, Gm, G, C#7, Cm, D, Gm.

Theme J

Similar to Theme I, theme J is only heard a few times in the movie, but its presence is strong. It conveys a sense of mystic magic with a significant amount of movement. The unpredictable and perpetual motion of the melodic contour supports this feeling. Instrumentation used are strings, celeste, bells or piano for the melody. String bass is used for the bass line. Horns, strings and woodwinds lightly carry the chords across each cue with this theme.

Theme J Instances

01:39:39:00 Hugo decides to take Isabelle on an adventure to the movies

02:00:49:00 Isabelle drops the chest they found in Georges' room and all his artwork comes out of it and magically floats around

02:12:44:00 Doors open to see Mr. Tabard's collection of Méliès memoirs

02:56:52:00 Georges performs an illusion as a transition from his final speech to the showing of his films at his recognition ceremony

Major/Minor Chord Motifs

A very common harmonic occurrence in *Hugo* is the use of a major tonic chord followed by a minor tonic chord from its borrowed minor key. There are also many instances where this is inverted (minor to major). At some parts, it can be difficult to analyze which comes first, but the intended feeling is the same. This major/minor chord motif helps to better

translate the dream-like, fantasy world of *Hugo* even though it is mostly reality based and is derived from a true story. The major/minor motif is used as short transitions between themes and is also used as musical ideas that stand alone. This motif is transposed into different keys and uses a wide variety of instrumentation. Because of this, it would be difficult to identify and label each thematic instance of this motif because it is used so often in so many forms. It fits the style of the movie very well and finds a place close to most of the themes.

Other Music in *Hugo*

Artists other than Howard Shore wrote the following music found in *Hugo*.³ Most of these following songs had a diegetic function in the movie.

Ça Gaze

Composed by V. Marceau, Produced by J. M. Bernard, Performed by Les Primitifs du Futur

Aubade Charmeuse

Written by Jean Peyronnin, Produced by J. M. Bernard, Performed by Les Primitifs du Futur

Frou Frou

Words by Marie Blondeau, Henri Custillon and Hector Monreal, Music by Henri Chatau and Lucien Dormel, Performed by Lucille Panis

Carinosa

Written by Alberto Larena and Auguste Pesenti, Produced by J. M. Bernard, Performed by Les Primitifs du Futur

Carinosa

Written by Alberto Larena and Auguste Pesenti, Conducted by Howard Shore
Score excerpts from the motion picture *Safety Last*, Composed by Carl Davis

Tarantella

³ <http://www.imdb.com/title/tt0970179/soundtrack>

Written by Camille Saint-Saëns, Arranged by Howard Shore

Si Tu Veux Marguerite

Written by Albert Valensi and Joseph Vincentelli, Produced by J. M. Bernard, Performed by Olivier Constantin and J. M. Bernard

Danse Macabre

Written by Camille Saint-Saëns, Arranged by Howard Shore

Marche de Radetzky

Composed by 'Johann Strauss Sr.', Produced by Doug Adams, Courtesy of Jasper and Marian Sanfilippo and the Sanfilippo Foundation, Recorded from a 1908 Limonaire Orchestrophone - Style 250, built in Paris, France

Friendly Day

Written and Performed by Kevin MacLeod, Dardanella, Written by Felix Bernard, Johnny Black and Fred Fisher, Performed by Paul Eakins Mortier Belgian Band Organ

By the Waters of the Minnetonka

Written by James M. Cavanass and Thurlow Lieurance, Performed by Zez Confrey

Trois Morceaux en Forme de Poire: Manière de Commencement (Allez Modérément),

Written by Erik Satie, Performed by Aldo Ciccolini & Gabriel Tacchino

Six Gnossiennes: No. 1 Lent

Written by Erik Satie, Performed by Aldo Ciccolini

Coeur Volant

Word and Music by Elizabeth Cotnoir, Zaz (as Isabelle Geffroy) and Howard Shore,

Performed by Zaz

Les Primitifs du Futur:

Dominique Cravic, Hervé Legeay, Romane, Jean-Phillippe Viret, Mathilde Febrer, Daniel Colin

Oddities

Although *Hugo* contains beautifully composed, orchestrated and edited music, there are a few oddities that need to be noted. First, “Missing” Cue 12 at 01:40:56:02 is a 15 second cue that stands out from the other music of the movie. The owner of the movie theater catches Hugo and Isabelle watching a movie that they snuck into and kicks them out. Diegetic music is playing during the movie as they are watching it, but it switches to non-diegetic when the owner kicks them out. This music carries no theme that is similar to anything in the rest of the movie. Sonically, it is similar only to diegetic music in its style (classical) and instrumentation (flute and piano). This is clearly not a diegetic cue because it starts when the owner suddenly grabs Hugo and Isabelle, which breaks away from the diegetic music of the movie. The bandpass EQ, reverb placement, and flicker sound of the projector goes away when “Missing” Cue 12 starts. A possible explanation for the functionality of this cue is to simulate a scene that might be found in an early 20th century movie. The calamity of the movie they were watching before they got caught turned into calamity of the reality they found themselves in when they were kicked out of the theater. This cue took a break from the seriousness of the rest of the themes of *Hugo*. According to Shore, this music was chosen by the director and then Shore re-arranged, re-orchestrated and recorded it for the movie.

Another small oddity is found in Theme A at **01:35:56:00**. Diegetic music from the small French ensemble is playing in the train station and then it quickly changes to Theme A when we see the station inspector sneaking up on the orphan boy in the station. This transition from diegetic to non-diegetic music works well, but there is a lot of early reflections and reverb added to non-diegetic Theme A when it enters. This sounds like an attempt to make the cue sound diegetic as if it coming out of the train station PA system. The music is put into the reality of the characters of the train station, which seems odd. The boy

that the station inspector is sneaking up on should then be able to hear the ominous music in the train station and escape before being caught. This curious use of reverb gradually returns to normal non-diegetic settings within a few seconds. It seems the use of reverb in this instance of Theme A was unnecessary to achieve the desired emotional effect to match the character of the station inspector.

At timecode 02:50:11:00, Hugo can be seen in the train station with his automaton. When the music starts, it holds on a note that is a half-step clash with a train whistle in the station. This conflict could have been intentional to add tension to the scene, but to support this, the same clash of notes should have happened again for consistency of the leitmotif. This does not happen, which leads me to believe that it might have been unintentional. The train whistle is in tune with the tonic of the minor key and the clashing note in the cue is held on the seventh degree. On the other hand, the train is in tune with the scale being used for the cue so it could also have been used an intended tension for effect. Howard Shore mentioned that the music and sound effects team worked together for the entire movie. The train whistle conflict with the music was indeed intentional to add tension to the scene.

Final Thoughts

The first time I watched the movie, the music seemed to be very prominent. The instrumentation, themes and use of a small French ensemble made the music a little too obviously French. This seems consistent with the ideas of the music and picture working together to create a movie based in early 20th century France. However, the contrast of the strong presence of the French accordion matched with some actors attempting English accents created a sensorial contradiction. I believe that the constant use of the French accordion was a little too strong which made the music a little less palatable when paired with the picture. I understood that the movie took place in Paris within the first 30 seconds of the

opening sequence. I felt aurally patronized when I had to be reminded that I was still in Paris every few minutes when the accordion made an appearance. Shore did a great job creating music that put me in the proper context, including dream-like characteristics. The accordion was too obvious to allow me to be immersed in the story without becoming distracted.

Overall, the people involved with making *Hugo* really created a beautiful work of art. The story was easy to follow, the acting was believable, the characters and their relationships were nicely developed, and the special effects were tastefully added as an overall enhancement to the picture. *Hugo* is not a very well-known picture but it won many awards⁴ in 2011 and 2012. There is not one specific reason why *Hugo* was not a big success, but I feel there are many smaller reasons.

First, *Hugo* had some tough competition on opening weekend. *The Muppets*⁵ and *The Twilight Saga: Breaking Dawn Part 1* had triple and quadruple the box office revenue respectively than *Hugo* on opening weekend. On Thanksgiving weekend 2011, the familiar and safe family movie of choice was *The Muppets* and *Breaking Dawn* was the teen draw.

Second, *Hugo* had a strong story and beautiful music, but it withheld a level of over-stimulation that typically attracts moviegoers. *Breaking Dawn* (Vampires that sparkle), *Happy Feet Two* (cute animated penguins), and *The Muppets* (colorful dancing puppets galore) all had this quality that was not necessary in the production of *Hugo*.

Third, *Hugo* was missing the strong marketing background that was established for the *Twilight/Breaking Dawn* saga, *Happy Feet Two* (sequel of *Happy Feet*), and *The Muppets* movies, which literally have generations of marketing years behind them. When entire extended families are lined up outside of a movie theater, it's difficult enough to decide on a movie, let alone the decision to see a movie that has no familiarity to its name.

⁴ http://www.imdb.com/title/tt0970179/awards?ref_=tt_awd

⁵ <http://www.boxofficemojo.com/weekend/chart/?view=&yr=2011&wknd=47&p=.htm>

Although it peaked at the number three movie in theaters,⁶ *Hugo* was in a tough spot before it even hit theaters. From what we have discovered in the extensive music editing, it seems clear that there was a rush to cut parts of scenes as well as entire scenes after the music had already been recorded. For a family movie on Thanksgiving weekend, *Hugo* was too long and this was not remedied until after the music had already been recorded by Howard Shore at Abbey Road Studios.⁷ Music editing this extensive would not have been needed to take place if the picture was actually locked within a reasonable amount of time prior to recording the score.

Conclusion

The goal of this thesis was to determine if the score was written as intended for the movie, or if there was significant music editing completed in order to accommodate late changes in the picture editing. There has been thorough identification, labeling and discerning of the music of *Hugo*. In conclusion, the evidence is clear that there was significant music editing completed to accommodate a picture that needed late changes in length in order to compete with other strong contenders for opening weekend in 2011. These changes to the music were tasteful and seamless for the most part. Because the music editor had stems to work with during the music editing process, Howard Shore's work on the music of *Hugo* was saved and successfully conveyed to audiences around the world. In the pre-digital music era, this would not have been possible. Before digital music editing, the music would have been either scrapped and replaced with something completely new to meet the deadline for opening weekend or Howard Shore would have had to rewrite the score and re-record the score. I speculate that something this drastic could have caused the movie to miss its deadline for the premier.

⁶ <http://www.boxofficemojo.com/weekend/chart/?view=studioest&yr=2011&wknd=48&p=.htm>

⁷ http://www.imdb.com/title/tt0970179/fullcredits?ref_=tt_ov_st_sm

I gained a significant amount of knowledge by analyzing and re-editing the music to the movie. My interview with Howard Shore gave me incredible insight of the music creation process as well. *Hugo* was a magical movie in many ways and it was an adventure to “see behind the curtain” how everything came together as a beautiful work of art.

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