# **ZOOTOPIA:**

# How Does Music Make A Statement For Diversity In The Modern Society

A Thesis Submitted in Partial Fulfilment of the Degree of Master of Music in Scoring for Film, Television and Video Games

By

**Ho-Ling Tang** 

Valencia, Spain

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#### 1. INTRODUCTION

I remember walking out of the cinema being deeply touched and inspired by the movie Zootopia - the belief in humanity, the respect for every single person's (animal's) right and the appreciation of our differences. The soundtrack composed by Michael Giacchino is truly captivating. It is extremely versatile - sometimes it is energetic and optimistic, at other moments it is intensely emotional and moving. The score is an impressively colorful palette from all over the world. You could get a taste of Cuba, a hint of Hindi, and at other times a modern jazzy vibe. I was curious how Giacchino put together all the styles into the score, so I was motivated to learn more about the soundtrack.

Diversity is a big topic in the movie Zootopia, in which music plays an tremendously important role in presenting the concept. This essay aims to identify and investigate the different musical styles that influence the score, how the various styles are put together, and how these influences are translated for the storytelling purpose in the film.

#### 2. PLOT SYNOPSIS

Zootopia is a city of mammal metropolis where predators and preys coexist peacefully. Judy Hopps, a bunny from the rural Bunnyburrow had been dreaming of being a police officer in zootopia since her childhood. Working externely hard, Judy became the first prey who became a cop. However, her ability was doubted

by her boss, the polar bear Bogo, who only assigned her to issue parking tickets.

On her first day of work, she was hustled by the peddlers Nick Wilde and Finnck.

The next day, Mrs. Otterton entered Bogo's office and pleaded him to look for her husband, who was one of the fourteen missing predators. Judy volunteered to find Mr. Otterton and was given 48 hours to complete the task. If she fails, she will have, as asked by Bogo, to resign.

Knowing Nick was the last one who saw Otterton, Judy blackmailed him on his tax evasion and threatened to report unless he assisted her. They followed Otterton and found that his last appearance was in the car of the crime boss Mr. Big. Mr. Big revealed that Otterton turned "savage" and attacked and injured his driver Manchas. They visited Manchas and he said that Otterton had been yelling about "night howlers", but went savage shortly and chased after the two. Judy saved Nick by trapping Manchas and called the Zootopia Police Department for help. Unfortunately, when the crew arrived, Manchas was missing and Judy was suspected lying, leaving her only 10 hours to solve the case.

The Assistant Mayor, the sheep Bellwether assisted them by showing them the city traffic camera system, where they saw that Manchas was taken away by some wolves. They traced and found Otterton and all the other missing predators imprisoned in a tower. The mayor Lionheart got arrested for covering up the truth and Bellwether was promoted to become the new mayor. Judy became the hero in Zootopia for solving the case. She was interviewed in a press conference, which she revealed animals that went savage are all predators. She explained it might due to biological reason. Nick was very upset with her speech and left. Although Judy got famous and promoted, she was deeply saddened that her speech had caused a lot of suspicion between the prey and predators.

Zootopia was no longer a Utopia. Being disappointed with herself, she resigned and gave up on her dream as a cop.

She went home to Bunnyburrow and learnt from Gideon that "night howler" is a toxic flower that causes animals going savage. She reconciled with Nick and they went to Zootopia to find out the truth. They found Doug in a chemistry lab in a subway tunnel, creating an illegal drug from "night howlers" and also the dart gun he used to shoot predators to cause them savage. They attempted to bring the evidence to the ZPD but were stopped by Bellwether, who revealed to them she was actually the mastermind behind the conspiracy. She made predators to go savage on purpose so that preys could be brought to power. While trying to escape from the chase of Bellwether, Judy got injured and Nick refused to leave her alone. Bellwether shot at Nick to make him go savage and kill Judy. However, the serum pellets were actually replaced by blueberries and Judy managed to record Bellwether's confession as an evidence for her crime. The police arrived and arrested Bellwether and her team. Zootopia became a harmonious city again.

#### 3. COMPOSER'S BIOGRAPHY

Michael Giacchino was born in Riverside Township, New Jersey on October 10, 1967. His interest in animation began in his childhood, when he made stop motion cartoons and homemade soundtracks that match the action. He graduated from the School of Visual Arts in New York City with a Bachelor of Fine Arts in 1990, majoring in film production and minoring in history. He got an

internship at Universal Pictures which he worked at night while having classes during the day. After he graduated, he got hired by Universal and moved to Los Angelos. Later, he got the job as a producer at Disney Interactive, where he could produce games and as well wrote music for them. His first major composition was for the DreamWorks video game, *The Lost World: Jurassic Park*. Since then, his has developed a close relationship with DreamWorks.

In 2004, the director Brad Bird invited Giacchino to score his feature film for Pixar's *The Incredibles*. He was nominated for two GRAMMY Awards in 2005 for this film. Ever since, he worked on a number of Pixar's features including *Ratatouille, Cars 2* and *Inside Out* as well as nine Pixar animated short films. His score for the Pixar film *Up* in 2009 earned him an Oscar, a Golden Globe, the BAFTA, the Broadcast Film Critics' Choice Award and two GRAMMY awards. Since then, he has been participating in major projects such as *Mission Impossible III, Cloverfield, Star Trek* (2009) and so on. He also occassionally writes symphonic piece, including "*Camdem 2000*" which was commissioned for Camden, New Jersey's Haddonfield Symphony.

It was announced in November 2015 that Michael Giacchino would be writing music for the animation movie *Zootopia*, which was his first feature collaboration with Walt Disney Animation Studio which he collaborated with the director Byron Howard and Rich Moore, and the producer Clark Spencer. It was opened in theatres in 2016.

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<sup>&</sup>lt;sup>1</sup> Mark Deming, "Michael Giacchino - Artist Biography By Mark Deming". *Allmusic*, 2017, accessed June 27, 2017. http://www.allmusic.com/artist/michael-giacchino-mn0000887990/biography.

#### 4. INTRODUCING THE SCORE

#### 4.1 General Information

Byron Howard explained his choice on collaborating with Giacchino, "In a world as vast as *Zootopia*, we needed someone who could deliver a score that can feel exotic and powerful, but also provide that same emotional intimacy. We tell stories with images, Michael tells stories with music. '*Zootopia*' is a massive film with deep emotional themes running throughout the story, and Michael was the perfect choice to bring the music of this extraordinary animal world to life."<sup>2</sup>

"Zootopia is a thriving metropolis inhabited by animals from around globe, and Michael's music has captured a wonderful international spirit that marries perfectly with the visuals. I'm very excited for audiences to experience this incredible new world we've created together," Rich Moore added.<sup>3</sup>

The score of *Zootopia* was recorded in Eastwood Scoring Stage at Warner Bros Studio in November 2015.<sup>4</sup> The composition of the score began with a eight-minute suite, which Giacchino demonstrated his ideas on the movie and the score.<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> Max Evry. "Michael Giacchino Will Score Disney's Zootopia". *Comingsoon.Net*, 2017, accessed June 27, 2017. http://www.comingsoon.net/movies/news/633307-disneys-zootopia-lands-composer-michael-giacchino#/slide/1.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Brian Truitt. "Michael Giacchino To Score Disney's 'Zootopia'". *USA TODAY*, 2015, accessed June 27, 2017. https://www.usatoday.com/story/life/movies/2015/11/16/michael-giacchino-disney-zootopia-animated-movie/75873332/.

<sup>&</sup>lt;sup>5</sup> Todd Martens. "How 'Zootopia's' Upbeat Score Explores Race And Prejudice". *Latimes.Com*, 2016, accessed June 27, 2017. http://www.latimes.com/entertainment/herocomplex/la-et-hc-zootopia-music-20160308-story.html.

It was recorded with a 80-piece orchestra<sup>6</sup>, featuring a band section, a percussion section and many other ethnic instruments.<sup>7</sup>

## 4.2 Identifying Thematic Materials

A theme, or a leitmotif is a coherent musical idea to represent or symbolise a person, object, place, idea, state of mind or any other elements in a dramatic work.<sup>8</sup>

It can be a short melodic motif, a progression of chords, a rhythmic idea or any short recognisable musical idea that can be related to the conceptual idea in the dramatic content. It would be helpful for us to understand how the music works coherently in relation to specific moments or emotions in the film regardless of having such diversified colors in instrumentation and style. Similar to many other Giacchino's animation scores, *Zootopia* made use of thematic materials and motifs extensively and recurrently.

There are four main thematic materials we will be looking into, and they will be presented in chronological order in this chapter.

http://www.oxfordmusiconline.com/subscriber/article/grove/music/16360.

<sup>&</sup>lt;sup>6</sup> Truitt. "Michael Giacchino To Score Disney's 'Zootopia'".

<sup>&</sup>lt;sup>7</sup> Zoontu. 2016. [Making Of Zootopia] Scoretopia, accessed June 27, 2017. https://www.youtube.com/watch?v=naKRnkwe6lE.

<sup>&</sup>lt;sup>8</sup> Arnold Whittall. "Leitmotif." *Grove Music Online. Oxford Music Online. Oxford University Press*, 2017, accessed April 11, 2017.

#### 4.2.1 First Theme

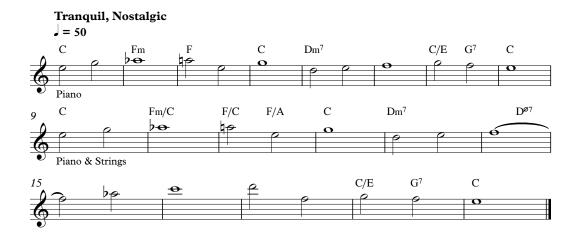


Figure 1. Transcription of the first theme from "Not a Real Cop".

(In Movie: 0:26:27-0:27:23; In soundtrack: "Not A Real Cop" 0:00-1:37)

The first theme is introduced by a simple, thin textured piano, and followed by the accompaniment of strings and harp. Giacchino revealed in his interview with LA Times, that when he first turned in his eight-minute suite, he initially focused on the saddest moments of the film and intentionally concentrated on the score around the feelings of Judy. In the *Zootopia* soundtrack album, the track "Suite from Zootopia" starts with the first theme<sup>10</sup>, which further suggests the importance of this musical idea in the movie.

The first theme is harmony-dominated, with a pensive, relatively static piano as the melody. It is closely related to the emotional world of Judy. This theme is used extensively in many of Judy's introspective moments, such as

<sup>&</sup>lt;sup>9</sup> Martens. "How 'Zootopia's' Upbeat Score Explores Race And Prejudice".

<sup>&</sup>lt;sup>10</sup> Zootopia (Soundtrack). 2016. CD. Walt Disney Records.

when she got bullied in her childhood, and on her first day working as a police officer.

#### 4.2.2 Second Theme



Figure 2. Transcription of the second theme from "Foxy Fakeout".

(In movie: 0:20:05-0:20:35; In soundtrack: "Foxy Fakeout" 0:26-0:56)

The second theme, consisted of a simple but a recurring, memorable melody in the C major scale. The melody is accompanied by a simple and straightforward harmony. The second theme is associated with positive emotions of Judy, when she is feeling encouraged, empowered, or having empathy on others. For example, on her day of graduation from the police school, and when she was empathized by the foxes duo and decided to help them getting the jumbo pop.

The instrumentation features a pitched percussion playing the melody, accompanied by a plucked guitar, woodwinds and string pizzicato. This type of instrumentation often relates us to childhood memories, which seem to make perfect sense as it is associated with Judy's childhood dream of being a police officer.

It also appears in a variation form in a different mood and style for other moments in the film.

#### 4.2.3 Second Theme - Variation

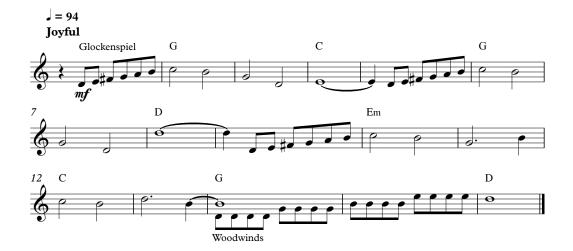


Figure 3. Transcription of the second theme variation from "Jumbo Pop Hustle" (In movie: 0:21:43-0:22:04; In soundtrack: "Jumbo Pop Hustle" 0:00-0:21)

The varied form appears in its dominant key, G major. The shape of the melodic phrases is very similar, except the ascending G scale is all filled up. The addition of Latin percussion and rhythm section in the instrumentation makes the variation much more energetic and adds a flavor of world music into it.

#### 4.2.4 Third Theme



Figure 4. Transcription of the third theme from "Jumbo Pop Hustle".

(In movie: 0:22:14-0:22:39; In soundtrack: "Jumbo Pop Hustle" 0:29-0:55)

The third theme is a very distinctive funky melody. The recurring melodic motif mainly focuses on syncopated beat – with the emphasis of offbeats. It features the vibraphone, guitar, electric bass for the funky groove with the addition of Latin percussions. The musical style of the third theme will be further discussed in the next chapter.

The third theme is closely related to the other main character of the movie, the fox Nick Wilde. Whenever the third theme is presented, Nick would appear in the scene. The funky, groovy and comedic motif is associated with Nick's slightly cunning personality. It is also played sometimes in light-hearted and comedic moments.

#### 4.2.5 Fourth Theme



Figure 5. Transcription of the fourth theme from an untitled cue.

(In movie: 0:17:55-0:18:24)

The fourth theme includes two short melodic motifs that appear recurrently. It is usually played by bass and electric guitar, but depending on the situation, the motif and the instrumentation would modify accordingly to the scenes. Since the motif is short, it can be used extensively or subtly in various scenes. This theme is often associated with uncertain and mysterious moments, and also closely to the investigation of the missing mammals case.

For example, the motif is used in chasing scenes such as "Hopps Goes (After) the Weasel" and "Ramifications" with recurring modulations.

#### 5. MUSICAL INFLUENCES AND IN RELATION TO THE STORYTELLING

#### 5.1 An Overview of Musical Influences in the Score

Considered to be Michael Giacchino's most upbeat, percussive and diverse score, the soundtrack of *Zootopia* have adapted a wide variety of musical influences, in terms of genres, musical styles and instrumentation. On top of the

conventional orchestral score, it is not difficult to find "flavors of world music sprinkled in everywhere".<sup>11</sup>

The director Byron Howard revealed, "He's got the biggest percussion section he's ever worked with before with exotic instruments like onglongs and gamelans, African drums and South American drums." 12

Percussive elements play an extremely important role in the score, since it features a huge percussion ensemble, which involves not only western percussion, but also a lot of ethnic percussion instruments. Giacchino mentioned, "Of course, one of the most important areas in the film, sonically, is percussion. I mean, look around. We have all these choices of what we can do. We have Djmebe, congas and bongos and all of this drums."<sup>13</sup>

It also features the extensive use of the band section, that includes the bass, drumset, keyboard, which is not the most common instrumentation for a classic disney film scoring session. They bring the unconventional score a funky, jazzy and groovy vibe. The composer also revealed the use of Cuban percussions, Indonesian and Middle Eastern instruments, waterphone and some other ethnic instruments. Instead of using them in the most traditional ways, Giacchino mentioned, "I wanted to take odd things and use them as you would a piano or a violin," Giacchino says. "I wanted to use instruments in ways you normally don't use them. For me, that was a representation of a big city. I lived in New York City

<sup>&</sup>lt;sup>11</sup> Martens. "How 'Zootopia's' Upbeat Score Explores Race And Prejudice".

 $<sup>^{12}</sup>$  Bill Desowitz. "How Composer Michael Giacchino Got Percussive With Disney's 'Zootopia' Score". *Indiewire*, 2016, accessed June 27, 2017. http://www.indiewire.com/2016/03/how-composer-michael-giacchino-got-percussive-with-disneys-zootopia-score-60090/.

<sup>&</sup>lt;sup>13</sup> Zoontu. [Making Of Zootopia] Scoretopia.

<sup>&</sup>lt;sup>14</sup> Truitt. "Michael Giacchino To Score Disney's 'Zootopia'".

for six years, and I was always amazed at how diverse everything was. It was right in your face. You step out the door and diversity is right in front of you. I wanted to get some of that feeling in the music somewhere."

Giacchino also mentioned that he used Indonesian instruments, Middle Eastern bells, and other gifts from percussionist Emil Richards, who worked with Jerry Goldsmith on all of his *Planet of Apes* scores. He also used a steel mixing bowl and a ram's horn for a "perfect combination of sounds and weirdness" in the Zootopia score, which was also used in his previous collaboration with Richards in the film *Dawn*. <sup>16</sup> <sup>17</sup>

The soundtrack is full of fusion of various musical elements. It is not surprising that could find hints of American funk, Cuban and Brazilian rhythmic influence and pop music elements all in one cue. The different musical elements are blended to make an incredibly interesting hybrid style.

Besides, Giacchino has also demonstrated his creativity by modifying regular instruments to create a less conventional sound. For example, the drumset was modified by replacing the kick and tom with a wash tub, use of oil drum and addition of cymbals to the toms and snare. This creates a familiar yet not-too-familiar percussion palette. (see Fig. 6.1)

<sup>&</sup>lt;sup>15</sup> Martens. "How 'Zootopia's' Upbeat Score Explores Race And Prejudice".

<sup>&</sup>lt;sup>16</sup> Desowitz. "How Composer Michael Giacchino Got Percussive With Disney's 'Zootopia' Score".

<sup>&</sup>lt;sup>17</sup> Martens.



Figure 6.1. The Modified Drumset<sup>18</sup>

Not only that, the choice of a certain musical influences are hugely inspired from the visual elements presented in respective scenes, which makes the music much closely related to the storytelling. In this chapter, a few different cues from the movie are selected, based on their musical distinctiveness and representativeness, for a more elaborated analysis.



Figure 6.2. Giacchino Playing the Marimba<sup>19</sup>

<sup>&</sup>lt;sup>18</sup> Zoontu. [Making Of Zootopia] Scoretopia.

<sup>&</sup>lt;sup>19</sup> Ibid.



Figure 6.3. Principal Percussionist Dan Greco Playing the Tuned Gongs<sup>20</sup>



Figure 6.4. Giachinno Presenting the Huge Percussion Ensemble <sup>21</sup>

# **5.1 World Music Influences Investigated In Selected Cues**

# I. "Try Everything" (In movie: 0:10:09-0:12:42; soundtrack order: 1)

In modern film score, the theme song is often considered to be the most important track in the album. It has to make a bold statement about the movie, and has to be easily recognised. The theme song "*Try Everything*" is performed

<sup>&</sup>lt;sup>20</sup> Zoontu. [Making Of Zootopia] Scoretopia.

<sup>&</sup>lt;sup>21</sup> Ibid.

by the singer Shakira and is written by Sia Furler, Tor Hermansen and Mikkel Eriksen.

Shakira, being the best selling Colombian singer of all time, is well known for her blend of Latin, Rock and Arabian style.<sup>22</sup> Being a winner of eight Latin GRAMMY Awards and 28 Billboard Latin Music Awards<sup>23</sup>, it is not surprising that she is considered as best fit for the theme song that calls for a modern fusion style. Like other cues from the movie, the song features a hint of world music influence. The song begins with an introduction of a capella. The bright and passionate singing style suggests a hint of South African choir influence, with homophonic parallel harmony.<sup>24</sup>

The synth at the background adds a modern feel with the typical EDM side chain compressed synthesizer.<sup>25</sup> The arrangement of the guitar, drums and synths and Shakira's optimistic singing make it a catchy pop song with a taste of ethnic elements.

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<sup>&</sup>lt;sup>22</sup> "Shakira Biography.Com". *The Biography.Com Website*, 2017, accessed June 27, 2017. https://www.biography.com/people/shakira-189151.

<sup>&</sup>lt;sup>23</sup> "This News Don't Lie: Shakira Is Coming To A Disney Movie Near You | Disney Playlist". *Oh My Disney*, 2017, accessed June 27, 2017. https://ohmy.disney.com/music/2015/08/14/this-news-dont-lie-shakira-is-coming-to-a-disney-movie-near-you/.

<sup>&</sup>lt;sup>24</sup> Ruth M. Stone, ed. "Harmony in Luvale Music of Zambia." *Garland Encyclopedia of World Music Volume 1: Africa. New York: Taylor & Francis Group. Routledge*, Array. 738-59.

<sup>&</sup>lt;sup>25</sup> Geeta Dayal and Emily Ferrigno. "Electronic Dance Music." *Grove Music Online. Oxford Music Online.* Oxford University Press, accessed April 28, 2017, http://www.oxfordmusiconline.com/subscriber/article/grove/music/A2224259.



Figure 7. Performance by Gazelle, a character that draws inspiration from the singer Shakira.<sup>26</sup>

## II. "Ticket to Write" (In movie: 0:16:41-0:17:46; soundtrack order: 4)

This cue demonstrates a Latin American and a funk influence.

The music starts on a foundation of interlocking rhythmic ostinati, which features Cuban percussion instruments including timbales, bongos and congas. Although based on a similar rhythmic structure, each percussion has its own part that is slightly varied from the framework with the typical Latin American offbeat emphasis. It suggests a touch of salsa rhythm, although the 2-3 or 3-2 clave is not obviously presented.<sup>27</sup>

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<sup>&</sup>lt;sup>26</sup> http://www.wopvideos.com/imgthumbs/19938/img2.jpg. 2017. Image.

 $<sup>^{27}</sup>$  Lise Waxer. "Salsa." Grove Music Online. Oxford Music Online. Oxford University Press, accessed April 28,

<sup>2017,</sup> http://www.oxfordmusiconline.com/subscriber/article/grove/music/24410.



Figure 8.1 Transcription of percussion elements from "Ticket to Write".

(In soundtrack "Ticket to Write": 0:00-0:08)



Figure 8.2. Transcription of the melody of "Ticket to Write"

(In soundtrack "Ticket to Write": 0:21-0:42)

Similar to the choral style in "*Try Everything*", the small choral ensemble gives a taste of responsorial African singing, featuring the antiphonal singing within the choir.

On the other hand, the instrumentation of electric wah-wah guitar, electric bass, drums, keyboard and brass are very typical in funk music. The two-chords harmony and syncopated rhythms also gives a feel of the funky style.<sup>28</sup>

# III. "Jumble Pop Hustle" (In movie: 0:21:43-0:12:42; soundtrack order: 6) "Walk and Stalk" (In movie: 0:23:55-0:25:14; soundtrack order: 7)

"Jumble Pop Hustle" (In soundtrack: 0:20-1:55) and "Walk and Stalk" are two variations from the second theme, which is closely related to the character Nick Wilde. Both in G minor and alternating mainly in between Gm and C major chords, suggests the improvisation on the G dorian scale, which is a charateristic of jazz funk harmony.<sup>29</sup>

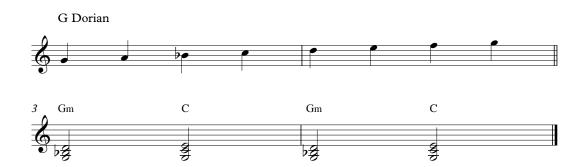


Figure 9. Relationship of the G Dorian scale and the chord progression used in "Jumbo Pop Hustel" and "Walk and Stalk"

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<sup>&</sup>lt;sup>28</sup> Richard Kassel, ed. "Funeral March." *Baker's Dictionary of Music.* New York, NY: Schirmer Reference, Array. 356-57.

<sup>&</sup>lt;sup>29</sup> Ellen Koskoff, ed. "Jazz." *Garland Encyclopedia of World Music Volume 3 - The United States and Canada*. Routledge, Array. 680-96.

With a slightly different arrangement in the two cues, both of the cues feature electric guitars, electric bass, hammond organ, some tuned percussions, and Cuban percussions. The electric bassist Abe Laboriel Sr. revealed that Giacchino wrote the funky bassline for him. The rhythm section drives the groove throughout the music, with the bass acting as the anchor. Melodic instruments are playing improvisatory-like melodies on top of the rhythm section.

The Cuban elements are introduced by the Cuban percussions Djembe,
Congas and Bongos. The tumbao rhythm, which is an ostinato pattern resulting
from interlocking rhythms played by the bass and conga, can also be found. <sup>31</sup>

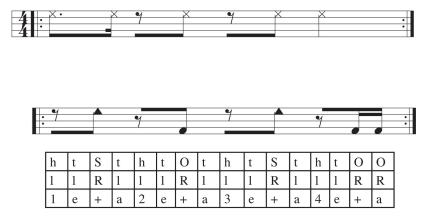


Figure 10. Tumbao Rhythm<sup>32</sup>

<sup>&</sup>lt;sup>30</sup> Zoontu. [Making Of Zootopia] Scoretopia.

<sup>&</sup>lt;sup>31</sup> Ellen Koskoff, ed. "Latin Caribbean Music." *Garland Encyclopedia of World Music Volume 3 - The United States and Canada. Routledge*, Array. 820-31.

<sup>&</sup>lt;sup>32</sup> https://commons.wikimedia.org/wiki/File%3AConga\_tumbao.jpg. 2017. Image.



Figure 11. Transcription of motives from "Walk and Stalk"

(In soundtrack "Walk and Stalk":

Percussion transcribed from 0:00-0:12;

*Keyboard transcribed from 1:03-1:13)* 

#### IV. The Naturalist (In movie: 0:37:06-0:40:05; Soundtrack order: 10)

The cue "Naturalist" has shown obvious influence from Indian music. Not only because it features Indian instruments including Sitar and Tabla, its melodic composition approach is also hugely influenced by Indian *Rāga*.

" $R\bar{a}ga$ " or "Raag" in Hindi means color, passion or delight. In Hindustani classical music theory. A  $R\bar{a}ga$  is a melodic mode that provides melodic materials for improvisation. Each  $R\bar{a}ga$  has a basic scale with the relative emphasis of different scale degrees depending whether the scale is ascending or descending, and rules for ornamentation. $^{33}$ 

<sup>&</sup>lt;sup>33</sup> Richard Widdess. "Rāga." Grove Music Online. *Oxford Music Online. Oxford University Press*, accessed April 28,

<sup>2017,</sup> http://www.oxfordmusiconline.com/subscriber/article/grove/music/48150.



Figure. 12.1. Transcription of "The Naturalist" – first part

(In soundtrack "The Naturalist": 1:19-1:58)

The melody consists of two main parts. The first part of the melody uses a harmonic minor scale, which is equivalent to the Rāga Kirwani in Hindustani music. The ascending scale includes (S-R-g-M-P-d-N) that is equal to the C minor hamornic scale (C-D-Eb-F-G-Ab-B-C) in western music theory. (see Fig. 12.2) <sup>34</sup>

<sup>34</sup> "Ragas & Western Scales". 2009. *Globalbass.Com*, 2017, accessed April 10, 2017. http://www.globalbass.com/archives/may2001/ragas.htm.

C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	В	Western notation
S	r	R	g	G	М	m	P	d	D	n	N	Indian notation (lower octave)
-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	Numbers for pitch
S	r	R	g	G	M	m	P	d	D	n	N	Indian notation (middle octave)
0	1	2	3	4	5	6	7	8	9	10	11	Numbers for pitch
S	r	R	g	G	M	m	P	d	D	n	N	Indian notation (higher octave)
12	13	14	15	16	17	18	19	20	21	22	23	Numbers for pitch

Abbreviations: The letters S, R, G, M, P, D, and N stand for Sa, Sudh Re, Sudh Ga, Sudh Ma, Pa, Sudh Dha, and Sudh Ni, respectively. The letters r, g, m, d, and n represent Komal Re, Komal Ga, Tibra Ma, Komal Dha, and Komal Ni, respectively. Normal type indicates that the note belongs to middle octave; italics implies that the note belongs to the octave just lower than the middle octave, while a bold type indicates it belongs to the octave just higher than the middle octave. Sa, the tonic in Indian music, is taken at C. Corresponding Western notation is provided in this table. The terms Sudh, Komal, and Tibra imply, respectively, natural, flat, and sharp

Figure 12.2. Comparison of Indian and Corresponding Western Notation<sup>35</sup>



Figure 12.3. Transcription of "The Naturalist" " – second part

(In soundtrack "The Naturalist": 2:03-2:58)

The second part of the melody simulates the  $\it R\bar{a}ga~Madhuvanti.^{36}$  It also uses materials from the fourth theme.

<sup>&</sup>lt;sup>35</sup> Chakraborty, Soubhik, Guerino Mazzola, Swarima Tewari, and Moujhuri Patra. 2014. *Computational Musicology In Hindustani Music*. Cham (Alemania): Springer International Publishing. 6-9.

The cue features Indian instruments including Sitar and Tabla. The beginning (0:00-1:08) of the cue is more of an improvisatory style, that is closer to the traditional Hindustani music; in the latter part (1:09 onwards) a regular rhythm and a foreground melody is introduced, together with some electronic instruments to give a more modern feel to the music.

"The Naturalist" is a scene when Judy and Nick was looking for clues about Mr Otterson, and they arrived at an Indian style built local club called Mystic Springs Oasis in Sahara Square, where they met Yax. The architecture and the animals in the scene suggest the Indian influence (see Fig. 13), which probably becomes the inspiration for the composer to decide to incoporate Hindustani musical style in this cue.



Figure 13. The Mystic Springs Oasis<sup>37</sup>

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<sup>&</sup>lt;sup>36</sup> "Ocean Of Ragas". Oceanofragas.Com, 2017, accessed April 10, 2017. http://oceanofragas.com/ocean\_htmlpages/Madhuvanti.html.

<sup>&</sup>lt;sup>37</sup> https://i.ytimg.com/vi/Mm6-nqLtd4w/maxresdefault.jpg. 2017. Image.

#### V. Mr. Big (In movie: 0:47:58-0:50:33; Soundtrack order: 12)

"Mr. Big" easily reminds the audience of the Italian folk music tradition. The cue features a typical Italian American ensemble that includes such instruments as woodwinds, a small string orchestra, solo violin, mandolin and accordion.<sup>38</sup>

The two solo instruments, mandolin and accordion (0:27-1:00) (see fig 7.1) are played in an antiphonal style, ie. a "call a response" style, which the musical phrases are performed in alternation.<sup>39</sup> The violin enters in the second part in a slight variation incorporating triplet rubato to give an improvisatory feel. (see Fig. 14.2) The homophonic texture and simple harmony also suggests its folk tradition.



<sup>&</sup>lt;sup>38</sup> Ellen Koskoff, ed. "Italian Music." *Garland Encyclopedia of World Music Volume 3 - The United* States and Canada. Routledge, Array. 890-93.

<sup>&</sup>lt;sup>39</sup> Barry Kernfeld. "Call and response." The New Grove Dictionary of Jazz, 2nd ed.. *Grove Music* Online. Oxford Music Online. Oxford University Press, accessed April 28, 2017, http://www.oxfordmusiconline.com/subscriber/article/grove/music/J072500.

Figure 14.1. Transcription of "Mr. Big" – first part

(In soundtrack "Mr Big": 0:27-1:00)



Figure 14.2. Transcription of "Mr Big" – second part

(In soundtrack "Mr Big": 1:00-1:36)

Based in the key of A minor, it mainly alternates between the tonic and dominant and chords from the C major key. The harmonic structure suggests the use of the A melodic minor scale, where the note G alternates in between G natural and G sharp.  $^{40}$ 



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<sup>&</sup>lt;sup>40</sup> "Scale." *The Oxford Dictionary of Music*, 2nd ed. rev.. *Oxford Music Online*. Oxford University Press, accessed June 26,

<sup>2017,</sup> http://catalog.berklee.edu:2057/subscriber/article/opr/t237/e8999.

### Figure 14.3. Melodic minor scale in A

In this scene, Judy and Nick are taken to the house of the crime boss Mr Big. The setting of the room, the chair and Mr Big's suit with a red rose on his chest, are believed to be a tribute to the 1970s American crime film *The Godfather*. It may also be a subtle hint of Mr Big's Sicilian root. The musical style, harmony, instrumentation and of the "Mr Big" cue also share a lot of similarity with the Godfather theme. <sup>41</sup>



Figure 15.1. Mr. Big<sup>42</sup>

Figure 15.2. The Godfather<sup>43</sup>

<sup>&</sup>lt;sup>41</sup> Ossii. "The Godfather Theme [HQ]", accessed June 26, 2017, https://www.youtube.com/watch?v=\_PXC7tOmRds.

<sup>&</sup>lt;sup>42</sup> http://screenertv.com/movies/zootopia-trailer-disney-the-godfather/. 2017. Image.

 $<sup>^{43}</sup>$  https://arb.rt.com/media/pics/2016.09/original/57d16146c46188b92e8b456f.png. 2017. Image.

#### 6. ROLE OF MUSIC

#### 6.1 Illustrating Emotional Arc of the Characters

Zootopia is an animation film addressing big topics such as diversity, stereotypes, racism, politics and more, but it is presented in an incredibly light hearted manner which makes it an enjoyable movie for both children and adults.

Despite a lot of comedic moments in the film, the director Rich Moore remarked, "Michael instinctively knew not to try and underscore the comedy of the movie. Good comedy films, if you listen to the score, the music is not trying to be funny. It's always in a way underscoring the tragedy and struggle of the main character. Michael knew to go right for that." Giacchino mentioned that he initially liked to focus on the saddest moments of a film, and the emotion around the characters. This could also explain the themes he used. As discussed earlier, there are four main themes that relate to the main characters Judy and Nick or specific emotions. The first and second theme are revolving around Judy's emotion. The first theme is a pensive, slow piano tune that depicts Judy's sad moments. It might also be the initial theme that Giacchino included when he first turned in his eight-minute suite, "Suite from Zootopia".

In contrast, the second theme focused on Judy's optimistic and empowered moments. In the movie, these two themes are used recurrently to highlight the emotional arc of Judy – whenever Judy feels sad, discouraged, or the opposite, when she feels empowered. The music brings the audience into the emotional world of Judy, as if they were experiencing and sharing the same feelings with her. The use of the themes also helps to connect the plot and give homogeneity to

<sup>&</sup>lt;sup>44</sup> Martens. "How 'Zootopia's' Upbeat Score Explores Race And Prejudice".

the score, yet, the themes are always appearing in a variety of forms and instrumentation to avoid repetitiveness.

#### 6.2 Emphasising Actions and Movements; Amplifying Emotions

Another important role of music is to emphasise actions and movements. In action cues such as "Hopps Goes (After) The Weasel" and "Case of Manchas", music is used to intensify movements and motions. Music can be used to affect our perception of time, which means it can make a scene go "faster" or "slower". In the case of a chase scene, music helps to push the scene forward with its tempo, and create tension with its harmony, rhythm and orchestration that eventually make it much more exciting. For example, "Hopps Goes (After) The Weasel" uses electric guitar, percussion and brass extensively to intensify the tension of the scene. There are a lot of synchronisations to the image, and sometimes mickeymousing to exaggerate the movements of the chase. It sometimes adds a comedic touch to the scene to create a light hearted tone for a contrast.

Moreover, the music also helps to exaggerate emotions – to make funny moments funnier, to make scary moments scarier. For example, in the cue "Stage Fright", it uses a lot of dissonance and unexpected percussion hits to create an uncomfortable feeling. The scene was very intense to make the audience feel very real about all the events. However, they would soon find out that it was only an elementary school performance, which is nothing scary at all.

#### 6.3 Referencing to Culture and Geography Location

Zootopia is a global valley where you can find different cultures living in harmony. In the movie, music plays an important role to refer to different geographical location and suggest particular cultures. It makes clear to the audience the ethnic background of characters and geographical setting of the scene and to enhance the establishment of the location. The music functions closely with the image to give the audience an all rounded experience of being immersed in a particular culture in a particular scene. As discussed previously, example includes the scene of "The Naturalist" and "Mr. Big", which the music is also related to the "cultural background" of the character involved.

#### 7. FINAL THOUGHTS

The name of the movie *Zootopia* refers to the Greek term "Utopia", an imagined community or society that possesses highly desirable or nearly perfect qualities for its citizens. 45 Zootopia, which draws inspiration from the term, is an ideal place that everyone long for: a diverse, interesting place where everyone respects each other's cultures, values and differences. Despite differences in our backgrounds, ethnicity, religion, we should respect each other's rights and endeavor to achieve the best for humanity.

The score of *Zootopia* has played an important role in conveying the philosophy and the concept of the story. The musical style, instrumentation and

<sup>&</sup>lt;sup>45</sup> "Utopia - Definition Of Utopia In English | Oxford Dictionaries". Oxford Dictionaries | English, 2017, accessed June 26, 2017, https://en.oxforddictionaries.com/definition/utopia.

orchestration are responding to the main idea of the movie – everyone can live together in harmony despite their differences. It is not difficult to find pop, funk, jazz, latin, western classical influences everywhere in the score.

However, what makes the *Zootopia* score so unique is that it does not only demonstrate its diverse styles in separate cues, it blends the styles and influences together in a cue and make all those instruments and elements to play in harmony. It is therefore sometimes difficult to isolate the genres from one another. Instruments and musical elements from different cultures are not just put together in the cues; they are interacting and cooperating with each other despite their different timbre, tone colors and result in an interesting hybrid, fusion style of new music.

In the process of studying the movie and the score, it has inspired me to reflect on our society and its relationship with music. Diversity has been a major topic in recent decades. In the modern society, more people are becoming aware of preserving our cultures as well as musical cultures. World music does not only provide another perspective, as opposed to western classical music, of looking at the creation of sound in an artistic context. World music also represents the aesthetic and philosophy of various cultures. It has always been controversial to bring ethnic music element in a western music context, as some may think that it does not successfully preserve the original value of the music, and that it only creates a style that appeals to a "western" ear. However, studying the score of *Zootopia*, it has aroused my interest in diving into different musical cultures and encouraged me to appreciate the beauty of diversity.

The most meaningful message about the story is that it has never suggested *Zootopia* to be a perfect place, because human beings (or animals) are not perfect

and can never be perfect. All the problems related to human beings, such as discrimination, racism and corruption always exist in history and will never disappear in the future. Nevertheless, what makes this story beautiful is that, even knowing that our world is imperfect, we should never give up fighting to make it a better place.

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APPENDIX

Zootopia Cue List (In Chronological Order)

Name of the cue	Duration	Time in	Time Out
Stage Fright	0:39	0:00:50	0:01:23
Grey's uh-mad at me	1:44	0:04:54	0:06:32
(Unnamed)		0:06:42	0:08:16
(Unnamed)		0:09:17	0:10:09
Try Everything	3:17	0:10:09	0:12:42
(Unnamed)		0:13:31	0:18:18
(Unnamed)		0:15:29	0:16:15
Ticket to Write	1:07	0:16:41	0:17:46
(Unnamed)		0:17:55	0:18:24
(Unnamed)		0:18:44	0:18:54
Foxy Fakeout	2:09	0:19:52	0:21:43
Jumbo Pop Hustle	1:51	0:21:43	0:23:26
Walk and Stalk	1:29	0:23:55	0:25:14
(Unnamed)		0:26:14	0:26:27
Not a Real Cop	1:34	0:26:27	0:27:23
Hopps Goes (After) The Weasel	2:20	0:28:28	0:30:39
(Unnamed)		0:32:14	0:32:50
(Unnamed)		0:34:18	0:35:13
(Unnamed)		0:35:39	0:36:16
(Unnamed)		0:36:23	0:36:52
The Naturalist	3:10	0:37:06	0:40:05
Work Slowly and Carry a Big Shtick	0:44	0:40:54	0:41:33
(Unnamed)		0:42:38	0:44:14
(Unnamed)		0:45:07	0:47:09
(Unnamed)		0:47:12	0:47:44
Mr. Big	2:48	0:47:58	0:50:33
(Unnamed)		0:50:33	0:51:39
Case of the Manchas	4:01	0:51:39	0:55:45
The Nick of Time	5:03	0:55:46	1:00:49
(Unnamed)		1:01:12	1:03:46
World's Worst Animal Shelter	4:24	1:03:51	1:08:11
(Unnamed)		1:08:19	1:08:25
(Unnamed)		1:08:25	1:08:55
(Unnamed)		1:10:02	1:10:22
Some of My Best Friends are Predators	3:47	1:11:22	1:14:52
(Unnamed)		1:15:23	1:15:40
(Unnamed)		1:16:06	1:17:09
A Bunny Can Go Savage	1:46	1:18:35	1:20:07
Weasel Shakedown	2:05	1:21:21	1:23:22
Ramifications	3:58	1:23:28	1:27:23
Ewe Fell for It	6:37	1:28:10	1:31:51
(Unnamed)		1:32:25	1:34:48
Three-Toe Bandito	0:44	1:35:17	1:35:56
Try Everything	3:17	1:36:10	1:40:01