

The Legend of Zelda and Leitmotif: Backtracking in an Open World

Master Thesis
Benson Walch (4191129)
Instructor: Michiel Kamp
MA Applied Musicology
Utrecht University

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Introduction

Development. New discoveries. Moving forward. Ever since I started taking part in the academic world of musicology, I felt that those were the main goals of every scholar. Even when writing about music from more than a hundred years ago, we tend to look at it from a different angle and try to update earlier studies. A process in which someone can quickly lose track. A feeling Daniel Leech-Wilkinson expresses through the somewhat depressing words: “musicology is whatever musicologists do as musicologists”.¹ Do we keep moving forward, or do we look back and search for what we may have left behind? This is a question that players of video games may also ask themselves. The concept of “backtracking”, going back into areas or levels that they visited before advancing further into the game, is a popular one in this world. Even when areas felt like they were fully explored. When writing about the function of leitmotif within video games, I feel as if I am doing exactly that.

The goal of this thesis is to sketch the beginnings of a guide for studying leitmotif in video games, so that musicologists can revisit this genre and look beyond the apparent difficulties that the medium poses. To achieve this, a strong example of good practice is required. I will therefore use specific examples, not just from one game, but from a game series. The effect of leitmotif can stretch through several installments and/or stories (I will return to this later). With a number of titles from Nintendo’s *Legend of Zelda* series, I will attempt to answer the question: “Can the leitmotif we see in video games legitimately be called a variety of leitmotif and what qualities make it different from leitmotif in opera and film respectively?”

In order to answer both parts of the question, I first need to define the terms “leitmotif” and “ludic.”. Therefore, I will start my research by finding the qualities that make a musical theme leitmotif. These findings will serve as a criterion, while investigating whether video game leitmotif is capable of “inheriting” its title from the Wagnerian and cinematic versions. To indicate the distinction between the latter and video game music, I will discuss the aspect that defines video game music, before measuring its presence in video game leitmotif.²

The two main methods for this research are literature study and musical analysis. For the first method, I intend to backtrack through to the discussion whether or not film leitmotif is akin to the Wagnerian kind. Facing that same discussion and comparing the problems that arise to the current situation, may provide valuable information for the road ahead. Musical analysis is necessary to define a musical given as leitmotif and sometimes goes into musical structure, rhythm, melody and harmony. At other times, indicating repetition of a leitmotif or theme throughout a game or series, will be sufficient for proving that they are instrumental for maintaining unity (I will discuss this later).

Tracking back: definition of leitmotif

Further research into leitmotif within videogames, requires a clear definition of the term. This task seems hard to fulfill, for the discussion about leitmotif in film has clouded its description. Nonetheless, this discussion was necessary: the question whether the film variety was in fact

¹ Daniel Leech-Wilkinson, *The Modern Invention of Medieval Music: Scholarship, Ideology, Performance* (Cambridge, Cambridge University Press, 2002), 216.

² Note that, while some of my examples will answer both parts of the question simultaneously, some only match one description.

an evolved form of the Wagnerian kind, needed to be answered. Although scholars such as James Buhler and Bribitzer-Stull have dealt with the problem in 2000 and 2015 respectively, controversy remains. Buhler explained the uniqueness of Wagner's leitmotif through the way it deals with signification.

Where film simply takes the signifying function of the leitmotif at face value, severing its link to myth as it were, Wagner uses the leitmotif to put signification, the language-like character of music, into play. In other words, Wagner's leitmotifs both signify and resist signifying.³

In other words, Buhler sees Wagner's leitmotif as a mystical phenomenon, that goes against the abstract character of music, by adding meaning to it. Buhler admits that film leitmotif is unable to achieve that level:

Film typically deploys leitmotifs in a much more consistent manner than does Wagner; the motifs are much more rigidly bound to the action in film, and they are consequently rarely granted the independence motifs have in Wagner's dramas, which is one reason the music in cinema rarely obtains the level of independence of music in Wagner's dramas.⁴

When studying leitmotif in video games, I practically face the same problem as Buhler, except that it is not one, but two 'generations' of media away from Wagner. Furthermore, there still does not seem to be a satisfying conclusion for the debate about film leitmotif.

Aside from providing – or rejecting significance, there is an aspect present in leitmotif, that appears difficult to measure. Justin Lindon explores this in the same book:

But how exactly do these leitmotifs refer? How do we sort out those themes that refer to specific characters or places in a film from music whose function is to provide continuity from scene to scene, or to underscore the events and emotions that occur in a given scene?⁵

Indeed, this question is a dominant one when defining leitmotif. The subjectivity of emotion, however, sabotages a clear description to work with. Based however, on the fact that the way people experience music, can vary enormously and be based on the strictly personal, we may have to accept its capricious nature.

Matthew Bribitzer-Stull gives a full overview of how the leitmotif was used in Wagner's operas and how modern use in films deviate from this. He discusses a more general flaw of the cinematic leitmotif.

[t]his 'demythologizes' the musical ideas, making of them associative themes – hackneyed, simplified varieties that can only pretend toward being true leitmotifs.

³ James Buhler, "Star Wars, 'Music, and Myth,' in *Music and Cinema*, ed. James Buhler, Caryl Flinn and David Neumeyer (Hanover: University Press of New England, 2000), 41.

⁴ Buhler, "Star Wars, 'Music and Myth,' 42.

⁵ Justin London, "Leitmotifs and Musical Reference in the Classical Film Score," in *Star Wars, 'Music, and Myth,'* 85.

Stated in music, these stageprop themes serve as entertainment, but pose as art, lending the audience a false sense of depth and clarity.⁶

So far, we have seen descriptions of two key aspects of leitmotif: the amount – or lack – of signification in leitmotif and the ability to go into a deeper layer, something that film leitmotif seems to lack. I agree that Wagnerian music has a considerable advantage over film music. It is the core material Wagner's *Gesamtkunstwerk*, that leads the way for character roles, dialogue and scenery. In film, music rarely has that role. But should we consider that as if it has lost the battle for significance with the other elements of film? Or should we accept the different role music has in film and review it accordingly? Bribitzer-Stull appears to have chosen the latter:

1. Meaning and Associationism – things happen at the same time and, because of connotative overlap (as in metaphor), one can evoke the other even when it is absent (i.e., music can recall emotion of previous scene it was linked to – just as Wagner theorized).
2. Structure and Organization – when both auditory and visual stimuli exhibit similar “structures” (in a Gestalt sense), as when they both change at the same time (the music imitates a character's actions), facilitating information-processing tasks.
3. Memory and Awareness – musical soundtracks are popular in part because they evoke memories of the movie (often implying subjectivity). Such memories are often visual (...), less often auditory (...).
4. Experimental Aesthetics – audiences like it best if music and voice do not sound simultaneously and when the music is congruent with the effect of scene. Gripping music, however, may sometimes overshadow the content of information (as in educational documentaries).⁷

With these set of rules, Bribitzer-Stull has accepted the difference between Wagnerian and cinematic leitmotifs and created new rules to determine the latter. Although there is overlap between the previous description of Wagner's leitmotif and these rules, they are designed to fit the film genre specifically.

Accepting Buhler's and Bribitzer-Stull's claims that film leitmotif has more of a signpost-like function than in its Wagnerian predecessor, I will look for similar signifying capabilities in video game leitmotif. Furthermore, a leitmotif needs to keep signifying the other object, even when the object – or the leitmotif itself – is gone. I will also investigate if the theme is able to undergo changes and still be recognized. To me, these, along with the power to enhance the emotional experience of a moment in the game, are they key qualities that define leitmotif.

Despite this new definition, along with Bribitzer-Stull's thorough investigation of film examples, the film medium is where he stops. Whether that was a deliberate step or not, it is still interesting to note that, although his book was published in 2015, he did not discuss music in video games. Other musicologists have in fact mentioned leitmotif in games, but only to little satisfaction. Karen Collins mentions that, for composers in this genre,

⁶ Matthew Bribitzer-Stull, *Understanding the Leitmotif: From Wagner to Hollywood Film Music* (Cambridge: Cambridge University Press, 2015), 282-283.

⁷ Bribitzer-Stull, “The Modern-Day Leitmotif,” 278.

incorporating a leitmotif function into a medium that moves through interaction from the player, can prove quite a challenge.

Cues need to relate to each other, to the gameplay level, to the narrative, to the game's run-time parameters, and even to other games in the case of episodic games or those that are part of a larger series. Procedural music and sound in (most) games, therefore, must be bound by quite strict control logics (the commands or rules that control playback) in order to function adequately.⁸

Collins states clearly that, if musical techniques such as leitmotif were to succeed in video games, strict rules need to be followed. This way, she opens the way for a different approach towards the appliance of leitmotif in this medium. Rod Munday does not only see the same challenge, he also draws a bleak conclusion: "Thus, it can be argued that the cinematic aspirations of game designers have led to a further collapse of the Wagnerian model of mythic music, reducing the leitmotif to the lowly status of a looping underscore."⁹ He also writes that, because of the game music being looped, it is merely a repeated version of music in a film scene. Such a loop however, can be longer than the average music in a film scene (I will discuss this later). Furthermore, they can act as an interactive fighting scene, for instance during boss battles, where the player determines the tempo of the game. This, albeit not in the same way as in Wagner's opera, provides the possibility for leitmotif to be heard long enough, so that the player can experience its effect.

Zach Whalen already investigates the use of leitmotif in *Zelda* in his article in *Game Studies* in 2004: "Composer Koji Kondo again uses particular melodic themes to identify specific areas of the game world in something like Wagner's leitmotifs acting in reverse."¹⁰ With this finding, Whalen opens the door to investigating a ludic (game-specific) version of leitmotif. By 'reverse,' he means that, when solving a puzzle or opening a chest, the player triggers the melody, instead of a melody that is being "triggered" by an event in the opera or film.

Stephanie Lind further continues this search by studying the music in *The Legend of Zelda: Ocarina of Time* (N64, 1998). She asks whether the use of leitmotif has a further function than just to be recognized by a player. She concludes that the leitmotifs within *Ocarina of Time* are of such importance, that the player's experience would be significantly diminished when playing with the sound off.¹¹ In the rest of her article however, she argues whether it is still useful to look for leitmotif – specifically the narrative appliance. She states that musicologists need to be careful about using the same analytic methods when studying music in video games. Although I agree that a study of video game music deserve more than just analyses of the narrative, I find Lind's readiness to move past leitmotif premature. If prepared to backtrack to those aspects that make Wagner's leitmotif Wagnerian and what makes cinematic leitmotif cinematic, we may find that the kind found in video games has qualities that separate it from both previous forms.

⁸ Karen Collins, "An Introduction to Procedural Music in Video Games," *Contemporary Music Review* 28:1 (2009), 5-15, accessed August 13, 2017. DOI: 10.1080/07494460802663983.

⁹ Rod Munday, "Music in Video Games," in *Music, Sound and Multimedia: From the Live to the Virtual*, ed., J. Sexton (Edinburgh: Edinburgh University Press), 58.

¹⁰ Zach Whalen, "Play Along – An Approach to Videogame Music," *Game Studies: the international journal of computer game research* 4 (2004), accessed January 18, 2017. <http://www.gamestudies.org/0401/whalen/>.

¹¹ Stephanie Lind, "Active Interfaces and Thematic Events in 'The Legend of Zelda: Ocarina of Time'," in *Music Video Games: Performance, Politics, and Play* (New York: Bloomsbury Publishing Inc., 2016), 101.

This starts a discussion whether we should stop comparing music in video games to music in film and opera and focus specifically on the ludic aspects – a thought that Isabella van Elferen explored in her article “‘iUn Forastero!’”, where she opts for looking from a “ludic” perspective. She separates diegesis in video games into categories, thusly indicating that video games summon alternate experiences of diegesis, as compared to opera- and film music.¹² With this, she refers to the presence of a player influencing the effect of music when it is heard. For example, when the in-game character cannot hear the music, but the player can, the character still moves as though it would have heard it.¹³ She adds a and into an additional category, “interface music.”¹⁴ She uses the final category for every sound that gives practical information to the player. “These musical motifs and sounds are induced by, as well as directive for, game interaction and are therefore both action based and action guiding.”¹⁵

Roger Moseley revisits ludic music in 2016. Rather than dividing the genre into categories, he defines the correlation between the concept of “play” in games and the music: “Musical play and playful music take shape in the spaces that open up between sign and sound, instruction and execution, the probable and the implausible, the permissible and the imaginable.”¹⁶ Interestingly, Moseley highlights the importance of sign, contradicting Buhler’s description of how Wagnerian leitmotif handles sign. According to Moseley, rather than treating signification mystically, music works closely together, in order to create a ludic experience. Both Moseley’s and Van Elferen’s descriptions of ludic music pose a problem for leitmotif to fit in. It poses a question that needs to be answered, before answering this thesis’ main question. After having investigated whether or not the leitmotif in video games is next of kin to the cinematic leitmotif and opera leitmotif, I will attempt to answer this question: can leitmotif be ludic?

Unity throughout a series

Another topic I want to explore further, is musical unity throughout a game series. Jason Brame analyzed this for the overworld themes of the video game series *The Legend of Zelda* and concluded that there is a harmonic and structural protocol which they all follow.¹⁷ On the Youtube-Channel “8-bit Music Theory,” a user that uses the pseudonym “8-bit” performs thorough musical analyses on every non-handheld *Zelda*’s Overworld theme.¹⁸ He adds that every version, except for *Breath of the Wild* – to which 8-Bit devotes a separate episode – is

¹² Van Elferen, “‘iUn Forastero!’” 33.

¹³ Id., 35.

¹⁴ Id., 33.

¹⁵ Zach Wahlen, “Case Study: Film Music vs. Video-Game Music: The Case of Silent Hill,” in *Music, Sound and Multimedia: From the Live to the Virtual*. Ed. Jamie Sexton. Music and the Moving Image series (Edinburgh: Edinburgh University Press, 2007), 76.

Paraphrased in Van Elferen, “‘iUn Forastero!’” 33.

¹⁶ Roger Moseley, *Keys to Play: Music as a Ludic Medium from Apollo to Nintendo* (Oakland, University of California Press, 2016), 245. Moseley refers to his own work: “Playing Games with Music (and Vice Versa): Ludomusicological Perspectives on Guitar Hero and Rock Band,” in *Taking It to the Bridge: Music as Performance*, Nicholas Cook and Richard Pettengill ed., 279–318. (Ann Arbor: University of Michigan Press, 2013).

¹⁷ Jason Brame, “Thematic Unity Across a Video Game Series,” *ACT, Zeitschrift für Musik & Performance 2* (2011): 5-11.

¹⁸ 8-bit’s analysis can be seen as a problematic source for academic work. He does not provide academic articles to reinforce his statements and uses an internet platform, which does not necessarily provide an audience with the ability to critically review his work. He does however offer strong musical analyses and offers enough knowledge to take in consideration, albeit critically.

also melodically connected to the first one.¹⁹ This way, Nintendo ties the games to each other with a musical skeleton. Other than that, the examples I have used clearly show that the games in the series are connected through leitmotif as well. Although on the one hand, they are more noticeable, some of them prove to be used quite inconsistently. Even so, the leitmotifs that are bound to the characters, specifically Zelda and Ganondorf, prove to be the most important for the unity of the narrative in the series. This is something almost unique to the Zelda game series. Even though most stories are separate and take place hundreds or thousands of years from one another (or even in a different timeline), the legend moves on - through visual aspects, such as clothing and items, and through music, through leitmotifs and/or themes.

Ambiguity between leitmotif and theme song

Probably one of the largest pitfalls for this kind of research, is confusing a theme song for a leitmotif. As an example, we will examine a popular website that lists all sorts of familiar tropes throughout every type of screen media. This website, “TV Tropes,” has a page for leitmotif in video games.²⁰ Although it goes through a lot of the famous games, including their recurring music, the manner in which they classify this as leitmotif, is problematic. For instance, the list mentions many famous games, including the *Zelda* titles and claims that the *Zelda* overworld themes have eventually become the leitmotif for the game’s protagonist, Link.²¹ It also mentions the fact that bosses in *Zelda* have their personal themes during battle.²²

The ambiguous character of Link’s theme immediately raises the question, whether we should consider it to be a leitmotif. The first problem appears when finding the origin of the leitmotif. The music is the original overworld theme from *The Legend of Zelda*. Considering that the basic structure of this theme is used for future games and the theme itself is used as the title screen song for some hand-held games (which I will discuss later), the music would be best called a theme song. On the other hand, as one of my examples will turn out, the music shares many leitmotif-like qualities and can be directly associated with Link.

The returning hero

Nintendo is still one of the most successful game companies that holds true to tradition and reuses their main characters or “mascots” in many different games. In a sense, they want to keep telling the same story repeatedly, or tell new stories and use familiar characters. After Mario being undeniably their most familiar figure - and perhaps even the most popular game symbol ever - Link from the *Legend of Zelda* series is a good second. He has been present in the many years of the company’s existence and still represents some of their most successful games. The tendency to stick to tradition and the same core material can be seen everywhere

¹⁹ The Music of Zelda’s Overworld: A Historical Retrospective and Analysis,” YouTube video, 15:22, containing footage and music from several *Zelda* titles, posted by “8-Bit Music Theory,” October 22, 2016, <https://www.youtube.com/watch?v=BNH2pKfvyPQ>.

²⁰ “Leitmotif/Video games,” TV Tropes, accessed April 27, 2017, <http://tvtropes.org/pmwiki/pmwiki.php/Leitmotif/VideoGames>.

²¹ The player is able to pick a name for Link in most games, but the instruction booklets keep referring to Link. In *Breath of the Wild*, his name is actually Link, because this is the first game where there is voice acting and *Zelda* often calls Link by his name.

²² “Leitmotif/Video games.”

in the games. For example, Link finds a legendary weapon called the Master Sword in every game and the same characters keep coming back - from the weakest enemies, who all keep their names in every installment, to the main heroes, princesses and villains.

Furthermore, the games have musical elements that keep returning in every installment, such as certain leitmotifs or basic structures. This can easily be called Nintendo's specialty. Although games from other companies like Square Enix's *Final Fantasy* did feature the same trademark music during every intro screen, never has any game stuck so consistently to reusing characters, locations and events through almost every single installment. As a role-playing game, *The Legend of Zelda* depends on its mythology and the roles of the iconic "triad" (Link as courageous hero, Zelda as wise princess, and Ganon as strong villain), which appears in almost every game within the series. They each fill an important place in the games' storyline and therefore have a returning and recognizable theme or leitmotif, one that reinforces the story.

Wagnerian and cinematic leitmotif in video games

The triad in the *Zelda* series is a constant throughout the games. With only one exception, each game holds the series' title, *The Legend of Zelda*, and features the princess with the same name. The sole playable character in every game is the hero with Link as his default name. As explained in the official timeline that Nintendo has published, after numerous fan made versions had appeared, all games take place at different time periods (except for *Majora's Mask* and *Phantom Hourglass*, which were direct sequels to *Ocarina of Time* and *Wind Waker* respectively).²³ Therefore, both Link and Zelda are reincarnated into a character with the same name and the same type of role. Ganon, although appearing almost as much as the other two, has a different background, which is vaguely explained from time to time in some of the games' expositions. In the latest title, *The Legend of Zelda: Breath of the Wild* (Wii U and Switch, 2017), he is described as an entity that keeps returning in different forms and cannot be permanently defeated. In the first game *The Legend of Zelda* (NES, 1986) he appeared in a pig-like form and appeared in both this and human forms in later games. He is often referred to as a "demon" and in *The Legend of Zelda: Twilight Princess* (NGC and Wii, 2006) he shortly appears in a god-like form.

To further understand Ganon's role in the *Zelda* mythology, the latter must be first explained. The "Triforce," a triangle-like symbol that appears as an icon in every *Zelda* game, consists of three triangles, that are each connected to a goddess, who created the world in which the games all take place and their personal aspects: one to Din, the goddess of power, another to Farore, the goddess of courage and the final to Nayru, the goddess of Wisdom. These triforce shards are, in turn, controlled by the villain, the hero and the princess respectively:

Power (Din) – Ganon(dorf)

Courage (Farore) – Link

Wisdom (Nayru) - Zelda

By connecting these qualities to the founding goddesses of the world, they are being given

²³ Shigeru Miyamoto, Eiji Aonuma and Akira Himekawa, *Hyrule Historia* (Tokyo: Shogakukan, 2011), 69. The amount of time between stories is hard to tell, but in some cases - such as *Ocarina of Time* and *Wind Waker* - it could be over a millennium.

great symbolic meaning for the game. This, in a way, already greatly defines the characteristics of these three figures. The aural “image” of these qualities can be heard back in their themes. Ganon’s theme is played by low strings and organ, with chromatic melodies and either minor or dissonant harmonies, with static bass lines and a slow pace. Zelda’s theme is mellow and slow, with open major harmonies and played by ocarina and harp. Depending on where it is used, Link’s (and the game’s) leitmotif is played by brass and/or strings. It has a heroic, upbeat rhythm with large intervals and both major and minor harmonies.

The narrative of the game is based on the same framework every time, which is repeated. Zelda’s music is included in each game and serves multiple goals: not only to indicate her presence, but also as an important key melody during *The Legend of Zelda: Ocarina of Time* (N64, 1998), and it plays as background music while in her castle (**Example 01**).

The musical score for Example 01 is written in 3/4 time and the key of D major. It consists of two systems of music. The first system contains four measures with the following chords: C, D7, C, and D7. The second system starts at measure 5 and includes chords Bm7, C#o7, Am7, D7, Am7, and D7. The bass line features a consistent rhythmic pattern of eighth notes and quarter notes.

Example 01: Zelda’s Lullaby, from *Ocarina of Time*, transcribed by Dan Bruno.²⁴

The overworld theme (**Example 02**) from the first Zelda game is by far the most recognizable one and is used at many different times, sometimes in the title screen, sometimes in the after credits or during a victory. Brame has found the musical skeleton from this very first overworld theme and describes how it is used in every other installment for that game’s version of such a theme by performing a semiotic analysis.²⁵ As I mentioned before, this very first overworld theme can in some ways be seen as Link’s leitmotif. This depends however, on how strictly the melody should be connected to a person. Following Brame’s findings, we can say that the overworld theme became more than just that. As the core material (such as harmonic rhythm and motif), it was repeated throughout almost every other Zelda game and even became the title screen song of several handheld Zelda games, such as *The Legend of Zelda: Link’s Awakening* (GB, 1993) and *The Legend of Zelda: Oracle of Ages/Seasons* (GBC, 2001). This indicates a development from the game’s “mascot” music to a confirmed status as a theme song.

²⁴ Dan Bruno, “Ocarina music in ‘The Legend of Zelda: Ocarina of Time’,” accessed July 25, <https://danbruno.net/writing/ocarina/>.

²⁵ Brame, “Thematic Unity,” 5-11.



Example 02: The overworld theme, extracted from Brame’s article.²⁶

Whether we are dealing with an actual leitmotif or a theme song, mainly for the signpost-like function that Buhler describes in film, remains obscure. A victory from the hero or him traversing through the dangerous castle in *Breath of the Wild* is supported by his theme. This shows that the theme is able to undergo changes and still be realized. Other than that, it gives emotional support to the process of working one’s way towards the ultimate enemy (Ganon). It underlines Link’s heroism and courage, the very Triforce qualities that are linked to him. The fact however that this theme appears inconsistently with the appearance of the character, and has other functions in *Zelda* games as well, makes this claim unstable.

Ganon’s theme seems to be much more resistant to this obstacle. It is established in *A Link to the Past* (SNES, 1991), where it plays right before you face Ganon for the final battle of the game (**Example 03**). The sinister nature of this character becomes clear in the first bars of his theme. The first note in each of the first three bars of the melody, keeps forming a dissonant with the the bass-line. The sixteenth notes fit well with the unpredictable nature of the evil villain.



Example 03: “Ganon’s Message,” composed by Koji Kondo, transcribed by the author.

The theme returns in full in *Ocarina of Time* (aside from the N64 sound is now used) and even becomes diegetic at the end of the game, when Ganondorf plays his theme himself. The presence of this diegesis already hints towards the theme being ludic. Not only does it appear to be audible for Link, it is for the player as well. The fact that the music becomes louder when the player orders Link to move closer, indicates that he has to continue in that direction, in order to find the source of the music. This follows a key aspect that Van Elferen introduces in “iUn Forastero!”: “[L]udic game music also functions as a GPS (gaming positioning system), a navigational aid that guides players in the spatial practice of gaming.”²⁷

So far, we have seen the triad of the *Zelda* series and their leitmotifs, all containing strong signifying abilities. But does it treat signification in the same mystical way as Buhler describes it? In order to answer that, we first need to take a look at an example that Bribitzer-Stull gives about Wagner’s *Ring*-cycle.

There is an extraordinary moment in the first act of Wagner’s *Götterdämmerung*. At the beginning of Scene 3, Brünnhilde sits alone on her mountaintop gazing at the ring on her hand, Siegfried’s parting love- gift. As she does, we hear a variety of leitmotifs:

²⁶ Brame, “Thematic Unity,” 5.

²⁷ Van Elferen, “iUn Forastero!” 34.

‘Magic Potion,’ ‘World Treasure,’ and ‘Valkyries’ (...). In terms of chronological audience experience, the ‘Magic Potion’ is a theme we have heard for the first time in the previous scene – while it sounded, Siegfried’s memory of Brünnhilde vanished, allowing him to fall in love with Gutrune. The ‘World Treasure’ is a theme we know from the end of Siegfried; there it accompanied the burgeoning feelings of love that Brünnhilde had for Siegfried. And the ‘Valkyries’ theme has embodied the energy of Brünnhilde and her warrior sisters from Act II of *Die Walküre* onward.²⁸

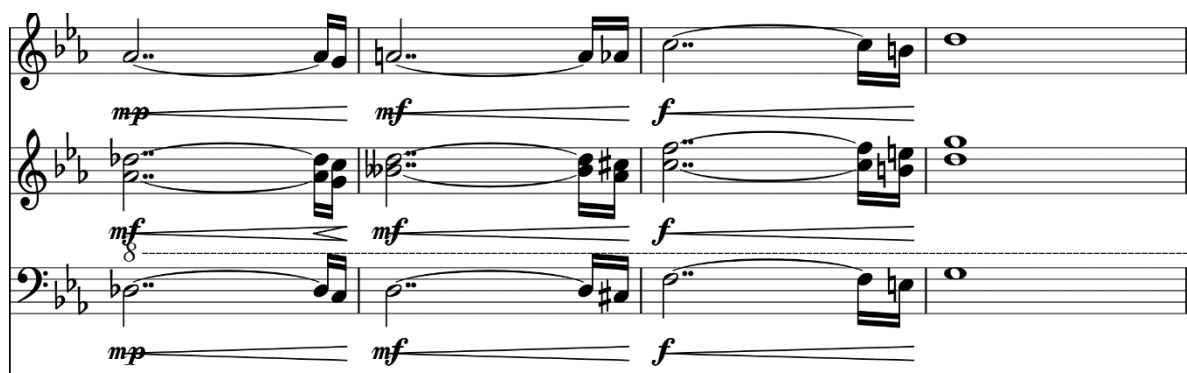
Buhler’s search for the mystical may end up with a find in this example. All mentioned leitmotifs, that were introduced in previous acts – or even opera’s, can be recognized and therefore provide meaning to the scene, as they indicate involvement of the connected characters. Yet they are woven through each other, losing their unique significance. In *Zelda*, we can indicate a similar occurrence.

The way in which the music is incorporated changes from *The Legend of Zelda: Wind Waker* (NGC, 2006) onward. The overworld theme of this game plays when you are at sea. It is an upbeat and lively piece in a major key and has a similar standard structure to the original overworld theme (**Example 04**). Although there can be several weather circumstances, the sky is usually bright. When on a mission to collect one of the three pearls (which also each correspond to the goddesses and the triforce aspects), it is raining without end and until the player solves this situation, an adapted version of *Wind Waker*’s overworld theme can now be heard (**Example 05**).



Example 04: “The great sea” score from *Wind Waker*, transcribed by the author.

It is now clear that there is something wrong. But in the middle of this version of the song, Ganon’s theme can be heard, which clearly states his involvement. The theme is now played in augmented harmonies, fitting the harmony from this version of the sea song.



Example 05: “The great sea is cursed!” Adapted from a transcription from Ben Stoneking, accessed on <https://musescore.com/user/5626991/scores/3171271>.

Up until this point, only a hint of his cape could be seen at the start of the game and he did not

²⁸ Matthew Britzner-Stull, “The phenomenon of musical association,” in *Understanding the Leitmotif: From Wagner to Hollywood Film Music* (Cambridge: Cambridge University Press, 2015), 95-96.

play a part until then. This use of leitmotif can be seen as a direct communication to the player, that Ganon is behind the curse. Therefore, the leitmotif fills the absence of the character.

This is essentially the Wagnerian aspect as seen in Bribitzer-Stull's example. The repetition of motives heard in *Wind Waker*, referring back to the previous game *Ocarina of Time* are similar to hearing the "World Treasure" from *Siegfried* in a later opera in the *Ring-cycle: Siegfried*. Furthermore, the sounding of the "Valkyries" theme without the figure present is a Wagnerian predecessor to hearing Ganon's theme in *Wind Waker* when he is not there. And finally, the way Ganon's theme is woven through another one is *Zelda's* version of combining two or more leitmotifs, just as we have seen it in Bribitzer-Stull's example.

The following examples share the previous example's ability to be recognized after undergoing alteration. The first example features both Zelda and Ganon. In *Twilight Princess*, Link has to face Ganon in multiple forms. The first is him possessing the body of Zelda and behaving much like Ganon does in *Ocarina of Time*, floating in mid-air and firing electric spheres at Link. While this music rhythmically and harmonically matches the music in *Ocarina* because of this, a mutated version of Zelda's theme is mixed into the melody. This is an essential narrative element that tells the player that there is still hope for Zelda and therefore there is still a reason to fight. This is an important element of emotional enhancement as I described earlier. The grim sound of Ganon's leitmotif mutates the soft and friendly embrace, that once was Zelda's leitmotif.

A similar example occurs in *The Legend of Zelda: Phantom Hourglass* (3DS, 2007) with an anti-hero called Linebeck. This individual shows a great deal of self-overestimation and possible narcissism. The fact that his leitmotif only plays when he makes a remark about his (questionable) positive qualities, amplifies the importance of his personality. Despite these possible character flaws, he proves to be a necessary helping hand in the game and sometimes shows humility that offers the player the opportunity to fall for his charm. The accompaniment of his theme has the keynote and fifth alternating on the first and fourth notes, with brass chords in between. His melody is simultaneously played by a trumpet and harpsichord, highlighting the duality of his character (**Example 06**).²⁹

²⁹ The transcriber has used the version from *The Legend of Zelda: Spirit Tracks* (3DS, 2009), which is similar to the original in *Phantom Hourglass*.



Example 06: Linebeck's Theme from *Phantom Hourglass*, arranged by Shinobu Amayake.³⁰

We further attempt to identify leitmotif in the *Zelda* series by returning to Ganon. In *Twilight Princess*, there seems to be a more obvious and direct connection to *Ocarina of Time*'s Ganon than in *Wind Waker*. When he is first introduced by a group of sage spirits in the form of a legend, his theme is played, resembling the largest part of that of *Ocarina of Time*, also showing him in the same way as he is displayed in the latter. This leitmotif is an essential addition to the unity of the *Zelda* series. Not only does it confirm that we are dealing with the same entity, it also brings back the eerie atmosphere that was brought up in *Ocarina of Time*.

In *The Legend of Zelda: Breath of the Wild* (Wii U and Switch, 2017), this melody is heard during the four main boss battles and during the very last moments in the game, when climbing Hyrule Castle and when facing Ganon. From the very start of the game, the player learns that the entity named Calamity Ganon circles outside of Hyrule castle, gaining strength to eventually destroy the world. He/she also learns that, from within the castle, Zelda has been fighting the calamity for a hundred years, using her sacred powers. When within the perimeters of Hyrule Castle but outside the doors, a portion of the Ganon theme is therefore mixed through the game/hero theme and when inside, it phases to Zelda's theme. This forms an important statement for Ganon in the game. It indicates that he is unquestionably the one antagonist that needs to be dealt with. Instead of first having other bosses doing the battle for him, he now fights Link through severed parts of himself. However, the bosses have their own persona and movement patterns. Therefore, they have the same structural music, but with different instrumentations, all matching the music of the according dungeons.

For example, Divine Beast Vah Ruta is an enormous mechanical elephant, possessed by Ganon. In order to undo this corruption, Link must take down his shields before being able to enter. The melody during this siege mission is played by an oboe. The same is true for the melody during the boss battle. During the penultimate battle, both the boss theme and Ganon's theme are heard, in the same way they are heard during the boss fight. This might indicate a different identity that Ganon has, separating the form from the ones he took in

³⁰ "The Legend of Zelda: Spirit Tracks: Linebeck's Theme," Muscores online, accessed august 10, 2017. <http://www.musicnotes.com/sheetmusic/mtd.asp?ppn=MN0160169>.

previous games. The original Ganon motif however, keeps the unity of the series together, answering the question whether – despite the changes – Link is still fighting the same Ganon.

A character who is not part of the triad but does play an important role in some *Zelda* games, is King Hyrule. His theme has a similar hybrid-like character to that of the first overworld theme, where it has both ties to a location as well as to a person. It can be first heard in *A Link to the Past*, when entering Hyrule Castle (**Example 07**).

Example 07: “Hyrule Castle” melody from *Wind Waker*, transcribed by the author.



Notice the downward fourth in the first bar and the minor second in the second bar, which act as melodic signifiers for this character. The same way, Link’s motif evolved from the overworld theme, the king’s melody came from this location-bound theme. In *Wind Waker*, it plays when he appears and holds a long important monologue about his role in the world and that of princess Zelda. This is similar to when Ganon’s music is played in *Ocarina of Time*. Hyrule’s theme, however, connects him to the location. In *Breath of the Wild*, he is disguised as an old man and seems to have a new theme. It is however, an altered version of the old theme, as seen in **Example 08**. As a key aspect of the original theme, the interval from the old version is kept in the new one, although it is prolonged. The minor second that follows in the old version, is also used again, but now the theme goes into a glissando like movement towards a tremolo that doesn’t resolve to the keynote, but rather floats into an open ending. This gives the player the opportunity to recognize him, before he reveals himself.

Example 08: “Old Man’s Theme” melody and chords, from *Breath of the Wild*, transcribed by the author.



Ludic leitmotif

Thus far, we have encountered both the signifying and significance-repelling aspect from Wagner’s opera in *Zelda*. We have also seen leitmotif used as a signpost, as Buhler describes film leitmotif. However, this goes further than just triggering memories. These leitmotifs are able to transfer the meaning to a completely new game in a story that takes places much later or even in a different timeline. They resist heavy alterations and enhance or alter emotional experiences when combined with other melodies. But so far, they only support the narrative. How can we define a new type, that fits entirely to video games?

For identifying ludic music, we return to Van Elferen and Moseley, descriptions, we have to look for elements that acknowledge the presence of a player and not only react on a trigger. *Zelda*’s leitmotif could offer such elements. While her music clearly serves to support

around signification, as we see in Wagner. Beyond that, it is never embedded as a melody into music or mixed through other themes or leitmotifs. Nor has it undergone any radical changes to form, rhythm, melody or harmony, except for broader textures and different instrumentations. This denies a proper testing of its ability to be recognized.

A theme that shares earconic qualities with the puzzle-earcon, is triggered when opening a treasure chest and subsequently achieving an item from it (**Example 10**).

Arranged by The Deku Trombonist

Con moto ♩ = 100

Piano

Example 10: “Treasure Chest” theme from *Ocarina of Time*, transcribed by The Deku Trombonist.³⁴

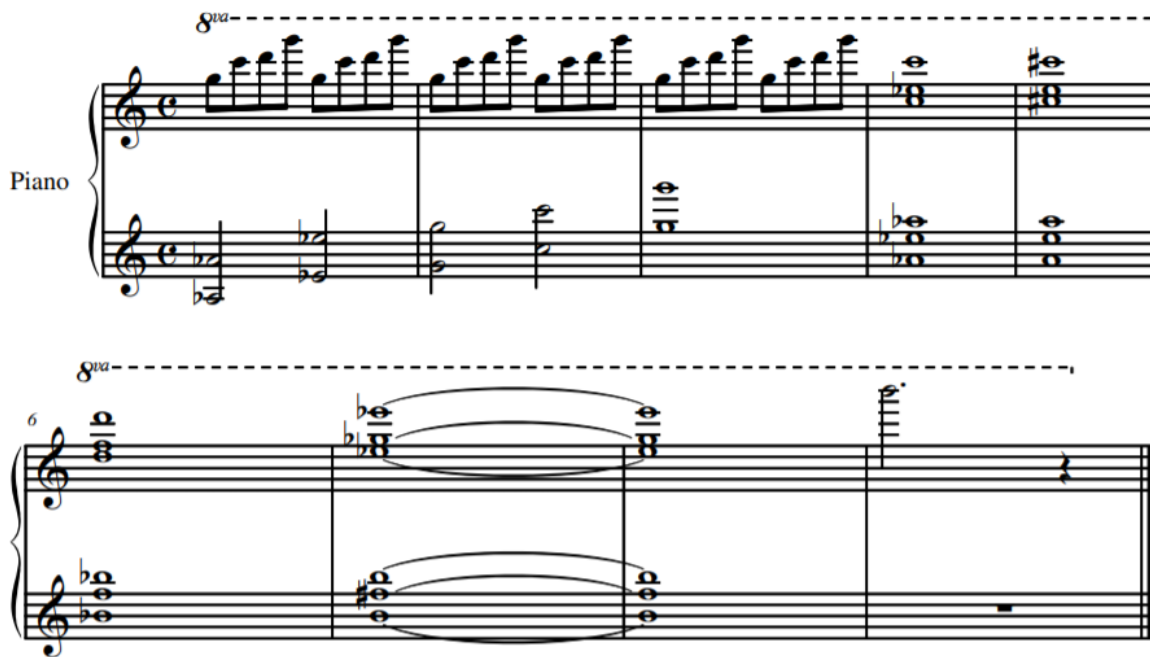
This theme rises chromatically in pitch, dynamics, and tempo when opening a chest in *Ocarina*, *Twilight Princess*, and other editions of the game. The fourth bar is a chromatic fanfare-like cadence. In some cases, this bar is replaced by a different tune. For instance, finding a “Heart Pieces” triggers a separate theme. In *Phantom Hourglass*, the player can even find a “Rupoor,” a bad version of the game’s currency, “Ruppee,” that actually subtracts money from the player’s inventory. In this case, a heavily distorted version of the fourth bar can be heard. This corresponds with the deceptive Pavlov-like puzzle-earcon.

At the same time, this example brings us closer to finding a ludic version of a leitmotif. The music enhances emotional experiences, even expectation. It has a more complex musical structure than the puzzle-earcon and connects to a (ludic) given: finding an item. The distorted version of the fourth bar, when finding a “Rupoor” in *Phantom Hourglass*, shows us that it can be recognized, even when it has undergone heavy changes. It lacks however, the presence of an important figure for the narrative of the game, a Valkyrie to Wagner’s *Ring*-cycle, a “force” to *Star Wars*.

We find this in the Master Sword, a legendary weapon that is featured in almost every *Zelda* game. The theme originated in *A Link to the Past* and has changed only in texture ever since. (**Example 11**). The ritual of removing the sword from its pedestal resembles that of opening a chest in most games. Only the music is more mystical. It uses a bells sound for a repeating four-note pattern and a thick orchestrated sound plays cluster-like chords

³⁴ “‘Opening Treasure Chest,’ composed by Koji Kondo, transcribed by ‘The Deku Trombonist’,” accessed august 4, 2017, <http://www.ninsheetmusic.org/download/pdf/1464>.

chromatically upwards. Furthermore, this leitmotif is meant specifically for this legendary and unique item.



Example 11: The “Master Sword” theme, transcribed and arranged by Gori Fader.³⁵

This uniqueness is confirmed in *Wind Waker*, where a choice for omission was made. When Link first draws the sword from the pedestal, the sword appears to be a regular blade, without special powers. While drawing out the sword, the castle appears to come to life, which is accompanied by a lot of visual and sound effects. The Master Sword theme however, does not appear until Link has skeptically swung the sword around and lifted it into the air with noticeable doubt on his face.

In this case, the omission of a leitmotif adds to the effect of the cutscene and acts as a deceptive Pavlov cue, similar to the previous two examples. This sets both a ludic and narrative connection from the music to the object. One could even say that the Master Sword theme is an evolved, specifically applied version of the chest opening theme. The fact that it is connected to such a defining and unique object, enhance its chances to be recognized as leitmotif. The sword is even personified within the dialogue of games such as *Breath of the Wild*, where Zelda mentions the sword speaking to her and, at another moment, refers to Link and the sword as a team.

We have now found a signifying element, similar to that of a leitmotif in film, perhaps even Wagner. Other than that, it works as an emotional enhancer and binds itself to another element, which can be tested by delaying it, just as *Wind Waker* did. *Breath of the Wild* also helps test the theme’s resistance for alteration, in order to confirm it as a leitmotif. When attempting to pick up the Master Sword in this game, the four-note pattern can be heard. The sword needs to be pulled out by keeping a button pressed and “donating” life in order for Link to prove strong enough to carry the blade. As long as the player takes no further action, than

³⁵ Gori Fader, “Master Sword from ‘The Legend of Zelda: A Link to the Past’,” accessed August 4, 2017, <http://www.gamemusicthemes.com/sheetmusic/supernintendo/thelegendofzeldaalinktothepast/mastersword/index.html>.

just having triggered the scene, the four-note pattern keeps repeating. The rest of the theme only plays when Link successfully pulls out the blade. Again, this triggers an expectation that is not immediately fulfilled, highlighting the importance of the sword both ludically and narratively. But most of all, it proves that an alteration to the theme, which we now can call leitmotif, still makes it able to be recognized. Together with its “earconic” and interface aspects, the Master Sword’s theme can be called a “ludic leitmotif”.

A different and unique example comes from *Wind Waker*. In *Ocarina of Time*, the player starts in a zone called Kokiri Forest. The leitmotif of the loop that plays when walking there, is an upbeat, cheerful one (**Example 12**).

Example 12: “Kokiri Forest,” from *Ocarina of Time*, transcribed by the author.



In *Wind Waker*, the player starts in Outset Island, which has its own theme, that loops as well. However, after what can be called the first “verse” the entire leitmotif of Kokiri Forest can be heard. A similar example is Windfall Island in *Wind Waker*, where the player has to return regularly to stock up on items or progress through the main story. A faster version of the music from Kakariko Village – a town with the exact same function as Windfall - originating from *A Link to the Past* can be heard. This creates a unique example, where the leitmotif binds itself to an important function, yet not a narrative one. The functions of a “home” and a “place to shop” are important markers for the player, as it tells him or her that he or she may have to return when later dialogue hints towards it.

A final example of ludic leitmotif occurs in *Twilight Princess* (**Example 13**). One of the themes in this game’s “Hyrule Field” score starts with four bars, during which the chords alternate between B minor and E major. 8-Bit mentions that the entire score is the only version of “Hyrule Field” in a minor key and that this key – E minor – is the minor relative of the key in the *Ocarina of Time* version – G major. He therefore calls *Twilight Princess*’s “Hyrule Field” a “dark counterpart” of the one from *Ocarina of Time*.³⁶ The B minor and E major chords could serve as the subdominant and dominant respectively for A major, indicating a sudden modulation. After these four bars, however, the theme reverts to the E minor key. Therefore, this passage more likely symbolizes a short hopeful thought, as it seemingly moves to a major key, but instead returns to the minor key.

Example 13: “One of the themes from “Hyrule Field,” from *Twilight Princess*, transcribed by the author.



If we accept 8-Bit’s description of the score as a symbol of darkness we could see the theme in this example as a leitmotif for hope, making it part of the narrative. Then again, this assumption would be based on two esthetical interpretations from the score’s harmony alone.

³⁶ The Music of Zelda’s Overworld: A Historical Retrospective and Analysis,” YouTube video, 15:22, containing footage and music from several *Zelda* titles, posted by “8-Bit Music Theory,” October 22, 2016, <https://www.youtube.com/watch?v=BNH2pKfvyPQ>.

It is during the fight with Stallord, a large skeletal monster, where we find that there is more to this theme. As soon as Link has damaged the boss up to a certain point, the theme is vertically placed on top of the initial boss music. It is now played by a digital fanfare orchestra and mixes with the harmony and melody of the boss score. This not only highlights the experience for the player; it is also an important part of Van Elferen's "interface". It informs the player that he or she has almost defeated the boss. It symbolizes hope once again, except now, it is meant for the player instead of Link. This, together with the fact that the theme comes from another score – the "Hyrule Field" score - and the fact that it can be transferred to a different score without problems, identifies the theme as a ludic leitmotif.

Conclusion

Musicology is an open world, which makes it all the more attractive, but equally challenging. We should know what to look for and how to look for it. Especially when looking for a complex musical phenomenon, such as leitmotif. The question remains: do we keep seeing leitmotif in video games as themes that merely hold some similarities to Wagner's version? Or do we see a development from opera, through film, through video games, where the leitmotif evolved to fit the medium? The goal of thesis was not to find a universal answer, but rather to illuminate paths that may have been obscured by assumptions, which I consider to be too harsh. By acknowledging similar cases of leitmotif in the *Zelda* games as in Wagner's opera's and in films, we allow it the heritage it deserves. At the same time, we make it possible to see functions, which the variety in film and opera did not have. To understand these functions, we need to understand what makes music ludic, so that we may explore the possibility of a ludic leitmotif. The *Zelda* series help us define true leitmotif in video games and find cases of ludic leitmotif. Furthermore, they show us that leitmotif is a key aspect in keeping a series of games together, of which the stories are connected by the thinnest of threads. It goes through severe alterations in melody, harmony, rhythm, instrumentation or structure and remains able to be recognized.

In the process of researching leitmotif in video games, I have experienced the same problems Buhler faced, when trying to identify cinematic leitmotif with its Wagnerian predecessor. Therefore, the weakness of this thesis lies in the many options of interpretation. It depends on other scholars to look at the problem from a pragmatic point of view, instead of purely an esthetic one. The most important question we can ask in order to take away this doubt is: would leitmotif have worked in film and video games if it had maintained its exact form and wouldn't have adapted to the new medium? I hope to have made the first step towards proving that the answer to that question is "no". Even more so, I hope that fellow scholars dare to backtrack, just like players do in video games and just like I have done in this thesis. By taking not only the unvisited, but the visited paths as well, we may discover a surprising number of unopened treasure chests.

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