MUSICAL MEMORY OF THE PLAYER, CHARACTERS, AND WORLD OF THE LEGEND OF ZELDA VIDEO GAME SERIES

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A Thesis

Submitted to the Graduate College of Bowling Green State University in partial fulfillment of the requirements for the degree of

MASTER OF MUSIC

August 2015

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ABSTRACT

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In 1986, Nintendo released a role-playing game in America known as *The Legend of Zelda*, which has since become a world-wide gaming sensation. A unique game element to the series is the use of musical instruments and in 1998, the Nintendo game makers brought the musical material to the forefront in *The Legend of Zelda: Ocarina of Time*. For the first time in *The Legend of Zelda* series, players were required to remember short tunes in order to complete the game. The memory and skill of the main character, and thus the player, expands over the course of the game, resulting in the use of the ocarina to travel forward in time to save the world. In 2002, *The Legend of Zelda: The Wind Waker* was released, with the main character acquiring a baton to conduct musical works for individuals as well as for the world at large, once again in the quest to save the world from evil.

Using the theoretical framework described by Bob Snyder in his book, *Music and Memory*, I will utilize the three types of memory that Snyder identifies in his study to examine the musical world of *The Legend of Zelda*. The three types of memory are as follows: 1) echoic memory, which is the immediate recognition of the raw sensory data, 2) short-term memory, the conscious awareness of the information, and 3) long-term memory, or the unconscious storage of information. Long-term memory has several types of cues, which will be considered in regards to the player as well as the game characters and world of *The Legend of Zelda*. This study of memory will help facilitate further scholarship that explores the complex relationship between the game world, the real world, and the music that traverses both.
ACKNOWLEDGMENTS

“It’s dangerous to go alone – take this.” Much like Link in the very first *Legend of Zelda* game needed equipment to navigate his world, I have had help and assistance in navigating the maze of this thesis. First to thank is Dr. Kara Attrep, whose patience, calm nature, and gentle encouragement has been the biggest blessing through this process. Equally important has been Dr. Alexa Woloshyn’s unfailing support and eternal optimism. Thank you both for all your help, especially this year.

Thank you all around to the friends who helped this Link on her journey - Bobby, Desi, Devynn, Jacob, Jennifer, Joana, Josh, Meghan, Michaela, and Paul. Your kind support and shenanigans have helped me to keep going. A special thank you goes to Andrea, without whom I would not have made it through this degree process. Thank you all for making my time at BGSU great.

A final special thank you to Dr. Mary Natvig, who is continuously willing to listen, offer counsel and sage advice, and be one of the biggest supports I can imagine. You were the first to really make me feel welcome here, and for that I am eternally grateful.

Thank you all for being you.
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CHAPTER I. INTRODUCTION

In 1986, Nintendo released a role-playing game in America known as *The Legend of Zelda*, which has since become a world-wide gaming sensation. A unique game element to the series is the use of musical instruments and in 1998, the Nintendo game makers brought the musical material to the forefront in *The Legend of Zelda: Ocarina of Time*. For the first time in *The Legend of Zelda* series, players were required to remember short tunes in order to complete the game. The memory and skill of the main character, and thus the player, expands and the ocarina, a small flute-like instrument, is used to travel forward in time to save the world. In 2002, *The Legend of Zelda: The Wind Waker* was released, with the main character acquiring a baton to conduct musical works for individuals as well as for the world at large, once again in the quest to save the world from evil.

Using the theoretical framework described by Bob Snyder in his book *Music and Memory*, I will utilize the three types of memory that Snyder identifies in his study to examine the musical world of *The Legend of Zelda*. Snyder divides his book in half by introducing basic concepts in both music and memory studies, the latter of which serves as a foundation for this thesis. The three types of memory are as follows: 1) echoic memory, which is the immediate recognition of the raw sensory data, 2) short-term memory, the conscious awareness of the information, and 3) long-term memory, or the unconscious storage of information. Long-term memory has several types of cues, which will be considered in regards to the player as well as the game characters and world of *The Legend of Zelda*. This study of memory will help facilitate further scholarship that explores the complex relationship between the game world, the real world, and the music that traverses both.
The Legend of Zelda franchise is my favorite video game series. I was first introduced to the series by seeing my parents play the original Legend of Zelda game and poring over the maps and strategy guides. As time went on, my brother and I would play each of the Zelda games soon after they came out. He would often try to finish the game as fast as possible, whereas I took a more leisurely approach, enjoying my time immersed in the game world, exploring all of the nooks and crannies. Now I am able to apply my lived experience with the Zelda games with my skills as a musicologist to create this comprehensive study of the music in two Legend of Zelda games.

Music in Zelda

“Blip, bloop, bleep” – the first sounds in electronic games seemed alien and unusual to listening ears. Today, advancements in technology have made video game audio virtually indistinguishable from real life. A game world that is complex and expansive often has music that is equally intricate, and nowhere is this trait more evident than within The Legend of Zelda video game series produced by Nintendo. The Zelda franchise consists of over thirty-eight games, but only two games, The Legend of Zelda: Ocarina of Time and The Legend of Zelda: The Wind Waker, will be analyzed and explored within this thesis. In the Zelda games, there is traditional background and incidental music, as common with most games, but what is more interesting as a musicological study is the pervasive use of music-making within the franchise. The very first game, appropriately titled The Legend of Zelda, consisted of a relatively unremarkable musical element. In that game, Link (the main character and the player’s avatar) acquires a whistle and, by a push of a button from the player, summons a tornado to transport him between the dungeons across the world of Hyrule. The Legend of Zelda: Ocarina of Time, released in 1998, is the first game of the series to include widespread musical education and
performance for the main character known as Link.¹ By playing an ocarina, Link learns thirteen short tunes, some of which unlock restricted areas whereas other tunes create a change in the environment. Some of the music is optional and some of the ocarina music is crucial to achieve the main goals of saving the world and completing the game. Music is also equally important in the completion of *The Legend of Zelda: The Wind Waker*, released in 2002. In this game, Link uses a baton to conduct the different types of wind, as well as specific individuals to create a duet that reflects a greater sense of teamwork beyond just the music. Both types of music are necessary to the completion of the game and ultimately help to save the world at large.

**Thesis Overview**

In the following chapters, I will explore the musical worlds in both *The Legend of Zelda: Ocarina of Time* and *The Legend of Zelda: The Wind Waker*. Chapter 2 includes an introduction to the *Legend of Zelda* franchise, as well as reviews of the current literature on video game music. Particular attention is given to identifying scholarship on the music within *The Legend of Zelda* games, and the primary composer, Koji Kondo, is recognized for his efforts to the entire series. The second chapter also includes a brief explanation of Snyder’s main points in his work, *Music and Memory: An Introduction.*² Chapter 3 is entirely focused on *The Legend of Zelda: Ocarina of Time*, and the thirteen tunes therein. Each musical work is identified and analyzed according to Snyder’s terminology. The same process is repeated in Chapter 4 with the six tunes of *The Legend of Zelda: The Wind Waker*. I conclude in the final chapter with some summarizing thoughts, while also providing some future research questions.

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¹ The player is allowed to name the main character anything they choose, and the game world refers to the character by this name. For the sake of clarity, all references to the character within the game will be referred to as Link, in due respect to the original source material. It should be assumed that any reference to Link should be read as “Link, and thereby the player.” Any references in the text to the player directly will be reserved for situations dealing with the game controller, the start menus, and other features outside of the game world itself.

² I will only be focusing on Snyder’s memory terms and cues, without discussing the physiological aspects of memory.
CHAPTER II. LITERATURE REVIEW

Electronic Gaming

Electronic games have boomed in popularity since their emergence in the late twentieth century. One 2008 study shows that seventy-two percent of people in the United States play some kind of electronic games. While games and applications for cell phones have become quite popular today, several reincarnations of video games have emerged. At first, arcade video games, such as Pac-Man or Donkey Kong, emerged in public locations. By 1980, game makers had started producing home video game systems. This typically consisted of a small electronic device that could be hooked up with the television set. The TV would display the audio and visual, while the player could interact with the game by a specialized controller. One of the most prominent video game manufacturers is Nintendo, who virtually dominated the video game market in the 1980s, and has continued to succeed even today. The successful release of Donkey Kong in 1981 gave game designer Sigeru Miyamoto and his team the future task “to come up with the most imaginative games ever.” This challenge led to the creation of the iconic Italian plumber known as Mario, who is part of the Super Mario Brothers video game series. The Super Mario Bros. franchise is the single most-popular video game series for Nintendo, resulting in a whopping 171 games that have been released to date. Another series created by Miyamoto and his team, one that is often mentioned equally with the Mario franchise, is The Legend of Zelda.

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The story of The Legend of Zelda is fairly traditional in many regards, with a young hero battling evil in his quest to save the princess. The original premise for The Legend of Zelda franchise is based on the magic of the Triforce, a set of three golden triangles (See Figure 1).

Fig. 1 Triforce

The Triforce is divided into three smaller Triforces that are imbued with a specific essence by the goddesses. The Triforces of Wisdom, Courage and Power create the full Triforce, a magical source capable of great change in the world of Hyrule. The evil villain named Ganon has seized the Triforce of Power, using it to put the land of Hyrule into chaos with his monsters. In order to protect her kingdom from utter destruction, the Princess Zelda breaks the Triforce of Wisdom into eight pieces, which she hides in eight dungeons. Upon her subsequent kidnapping by Ganon, a young lad dressed in green is left to restore peace to Hyrule, rebuild the Triforce of Wisdom, and rescue the princess. This youth’s name is Link. The battle of the good Zelda and Link against the evil Ganon is one that occurs for generations, each time with subsequent revival of Ganon and his power, often with the assistance of the demon thief Ganondorf. It is said that whomsoever lays hands on the Triforce holds the power to change the world forever. If one of

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good and pure intentions holds the Triforce, then Hyrule will exist in peace and harmony. But if
one with evil intentions, such as that of Ganondorf, then the world will fall into chaos and
destruction.

The Legend of Zelda: Ocarina of Time

The Legend of Zelda: Ocarina of Time is the first game in the Zelda franchise to
prominently feature music-making as an integral game component and remains the game with
the most tunes to learn, thirteen to be precise for the ocarina.\(^7\) The game was released in 1998 for
Nintendo’s newest home video game system, the Nintendo 64. The fifth game of the Zelda
franchise, and the first to use 3D graphics, Ocarina of Time allows players to travel between the
past and the future, embodying the main character Link as both a child and as an adult, in order
to defeat the evil thief Ganondorf and save the land of Hyrule and Princess Zelda. The
underscore of the game is nearly always audible, with its tonal melodies and broad
instrumentation. Themes are primarily associated with location, with one theme fading out and a
new theme for the new location becoming audible. Most of the melodies on the ocarina are in D
minor, reflective of the apocalyptic world in which Adult Link lives.

The Legend of Zelda: The Wind Waker\(^8\)

Wind Waker is quite different in tone than Ocarina of Time. Rather than being dire and
dark, Wind Waker remains primarily upbeat and whimsical. The underscore is tonal and with
broad instrumentation. It is also based on location, with various themes fading in and
overlapping with one another, as discussed by music theorist Elizabeth Medina-Gray, which will
be addressed in the next section of this thesis. The light-hearted tone is also reflected musically

\(^7\) To avoid confusion, the game title will subsequently be shortened to Ocarina of Time.
\(^8\) Hereafter, the game title as The Legend of Zelda: The Wind Waker will subsequently be shortened to Wind Waker.
This is not to be confused with the Wind Waker (which is not italicized), used in direct reference to the instrument itself.
by the D major melodies performed by Link. Rather than have Link use a musical instrument, he is presented with a baton that functions as if it were one. When Link conducts, he chooses the time signature from 3/4, 4/4, or 6/4 time, each of which comes with its own tempo and set of notes. The music occurs from an invisible, heavenly wordless choir, who follows Link so precisely as if he were playing the notes directly. But the choir is not the only musical element heard, as two musicians, Medli and Makar, are at first unaware of their role. Their music, which is performed on a lyre and a violin, respectively, has great importance to help save the world from evil forces by offering up musical prayers to the gods.

**Video Game Music Scholarship**

In the last 20 years, video game studies has become prominent within popular culture studies. Analysis of video game elements have been discussed in fields such as visual art, technology, philosophy, and psychology. The music of video games has also become a slow but growing area of focus for music scholars. Extensive emphasis has been placed on music-performance video games such as *Guitar Hero* or *Rock Band*, including articles by ethnomusicologist Kiri Miller, music theater professor David Roesner, and communications professor Jacob Smith. Several foundational texts for the study of video game audio have been written by Karen Collins. Collins holds the Canada Research Chair position in Interactive Audio at the Games Institute at the University of Waterloo, an organization dedicated to the

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multidisciplinary study of games.\textsuperscript{11} Her work includes such titles as \textit{Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design} in 2008 and \textit{Playing with Sound: A Theory of Interacting with Sound and Music in Video Games} in 2013.\textsuperscript{12} In her latter text, she briefly mentions several online games that have an element of musical performance, but she makes no connection to the plot of the game and the purpose and function of the music-making, as will be done with two \textit{Legend of Zelda} games within this thesis.

More recently, musicologist William Cheng released his own publication on the subject in 2014 with the title \textit{Sound Play: Video Games and the Musical Imagination}, in which he discusses the audio within several different video games, without any mention of \textit{The Legend of Zelda}.\textsuperscript{13} There are certainly many publications that have emerged since the turn of the century regarding video game music, most often as articles and essays in a larger collection.\textsuperscript{14} Adding to this particular discussion are the articles relating specifically to \textit{The Legend of Zelda} franchise, which includes publications by music theorist Elizabeth Medina-Gray where she focuses particularly on the idea of modular smoothness of the music, especially in \textit{The Wind Waker}.\textsuperscript{15} In her work, Medina-Gray identifies and analyzes the smoothness or disjunction of how different themes overlap with one another. I will not be using her study within this thesis, as my primary focus is on the baton music, which drowns out all other music when performed. \textit{Ocarina of Time} has also been

discussed at length in two books of the three book series *Well Played: Video Games, Value and Meaning*, edited by interactive media professor Drew Davidson. While the game is discussed in detail, the musical peculiarities of the game are only briefly mentioned.\(^\text{16}\) Perhaps one of the articles most relevant to this thesis is by music theorist Jason Brame. In his article “Thematic Unity Across a Video Game Series,” he analyzes the overworld theme (essentially the main theme of the game) as it appears in various manifestations across the game series.\(^\text{17}\) I will expand upon Brame’s work by focusing on the memory of the music with the two games I am exploring. Communications and English scholar Zachary Whalen has briefly explored the music of *Ocarina of Time* in his thesis, “Play Along: Video Game Music as Metaphor and Metonymy,” and my thesis will expand his research to include all of the ocarina music and by examining and analyzing how musical memory plays a role in both games.

**Bob Snyder – *Music and Memory: An Introduction***

Composer and video artist Bob Snyder is currently a professor at the School of the Art Institute of Chicago, within their Sound Program. He has had numerous exhibitions and screenings across the United States and in Brazil.\(^\text{18}\) *Music and Memory: An Introduction*, published in 2000, remains his only major publication to date. The book was originally written for his own composition course, “Mind and Brain” at SAIC. The nature of the course and the school itself is offered for untrained musicians, and Snyder’s text effectively explains concepts in both music and memory studies. The accessibility yet relevance of the text is a large reason for its application within this thesis. Snyder provides basic information about the relationship


between music and cognitive studies in memory, providing an overview of prominent theories in
music cognition, cognitive psychology, and cognitive linguistics.\textsuperscript{19} Professor of psychology
Roger Chaffin notes in his review of Snyder’s book that any gaps of information, such as
discussions of emotions and music performance, are reflective of the gaps of research in the field
at large.\textsuperscript{20} Indeed, music and memory studies have been primarily focused on personal musical
memory and dementia studies or in collective memory studies that are sociological and
generational in nature, where the memories of music focus on particular genres or eras. For
example, there is a large amount of scholarship similar to articles like “Music as a Memory
Enhancer: Differences between Healthy Older Adults and Patients with Alzheimer’s Disease”
(2012).\textsuperscript{21} This article is quite similar in nature to “Self-Regulation and Working Memory in
Musical Performers” (2015), as both articles demonstrate a psychological experiment regarding
the relationship between music and memory.\textsuperscript{22} In most cases, music is often understood as an aid
to memory, rather than a cue all its own, as will be considered in this thesis. Furthermore,
memory is conspicuously absent in researcher Henkjan Honing’s 2009 book, \textit{Musical
Cognition}.\textsuperscript{23} I surmise that the lack of recent scholarship on musical memory as its own field of
study is suggestive that Snyder’s text is still relevant today, for further research has yet to be
done in this particular area of study.

I will primarily be using Snyder’s cognitive memory model from his text without using
his discussion of musical concepts, which, as identified previously, are primarily used by non-
trained musicians. Furthermore, he explores the physiological processes of memory, an area

\footnotesize{\textsuperscript{19} Bob Snyder, \textit{Music and Memory: An Introduction}, xv-xvi.\
\textsuperscript{21} Rebecca G. Deason, Nicholas R. Simmons-Stern, Brandon A. Ally, Bruno S. Frustace, and Andrew E. Budson,
“Music as a Memory Enhancer: Differences Between Healthy Older Adults and Patients with Alzheimer’s Disease,”
\textit{Psychomusicology: Music, Mind & Brain} 22, no. 2 (2012): 175-9.\
\textsuperscript{22} Cynthia M. Killough, Laura A. Thompson, and Gin Morgan, “Self-Regulation and Working Memory in Musical
which will not be discussed within this research. Snyder also admits in his postscript that his text does not have any real musical contexts, meaning that he does not apply any specific music to his theoretical diagram. In this way, my thesis will provide the context of The Legend of Zelda series for the application of Snyder’s writing. In this thesis, I will identify Snyder’s three-part model of memory, while also identifying the three cues for memories. Each of the memories will be discussed in a general sense, without concern about different types of sensory memories. Within this thesis, I will not differentiate between these types of memories because of the fluidity of sensory memories across the body. For example, the memories associated with the games are audiovisual in nature, and the process of making music can be considered as a series of kinesthetic memories. These classifications thereby prevent the clear distinction between separate sensory memories, and thus will be considered equally within my thesis.

Snyder describes a three-part model of memory, which can effectively correlate with musical structure and form. The memory processes are as follows: 1) Echoic memory and early processing; 2) Short-term memory; and 3) Long-term memory. While Snyder lists each part in a given order, he notes that each part is not completely independent from one another, as short-term and long-term memory are in constant exchange with each other.

The first part of his model is echoic memory and early processing, in which information exists as “raw, continuous sensory data.” This information lasts long enough to be processed into a long-term memory, decaying in less than a second, on average. Musical echoic memories may be the first occurrence of a tune, either audibly or visually. Any new information that is

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24 *Music and Memory*, 243.
25 Snyder maintains that each part of the model is a process, not a precise place (see page xviii), and may occur simultaneously or otherwise overlap in time. Thus, future understandings within this text of each type of memory should be regarded as processes rather than as existing in a specific location.
26 *Music and Memory*, 3.
27 Ibid., 4-5.
28 Ibid.
received exists first as a stream of data. Key features of the data are then sorted and organized, activating long-term memory by correlating the information with similar past events.\textsuperscript{29} Most long-term memories exist unconsciously, but when such memories are consciously accessed, then a current short-term memory is created. Short-term memories may last around three to five seconds or longer if they are practiced.\textsuperscript{30} For a musician, a single phrase will certainly occur as a short-term memory, lasting long enough to be repeated back. If a musician is in the process of learning new music, the frequent and continuous repetition of the phrase will create a new short-term memory. Phrasing, or what Snyder calls chunking, is the process of breaking down information into recognizable chunks.\textsuperscript{31} Each chunk exists as one short-term memory.\textsuperscript{32} The process of chunking involves both short-term and long-term memories, the latter of which is the most intricate process within memory.\textsuperscript{33}

Long-term memory is the most complex process of memory, consisting of several distinct steps and types of sub-memories. A long-term memory can last anywhere from a few seconds to over an hour.\textsuperscript{34} Much of long-term memory remains unconscious existing as implicit memories.\textsuperscript{35} According to Snyder, implicit memories have no language component, existing primarily as muscle memories, a concept greatly understood by musicians.\textsuperscript{36} Implicit memories are built with lengthy practice, but then become automatic once they have become established.\textsuperscript{37} A musician knows to take the time to fully engrain the music within the body. This process enables the musician to perform comfortably and smoothly, confident in the secure knowledge of the music.

\textsuperscript{29} Ibid.
\textsuperscript{30} Ibid., 5.
\textsuperscript{31} Ibid., 54.
\textsuperscript{32} Ibid., 55.
\textsuperscript{33} Ibid., 54. It should be noted that the musical memory of gamers who are also trained musicians may differ significantly than other gamers, but this distinction is beyond the scope of this thesis.
\textsuperscript{34} Ibid., 12.
\textsuperscript{35} Ibid., 72.
\textsuperscript{36} Ibid., 73.
\textsuperscript{37} Ibid., 74.
Implicit memories are in contrast to explicit memories, memories related to actual experiences and abstract knowledge. Explicit memories are formed rapidly, but take more conscious effort to retrieve the information. The activation or retrieval of long-term memories can occur both consciously, through personal effort to recollect, or unconsciously through recognition and reminders. The process of recognition, reminding, and recollecting are the three types of memory cues. To recollect a memory is an intentional, conscious process. In contrast, a reminder for a memory is some kind of external event that cues something else. For example, written music serves as a series of reminders for how the music should be performed and sound. Recognition is an environmental event that acts as its own cue. Both recognition and reminders occur constantly in the background of the unconscious mind. The three types of memory cues help to create sets of schemas, sets of memories that establish a norm for how things generally are. For example, the process for Child Link to learn music becomes established as the norm, yet when Link grows up, the musical education for Adult Link forms a new schema. The identification of the three memory cues will be the primary focus for the rest of the thesis with each musical example. I will identify the varying ways that music acts as a recollection, reminder, and recognition cue for the player and game characters, according to Snyder’s terminology. I assert that there is great musical breadth in the Legend of Zelda games, as no tune has exactly the same purpose or

38 Ibid., 75-8.
39 Ibid., 75.
40 Ibid., 5.
41 Ibid., 70.
42 Ibid.
43 Ibid.
44 Ibid.
45 Ibid.
46 Ibid., 95.
the same musical material, yet the music remains prominent and pertinent to the completion of
the game.

**Koji Kondo – Primary Composer for The Legend of Zelda Franchise**

This discussion of memory is a reminder for us to consider the source of the game music:
classically-trained Japanese composer Koji Kondo, whose music permeates all of the games
within the *Zelda* series. Kondo remains a somewhat elusive and unknown figure, often avoiding
the limelight and having no public contact information. He has only given a handful of
interviews over the course of his over thirty-year career, most of which originate from Kondo’s
recognition with a Lifetime Achievement Award for his outstanding contribution to the video
game field. Kondo had first been introduced to video games through the arcade-style games at
Osaka University of Arts, where he graduated from in 1984. At that time, music in video games
had been the responsibility of a game programmer. Despite Kondo’s lack of experience in the
field, he sought employment at Nintendo right after university, when he heard they were looking
for people to write music for their latest home console, the Nintendo Entertainment System. At
that time, the limit for music composition was eight bits of data, so Kondo was constrained to
write what are now known as eight-bit tunes. He remarks in an interview that he finds it
bewildering that these eight-bit tunes are still popular in Japan today, perhaps because of the
newness the younger generations perceive in the tunes, whereas Kondo comments that this music
has been around for quite some time.\(^47\) He was hired by Nintendo in 1984 and has created some
of the most memorable music for video games ever since, including his contribution to the entire
thirty-eight games of the *Legend of Zelda* series. Kondo comments that with the Nintendo 64,
and thus for *Ocarina of Time*, the musical sounds were much closer to real instruments, which he

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\(^{47}\) Bob Mackay, “Super Mario’s Maestro: A Q&A with Nintendo’s Koji Kondo,” *US Gamer*, December, 10, 2014,
http://www.usgamer.net/articles/koji-kondo-interview-nintendo.
took into consideration for the compositions. Kondo uses strings, winds, brass and percussion in both game soundtracks, with the addition of voices in *Wind Waker*. The underscore music ranges in tone and character, but it is always tonal and melodically-focused. I will not discuss the underscore in this thesis, as I will be focusing primarily on the music-making within the two games. Kondo’s compositional style is exemplified by the simple and tuneful melodies in *Ocarina of Time* and *Wind Waker*, music that can be heard consistently and still remain interesting to listeners.

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48 Ibid.
CHAPTER III. MUSICAL MEMORY OF THE PLAYER IN THE LEGEND OF ZELDA: OCARINA OF TIME

In 1998, The Legend of Zelda: Ocarina of Time was released for Nintendo’s newest home video game system, the Nintendo 64. The fifth game of the Zelda franchise, and the first to use 3D graphics, Ocarina of Time allows players to travel between the past and the future, embodying the main character, Link, as both a child and as an adult, the only game in the Zelda series to emphasize the age of the main character. Because of this feature, The Legend of Zelda: Ocarina of Time resides at a key turning point within the game chronology of the Zelda franchise. The characters themselves are said to be descendants of one another, establishing the tradition of each generation for sons to be named “Link,” after the legendary hero named Link, and for daughters to be named after the princess, “Zelda.” As such, the deeds of the generation within Ocarina of Time determines the fate of the future, should they succeed or fail in their quest. If Link is successful in triumphing over evil, then two timelines emerge based on the subsequent actions of both Child Link and Adult Link. If Link is defeated, an alternative timeline emerges that explains the origins of the first games of the Zelda series, The Legend of Zelda and Zelda II: The Adventure of Link.

Ocarina of Time is the first game in the Zelda franchise to prominently feature music-making as an integral game component, in which players use the ocarina frequently throughout the course of the game in order to save Hyrule. When Link travels in time, there are certain items that he is able to use only as a child or only as an adult. Much like the toys of childhood

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49 To avoid confusion, the game title will subsequently be shortened to Ocarina of Time.
51 Ibid., 69.
52 Ibid.
53 Hereafter, all information regarding The Legend of Zelda: Ocarina of Time will originate from the game itself, unless otherwise noted.
are left behind, Link is no longer able to use his Slingshot or Boomerang as an adult. Likewise, Link cannot use the more advanced equipment until he has reached adulthood.

An ocarina is a vessel flute, rather than a tubular flute, that has become standardly tuned with four finger-holes (See Figure 2).\textsuperscript{54}

![Fig. 2 Plastic Ocarina\textsuperscript{55}](image)

With one hole open at a time, a pentatonic scale is formed, but with cross-fingerings and half-covered holes, a full chromatic octave is heard. The game ocarina, on the other hand, is more reminiscent of a sweet potato ocarina because of its characteristic shape.\textsuperscript{56}

![Fig. 3 Ocarina of Time\textsuperscript{57}](image)

This type of flute usually has upwards of ten or twelve holes. Whatever inspired the game ocarina, the instrument remains accessible at any point in Link’s life, one of the very few items

\textsuperscript{56} Ibid.
that he can use as both a child and as an adult. This is the only instrument that Link acquires, while several characters use other kinds of instruments. In some ways, the ocarina is the one remaining link for the character Link between the past and the future.

The opening of the game is vague about the motive of the main character. Link, a young boy dressed in the traditional green of the forest tribe, is sent forth to Hyrule Castle because there is a veil of evil spreading across the land. Thus, armed with a shield and sword, Link sets forth to meet the heir to the throne, the Princess Zelda. Before Link is able to leave the forest, however, he is stopped by his childhood friend, Saria, who has heard of Link’s eminent departure. As a token of her affection, she gives Link a tan Fairy Ocarina. At the moment that Link sees Saria, the underscore of the forest cuts out, and only sounds of animals in the forest can be heard, highlighting the significance of the moment. No longer will the music exist only nondiegetically as background music. Instead, the music is intimately connected with Link’s performance on the Ocarina. Indeed, Saria’s gift comes with the instruction that “When you play my Ocarina, I hope you think of me and come back to the forest to visit.” With this statement, Saria is creating an explicit memory for Link, hoping that he will remember their time together. The Fairy Ocarina, according to Snyder’s definition, serves as a reminder of the forest and their friendship. Ironically, Saria does not teach Link any songs for his new instrument at this time, and he is left on his own to explore the Ocarina.

**Playing the Ocarina**

When Link acquires any item throughout the game, a blue text box appears on the screen telling the player how to use the item (See Figure 4).
These instructions regarding how to use the Ocarina are the same for any item. All items are set to one of three buttons that are part of the © pad that allows Link easy access, forcing the player to choose the top three most essential items to be at hand in the given situation. There are no situations in the game that are crucial to having the Ocarina at hand, and the player is freely able to pause the game and retrieve the Ocarina at will.59 When the game is paused (i.e., the player presses the Start button on the game controller), the game world is temporarily frozen and a set of four screens appear to the player. The screens contain a map of the world, lists of the equipment and items that Link currently has (the latter of which includes the Ocarina), and the “Quest Status” screen. On the bottom left corner of the “Quest Status” screen, there are twelve eighth notes and a four-line staff with a treble clef, all of which seem engraved into the stone-tablet background (See Figure 5).

59 Link does acquire two ocarinas over the course of his life. Saria gives Link the Fairy Ocarina first, but then Link acquires the Ocarina of Time later from Princess Zelda. He is only able to use one instrument at any time, so the Ocarina of Time effectively replaces the Fairy Ocarina for Link. There is no difference in notes, sound or tone, the only difference is in the color of the instrument, with the Fairy Ocarina being tan and the Ocarina of Time being blue. Thus, I will refer to the Ocarina in a general sense, discounting the distinction between the two since there is no significant difference.
The staff corresponds exactly to the traditional five-line staff used today, with only the top line absent. When the player selects the Ocarina from the Item screen, at the push of a single button, Link pulls out the Ocarina and readies himself into playing position, the instrument poised at his lips, his eyes closed. If he resides within a particular location that requires the Ocarina, then the staff appears at the bottom of the screen, accompanied by an audible jingle that indicates the player is on the right track. The player then must recollect and intentionally remember what tune would be most applicable for the situation. For example, if there is mention of the word “time,” it is highly likely that the tune necessary at the moment is the “Song of Time.” The image of Triforce also serves as a cue for the player to recollect the song of the Royal Family, “Zelda’s Lullaby.” There are several instances in which the use of the Ocarina is not as apparent, which will be discussed in more depth later. The player then has a choice of five buttons that sound particular notes, and however long the player holds the button, the note is sounded accordingly. If the button is held exceedingly long, the pitch gradually fades away, as if Link has run out of air. The lowest note is the D4, with the rest of the notes ascending, F4, A4,

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B4, and the highest note, D5, completes the octave. The order of notes corresponds directly to the buttons A, <, >, ˅, and ˄, respectively (See Figure 6). These pitches occur only if the player does not move the joystick while pressing the pitch buttons.

Interestingly, there are more than five pitches available to the player, although these are the only pitches that are used in all of the music for the Ocarina. The limit of five notes is mostly due to the limit of the controller itself. There are five main buttons available for notes and the rest of the controls have different functions, such as pausing the game or moving the player. (See Figure 7).

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To access the other pitches, if the player pushes the joystick forward while pushing the note buttons, the pitches are raised. Forming an octave, the notes form a c#°65 chord with a doubled third, and if the joystick is pushed down, the pitches are lowered to form an a°65 chord with the third doubled (See previously in Figure 6). If the joystick is pushed left or right while notes are pressed, the original notes sound with unusual reverberation. None of the musical sounds requiring the use of the joystick are compatible with the songs that the player learns throughout the game, and remain an interesting, yet useless feature in regards to gameplay. I would interpret the function of the reverberation feature and the additional notes as to more closely resemble a real ocarina, as the additional notes put the range closer to a full octave, and the reverberation could be interpreted as some type of vibrato.

**Link’s Music Teachers**

While there are many individuals that teach Link tunes for the Ocarina, there are three characters in particular that continue to reappear throughout Link’s life. These individuals are Kaepora Gaebora, a wise, talking owl; Navi the fairy, who travels with Link throughout the game, and Sheik, a mysterious man who appears frequently to Link in his adulthood.

Link’s first teacher is a seemingly omniscient owl named Kaepora Gaebora who watches over Link throughout his youth. He appears at specific points during the gameplay with knowledge about what Link has been doing, as well as understanding the controls and screens accessible to the player only. Directly related to the Ocarina, it is the owl who tells the player the trick about playing “a song you know” both when a staff appears and when it does not. It can be assumed that this is one way to guide the player toward tunes that are currently in Link’s repertoire, rather than improvising new melodies. Gaebora gives no further clues about any

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62 Nintendo 64 Controller, photo taken by author.
future music that Link may learn and only says, “There may be other mysterious songs… that you can learn in Hyrule.”

Navi the fairy acts as a guide to Link from the very start of the game. In fact, it is Navi who literally wakes up Link to begin his quest. She also provides Link with a wealth of knowledge throughout his journey. In particular, Navi recognizes information that is accessible and readily apparent in the game world and transmits this knowledge to the player in two particular ways. By using both audible and visual cues, the player receives information regarding Link’s present environment. While Navi primarily remains close to Link, she will sometimes travel toward specific objects or enemies. The player then has the choice of whether or not to listen to what Navi has to say. Navi is depicted on screen as a small ball of light with wings, capable of changing colors at will. For example, when Link targets an enemy in his sight, Navi lights up yellow, and provides information about that particular enemy. Cues that typically involve the ocarina are often indicated by Navi’s change in appearance to the color green, and very much related to a particular location. When Link is standing in the spot indicated by Navi, the necessity of music-making usually becomes clear with the appearance of the staff and an auditory jingle for the player. If the player does not place Link precisely in the indicated spot, the music will not trigger any memory within the game world, and the secret remains closed.

The final teacher that reappears throughout the game is Sheik, a man that Link meets once he has traveled into the future seven years, reaching adulthood. As Link travels across the land visiting temples, Sheik always appears, offering enigmatic statements and a new tune for Link to learn. These tunes, six in total, all help Link to warp directly outside of each temple, which are notoriously at the edge of some extremely difficult landscape. While the temples are not associated with any known religion, each temple does represent a source of physical and
personal growth for Link, who is rewarded for his efforts by receiving a medallion from each of the sages of the temples. In this way, the efforts that Link goes through are reflected by both the medallions and his expanded repertoire. Not much is revealed about Sheik until the very end of the game, despite all of Link’s efforts (through cut-scenes) to reach him, and Navi questions whether or not they should trust him at all. Before Link can ever ask more questions, Sheik disappears without a trace.

Sheik remains the teacher who helps Link with the most tunes. The rest of the tunes are divided entirely between other characters, with one tune per person. All of the characters that assist Link in his musical education also remain important in his quest, for they each have their own unique role to play in helping to save the world.

**The Use of Color as a Memory Cue**

Within the *Zelda* franchise, color is often used to facilitate game play. The player comes to recognize the repetitive associations with particular colors and specific game elements, including region or tribe. More directly, *Ocarina of Time* uses specific colors in association with natural elements. For example, the forest, earth, and water tribes are reflected in association with the colors green, red, and blue, respectively. These three color associations originate from the creation legend of Hyrule, in which three goddesses, associated with the red earth, blue sky, and green plants, worked together to form the world. Similarly, the ancient myth of Hyrule is reflected within the magic of the Ocarina and the music that Link plays.

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63 Any time the word “Zelda” appears, it is a shortened title for *The Legend of Zelda* franchise.

64 While it may be evident that Link would see the colors within the game world, there is no indication within the game world that these colors are significant or repetitive. Therefore, I have used “the player” because the visual colored cues seem only applicable to the player.
The first six songs (in accordance with the “Quest Status” screen) are all represented by gray eighth notes, yet when Link performs any of these songs, something magical occurs (See Figure 8).

![Fig. 8 “Quest Status” Screen (Filled)65](image)

Upon the performance of a song, Link is surrounded by an aura of colored light, punctuated by specific symbols. The symbols and the color relate directly with the song. While the specifics of each song will be discussed later, one example of this association is when Link plays “Epona’s Song,” in which he is surrounded by an orange aura, filled with images of musical notation. “Saria’s Song,” which Link learns in the Sacred Forest, creates a green aura filled with green leaves (See Figure 9).

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The later six tunes that Link learns create a different visual phenomenon. On the “Quest Status” screen, the six tunes (all of which have more musically descriptive titles) are represented with colored eighth notes. The connection of forest and water are reflected again with colors green and blue, respectively. Red now depicts fire, which is closely linked with the earth tribe, as the entire community lives on a volcano. The last three tunes represent light, shadow, and spirit, depicted with the colors yellow, violet, and orange, accordingly. When one of these tunes is performed, Link is not surrounded by a colored aura. Indeed, Link remains unchanged during the performance of the music, but after the conclusion, he vanishes into a series of colored lights corresponding with the tune just played, traveling to the desired location (See Figure 10).

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66 Ibid.
67 Ibid.
Each location, or landing zone as it is, is indicated by a large stone plate in the ground, distinguished with the specific symbol of the temple, which also appears on the colored medallions that Link receives in his travels.

The prominence of visual cues in conjunction with musical memories resounds throughout *Ocarina of Time*. The white text that appears whenever Link is conversing with someone is often punctuated by words appearing in colored text. For instance, red text indicates an interaction that Link should have with something or someone. Once again, when Link is informed of the different temples (each of which has their own corresponding color association), the text changes color accordingly. As mentioned previously, Navi also changes color to distinguish noteworthy features to the player that encourages some kind of specific action.

Learning the Music

The following passages will describe the specifics of each tune, appearing roughly in the order in which Link learns the music, although priority is given first to the tunes that are mandatory to the game play.68 The first four tunes are absolutely necessary for the completion of the game. These tunes are: “Zelda’s Lullaby,” “Saria’s Song,” “Song of Time,” and “Song of Storms.”69 After that, the next three songs are entirely optional to the game play and in fact, take some exploring on the part of the player to even learn the tunes at all. These tunes are “Epona’s Song,” “Sun’s Song,” and the hidden thirteenth song, “Scarecrow Song.” While a few of the songs are first heard from someone singing, these pieces should not be considered in the traditional sense as a sung melodic line with accompaniment. These pieces are ‘songs’ in title only, existing more as short melodies than anything else. The remaining tunes are what can

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68 The tunes may vary in the order they are learned, dependent on the player’s choices. The individual tunes, while named here, will not be discussed in detail until later in this thesis. Instead, I am focusing on the more overarching characteristics of the ocarina music.

69 The titles of each of the musical works is given to the player upon the first performance of the tune, and the “Quest Status” Screen identifies each tune with the corresponding title.
generally be referred to as the “Warp Tunes,” as these pieces exist solely to transport Link near the entrance of the corresponding temple. Ironically, while none of these warp melodies are crucial to the gameplay, Link does learn each of these six tunes naturally as he comes into close proximity with the temple. Each temple is located on the edge of some harsh landscape that is either difficult or impossible for him to traverse on his own. Thus, enabled by the power of each tune, Link is able to more quickly and easily access the temple entrances. The titles of each tune are more musically descriptive, and each reflect a particular characteristic about the given title. The following tunes are grouped as the “Warp Tunes”: “Prelude of Light,” “Minuet of Forest,” “Bolero of Fire,” “Serenade of Water,” “Nocturne of Shadow,” and “Requiem of Spirit” (See Appendix A for a full listing of each musical work). The genre titles, while not reflected musically, are certainly considered in connotation with the given element. This is especially in consideration of the “Bolero of Fire,” a genre often considered as “fiery,” the “Serenade of Water,” a peaceful and calm genre reflective of a pool of water, and the “Nocturne of Shadow,” most certainly connected by associations of “dark” or “night,” with the premise of “shadow.”

Each tune requires the player to use five notes, creating a seventh chord within an octave range (as seen previously in Figure 6). Naturally, the initial hearing and learning of each tune can be regarded as echoic memories, existing within the early processing of memory. The memorization of the music occurs subsequently within both short-term and long-term memories. The correct order of buttons or notes is crucial. If the player presses one wrong button in the sequence, an error buzzer sounds, and Link must start over. On the other hand, tempo and rhythm are not considered important. While each tune has its own particular tempo, the player is not bound by any strict rhythm or pulse. In other words, the player may take as much time as needed to play the correct notes. To assist in the memorization of music, the order of tunes and
the progression of musical skill has been carefully thought out by the game makers. The short repetitive melodies of childhood give way to longer, more varied tunes in adulthood. The gameplay in general increases in difficulty, building on the gradual increased ability of the player as the game progresses. As Link literally grows up, the challenges he faces as an adult are substantially more difficult than the challenges he faces as a child. Likewise, the world itself is dramatically different at both times. While Child Link lives in a world of relative calm and happiness, Adult Link resides in a world of dark destruction, plagued with monsters, causing residents to live in perpetual fear.

The growth from childhood to adulthood is mimicked musically, as the songs Link learns as a child are reminiscent of nursery rhymes in their simplicity as one three-note phrase that is repeated. Many of the songs first occur aurally as background music within the particular area. For example, as Link wanders through the castle in search of Princess Zelda, the player hears “Zelda’s Lullaby” playing in the background, although without the knowledge of the tune’s title.70 “Sun’s Song” is the only song that is aurally inaccessible without performing the tune on the Ocarina. Each song follows the same pattern of one three-note phrase that is repeated, creating a total of six notes. In fact, the first few songs only use the yellow © pad buttons, ignoring the addition of the blue A button entirely. I suspect that the prominence of a three-note phrase is because it is easy to memorize and it creates two even phrases within the melody. These songs reside within a small range, and the musical and physical patterns are sometimes indicative of the song’s purpose. For example, the two songs that cause a literal change in the environment, “Song of Storms” and “Sun’s Song,” both have a large ascending leap, suggestive of a musical plea to the sky above. When in doubt, the player can fall back on muscle memory

70 There is no indication whatsoever that Link can hear the music that is occurring in these areas. There is one exception to this rule with “Saria’s Song,” which will be discussed in-depth later.
for what feels correct or incorrect, relying on the implicit memories stored within the long-term memory. Not only do these songs use an established pattern, but the frequency of their use makes them quite easy for both Child Link and the player to learn (See Appendix B for a transcription of all of the songs).

In contrast, the tunes that Link learns as an adult are substantially harder and longer, with no set pattern, wider intervals, and none of these tunes are aurally accessible at any point in the game. The only time the tunes are even heard is when Link learns the music from Sheik, and any subsequent performances of the tunes. The songs are always limited to one three-note phrase that is repeated, creating a total song of six notes for the Ocarina. The warp tunes, on the other hand, vary from five to eight notes in length, although the average length does remain at six notes. Whereas the physical motion of the buttons was highly suggestive of the childhood song’s significance, there are very few indicators to help the player match the buttons and the tune. The Warp Tunes differ from the songs, which contained phrases indicative of the song title, such as the ascending phrase reflective of forest growth in “Saria’s Song,” or the triangular shape created on the buttons in “Zelda’s Lullaby” to mimic the triangular symbol of the Royal family. The symbolism of the music will be discussed in more depth later in this thesis. None of the music of the Warp Tunes contains any type of visual or physical memory cue, and this problem is exasperated by the fact that the warp tunes are used relatively infrequently, inhibiting the player from quick and easy memorization (See Appendix C for transcriptions of all of the warp tunes). In this way, Link is more easily able to rely on the tunes of his youth and must work harder to memorize the music he learns as an adult.

While Link does learn certain tunes as a child and as an adult, he can play all of the music interchangeably in both manifestations. Thus, Child Link can also warp to any of the temples,
whereas Adult Link can always recollect the music of the forest, among all of the tunes he learned in his youth. The melodies for the songs and the tunes are actually longer than the few notes memorized by the player. After Link plays the designated tune, each melody is finished in a cut-scene by Link. While the player is only required to learn the first six notes for most of the music, the melodies actually continue beyond these short phrases with a few more notes. The music beyond the first notes is played by the game only, and varies in musical material for each tune. Furthermore, Link learns some of the tunes naturally by simply showing up at designated locations. There is no way to avoid learning this music. In contrast, some of the other music is more optional, and thus requires a bit more effort for the player to actively seek out these musical opportunities.

“Zelda’s Lullaby”

The first song that Link learns in his quest occurs after he meets Princess Zelda, a young girl around the same age as our hero. She informs Link that there is an evil man, Ganondorf, who is intent on finding the entrance to the Sacred Realm. In the Sacred Realm there resides the Triforce, a mystical emblem left by the goddesses, and legend states that whoever touches the Triforce and makes a wish shall either bring peace or destruction to the world. Naturally, Ganondorf’s ill intentions would doom the inhabitants of Hyrule, and Princess Zelda needs Link’s help to reach the Sacred Realm first, in order to bring peace and harmony. Zelda then sends Link on a quest to retrieve three Spiritual Stones from the forest, earth, and water tribes, respectively.

During Link’s time in the castle, a particular theme has been playing in the background. As Link goes to leave, he is stopped by Impa, Zelda’s protector, and he is taught “Zelda’s

71 Of course, the word “song” is not present in the title of this tune, yet the premise still remains that “Zelda’s Lullaby” is a song in the same way that all of the other “songs” are considered as such.
Lullaby,” perhaps the single most prominent tune of the game. Indeed, Impa states that, “There is mysterious power in these notes.” The tune itself consists of one three-note phrase that is repeated, extending no farther than an interval of a perfect fourth (See Figure 11).

![Zelda's Lullaby](image1)

Fig. 11 “Zelda’s Lullaby”

Impa demonstrates the melody by whistling the notes. While she whistles, a treble staff appears on screen, with small images of the buttons (presumably representing note heads) that follow along with the audio. After she plays the melody twice, it is Link’s turn, and the player is given watermarks of the notes on the staff (See Figure 12).

![Link's Turn to Play](image2)

Fig. 12 Link’s Turn to Play

The player may take as much time as needed, for speed is not a factor, but accuracy is important, and one wrong note forces Link to start over. Once the player successfully completes the six-note tune, the note-heads flash and a musical indicator sounds. Link then plays the music again in a cut scene, and continues on to finish the full melody. As he does so, he is surrounded by a swirling aura of violet and white waves. Interestingly, “Zelda’s Lullaby” has been the theme

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playing in the background, even as Impa taught Link, existing as an unconscious memory. Once Link begins the music of his own accord in the cut scene, the background music stops, and only Link’s music is audible. “Zelda’s Lullaby” is always heard with the sound of the Ocarina, represented within the game as a characteristic whistling tone.

Impa explains that “Zelda’s Lullaby” is passed down through the Royal Family, and it is only taught to members of the family. For Link to know the tune reflects his role as a messenger of the Royal Family. This fact quite literally opens doors for Link, as both the fire and water tribes refuse to open their doors to anyone, saying, “They will wait for the messenger of the Royal Family.” It is the phrase “Royal Family,” which was previously seen in red text in conversation with Impa that serves as a reminder, to use Snyder’s term, to the player. Any time that the “Royal Family” is mentioned, Link and the player are cued to play “Zelda’s Lullaby.” When the performance occurs at these points, the game world then recognizes the music, a musical indicator sounds, and the door is cued by the music to open. Likewise, the emblem of the Royal Family as the Triforce is also a visual reminder for the player to perform “Zelda’s Lullaby,” enabling various magical events to occur. This may include but is not limited to calling magical fairies or changing the level of water (See Figure 13).

Fig. 13 Song of the Royal Family74

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When the emblem of the Triforce appears, as seen in Figure 13, Link and the player remember the crest and the music of the Royal Family. Finally, the pattern of buttons themselves causes the player to create a triangle shape on the controller, furthering cementing the connection between the Triforce (a symbol consisting of several triangles) and “Zelda’s Lullaby” (See Figure 14).

From the player’s perspective, the connection made to the triangular shape of the Triforce, the emblem of the Royal Family, and triangular shape made on the controller remains invaluable to remembering the notes for “Zelda’s Lullaby.” Rather than having to check time and time again on the “Quest Status” screen for the music, the player automatically knows and feels when the music is correct, relying on the implicit muscle memory that has been established with the continued use of the tune.

“Saria’s Song”

Soon after meeting Princess Zelda, Navi suggests to Link, “What if Saria knew we were saving Hyrule?” While the player may ignore this comment at first, eventually Link does return to the forest, reuniting with his old friend. Other members of the forest tribe tell Link that Saria is in her “secret spot in the Lost Woods.” The highlighting of the words “Lost Woods” sends the player to explore a peculiar area of the forest, a place where following the wrong path sends Link back to the entrance. The key to finding Saria is by following the music, previously heard as

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75 Nintendo 64 Controller, photo taken by author.
background music throughout the whole forest. In the Lost Woods, the musical theme is audibly louder when the player is following the correct path and noticeably *decrescendos* as Link moves away from the intended goal. For the player, the music moves from the unconscious to conscious awareness, as the melody is heard continuously and a short-term memory is created. There are no visual cues to assist at this time, the only indicators are purely auditory. This is the only time that the player and Link are clearly aware of the background music, therefore sharing a common musical memory. By following the music, Link eventually comes upon Saria, who is found playing an ocarina. When Link returns to this space later as an adult, the Lost Woods have forgotten the auditory cues, causing the music to remain at a constant volume. As an adult, Link must now rely on the new appearance of visual cues that literally illuminate the path.

It is unclear whether Saria is the source of the music that Link has been following. When he approaches her, she stops playing and the music fades, yet the audio and visual elements do not line up precisely. The incongruity of the music with the visual image suggests that while Saria may have helped lead Link to her, the music itself is more powerful and magical than one would initially believe. Further indication of the musical source as being something else occurs when Link returns as an adult, when the music occurs at a constant volume throughout the Lost Woods and Saria can no longer be found anywhere. Link has grown up from his initial interaction with Saria (when he received the Fairy Ocarina), which had no musical underscore, to a time where music is prominent, yet his friend is no longer around.

Saria teaches Link her song, using her own ocarina. This is one of the final interactions that the two friends share in person, as children. The next time Link sees his old friend, she remains the same age as ever, while he has matured into an adult.76 “Saria’s Song” is very

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76 Any member of the Forest Tribe does not age, remaining forever as a child. The fact that Link does and can age illustrates his origins as a Hylian, a tribe decimated while Link was still a baby.
simple, consisting of a three-note ascending pattern with the notes F, A, B that is repeated, spanning an interval of a fourth (See Figure 15).

!["Saria's Song"

Fig. 15 “Saria’s Song”

The ascending pattern may symbolize the growth and plant life prominent in the forest. Furthermore, when Link plays “Saria’s Song,” he is surrounded by a green aura filled with green leaves. The song itself enables Link to talk to Saria, no matter where either of them are in the world, which becomes especially important when Saria can no longer be found. She can only be accessed by Link’s musical performance. “Saria’s Song” is also a cue for the game world to recognize Link’s connection to Saria and to the forest in general. Several characters ask Link to play “the music of the forest,” unwilling to help in his quest until he obliges. The game cannot be completed until “Saria’s Song” is played at these key moments. Snyder’s terminology explains this type of situation as an example of a reminder, where the character’s request cues Link to play the correct tune. According to Snyder, a reminder is the environmental event (the character’s request) that is cuing something else, which in this case is Link and the player. By asking for a particular tune, Link and the player are required to sift through their long-term memories to connect the request with “Saria’s Song.” If he is successful in this endeavor, then he is rewarded with access to previously restricted areas or items. But “Saria’s Song” is more than a reminder for Link to play music, it is also a recognition cue. As he continues to travel the world of Hyrule, “Saria’s Song” emerges aurally over the other background music within key locations. In this example, the music is the environmental cue that causes the Link and the player to

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remember the forest. The unconscious cue by the music helps Link to navigate his way back. No matter where he travels in the world, he is always able to recognize his home within the forest tribe.

“Song of Time”

The next song that Link learns might initially be assumed to be quite prominent within the game world. On the contrary, “Song of Time” has very few opportunities to be used within *Ocarina of Time*, yet it does reappear in later manifestations in subsequent games.

Upon the success of gaining all three Spiritual Stones, Link returns to the castle to speak with Zelda. Unfortunately, he is stopped at the gate by the sight of Zelda fleeing with Impa, running away from the evil Ganondorf. When Zelda sees Link, she throws something towards him that falls into the moat nearby. After the danger has passed, Link retrieves the item from the water, revealing the Ocarina of Time, a slightly large blue ocarina with the exact same range and characteristics as the Fairy Ocarina. The Ocarina of Time is described as “the Royal Family’s hidden treasure which Zelda left behind. It glows with a mystical light.” Imbued in the ocarina is a memory message, a recollection, from the princess for Link.

When Link picks up the ocarina, an image of Zelda in the Temple of Time appears, and she explains that she could not wait any longer for his return. She leaves him the gift of the Ocarina of Time, with which she demonstrates the “Song of Time.” While still following the standard three-note phrase that is repeated, the melody is more circular, combining both ascending and descending intervals (See Figure 16).
The melody causes the player to create a circular motion on the controller, perhaps indicative of the natural circle or flow of time (See Figure 17).

“Song of Time” is also the first tune to include the A Button on the controller. When Link performs the tune, he is surrounded by the same aura as when he performs “Zelda’s Lullaby,” although this time the color is blue rather than violet. The link of visual images certainly indicates both tunes as music of the Royal Family.

Although the theme of time remains prominent throughout the game itself, the “Song of Time” is a necessary tune, yet surprisingly limited in its usage. Aside from opening the Door of Time, the only other time that the song is necessary is when Link comes across blue blocks bearing the same symbol as the Door of Time; a visual reminder of “Song of Time” (See Figure 18).

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79 Nintendo 64 Controller, photo taken by author.
Fig. 18 Block of Time

When the “Song of Time” is performed near these blocks, the game world recognizes the melody and the blocks disappear. The blocks may disappear entirely or reappear closer to Link, both of which enable him to reach a previously inaccessible area. “Song of Time” is one of the few tunes that is depicted using all three of Snyder’s cues within long-term memory. Recollection happens for the player when Link is presented with Navi’s cue regarding the Door of Time. The “Song of Time” must be intentionally recollected; the player must consciously remember the tune. The block itself acts as a reminder for Link to perform, and recognition of the idea of “Time” connects many different items, including the Door of Time, the Ocarina of Time, and the “Song of Time.”

“Song of Time” in Another Legend of Zelda Game

Many of the tunes that the player learns in Ocarina of Time return in games released later. The “Song of Time” is most prominently found in Nintendo’s next game for the Nintendo 64, The Legend of Zelda: Majora’s Mask, released in 2000 as the sixth game in the main Zelda series. Majora’s Mask takes place presumably directly after the end of Ocarina of Time, when Link and Zelda have parted as children, and before Link grows up into an adult seven years later.

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Rather than taking place in Hyrule, Link is deceived by the Skull Kid and ends up in the land of Termina, a land strikingly similar in concept and progression to Hyrule in Ocarina of Time. For example, the main town in the center of Termina is Clock Town, with residents who bear a striking resemblance to the residents of Hyrule. Link must also visit the inhabitants of the forest, earth, and water tribes, respectively, in both Hyrule and Termina. The premise of Majora’s Mask is roughly that the world will end in three days, unless Link stops the Skull Kid, an originally benign character who has become involved with evil forces.

The game starts with the Skull Kid stealing Link’s ocarina, which Link retrieves at the end of the three days.81 Unfortunately, there is no more time in order to save the world, yet it is at this moment when Link remembers the “Song of Time.” A flashback appears with the same material from Ocarina of Time where Zelda played Link the song for the last time, and thus teaches the player of Majora’s Mask for the first time. The Ocarina of Time acts as its own recognition cue, causing Link to remember Princess Zelda and the song that they share. I suspect that the reason the “Song of Time” is the single tune that Link remembers is for at least three reasons. First, the Ocarina of Time is one of the objects associated with time, making a natural connection. Secondly, the premise of the game demands a prominent awareness of the finiteness of time. When Link plays the “Song of Time,” he is transported back in time to the start of the three days, allowing Link another 72 hours to save the world.82 And finally, I surmise that the recognition of the “Song of Time,” to use Snyder’s definition, is the cue for the relationship between Link and Zelda. Zelda taught Link the Song of Time, and he was the only character to ever perform the tune. By playing their song, Link carries memories of Zelda with him no matter where he goes, even to the far distant fields of Termina and Clock Town. All Link needs to do is

81 In this game, time is indicated prominently on the game screen with a clock. The day, hour, and whether it is morning or night are all represented continuously on the game screen for the player.
82 In the game, time moves much more quickly. 72 hours within Majora’s Mask equal only a few hours in real time.
play on the Ocarina of Time so that he can instantly recognize and remember Zelda and their
time together.

The rest of the *Majora’s Mask* continues in a cyclical manner. The player attempts to
accomplish as much as they can, inevitably and frequently turning back time. But there is some
help with this challenge. In the beginning of Link’s travels, he stumbles upon a talking scarecrow
who enigmatically speaks of a “special song” that Link knows. It is only later, with the recovery
of the Ocarina of Time, that Link remembers Princess Zelda and the song that they share, the
“Song of Time.” It is revealed that there are two variations on the “Song of Time” that alter the
flow of time (See Figure 19).

![Fig. 19 “Song of Time” Variations](#)

The scarecrow continues to explain that if he plays the song, which is the “Song of
Time,” backwards, then time will slow significantly. This version of the “Song of Time” is
known as the “Inverted Song of Time,” surely based on the standard use of inversion to represent
a series that is backwards from the original. This expanded flow of time allows Link more time
to complete his tasks and save the world. The scarecrow also says that if Link plays the “Song of
Time” “twice as fast,” (i.e., each note of the original phrase is repeated twice), then time will

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move forward quickly, moving ahead to that night or the next morning. This song is the “Song of Double Time,” where each of the first three notes in “Song of Time” is played twice. Each variation of the “Song of Time” represents a reminder for the flow of time to change.

“Song of Storms”

“Song of Storms” is the last tune that is absolutely necessary to the completion of Ocarina of Time. The tunes that follow in the subsequent sections are entirely optional, and require a bit more searching on the part of the player. The “Warp Tunes” can be included as optional. Even though all the “Warp Tunes” are learned naturally as Link travels the world of Hyrule, none of the tunes are utterly crucial to the completion of the game.

“Song of Storms” is a bit confusing in its chronology. The tune is first heard as background music, as all of the previously discussed tunes in Ocarina of Time first appear. The music is heard aurally and even subconsciously at first and later is brought to the forefront when Link is taught the tune on the Ocarina. With “Song of Storms,” Link wanders into a windmill as a child, where a happy gentleman is playing the tune on an unusual instrument (See Figure 20).

![Fig. 20 Windmill Musician](image)

The instrument seems much like a hand-cranked phonograph, with the speaker capable of spinning around according to the speed of the music. When Link speaks to the gentleman, the

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man remarks how much he loves to “go around and around,” very much like how the windmill is in constant motion. The man continues on to explain that he is “trying to come up with a musical theme inspired by this windmill.” Seven years later, Adult Link finds the man still residing in the windmill, although now with a more perturbed disposition. When questioned, he remarks that he “will never forget what happened on that day, seven years ago…” It seems that a child with an Ocarina played a “strange song” seven years ago that altered the rhythm of the windmill, a tune which the man has never forgotten. It is in this way, as an adult, that Link learns “Song of Storms.”

“Song of Storms,” when played on the Ocarina, engulfs Link in a swirling haze of white clouds, punctuated by descending beams from above. As can be assumed, “Song of Storms” does create a temporary rainstorm, complete with thunder and lightning. The tune itself outlines the octave with a minor third in between (D F D) (See Figure 21).

![Fig. 21 “Song of Storms”](image)

This pattern occurs twice for the player, after which Link finishes the tune on his own. The entirely ascending melody suggests an environmental change, as if Link’s music is corresponding directly with the sky above. This feature is affirmed with the later knowledge of “Sun’s Song” (See Figure 22).

![Fig. 22 “Sun’s Song”](image)

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The essential purpose for the “Song of Storms” occurs when Link returns to the past, and revisits the man in the windmill as a child. Thus occurs the moment the man spoke of in which Link teaches him the tune. It is certainly evident that the chronology behind these events is very suspicious and does not line up coherently. Nevertheless, the purpose for returning to the past is to create the change in the windmill, as the man described. When Link finishes playing “Song of Storms” for the man as a child, the windmill has sped up exponentially, causing the well outside to empty. This event allows Link to then enter the dungeon at the bottom of the well and retrieve an item essential to his quest. “Song of Storms” remains a reminder to the game world, in which the music cues the fall of rain and the other effects created by a storm. Through the recognition of both Link and the game world, “Song of Storms” cues a change in the environment, which thereby opens up new passages for Link to traverse.

Optional Songs

The following songs are now considered as entirely optional to the game play. The game may be completed successfully without the knowledge of the following tunes. This includes: “Epona’s Song,” “Sun’s Song,” and the hidden “Scarecrow Song.” Similar to the tunes discussed previously, “Epona’s Song” is heard first aurally. In the middle of Hyrule Field, the most central region of Hyrule and the connecting area to all other areas, a large complex resides. This complex is Lon Lon ranch, home to many cows and horses. When Link visits the Ranch as a child, he converses with Malon, the owner’s daughter. She has been standing in the middle of the horse pen singing a song that she later explains was taught to her by her mother. When Link pulls out his Ocarina, she asks him to play with her. It is in this way that Link learns “Epona’s Song,” a tune consisting of one descending phrase, repeated (See Figure 23).

The tune creates an orange aura around Link, filled with floating images of staves and eighth notes. When Link and Malon are finished playing, a pony has meandered over to Link, as if enchanted by the music. This young horse is Epona, who becomes the close companion of Link. When Link returns to the Ranch as an adult, “Epona’s Song” serves as Link’s recognition cue to Epona, reflective of their friendship from so many years ago. After a brief kerfuffle with the new management at the Ranch, Link wins ownership of Epona, who can then be called from anywhere in Hyrule Field, giving Link a swifter means of transportation.

“Sun’s Song” is another tune that requires more exploration on the part of Link. When wandering through the Graveyard, Link comes across the largest headstone, indicating the tomb of the Royal Family. Next to the headstone are two smaller markers, indicating the resting place of the Royal Court Composers, Sharp the Elder and Flat the Younger. When Link performs “Zelda’s Lullaby” near the headstone (the precise space of which is indicated by an image of the Triforce), an entrance opens, giving Link access to the tomb itself. At the end of the tomb, scrawled on the wall is a poem discussing the transition between night and day and a single three-note musical phrase. When performed twice on the Ocarina, this ascending phrase is “Sun’s Song” (See Figure 24).

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88 It is not clear at what age Link is intended to learn “Sun’s Song.” During the author’s gameplay, the song was learned when Link was an adult, yet the accessibility of the location could be accessed while Link is still a child.
89 The visual cue takes Link through the traditional process of hearing the tune twice, and then giving him the opportunity to play it once, over the watermarks of the notes.
The song itself is not aurally accessible at any point in the game world, until Link performs the music. With the musical performance, Link is bathed in the yellow sunlight directly above his head, and the entire game world transitions from day to night, or vice versa. Once again, the visual image and melodic ascension of the notes mimics the environmental change, strikingly similar to the characteristics of “Song of Storms,” both songs which are learned in the same region of Hyrule. “Sun’s Song” also helps Link on his quest by temporarily paralyzing more difficult creatures, monsters similar to zombies and mummies. In this case, the music is used as a reminder for a change in the weather of the game world or by freezing the dangerous enemies.

“Scarecrow Song”

Known by the Zelda community as “The Hidden Thirteenth Song,” “Scarecrow Song” is not visible on the Quest Status Screen and may remain hidden from less exploratory players. This feature is likely because of the nature of the song itself, that is, “Scarecrow Song” is the only entirely improvised tune, created completely by the player.

If Link is a particularly curious child and explores near the lake, he stumbles upon two scarecrows, Pierre and Bonooru. Pierre introduces himself as “the wandering scarecrow,” who is unfortunately stuck in his current location. When Link shows him the Ocarina, Pierre becomes quite excited, and asks to hear a “nice song.” Link is then able to improvise a tune of any length using the notes he has been given on the controller. The longer the tune, the more ecstatic Pierre

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becomes, dancing and spinning more and more wildly. When Link finishes playing, Pierre says, “Fantastic tune! It touches my heart!” The music reappears on the screen, notably with the exact same tempo and rhythm that was just performed, exactly demonstrating Link’s musicianship, however competent. This process can be repeated endlessly, with Pierre remembering the most recent version of Link’s tune.

On the other hand, Bonooru is the self-proclaimed “scarecrow musical genius,” who never forgets a tune after he has heard it once. While he will not remember any of the other tunes that Link has learned, he will remember any improvised tune, cutting the melody off at the maximum of eight notes. When Link speaks to Bonooru again, he replays Link’s last tune, all while dancing. Link is able to replace the tune with a new melody as he wishes. The musical recognition of the scarecrow helps Link to replay his own melody at specific points in the world, enabling him to access new areas. Giving the player the opportunity to compose signifies a large leap in the maturity and skill of both Link and the player. Link cannot access the scarecrows right away, forcing him to learn several tunes before their encounter. By creating this order, the game makers encourage Link and the player to get used to using the Ocarina, before allowing complete freedom to make a new song. Furthermore, if several songs have been learned prior to the composition of “Scarecrow’s Song,” then Link will have seen and heard the standard pattern for the songs (one three-note phrase that is repeated). The player then has the choice to create a song that is similar in form, or to choose something entirely different. Whatever choice the player makes is ultimately one that will have consequences, for if the song composed is long and complicated, then it will be the fault of the player for any struggles that may occur trying to recollect the tune, to use Snyder’s term. In this way, the player experiences being both the cause
for the music (creating the tune) and feels the effect of the choices made (e.g. if the tune is hard or easy to memorize).

“Warp Tunes”

The following six tunes all fall under the category as “Warp Tunes,” music that enables Link to warp to designated locations across the world of Hyrule. While the tunes themselves are vastly different and significantly more challenging to remember, there are some similarities between each tune. Link learns each tune from Sheik as he arrives near the entrance of each temple as an adult. Sheik then offers some vague commentary about Link’s quest, often reflecting what seems to be very nostalgically on their relationship. After his musing, Sheik pulls out his lyre, teaching Link the tune associated with the particular temple. These tunes are never heard in the game world except when they are being performed by Sheik and/or Link, and in one instance is heard with an additional invisible instrument, as is the case with the “Bolero of Fire.” When the player is reminded of the melody of each tune on the Quest Screen, only the ocarina sounds, yet in the actual performance of the music, other instruments can be heard, often in some kind of connection to the location or musical references. Thus, the sounding instruments are a subtle reminder of the desired location, as they become associated by the player with the specific temple. When the tune concludes, Link is carried away to the location by a series of bright lights, tinged with the particular color associated with each temple. Each tune corresponds with a particular color, both on the Quest Screen and in practice when Link is transported to the location. Color thus becomes a recognition cue for the player to identify and discriminate between each tune and the associated location. By the nature of the “Warp Tunes,” Snyder’s terminology describes these works as reminders for the game world to transport Link.

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92 To warp in the game is the ability to instantly travel between two different places in the game world.
The titles of each of the “Warp Tunes” are also quite evocative of the regional source. Rather than call each tune a “song,” each “Warp Tune” is given a peculiar musical title. In general, the order each tune is learned occurs as follows: Prelude, Minuet, Bolero, Serenade, Requiem, and Nocturne (See Figure 25).

While not creating any kind of standard musical pattern, there are specific musical indicators reflective of the given title. For example, the minuet has a strong triple meter, whereas the nocturne places strong emphasis on the minor triad. The musical peculiarities help Link to recognize the specific tunes, to refer back to Snyder’s terminology. With the minuet, it makes musical sense for there to be two phrases of three notes each, in keeping with the triple meter.

The minor triad with the nocturne helps identify the music as “dark.” Both of these examples are just a couple of ways that the music itself acts as its own recognition cue. Each “Warp Tune” has a given tempo, but just like the childhood songs, tempo or rhythm are not considered in Link’s performance. By recognizing the unique characteristics of each tune, the music is more easily remembered in consideration with the location. Certainly preconceived musical ideas of each location affect players, and Kondo has carefully considered these cultural connotations, creating music that suits each element and the culture of the tribe therein. The “Bolero of Fire” is especially noteworthy, for when Link performs the tune, a snare drum is audible, playing the same rhythm as heard constantly in Maurice Ravel’s *Bolero* (1928), a work that composer Koji Kondo had hoped to use as the inspiration for the overworld theme of a previous Zelda game.\(^9^4\)

**Conclusion**

Overall, the music within *Ocarina of Time* is surprisingly pervasive and complex. Snyder’s model helps to identify the wide variety of ways that music is used and remembered through the game. Music-making occurs in many forms, both essential to the completion of the game, as well as part of fun side-quests for the player to explore. The music itself has many different characteristics, as each tune causes a different magical event. All of the pieces have some kind of visual image associated with the music, either in the form of an aura like with “Saria’s Song”, or as colored lights with all of the Warp Tunes. The tunes found in *The Legend of Zelda: Ocarina of Time* remain legendary within the franchise, causing every subsequent *Zelda* game to contain some type of music-making.

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CHAPTER IV. MUSICAL MEMORY OF THE CHARACTERS IN THE LEGEND OF
ZELDA: THE WIND WAKER

In December 2002, The Legend of Zelda: The Wind Waker was released for the Nintendo
GameCube in the United States. As the tenth game in the main series, the design of The Wind
Waker was radically different than the previous games. Rather than continue to move towards
more life-like characters, the game designers opted to use cel shading in order to create more
vivid facial movements for the characters. While Ocarina of Time was praised for the more
realistic characters, the graphics of Wind Waker seemed to take an entirely different direction
with the 3-D graphics that are made to look more like 2-D drawings, i.e. more cartoon-like. The
tone of The Wind Waker while dramatic is more light-hearted in general, emphasized by the
cartoonish appearance of the characters. The other major change that the newly released game
provided for players is an island-based world that requires Link to traverse the world by boating.

Game Legend

The concluding events from Ocarina of Time remain at a pivotal moment in Zelda
history, and they are especially pertinent for the origins of the world in Wind Waker. If
Ganondorf and his power are sealed by Princess Zelda, then travel through time ceases after
Ocarina of Time. Unfortunately, Ganondorf is resurrected and comes back to threaten Hyrule.
With no hope in sight, the gods choose to sink Hyrule to the bottom of the sea, allowing a few
inhabitants to flee to the highest mountains. Generations go by and Ganondorf continues his
rise to power. He begins to seek Princess Zelda, the descendant of the Royal Family of Hyrule.

95 Unless otherwise noted, all of the information on The Legend of Zelda: The Wind Waker will be coming from
96 Hyrule Historia, 69.
97 Ibid., 122.
98 Ibid., 123.
99 Ibid., 124.
The only clue to finding her is that she has unusually long ears, and so several girls who
unfortunately possess this same feature are kidnapped, including Link’s sister (See Figure 26).

![Princess Zelda](image)

This event is what spurs Link to leave his quiet home: his goal to save his sister, no matter the
cost. Unfortunately, he fails in his first rescue attempt, and ends up being thrown out to sea to
drown. Before Link meets his untimely fate, he is rescued by a vibrant red boat whose bow is
that of a lion’s head, and thus he is known as the King of Red Lions.

**King of Red Lions and Receiving the Wind Waker**

The King of Red Lions is no ordinary boat and as he introduces himself to Link, he is
most likely the only talking boat in the world. He is also one of the few characters with
omniscient knowledge about Link’s travels, while also recognizing controls and features
exclusive to the player. The King of Red Lions is traveling across the sea, seeking someone
capable of defeating Ganondorf. Upon seeing Link’s determination to accomplish this very task,
the King tells him that in order to save his sister, he must acquire three magical pearls, carefully
guarded by three guardian spirits on three islands. After setting foot on the first island, Link is

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given the Wind Waker, which he is told “allows him to borrow the power of the gods.” (See Figure 27).

According to the Hyrule Historia, a detailed chronology of the main Zelda games, the Wind Waker is passed down by each generation within the Royal family. As stated in the text, “In ancient times, the Wind Waker was a baton used to play songs that served as prayers to the gods.” The Wind Waker is more like a conductor’s baton in the way it is used and that it creates music from an external source. In fact, at symphony orchestra performances of The Legend of Zelda music, conductor Eimear Noone uses her own Wind Waker to conduct. In this manner, the music is transferred from the game world and made concrete in the real world. The game play is thus replicated in real life by the conductor, who becomes a living, breathing embodiment of the Wind Waker. No longer does the music remain on the screen, the Wind Waker is brought to life.

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102 Hyrule Historia, 125.
Unlike a traditional conductor, Link conducts different notes rather than indicating a specific beat pattern. The music itself is sounded by an invisible wordless choir or by specific individuals that have asked Link to conduct them. In this way, the individual learns the music that Link conducts for the first time, creating short-term memories for the game characters. This process can also be reversed, with Link learning music based on the movements of particular characters.

**Using the Wind Waker**

The particular pitches that Link conducts are dependent on what beat pattern is being used, either 3/4, 4/4, or 6/4 time. As in *Ocarina of Time*, the player can pause at will and bring out the Wind Waker. When selected, a screen appears and Link gets ready to conduct, his arms forward and the baton in his left hand. The time is very strict, kept for the player by a moving yellow light at the top of the screen. Three circles indicate the amount of time for the light to move from one beat to another. The yellow light flashes red as it reaches the middle circle, for that is where the beat falls. Similar to a stand metronome as the stick passes the center, the beat occurs. 3/4 time occurs when the joystick is not pressed, and the pulse is kept indefinitely, waiting for the player to choose the notes. Notes can be selected from a set of five, indicated by the yellow joystick which can be moved up, down, left, right or remain in the center. The joystick must be in place by the time the light turns red for the note to sound correctly and the proper performance of the tune. For a 3/4 pattern, the sounded notes are F#4, A4, B4, C5, and D5 (See Figure 28).
4/4 time contains the notes F#4, A4, B4, C5, and D5 when the joystick held to the left. 6/4 time occurs with joystick held to the right with the notes A4, D5 E5, F#5, A5. If the joystick is held directly up or down, the volume of the music changes, with Link’s right hand moving above his head to designate louder, or down near his waist to indicate a softer dynamic. If his right hand moves from center to right to left, then the pulse changes from 3/4 to 4/4 to 6/4 accordingly. These dynamics occur for each of the diagonals as well, so if the player wants a soft 4/4 time, then the joystick is held down and to the left. Of the six tunes that Link learns over the course of the game, two are in each of the three time signatures, which range from approximately 65 beats per minute in 3/4 time to 86 beats per minute in 6/4 time.

Learning the Music

Link learns each tune in one of two ways. He can either come across an engraving on a stone tablet or he can learn the music directly from a person’s motions. The musical notation is comprised of a series of arrows point up, down, left, right, or a dot representing the center. Each

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note is performed by moving the yellow joystick in the desired direction. As such, the musical line is represented visually by the arrows on several stone tablets. When Link comes across a tablet in his travels, a musical indicator occurs when the player selects the Wind Waker. As Link holds out the baton, the tune is heard twice, with faded watermarks of the musical notes appearing at the bottom of the screen for the player. As each note becomes audible, the notes are filled in with color on the screen. After hearing the tune twice, the player (and thereby Link) has an opportunity to try performing the tune, the music itself coming from either a gong-like instrument (the corresponding sound of the metronome) or the invisible and heavenly choir. As the player moves the joystick correctly in the given time signature, the music notes brighten with color.

Fig. 29 Conducting with the Wind Waker\textsuperscript{105}

Similar to \textit{Ocarina of Time}, the “Quest Status” Screen is of great musical significance for the player when the game is paused. When the player presses the \textit{Start} button, a screen appears that reflects Link’s repertoire of tunes, now represented by several colored images of the Wind Waker (See Figure 30).

\textsuperscript{105} Nintendo, \textit{The Legend of Zelda: The Wind Waker}, Nintendo GameCube, 2002.
As more music is learned, the more images appear, slowly filling in the designated section. The baton-shape is color-coordinated for each tune, except for the distinction of the final two tunes that Link learns, “Earth God’s Lyric” and “Wind God’s Aria.” These tunes are represented by the colored image of two different instruments, a distinctive lyre and a leaf-shaped violin. This distinction occurs because rather than a choir performing, the given instrument is the primary source for sound. The “Quest Status” Screen allows the player to practice any tune endlessly by hearing it once, with the corresponding notes appearing, and then playing the tune over the watermark image as many times as is wished.

**Musical Characteristics**

The following passages will describe the circumstances and purpose of each tune, for a total repertoire of six tunes. While not nearly as expansive as *Ocarina of Time*, each tune is performed regularly, beginning with the first tune learned, “Wind’s Requiem.” The frequency of the Requiem is only rivaled by the second tune, “Command Melody.” Both tunes reflect the dichotomy that will be explored in depth in the following passages. In short, “Wind’s Requiem” changes the direction of the wind in order to fill the sail of the main character’s boat as he

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traverses the world. The “Command Melody” allows specific statues or people to become possessed, capable of moving and acting in ways that are otherwise impossible. Thus, I will characterize the different tunes as acting on nature or acting on people, and both categories have three tunes each, and will be discussed in most commonly learned order during the gameplay. Only one tune, “Song of Passing,” is considered as part of a side-quest. The rest of the music is absolutely essential to the completion of the game (See Appendix D for transcriptions of all of the music in *Wind Waker*).

The musical titles are quite descriptive, using genres such as requiem, aria, lyric, and song. There is no musical indication suggestive of any of these particular titles, with perhaps the exception of “Command Melody” as a simple melody. Also unlike *Ocarina of Time*, the music that Link learns to conduct in *The Wind Waker* is not audible at any other point in the game. The music only occurs when he conducts. The only exception to this is “Wind God’s Aria,” which is audible on the title screen in the opening of the game. The instrumentation, however, is different than that within the game world, as the opening tune can be heard as a wind instrument. Within the game play, Link meets the character who performs “Wind God’s Aria” on a violin. This is the only example of aural accessibility within *The Wind Waker*, although this instance is debatable as the title screen may be considered as external to the game world itself.

Despite the aural inaccessibility of the Wind Waker tunes, each occurrence of the music can be considered as an echoic memory, lasting a few seconds before being stored in the unconscious long-term memory. Since most of the music is comprised of only three or four notes, these tunes are more easily remembered in their entirety rather than breaking them down into smaller chunks. The six-note tunes are easily broken up into two distinct three-note phrases, and both tunes start with a repeated note, limiting the amount of musical material to be
memorized. Each musical work fits within one measure of the established time signature, yet no matter the length of the tune, each piece ends with a very audible harmonized cadence, giving the player audible closure every time.

Any time that Link and the player are trying to remember the correct tune to perform, this is an act of recollection. Once again, the implicit muscle memory of the player is a helpful technique to fall back on, when the conscious mind is unable to access the specific musical memory. As it is natural with a conductor’s baton, the precise tempo is extremely important to the musical performances. Each note must be in place (i.e. the joystick must be in the proper position) by each passing of the yellow light through the center of the metronome image, thus ensuring that each note sounds precisely on the beat. The music becomes more and more complex as the gameplay continues, reflecting the natural progression of skill that Link acquires over the course of his journey.

“Wind’s Requiem”

After Link successfully retrieves the sacred pearl on Dragon Roost Island, he must travel south. Unfortunately, the wind is not blowing to the south, preventing the King of Red Lions from traveling in the desired direction. Link is given the hint to “use the Wind God’s wind” and directed towards a small shrine nearby. In the shrine, there are two stone tablets, one destroyed, and one perfectly intact with “markings that indicate specific directions.” Upon closer inspection, the markings are up, left, right, corresponding in 3/4 time with the pitches C5, F#4, A4 (See Figure 31).
The significance of the diminished chord could be a reference to the title as a “requiem,” typically associated with funerals and death. A major triad would not typically be heard in something titled as a “requiem.” Link is taught the tune by hearing and seeing it twice, and then having an opportunity to practice. Upon the successful completion of “Wind’s Requiem,” the wind automatically changes to blow in a southerly direction. Noticing this change, a large blue frog on a green cloud floats next to Link, commenting on how nice the breeze is. This unusual figure is Zephos, one of the wind gods. The shrine that Link is standing in is devoted to Zephos and his brother Cyclos, who is currently angry regarding the destruction of his tablet. Unlike Zephos’ more relaxed nature, Cyclos has taken to causing cyclones around the world to get back at the humans. Zephos asks Link to chastise Cyclos for his unseemly behavior, while also explaining that “Wind’s Requiem” changes the direction of the wind. To return to Snyder’s terms, the player and Link must intentionally and consciously recollect the tune to conduct the music. Once performed, the music acts as a reminder cue for the game world; making the wind change directions.

“Command Melody”

Zephos and Cyclos are not the only gods in The Wind Waker. To test the skill and merit of the newest Wind Waker, as bearing the baton bestows Link with this title, a tower appears from the depths of the sea, in which Link must undergo several trials and tribulations to prove himself worthy to access a powerful item to defeat Ganondorf. This tower is known literally as

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the Tower of the Gods, a place where Link must enlist the help of several human-sized statues. By carrying and literally calling the statues to follow him, Link leads a set of three statues to the center of the tower. Upon the final statue’s return to “the place of truth,” a magical light fills the room and a stone tablet appears at its center. The directions left, center, right, center are engraved, representing the notes F#4, B4, and A4, accordingly (See Figure 32).

!["Command Melody"](image)

Fig. 32 “Command Melody”

This melody is known as the “Command Melody,” which allows Link to enter a trance-like state and possess the statue or person nearby. By doing so, Link is able to guide the statues into place while holding open a pathway. The reverse is also true in that Link can guide a statue to hold an area open or go to places that Link could not initially. Later in the game, the melody will also be used to possess two individuals, which allows Link to directly manipulate their actions more precisely. Once again, the player consciously recollects the melody, remembering the exact order of buttons and notes. In this case, the music acts as a recognition cue for the subject. Upon hearing the “Command Melody,” the person listening becomes entranced and susceptible to Link’s influence. The melody is recognized by the subject as an invitation to the external control. Whomever is within range of the music abandons their own will to be led completely by Link and the player.

“Ballad of Gales”

While in the Tower of the Gods, Link acquires a bow and arrow, which are essential to gaining Cyclos’s attention. Previously as Link has sailed around the world, he has stumbled upon

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various cyclones that simply pick him up and spit him out away from his desired path. Without something “that can pierce distant targets,” Link has no way of communicating with the wrathful Cyclos, who can be found at the center of each cyclone. Once Link is able to calm Cyclos, he is taught the “Ballad of Gales,” though not by reading a stone tablet. Cyclos moves through the air in a precise series of motions that seem pseudo-dance like, yet what is happening is the transmission of a musical line. The motions down, right, left, up (notes D4, A4, F#4, and C5, respectively) cause a cyclone to be at Link’s command, transporting him wherever he may wish to go (See Figure 33).

![Image of "Ballad of Gales"

Fig. 28 “Ballad of Gales”

The significance of this power is not only that is it easier and faster to travel the world, but also that by using “Ballad of Gales,” Link is able to access the inside of a walled-off island, which is home to the queen of the fairies. In this regard, Link is only able to move forward in the game by recollecting this tune and reminding the game world to produce a cyclone. The cyclone then transports Link to various recognized locations.

“Song of Passing”

The “Song of Passing” is the only tune in The Wind Waker that may be considered optional, although it is most certainly helpful. On one of the main islands, Link stumbles upon a man named Tott, who can best be described as a dancing Elvis impersonator. When questioned about his incessant dancing (indeed, Tott can be found all day and night, every day, in the same spot, dancing), he explains that he is trying to recollect a tune that he had witnessed a long time ago.

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ago. Apparently, the tune has the power to change the world from day to night, and vice versa.

Tott remembers the dance moves, but not the pulse. Luckily, Link has the exact item to help with this task, and when he pulls out the Wind Waker, a bar of 3/4 is heard. As simple as it may seem, this is what jogs Tott’s memory of the “Song of Passing,” which includes the motions right, left, down (A4, F#4, D5) (See Figure 34).

![Fig. 34 “Song of Passing”](image)

The creation of a D major chord strongly reflects the lighter tone of the game as a whole, especially in contrast to the minor harmonies found throughout *Ocarina of Time*. The duet does not produce any change, much to Tott’s dismay, but when Link repeats the tune on his own, night instantaneously changes into the next day, and vice versa. With this musical example, two kinds of reminders are occurring, to use Snyder’s term. Link is reminding Tott of the pulse, but Link’s performance is also a reminder for the game world to change.

“Earth God’s Lyric” and “Wind God’s Aria”

After many trials, Link is finally ready to take on Ganondorf for a second time. This attempt unfortunately fails as quickly as the first, as the sword that Link has acquired has “lost the power to repel evil,” which leaves Ganondorf unharmed. The sword, it seems, is powered by the prayers to the gods by two sages. The sages of the Earth and Wind Temples pray to the corresponding gods, although it can be assumed that these prayers expanded to all of the gods. By the sword failing to conquer evil, this suggests that a terrible fate has befallen the sages, and now the new generation’s sages must be awakened to their destiny, quite literally through music.

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Link subsequently travels to both temples, where he learns the tunes that help the two individuals recognize their true nature.

Link first travels to the Earth Temple, where he learns the “Earth God’s Lyric.” From a stone tablet, the notes are A4, A4, D5, F♯5, E5, D5 (See Figure 35).

!["Earth God's Lyric"

Once again, the opening phrase outlines a D major triad, while the stepwise descent helps create melodic closure. After Link conducts the tune, once again performed by an invisible choir, the spirit of the past sage, Laruto, appears. She tells Link that she was killed by Ganondorf, but her spirit lingers on to welcome the new sage. In her hands, she holds a peculiar lyre, with a large golden base. She sends Link forward to find the individual who carries this particular instrument. The precise individual is none other than Medli, a bird-girl servant who lives on Dragon Roost Island. Whereas previously the background music of the island was the most prominent ambience, now with the quest to find the new sage, the strumming of a lyre can be heard, barely audible at first. As Link moves closer and closer to Medli (who is found at a new location than before), the sound of strumming grows louder and louder. When asked about her playing, Medli will say that she still has a lot to learn and music theorist Elizabeth Medina-Gray comments flippantly on the novice performance without going into any further depth regarding the context or plot of why Medli’s performance is unique to the game world. In fact, Medli and Makar are the only two musicians within the entire world of Wind Waker, a fact which is of crucial importance to the game play as their instruments identify their unusual destinies. Rather than

consider the context or game plot, Medina-Gray focuses more on the overlapping audio from various sources, such as the compilation of Medli’s strumming over the background music of the island, which is also punctuated by the sound of water.\textsuperscript{113} Medina-Gray does identify how Medli’s strumming sounds louder and louder the closer Link comes to her location, though she does not go any further in her analysis of the music in regards to the story.\textsuperscript{114} It is when Link reveals himself as the Wind Waker (i.e. as a musician) that Medli’s true destiny is revealed, a revelation never identified or discussed by Medina-Gray. When Link as the Wind Waker conducts her that Medli realizes her true potential: she is the fated sage of the Earth Temple.

When Link pulls out the Wind Waker, Medli gasps, and humbly asks him to conduct her. As he conducts “Earth God’s Lyric,” Medli follows along accordingly on her lyre. After the completion of the tune, she makes a vague comment about how the tune seems so familiar, before she faints. While unconscious, she has a vision in which she plays a duet with the previous sage, both playing on their respective lyres. They start off by playing the melody together, but the second line is harmonized nicely, with no distinction made about who is playing what line. When Medli awakes, she asks to be taken to the temple.

The music in this case reflects many different types of memory cues. The player recollects the tune; the physical buttons in the correct order. Link’s performance of the music is a reminder to Medli for her to perform as well. Upon hearing the music, Medli unconsciously recognizes the tune, and understands that she needs to help Link on his quest. Once they are both within the temple, there are several instances of Link and Medli forming their own duet, Link conducting the lyre to unlock passageways, inciting the game world to recognize them within the temple. It is curious that not only does Medli form a duet with the past sage, but that she and

\textsuperscript{113} Elizabeth Medina-Gray, “Analyzing Modular Smoothness in Video Game Music,” 2014.
\textsuperscript{114} Ibid.
Link form their own duet. I suspect there are greater implications for these pairings than simply musical variety. The past and present sages unite in order to protect the future of the world. In this way, the duet of the sages is a recognition cue for the game world. The duet continues to help the quest of good over evil to progress. Later, the duet of Link and Medli is a balance of two kinds of good. Medli follows Link passively, remaining silent and harming nothing. Link, on the other hand, protects Medli with his sword, destroying any monsters in his path. In this way, Link and Medli become united in their goal to save the world. The music they play together reminds each of them that they must travel together, trust in each other, and learn from one another in order to help protect the world from despair.

“Wind God’s Aria” is quite similar in context to “Earth God’s Lyric.” The same process occurs in the Wind Temple, although the tune is A5, A5, A4, F#5, E5, F#5 (See Figure 36).

When Link conducts this melody, the spirit of a young lad appears before him, bearing an interesting leaf-shaped violin. He sends Link forth to eventually find Makar, an anthropomorphic shrub who had previously played his violin at his tribe’s annual ceremony. Once Link appears on this island, in the addition to louder auditory cues, a visual cue of rainbow notes seem to emerge from a waterfall. If Link travels through the waterfall, he discovers the secret hideout of Makar, who has been practicing for next year’s ceremony. He also requests that Link conduct him upon seeing the Wind Waker, and plays a duet with the past sage. It is this duet that forms the music that occurs at the beginning of the game, during the title screen, albeit with a more ocarina-like

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timbre. In the same way as Medli, Makar asks to be taken to the temple, where he and Link work together musically to restore balance to the world. Once again, Link must actively recollect the musical phrase. His duet with Makar reminds them of their reliance on each other to travel through the temple, using both of their unique skills. Another reminder for Link is the large stone monoliths that bear the image of the leaf-shape instrument, and the musical notation of the “Wind God’s Aria.” While certainly overt, the monolith is a reminder for Link, Makar, and the player to perform their duet to continue on their quest to save the world.

Conclusion

While the music is not as comprehensive as in *Ocarina of Time*, the music of *The Wind Waker* is still pervasive. The music that effects the environment and the music that affects people are quite prominent in their usage and significance within the gameplay. In this game in particular, Link is not the primary music-maker; he must always rely on someone else to produce the music. In this way, Link embodies his role as memory cue for the characters around him. He forms ensembles with both the heavenly, invisible choir, as well as with musical individuals. These duets reflect a larger significance than just a musical pairing. The relationship between the characters in the duet reflect the balance between action and passiveness, violence and peace, and ultimately, of good over evil. The subsequent *Legend of Zelda* games contain some variation of music-making, exploring a wide range of instruments and always using the latest technology produced by Nintendo.
CHAPTER V. CONCLUSION

It is the hope of the author that this thesis demonstrates the complexity and depth of the music with The Legend of Zelda franchise. The study of video game music has long been a topic of interest in many disciplines, and it is finally time for musicologists to explore this new field of study. The other Legend of Zelda games and their musical innovations is but one area of focus for further research. Indeed, there is even more to be discussed regarding Ocarina of Time and Wind Waker. While this thesis has been devoted mostly to the identification and analysis of different musical memories and their cues, there is still much to discuss regarding the relationship between the player and the game world, and how the music is connected to both worlds. Further identification could be given to the distinction between Link and the player, the identities which have been subsumed together in this thesis. It may be possible that further clarification can be determined for the memory of the player as distinct and separate from Link’s memory, but this subject has been beyond the scope of this thesis. The application of Snyder’s model could also be applied to other games, such as the Final Fantasy series by Square Enix. Final Fantasy would also have the benefit of a multiple-game series that could be studied for the use of musical tunes and tropes across many games, similar to that of The Legend of Zelda series. Overall, The Legend of Zelda series is blossoming with potential research topics, which could help push the boundaries of musicological scholarship into new and unexplored territories. It is my hope that this thesis contributes to the budding academic interest in video game music, and the wide variety and breadth of music therein.
BIBLIOGRAPHY


## APPENDIX A. OCARINA OF TIME MELODIES

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<th>Note Color</th>
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<th>&quot;Epona's Song&quot;</th>
<th>&quot;Sun's Song&quot;</th>
<th>&quot;Prelude of Light&quot;</th>
<th>&quot;Minuet of Forest&quot;</th>
<th>&quot;Bolero of Fire&quot;</th>
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APPENDIX B. OCARINA OF TIME SONGS\textsuperscript{116}

\begin{itemize}
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\item "Saria's Song"
\item "Song of Time"
\item "Song of Storms"
\item "Epona's Song"
\item "Sun's Song"
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APPENDIX C. OCARINA OF TIME WARP TUNES

"Minuet of Forest"

"Bolero of Fire"

"Serenade of Water"

"Requiem of Spirit"

"Nocturne of Shadow"

"Prelude of Light"

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APPENDIX D. THE WIND WAKER MELODIES

"Wind's Requiem"

"Command Melody"

"Ballad of Gales"

"Song of Passing"

"Earth God's Lyric"

"Wind God's Aria"