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Thematic Unity Across a Video Game Series.

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Abstract.
Composer Koji Kondo's music for both Super Mario Bros. *(Nintendo, 1984) and* The Legend of Zelda *(Nintendo, 1986) is among the most recognized video game music ever written. Through the use of motivic and prolongational analysis, this article demonstrates how Kondo created a unity across the entire* Zelda *franchise, while making each game's score unique by examining one musical element, the overworld theme, from each of the main entries in the* Zelda *series. Schenkerian analysis is used to identify structural and motivic relationships between the various themes. This article concludes with an examination of semiotic implications of this analysis and its impact on other aspects of the* Zelda *series and game music analysis as a whole.*

Zusammenfassung.
Die Musik des japanischen Komponisten Koji Kondo für *Super Mario Bros.* (Nintendo, 1984) und *The Legend of Zelda* (Nintendo, 1986) gehört zu den Computerspielmusiken mit dem höchsten Wiedererkennungswert. Anhand der Analyse des motivischen Materials zeigt dieser Artikel am Beispiel eines musikalischen Elements, dem *Overworld Theme* aus jedem der Hauptteile der *Zelda*-Serie, wie es Kondo gelang, eine Einheitlichkeit durch das ganze *Zelda*-Franchise zu kreieren und trotzdem jeden Spielscore einzigartig zu gestalten. Mit einem an Schenker angelehnten Analyseansatz wird versucht, strukturelle und motivische Beziehungen zwischen den verschiedenen Themen aufzudecken. Der Artikel schließt mit einer Betrachtung semiotischer Implikationen der musikalischen Analyse und ihrer Auswirkung sowohl auf andere Aspekte der *Zelda*-Serie als auch auf die Analyse von Computerspielmusik insgesamt.

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Thematic Unity Across a Video Game Series

Koji Kondo's music is among the most recognized video game music ever written. As the composer for both *Super Mario Bros.* (Nintendo, 1985) and *The Legend of Zelda* (Nintendo, 1986), he has received international fame and recognition for his game compositions. With *The Legend of Zelda* series, Kondo has managed to create new music for each iteration of the series while maintaining a sense of unity across the series as a whole. Through the use of motivic and prolongational analysis, I will demonstrate how Kondo created this unity across the entire *Zelda* franchise while making each game's score unique by examining one musical element from each of the main entries in the *Zelda* series. This essay will conclude with an examination of semiotic implications of this analysis and its impact on other aspects of the *Zelda* series and game music analysis as a whole. In this discussion of thematic unity, I am exploring both musical theme and a semiological theme.

The Legend of Zelda is one of Nintendo's most successful franchises. Through 2010, the *Zelda* series contains eight games for home consoles and seven games for handheld systems. For the purpose of this paper, I will examine the seven core titles of the series: *The Legend of Zelda* (Nintendo, 1986), *The Adventures of Link* (Nintendo, 1987), *A Link to the Past* (Nintendo, 1991), *Ocarina of Time* (Nintendo, 1998), *Majora's Mask* (Nintendo, 2000), *The Wind Waker* (Nintendo, 2002), and *Twilight Princess* (Nintendo, 2006).

There are elements of the game that are consistent throughout the series: adventure-style gameplay with real-time battle, puzzle solving, and exploration. Game elements such as completing dungeon quests, the acquisition of "The Master Sword," and defeating Ganon, the root of all evil in the game, are expected in each game. Since the game itself is structured around the same mythical world in each major installment, the location of the primary musical theme is similar in each game. The Overworld Theme, also known as the Hyrule Field Theme and the Great Sea Theme, exists in every single game in the main series. Through the seven different games, there are five distinct versions of this Overworld Theme. After a detailed melodic and motivic analysis of the major section of each theme, I will show how certain elements create thematic unity across the game series and allow us to draw some conclusions about the meaning behind some other musical themes in the game.

Game music research has taken a variety of different approaches in recent years. Tristan Capacchione's paper "Musical Gamescapes: A Study of Unity in Arcanum: Of Steamworks and Magick Obscura," takes an interesting look at how various music objects relate to the landscape or world of the game, and how it ties the game together as a whole.[1] In contrast, the focus of this essay is music only, and how an entire game series is unified through music. While the music being examined is all linked by a particular game element (the location in which the music takes place), there is little else outside of music that is brought into the initial analysis. This paper

1 Tristan Capacchione, "Musical Gamescapes: A Study of Unity in Arcanum: Of Steamworks and Magick Obscura," http://www.gamessound.com/texts/Arcanum.pdf (accessed June 20, 2008).

uses ideas developed in my thesis, "Examining Non-Linear Forms: Techniques for the Analysis of Scores Found in Video Games."[2] The terminology used in this paper is grounded on the philosophy that a video game score is the sum of all the music in a game. Therefore, I refer to individual segments of music in a video game as music objects. I will occasionally use a game score graph to demonstrate points in this paper. A game score graph is a visual representation of the layout of music objects in a video game. For example, figure 1 depicts the game score graph of *The Legend of Zelda* for the Nintendo Entertainment System (NES). Each box or ellipse represents a music object in the game. Boxes represent objects that are non-looping, or do not repeat, while oval boxes represent objects that loop in whole or in part endlessly until a new object is triggered. Arrows show possible connections between objects in real time, as if you were playing the game.[3]

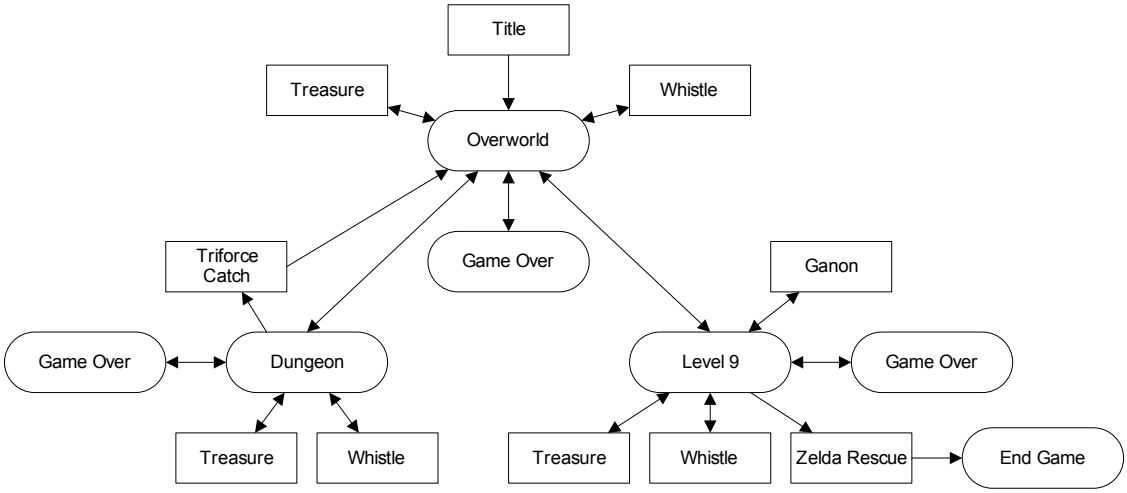

Figure 1: Game Score Graph of *The Legend of Zelda*.

To better examine one impact of the analysis, I will be borrowing from the study of semiotics. Kofi Agawu has discussed at length the various uses of semiotics in music analysis and a variety of ways to implement it.[4] Some sources have attempted to categorize styles of music into semiotic categories[5] while others have taken musical material and explicitly stated what its meaning is in the context of a work.[6] I will examine the results of the analysis to discover a unifying symbol or sign and how this idea is repeated throughout the game series. Roland Barthes *Elements of Semiology*

2 Jason Brame, *Examining Non-Linear Forms: Techniques for the Analysis of Scores Found in Video Games*, Master's Thesis, Texas Tech University 2009.

3 This is only one type of game score graph developed in the aforementioned thesis, identified as a Real Time Game Score Graph (RTGSG). While a second type of graphing method was developed to aid in full game score analysis, this is the only type that will be used in this essay.

4 Kofi Agawu, "The Challenge of Semiotics," in: *Rethinking Music*, ed. by Nicholas Cook and Mark Everist, Oxford 2001, p. 138–160.

5 See Leonard Ratner, *Classical Music: Expression, Form, and Style*, New York 1980.

6 See Deryck Cooke, *The Language of Music*, Oxford 1990.

gives an overview of the various ways we can examine and study signs, though mostly visual and language elements are discussed. The concept of signs that he explores in his book will be used in the final section of this paper to explore results of the analysis.[7] It is at this point in the essay, other game elements will be brought into the discourse to better understand how the music objects relate to one another.
The conceptual tool used throughout the music object analysis will be akin to Schenkerian graphs. While these graphs are not wholly derived through the same process of a Schenkerian analysis, they depict structurally significant points which are highlighted through the use of non-structural embellishments or prolongation. Agawu talks about Schenker graphs as a form of writing, allowing them to serve as a visual discussion of the music at hand.[8] The graphs presented in this essay serve to highlight important points about each of the thematic objects discussed without becoming overly dense. All musical examples have been transcribed by myself.

The Legend of Zelda, A Link to the Past, and *Majora's Mask*
While I would prefer to take each game in chronological order of publication, it so happens that *The Legend of Zelda*, *A Link to the Past*, and *Majora's Mask* all contain the same major thematic element in their Overworld Object. While instrumentation and some harmonic and counterpoint elements provide some variety, the focus of this analysis is purely melodic.

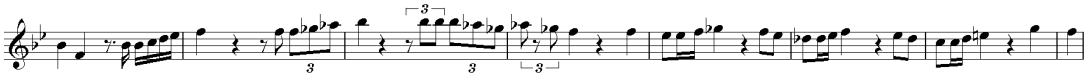

Figure 2: *The Legend of Zelda*: Overworld Object Theme.

Before going any deeper into the analysis, I want to point out two key elements of this theme. Kondo frequently switches between the two modes of the key, freely using the major third while using a minor sixth and seventh scale degree. Similarly, the rhythm frequently alternates between simple eight-sixteenth patterns and triplets.

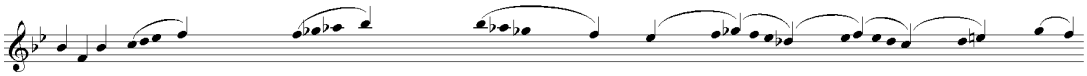

Figure 3: Middle Ground Structure of Figure 2.

Figure 3 represents the underlying structure behind the Overworld Theme. Stemmed note-heads represent the structural anchors of the theme while the other notes are seemingly auxiliary passing tones. The theme begins on tonic with a leap down to dominant and back to tonic. Through passing tone motion, the theme ascends to dominant, then continues to ascend to tonic, before descending to dominant, all filled in with passing tones. The second half of the theme is a sequence, as-

7 Roland Barthes, *Elements of Semiology*, trans. Annette Lavers and Colin Smith, New York 1964, p. 35–57.

8 Kofi Agawu, "Schenkerian Notation in Theory and Practice," in: *Music Analysis* 8, no. 3, October 1989, p. 275–301.

cending third followed by descending fourth, to return us back to the dominant scale degree. Figure 4 shows a deeper level of this structure. The most important element of this reduction is the interval of the fifth serving as the structural foundation for this theme.

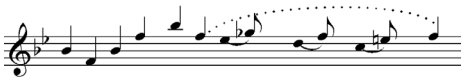

Figure 4: Deeper Middle Ground of Figure 3.

The Adventures of Link

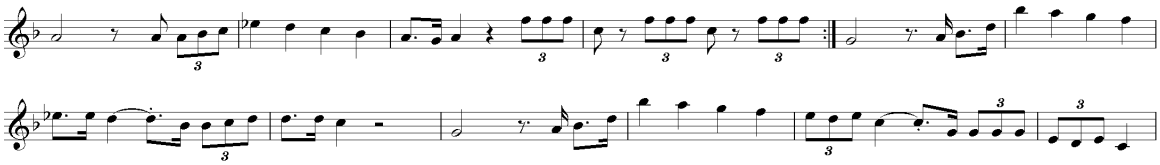

Figure 5: *The Adventures of Link* – Overworld Object Theme.

The Adventures of Link was published two years after *The Legend of Zelda*. Though Kondo kept the original theme for *A Link to the Past* and *Majora's Mask* (as well as many of the early handheld games), early on he experimented with varying this theme for different entries into the game's series. One interesting similarity between this theme and the previous theme is the introduction (not pictured). Each theme began with a four measure introduction that is exactly the same (except transposed to fit the key). This is the most surface level tie between these two themes.
Unlike the previous theme, this one lacks the frequent use of modal mixture. Only on occasion is the subtonic used instead of the leading tone, and then it is used mainly as an embellishing tone. Rhythmically, this theme is grounded mostly on triplet rhythms, however what cannot be seen here is the underlying dotted rhythm that permeates the counterpoint in measure two. This creates a sense of rhythmic conflict we saw in the first Overworld Object, though not as prominent.

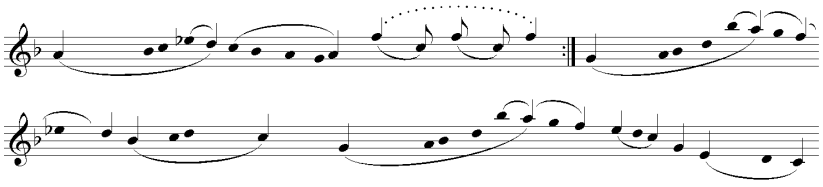

Figure 6: Middle Ground Structure of Figure 5.

The middle ground structure of the theme opens with an ascending leap of a fourth, embellished by passing tones and the subtonic acting as an appoggiatura. A descent through passing tones with a neighbor embellishment brings us back to our starting pitch *a*. Almost as an afterthought or commentary on the structural importance of the fourth, the pitch *f* is prolonged by oscillating on the interval of a fourth.

After the repeat, the theme is displaced up an octave through an embellished ascending triadic leap, and then descends through various embellishing figures to arrive at *c*. The same ascending figure begins the next phrase, using descending triadic leaps to arrive also at *c*, though this time in a different octave.
Unlike *The Legend of Zelda* theme, this theme makes greater use of arpeggiation to leap from one structural pitch to the next, especially in the second half of the theme. A deeper middle ground (figure 7) shows the underlying fifth oriented structure of the theme. This reveals a distinct difference between the two halves of the theme. The first half is structured on the ascending interval of a fourth between *a* and *d* (the mediant and submediant of the key). With the octaves transposed to better visualize the voice leading, it is made clearer that the second half of the theme hinges on the alternation between *c* and *g*, also separated by an ascending interval of a fourth (or descending fifth as in the case of this normalized reduction).

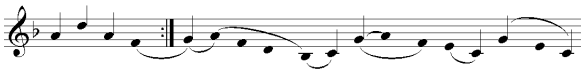

Figure 7: Deeper Middle Ground of Figure 6.

Ocarina of Time
Ocarina of Time is the series' first excursion into a three-dimensional world. In a review of this game in 1998, Peer Schneider was disappointed that the "legendary Zelda Overworld theme is NOT in the game."[9] After this analysis, however, it is hard to see how this theme is not directly related to *The Legend of Zelda* Overworld Object Theme (figure 2).

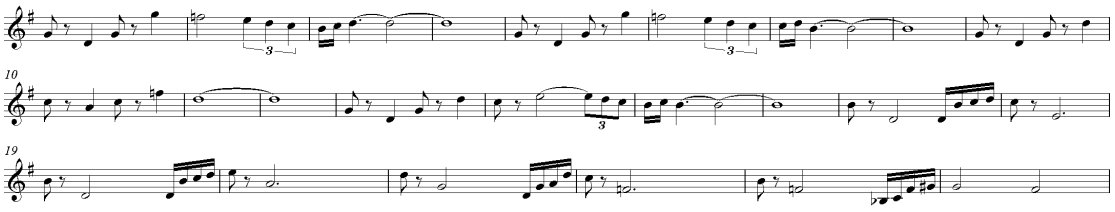

Figure 8: *Ocarina of Time* – Hyrule Field Object.

This Overworld Object is the longest and most complex. Aside from what is presented here in figure 8, there are at least ten different thematic segments in this object. In my analysis I will focus on three segments, as they are the first three heard (after a short introduction) and also contain the motives that are most prominent in the other segments of the object.
Kondo is very fond of using the lowered seventh scale degree in music for *Zelda* and that compositional practice remains true for this object as well. Centered around a G

9 Peer Schneider, "Legend of Zelda: Ocarina of Time," IGN; http://ign64.ign.com/articles/150/150437p1.html (accessed August 22, 2010).

tonic, the *f* natural features prominently throughout this theme. Duplet/triplet contrast has been expanded in this object to include quarter-note triplets, along with eighth-note triplets and sixteenth-note figures.

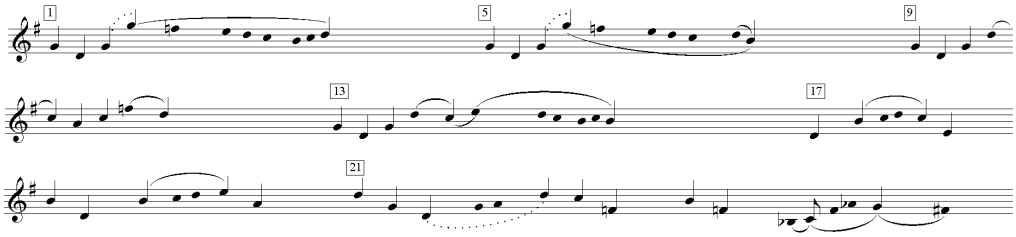

Figure 9: Middle Ground Structure of Figure 8.

Like in figure 3, the *Legend of Zelda* Overworld Theme, this middle ground starts with the descent of a fourth from tonic to dominant, then back. Through an octave displacement of the tonic, and some passing motion, we arrive back at the dominant. This figure repeats, but this time the interval is only a third above the tonic, with an arrival on *b*. The next two segments are similar to the first two in that they begin with the descent of a fourth and end on *d* and *b* respectively.
The final segment of the theme is very reliant on the interval of a third and its inversion, beginning as it does descending down a sixth to *d* then back up to *b*. Again, *c* down to *e* and *b* down to *d* continue this sequence of thirds and sixths. This final segment is perhaps the most interesting out of all three. Instead of providing a deeper reduction for the entire figure, I will focus only on the last segment. The frequent leaps in this part would seem to indicate, at a deeper level, that there are two distinct voices simultaneously. Figure 10 takes a look at just the stemmed notes from the last section of this theme, demonstrating the two voices at work. The octaves have been normalized in this reduction.

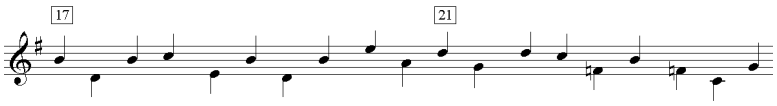

Figure 10: Two-Part Voicing of Middle Ground Structural Pitches of Figure 9, mm. 17-21.

The voice-leading between these two voices uncovers some interesting structural relationships. As shown in figure 10, both voices initially prolong the interval of a sixth, embellished with neighbor motion. Then the voices leap up, the top voice by a third from *b* to *d*, and the lower voice by a fourth from *d* to *g*. The lower voice then prolongs the *g* with a neighbor figure while the top voice descends by an embellished triad. The fifth, which has been a thematically important melodic interval, has now become a structurally significant harmonic interval within the theme itself at measure 21.

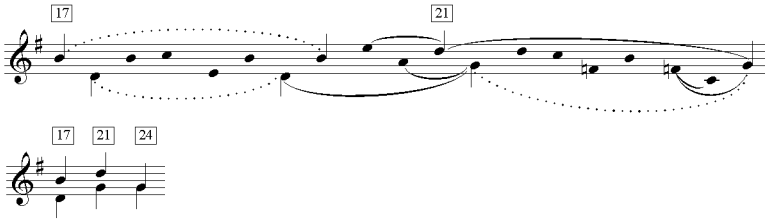

Figure 11: Structural Reduction of Figure 10.

This is almost a mirrored effect with the voice leading of measures 1 through 16. Measures 1 and 9 are entirely based on the fifth as the significant structure, whereas 5 and 13 transition from the fifth to the third as the important interval. Starting at 17, the sixth (inversion of the third) is now the initial structural interval which then moves to a fifth.

Wind Waker

In a complete change of pace for the series, *Wind Waker* removes the element of exploration by walking around the land of Hyrule, and instead incorporates exploration by boat on the seas (which cover the land that was once Hyrule). Travel by sea called for a different type of music, that which was more reflective of the ebb and flow of the ocean. The theme begins with strings arpeggiating up and down to mimic the motion of the sea. The theme itself contains long note values reflective of the endless expanse of the ocean.

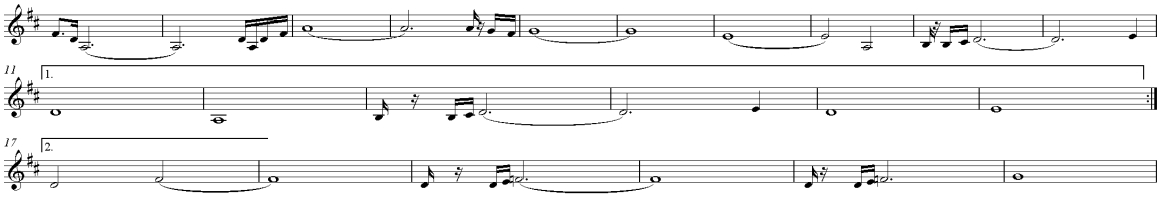

Figure 12: *The Wind Waker* – the Great Sea Object.

The elements we have come to expect from our surface level examination of these themes are present, though perhaps not as noticeable. This theme, like many before it, mixes the major and minor modes in its pitch collection. This theme does so later on than we have come to expect by using the minor third scale degree in measure 19 and 21. The rhythmic conflict is not apparent here in the melody alone, but it is useful to note that a triplet fanfare occurs in a different voice in measure 7.

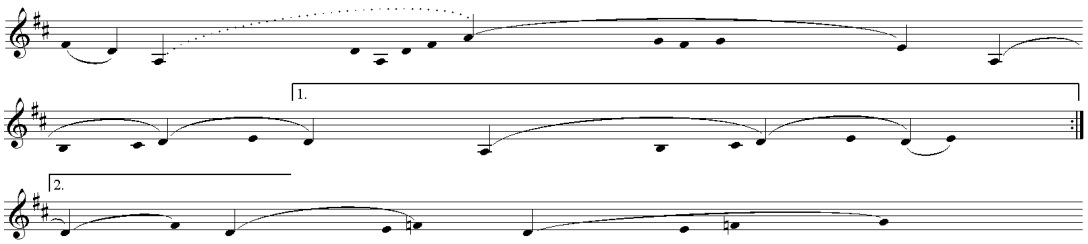

Figure 13: Middle Ground Structure of Figure 12.

On the surface, this object looks like it might break the pattern we have witnessed of the opening structural fifth, yet a closer look will show that the first interval of a third is just a triadic embellishment of the opening fifth structure. However, unlike previous reductions, this object continues along the circle of fifths to *e* before returning by descending fifth to *d*.
Up until now, all the objects have contained some use of the third or sixth, yet this object seems to be completely void of any structural thirds. The only real significant thirds in this object are found in the second ending, yet these thirds anticipating tonic through the use of a repeating figure gradually building one note at a time.

Twilight Princess
While travel by sea has been used only in handheld games after *Wind Waker*, *Twilight Princess* returns the series back to its land exploration roots and a slightly more familiar style of music object.

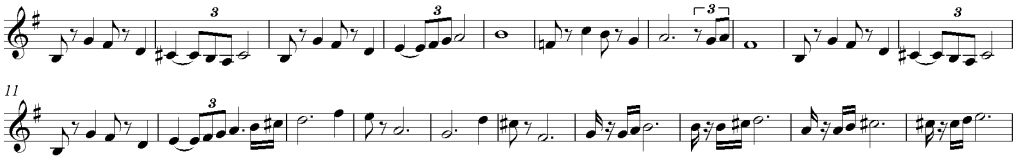

Figure 14: *Twilight Princess* – Hyrule Field Object.

While the other objects discussed thus far are all centered around a major tonality with minor inflections, this is the first to begin with a feeling of minor. Not only that, but the minor mode implied by the theme (b minor) is not supported by the harmony (e minor). Also, to add to the idea of modal mixture so frequently found in these objects, measure 6 has an interesting harmonic function that embellishes this melody. Going from e minor in measure 5, measure 6 is in the harmony of F, the Neapolitan, which is reinterpreted as the dominant of Bb, which is the harmony of measure 7. Then, Bb major moves to its enharmonic Neapolitan of B major which functions also as the dominant of the home key E minor. Rhythmic conflict is also exhibited in this object with measure 1-12 triplet oriented and 13-20 containing sixteenth note figures.

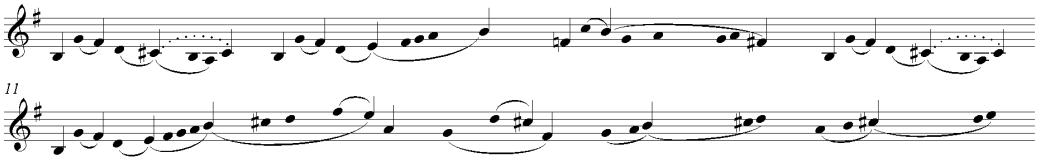

Figure 15: Middle Ground Structure of Figure 14.

Like the previous objects examined, this one begins with an opening fifth, and like *Wind Waker*, this one continues the circle of fifths, continuing past *f#* to *c#*. In the next phrase, the opening fifth interval is presented then transposed up a fourth. The F natural introduces a tritone into the mix, though at a deeper level the *f* natural

would be viewed as a passing tone between the *e* and *f#*. The third phrase begins like the opening, and then continues with various embellished fifths to the end of the phrase. All the structural points in this theme are somehow involved in the interval of a fifth.

Unity Across a Series

Earlier I mentioned how each of these musical objects occurs of the same location in the game. I want to present a couple of game score graphs to demonstrate that point. Figure 1 contained the complete game score for *The Legend of Zelda*, from which we examined the Overworld Object.

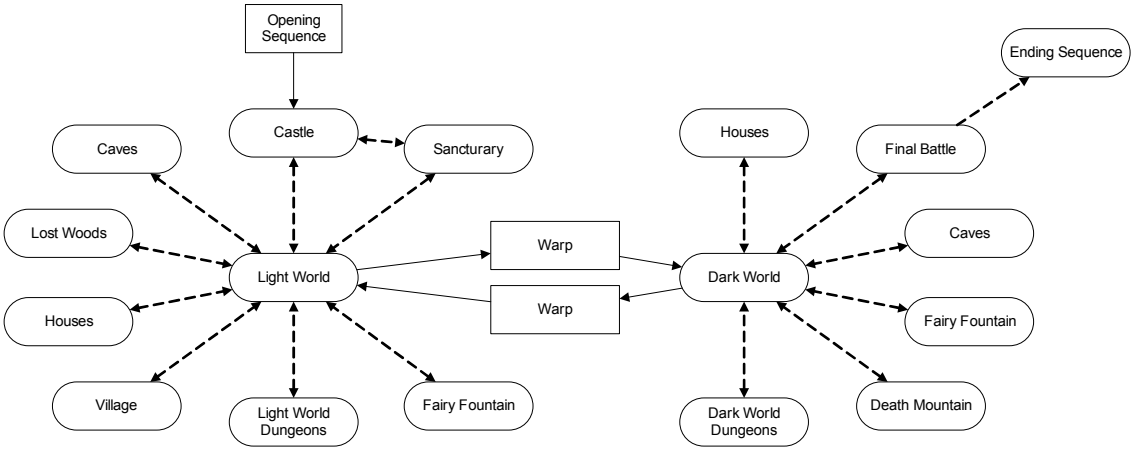

Figure 16: *A Link to the Past* – Simplified Game Score Graph.

Figure 16 is a reduced version of the game score graph for *A Link to the Past*. While it does not contain all the nuances of the game score, it does show the location of the Light World Object (same theme as the Overworld Object in *The Legend of Zelda*), in the center of all the action for a portion of the game. Figure 17 presents a simplified game score graph for *Ocarina of Time*. This structure with this object in the center of all the action is the same for all seven of the core *Zelda* titles examined in this essay. Though the objects themselves might have different names, they all serve the same purpose, to accompany the area where the majority of the exploration takes place.

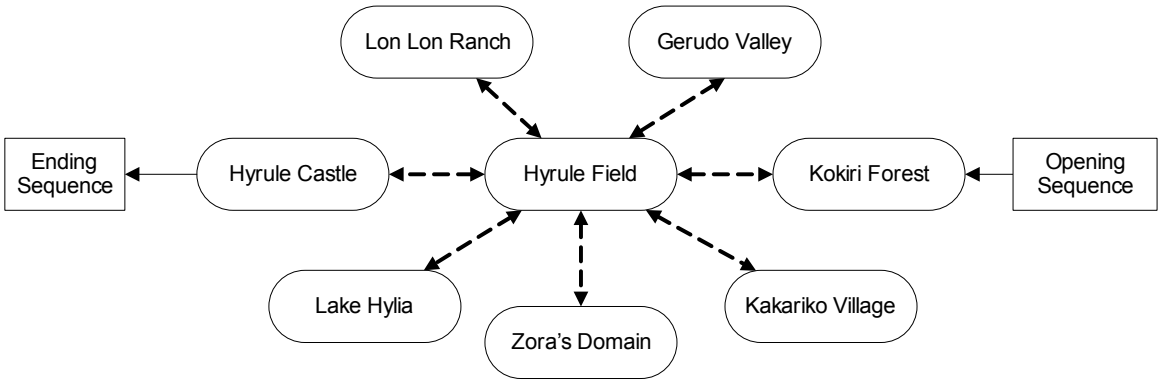

Figure 17: *Ocarina of Time* – Simplified Game Score Graph.

There are a number of surface level motives that allow us to tie all of these objects together. These are listed in figure 18. These motives are derived from the original Overworld Object from *The Legend of Zelda* and have appeared in some form in each of the objects examined in this essay, but never are all three used in the same object in the way they appeared in the original. Figure 19 details the way in which these three motives are used throughout the five objects examined.

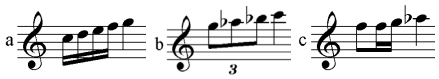

Figure 18a-c: Common *Zelda* Motives.

	a	b	c
The Legend of Zelda *A Link to the Past* *Majora's Mask*	Yes	Yes	Yes
Adventures of Link	No	Yes	No
Ocarina of Time	Rhythm/Contour	Inverted	Yes
Wind Waker	Rhythm Only	No[10]	Yes
Twilight Princess	No	Yes	Yes

Figure 19: Use of Common *Zelda* Motives in Overworld Objects.

As figure 19 shows, no object uses all three motives as they originally appeared, but some do get close using inversions or rhythmic figures that recall these motives. While these surface level motives do provide something to tie these objects together, there is not one element on the surface that unifies all five together. An examination of the five middle ground structures together will reveal the remarkable similarity of these five objects.

10 This rhythm, however, is used in a secondary voice in the object.

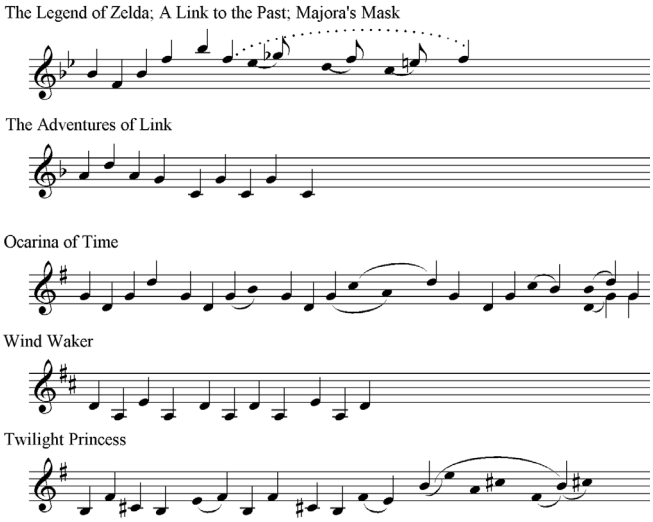

Figure 20: Middle Ground Structural Pitches for *Zelda* Overworld Object Themes.

These middle ground graphs highlight the important role the interval of a fifth plays in these objects. There is also an interesting progression in the development of this object. The first five titles in the series involve the motion of a fifth down and back up. As the series progresses, however, the motion becomes a continual ascent of a fifth such as in *Wind Waker* and *Twilight Princess*.
Another important interval that seems to be highlighted on a secondary level is the third. In *The Legend of Zelda*, a sequence of thirds is used to expand the dominant pitch *f*, and in *Ocarina of Time*, the third fills in an ascending fifth leap from *g* to *d*. Only on two occasions does the interval of a second exist between two structural pitches. In a further reduction, these intervals would not exist; however, they serve here to mark the division of sections or phrases. The theme from the Overworld Object in *The Adventures of Link* is given here in two phrases. The major second separates the first phrase from the second in this middle ground graph. In *Twilight Princess*, the sequence of ascending fifths is an important three note set throughout the entire game score. The major second that separates *c#*and the *b* serves to delineate this important motive from the rest of the object.

A Quest for Meaning

A look at the study of semiotics can provide some useful tools for discovering a more meaningful analysis of the music. Semiotics deals mainly with the study of signs. On a technical level, I have identified various surface and structural elements that tie all these location objects together. This commonality between these objects can lead us to believe that they are all similar in some respect to their meaning. Taking some semiotic concepts from Barthes *Elements of Semiology*, we can break down the concept of a semiotic sign into two parts, a signifier and the signified.[11] The signifier is the substance that represents something. The signified, in linguistics, "is not 'a thing'

11 Barthes, *Elements of Semiology*, p. 35–57 (see nt. 7).

but a mental representation of the 'thing.'"[12] In this example of *Zelda*, the signifier in question is the aspects that tie these five musical objects together. The signified is what we are trying to derive.

Though they have different names in each of the games, these objects all serve the purpose of accompanying the Overworld area in the game. The prominence of the fifth through all these versions of the Overworld Object connects these objects on a structural level. It is this musical relationship, perceived or not, that ties these objects together in the *Zelda* series. These objects typically are heard more than any other within these games because this is where the majority of travel occurs, and it is an area frequently returned to. With so many objects containing this basic structural feature, it is possible to consider this unifying element worth exploring in other objects as well. Perhaps by examining the signifier in other objects, we might be able to deduce what is signified. Figure 21 shows five short music objects that all seem to contain this structural signifier, either on the surface or at a deeper level.

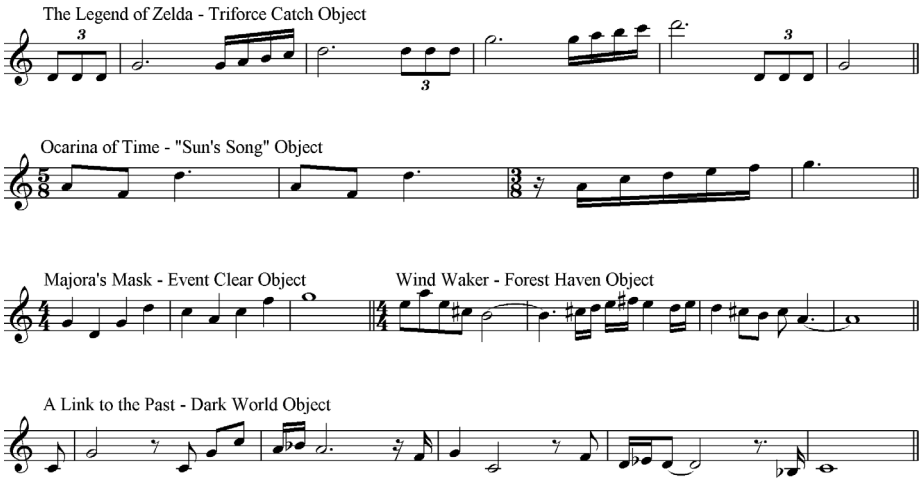

Figure 21: Various Objects Containing Structural Fifth Motive.

Starting at the top, *The Legend of Zelda* Triforce Catch Object contains explicit use of the fifth through ascending leaps and scalar passages. On the surface, this object is made entirely from motives presented in figure 18a and 18b. The *Ocarina of Time* "Sun's Song" object contains the interval of a fifth at a more structural level. The *a* is embellished by the *f*, with the overall motion being an ascent of a fourth – an inverted fifth – from *a* to *d*. The ascending sixteenth-note run serves to embellish the *g*, filling in another fourth leap from *d* up to *g*.

Majora's Mask Event Clear Object is based on fifths both on the surface and at a more structural level. *g* leaps up to *c*, which leaps up to *g* at the end. *Wind Waker*'s Forest Haven Object contains an extended use of fifth motion at the beginning, with the *a* leaping down to *e*, and then down again to *b*. Lastly, *A Link to the Past*'s Dark World Object contains frequent leaps between *c* and *g*, on both the surface and a

12 Barthes, *Elements of Semiology*, p. 42 (see nt. 7).

more structural level.
Now that we have identified the musical signifier that relates these objects to the general Overworld Object, what is it that ties them together? To understand what is shown by the musical signifier, we must turn to the game itself to draw some conclusions. This Overworld idea is linked to a variety of different in-game actions and locations. The Triforce Catch Object is heard every time the player retrieves a piece of the Triforce, a short term goal which aids in achieving the game's final goal. The "Sun's Song" Object turns night into day, which can be helpful as more evil creatures are present during the night time than during the day. The Event Clear Object is another object that happens when a short term goal is achieved. The last two objects, Forest Haven and Dark World, are both location objects that accompany an area of the game. Forest Haven is, just as the name suggests, a tree-filled area that must be explored to complete the game. The Dark World is the alternate dimension of the Overworld in *A Link to the Past*.
These parts of the game are oriented around the quest, specifically the hero's quest. In the Triforce Catch Object, "Sun's Song," and Event Clear, the positive elements of the quest or the accomplishment of completing a task is the primary focus. The Forest Haven Object is another step along the quest, a place that must be explored to go further. The Dark World Object is slightly different in that it accompanies the dark dimension of a light/dark dichotomy. This dichotomy is represented in the music by the inclusion of the fifth motion, mixed with other elements that are symbolic of darkness or evil.
It is reasonable to show how this structural motive can be used to group certain elements together, from which a meaning could be derived. The point is not so much to uncover a meaning, but to show how one element of comparison could be used to tie objects together to derive such a meaning. It would be reckless to conclude a singular meaning from this signifier without first considering other objects and their signifiers. In a way, semiotics cannot be discussed singularly, without something to compare it to. An apple would not be an apple if it weren't for its difference from a chair.

Conclusion
This essay shows two specific areas of analysis which can be used to further our understanding of video game music. The exploration of music across a video game series is a worthwhile pursuit as it gives us the ability to examine what musical elements tie a video game series together from one game to the next. This type of structural analysis might not be the tool to use for another series, which may be related by different parameters. It can be used to identify the musical elements that are most significant to the series from one iteration to the next, or how the elements change as the series progresses.
The other avenue of exploration is grouping musical objects in an effort to generate a worthwhile semiotic dialogue. While this paper did not go further than establish-

ing one such group based on one compositional idea, it is one step along the path of an interesting study in video game music semiotics. Further study would involve exploring all the objects from a game or series and grouping them considering all the musical parameters, including style, motive, rhythm, length, mode, and structural relationships. It is the last item from that list that generated a group of objects in this essay, but without other groups to compare and analyze it with, we will have to leave it without an identifying marker.

In this essay I have shown how a thorough analysis of various music objects that serve the same function can uncover a higher musical structure. Video games that all belong to the same series often have musical elements that tie them together. Sometimes, the same theme is used from game to game, but, as we have seen in *Zelda*, different themes can be related through deeper structural relationships. These relationships can be used in conjunction with other parameters to find similar motives on both surface and structural levels to derive similarities between various objects within a video game score. The more these objects can be grouped, the more meaningful a semiological analysis of an entire game score, or even a game series, can be.