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# Music as Solution for "Hard" Game Design: A Cross-disciplinary Study of Boss-Battle Music in *Bloodborne*, *Dark Souls III*, *Sekiro*, and *Elden Ring*

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**Abstract.** FromSoftware's action role-playing games (F-ARPGs), including *Bloodborne*, *Dark Souls III*, *Sekiro*, and *Elden Ring*, are infamous for their difficulty yet consistently gain popularity and support among gaming communities. We investigate key features of boss battles and associated scores (F-ARPG boss-battle repertoire, or FBR) to determine how this balance is achieved. Drawing on the theory of flow (Csikszentmihalyi 1988) and the concept of interactive storytelling (Nam and Kim 2011; Lee 2003), as well as positioning our analyses within the context of ludomusical narrativity (Grasso 2024), we argue that FBR enriches players' transfiguring experiences of the boss battles and their perceptions of narratives—namely those of the boss enemies and the players. Through four case studies, we show how FBR compensates players for the otherwise challenging process of reaching the flow state and accessing these transfiguring experiences; this process we theorize as the "tremendous"–"taxing"–"teasing"–"transfiguring" (T4) flow scenario rewards players with diverse narratives.

Keywords and phrases: FromSoftware (game studio); ludomusicology; boss-battle music; narrativity; product design.

## Introduction

FromSoftware's action role-playing games (F-ARPGs), including *Bloodborne*, *Dark Souls III*, *Sekiro*, and *Elden Ring*, are infamous for their difficulty yet consistently gain popularity and support among gaming communities. We investigate boss battles and associated original scores (F-ARPG boss-battle repertoire, or FBR) to determine how this balance is achieved. Drawing on the theory of flow (Csikszentmihalyi 1988) and the concept of interactive storytelling (Nam and Kim 2011; Lee 2003), as well as positioning our analyses within the context of ludomusical narrativity (Grasso 2024), we argue that FBR enriches players' transfiguring experiences of the boss battles and their perceptions of narratives—namely those of the boss enemies and the players themselves. Through four case studies, we show how FBR compensates players for the otherwise challenging process of reaching the flow state and accessing the transfiguring experiences, the process we theorize as the "tremendous"–"taxing"–"teasing"–"transfiguring" (T4) flow scenario, and reward them with diverse narratives.

As a partial predecessor of our research, Joana Freitas's (2020) article discusses the boss-battle music of *Dark Souls III* from a similar viewpoint, acknowledging the score

as a "key element for immersion and narrative success to foster the player's involvement and flow" (60). The author, however, does not explore other F-ARPG titles before or after *Dark Souls III*, leaving the development of a systematic methodology for examining FBR as the future research goal for other scholars. Thus, in this introductory discussion, we propose a methodology that is applicable to multiple F-ARPG titles and indeed demonstrate a cross-disciplinary inspiration drawing on music theory, ludomusicology, and product design literature.

## 1. Background, Design, and Methodology

### 1.1 The T4 Flow Scenario

From Mihaly Csikszentmihalyi (1988), the concept of flow has broadly influenced both game design (Hodent 2017, 163; Xu 2024) and game music studies (Ayers 2024, 52n; Freitas 2020, 60). The flow state, in which the players are fully focused or "in the zone," generally occurs when the players naturally discover the sweet spot between increasing arousal (attributed to game design) and increasing efficiency (referring to players' adaptation). While players could go through various scenarios to make such discoveries, we focus on a particular kind of scenario as it is relevant and useful to F-ARPGs and our case studies from boss battles.

For the ease of subsequent discussion, we theorize this scenario as a "tremendous"–"taxing"–"teasing"–"transfiguring" flow scenario (henceforth the T4 flow scenario). "Tremendous" characterizes the first stage of perception in which the battles are felt or regarded by the player as difficult for difficulty's sake—i.e., experiments to challenge how far a player can proceed beyond the upper limit of difficulty that would be accepted or tolerated by average players. "Taxing" indicates the next stage of perception: the battles' difficulties may not be entirely unmanageable but demand arduous trial and error. "Teasing" is an advanced stage of perception: the battles gradually shift the player's perception of gameplay from onerous repetition to manageable, self-assured processes, though partially relying on chance and luck (e.g., "I thought I almost got this boss, until my last attack missed!"). Finally, "transfiguring" is the mature stage of perception in which the battles are understood as ludic opportunities to reach an ultimate flow state and become absorbed in various associated stories.

To see the intuitive relevance of the T4 flow scenario to F-ARPGs, consider Example 1.[1] The unsuccessful run-through of the boss battle in this video clip (ca. 2:30) succinctly exemplifies the T4 flow scenario—except the fourth stage. The boss battle shown in the video clip poses a "tremendous" challenge as the player is thrown into a field full of enemies, traps, and mazes without safe spots, supporters, or direct assistance. Following intense exploration, during which nothing but diegetic noises and ambient sounds are heard, the player steps into an isolated and enclosed boss arena in which they can experience both ruthless aggression from the boss enemy and unsettling nondiegetic music. Indeed, as shown in Example 1, the boss battle is "taxing" and/or "teasing": if the players die in this battle with the brutal enemy, they will have to repeat the whole process, beginning each time with the exploration portion.

*Example 1. Run-through from the field to the boss arena of "Champion Gundyr"* (Dark Souls III).

### 1.2 FromSoftware's Action Role-Playing Games and Their Successes

In addition to their intuitive relevance to the T4 flow scenario, several F-ARPG titles such as *Bloodborne* (2015), *Dark Souls III* (2016), *Sekiro* (2019), and *Elden Ring* (2022) also draw attention for their noteworthy successes. These titles have consistently surprised video game journalism upon their release, for two related reasons.[2] First, the listed games, especially *Elden Ring*, have enjoyed constant growth in sales and critical recognition: *Elden Ring* sold 20 million physical and digital copies from 2022 to 2024 (Koselke 2024). Second, this success has been strongly tied to the

[1] Here we would like to state four disclaimers. First, regarding the original audio-visual resources of the notational illustrations and edited video clips, we acknowledge their lawful copyright holders: Sony Interactive Entertainment (for *Bloodborne*), Bandai Namco Entertainment (for *Dark Souls III*), and FromSoftware (for *Sekiro* and *Elden Ring*). Second, our use of the copyrighted materials follows the global convention of transformative fair use. Third, every notational illustration and video edit in this article represents the original works by the primary author and co-author. Fourth, when watching the edited video clips, viewer discretion is recommended because they contain visual and/or auditory expressions that may disturb viewers for reasons such as depiction of violence.

[2] Even though there are other ARPG titles by FromSoftware, which precede (e.g., *Demon's Souls*, *Dark Souls I*, and *Dark Souls II*) or follow (e.g., *Elden Ring Nightreign*) the four listed, we intentionally narrow our definition of F-ARPGs for the following reasons. First, the four listed titles share the identical game engine (i.e., software frameworks central for game development) invented and internally used by FromSoftware, facilitating mutual comparisons of in-game parameters. Second, the four titles show the establishment and polishing of the mature design philosophy by FromSoftware and their ARPG titles (e.g., fierce, action-packed boss battles). Third and last, all these titles show a consistency in creator composition: for instance, Yuka Kitamura, who until recently used to hold a core position within FromSoftware, appears as a credited composer in all four titles. (For an exhaustive list of the composers whose scores are mentioned or examined in our discussion, see Table 1.)

difficulty of each game title. The phenomenon has been noted (e.g., Bishop 2009) since the release of *Demon's Souls* (2009)—one of the earliest predecessors of the titles we grouped above as F-ARPGs and the origin of the persistent belief that FromSoftware gives players uniquely demanding challenges. This belief has been consciously exploited by the leadership of FromSoftware, as described by Hidetaka Miyazaki, the director credited for his core role in F-ARPGs, including *Demon's Souls*:

> If we really wanted the whole world to play the game [*Elden Ring*], we could just crank the difficulty down more and more. But that wasn't the right approach.... Had we taken that approach, I don't think the game would have done what it did, because the sense of achievement that players gain from overcoming these hurdles is such a fundamental part of the experience. Turning down difficulty would strip the game of that joy—which, in my eyes, would break the game itself. (MacDonald 2024)

As implied in Miyazaki's words, F-ARPGs push their difficulty to a degree that could potentially undermine broader sales, yet their consumer base continues to grow. In other words, the quoted statement demonstrates that difficulty and fandom cultivation can be pursued in tandem. This unusual achievement, unsurprisingly, stimulated investigations across multiple disciplines and resulted in a diverse array of related subtopics: the keys of effective game design (Hoedt 2019), critical themes or issues emerging from gameplay experiences (Spokes 2020), and spontaneous cultivations of mutually supportive communities (Brock and Johnson 2022; Robinson et al. 2025), to name a few.

### 1.3 How FromSoftware Makes Their Games Difficult

In our earlier theorization of the T4 flow scenario, we proposed that a final, "transfiguring," stage may cause players to perceive the gaming experiences as exceptional opportunities for immersion into various stories. Assuming that such experiences also contribute to F-ARPGs' balance between difficulty—i.e., the sensation that characterizes the "tremendous," "taxing," and "teasing" stages of the flow scenario—and fandom cultivation—i.e., the fascination resulting from the "transfiguring" stage and immersive experiences—we propose an analytical approach to the T4 flow scenario that remains attentive to the no-less significant role of music.

Before illustrating this methodology, however, there is background to be addressed: specifically, in which ways are F-ARPGs made to be difficult to play and beat? Though risking oversimplification, a two-track explanation provides this background information: difficulty is reified in general game design, and is realized in boss battles. First, F-ARPGs adhere to general design requirements for action role-playing games (ARPGs). Shaun Musgrave (2017) summarizes these requirements: (1) real-time combat; (2) persistent inventory system for the player's characters; (3) control of only one character at a time; (4) freedom of movement through the environment (controlled by the player) and one-to-one correspondence between clicks, taps, or button presses, and the resulting actions (e.g., attacks, guards, dodges, or runs); (5) requirement for the player to acquire some degree of reflexive skill; (6) experience points, gained by defeating enemies and earning character level-ups; and (7) level-ups that increase the character's stats and/or capabilities. F-ARPGs, meeting these requirements, push each even further to reify an otherwise abstract sensation of difficulty into a set of practical gaming experiences: (1) real-time combat becomes *far stricter* (e.g., invincible time is limited and requires precisely timed actions by the player); (2) the persistent inventory system *does not pause combat when it is controlled by the player*; (3) only one character is under player control at a time, and *only one character is allowed per saved data file*; (4) a character moves around freely and performs various actions, but *at the cost of limited and only gradually replenished stamina*; (5) players need *higher and higher* degrees of reflexive skill to make progress; (6) experience points earn character level-ups but *will be lost if characters die before spending them*; and (7) level-ups make the character stronger but *do not dramatically facilitate general combat*.[3]

Second, boss battles represent the advanced challenges of the already-difficult general game design. Adapting to the peculiarities of the seven enhanced design requirements described above is a prerequisite for the player of F-ARPGs if they wish to beat the unavoidable boss enemies. If these peculiarities explain how the games basically work, the boss battles tend to exponentially increase the difficulty against the degree of player efficiency. The battles do not openly instruct the player on how to increase their efficiency, thus driving the players to tasks more common in classic retro games (that is, the iterative processes of self-directed trial and error). The games therefore demand the players be willing to repeat individual and arduous processes without providing any explicit information as to what went right or wrong in their playing;[4] indeed, F-ARPGs are notorious for giving no feedback beyond "You

[3] Note that *Sekiro* makes several exceptions, though it does not diverge from the general direction of other titles. For instance, its inventory system does pause combat but still forces players to use the selected items within the real-time engagement with enemies. Furthermore, although *Sekiro* does not have the stamina caps limiting the player character's actions, it still puts a precise cap on the character's guarding capacity.

[4] For a relevant study that broadly investigates improved player resilience against the otherwise challenging boss battles of F-ARPGs, see Chushu Ye 2023.

Died" or "Death" messages every time the players fail in the boss battles.[5] (This was shown at the end of the video clip in Example 1.)

### 1.4 Analytical Concepts and Methodology for FBR

That F-ARPGs are made to be difficult to play and beat—in terms of both general design and boss-battle design—not only reconfirms their relevance to the first three stages of the T4 flow scenario but draws attention to the boss-battle music. The discussion above surely helps us grasp how "tremendous," "taxing," and "teasing" general gameplay and boss battles could feel for inexperienced players, but it also requires consideration of how the "transfiguring" experience is shaped and/or enhanced. While this inquiry can focus on a variety of in-game music or audio examples, our study centers FBR. This repertoire not only realizes generic ludomusical conventions for combat as well as boss battles (see Summers 2024a, chap. 8) but helps the player to appreciate boss battles as tough yet worthwhile challenges.

Clearly, there are many other musical/sonic aspects that warrant ludomusicologists' attention to F-ARPGs, including atmospheric music or sound that affects a player's gameworld exploration (Kamp 2024; Freitas 2025), indicating FBR may not be the only musical case connected to the "transfiguring" stage of the T4 flow scenario. Our choice to focus on FBR lies not only in its affiliation with the tense culmination of the difficulty experienced by the player (boss battles), but in its structural parallels to the boss-battle design that unmistakably invite the existing conceptual frameworks of "ludomusical narrativity" (Grasso 2024) and "interactive storytelling" (Nam and Kim 2011; Lee 2003).

Ludomusical narrativity refers broadly to the various manners through which music gives "narrative depth to [game] character and place" and helps "unite aspects of the story no matter what the player is (is not) doing" (Grasso 2024, 72).[6] Interactive storytelling refers to the stories embedded within and enabled by the interactive systems integrated in digital or physical product designs. Nam and Kim (2011) argue that interactive audio systems can embed narratives of imaginary, amusing organisms within everyday products. Through interactions between user and object—including real-time responses from the object—even a simple product can encourage the generation of narratives. Lee (2003) further specifies this user-driven process of narrative generation: if interactive design is a *product*, stories are *biproducts* embedded within the design or emerging through the interaction between the product and the user; to make this interaction more effective at narrative generation, the product should be able to help the user acquire *unique* and *renewing* experiences every time they interact with the product.

Given that Nam and Kim (2011) characterize the aforementioned interaction as ludic, and that Lee (2003) refers to video games as spatialized exemplars of the same interaction, interactive storytelling is one of the concepts enabling cross-disciplinary collaborations between product design and ludomusicology. This concept supports our methodology for analyzing the T4 flow scenario for three reasons. First, the T4 flow scenario suggests that a player is supposed to repeat these demanding boss battle interactions, and this repetitive interaction is partially comparable with the behaviors an interactive product anticipates from its target users. The T4 flow scenario also suggests that such repetitive interaction nonetheless results in *renewing, constantly changing* experiences instead of consistent and generalizable ones—not unlike the experience a product user acquires from the successful realization of interactive storytelling. Third, the narratives that emerge as the *biproduct* of such experiences once more prove the compatibility between interactive storytelling and the T4 flow scenario, also serving as the conceptual ground for our methodology. If Grasso's (2024) ludomusical narrativity encourages the basic premise that FBR has potential for emerging narratives, interactive storytelling (Nam and Kim 2011; Lee 2003) provides one possible account of how exactly the music contributes to the emerging narratives (i.e., enriching the repetitive but constantly renewing experiences of boss battles).

These narratives may be specified further as follows: (1) a story *emerging from* a carefully designed boss enemy, (2) a story *produced by* a player actively battling the enemy, and (3) enhanced versions of the two stories *perceivable through* music played over the battle. A story *from* the boss is a history to be told regarding the boss enemy, often delivered to the player part-verbally (e.g., the boss making "I" statements) and part-contextually (e.g., the boss's appearances and behaviors)—or entirely contextually. A story *by* the player is their journey to reach the flow stage in the same scenario. The enhanced versions of these two stories emerge when the musical ideas and details, processed and appreciated by the player, generate a distinct affective environment supportive of the given stories.

[5] See also Ayers 2024, 39–40, 54n regarding the sound design of such messages in the *Dark Souls* series.

[6] Note also that game music can serve as a broader informational source, as has been discussed in Megan Lavengood and Evan Williams (2023). Analyzing winter topics and tropes within a game music corpus through a computational methodology, these researchers reveal that composers have employed diverse techniques and materials to turn their game soundtracks into informational indicators of environments and weather.

## 2. Analytical Case Studies

### 2.1 Introduction and Overview

In what follows, our central analyses address *Bloodborne*: "Ludwig the Accursed," *Dark Souls III*: "Twin Princes," *Sekiro*: "Demon of Hatred," and *Elden Ring*: "Final Battle." The ludic context of each case study, or what is confronted by anyone following the game's system and facing the given boss-battle design as it is, is illustrated through the T4 flow scenario and its first three stages: how the given boss battle (1) poses a "tremendous" challenge to the expected average level of player efficiency/skill, (2) demands a "taxing" process to figure out a solution, and (3) induces a "teasing" anticipation that the challenge can be handled once a proper flow state is achieved. We also address the fourth, "transfiguring," stage in our analyses. Reaching this stage likely means that the player has already repeated enough interactions to achieve sufficient reflexivity to respond to the boss's maneuvers (and, as a result, the accompanying music), emphasizing the experiences as gradually transformative and renewing rather than merely repetitive. As a result, the player may be able to immerse themselves in the bosses' and their own narratives (i.e., "how I got on top of this battle"). We explicate the "transfiguring" stage as a peak realization of interactive storytelling and specify it through (1) detailed interpretations of the bosses' narratives, (2) estimations of the player's narratives, and (3) analysis of the contributions of the associated FBR, including specific compositional details.

Before moving on to the main analyses, two points deserve acknowledgement. First, what we suggest regarding the T4 flow scenario and interactive storytelling has room for future enhancement, as it naturally invites empirical, ethnographic, and other types of supporting research. We do not claim to know the intent of either the game designers or the composers; rather, we are analyzing this music's potential role in the player's experience, drawing on pertinent scholarship to support our claims. We highlight how each analysis can be effectively rationalized, backing our ultimate argument that FBR performs a vital role in the T4 flow scenario, which in turn explains (if only partially) F-ARPGs' navigation of increasing difficulty and expanding fandom.

Second, our manner of examining compositional details was partially inspired by Richard Anatone's (2023) discussion of Kishōtenketsu. In introducing this traditional Japanese story arc, Anatone notes that, while not well-known to Western audiences, Kishōtenketsu has consistently influenced Japanese fiction, including video games.

| **Composers** (last, first) (alphabetical order) | **Soundtrack titles** (game titles) | **Comments on midway intervention of new ideas/directions** |
|---|---|---|
| Kitamura, Yuka | "Twin Princes" (*Dark Souls III*) | Lyrical and continuous melodies in earlier part; choir in dactyl rhythm in later part |
| | "Demon of Hatred" (*Sekiro*) | Binary structure where concise first part is followed by longer and more stylistically traditional second part |
| | "Dragon" (*Elden Ring*) | - |
| | "Malenia, Blade of Miquella" (*Elden Ring*) | C minor in earlier part; G minor in later part |
| Miyazawa, Shoi | "Divine Beast Dancing Lion" (*Elden Ring*) | F Phrygian scale in earlier part; D double-harmonic major scale in later part |
| | "Mohg, Lord of Blood" (*Elden Ring*) | B♭ minor in earlier part; D minor in later part |
| Saitoh, Tsukasa | "Final Battle" (*Elden Ring*) | Brass motive (originating from the title-screen music) in earlier part; mysterious vocalise & choir in later part |
| | "Margit the Fell Omen" (*Elden Ring*) | - |
| Suzuki, Nobuyoshi | "Ludwig, the Accursed" (*Bloodborne*) | Less-functional melodies/harmonies in earlier part; more common-practice melodies/harmonies in later part |
| | "Deacons of the Deep" (*Dark Souls III*) | - |
| Suzuki, Nobuyoshi, and Kouneva, Penka | "Living Failure" (*Bloodborne*) | Instrumental ostinati in earlier part; homorhythmic choir in Latin in later part |
| Wandmacher, Michael | "Micolash, Host of the Nightmare" (*Bloodborne*) | - |

*Table 1. List of FBR case studies and credited composers (table by Primary Author).*

Composed of four consecutive words put together as if they form a single word, this term lists four idiosyncratic stages of a narrative represented by Ki (beginning), Shō (process), Ten (turning point), and Ketsu (result). To be specific, if Ki and Shō establish and develop an initial topic, Ten turns the script *rather than* sticking to the original topic and pushing it toward its climax. As a result, Ketsu may not always present the resolution conventional in Western commercial fiction (i.e., the protagonist's success and triumph, or completion of original goals): it may end instead with catastrophe, anticlimax, aftermath, and so on, which may be understood better as the reverberation of Ten. Anatone associates this story arc with his analysis of Nobuo Uematsu's soundtrack for *Final Fantasy VII* (1997). He especially draws attention to the main theme, the "longest and most formally complex main theme in Uematsu's Final Fantasy soundtracks," played in a continuous loop as the player character explores the world map (28). Investigating both its form and motivic development, Anatone argues that the main theme demonstrates a "musical portrayal of the entire game's narrative" and effectively embodies Kishōtenketsu (33).

We find that selected musical examples from FBR operate similarly in that they tend to enhance the in-game (i.e., the bosses') narratives by mapping their compositional details onto such stories. Furthermore, like Uematsu's main theme of *Final Fantasy VII*, our case studies of FBR feature narrativity marked by the midway intervention of new ideas or directions and thus recall Anatone's (2023) characterization of Ten of Kishōtenketsu. Our subsequent analyses accordingly illustrate how new ideas or directions intervene midway in each selected case, including in works by a team of composers. (For a complete list of the composers and music included in this article, please refer to Table 1; where relevant, commentary on the midway intervention of new ideas/directions is found in the rightmost column.)

### 2.2 *Bloodborne*, "Ludwig, the Accursed"

The first FBR case study is *Bloodborne*: "Ludwig, the Accursed," composed by Nobuyoshi Suzuki. The opening cello solo, shown in the first system of Example 2 and heard in 0:00–0:14 of the supplementary video, introduces an alternation between pitch-classes A and A♭ (i.e., from the strings in the first measure to the cello in the first and second measures and back to the strings in the third measure). As shown in the male choir and cello solo in the second system (0:16–0:24), this alternation is then extended and solidified through other A–A♭ alternations, highlighting the emergent idea of oscillation and resulting in less-functional harmonies anchored on a central pitch or chord: until a more functional and goal-directed E-minor tonality emerges (discussed below), pitch-class D or the D-minor triad (shown in the second system) performs the role of the central pitch or chord.

The prominence of oscillation and its impact on less-functional harmonies ends later with the introduction of E-minor melodies and harmonies that imply common practice tonality or diatonicism. A mysterious, homorhythmic interlude sung by mixed choir (shown in the third and fourth systems and 0:32–1:08) concludes with the unmistakable emergence of the $D\sharp^{\circ 7}$ or $vii^{\circ 7}$ in E minor. In the fifth system (1:08–1:23), the majestic brass resolves this chord to i in E, establishing E-minor tonality as the new main idea (as Example 2 indicates by the shifting meter signatures, this establishment is also marked by the new meter, $\frac{6}{8}$).

The compositional shift from circling oscillation to more goal-directed harmonies/melodies is related to its associated boss battle. This can be understood through an overview of the battle's structure and the challenges likely to be presented to players by the boss, Ludwig. The structure is straightforward according to contemporary video game convention. As the player steps into the boss arena, the first phase of the battle immediately begins and the player must confront Ludwig, a gigantic monster whose aggression seems irrational, unstoppable, and lethal (for the corresponding music, see the first two systems in Example 2 and 0:05–0:24).[7] If/when the player manages to reduce Ludwig's health bar (shown at the bottom of the game screen) to a specific amount, an interlude cutscene is played and presents an unexpected turn: Ludwig delivers a monologue to a glowing magic sword, not used or seen in the first phase of the battle, then picks up the sword to further test the player's skills (the third and fourth systems in Example 2 and 0:32–1:08). The second and final phase of the battle follows, this time presenting Ludwig as a knight skillfully using the sword (the fifth system in Example 2 and 1:08–1:23).

This overall structure accounts for the first three stages of the T4 flow scenario. Having to fight the same boss twice, once as a monster on a rampage and then as a skilled knight, the player surely feels an overwhelming, "tremendous" difficulty. The player could attempt to improve their tactics through "taxing" retries, during which they may return at any point to frustration with the "teasing" situations ("I almost beat the boss but I died so I have to start all over again!").

[7] Note that an opening cinematic cutscene is played only for the first time when the player enters the arena (not included in the supplementary video, for the sake of conciseness). In this cutscene, a nameless victim of Ludwig narrates their suffering and fear about Ludwig while Ludwig's unintelligible roar is heard.




*Example 2. Oscillation as the initial idea and then the emergence of the E-minor tonality in "Ludwig, the Accursed." Transcribed by Primary Author.*

Let us imagine that a less experienced player (described above), after many tries, acquires the minimum efficiency to reach the otherwise hard-to-earn flow state and then becomes capable of processing the overall boss battle and music. One possible experience at that point is that of interactive storytelling, in which Ludwig's narrative and the player's personal narrative become perceivable to the player throughout the player's interaction with the boss-battle design and music. As the boss-battle overview implies, Ludwig's narrative is clear enough, albeit not verbally narrated. Ludwig was probably originally a warrior possessing extraordinary swordsmanship and a noble spirit. His degenerated state as a screaming monster is thus not merely a plot device to offer a particular boss battle to the player, but a tragedy in which the boss's true identity is imprisoned by madness. In this context, the first phase of the battle may be understood as more than a conflict between the player and the violent Ludwig: it contains the tension between the player and the madness distorting Ludwig's true self. With the cutscene that signals the liberation of Ludwig from madness and the beginning of the subsequent phase of the battle, there is a new story for the boss enemy: that of the redeemed swordsman. Furthermore, in the process of becoming more efficient throughout both phases of the battle, the player may be able to develop their own story: they are performing an act of valor and redeeming Ludwig by reversing his degeneration.

If the player also becomes attentive to the musical details unfolding in accordance with their progress, the music may present—to this engaged listener—an emergent mapping between the compositional ideas and the stories discussed above. The shift from oscillation to E-minor tonality acts as a musical portrayal of Ludwig as the prisoner locked in his own madness (and the player's strenuous efforts to subdue that madness) and the transformation of Ludwig into the redeemed warrior (and the player's response to him).

Our interpretation of the oscillation observed in the first and second systems of Example 2 is inspired by preexisting perceptions of oscillation, found in various literature on functional or nonfunctional harmonies (Ramage 2020; Taruskin 1985; Malawey 2010). These perceptions show that oscillation can represent refusal, confinement, and/or stasis, and we deem the same perceptions are applicable to ludomusical narrativity and the specific case of the nondiegetic music played over the first phase of the given boss battle. Ludwig is at an impasse in this phase, possessed by persistent madness, and the player must break this deadlock by confronting Ludwig.

Maxwell Ramage (2020) calls "any alternation between two harmonies that goes beyond traditional tonal syntax" a "transcendental oscillation," because it tends to refuse functional harmonic progressions (287). The oscillation at the opening of Example 2 not only fits this description but indicates octatonicism as a mechanism to refuse the functional harmonies: for instance, pitch classes A and A♭ and the chord tones of a D-minor triad can all be embedded in OCT (2,3) (D, E♭, F, G♭, A♭, A, B, C). This not only supports the assumed octatonicism itself, but accounts for how the opening oscillation in Example 2 could be mapped onto Ludwig, the creature *trapped* in madness, in the first phase of the battle: as Richard Taruskin (1985) notes, an octatonic collection is one of the "outgrowths of circles of thirds" and "for Russian composers, evocative of evil magic" (93). Additionally, due to its avoidance of functional harmonies, the oscillation in Example 2 may also represent stasis or impasse, an impression commonly found in pop harmonies (see Malawey 2010).

In addition to the inspiration from music theory literature, there are two more reasons why the E-minor tonality can be interpreted as a new musical idea related to the narratives emerging in the second phase of the battle. One is that this tonic-oriented progression mirrors the player's determined response to the redeemed boss. The other is that this implied tonality now involves the D-minor triad as part of the diatonic progression in E minor: the D-minor triad now serves as ♭vii rather than the central chord (as it had in the first two systems of Example 2). We interpret this as a compositional parallel to Ludwig's liberation from possession, and his commitment to making a last stand as a noble warrior.

Suzuki's original score for "Ludwig, the Accursed" presents a musical portrait of the boss enemy through the abstract musical embodiment of impasse versus breakthrough. The music compellingly compensates for the overwhelming pressure of the boss battle by staging the player's combat as more than a difficulty for difficulty's sake: it reminds the player that their combat is an act of valor to redeem Ludwig, by tracing his arc from fallen beast to chivalrous warrior.

### 2.3 *Dark Souls III*, "Twin Princes"

The second case study is *Dark Souls III*: "Twin Princes," composed by Yuka Kitamura. This example initially establishes continuous, lyrical C-minor melodies (Example 3, mm. 1–15, and 0:51–1:38 in the supplementary video). The uninterrupted quality is achieved through the simple tonic–dominant alternation and the absence of rests, while the lyrical quality is realized by the constant conversations between melodic lines: as seen in the score, each line features steady rhythms and balances leaps and steps, forming a texture consisting mostly of oblique and similar motion. In mm. 16–21 (1:39–1:56), the melodies are varied through




*Example 3. Continuous, lyrical C-minor melodies as the initial idea and then the emergence of the dactyl rhythm in "Twin Princes" (two-part transcription/reduction). Transcribed by Primary Author.*

accelerated rhythms and cadential progression to a PAC; this is then followed by enhanced lyricism, characterized by a mellifluous violin solo (mm. 22–31 and 1:56–2:27).

Continuous lyricism as the initial compositional idea is later replaced by a homorhythmic choir highlighting a long–short–short dactyl rhythm (mm. 32–39 and 2:28–2:58). While the sense of continuity is maintained by harmonic progressions that fail to reach an authentic cadence and instead keep arriving at half cadences (e.g., in m. 39), the overarching rhythmic figure dominates the remainder of the music and confirms its role as the new main idea, positioning the entire boss-battle music as a two-part musical accompaniment to the boss battle.

The boss battle associated with this two-part music follows a series of interactions/events structurally resembling that of *Bloodborne*, "Ludwig": an opening cutscene with a speech by the boss character, an initial phase of confrontation, an intervening cutscene that progresses the narrative, and a second phase of confrontation in which the boss intensifies their attacks. In the opening cinematic cutscene, the physically weak but determined Prince Lothric greets the player and establishes his narrative by saying that he shall not sacrifice himself for the ritual the player has to complete to save the world, though it demands Lothric's sacrifice (0:00–0:50 in the supplementary video of Example 3). In the first phase, the player confronts Lorian, the older brother and protector of Lothric (0:51–1:56). An intervening cutscene is then played, in which Lothric makes another speech that strongly encourages his brother Lorian to keep resisting the player and the demand of sacrifice (1:57–2:27). The second, final phase of the battle follows this cutscene and the player must fight both Lothric and Lorian at the same time (2:28–2:58). Because the player is obliged to defeat one boss (Lorian) and then deal with *two* enemies (Lothric and Lorian) in the second phase, the resulting T4 flow scenario involves the "tremendous" challenge posed by the undeterred boss character(s), the "taxing" endeavor of returning to the initial combat with Lorian every time the player dies in the second phase, and the "teasing" situation in which the second phase cannot end without defeating Lothric once and for all. As shown in Example 3 (2:28–2:58), Lothric is protected on the back of Lorian in the second phase, never yielding to the player; to defeat this younger prince and finish the entire battle, the player must deal a certain amount of direct damages to Lothric.

If the player acquires enough proficiency to complete the boss battle, three rewards of interactive storytelling may become perceivable. One is the bosses' narrative. The overarching context of the battle is that Prince Lothric must be sacrificed so that the player's character can conduct a ritual with Lothric's remains and thus delay the destruction of the world; as the player cannot progress in the plot of *Dark*

*Souls III* without Lothric's dead body, the boss's will to live is his final resistance before he is subdued and sacrificed. For the same reason, Lorian is designed to be unyielding in his role as Lothric's protector. A second story emerges through the player-boss interaction: the player's gradual recognition of their role as the antagonist of a real-time tragedy; the player's growing proficiency draws Lothric closer to his death and Lorian closer to his defeat.

Third, if the player is attentive to the music, they may perceive the mapping between the compositional ideas and the narratives described above. The first main idea, continuous lyricism (mm. 1–31), is associated with both the first phase and interrupting cutscene (1:57–2:27). This can be understood as a representation of Lothric's feeble body and contrastingly strong will to defy his destiny: the delicate lyricism represents the boss character's physical vulnerability while the melodic continuity represents his determination. The second main idea, the homorhythmic choir in dactyl rhythm (mm. 32–39 and 2:28–2:58), is associated with the second phase of the battle. In Western classical music, the dactyl rhythm often appears to be the signifier of death, such as in Purcell's *Music for the Funeral of Queen Mary*, Beethoven's Symphony No. 7, or Schubert's "Death and the Maiden;" the idea may thus be read as foreshadowing the cruel destiny awaiting Lothric, and the player's role in this ritual.[8]

"Twin Princes" effectively portrays the nature of this boss battle as fated to a tragic end. Assisting the narratives of both the enemies and the player, the music can help the player understand why they should confront the bosses by staging the abstract but pervasive drama of will-to-survive versus destined death, and by encouraging the player to immerse themself in the inherent drama.

### 2.4 *Sekiro*, "Demon of Hatred"

The third case study, *Sekiro*: "Demon of Hatred," was also composed by Kitamura. The music presents a variation of rounded binary form fused with stylistic elements from traditional Japanese music. With room for looping—a common convention in boss-battle music, where partial repetition accommodates players' different playtimes—the structure seems to present every section for the given formal convention: introduction, main theme(s), contrasting theme, returning main theme, and concluding theme, though with some peculiarities, as we will discuss below. (For the corresponding video clip, refer to the supplementary video of Example 4 in which the subtitles indicate which section of the binary form is being played.)

Three elements from traditional Japanese music are equally significant to the boss-battle score. These elements are (1) a traditional Japanese flute, *shinobue*; (2) a minor-pentatonic collection, specifically a distinctive scale in-between the *yona-nuki* minor scale and the *Miyako-bushi* scale;[9] and (3) marked harmonic idiosyncrasies in the shinobue-violin duet that presents the contrasting theme (as we will discuss below, this duet is notable for its delicate two-voice counterpoint).

When the binary form turns out to be open-ended rather than self-contained, the structural and stylistic elements suggest that the boss-battle music not only stays receptive to looping, conventional in boss-battle music, but reflects narrativity by highlighting traditional Japanese musical elements. To make sense of this, the binary structure itself warrants further attention. Though we use the term "concluding" for the ease of discussion, the concluding theme in Example 4 hardly offers a proper melodic closure to the entire binary form. The concluding theme instead presents a descent (C♯–B–A–G♯) passed from the shinobue to the violin, providing a natural return to the contrasting theme and implied C♯ minor key area; the G♯ of the final descent can either link smoothly to the first pitch of the violin part (G♯) or proceed to that of the shinobue part (C♯). This return to the contrasting theme (Example 4)—where the shinobue and violin duet highlights marked harmonic idiosyncrasies—is repeated indefinitely until the boss battle is finished. As a result, the player confronting the boss enemy, specifically during the latter half of the battle, is likely to be exposed to the recurring returns of the contrasting theme, closely associated with the Japanese traditional elements mentioned above and also connected to the narratives of the battle.

If the binary form in this music is prone to repetition that foregrounds Japanese traditional elements (connected to the emerging narratives), the boss-battle design of "Demon of Hatred" itself features another kind of repetition

[8] For a discussion of the cultural tradition underlying Schubert's uses of dactyl rhythms for symbolizing death, see Karl Michael Komma 1994; for broader research on the historical developments of various rhythmic symbolisms for death in Western music, see Jörg Riedlbauer 1996.

[9] A conventional yona-nuki minor scale on F♯ would be F♯, G♯, A, C♯, D, F♯. If this scale is reordered to start from G♯, the output matches the scale consistently implied in "Demon of Hatred": G♯, A, C♯, D, F♯, G♯ (note that, just for the first three pitches, this also recalls a G♯Miyako-bushi scale though the last two pitches differ from the authentic one: the authentic G♯ Miyako-bushi would be G♯, A, C♯, D♯, E, G♯). Despite such an ambiguity, it is suggestive that both the music—though with Main Theme Pt. 2 being less so—and the reordered yona-nuki minor underline the G♯-D tritone more explicitly than the typical ordering of yona-nuki minor. (Main Theme Pt. 2 is less affiliated with the reordered yona-nuki scale because F𝄪, B♯, and C♯ are raised by a quarter tone at times; each of these pitches adds intonations to the ones expected for the implied scale or does not even belong to the scale.)

**Binary form in "Demon of Hatred"**
**in interaction with the boss battle phases**

**What musically happens when the battle is in the larger first phase**

Soon after the battle starts,
**Introduction** and **Main Theme Pt. 1, 2**
are played in order

→

Then, if the larger first phase of the battle continues, music returns to somewhere within **Introduction** and therefrom repeats everything listed in order




*Example 4. Rounded binary form and the emergence of Japanese stylistic elements in "Demon of Hatred" (transcription/reduction with limited rhythmic/melodic parts). Transcribed by Primary Author.*

**What musically happens when the battle is in the larger second phase**

Soon after the battle enters the larger second phase,
**Contrasting Theme**,
**Main Theme Pt. 2 (Returning)**, and
**Concluding Theme Pt. 1** & **Pt. 2**
are played in order

⟶

Then, if the second phase of the battle continues, music returns to **Contrasting Theme** and therefrom repeats everything listed in order




*Example 4.* *(Continued)*.

in response. As the player enters the boss arena, a gigantic burning boss enemy, the Demon of Hatred, is wreaking havoc on the training ground of a medieval Japanese castle; the player must stop the destruction and subdue the enemy once and for all. This mission will be completed by delivering three deathblows to the enemy. However, each deathblow requires a full-scale battle as the boss rises again after each of the first two deathblows with a fully replenished health bar and intensifying aggression (see 0:55 for the moment right after the first deathblow in the video); note also that the first deathblow triggers the second section in the binary form, the contrasting theme. The player, from this moment on, must survive the increasing difficulty until they manage to deal the second and then third (last) deathblows (2:10 in Example 4); the third attack not only instantly terminates the battle but cuts the music short no matter which section of the binary form was being played, implying the priority of the processes to reach the last deathblow over the structure of the associated music—and the priority of the emergent narrative over the conclusion of the battle (we will address this narrative in detail below). This eccentric, ruthless boss battle accounts for a T4 flow scenario in which the player faces a "tremendous" challenge in learning how to deal an effective deathblow, a "taxing" trial-and-error approach to survive through the initial and second deathblows, and a "teasing" situation where the third and last deathblow remains hard-to-reach or narrowly missed.

The "transfiguring" stage of the scenario may be particularly rewarding for the tenacious player who manages to proceed to the third and last critical attack. One possible reward is that the boss enemy's narrative becomes clear. Taking the shape of an *oni* (a rough Japanese counterpart of "ogre," though a demonic humanoid creature would be more accurate), this enemy—adopted from traditional Japanese horror stories—persists in their destruction and aggression out of anguish rather than as an indiscriminate threat. The video clip of Example 4 shows that the boss enemy often expresses their pain through bodily gestures (0:55–1:05). The infernal fire the Demon of Hatred wears can be understood as torture, which holds them in eternal suffering. In this way, the enemy is both a formidable creature and a hopeless victim, one who awaits the player's brave action of granting them permanent rest.

Another reward is the player's gradual awareness of their role in the combat. By stopping the enemy from falling deeper into pain and granting them a dignified death, the player is encouraged to finish the battle not as an act of extermination, but of mercy. Given that the enemy character was originally a supporting human NPC (non-player character), the entire battle may also be viewed as a tragic farewell to the player's ex-comrade who struggled not to succumb to the bloodlust and wrath rooted in their violent past as a notorious ninja but failed, resulting in their degeneration and metamorphosis: when the player delivers the last deathblow and finishes the battle, the boss thanks the player before vanishing in flame (Example 4, 2:04–2:33).

These experiences, described above, highlight the rewards of interactive storytelling and may be further enriched when the player recognizes the synergy between the two compositional ideas and the narratives. We interpret that the rounded binary structure, purposely lacking a proper closing theme, acts as a frame that loosely outlines the entire battle: the larger first half (intro and main theme) of the binary form is precisely mapped onto the battle from the beginning to the first deathblow; the second half (contrasting theme, returning main theme, and concluding theme in loop) is mapped onto the battle after the first deathblow and until the last one. Note that the battle after the first blow takes more musical themes than the battle before the first deathblow, implying that the music aptly responds to the nature of this battle phase as an indefinitely extensive, upper-level challenge. As it is likely more "taxing," time-consuming, and frustrating ("teasing") than the earlier phase, this painstaking process in which the player attempts to execute the second and last deathblows without dying effectively makes the associated T4 flow scenario exceptionally intense—and simultaneously makes the player's immersion in the narratives more rewarding.

The traditional Japanese elements, stressed especially in the repetition of the contrasting theme, arguably enrich the sorrowful narrative underlying the extensive and challenging combat. The expressive convention of the shinobue, well established in Japanese multimedia fiction, contributes to this effect. Consider, for one famous example, Tōru Takemitsu's score for *Ran* (dir. Akira Kurosawa, 1985). As Craig Lysy's (2018) review observes, Takemitsu's use of the shinobue is justified not only by the authenticity of the timbre as a Japanese period instrument, but by its versatility that charges the score with "wailing," "ambient," "playful," "lyrical," "plaintive," and "piercing" effects. The soundtrack for *Xenoblade Chronicles 3* (2022) is also worth mentioning: though the setting of this game is distant from Japanese period drama, the developers clearly draw on the melancholic expressivity of the shinobue in multiple tracks (see Nintendo 2022).

The affective significance of traditional Japanese elements is also supported by the yona-nuki minor scale, which often represents folkloric and/or melancholic tastes in Japanese popular music, and by the harmonic idiosyncrasies in the shinobue-violin duet from the contrasting theme.[10] The duet makes room for narrativity as its two-voice counterpoint is charged with crunchy dissonances

[10] One iconic example of the yona-nuki minor scale in Japanese

(see the reduction below the contrasting theme in Example 4). The intervallic language tempts us to hear an abstract representation of the boss, player, and their fierce conflict as the two instruments appear to be the two equal treble voices. In general, both parts maintain their individuality and simultaneously emulate a dazzling duel through marked rhythmic exchanges (e.g., the first two measures of the contrasting theme), voice exchanges (e.g., the violin and shinobue from the fourth measure), and contrary motion (e.g., the fifth to sixth measures). While similar or parallel motions also occur, consonances constantly alternate with dissonances and vice versa, as if capturing the tug-of-war between the player and the boss (e.g., the last two measures). What is more, the two voices continually return to the harmonic interval of the tritone (e.g., the G♯–D tritone in the fourth and sixth measures), possibly representing both the continuing pain in the boss and the unresolved tension between the player and the boss. Though these interpretations are subjective, they demonstrate the rich narrative potential that arises from the interaction of these features.

"Demon of Hatred" demonstrates another case of how boss-battle music performs an important role in the flow scenario and the "transfiguring" narrative experiences. While loosely framing the entire battle with the rounded binary form variant, the music focuses on repetition that puts more weight on the contrasting B section. By doing so, Kitamura's composition defies the conventional priority of the expository A section in classical rounded binary and instead draws the player's attention to the stylistic elements foregrounded by the B section, namely the traditional Japanese musical elements. The aesthetic of sorrow and affection in these elements, in turn, helps the player to become immersed in the tragic drama between the player and boss that develops over the larger second part of the battle.

### 2.5 *Elden Ring*, "Final Battle"

The fourth case study of FBR is *Elden Ring*: "Final Battle," composed by Tsukasa Saitoh. It first establishes straightforward thematic cyclicity. The lobby or title-screen music of *Elden Ring* presents a four-note brass motive (A–B–A–G♯) over the lower A pedal; this returns in "Final Battle," suggesting that the player is confronting one of the ultimate goals of their journey (mm. 1–8 in Example 5 or 0:00–0:13 in the supplementary video).[11]

However, as the boss battle enters the second phase, the cyclical motive gives way to a contrasting, softer idea. This new idea also originates from the lobby music, if only partially, specifically the harp introduction that precedes the brass motive. Note that, whereas the original harp intro comprises just two oscillating chords over an A pedal (Am and $B^{\varnothing 4}_{2}$) and a three-note figure (E–A–B), the version in "Final Battle" presents the preexisting harp material (mm. 10–13 and 0:18–0:39) with an added soprano vocalise (mm. 14–19 and 0:40–1:19). This duet, not at all prefigured in the lobby music, is followed by another unprecedented musical idea: a choir singing unintelligible lyrics over colorful, modal harmonies (e.g., B♭M to Dm to $Am^{4}_{2}$ imply D Aeolian scale in mm. 20–25 and 1:20–1:40). Functioning as a miniature contrasting idea against the preceding harp-voice duet centered on A, this choir is followed by a similar duet, resulting in an embedded ternary structure defined by harmonic and textural elements (mm. 28–40 and 1:41–2:14).

The bold move from one compositional idea to another—notably in correspondence to the first and second phases of the battle and reversing the order of the original lobby music (i.e., the harp intro and then the brass motive)—suggests more than a cyclicity between the lobby music and "Final Battle." Through the series of ideas unforeseen in the lobby music, such as the harp-voice duet and choir, the music for the second phase mirrors a special narrative underlying the entire boss battle. Located inside a massive tree, Erdtree, the first boss arena represents the very heart of the game's world, despite being unveiled for the first time in this battle. In this meaningful place, the player confronts Radagon of the Golden Order, one of the most powerful and influential rulers of the world of *Elden Ring*—or Lands Between. Fighting Radagon thus appears to be the final trial in the player's journey to become the new ruler of Lands Between. However, there is a plot twist: as soon as the player defeats Radagon, a mysterious creature named Elden Beast rises from the ground and teleports both itself and the player to an otherworldly space where numerous trees, as tall and big as Erdtree, have already risen into this space. It is implied that the Elden Beast is a transcendental creature from outer space, cultivating countless Erdtrees as the nexuses through which it controls

popular music is enka. Per Okada Maki and Gerald Groemer 1991, the yona-nuki minor scale preserves intervallic traits of more traditional, folk-oriented Japanese scales despite its relatively young history; the authors suggest, for this reason, that this scale has been suitable for enka—the Japanese love songs self-claimed to be a successor of "traditional sentiment" (286).

[11] It is also noteworthy that an almost identical motive (ascending then descending by semitone, e.g., D♯–E–D♯–D♮) appears in the main theme of *Demon's Souls*, the game that has become the unshakable foundation for subsequent APRG titles by FromSoftware (*Dark Souls I–III*, *Bloodborne*, and *Elden Ring*). Both the earliest and latest successes of the studio thus share similar musical motives, though it is unclear whether it is coincidental or intended.




*Example 5.* *Cyclical brass motive as the initial idea and then the emergence of the harp and vocal ensemble in "Final Battle" (two-part transcription/reduction). Transcribed by Primary Author.*

Lands Between and possibly other worlds across the universe; in this new boss arena, Elden Beast turns hostile to the player and begins the second phase of the battle.

One possible T4 flow scenario for this battle would be shaped by both boss enemies and the shifting nature of combat. If facing Radagon in the first phase is a climax of the player's journey to become the new ruler of Lands Between, facing Elden Beast in the second phase is a lesson about the ultimate truth of Lands Between: this alien creature was manipulating Lands Between and other worlds across the universe. Adapting to this dramatic shift is a "tremendous" challenge, while learning how to manage the different threats from Radagon and Elden Beast is a "taxing" and even "teasing" process—the player must go back to the duel with Radagon whenever they die in combat with Elden Beast.

What interactive narratives, then, could a player with mature efficiencies access through the entire battle design? We offer an interpretation of this narrative as a revelation of both the truth about *Elden Ring*'s universe and the player's position in the game. First, the sovereignty of Lands Between turns out to belong to neither the existing figures (e.g., Radagon) nor the new challengers (e.g., the player). Second, even though the player may survive and vanquish the hidden ruler of the world, Elden Beast, this victory does not confirm that the battles are truly over; who is to say that no other creatures will intervene and manipulate Lands Between? Therefore, the player's position after the completion of the battle may be closer to that of a spectator than a protagonist, one who just learned the ultimate truth about *Elden Ring*'s world; it is still uncertain if this spectator will be able to change the precarious relationship between Lands Between and mysterious invaders from outer space.

These potential narratives, representing some of the final experiences that *Elden Ring* aims to offer to players, are further emphasized by the boss-battle music.[12] One way by which the music enhances the boss-battle narratives through its compositional details is associating the two different musical styles—that is, the muscular brass motive and the softer harp-voice ensemble—with the two enemies confronted respectively in the first and second phases. By doing so, the music indicates that the two bosses are fun-

[12] This nihilism offers a notable contrast from a case discussed in Thomas Yee 2020. In his discussion of the celebrated JPRG series *Xenoblade Chronicles*, Yee (2020) observes that the death of god serves as the core narrative theme for the boss battles and the central musical trope of the associated soundtracks. Those narrative themes and musical tropes are driven towards a positive, active subtext, unlike the empty, inert counterpart in *Elden Ring* and "Final Battle."

damentally different in nature. Radagon is a formidable antagonist who vanquishes his foes with both physical and spiritual powers. Elden Beast is a mysterious creature without a clear physical form, whose origin is not specifically explained but implied to be outer space. Assumed to be the avatar of what is called the Greater Will—the invisible, transcendent being that claims dominion over Lands Between but does not directly communicate with most living things in the Lands—Elden Beast's message is likewise not entirely clear (just like the unintelligible choir lyrics) though it does not hesitate to eliminate the player and continue ruling the world from the shadows.

The other way by which the music enhances these narratives is by mirroring the unhealed rupture between the two world views. If the muscular brass motive of the first phase of battle reflects a view that Lands Between is for warriors, challengers, and their conflicts, then the music for the second phase may be responding to a different world view: that Lands Between is in fact ruled by a transcendental figure from outer space, whose mysterious origin is musically captured by the otherworldly, unintelligible soprano and choir.

The two different compositional ideas and styles, without any sign of mediation, give way to the fading sounds of shattering glass when the battle is over (Video Example 5, 2:14–2:20). When listening to this sound effect, which follows the musical fade-in, one may recall both the literal image and the abstract metaphor of "shattering." For players attentive to this repeated metaphorical expression in *Elden Ring* (e.g., the narration of the cutscene played when the player selects a new game in the lobby screen), the shattering noises heard after "Final Battle" may be another layer of nihilism over the one already charging the music. If the two unmediated contrasting styles reveal the fractured rulership represented by Radagon the hero and Elden Beast the alien, the sound effect seems to signify a nihilistic truth that the same rulership, once shattered, may never become a complete whole again—even though the player vanquishes both the nominal (Radagon) and hidden (Elden Beast) rulers of Lands Between.

## 3. More on Ludomusical Narrativity and Interactive Storytelling

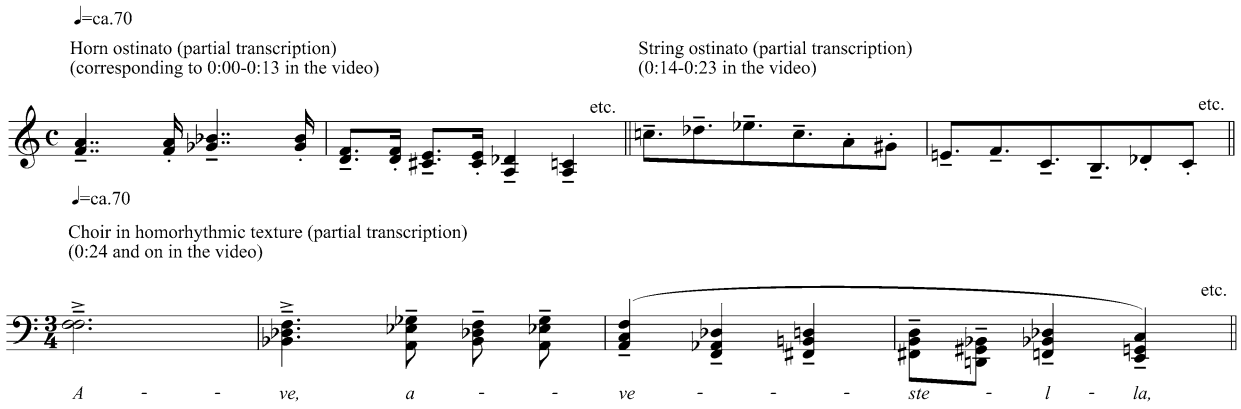
Our analyses of the four case studies illustrate how features of F-ARPG boss battles intersect with the associated musical features, contributing to the demanding but unique player experiences—specifically the "transfiguring" stage in the T4 flow scenario that functions as the peak of interactive storytelling. We believe that such experiences, enabled by the interplay of musical and design features, help *Bloodborne*, *Dark Souls III*, *Sekiro*, and *Elden Ring* to compromise neither the general difficulty nor the broader growth of fandom. When the boss battles expose fresh players to both the challenging enemy designs and original nondiegetic music, the flow state is frustratingly hard to reach but firmly tied to the "transfiguring" experiences of narrative(s). By exploring how players could progress through the T4 flow scenario, and how they could immerse themselves into narratives with the assistance of the music, our analyses show the unusual value of FBR in not only research on ludomusical narrativity but the experience of interactive storytelling.

In the remainder of this article, we introduce a few supplementary cases that further emphasize the relevance of both ludomusical narrativity and interactive storytelling to the boss battles and their nondiegetic scores in F-ARPGs. As we mentioned in the earlier part of the article, interactive storytelling comes from the discipline of product design; while seemingly remote from ludomusicology and music analysis, it nonetheless has potential as a conceptual framework to account for the stories emerging through repetitive yet gradually transformative interactions between a computer-programmed audio system (which, of course, includes FBR) and a digital product user (which includes F-ARPG players).

In the previous discussion, our primary analyses relied on the T4 flow scenario to make sense of the compositional ideas and their contribution to interactive storytelling; the following FBR cases are characterized by immediacy and straightforwardness rather than gradual development of the flow scenario. These examples show how relatively simple compositional ideas can immediately affect a player's interactions during boss battles, enriching emergent stories through (1) exoticization of boss enemies, (2) sonic portrayal of physical traits of boss enemies or boss arenas, and (3) representation of the changing states of aggression of boss enemies.

The FBR examples related to the exoticization of boss enemies often rely on musical tropes. Sean Atkinson (2019) frames musical tropes as related to topics but much more flexible; whereas a topic would be "largely unaltered and presented in a normative context," a trope may present creative and dynamic treatment of one or more topics so that new meanings can be signified ([4]).[13] While Atkinson's

[13] Note that, like Atkinson (2019), we rely on the common understanding of the term topic, drawing upon the literature by Kofi Agawu, Danuta Mirka, and other scholars engaged with Topic Theory. Agawu 1991, one of the seminal works in this literature, defines topic as a musical material/sign "significant only within a cultural context that recognizes the conventional associations of certain kinds of musical material" (16). While the context referred to by the author is mostly the Classical era, researchers are considering other cultural contexts in their recent contributions to topic




*Example 6.* *Choir in Latin as a trope in "Living Failure." Transcribed by Primary Author.*

(2019) theorization of tropes is primarily interested in flying sequences in video games, we find that his term works with *Bloodborne*: "Living Failure," *Elden Ring*: "Divine Beast Dancing Lion," and other examples from FBR.

In *Bloodborne*: "Living Failure," composed by Suzuki and Penka Kouneva, at least two religion-associated topics (homophonic mixed choir and ecclesiastical Latin lyrics) are combined into a trope that characterizes the Otherness of the boss enemies called the Living Failures.[14] This trope emerges at the peak of the tension built up through the two impulsive ostinato patterns (see the first system of Example 6), presenting a surprising contrast for inexperienced players: a choir homophonically intones the Latin phrase, "Ave, ave stella!" ("Hail, hail the stars!") while the boss enemies raise their hands and summon meteorites from the void (see the second system of Example 6 and 0:24–0:40 in the supplementary video). By presenting the boss enemies as religious conjurers of astronomical phenomena—whose powers are as incomprehensible as the Latin is to non-Latin speakers—the musical trope in "Living Failure" effectively alienates the boss enemies from the player, though the trope itself draws upon familiar, religion-associated topics.[15]

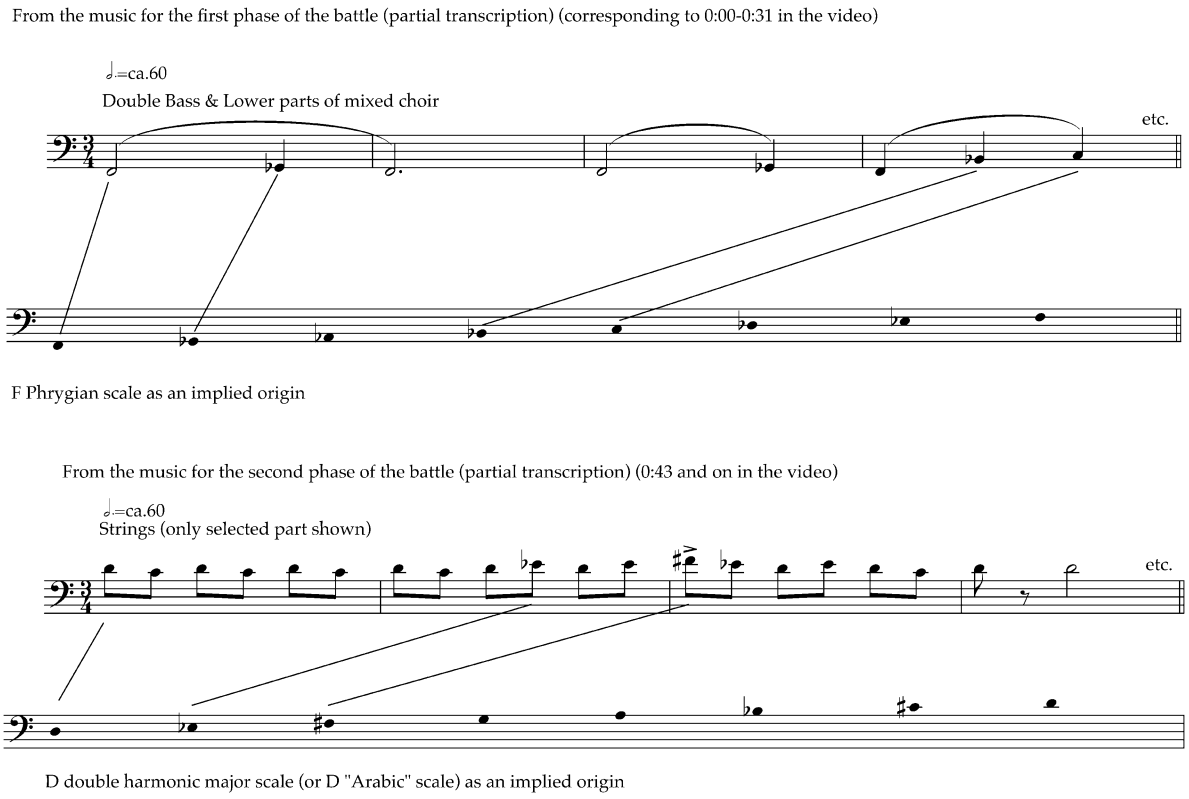
In *Elden Ring*: "Divine Beast Dancing Lion," composed by Shoi Miyazawa, ♭2̂ and the augmented second are combined into a trope highly reminiscent of the double harmonic major scale or the so-called "Arabic" scale. As Example 7 shows, the ♭2̂ appears in the form of G♭ (♭2̂) above F (1̂) in the music for the first phase of the battle, implying an F-Phrygian scale as the possible origin. Then the augmented-second interval between E♭ and F♯ emerges in the music for the second phase, this time foregrounding an obvious affinity with the "Arabic" scale and thus a Eurocentric, exoticist undertone. While the boss design does not directly refer to Middle Eastern cultural stereotypes, the musical idea nonetheless contributes to the exoticization of a real-world non-Western culture: as the boss's visual design suggests in the video, there is a clear reference to the Chinese lion mask dance. Given that this dance tradition is prominent in Chinese-speaking communities, the choice of Arabic scale (even if fragmental) may be odd and even problematic, as the trope both perpetuates Western exoticist musical traditions and dilutes the Chinese cultural origin of the boss design.

FBR examples highlighting the physical traits of boss enemies or spaces largely utilize gestural ideas. In *Elden Ring*: "Dragon," composed by Kitamura, the chromatic descending motion from the G♭ to F (mm. 10–13, m. 17 in Example 8) induces a sense of strong gravitational pull typical of ♭2̂ resolving toward the F tonic; in other words, the example can be interpreted as the musical embodiment of a heavy and enormous enemy (such as a dragon) diving toward the player. While this effect seems self-explanatory, the same idea also recalls Wagner's *Leitmotiv* for giants from *Der Ring des Nibelungen* (1876), whether intentionally or not (see Example 9), supporting this connection between

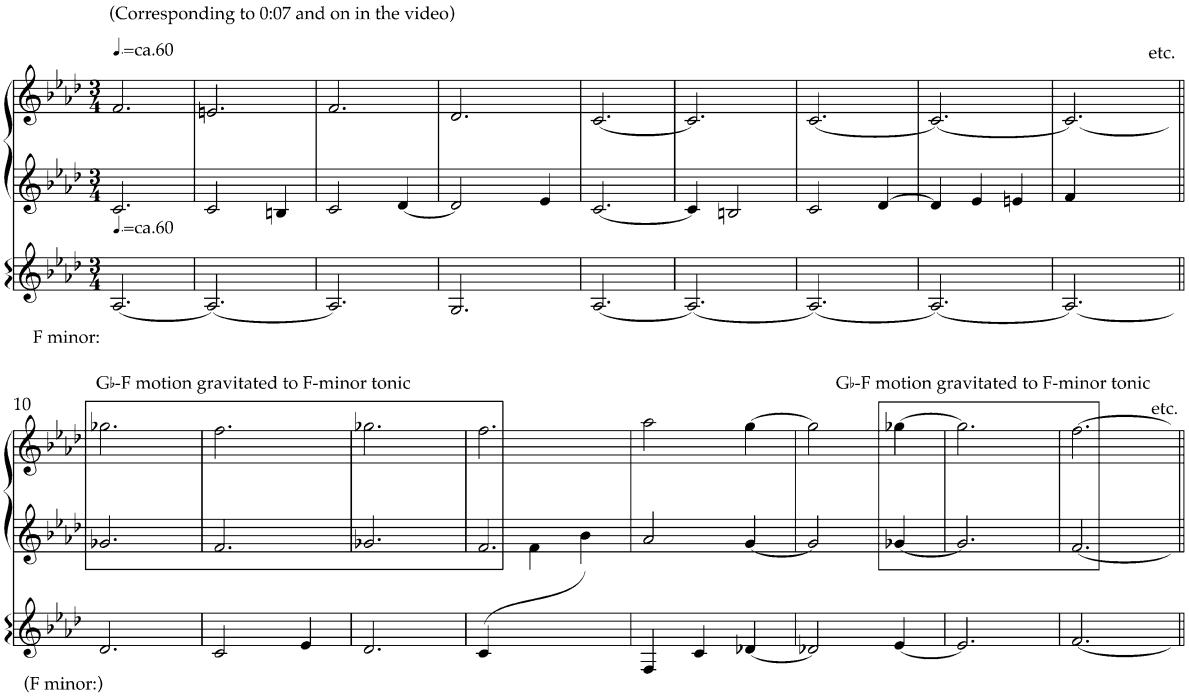
studies. Similarly, our discussion of topics emphasizes the musical materials/signs familiar and associable for a general audience of twentieth-century and contemporary multimedia fictions—the fantasy genre in particular.

[14] Lavengood's (2024) discussion of the topics common in film music precedes our discussion as it covers similar uses of choirs and Latin texts under what the author categorizes as the "ominous chant" topic. Isabella van Elferen (2013) also observes ecclesiastical choir and plainchant as the ideas often summoned for an essential musical trope or imagination in medievalist fantasy fictions (5–11).

[15] *Dark Souls III*: "Deacons of the Deep," composed by Suzuki, deserves mention as another relevant example that transforms religion-associated topics into a trope of alien Others. Over the battle between the player and a group of intimidating, degenerate priests, the score features a male choir singing a hymn-like melody in the mid-to-lower register, accompanied by a grim-sounding pipe organ.




*Example 7. The ♭2̂ and augmented seconds in "Divine Beast Dancing Lion" (part transcription). Transcribed by Primary Author.*



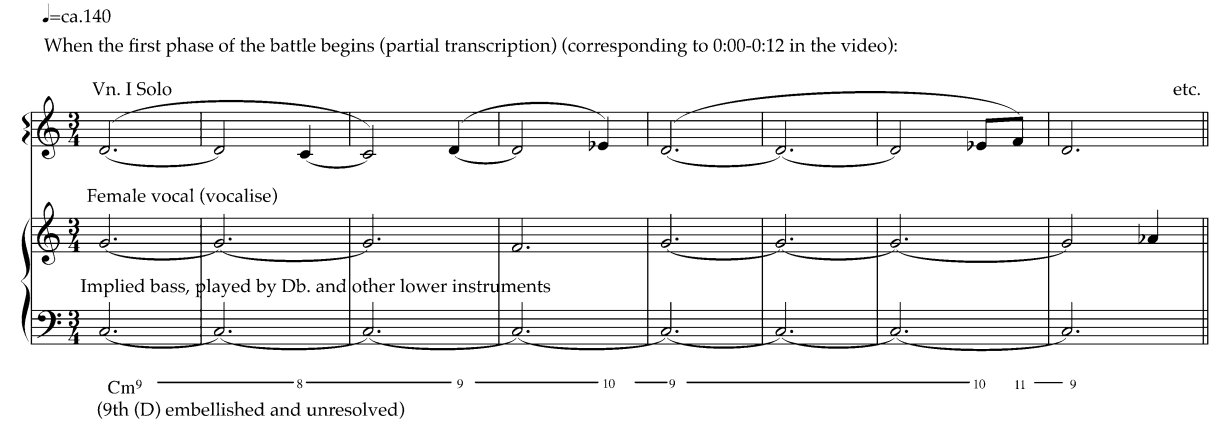

*Example 8. Descending chromatic motion as the gestural representation in "Dragon" (three-part transcription/reduction) (compare with Wagner's Leitmotiv for giants in F minor). Transcribed by Primary Author.*




*Example 9. Wagner's Leitmotiv for giants (transposed to F minor). Typeset by Primary Author.*




*Example 10. Sinking stepwise melodies as gestural representation in "Margit the Fell Omen" (two-part transcription/reduction). Transcribed by Primary Author.*




*Example 11. Harmonic near-transposition between the openings of the first and second sections in "Malenia, Blade of Miquella" (three-part transcription/reduction). Transcribed by Primary Author.*




*Example 12. Tonal transposition between the first and second sections of "Mohg, Lord of Blood" (three-part transcription/reduction). Transcribed by Primary Author.*

musical gesture and size. In *Elden Ring*: "Margit the Fell Omen," composed by Saitoh, the sinking stepwise melodic loop, in which every note is accentuated, gesturally emulates the boss enemy's ominous footsteps as they corner inexperienced players in combat (see Example 10).[16]

Examples from FBR that reflect the changing aggressions of boss enemies often use "expressive tonality." Coined originally by Robert Bailey (1977), this term was later adapted to support Frank Lehman's discussion of harmonic intensification in film scores (Lehman 2018, 54). Expressive tonality refers to a chord or melody that is transposed in either direction: upward to produce intensification or downward to ease tension. Additionally, it tends to involve various patterns of transposition including, but not limited to, semitone and whole-tone transpositions, and modal flexibility (either preserving the original mode or shifting to its parallel).

The following two examples from FBR present instances of upward, mode-preserving transpositions (note

[16] While our discussion focuses on two examples that foreground the physical traits or movements of boss characters, there is a notable example focusing on the movement the boss enemy forces the player to repeat during the boss battle. In *Bloodborne*: "Micolash, Host of the Nightmare," composed by Michael Wandmacher, the boss keeps fleeing and thus forces the player to repeatedly climb the stairs to catch up to them. This peculiar spatiality is gesturally represented by the piano and its ceaselessly repeating sixteenth-note figures.

that the first example does not realize a literal transposition, while the second one does). In *Elden Ring*: "Malenia, Blade of Miquella," composed by Kitamura (Example 11), the music for the first phase of the battle begins with a Cm9 sonority with an embellished, unresolved chordal ninth (i.e., 9th–8th–9th–10th–9th, and so on), whereas the cinematic cutscene leading to the second phase opens with a GmM7 sonority. This near transposition from Cm9 to GmM7 introduces a tense dissonance known as the "Hitchcock Chord." This chord, employed by Bernard Herrmann in *Psycho* (dir. Alfred Hitchcock, 1960), combines a minor triad with major seventh.[17] In the music that opens the intervening cutscene (0:12–0:25 in the supplementary video of Example 11), the major seventh in the GmM7 delivers an unsettling impression originating from its tendency toward a perfect octave resolution. We feel this tendency musically responds to the visual transformation of the boss enemy, Malenia, from a defeated warrior to a divine being with supernatural powers.

In *Elden Ring*: "Mohg, Lord of Blood," composed by Miyazawa (Example 12), the first phase of this boss battle is coupled with the B♭-minor tonality (mm. 1–5); however, the beginning of the second phase suddenly modulates upward to the key of D minor (mm. 6–10). Coinciding with the boss enemy's strengthening ritual—such as the repeated incantation of "nihil!" ("zero!" in Latin) (0:40–0:44 in the supplementary video of Example 12)—this ascending key transposition serves as a straightforward representation of the intensifying battle, as in the previous example.

## Conclusion

Focusing on boss-battle design and associated original scores, our study has shown that F-ARPGs offer a rich and promising repository of case studies. By combining and building upon the theory of flow and the concepts of ludomusical narrativity and interactive storytelling, the FBR case studies demonstrate how boss-battle music can contribute to the distinctive achievement of F-ARPGs, namely the equal pursuits of higher difficulty and fandom growth. For players exploring these games for the first time, reaching the flow state and becoming proficient in boss battles may offer "tremendous," "taxing," and "teasing" challenges. Nonetheless, whether through simple or abstract musical ideas, FBR noticeably impacts players' active perception—once they develop efficiency—of both bosses' stories and their own progress. The resulting immersion of the player in these narratives explains how boss battles in F-ARPGs can be "transfiguring," and thus fascinating, experiences for players.

While our future research will address the lack of ethnographic primary sources and the speculative limits of our methodology, we strongly believe that our detailed analyses have proven the potential of cross-disciplinary conversations. The flow scenario, ludomusical narrativity, and interactive storytelling can serve as effective conceptual frameworks for further analysis beyond the boundaries of F-ARPGs and/or the medieval fantasy genre. We hope that these concepts will inspire more researchers to explore how the interaction of music and game design contributes to players' perception and internal development through repetitive but transformative experiences.

## Notes on Author Contributions

Primary Author has developed the methodology and the discussions of the music-theoretical analyses, and has structured the manuscript.

Co-Author has developed the cross-disciplinary discussions and helped Primary Author to integrate such discussions into the analytical methodology.

This manuscript represents the latest complete revision resulting from the cooperative and collaborative processes by Primary Author and Co-Author.

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[17] For an accessible survey of the nicknamed chord and its deployment by Herrmann for *Psycho*, see Summers 2024b.

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