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Press Start to Learn

The educational value of video game culture for classical music

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I hereby declare that, in line with the Faculty of Arts' code of conduct for research integrity, the work submitted here is my own original work and that any additional sources of information have been duly cited.

List of figures and musical examples

Abstract

With the omnipresence of video games in today's society, there is an increasing interest in understanding video game music in the academic world, exploring the subject from music-analytical, cultural, and psychological perspectives. This thesis focuses on video game music's pedagogical aspects and assesses its educational value regarding classical music by examining the entwining paths of both worlds of music. Understanding this interplay may enhance music education techniques and nurture new avenues for classical music engagement. The benefits and limitations of video game music culture as a gateway to classical music are explored through three case studies. Through a gameplay analysis based on my playing experience, music game *Pianista* was found to have mixed potential regarding musical skill transfer but excels in introducing players to classical music in an engaging way. A sheet music analysis of the technical and musical aspects in "The Rebel Army" from *Piano Opera Final Fantasy* concluded that video game music piano arrangements offer a valid exercise in classical piano lessons. Finally, a small-scale ethnography based on 30 in-depth interviews revealed the profound role of video game music as a gateway into classical music. The participants' experiences are complemented with findings in neuroscience, expressing how the interactive and immersive nature of the medium creates strong emotional connections that can trigger interest in other music genres, including classical. This thesis argues that the intersection of classical and video game music is a complex, dynamic, and formative space where different musical worlds interact, sparking both appreciation and creativity.

Introduction

In the past decades, video games have evolved from a niche hobby to mainstream entertainment, pushing the technological possibilities of the medium along the way. Video game music has come a long way too, from the first electronic "bips" to extensive live-recorded soundtracks. Video game music composition is an endless diverse field of cross-pollination between musical genres and composition techniques, aiming at enhancing the gaming experience as much as possible. In the mix of styles, classical music has been a major inspiration throughout video game music history. The music did not stay inside the boundaries of the virtual world and became an inclusive, flourishing culture of music, mainly present on online platforms like YouTube and Discord where fans can easily communicate. While the interactivity between the game software and the player have long been a popular subject of research, these video game music communities create meaningful musical interactivity between players as well.

I do not come from a musical family, and while my grandfather adored classical music, no one took me to concerts or pushed me to play an instrument. Therefore, my choice to pursue my biggest passion and study Western classical music (henceforth "classical music") surprised my family. While any attempt of an objective autobiographical inquiry is inherently flawed, I grew to believe that video game music is one of the most significant factors in developing my passion for classical music and piano playing. My hypothesis is backed by tangible evidence from my childhood and early teens: an old mp3-player, stacks of homemade CDs, and stacks of printed sheet music - all full of music from video games. Certainly, video game music was my gateway into classical music and piano playing, but do others share the same experience?

In this thesis, I investigate how video game music can act as a gateway into classical music. The research question starts from two assumptions. First, that video game music and classical music have aspects in common. Secondly, it implies that classical music is in need of a gateway. Classical music also seems to struggle to affirm its relevance in today's society, as it is gradually marginalized in music education and by the government system. This is arguably due to classical music now being "immersed in a curricular system regulated by technocratic interests and neoliberal pragmatic economists".[1]

To illustrate in terms of Flanders, the quality of music education in general has been deteriorating in the past years. It is no longer taught as a subject in Catholic schools since it was replaced by the comprehensive subject "Communal, economic, and artistic formation" (Maatschappelijke, Economische en Artistieke vorming) in 2021, a compulsory subject taught every two years which

[1] Angel-Alvarado 2019: 2.

translates to a mere 10 hours of creative lessons in secondary school.[2] A recent reform of the government-funded art education system in 2018 aimed at letting children start instrument lessons through an initiation course sparked much critique. While the reform succeeded in having more students in music education, the government failed to provide schools with the extra funds needed to upgrade their infrastructure and hire sufficient teachers, leading to a decline in quality of the education in general.[3] Besides this, the government has consistently been decreasing grants for arts in general. In 2019 this provoked major protests from the cultural sector after the government decided to decrease the subsidies to artistic projects.[4] These anecdotal examples are not exclusive to Flanders and show how music is undervalued by the system.

Video game music on the other hand struggles with being taken seriously and is largely unknown as a music culture outside of dedicated fan circles. I believe bringing both worlds of music together will create new bridges that offer great benefits, not only for individual musical growth but also for both cultures of music in general. The research question is approached from an educational angle, focusing on what video game music can teach about classical music in a broad sense, ranging from musical skills to music appreciation.

The assumption that video game music can be a bridge to classical music is, aside from being grounded on my own experiences, based on scientific theories regarding the development of musical taste. Neurologic study suggests that musical taste forms during puberty when the development of the prefrontal cortex causes identity formation. Until these connections have solidified by the mid-twenties, the emotional parts of the brain have the most influence. During this time of transition, stimuli are critically assessed by the subconsciousness as things to be either accepted or rejected.[5] Music encountered during that period, therefore, has a much higher chance of becoming part of our musical preferences.

This period of self-development coincides with a time when video games are widely consumed.[6] Research into the neurological response to video gaming points to the link between interactivity and emotive response, which then further affects the experience of nostalgia. The interactive and immersive nature of the medium is therefore exceptionally capable of forging strong personal connections with music. Additionally, studies on brain activity and music appreciation have revealed that hearing music familiar to our general preference triggers positive reactions in the brain, relating

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[2] Petralia 2020 “Leerkrachten bezorgd over toekomst artistieke vakken”.

[3] Goossens 2018 “Pianolessen volgen?”.

[4] Segers 2019 “Forse Besparingen in de Cultuursector”.

[5] Stephens-Davidowitz “The Songs That Bind”

[6] YPulse “How Video Games are Influencing Gen Z”

familiarity with emotional engagement and aesthetic preferences.[7] Applying these facts to video game music and classical music, this implies that classically inspired video game soundtracks have the potential to profoundly impact musical development in favor of classical music.

The thesis investigates video game music's educational value for classical music in two parts: (1) a preparatory literature review and (2) three case studies that each approach video game music's educational potential from a unique perspective. Chapter 1 begins with a contextualization of the concepts of 'video game music' and 'classical music' separately. It delves into the formal aspects and aesthetics of video game music through Karen Collins' theories on video game sound, interactivity and technical limitations and Elizabeth Medina-Gray's research on modularity in video game music as framework. Classical music's historical and subjective nature is addressed through Matthew Gelbart's *Invention of "Folk Music" and "Art Music"* and is complemented with trends in music consumption patterns to illustrate its changing position in modern society. Chapter 2 explores the intersections of video game music and classical music both in-game and in real life, using William Gibbons' *Unlimited Replays: Video Games and Classical Music* (2018) and Stefan Greenfield-Casas' *Re:Replay: On the Classical Arrangement and Concertization of Video Game Music* (2022) as a framework. Chapter 3 summarizes prior studies on music games and education and introduces James Paul Gee's concept of *affinity spaces* as a foundation for discussing video game music learning dynamics outside of gameplay.

The second part consists of three case studies, which aim to answer the research question from three distinct perspectives, supported by the findings of the literature review. "Playing to the Music in *Pianista*" is an experimental video game analysis reflecting on the educational value of the content and gameplay based on my personal playing experience. This case connects to previous research on rhythm games and introduces a focus on the educational value regarding conventional classical music education specifically. "The Rebel Army in the Piano Classroom" is a sheet music analysis, evaluating an official video game music arrangement as a piece for classical piano lessons in terms of technical difficulty and musicality. "Video Game Music as a Gateway in Retrospect" is a small-scale ethnography presenting an experimental summary of ways in which video game music acts as a gateway to classical music based on the personal experiences of 30 individuals.

[7] Pereira et al 2011: 1, 8.

PART ONE: STATE OF THE ART

1. Terminology

Both 'video game music' and 'classical music' are umbrella terms for different music genres and practices. In order to clarify the definitions adhered to in this thesis, this chapter will briefly contextualize both concepts. The scope of what denotes 'video game music' will be illustrated, followed by a description of its general characteristics and origins. Then, the meaning of 'classical music' today will be put in a critical historical perspective to point to the subjective and changeable nature of the term.

1.1 Video game music

The term 'video game music' is used to describe various aspects related to the audio in video games both in-game and beyond. It can refer to the music heard when playing, such as the soundtrack and diegetic and non-diegetic sound effects, as well as music derived from it, like covers and arrangements. *The Cambridge Companion on Video Game Music*, therefore, defines video game music in its most comprehensive form as a culture of music that "… encompasses a diverse spectrum of musical materials and practices".[8] Game sound is generally included in research on the relationship between player actions and emotions influenced by sound effects in-game. To study the music's pedagogical potential, I will focus on the soundtracks and arrangements but exclude sound effects. The use of 'video game music' in this thesis, therefore, refers to the soundtracks and arrangements only, unless stated otherwise.

Formal aspects: modularity and loops

Video game soundtracks have structurally and stylistically developed in function of the particularities of the medium. While music accompanying other visual media like film or theatre comments on the fixed action and emotions, video game music responds to the unpredictable player behavior, who holds power over pacing and the sequence of events. Video game music composers have tackled this challenge in two ways: by programming musical loops to accommodate the player's pace and by incorporating a modular structure to adapt to the unfixed player behavior. As Elisabeth Medina-Gray explains, "Real-time soundtracks usually arise from a collection of distinct musical modules stored in the game's code – each module being anywhere from a fraction of a second to several minutes in length – that become triggered and modified during gameplay."[9] As video game

[8] Fritsch and Summers 2021: abstract.

[9] Medina-Gray 2016: 53.

technology became more complex, two principal approaches to audio adaptivity emerged: linear loops and non-linear tracks.[10]

Linear tracks are non-interactive. They can be through-composed pieces of music accompanying a scripted event, or they can repeated in musical loops, in which case the track's beginning and ending need to flow into each other smoothly. A linear loop is non-interactive in the sense that it keeps repeating regardless of the player's actions or game state. The music is linked to an area or section and changes only when the player advances to another part. [11] For example, the track "Shrine" from *The Legend of Zelda: Breath of The Wild* (2017) plays when the player enters a shrine building to solve puzzles to get collect orbs. Regardless of the progress in solving the puzzle or status factors like the player's health, the background music keeps repeating the same linear loop and ends only when the player exits the shrine building.

Non-linear tracks are interactive and consist of musical modules. The music is interactive in the sense that it "interacts with the variables introduced by players and adjusts itself accordingly."[12] The modularity in video game music can be applied in two ways: horizontal re-sequencing or vertical layering. In horizontal re-sequencing, the soundtrack is a sequence consisting of multiple modules, of which the player's actions determine the arrangement. This approach to modularity is often compared to the 18th century "Musikalisches Würfelspiel" and aleatory music like Stockhausen's "Klavierstück XI."[13] For example, while the player travels the vast fields of the land of Hyrule in *Breath of the Wild*, different musical modules are played according to the mode of travel, the time of day and danger level. When the player rides a horse, the horse-riding theme starts playing. When an enemy approaches and a fight is initiated, battle music replaces the previous track. If the battle ends, this musical module is replaced by a new module connected to the player's actions.

In vertical layering, a track is broken up into multiple musical layers. Depending on the game state, a layer might be added, subtracted, or combined differently.[14] This technique is used in the "Hyrule Castle" theme in *Breath of the Wild.* The track consists of two layers varying in instrumentation: a percussive and lush symphonic version plays while the player is outside the castle, which transitions into a more intimate arrangement with organ when the player enters the interior.

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[10] Different authors use a different terminology to describe the reactivity types of game audio to player input. Karen Collins uses 'adaptivity' or 'dynamic activity', while Winifred Phillips prefers 'interactivity' to describe the ability of game sound to respond to the player's actions. (Collins 2008: 125).

[11] Philips 2017: 142, 163.

[12] Philips 2017: 168.

[13] Collins 2008: 49, Medina-Gray 2016: 54.

[14] Phillips 2017: 181.

A new aesthetic: 8-bit music

Hardware limitations of consoles in the early days of video gaming profoundly impacted the aesthetic and compositional approach of its music. The arcade game *Gun Fight* (1975) was the first game to use a melody: the "Funeral March" from Chopin's second piano sonata played whenever a player was beaten.[15] The next historical landmark is *Space Invaders* (1978), the first game with constant music in the background. These looping soundtracks were made possible by an invention called the 'programmable sound generator' (PSG). Sound chips would be the main technology used to generate sound in game consoles for the following three decades.[16] However, PSGs confronted composers with some limitations: the restriction of 3 to 5 pitches able to sound simultaneously, a limited amount of memory space on the cartridge and a knowledge barrier in terms of programming.[17]

Programmable sound generators (PSGs) could produce three pitches simultaneously, which was a significant improvement compared to the single 'bip' sounds of games before 1975. There were various types of sound generators, but in general, they would allow for three tone channels (two for melody and one for a bassline) and one noise channel to sound at the same time. With PSGs, it was possible to program pitch, vibrato, dynamics, and tempo changes.[18] Hence, composers could create music for up to three simultaneously voices. They had to consider that sound effects caused by the player (for example a jumping sound, a fighting sound, etc.) would take up one of the tone channels.[19] This meant that the melody lines had to be conceived so that at any given moment notes could be substituted with sound effects without noticeably disrupting the musical flow. The limitation of three pitches also meant that block chords in the accompaniment were impossible. As a result, some video game soundtracks took a contrapuntal approach or borrowed compositional techniques from the baroque and classical style to imply harmony to get the most out of the sound chips.[20]

The limited storage capacity of game cartridges also played another role in the ways in which early video game music was structured. Composers responded to this problem by composing in small modules from one to eight measures, which would then be put in a specific order by the game's code and looped, a technique taking up significantly less disk space compared to through-composing

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[15] Some video game music histories put the starting point in 1972's *Pong*, which is the first game that used a sound chip to generate three different 'bips'. Since this thesis will define 'video game music' as excluding game sounds, the starting point is chosen to be the first game that uses a melody.

[16] Fritsch and Summers 2021: 5-7, Newman 2021: 16.

[17] Collins 2007: 209

[18] Hirasawa 2020: 43, Fritsch and Summers 2021 5-7.

[19] Lynch 'From 8-bit to Chiptune'

[20] Cook 2021: 348. For more information and examples of composition techniques borrowed from classical music, read Gutierrez Rojas' *Programmed Baroque 'n' Roll*.

longer tracks.[21] For example, "The Rebel Army" theme from *Final Fantasy II* (1988) by Nobuo Uematsu consists of three modules (A, B and C) of each four bars and is arranged to loop in sections of [A-B-A-C].[22] How much music was used and how long each module and loop were, depended on the game genre. Role-playing games (henceforth RPGs) and adventure games tended to have the longest loops, arguably because these games could take many hours to complete. More fast-paced genres, like fighting games, had shorter loops, and simulation games might not have any music at all.[23]

Working with sound chips requires specific knowledge, as musical compositions had to be programmed using computer language. Most composers did not have sufficient knowledge to work with the new technology, and many early video game soundtracks ended up being composed by programmers with some notions of composition.[24] As Karen Collins remarks, this knowledge barrier might have been one of the reasons why early video game soundtracks were more focused on sound effects and often borrowed classical music instead of featuring a newly composed soundtrack, as sound engineers did not have the skill to compose, and using classical music was convenient.[25]

These hurdles did not hold back creativity, and video game music pioneers found ways to express their musical style within the medium's restrictions and produced iconic music that is prominent in today's popular culture, known by gamers and non-gamers alike.[26] Collins argues that "… rather than being the consequence of the limited memory available on the systems, loops were, at least in part, an aesthetic that grew as the games became more popular and more complex".[27] Collins' argument holds up, as today's video game composers use digital audio workstations and record the soundtrack with live musicians free from any technological restrictions but still use loops and refer back to the old sound chip aesthetic.

1.2 Classical music

Classical music is much more complex in meaning and connotation. Unlike video game music, which is unambiguously named after the origin of the repertoire classified under it, 'classical' as an adjective implies a value judgment. The online Cambridge Dictionary defines classical music in two ways. One is the stylistic period "used to refer to a style of music written in Europe between about

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[21] Collins 2017: 218.

[22] A transcription of the piece is included in the appendix "8.2 The Rebel Army".

[23] Collin 2017: 221

[24] Fritsch and Summers 2021: 6.

[25] Collins 2017: 215, 224.

[26] Hirasawa 2020: 43.

[27] Collins 2017: 218.

1750 and 1830". Next is the entry defining classical music as 'traditional in style or form, or based on methods developed over a long period of time, and considered to be of lasting value.'[28] Merriam-Webster online dictionary adds to this "of, relating to, or being music in the educated European tradition that includes such forms as art songs, chamber music, opera and symphony as distinguished from folk or popular music or jazz", essentially defining classical music by what it is not.[29] These definitions do not clearly demarcate the term's boundaries but instead use subjective and changeable concepts like 'traditional,' 'value,' and 'educated' to show what is included.

In academic terminology, classical music is often named *Western art music,* a culture of music characterized by its distinction from folk and popular music.[30] Although this term specifies the geographical origin of the music, by calling it 'art music,' the value judgment persists. Historically, classical music's connotation in terms of 'high art' only became the norm in the second half of the eighteenth century, under the influence of cultural nationalism and the romantic idea of the composer as a genius. Before, music was thought of in terms of its function (e.g. dancing, theatre, church service, chamber music), which determined musical form and character.

The same melodic material could be used in both high and low styles, showing that core musical characteristics did not relate to its function. What mattered was not *where* the music came from or who played it but *how* it was used. This changed from the second half of the eighteenth century, after which music began being categorized by origin. A distinction was made between music written by composers, which became known as 'art music,' and orally transmitted pieces with unknown authorship, which was called 'folk music.'[31]

Until now, classical music has kept defining itself according to binary oppositions rather than intrinsic musical qualities. While classical music might have been contrasted with folk music in the past, it is nowadays more put in opposition to entertainment. While this would imply that, again, classical music is defined according to functionality, it gives rise to a contradiction. If classical music is serious, sophisticated art as opposed to entertainment, then what would classical music in video games classify as? Clearly, classical music is being redefined by modern media.

The 'identity crisis' of classical music is further shaped by the changing consumption patterns of past decades. Just like the invention of music recording and the commercialization of vinyl records and CDs changed music from an experience to a commodity. The development of portable music players, the internet, and streaming services added to this that music has become instantly available

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[28] Cambridge Dictionary "classical".

[29] Merriam-Webster "classical".

[30] Glahn and Broyles 2012 "Art music".

[31] Gelbart 2007: 4-20.

anywhere. While this seems a positive change, the democratization of classical music through modern media has serious implications for listening habits.

Research has revealed that global attention span is declining under the influence of increased and fragmented information consumption through various media, as "the ever-present competition for recency and the abundance of information leads to the squeezing of more topics in the same time intervals as the result of limitations of the available collective attention" [32] These effects are perceivable in music too. Trends in pop songs show that tracks have decreased in duration. This is possibly related to the remuneration system of streaming services, who pay according to play count instead of song length, and the popularity of apps like TikTok and Instagram promoting short video content.[33]

Classical music, with its traditionally long forms compared to pop music, is clearly at a disadvantage. Multitasking has become the solution to consuming increased amounts of content, and music is especially suitable for background consumption.[34] This is confirmed by research on classical music listening habits. The most recent Royal Philharmonic Orchestra report revealed that 60% of people express listening to classical music on a daily basis as a background during other activities.[35] While this is a high percentage, these numbers need to be interpreted with caution, as a high percentages of 'background listeners' do not automatically lead to deeper engagement in classical music such as attending concerts and learning instruments.

This example illustrates how classical music seems to be redefining itself in modern society. Exploring such dynamics is not the aim of my thesis. However, these new consumption patterns of classical music relate to how video game music connects classical music, as will become apparent in the final case study. From here on, 'classical music' will be used as synonymous with Western art music, referring to historically and stylistically diverse music cultures that are distinguished from popular and folk music genres.

[32] Lorenz-Spreen, et. al. 2019 "Accelerating dynamics of collective attention".

[33] Bludov 2019 "The Effects of Shortening Attention Spans"

[34] Gresham 2022 "Welcome to the Era of Attention Inflation"

[35] Royal Philharmonic Orchestra 2022: 8.

2. Video game music and classical music

Ever since music became part of video games, classical music has been present in one way or another. This chapter aims to locate the crossroads between both worlds of music and explore what happens when classical music is 'gamified' and when video game music is 'classified'. The first section examines how classical music is adapted in video games and argues what functions it might fulfill. Outside gameplay, musical material from video games is extensively arranged and performed by both fans and the game companies in a myriad of music genres, classical music being one of them. The second section will introduce classical video game arrangements and briefly give an overview of the current tendencies in video game music concert culture.

2.1 Classical music in-game

Appearances

As part of the game soundtrack, classical music can appear in three forms: as a direct quote, remix, or stylistic inspiration. As a direct quote, the original piece is inserted in its original form, possibly re-orchestrated due to the technical capacity of the sound chip. In most cases, the pieces are rearranged or shortened so they can loop. An example is Debussy's "Clair de Lune" in *The Evil Within* (2014), where the piece is played at save points in a shortened version for piano and violin. Pieces are not always shortened; for example, the turn-based strategy game *Civilization 4* (2005) plays classical music in the background to battles in its entirety, as one game can take up multiple hours.

When classical music is part of a remix, the original piece serves as the melodic and harmonic base, after which the material is rearranged, reworked in a different genre, and/or combined with other musical material. An example of classical remixes can be heard in the soundtrack of *Catherine* (2011), where music from composers like Bach, Rossini and Borodin is remixed with rock elements to accompany puzzle stages. In the Nintendo Switch version of *Deltarune* (2019), Robert Schumann's "Von Fremden Ländern und Menschen" is chosen as a town theme and is remixed in chiptune sound with a newly composed B-section.[36]

Finally, classical music can appear more indirectly as the main inspiration for the soundtrack's compositional style and instrumentation. Music plays an essential role in communicating an understanding of the fictional world to the player and heightening immersion. When deciding the musical identity of a game, developers take various artistic and practical elements into account: the game's genre and gameplay, the game's setting, the presumed musical taste of the target market, and the scale and budget.[37] For example, in making the soundtrack for the Japanese RPG series *Dragon*

[36] The track is called "Empty Town" on the soundtrack and appears only in the Nintendo Switch version.

[37] Summers 2016: 72, 79, Phillips 2017 2017: 73, Michelmore 2021: 65.

Quest, composer Koichi Sugiyama (1931-2021) consciously took inspiration from various classical music genres, both in terms of instrumentation and compositional techniques, to complement the game's European medieval setting.[38] Every *Dragon Quest* game features the "Overture" as main theme, composed in the style of a classical march. *Dragon Quest I* and *II's* "Castle theme" on the other hand a two-voiced invention in baroque style. The 'classicalness' of *Dragon Quest*'s music is not only apparent in the original soundtrack, but also through the live orchestral albums and concerts that followed each new release.

Functions

When classical music is used in video games, this is done with specific reasons in mind. Composers need to be aware of the connotations and intertextual relations attached to the music to make proper aesthetic choices and avoid disturbance of immersion.[39] When used well, classical music can convey all kinds of emotional and situational information. The most extensive research on the topic of classical music borrowing in video games, has been conducted by William Gibbons. In general, classical music's functionality in video games can be summarized into four non-mutually exclusive categories: as a signifier of time and place, as a story and gameplay element, to refer to its connotation and to create contrast.

When functioning as a signifier of time and place, classical music provides the player with an aural 'compass' to guide them through the fictional world. Even when the player does not have extensive knowledge of classical music genres and history, culturally established associations nevertheless give players information about the time period, socio-cultural environment, and geographical place in many cases. An example is the soundtrack of *Civilization 4*, which features classical pieces from style periods that roughly parallel the in-game eras. For example, Gregorio Allegri's "Miserere mei, Deus" plays during the Medieval Era game phase, and the Industrial Era phase uses pieces from a.o. Brahms and Dvořák.[40] Another example is the Russian folk theme "Korobeiniki" and Tchaikovsky's "Dance of the Sugar Plum Fairy" in *Tetris* (1985), which is used

[38] Shmuplations "Koichi Sugiyama interview".

[39] Gibbons 2018: 27.

[40] For a complete list of the classical repertoire used in *Civilization 4*, refer to Summers' *Understanding Video Games Music* pages 98-100. It should be noted that *Civilization* 4's era game mechanics and musical choices lead significant music historical anachronisms. For example, J.S. Bach's music is featured during the Renaissance Era game phase, while the music from Renaissance composers such as Johannes Ockeghem and Palestrina plays during the Medieval Era phase. Furthermore, the pairing of music to the development of civilization insinuates a teleological understanding of music history. (Aksoy et al. 2022: 22, Summers 2017: 95, 98-100).

as a signifier of the game's Soviet origins.[41] An example of originally composed soundtracks using classical styles for this purpose can be heard in *Legend of Zelda: Ocarina of Time* (1998). The "Temple of Time" music is inspired by Gregorian plainchant, appealing to this type of music's ancient medieval and sacred connotation. In the same manner, *Final Fantasy Crystal Chronicles* features a soundtrack inspired by Renaissance secular music and period instruments like the recorder, the crumhorn and percussion to emphasize the pseudo-historical European setting of the game.

As a story and gameplay element, classical music is directly tied to the gameplay or the narrative. If music is the main element of the game, it is categorized under the genre of 'music game', which will be explored in-depth in chapter 3. Any game genre can have moments where classical music is related to the story or gameplay. For example, *Fallout 3* (2008) features a side-quest the player needs to find an NPC's lost violin. As a reward, the player becomes able to listen to classical music on the in-game radio.[42] In *The Legend of Zelda: Ocarina of Time,* the player must play short melodies on an ocarina to solve puzzles and trigger certain events.[43]

Classical music in video games can be used to appeal to a specific connotation, for example its reputation as 'high art' or a connotation originating from film. An early example of this function appears in *Gyruss* (1983), a space shooter arcade game featuring a remixed upbeat chiptune version of Bach's "Toccata and Fugue in D minor". As Gibbons argues, this juxtaposition of 'high art' and the new entertainment medium of video games at those times was a way to showcase that games could not only play music now, but that they also could play music as complex as Bach's.[44] Classical music can also refer to its connotation in film. An example is Wagner's "Ride of the Valkyries", which got an association with war and helicopters through the helicopter strike scene in *Apocalypse Now* (2001). There are multiple examples of games that have referred to this scene using Wagner's piece, using it in helicopter-related contexts, some recent examples being *Far Cry 3* (2012), *Battlefield 4* (2013) and *Metal Gear Solid V: The Phantom Pain* (2015).[45]

Finally, classical music is used in video games to create contrast, for example as a grotesque or humorous effect or as a juxtaposition of 'high' versus 'low' culture. For example, in *Bioshock* (2007) contrast is created by using Tchaikovsky's "Waltz of Flowers" as background music during a sequence where the player brutally fights off zombies, juxtaposing violence against elegant ballet music.[46] Another example can be seen in *Valiant Hearts: The Great War* (2014), where a car chase

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[41] Gibbons 2018: 24-25.

[42] Gibbons 2018 115-116.

[43] Austin 2021: 146.

[44] Gibbons 2018: 89.

[45] Gibbons 2018: 51-53.

[46] It can be argued that a juxtaposition of happy classical music and violent scenes too, is borrowed from cinema.

sequence is underscored with Offenbach's "Orpheus in the Underworld and Brahms' "Hungarian Dance No.5", adding humor to the frantic situation.[47]

2.2 Video game music in classical formats

Arrangements

Citations, paraphrases, and arrangements have always been part of classical music. Long before Franz Liszt (1811-1886) uplifted the practice of arranging, transcribing and re-imagining compositions from fellow composers to an art form, borrowing musical themes was already an established practice in classical music.[48] As Gelbart notes on the identity of musical themes before 1720, "once divorced from its original context, a tune was a tune. It had no essential platonic form, no essence that was private property – so it did not really matter whether it was conceived for a courtly masque or whether it was born in a barn in the next town. What mattered was its suitability and adaptation to the purpose at hand".[49] For example, the "l'Homme Armé" theme is a secular song that became popular as a cantus firmus for masses in the Renaissance and still appears in contemporary compositions. Another example is the "folia" theme, a dance theme from Southern European origin that served as the base for composers from the Renaissance to the Baroque and Romantic era such as Bach, Händel, Liszt and Rachmaninoff.[50]

The way video game themes are treated can be seen in the same tradition. Video game music is a popular material for arrangements in many musical styles, not only classical. This can be illustrated by a simple YouTube search of e.g., "Final Fantasy Main Theme". Search results will reveal a massive collection of musical content related to the main theme of the franchise: the original soundtrack version, piano solo transcriptions, jazz arrangements, symphonic reimaginations, chamber music ensembles, etc. –not to speak of the rock and EDM-inspired arrangements. The reason why video game soundtracks prove to be such a popular subject of arrangements is arguably a combination of several elements: the nature of the soundtracks that serve as the base material, the emotional and nostalgic connection forged with video game music and the participatory culture encouraged by the accessibility of the internet.

Video game soundtracks are often structured as short and (most often) looped pieces of music, as explored in chapter 1. The pieces' lack of an 'ending' due to the loop and their digital sound make them into ready-to-use building blocks for arrangements, either as stand-alone pieces where the

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[47] Quillfeldt 2016 "9 Times Classical Music Waltzed into Video Games"

[48] Kregor 2010: 1-4.

[49] Gelbart 2007: 20.

[50] Maes 2022: 112, Gerbino and Silbiger "Folia". Recent appearances of l'Homme Armé theme are Karl Jenkins' "The Armed Man: A Mass for Peace" and Christopher Marshall's "L'Homme Armé: Variations for Wind Ensemble".

original theme is expanded upon or as medleys. On top of that, the digital timbre of soundtracks from the 8-bit and the later 16-bit era, which represented real instruments but didn't quite sound as such, leave much potential and desire for acoustic interpretations and orchestrations.[51] As William Cheng rephrases in his evaluation of live adaptions of *Final Fantasy VI*'s opera scene, "Today's concert adaptations of early game music dispel the need for illusion by bridging the gap between virtual and real performing forces."[52] Indeed, for some players, video game music arrangements and live performances present the music as 'how it is supposed to sound'.[53]

To understand why video game music arrangements are so popular, it is necessary to grasp the unique and personal connection forged between the game and the player. As Jessica Curry illustrates, "Games can be 60 hours, so the emotional investment in the music is immense. It accompanies you on your epic and arduous journey and is with you from start to finish. Then consider that a theme may have accompanied a player not just for hours, not even for years, but for decades – Zelda, Mario, Final Fantasy– and you begin to understand how deeply those themes and melodies are adored by the players". Curry's explanation links interactivity, repetition, and nostalgia to the emotional response and value of the music. This is further explored by Michael Vitalino and Vincent E. Rone in *Nostalgia and Videogame Music*, who argue that the physical engagement required when gaming (i.e. using the controller) "can increase immersive experiences, emotional and autobiographical investment, and the potential of nostalgia". Following their theory, video game music arrangements can be seen as a physical manifestation of the emotional and nostalgic experiences of playing video games.[54]

The final element contributing to the culture of video game music arrangements is the internet, enabling fans and game companies to connect, distribute and create music on platforms such as YouTube and Discord. Video game culture – and by extension video game *music* culture – can be seen as an example of 'participatory culture', characterized by "a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, (…) one in which members believe their contribution matters, and feel some degree of social connection with one another."[55]

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[51] Greenfield-Casas 2022: 67-68

[52] Cheng 2014: 90.

[53] Greenfield-Casas: 17.

[54] A comprehensive study on nostalgia in video game music can be found in *Nostalgia and Videogame Music: A Primer of Case Studies, Theories, and Analyses for the Player-Academic.* (Aksoy et al. 2022: 2, 40. Webber "How Video Game Music Waltzed its Way on to Classic FM").

[55] Jenkins 2009: 3.

Arrangements by fans and game companies do not exist in a vacuum. On the contrary, they are recontextualizing and contributing to the history and perception of these video games as a whole. Melanie Fritsch approaches this dynamic through the concept of 'game musical literacy', a skill that "enables players to understand musical meaning during play (…) and understand creations made by other fans" and create contexts themselves to comprehend and analyze video game music arrangement practices.[56] Stefan Greenfield-Casas approaches the process of meaning-making through the Japanese notion of *sekaikan*（世界観, worldview). A *sekaikan* is an open-ended system of worldbuilding, shaped by material objects from the source material to anything derived from that. As long as people keep engaging with the content, the *sekaikan* evolves. Video game music arrangements, regardless of being official or fan-made, therefore participate in shaping the 'grand narrative' of the game and its music.[57]

Live concerts

As video game soundtracks lend themselves well for arranging as orchestral pieces and fans have a deep connection with the music, live orchestral concerts and albums have been a way for game companies to engage with the audience and legitimize the music of their games.[58] Starting as a practice exclusively in Japan as early as 1987, video game concerts have become increasingly common in the West in the past two decades, with official touring concert series and independent (amateur) orchestras performing video game music repertoire.[59]

Classical video game concerts exist in various formats, approaching musical material and the concert experience differently. Essentially, video game music concerts arrange tracks from the soundtrack into standalone musical pieces.[60] Video game concerts have different options for treating these pieces. They can expand a musical theme, so it becomes a separate work with an intro,

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[56] Fritsch 2016: p.100.

[57] Greenfield-Casas 2022: 91.

[58] Greenfield-Casas 2022: 23, Custodis 2013: 165.

[59] The first video game music concert staged music from *Dragon Quest I* and *II* by Koichi Sugiyama (1931-2021), alongside *Carnaval des Animaux* by Saint-Saëns. The first Western video game music concert took place in 2003, at the Leipzig Game Convention and features music from various Western and Japanese game composers. A history on the further evolution of video game music concerts can be found in *Re:Replay* by Greenfield-Casas. (Greenfield-Casas: 43-47 and Boeker "The Making of the First Symphonic Game Music Concert in Europe") A

[60] As Elizabeth Medina-Gray notes, while video game soundtrack modularity might relate to aleatoric music in the way it functions during gameplay, the way in which modules are isolated and become separate pieces outside of the game context "is similar to the common treatment of individual songs or numbers in opera and musical theatre, as well as in some film soundtracks". Medina-Gray 2016: 64.

development, and ending. This approach can be heard in, for example, the *Distant Worlds* series. Some arrangements stay as close as possible to the original game track, becoming essentially a reorchestration. For example, the *Undertale 5th Anniversary Concert*' brought a 2-hour program of reorchestrations for every piece from the soundtrack in chronological order. Concert programs can combine multiple themes into medleys or classical forms such as suites, concerti, and symphonies. Medleys are a popular format in the anniversary concerts that became prominent from 2010 onwards. Examples of this are the *Kirby 25th Anniversary Orchestra Concert*, which celebrates every *Kirby* game with an approximately 5 minutes long medley, and the Tokyo Olympics 2020 opening ceremony parade, where all nations entered the stadium accompanied by a 40-minute long medley of orchestral Japanese video game music. An example of a video game concert that arranges video game music as multimovement classical pieces is *Final Symphony – Music from Final Fantasy VI, VII and X,* where music from the game is reimagined as a symphonic poem, a piano concerto and a symphony respectively.[61]

'Classicalness' is not only expressed by the characteristics of the arrangements, but also by concert's location and the presentation of the concert experience. On one side of the spectrum are concerts organized in arenas, with a video screen playing gameplay footage accompanies the live music, as for example seen in the *Symphony of the Goddesses* concert tours. Here, the orchestra often plays with a click track to stay synchronized with the video. On the other end stand concerts programmed in major concert halls, without any form of visual spectacle besides the conductor and musicians' movement. An example of this is *Final Symphony*, which has played already in the Concertgebouw Amsterdam, Berliner Philharmonie, and Konserthuset Stockholm.[62] Under influence of the COVID-19 pandemic, a focus on online concerts has become increasingly common. For example, the *Genshin Concert* series featuring music from the action-RPG *Genshin Impact* are live-streamed on YouTube. Square Enix Music featured a series of originally composed piano arrangements in celebration of the 35th anniversary of *Final Fantasy*, released as separate videos on their YouTube channel.[63]

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[61] This classification is based on how the original themes are structured. Further distinctions in the degree of 'classification' based on parameters such as instrumentalization and compositional styles are not discussed here, but should be taken into account when assessing a video game concert's relation to the classical music tradition. See *Re:Replay* by Greenfield-Casas pages 143-151 for a more specific typology of video game music concerts.

[62] Game Concerts "Milestones"

[63] Clark "How to Watch Genshin Impact's Concert"

3. Video game music and learning

In recent years, multidisciplinary research between educational sciences, computer design, neurology, psychology, literacy, etc., has shed light on how video games and learning are connected. This resulted in academic attention for music games, a genre that features musical engagement in its gameplay. These publications still focus on video *games,* and research on the educational value of video game *music* is rare. The first section focuses on the results of previous research on music games and transferable musical skills. The second part will explore James Paul Gee's concept of *affinity spaces* as a tool for analyzing learning possibilities inside video game fan communities.

3.1 Game-based learning

The controller is the tool through which the player plays a video game, much like how an instrument is an object the musician uses to play music. This analogy may sound stretched, but a closer look at the genre of music games shows that the comparison is not random at all. As William Cheng argues, "Both gameplay and musical play involve the apprehension, interpretation, and manipulation of signs and materials within technical constraints and customs. (…) both have potential to facilitate trance, flow, and immersion; and both possess transportative powers, ushering us into otherworldly spaces and alternative states of mind".[64] This begs the question: can skills trained in music games improve a student's performance in conventional music education?

Types of music games

Music games are a video game genre where gameplay and/or narrative are centered around music. As a commercial label, 'music games' is used for games with primary musical gameplay. In academic discourse, it is often applied more comprehensively, and scholars have proposed various sub-categorizations to distinguish music games according to the types of musical interactivity and musical material.[65] For the purpose of this thesis, music games will be subdivided into only two categories: rhythm games (engaging with music is part of the gameplay) and music-themed games (music is part of the story/setting)

[64] Cheng 2014: 4.

[65] Austin 2021: 140. See Michael L. Austin's "Music Games" from *Cambridge Companion to Video Game Music* and Tim Summers' *Understanding Video Game Music* for an alternative and more extensive view on types of music games. My definition does deliberately not include composition games, such as Mario Paint, because they lack an objective and therefore arguably function more like software than games.

Rhythm games are music games in which the core gameplay centers around matching actions to a visualization of rhythms and/or pitches on the screen as accurately as possible. Examples are *Osu!* (2007) and *Theatrhythm Final Fantasy* (2012), in which the player clicks circles and traces lines to the beat of the music. Rhythm games can also be 'instrument simulators', putting the player in the position of the performer. Examples are *Trombone Champ* (2022), a parody trombone simulator that uses the same gameplay principles of *Osu!* and *Theatrhythm Final Fantasy*, and *Pianista – Invitation to Classical Music* (2016), where the player needs to hit falling 'notes' on a piano keyboard.

Some of these 'instrument simulators' require a separate controller designed in function of the game to augment realism, also called 'peripheral controllers'. Examples of peripheral music games are *Guitar Hero* (2005) and *Rock Band.* (2007), where players hold a guitar-shaped controller with buttons on the neck and body, Taiko *no Tatsujin* (2001) and *Donkey Konga* (2003), coming with drum controllers, and *Singstar* (2004), which uses a microphone to register pitch and rhythm of the player's singing.[66]

The typical rhythmical gameplay can be combined with other genres, creating new fusion genres. Some examples are the first-person shooter rhythm games *Bullets Per Minute* (2020), *Hellsinger* (2022), and *Gun Jam* (2023), where players coordinate their shooting to the beat of the music. Action rhythm games like *No Straight Roads* (2020) and *Hi-Fi RUSH* (2023) use similar mechanics, where the player attacks and dodges on the rhythm. Other less common fusions are strategy rhythm games like *Patapon* (2007) or dungeon crawler rhythm games like *Crypt of the Necrodancer* (2015), or the puzzle rhythm racer *AudioSurf* (2008).

Music-themed games are music games with musical story elements. Musical gameplay can be included, but this is optional. An example is *Eternal Sonata* (2007), a Japanese RPG centering around the music and life of romantic composer Frédéric Chopin. The game's fictional story takes place in the world of Chopin's dreams during the final hours of his life. While the story takes place in a fantasy world, each chapter of the game is related to events in Chopin's life and complemented with cutscenes presenting actual biographical facts. The game features both Chopin's music and a newly composed soundtrack by Motoi Sakuraba.[67]

The distinction between rhythm games and music-themed games is arguably the most rudimentary classification. They are by no means mutually exclusive and clear-cut categories. The possibilities for crossovers with other genres have already been mentioned, and music games themselves can have elements of both rhythm games and music-theme games. For example, *Rock*

[66] Peripheral controllers are not necessary a musical instrument. For example, *Dance Dance Revolution* (1998) is played on 'dance mats' that register the player's footsteps. (Austin 2021: 143).

[67] Eternal Sonata Wiki "Eternal Sonata"

Band has a game mode in which players create a character and work their way to fame by clearing a set of levels and objectives. Moreover, many examples of musical gameplay elements would fit in neither category, as some games feature instrument simulations or composing tools as a side activity. For instance, in the MMORPGs *Final Fantasy XIV* (2010) and *Guild Wars 2* (2012), players can have their avatar play instruments controlled by the computer keyboard. Similarly, *The Last of Us Part II* (2020) features a section where the player can control the characters playing the guitar.

Music can also be part of a game as a 'musical puzzle'. Here, pitches and melodies become pieces to solve puzzles. Examples of games full-fledged musical puzzle games are *Loom* (1990) and *Sonority* (2022). Arguably the most famous example of a non-puzzle game using music as a major part of the gameplay are adventure games *The Legend of Zelda: Ocarina of Time* (1998) and *The Legend of Zelda: Majora's Mask* (2000), where melodies played on the character's ocarina to trigger effects needed to solve puzzles and complete the game. For these games, music is an element of gameplay *and* the story. However, most cases of musical puzzles appear as a minor section within the game. For example, *Hogwarts Legacy* (2023) features a side quest requiring the players to find a 'musical map' to play a melody on the castle's bells, revealing a treasure.[68]

Educational potential

Research on the educational potential of music games has generally focused on the transferable skills and knowledge applicable to traditional music education. Between 2000-2010, the genre of music games experienced a boom with highly instrument simulation games such as *Guitar Hero* and *Singstar*. This resulted in an increased academic interest in the potential of these commercial games for education purposes. Most major research on musical skill acquisition through music games stems from that period, summarized by Ethan Hein in "Music Games in Education" (2014). There is no consensus on what is learned through music games. Some studies take a skeptical position, arguing that rhythm games teach visual reactions and muscle memory, rather than rhythmical comprehension.[69] Furthermore, skeptics argue that contrary to what the name might suggest, instrument simulations do not teach anything related to instrument technique and musicality in general as they provide no room for musicality in tone color, rubato, or improvisation.[70]

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[68] Yu "Hogwarts Legacy side quest walkthrough".

[69] Bégel et al.: 4.

[70] One exception here is the *Rock Band* franchise, it offers the possibility to play the game by plugging in real instruments and tutorials game modes on music theory and technique. It also offers basic music theory in its tutorial game mode. (Hein 2014: 96). *Rocksmith* (2011), another guitar simulator music game, uses only a real instrument as controller. In 2022, the new *Rocksmith +* was released as a subscription service, marketed as a learning tool. (Ubisoft "Rocksmith+").

While music games hold significant shortcomings as tools in conventional music education, case studies have pointed at more indirect ways in which music games can positively impact musical skills. These potential benefits comprise accuracy and sight-reading, analytical insight, performance experience, discipline, cultural knowledge, and creativity.

Accuracy and sight-reading

In rhythm games, gameplay is centered around moving to the music, as indicated by the visual notation. As levels go up, patterns become more complex and hectic, requiring increased dexterity and focus.[71] As mentioned before, the game's notational system does not use Western rhythmic notation but presents music in a visually intuitive way. This leads some research to conclude that rhythm games do not improve rhythmical skills. Such a conclusion appears short-sighted and implies that rhythmic proficiency can only be achieved through Western music theory. Even with an alternative notation system, players learn to keep rhythm and be accurate. Players learn to interpret this visualization and 'sight-reading' the rhythms.[72]

An additional learning advantage of rhythm games is the instant feedback imbedded in the gameplay. When a note is missed, this is immediately communicated to the player by a visual or aural cue. Such direct feedback on timing and accuracy is valuable in learning rhythm and accuracy and cannot be equaled in music lessons.[73]

Analytical insight

The musical notation in music games generally represents pitch, rhythm, and melodic contour visually. This leads research to argue that music games improve intuitive analytical insight.[74] Most games progress in difficulty levels. Only the most fundamental elements of the musical structure will be shown at basic levels. As levels progress, the visualizations will become more and more complex, adding different layers of the music. This method of systematically progressing from a simplified version to a complete representation reminds of the practice of reduction scores. The idea is that players will start to understand the logic more easily behind the musical structure and layers in music outside the game as well.[75]

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[71] Most rhythm-matching games require input by tapping on the screen or pushing buttons, but some also can register pitch.

[72] Cassidy and Paisley 2013: 135, Miller 2009: 408.

[73] Hein 2014: 96-97.

[74] Gower and McDowall 2012: 135, Peppler et al 2011.: 12, 16.

[75] Hein 2014: 97, Miller 2009: 410, Tobias 2012: 539.

Performance experience

Some rhythm games put the player in the role of a performer, as is often the case with peripheral music games like *Guitar Hero* and *Rock Band*. Even though the 'stage' is virtual, and the instruments are simplifications, the playing experience can feel like an actual performance. According to Kiri Miller, "(P)laying these games 'feels like' making music to so many players not because of some sort of false consciousness or cult of repetition, but because the affective experience of making music is so bound up with embodied performance".[76]

This theory is based on the fact that rhythm games have the potential to induce a 'flow state', a kind of immersion equal to what musicians experience when playing. The hypothesis is that having experienced a flow state through gaming, players might be inclined to seek out the same feeling in playing real instruments. Multiplayer modes can have players 'perform' together, giving players an experience like what it feels like to make music together. Research on the peripheral music game *Guitar Hero* has shown that the game has been the gateway to learning guitar for players, suggesting that the realistic feeling of playing in-game has resulted in players learning music in real life.[77]

The realistic feeling of virtual game performance might also help overcome performance anxiety. Anecdotal evidence from a study on rhythm games suggests the fact that the attention of 'the audience' (in this case, a group of friends on the couch) is focused on the avatar on-screen instead of the player themselves, can be a meaningful step in overcoming performance anxiety.[78]

Discipline

Like mastering an instrument, improving one's skills in a rhythm game can be challenging. However, because of their entertainment value and attractive content, rhythm games manage to keep players engaged.[79] With fair level-scaling systems and practice modes, players learn that perseverance is rewarded. Research suggests that a positive experience of overcoming challenging gameplay might transfer to instrument learning.[80]

Cultural knowledge

Music games connect players with new repertoire, sparking their interest in new genres.[81] On top of that, music-themed games, with a narrative centering around music, can also teach music history.

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[76] Miller 2009: 424-425.

[77] Peppler et al.: 3, Cassidy&Paisley: 133-135.

[78] Hein 2014: 98, 100.

[79] Miller 2009: 403, Peppler et al. 2011: 26, Hein 2014: 96-97.

[80] Gower and McDowall 2012: 97-100.

[81] Gower and McDowall 2012: 99, Cassidy and Paisley: 135.

Even when the historical setting and facts are not strictly historically correct, bringing players into contact with music history and/or historical figures can kindle further interest and motivate them to learn more by themselves.[82]

Creativity

One of the major points of critique on music games regarding their educational potential is the lack of creative freedom. While this is true concerning instrument simulation games, which do not register tone color or provide room for improvisation, creativity can be part of music games in the option to compose. This can translate into letting players design custom levels or in gameplay that allows the player to play instruments freely. While video game composing and playing is restricted, this arguably increases the accessibility for new players, who can have a casual first encounter with composition or instrument playing without being overwhelmed.[83]

3.2 Community-based learning

Previous section introduced the current discours on learning through gameplay in music games. However, learning about music is not restricted to this genre of video games. As introduced previously in chapter 2, video game music lives on outside the game context through arrangements and concerts made by both the game companies themselves and fans. This indicates that any game can teach about music, as long as its soundtrack stimulates social interactions, creative engagement, and music appreciation. This section will explore online video game music fan culture through James Paul Gee's concept of *affinity spaces* to get a clear picture of the dynamic musical learning happening around video game soundtracks.

An affinity space is "a place or set of places where people can affiliate with others based primarily on shared activities, interests, and goals, not shared race, class, culture, ethnicity, or gender". Affinity spaces exist outside of traditional education, and learning occurs by interacting with others and sharing knowledge, often online. People gain access to affinity spaces through 'portals', which can be anything from devices to websites and physical places.[84] Gee applied this term to his research on video game communities and learning, but it is equally applicable to inquiry into how video game *music* communities facilitate learning as well. As described in *Situated Language and Learning – a*

[82] Gibbons 2018: 139.

[83] Hein 2014: 101-105, Miller 2009: 416-417, Cassidy and Paisley: 134.

[84] Gee 2004: 67,74, Gee 2017: 8.

critique of traditional schooling, Gee defines affinity spaces according to the following characteristics.[85]

- Common endeavor, not race, class, gender, or disability, is primary
- Newbies and masters and everyone else share common space
- Some portals are strong generators
- Content organization is transformed by interactional organization
- Both intensive and extensive knowledge are encouraged.
- Both individual and distributed knowledge are encouraged.
- Dispersed knowledge is encouraged.
- Tacit knowledge is encouraged and honored.
- There are many different forms and routes to participation.
- There are lots of different routes to status.
- Leadership is porous and leaders are resources.

To engage in affinity spaces, no sort of membership is required. This is why 'spaces' is preferred over 'communities', as it allows for a better understanding of the types of flexible interactions within the spaces. Communities might form *through* activities in an affinity space, but this is optional. For example, a group of members can decide to organize themselves in a separate subgroup, or people interacting inside the affinity space might personally experience it as a community.[86]

Ryan Thompson applied the concept of affinity spaces in his research on video game music fan output through the non-profit group OverClocked ReMix (henceforth OC ReMix).[87] It was founded in 1999 and as its website states, OC ReMix is "a community dedicated to the appreciation and promotion of video game music as an art form."[88] Artists can submit original remixes in any musical genre to the website for publication. Submissions are reviewed by a panel of judges on originality and production quality criteria. If the work gets approved, the music is uploaded on the dedicated website and social media accounts. From its starting date until the moment of writing, OC ReMix has published 4472 remixes.[89]

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[85] Gee 2004: 77-79.

[86] Gee 2004: 70-71.

[87] Thompson 2021: 409-410.

[88] Overclocked ReMix "About Us"

[89] This is the number of remixes as it was on 10 August 2023. (OverClocked ReMix YouTube page, Overclocked ReMix "Submission Standards and Instructions")

Besides curating fan content, OC ReMix is a portal for learning about video game music remixing. The website hosts 'workshops' where aspiring remixers can learn from blog posts and ask questions. Members can interact with each other through the forum and Discord channel. Contributors can work individually, but occasionally groups of people work together on themed albums. The activities of OC ReMix and the quality of the work did not go unnoticed by the game companies. In 2008, game developer Capcom collaborated with OC ReMix artists on the soundtrack of *Super Street Fighter II Turbo, Blood on the Asphalt*.[90]

Recently, game companies more often seem to embrace collaborations with fan creators. In February 2023, Square Enix requested YouTube video game music arranger Carlos 'insaneintherainmusic' Eine to upload a cover of *Octopath Traveler*'s "Main Theme" as a promotion for the upcoming sequel on his channel.[91] A similar story is that of pianist Yui Morishita, a video game music piano arranger under the alias Duke of Pianeet. Though he has been active under his regular name as a professional pianist specializing in the repertoire of Charles-Valentin Alkan (1813-1888), he is now regularly featured on the Square Enix Music YouTube channel as a video game music performer.[92]

Fan creators that start on platforms like OC ReMix or YouTube might grow to become professionals in the video game music industry. This has been the case for several OC ReMix artists, like Jake Kaufman (*Shovel Knight*) and Danny Baranowsky (*Super Meat Boy, The Binding of Isaac*) and solo developer and composer Toby Fox, who rose to fame after the release of his retro RPG *Undertale* (2015) and has featured as a guest composer in major Nintendo titles.[93] Cases like these give important indications of the educational value of affinity spaces and might serve as valid starting points for future ethnographic research.

3.3 Knowledge gap

From this literature review of publications regarding video games and pedagogy in function of music education, it becomes clear that the current research has been heavily centered on learning through gameplay. For this reason, music games have been the prime focus of research into the educational potential of video games in the past decade. Gee's concept of *affinity spaces* provides a useful tool in looking beyond gameplay-related learning, and a first step into relating this to video game music has been taken by Thompson in his case study on OverClocked ReMix. His research,

[90] Thompson 2021: 413-416.

[91] Insaneintherain "Octopath Traveler II Main Theme"

[92] Yui Morishita "Biography"

[93] Undertale Wiki "Toby Fox"

however, focuses on the OverClocked ReMix community as part of the larger video game music culture and not as an educational portal. Evan S. Tobias hinted at the broader potential of video game music for conventional music education in his paper *Let's Play: learning through videogames and virtual worlds* but his statements are not complemented by case studies.

This leads to the conclusion that the pedagogical potential of video game music culture and soundtracks in general has been largely disregarded in academia. This thesis aims to set a first step in filling the knowledge gap by introducing three case studies that approach video game music's educational value in terms of classical music. The results will connect back to the research question formulated in the introduction, exploring how video game music can be a gateway to classical music.

PART TWO: CASE STUDIES

4 Playing to the music in *Pianista*

Pianista – Invitation to classical music (2016) is a mobile rhythm game for iOS and Android systems and available on Nintendo Switch as *Pianista – the Legendary Virtuoso* (2018). This case study builds upon existing research on music games, evaluating *Pianista – Invitation to classical music* against benefits pointed out by previous studies on the educational potential of music games.[94] Considering *Pianista*'s gameplay, this case study will assess accuracy and sight-reading, analytical insight, discipline, and cultural knowledge. Performance experience and creativity are omitted since the game does not aim to recreate a performance situation, and the mobile version lacks a multiplayer mode available on the Nintendo Switch port. Furthermore, there is no possibility to design own levels nor creative freedom during gameplay. This critical assessment will be based on my individual player experiences of the level "Turkish March" by W.A. Mozart on all three difficulty modes, played on iPad.

4.1 Outline of the game

Pianista – Invitation to classical music (hereafter *Pianista*) is a single-player rhythm game where the player hits falling blocks to the rhythm of the music in order to get the highest score. The game features a ranking system and three game modes: *tour, league,* and *collection*. In *tour*, the player completes 'music packs', collections of pieces grouped by theme.[95] After completing 'Standard Tour', a collection containing 50 pieces, the player can gradually access more music collections. In *league*-mode, the player's score is ranked against the performances of fellow online players. Each day, three different pieces are made available for this competitive playing mode. In *collection*, the player can freely browse through the catalogue and replay pieces previously unlocked through *tour*-mode. Pieces are grouped by composer, and clicking on their picture will reveal general biographical and stylistic information. There is no story mode. At the time of writing (August 2023), the game features 30 composers and 215 pieces. A complete list of the repertoire is included in the appendix.[96]

[94] These beneficial skills are summarized in chapter 3.

[95] Some examples are 'Compilation of Theatre' (with opera and ballet music). 'Virtuoso' (featuring some of the most difficult pieces in the game) and 'Harmonic Triangle' (with piano trio repertoire).

[96] A complete list of the game's repertoire is included in the appendix "8.1 List of composers and repertoire in *Pianista*".

Gameplaywise, *Pianista* draws on examples of rhythm games like *Guitar Hero* and *Rock Band*. Players hit blocks on a horizontal line, symbolizing the pressing of piano keys, in patterns related to the rhythm of the music. An orange-colored tail line indicates that the 'note' needs to be held longer. Sparkling, orange-colored blocks symbolize a glissando and should be played by sliding one's finger over the screen instead of tapping each block separately.

Figure 4.1 Gameplay screenshot *Pianista.*

When the player misses a note, a low-sounding 'bang' will indicate the mistake and decrease the health bar. If the player misses too many notes, causing the health bar to be depleted, the level ends with a 'game over'. When a piece is successfully finished, points will be rewarded depending on accuracy and hit streaks. Each piece is available in three difficulty levels: light, normal and technical. Players are rewarded with an additional 'master mode' when all pieces have been cleared in technical mode.

4.2 Skill assessment

Methodology

Pianista's educational value will be approached from two angles: as a tool for training musical skills on the one hand and as a tool for gaining musical knowledge on the other. The musical skill assessment will be judged based on my experience playing Mozart's "Turkish March" on all three difficulty levels. This piece is chosen because it is originally for piano (as opposed to many pieces in

the game being piano transcriptions), it has a moderate tempo, and the melody has a distinct melodic contour. For each difficulty level, I evaluate how the game visualizes the notes and how the game patterns correspond to the rhythm and contour of Mozart's original score. Additionally, I will investigate the degree to which piano technique is present in the gameplay. Musical knowledge will be judged based on the content of the whole game, assessing the repertoire choices and general presentation of historical and musical facts.

Musical skills

Accuracy and sight-reading

Pianista visualizes the music through falling blocks arranged in patterns, representing the notes. The system translates note values through the space between the blocks. Pitch is suggested by the placement of the block on the horizontal axis, however, this does not consistently correspond to the melodic contour of the original music. Any aspect of interpreting the score of the music is related to a rudimental visualization with no correspondence to Western staff notation.

While the visual representation arguably fails to teach any transferable skill regarding to the notational system, *Pianista* arguably trains other aspects of sight-reading and rhythmical accuracy. When a note is played out of rhythm or hit at the wrong place, a dissonant 'bang' sounds, giving the player immediate feedback about the mistake. This instant awareness makes it possible to learn and adapt while playing. Additionally, it teaches how, just like during sight-reading on an instrument, one needs to keep going regardless of mistakes made during the performance.

However, when the player would encounter this piece in a regular instrument lesson, the gameplay experience might be able to improve rhythmical skill. The conventional classical music educational system heavily emphasizes learning by the score. Through *Pianista*, players learn the rhythm of pieces not through notation, but by ear. The player might link the rhythms they learned by repeated listening in-game to the notated rhythms in the sheet music. This could help with conceptualizing complex rhythms in instrument and theory lessons. Further research is in order to make any claims on this potential educational value.

Analytical insight

Learning analytical insight through music games assumes that low levels start using only the fundamental notes and beats, and gradually progress towards a more complete visualization of the piece. The "Turkish March" in *Pianista* only slightly follows this hypothesis and does not use visualization that is beneficial to understanding the original piece. In light mode, the gameplay patterns follow a steady beat, falling on every eight note in the score. However, this does not translate to the fundamental beats of a reduced score of Mozart's piece. In fact, the game teaches a-musical

accents, as only the first note of the sixteenth groups should be accentuated and not the first and third as in the game.

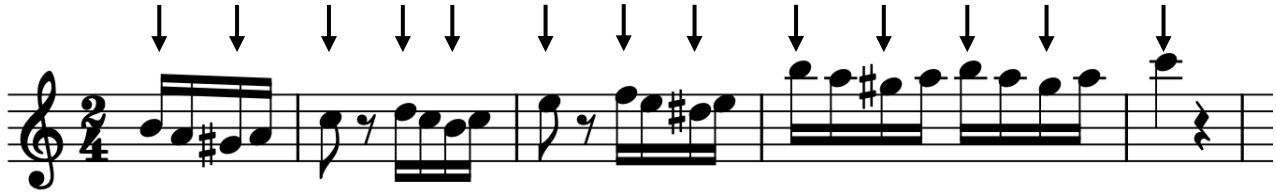

Figure 4.2 "Turkish March" melody and tapping pattern.
The arrows indicate the gameplay pattern in light mode (own transcription, right hand only based on in-game audio).

In normal mode, the required tapping is better at synchronized with the rhythm of the original piece, as here the game pattern follows the rhythm of the melody. However, the visual representation does not follow the melodic contour. The blocks are often placed further removed from each other, whereas the original melody consists of mainly diatonic and chromatic intervals. This choice is probably done for ergonomic reasons to make playing more interesting and avoid blocks falling close to each other, creating issues to smartphone users that play on a much smaller screen.

Technical mode adds accompaniment notes to the melody notes. While this could be a chance to provide insight into the harmonic rhythm and accompaniment patterns, this is not the case as all blocks look the same. The result is visual chaos in which hardly any distinction between melody and accompaniment can be made.

Discipline

Based on the observations from playing "Turkish March" and various other pieces that were not analyzed in detail here, *Pianista*'s difficulty curve feels unbalanced and fails to motivate players to master the hard difficulty mode. The transition from light to normal mode is well done, offering the right amount of added difficulty by integrating more notes. However, the learning curve from normal to technical mode is too steep. Without a practice mode that would allow the player to split the piece into sections, or the possibility to practice on a slower tempo, the added accompaniment notes make the technical level chaotic and frustrating. Perseverance trains muscle memory, but since the level ends after the health bar is depleted, it takes a lot of effort to reach the later parts of the piece. Therefore, the lack of practice options makes technical mode demotivating and frustrating, rather than teaching the player how to face the challenge in a constructive way.

Piano technique

Despite its appearance as a piano simulator, *Pianista*'s gameplay does not teach anything related to piano technique. The game offers no guidance hand position for a 'pianistic' playstyle, and the horizontal hit-zone is designed minimalistic rather than displaying piano keys. This makes any playstyle possible and does not guarantee a 'proper' virtual piano-playing experience. This could be improved upon for the iPad version, but on the other devices (smartphones and Nintendo Switch) this is arguably not an option. Therefore, the only way for *Pianista* to simulate the feeling of piano playing would be by integrating a peripheral controller.

Musical knowledge

Repertoire knowledge

Music games by nature have the potential of bringing players into contact with new musical styles, instruments, and music history. As one of the few classical music games currently existing, *Pianista* does an excellent job of bringing classical music to new audiences. At the moment, 30 composers and a total of 215 pieces are featured, covering a time period from the Baroque until the late Romantic era. The selection is a combination of piano repertoire from keyboard composers like Couperin, Chopin, and Rachmaninoff, as well as opera songs, orchestral pieces, and chamber music works. Despite some major composers, like Schumann and Ravel, being absent, the game offers a good mix of prestigious names such as J.S. Bach, Mozart, and Beethoven and composers who are lesser-known to the big public such as Glinka, Elgar and Scriabin. Players can either hand-pick pieces to play or go through a prepared list of pieces in 'tour' mode. Finally, the competitive *league*-mode alternates between three different pieces every day, giving players the opportunity to easily discover new pieces regardless of whether they had already been unlocked or not.

Historical knowledge

Pieces are displayed with the full title, movement number, and opus numbers. Using the official way of referencing makes it easier to look up the piece and put the music into context. Each composer is presented with a portrait and general information on their life and compositional style. Composers are divided into three musical eras: Baroque, Classical and Romantic. This seems over-simplified at first sight, but it is arguably done so to make it understandable to players without prior music historical knowledge. A more precise explanation of musical style is provided in the biography section when needed. For example, Debussy's picture is accompanied by the label 'romantic era'. When the player opens the background information, context about impressionism and Debussy's harmonic language is provided.

4.3 Conclusion

Pianista is a rhythm game with mixed potential in terms of traditional music education. While previous studies suggested that rhythm games teach sight-reading and analytical insight in music, I argue that based on my experiences of playing "Turkish March" *Pianista* does not carry this potential. Rather than sight-reading, the game teaches reaction to visual stimuli and muscle memory. It also fails to translate melodic contour into its gameplay patterns. However, I argue that *Pianista*'s gameplay can be beneficial to conventional music education by teaching a piece's rhythm by ear. When the player encounters the piece from the game in their instrument lesson, they might be able to understand the rhythmical notation more easily. Therefore, *Pianista* could be a way to playfully learn new rhythmical patterns in engaging with classical repertoire. As this benefit was not featured in prior case studies, future research experiments need to be conducted in order to evaluate this hypothesis.

In terms of analytical insight, *Pianista*'s gameplay and visualization fail convey correct musical information. In the "Turkish March", light mode uses tapping patterns falling on a-musical beats. Technical mode produces confusion rather than insight by adding accompaniment notes in the same color as the melody notes. Finally, the gameplay patterns do not follow the melodic contour of the musical lines well enough to argue in favor of any benefit in terms of analytical insight in the music.

Accuracy in timing and coordination is arguably the only musical skill learned in *Pianista*. Playing out of rhythm or hitting a note in the wrong place triggers a dissonant 'bang' sound, providing instant feedback. While this allows players to correct themselves, overcoming challenging levels can become frustrating and inefficient due to the lack of a practice mode. Without the option to practice at a reduced speed or divide the level in smaller sections, the only way to overcome difficult levels is by drilling the patterns in the muscle memory. Efficient practice strategies are not promoted in the game. Although the game's title suggests *Pianista* is a piano simulation game, the game gives no guidelines on how to play pianistically. This is arguably due to the game's availability on other platforms with smaller screens than the iPad.

Regardless the shortcomings cited above, I argue that *Pianista* is especially capable in bringing players into contact with both canonical classical repertoire *and* lesser-known pieces in a playful and entertaining way. The game's basic version is free to download and playable on both Apple and Android devices, making it easily accessible.[97] Featured composers are presented with a picture and basic, comprehensible background information. The game's repertoire seems to be chosen so that both people unfamiliar with classical music and those who are more acquainted with it will discover new pieces. Works are displayed with their full titles and with opus numbers, making them easy to

[97] There is the option to pay for a subscription version that unlocks all songs and grants other benefits, but the total of available repertoire stays the same.

look up should the player wishes to explore the music further on their own. I believe *Pianista* has great potential to have a positive effect on players' attitude towards classical music and has the ability to spark curiosity, truly ‘inviting’ them to classical music as the game’s subtitle suggests. Further experimental research with a group of test subjects is needed to give more conclusive insights in the effect of *Pianista* and similar music games on classical music appreciation.

5 “The Rebel Army” in the piano classroom

Arrangements are one of the major forms in which video game music is consumed outside the virtual world. Within the varied video game music culture, reimaginations for piano constitute a significant subcategory. Large amounts of sheet music are produced by fans and distributed in online communities. Parallel to the dynamic fan community, some game companies release official arrangements. Game developer Square Enix arguably has the most extensive tradition of publishing sheet music albums targeted at intermediate pianists. Each album is accompanied by a CD-album recorded with a professional pianist. Most popular are the “Final Fantasy Piano Collections”, which reimagine a selection of each game’s major tracks for piano solo. To date, 14 albums have released covering each games from *Final Fanatsy IV* to *Final Fantasy XV* and the spin-off *Final Fantasy Crystal Chronicles*.[98] Other game franchises to receive ‘piano collections’ are *Kingdom Hearts* and *NieR Automata*. This format has been further adapted by fan arrangers producing their own video game piano selection albums, with notable examples being the “Undertale Piano Collections” and “Hollow Knight Piano Collections” by David Peacock and Augustine Mayuga Gonzales and “Piano Collections: Pokémon Red/Blue/Yellow/Green” by Trevor Alan Gomes.[99]

Despite the popularity and abundance of piano solo video game arrangements, no pedagogical study on the material is available to date. This case study will take a first step in this direction and assess the educational potential of the piano solo arrangement of “The Rebel Army” from *Piano Opera Final Fantasy I/II/III* (2012), an official album released by Square Enix as a commemoration of the most iconic *Final Fantasy* music. Just like the prior “Piano Collections”, the music is released on CD and as sheet music books, targeting an audience of intermediate to advanced players. For this release, pieces are arranged and performed by professional pianist Hiroyuki Nakayama. Its technical difficulty and musicality will be evaluated against a framework of fundamental piano technique from the perspective of a piano teacher. This case study aims to to conclude whether the arrangement would be appropriate for classical piano lessons.[100]

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[98] Square Enix “Piano Collections”, Final Fantasy Wiki “Piano Collections”.

[99] For the Pokémon piano collection, no sheet music is publicly available.

[100] I use the framework pianist Jan Vermeulen presented in his recent book *Piano spelen, kinderspel?* for this analysis. Vermeulen is one of the major piano pedagogues in Belgium and recently published a comprehensive piano method book on technique and practice strategies aimed at both students and teachers in Dutch.

5.1 Formal and stylistic outline

"The Rebel Army" is composed by Nobuo Uematsu and originally appears as the theme of the protagonist's party in *Final Fantasy II* (1988). It has since been re-arranged in various Final Fantasy-games and is often included in official recordings and live concerts.[101] This piano arrangement reimagines the original track as a Romantic piano piece.

The arrangement is based on the "Rebel Army" theme in E minor from *Final Fantasy II*.[102] This theme is expanded to a piano solo piece with a performance time of approximately 3.30 min. The piano arrangement depicts the theme in a heroic character, portrayed by the changes in contrast from strong, melodic forward moving phrases to intimate parts sections full of pathos and chromaticism.[103] The piece starts with a newly composed intro **(Allegro, 1-13)**, introducing a triplet motive reminiscent of military drums.

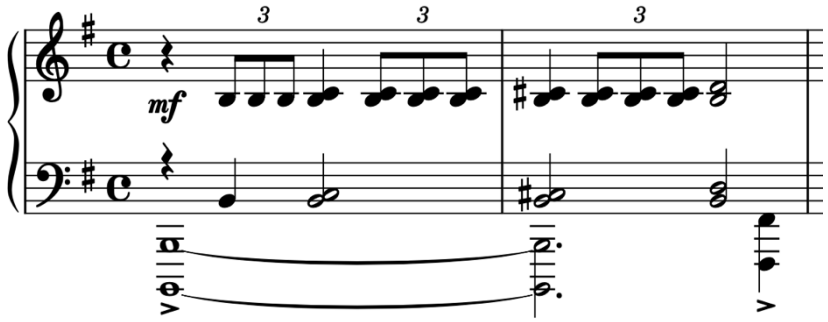

Figure 5.1 Triplet motive (measure 1-2)

The intro section is one long crescendo where the triplet motive rises in chromatic motion, culminating in a fortissimo melody. Short chromatic figures embellish the accompany the section's cadence.

[101] Some examples including symphonic reimaginations in *Symphonic Suite Final Fantasy* (1994) and *Distant Worlds: Music from Final Fantasy,* an arrangement for wind orchestra in *Bra Bra Final Fantasy Brass de Bravo*, chamber music versions in A *New World: Intimate Music from Final Fantasy* and *Final Fantasy Series Acoustic Arrangements* and solo instrument arrangements for guitar in *Guitar Solo Final Fantasy Official Best Collection*. (Final Fantasy Wiki "The Rebel Army").

[102] A transcription of the original theme and a copy of the arrangement are included in the appendix "8.2 The Rebel Army".

[103] Burnham 2022: 241-242.

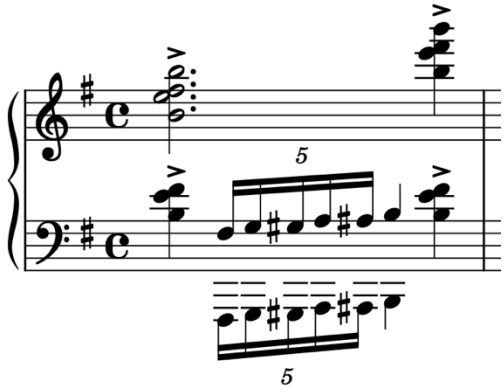

Figure 5.2 Chromatic figure (measure 12)

The intro leads into **A (14-21)** and **B (22-29),** where the original "Rebel Army"-theme is introduced with a steady quarter note accompaniment, octaves in both hands and long melodic phrases. In the following **C sempre legato, espressivo (30-45),** the same melody is now presented in a lyrical form with flowing arpeggios accompanying the melody. An elegant call-and-response between the melody iterated first in bass clef and subsequently in a high register gradually reverts to the resolute character from before. The main theme is played by the left hand in octaves as the right hand plays firm triplet chords as accompaniment. The melody seems to reach a climax again but freezes on a seventh chord. After an organ point, **D andante, molto espressivo (46-50)** takes a surprising turn by presenting the main theme in a lyrical, hesitating character in E flat minor. This brief juxtaposition leads into **E (51-57),** where the music returns to the original key, E minor, and the triplet pattern from the introduction makes a comeback. From here, the piece approaches its climax with a long crescendo leading to **F (Tempo I, 58-65)**, where the main theme returns dramatically, in octaves and supported by a countermelody and chromatic movement in the base by the left hand. **G (66-77)** continues to propel the music forward and increase intensity with even longer chromatic scales in the accompaniment, leading into the coda **H (78-85)**, where melodic lines in the hands go in the opposite direction, after which they crash back together as an accelerando and the triplet pattern bring both hands towards each other, ending with firmly accentuated octaves.

5.2 Technical and musical assessment

Technique

In terms of technical skill, the arrangement presents multiple challenges to the intermediate pianist. The main difficulties are balancing the melody against the accompaniment and secondary voices in the right hand, which require independent finger control and appropriate fingering to execute well. Additionally, the piece features some large jumps, chromatic movement, quick repeated notes

and polyrhythm. This should all be played while keeping attention to articulations mentioned in the score, and proper pedal use.

Balancing melodic lines

Maintaining a proper balance between the multiple musical lines (the melody, countermelody, and accompaniment) in a piece is essential in bringing the music in a transparent way. This requires control of all fingers independently so that specific notes can be emphasized while others are more subdued. While this arrangement does not focus on counterpoint, there are moments where the right hand plays multiple voices, and the melody is switched to the left hand, making the ability to balance sound essential.

- On one hand. The right hand often plays seventh chords or two voices at once. Therefore, the student needs to emphasize the melody notes while playing the accompaniment notes more subdued. For example, in section **A** the top notes form the main melodic line independent from the other notes that follow the rhythm and harmony of the accompaniment. Such passages are great exercises in independent finger control.

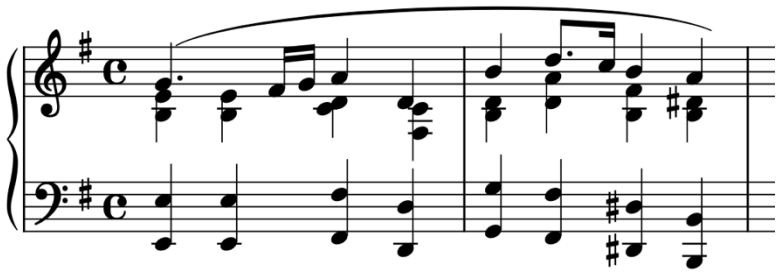

Figure 5.3 Excerpt main theme from section A (measure 14-15)

The left hand has no passages with two voices, however dynamic control of the notes is necessary for a well-balanced accompaniment that matched the contrasts in the piece's character. For example, sections **C** and **D** provide an excellent exercise to learn to emphasize the base note and reduce the sound upper notes.

- Between both hands. At various points in the arrangement, for example in measures 9-10 from the introduction, the right and left hand play separate melodic lines that the student should be aware of. At other moments, like in measures 37-43, the melody is switched to the left hand. In sections **F** and **G**, the left hand plays diatonic and chromatic octave lines. In these cases, the student needs to adjust the balance between right and left hand in order to articulate and bring out the melody clearly.

Fingering

The sheet music does not include fingering suggestions, making it a good exercise for students to learn how to come to consistent fingering on their own. Since everything is written pianistically and with proper voice leading, standard fingerings can be applied.

- Chords and octaves. This arrangement is good for building flexibility, stamina, and finger muscles as the student has to play octaves and up to five-note chords through long sections (e.g. section **A** and **F**). In most sections, the right hand plays two voices, one of which being main melody, often with octaves or seventh chords. This requires flexibility and widespread of the hand. Fingering needs to be correct in order to play the melody notes legato while the other fingers play accompaniment, as seen in section **A**. Considering the left hand, correct fingering is essential in playing octaves fluent and fast like in sections **F** and **G**.
- Chromaticism. The intro features fast chromatic runs played by the left and right hand at the same time. Albeit short, it provides an exercise in fast chromatic lines for both hands.
- Arpeggios. In sections **C** and **D,** the left-hand accompaniment consists of arpeggios larger than octaves. This teaches the student to apply fingering for supple wrist movement and connection between the arpeggio figures.

Articulation

The arrangement features sharp contrasts of heroic and militaristic sections against intimate and lyrical moments. Articulation symbols direct the student in executing these contrasts using the proper touché, as this will be essential for musicality and bringing out the contrast in the piece.

- Accents. The militaristic character of the intro and coda are translated in accentuated notes.
- Legato. Except for the accentuated triplet motive, melodic lines are to be played legato, according to the bow markings. In section **F** these bows are absent, but since it is a reprise of the main theme previously indicated legato, it is likely that there too the theme is meant to be played as such.
- Portato. Sometimes, notes are marked portato to mark a weighted touché, non-legato and 'in the key'. The fact that portato is used in this piece is a useful lesson, as this learns the student the difference between accents, legato and portato. For example, the upbeat of section **A** is marked portato, the upbeat of section **D** is marked legato and the upbeat to section **F** is accentuated.

Rhythm

- Complex rhythms. The main melody is a combination of binary and ternary rhythmic cells. This is slightly varied in the lyrical iterations of the theme. Therefore, the student needs to

memorize the rhythm correctly and be precise in its execution, for otherwise the difference will not be communicated to the audience.

- Polyrhythm. Section **C** features a three-against-two (measures 41-43) and two-against-three polyrhythm (measures 45-46). The fact that these are only brief sections require the student to quickly make the mental switch.

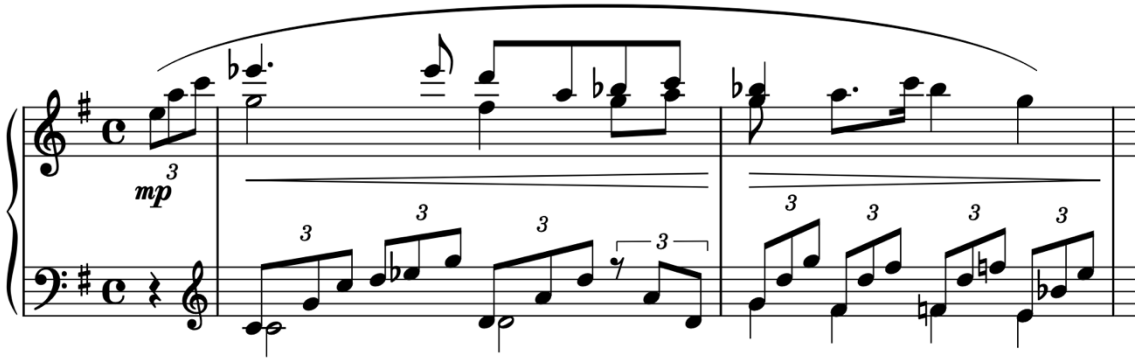

Figure 5.4 Polyrhythm three-to-two (measure 34-35)

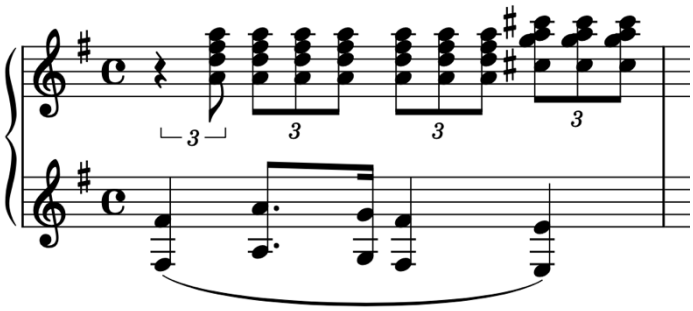

Figure 5.5 Polyrhythm two-to-three (measure 41)

Jumps

Measures 12-13 of the introduction require the player to quickly jump downwards for the chromatic run and back up simultaneously with both hands. In the lyrical sections **C** and **D**, the left-hand arpeggios stretch beyond the distance of an octave and therefore require jumps back to each base note. Not only flexible wrist movement but also mental preparation and accuracy in the jump are required. Section **F** features octave jumps in the left hand (e.g. measure 58 and 61).

Repeated notes

Both left and right hand occasionally feature repeated chords, for example, triads in measures 5-8 and seventh chords in measure 11 of the introduction. Executing these with the right speed and accentuation requires a right technique of a supple wrist combined with firm fingers.

Pedal

The arrangement requires various ways of using the sustain pedal. In the introduction, a low pedal note sounds under a chromatically rising line, and measure 7 marks the right-hand octave as 'laissez-vibrer', a technique where the designated note is sustained. It could be argued that in this case, the sostenuto pedal is to be used. However, using the sustain pedal to quickly filter slightly in order not to lose the pedal note brings out a more mysterious and impactful sound. A similar technique is to be used in sections F and G. As the left hand plays scales, the student needs to learn to refresh the pedal quickly and shallowly to create transparency.

Musicality

In terms of musicality, the arrangement invites the player to bring out contrast and 'sing' through the instrument. The score provides slurs indicating of the musical lines and plenty of dynamic indications. Not only proper technique, but also attention to the details in the score and is required to execute the piece as is intended by the arranger. Additional to the information inside the score, the CD-recording by Nakayama himself might serve as an extra reference.

Phrasing

Phrasing is generally indicated by slurs in the right hand and is to be followed as indicated. Additionally, the student needs to be aware of the melodic lines in the left hand as well (e.g. measures 9-10, section **A**, measures 38-40). 'Singing' these lines is connected to proper fingering, finger independency, and breathing in accordance with the melodic lines. The lyrical sections of the piece allow for rubato to add an improvisational character. In the fortissimo sections, the student might try to apply some rubato to 'broaden' and give some more space and grandeur to the music.

Dynamics

The arrangement uses a large dynamic range, indicated by symbols in the score. This is an aid for the student, but also a challenge in respecting the dynamic markings. The piece offers an exercise in keeping dynamic tension over long sections. For example, the first nine measures of the introduction are one long crescendo. The coda section **H** indicates similar dynamics, starting with a subito piano and growing to fortissimo over eight measures.[104]

[104] Measure 53 is marked 'ff' in the score, however this might be a typing mistake. The CD-recording, played by arranger Hiroyuki Nakayama himself, makes a crescendo from piano to forte/fortissimo during measures 51 and 55, instead of having the juxtaposition of piano in measures 51-52 against fortissimo in measure 53.

Character

In general, one of the musical challenges of the arrangement is performing all the different characters. Since the emotional interpretation of a piece of music is inherently subjective, it would be advisable to discuss the characters of the sections with the teacher in class. This discussion can be guided by the 'performance notes' included in the sheet music, where Hiroyuki Nakayama states that "In general, the piece should be played with a powerful orchestra in mind. The middle section changes completely, bringing out the pathos of the fleeting piano sound, so try to change the touché accordingly".[105] Additionally, the student can base their interpretation on tempi, articulation, and annotations like 'espressivo' found in the score.

5.3 Conclusion

As a piece for classical piano lessons, "The Rebel Army" from *Piano Opera Final Fantasy I/II/III* offers an excellent exercise in various technical and musical elements of both elementary and advanced piano technique. Stylistically, the writing is romantically inspired, translating into long phrases, tension arcs, chromaticism, virtuosity, and expressiveness. On a technical level, the student will learn skills needed to balance the dynamics between melodic lines and accompaniment, on top of building stamina and gaining flexibility of the wrist and fingers. Students will also train accuracy in rhythm and jumps. Finally, the piece requires nuances in the use of the sustain pedal. On a musical level, the student will learn to interpret and perform the character of a piece according to various information provided in the sheet music, such as articulation markings, dynamic signs, legato bows, writing styles, and the commentary of the arranger. Additionally, the student can refer to the CD recording for critical listening.

While this case study is centered around an official piano solo arrangement, I argue that reasons to include video game music arrangements go beyond teaching technical and musical skills in instrument lessons. Their potential stretched to music theory lessons and composition classes, as they give insight into arranging techniques. A theme like "The Rebel Army" is reimagined in various classical styles and ensemble configurations. A comparison between the original 8-bit track and the romantic piano solo arrangement might provide insight into how to approach writing for piano or improvising. On top of that, a student might have a personal connection with video game music from having played the game. An arrangement like "The Rebel Army" which bridges the gap between video game culture and classical music can make classical repertoire more approachable to students that struggle to connect with classical music.

[105] Uematsu and Nakayama 2012: 6, translation by author.

6 Video game music as a gateway in retrospect

The final case study is a small-scale ethnography focused on personal experiences connected to video game music culture and classical music. Based on the results of 30 qualitative interviews, this chapter examines how the participants experience the ties between video game music, learning, and classical music, leading to valuable insight into how video game music can be a gateway into classical music. The concept affinity spaces and theories on the development of musical taste will be used to contextualize the interview results and point at ideas for further research.

6.1 Interview methodology

The case study is based on 30 qualitative interviews conducted with an international group of participants between 19 and 42 years old. The participants were gathered through an advertisement spread on social media. The only requirement to take part in the research was a connection to both video game music and classical music – anything from being a passive listener to playing an instrument on an amateur level or being a professional in the field of classical music. Of the 33 people who initially responded, all interviews of the 30 people who could make time for the study between May and June 2023 are used as data. No selection was made based on personal characteristics such as on nationality, age, gender, or profession. Participants are divided into three categories based on the degree of professionalism in which they currently engage with classical music: enthusiast (listener and/or amateur musician), student (currently enrolled in a classical music-related study) and professional (performing musician, composer and/or musicologist).[106]

Meetings were conducted in real life whenever possible and alternatively online on Discord. Participants were given three preparatory questions:

- Can you remember what sparked your interest in video game music and classical music? If applicable, what made you decide to pursue music on a professional level?
- How do you see the relationship between video game music and classical music? Are they two completely different musical worlds, or do you understand them as similar?
- Was video game music in some way a gateway to classical music for you?[107]

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[106] A brief biography presenting each participant is included in the appendix under "9.3 Participant biographies". This classification is chosen in function of the main research question, which aims to reveal various ways how video game music can be a stepping stone into the world of classical music. Categorizing participants based on the degree of professionalism in which they currently engage with classical music, is arguably the most useful initial classification, as it allows to instantly observe any possible correlation between their engagement with video game music and a current professional career in classical music.

[107] Here, classical music is interpreted in a broad sense, encompassing the act of listening and the study of music theory or a classical instrument.

Each interview was set up as an open conversation, divided in four general sections. First, participants were asked to introduce themselves and talk about their general listening habits. This was followed by a section on their engagement with video game music and video games in general. Here, participants were asked about whether they prefer original soundtracks or arrangements, what element of video game music attracts them the most, etc. The second part used a similar approach focused on their personal link to classical music, asking about how they came into contact with classical music or their instrument, what they experienced in this music, etc. The final part of the interview explored their perception of video game music as a gateway into classical music. Interviews took up anything between 45 minutes to over 2 hours.

The interviews have been interpreted as qualitative and anecdotal evidence, as the scope of the research and the subjective nature of the topic make it inappropriate for drawing any statistical conclusions. Further research is needed to draw general conclusions on the influence of video game music on one's engagement and/or perception of classical music. This case study aims to provide an ethnomusicological perspective on how video game music and classical music relate in listeners' minds and provides a starting point for future research.

6.2 Video game music as gateway

The case study revealed that 16 out of the 30 participants experienced video game music as a gateway to classical music. Based on the results, video game music can be a gateway into classical music by three 'paths': as a way of teaching music appreciation, by acting as a major motivator to learn a classical instrument and/or composition and by guiding one's musical identity formation. The interviews revealed no correlation between the gateway-experience and the preferred game music genre, listening habits, the presence of classical music during childhood and nationality. A gateway was experienced by 6/13 enthusiasts, 3/6 students and 7/11 professionals, showing that there is also no difference between the participant categories. Each individual's experiences sketched a unique story of how engagement with video game music led to classical music. In the same way, there were no patterns revealed in the group that did not experience a gateway effect. Further qualitative research is required in order to draw general conclusions on the causes of experiencing a gateway between video game music and classical music.

As a hypothesis, I argue that the ability to experience a gateway from video game music to classical music is related to the individual's perception of the similarities between both musics and engagement with video game music. While it is true that no specific correlations between game music genres and musical education were present, all participants who experienced a gateway perceived resemblances between video game music and classical music. This is not to insinuate that the others did not see similarities, but they tended to emphasize this less or relate video game music more to

film music. Secondly, the interviews suggest that higher engagement with video game music (for example by listening outside the game context, playing the music on an instrument, making transcriptions, etc.) leads to more chance of a gateway-experience. However, there were two exceptions of participants that reported to generally not engage with video game music outside of the game context. Given the small scale of this ethnography, this is only a preliminary conclusion that should be further investigated as a topic of future research.

The following sections will investigate each of the 'paths' revealed by the study and illustrate further nuances in each of them through quotes from the interviews. A brief biography of each participant quoted in the case study as well as the transcriptions of the quotes in their original language, are included in the appendix under "8.3 Participant biographies" and "8.4 Interview quotes".

Music appreciation

The interviews revealed that video game music can have a positive impact on classical music appreciation in two ways: either by sparking players' curiosity and prompting them to explore similar music on their own or by improving their understanding of classical music on both a technical and emotional level. Of the 16 participants that experienced a gateway relation, 7 of them believed that video game music taught them to appreciate specific classical repertoire and genres in general. The following section will provide a summary of the different ways in which video game music can promote classical music appreciation, illustrated through quotes and examples given by the participants.[108]

Sparking curiosity

The interviews revealed two ways video game music has sparked players' curiosity to explore classical music. In the first case, players are introduced to existing classical repertoire during gameplay. This was the case for **Bram**, who cited the turn-based strategy game Civilization 4 as his major gateway into classical music. Besides originally composed tracks, the game uses a wide variety of classical repertoire from plainchant to minimalism to accompany each historical era in gameplay.[109] A complete game of Civilization 4 can take from three to twenty hours, depending on the game mode and playstyle. This is probably why the soundtrack repeats entire classical pieces instead of shortening and looping them. For Bram, playing Civilization 4 was the first time he

[108] A transcript of the quote in its original language is included in the appendix under "9.4 Interview quotes".

[109] Refer to Summers' *Understanding Video Game Music* 98-100 for a complete list of classical music used in *Civilization 4*.

wondered about a game's soundtrack. Through a composer list in the manual, he went to borrow classical CDs from the local library to put on his personal computer. Even though Bram had already been playing music for years then, he feels like he learned more about classical repertoire through his Civilization 4 than at music school.

> Something that I find quite remarkable, is that I had been playing the cello and piano for many years, also in ensembles. [...] I enjoyed doing that, but in terms of repertoire or true knowledge of classical music, I didn't gain a whole lot from it. It was more about playing the music itself rather than truly appreciating it. However, I do think that by searching for and listening to the music from *Civilization 4*, I have developed a greater appreciation for classical music, and I've come to know and recognize certain pieces. (Bram, enthusiast)[110]

Jan-Bart recounts a similar experience. He remembers playing the RPG *Eternal Sonata* (2007) opening his eyes to the music of and story of Frédéric Chopin. Even though the main storyline of the game takes place in a fictional world, the soundtrack includes pieces by Chopin and each chapter features a cutscene with biographical information. While Jan-Bart had heard of Chopin before, his knowledge of the composer and classical music in general was limited. Playing a game that was so closely related to the historical figure, established a strong personal connection, and positively influenced his attitude towards Chopin's music.

> Regardless of the fact that I already had some knowledge of classical music and had come into contact with it, there was one game that made me even more aware of classical music, and that was Eternal Sonata. [...] I still feel like I'm a Chopin expert thanks to Eternal Sonata. [...] It's quite strange, because it was a good game, but it also made the composer even better. (Jan-Bart, student)[111]

Not only the borrowing of existing classical repertoire but also similarities in instrumentation and compositional techniques in video game soundtracks can spark curiosity, leading to the discovery of classical music. **Robin** consciously remembers experiencing this. He recalls how listening to Nobuo Uematsu's music for the *Final Fantasy* series on YouTube led him to J.S. Bach and Beethoven, marking the start of his exploration of classical music. He argues that the use of

[110] Interview van der Heijde, Bram. (translation by author).

[111] Interview De Muelenaere, Jan-Bart (translation by author).

counterpoint and organ is what attracted him in Uematsu's that led him to notice Bach, linking similarities in instrumentation and compositional techniques to his gateway experience.

> Over the years, I've become an incredibly big fan of Bach. The roots of that are 100% thanks to Uematsu. [...] For me, one of the most important qualities music can have, is polyphony. It's something that makes me want to listen to it repeatedly. I think it's due to the technical limitations [of older consoles like the Super Nintendo] that magic happened in this music back then. [...] What's impressive about Bach is that he constantly worked with technical limitations he set for himself. A fantasia, passacaglia, and fugue are all concepts that have to function within a certain set of rules. [...] I remember very precisely the first time I listened to Beethoven's 9th Symphony; I was about 13 years old. It was on YouTube, playing in the background of a video or coming after a Uematsu video. And that was it for me; since then, I haven't looked back. (Robin, enthusiast)[112]

Musical understanding

Musical understanding is a controversial concept. Often, it not only relates to grasping the theoretical and structural features in the score, but also to attributing emotive character to the music, which is not perceivable as a fixed characteristic in the music. Hanne Appelqvist remarks, "As the structural similarities between music and human emotive behavior do not unambiguously determine music's emotive character, the only available method of determining this character is to simply perceive it in the music. (…) this view of musical understanding fails to account for the normative aspect of our notion of understanding".[113] She argues that, since there is no objective way of discerning right from wrong, reading emotion in music cannot be a criterion of musical understanding.

While I agree with Appelqvist that attributing emotion to a piece of music is not required to claim musical understanding, I argue that it is *perceived* as necessary by some people. For them, being able to hear emotion is a major factor in their enjoyment and connection with music, leading them to link recognition of emotive character to their notion of understanding. Moreover, the use of metaphors and attribution of emotion is essential in music teaching and music criticism, as it "touches the essence of making music".[114] Since this case study takes an ethnographical approach, musical understanding

[112] Interview van Limbergen, Robin (translation by author).

[113] Appelqvist 2011: 18.

[114] Schippers 2006: 1-4.

will be discussed on both a technical and an emotional level, as many participants in the interviews related the attribution of emotions to musical understanding and enjoyment.

Participants expressed video game music had taught them to listen to classical music based on technical aspects. They relate this to the recognition of compositional principles like counterpoint and leitmotivs, and the development of 'a feeling' for the harmonic language of classical music genres. For example, **Tom** remembers how he always had a hard time connecting with the classical repertoire when he was studying cello in the local music school. While extracting emotion from music was difficult for him, he could easily understand music theory. He attributes this theoretical understanding and his appreciation for classical music partly to video game music. **Robin** refers to polyphony in video game music in a similar way. He adds that the short loops of early video game music, repeated countless times during gameplay, enabled him to notice layers in music for the first time. Through playing video games, he also learned about the functioning of leitmotivs. Robin believes that the step-by-step learning of these concepts throughout the years from video game music, 'prepared' him to come to enjoy complex music such as Mahler's symphonies. **Adriaan** recalls a moment of fascination with harmonic change when listening to *Grand Theft Auto 3*'s title theme.

> What might be the case for me is that I was already exposed to classical 'techniques,' so to speak, through game music, and that made it easier for me to analyze and appreciate them in classical music. Medieval polyphony, for example, is something most people would shy away from, but I'm like, 'Oh yeah, that's amazing,' because I was already familiar with polyphony through game music. (Tom, enthusiast)[115]

> When you listen to a soundtrack, you hear for example leitmotivs, which is basic Wagner. If you listen to Uematsu in his Super Nintendo career, you have excellent examples of counterpoint, which made Bach great. Many techniques developed in classical music reappear in video game music and film soundtracks as well. Video game music, probably due to the technical limitations back then, is often simple. It's an easy entry point. [...] I believe people can learn how to immerse themselves in music. And video game music, specifically of the 'Golden Age' (Robin defines this as the period from ca. 1990-2005), is usually not super technically complex, which removes a kind of barrier that classical music may have. [...]

[115] Interview with Van Roy, Tom (translation by author).

> Mahler is something I came to appreciate only because I made my way from game music to more complex and sophisticated pieces. (Robin, enthusiast)[116]

> The intro of GTA 3 (*Grand Theft Auto 3*) builds up very calmly. First, you have a piano, then a bass comes in, followed by a trumpet, and eventually strings. The theme is always looped, and I found that incredibly boring. One time, GTA was loading, and I went to do something else, so I heard the soundtrack play until the moment the strings joined in. The crazy thing was that the strings added harmony. [...] Suddenly, it changed from a two-dimensional piece to 3D; an extra dimension emerged through those harmonies. [...] I encountered this principle again often in other music. For instance, when I play a fugue by Bach, there's always a theme or motif, and throughout the piece, he explores how he can present those few notes in different ways by adding other notes and harmonies. (Adriaan, professional)[117]

Other participants reported on how video game music taught them to listen to classical music in terms of emotional response to music. For **Yune**, this was an experience of linking classical music with scenes from video games. Even though her entry into classical music was separate from video games, as her interest developed the two worlds became more intertwined. She further argues that the similarities in the instrumentation of video game music and classical music helped her 'cross the bridge' more easily. **Tom** made a similar remark and states that the visual component of video games makes it easier for him to attribute emotion to music, which can then transfer to similar sounding classical music. For **Noah**, emotions felt through game music is related to the interactivity of the medium. He says that video game music taught him to recognize emotions in all types of non-vocal music.

> Video game music is the first music that triggered something inside me. And when I listened to classical music, because it's also instrumental like video game music, I visualized video game scenes. [...] I think that for me, video game music, especially after the 8-bit era, when I got in touch with the more than 16-bit era, and the gap to classical music became much smaller because those sounds tried to be more realistic. I noticed that around the age of 5 or 6, simultaneously my interest in classical music really emerged. (Yune, student)[118]

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[116] Interview van Limbergen, Robin (translation by author).

[117] Interview with Lauwers, Adriaan (translation by author).

[118] Interview with Paepe, Yune (translation by author).

> In video games, music serves to support certain scenes and emotions, whereas in classical music, music is the emotion itself. One leads to the other. When I see a scene unfolding [in a game] and a certain melody or composition linked to specific emotions, when I hear the same techniques in classical music, it's much easier for me to connect with it. [...] Vivaldi's Four Seasons resonated with me much more easily because I had seen a similar phenomenon in *Banjo-Kazooie*. There's a part that repeats four times but played differently each time. It symbolizes the four different seasons that you encounter in a certain level. As a result, I could easily form a mental image of Vivaldi's Four Seasons. (Tom, enthusiast)[119]

> Video game music is a very emotional experience for me. I become a part of the game and immerse myself in the character. That's why I have a strong emotional connection with video game music, and it also opened my eyes to emotions in music in general. [...] We're used to pop songs, which are almost always sung. So, when you hear an instrumental piece, you might wonder, 'What should I imagine here'? But through video games, because you recognize themes certain moments in the game or things that happened to the characters, you learn to associate certain emotions with settings, and then you might recognize similar emotions in other genres. For example, if you have an emotional piano track in a game when a character dies, you might recognize that emotion in a classical sonata or something similar. And then you start thinking, 'Perhaps that composer also experienced loss because the feeling is similar'. (Noah, professional)[120]

Motivator

The interviews have shown that video game music can be a major motivator in learning a classical instrument or music theory and composition. For some, video game music was the main reason to start learning. For others, video game music played a role later in their musical study, as a motivator and inspiration to keep improving. I argue that video game music is especially effective as a motivator because of deep personal connections and the extensive network of supportive online video game music affinity spaces, capable of playing a major role in personal musical growth.

The idea of teaching a skill through familiar material has been around for centuries. As baroque composer and guitarist Gaspar Sanz (1640-1710) notes in his method book on guitar playing, "… for beginners, it is necessary to use references from the same songs and airs that (the students) hear on a

[119] Interview with Van Roy, Tom (translation by author).

[120] Interview Thys, Noah (translation by author).

daily basis".[121] Even today, instrument method books use folk music and children's songs to teach students basic techniques. The connection between the student and video game music has the possibility of being much deeper, as the interactivity of video games is believed to strengthen personal connections and nostalgic feelings.[122] Moreover, 'repetition legitimates'[123]. Hearing the same track countless times on a loop during gameplay arguably adds to the already strong connection.

Affinity spaces as sites of learning have been explored in chapter 3. Several participants in the interviews mentioned being active contributors to video game music affinity spaces. Others were passive consumers, playing from fan-made sheet music found online and watching cover videos. To active and passive members alike, the existence of affinity spaces with their communities and accessible content was crucial to their musical growth.

To some participants, video game music was the main motivator to start learning an instrument and music theory. For example, **Yune** tells how the first year of secondary school was the start of her music study thanks to an inspiring teacher. While her school only required her to sing and play recorder, she adds "I also started piano lessons in the first year of college, because I wanted to play video game music". She remembers easily finding sheet music from her favorite games on the website *NinSheetMusic*. **Noah** started learning piano through video game pieces too, and he mentions YouTube and the online sheet music library *Ichigo's Sheet Music* as his main entry to learning material. **Robin** was inspired by Nobuo Uematsu's video game soundtracks to start playing an instrument when he was 16 years old. He took two years of piano lessons at the local music academy but quit after he went to university. He continued studying organ and transcribing by himself. This was only possible thanks to tutorial videos on YouTube. **Vincent** mentions the importance of YouTube and the piano tutorial videos made with *Synthesia*, piano software that visualizes MIDI input. They helped him learn new pieces when he could not yet read sheet music fluently and motivated him to set the bar higher.

[121] Díaz-Latorre "Gaspar San zand his 'Laberintos Ingeniosos'".

[122] Aksoy et al. 2022: 38-40.

[123] David Bruce Composer "The Rite of Spring: Repetition Legitimizes".

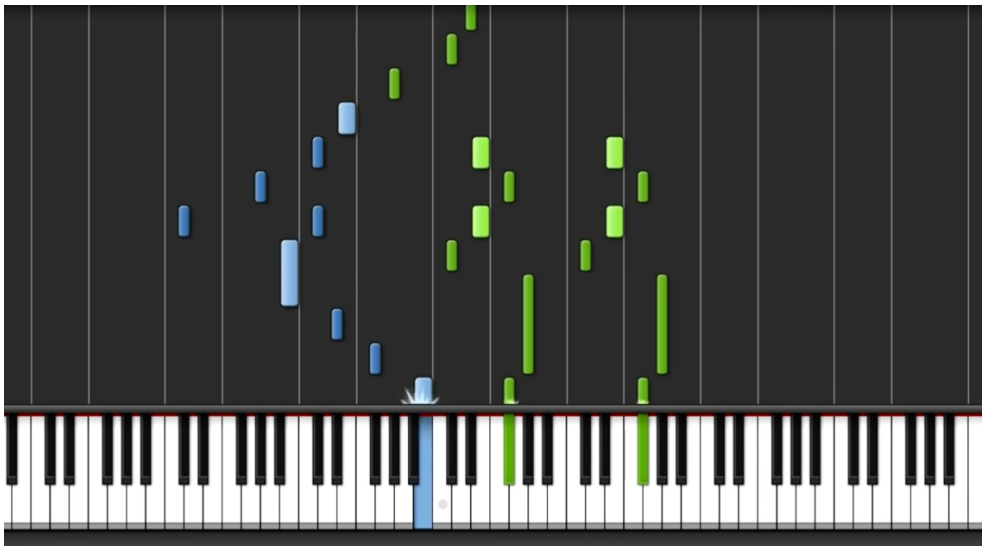

Figure 6.1 Synthesia screenshot "Passion" from *Kingdom Hearts,* arr. Kyle Landry.

> One of the first things I played and found challenging was something from Kingdom Hearts. That was one of the reasons I got into the piano. There was a song called "Passion", and I came across a pianist on YouTube, named Kyle Landry. [...] I thought, 'Wow, that's amazing.' YouTube was incredibly important; it's the reason I got into playing the piano because I started discovering those videos. *Synthesia* was also popular at that time, and it allowed me to get into it when I couldn't read sheet music yet. (Vincent, enthusiast).[124]

> I started with music as a self-taught learner. For my seventh birthday, my mother bought me a keyboard from Aldi, something with four to five octaves. And for me, this was immediately connected to video games. I was playing games like Chrono Trigger, Zelda Ocarina of Time, and Super Mario Brothers at that time, and I would try to play their themes by ear. [...] At first, I really learned to play by watching how people played in YouTube videos. [...] With the little music theory I had learned [during one year of music school], I started looking for sheet music. I found some websites like ichigos.com or something similar, where you could find simple piano arrangements. (Noah, professional)[125]

Video game music was not only a motivation to play an instrument but also an inspiration to start composing or arranging. **Yune** recalls her first compositions, which was part of a school assignment, being inspired by video game music. **Noah** remembers making short RPG-inspired pieces in the composition software *GarageBand* for fun.

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[124] Interview Claessens, Vincent (translation by author).

[125] Interview Thys, Noah (translation by author).

> When I started getting music lessons from David Anne in the first year of secondary school, I became much more invested in music, and in my free time, I gravitated towards video game music to look at it in the same way we approached classical music in class. In the third year of secondary school, we had a kind of mini-composition lesson, and we had to create a small composition, and I drew my inspiration directly from Zelda music. (Yune, student)[126]

> My early pieces were more classically oriented, but when I got my first laptop, it had *GarageBand* installed. With that, I had a whole sound library where I could try out different instruments. So, I could create pieces that sounded like the game music I used to play, and I made these mock-up pieces, so to speak. For example, a theme that sounds like entering an shop theme or a battle theme from an RPG. (Noah, professional)[127]

Yune, Noah and Vincent were examples of passive members of affinity spaces. Yentl, Michael and Maja were active contributors. They did not only learn through the content provided in communities and websites, but also shared own creations themselves. Yentl had been very interested in composing and improvising ever since he started playing the piano. He remembers analyzing the harmonies in *Super Mario Galaxy*'s soundtrack by using transcriptions found online. To express his gratefulness to the community, he uploaded new transcriptions to the website. For example, **Michael** spoke of how he learned to transcribe and compose and participated in events organized by online video game music communities. **Maja** was an active participant in online groups as a video game music performer. She has a big collection of fan-made video game sheet music that she would play for friends at home or stream online. Recently, she organized a video game music concert in a church, which she also streamed in online groups.

> From when I was 18 years old until now (23), I have been involved in an online music community. […] Through that community, I learned a lot about arrangements as well, because people would do arrangements. And to do that, you also need to get into music theory. So I started doing deep dive into music theory. I like thinking that through video game music and studying it, I gained a gateway into classical music theory. […] I joined [the music community's Discord server] and I didn't do anything on it, but I was like, oh, this is cool. […] Then they had music discussions, I shared my music and somebody shared theirs. […] There were events like 'arrange some Pokémon music' and have competitions. So I would learn from there how

[126] Interview Paepe, Yune (translation by author).

[127] Interview Thys, Noah (translation by author).

to arrange and how to write down. […] When you do that, you get exposed to the structure of the music. And in that community, a lot of people try to pressure you into learning how to write your own arrangements and adding something special to it. (Michael, enthusiast)[128]

You had a lot of different kinds of [online groups and servers for sharing video game music videos], especially when Discord came around. YouTubers were also a great way to connect. When you found someone that was interesting, you would eventually get to emailing and to distributing sheet music. […] There was such a thirst for these [video game music] arrangements and high-quality sheet music with fingerings and the slurs and everything, so you could work at it in a more artistic way. On Discord for example, I actually hosted my own concerts on this and I had a whole setup for it and I would stream every second or third day various kinds of game music arrangements that I was doing. I would also arrange live in this Discord. (Maja, student)[129]

Finally, there were participants to whom video game music was a way to overcome struggles in their music study. In their cases, video game music had not been the main motivator to learn music, but it was something they enjoyed playing as a hobby. Even so, they experienced moments where they got 'stuck' in their instrument study and managed to overcome the blockade through video game music. For **Marnix**, video game music provides a space for experimentation and helped him to relate to classical music on a more personal level. It also helped him with the obligatory piano lessons during high school. Noah, too, finds inspiration in video game music when getting stuck during composing. Tom often struggled to keep himself motivated to practice during his cello study. However, his personal relationship with video game music and the openness of his teacher motivated him to create his own transcriptions of video game music. Tom later created a website where he hosted his arrangements, called *Cellotaku*.[130]

I learned more about piano playing through Nobuo Uematsu's scores than through Bach or anything else. [...] I found it easier to connect with that music because I already appreciated the games and their stories so much. That appreciation was already there, so it became much easier to be musical with it. I found it much harder to be musical with scores written for an 18th-century nobleman. [...] In the same way as learning to play *Final Fantasy* on the piano,

[128] Interview Bor, Michael.

[129] Interview Milas, Maja.

[130] The website is no longer online.

> arranging video game music was also a way to say, 'Look, I can learn things from this music that other music can teach me too.' [...] I would have started studying music anyway. But without video game music and film soundtracks, I might have given up more easily. At the beginning of my studies, I often encountered obstacles because certain things just didn't resonate with me. And being able to sit at the piano and try to play the soundtracks kept the flame for piano, accordion, and music in general alive. (Marnix, professional)[131]

> I'm currently writing a Mass for choir and organ, and I was working on the Credo, which I struggled with for a long time because of its length. I tried to make it very classical because I thought that was the aesthetic people expected. But it didn't work out, and I was already on version three or four. So, I thought, 'You know what, I'll just write it as if it's a super cool boss battle in an RPG.' Suddenly, the notes flowed from my pen. Authenticity for me comes from what I feel and what stands close to me. That's why I often draw inspiration from video games, because it flows most naturally for me. (Noah, professional)[132]

> When I played the cello, I could never really connect with the pieces that were assigned to me. I didn't know them, and because I didn't know them, I didn't enjoy playing them, and because of that, I didn't practice. So yes, it was a vicious circle. Then Koen, my instructor, said, 'You know what, why don't you try bringing pieces you like to class.' I didn't immediately find anything; I'm talking about around 1999. Game music scores were not yet widely available online. What I did was listen to music and, through trial and error, transcribed it by ear. (Tom, enthusiast)[133]

Guidance

Finally, the interviews have revealed that video game music can become a guide in finding one's identity as a classical musician, composer, and/or musicologist. For some participants, video game music subtly formed their musical preferences, of which the effects only became clear much later in life. To others, video game music guided them in finding a place to belong in the professional classical music world. I argue that video game music's ability as a 'guiding power' relates to the development of musical taste explained earlier in this chapter.

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[131] Interview Peeters, Marnix (translation by author).

[132] Interview Thys, Noah (translation by author).

[133] Interview Van Roy, Tom (translation by author).

Giorgos is a historical plucked-instrument player and argues that his interest in Renaissance music was enabled through the music of *Final Fantasy*. Being of Greek origin, early music is not part of his culture. He came into contact with typical Renaissance harmony and instrumentation through *Final Fantasy IX*'s title theme 'The Place I'll Return to Someday". Even though at that point, he did not know what this musical style was called, his love for this sound world stayed with him throughout the years and was triggered again when he came into contact with early music much later in life. **Yoeri** links his early gaming experiences with the MMORPG *Runescape* (2001) to his later interests in medieval music. To him, the game's soundtrack was one of the many elements that formed his musical taste.

> Final Fantasy IX is essentially why I play early music now. […] At the time, especially, the sound of the recorders really just became a thing in my ear that has stayed with me since then. The problem is that in Greece, there's essentially no real early music training. There are no early music departments because even the fact that we have classical music is kind of… I don't know, our tradition is very much Eastern style. […] Traditional music really plays a big role in Greece and so I really didn't know how to pursue this (European early music). I didn't know what it was called, who would perform it or how to find music like this. I just knew that *this* thing was what I wanted to pursue. (Giorgos, professional)[134]

> I think games have been quite important to me, especially when it comes to getting in touch with a broader range of instruments. [...] You're playing a game, but at the same time, you're fully immersed in your imagination, and that soundtrack contributes a lot to that experience. [...] I feel like the many memories attached to this computer-generated 8-bit or 16-bit interpretation of medieval music are like 'seeds'. Seeds that later grew and brought me to study actual medieval music. (Yoeri, student)[135]

Some have found their place in the professional field through their engagement with video game music. For example, **Maja** had always loved classical music and piano playing but never felt comfortable in the classical educational system and professional circuit. Through engaging with fellow video game music fans and performing the music, she has found the motivation to grow as a professional musician and video game composer/sound designer and give back to the community. **Amelia** was drawn into music and singing mostly by Japanese anime soundtracks, though video game

[134] Interview Kakitsis, Giorgos.

[135] Interview Daniels, Yoeri (translation by author).

music also played a role in her growth as a musician. She is currently active in the video game music and soundtrack business as a professional singer and aims to continue down that path. Both Maja and Amelia report feeling strong support and gratefulness from their audiences, which keeps them motivated to follow their ambitions.

> The people at the (music) school made me very aware that this is not where I belonged. So I longed for this community somewhere else and I constantly kept kind of grinding at this, even just at home, […] I actually grew enough confidence to have my own concert with game music in my local church, which is the first ever documented concert in the Balkans of video game music. […] People reacting with such smiles on their faces when they hear the first few chords being played, that's, something that is pushing me the most to continue studying classical music, even though I kind of already am slowly building a career in game music production. I think holding concerts and keeping this tradition of performing music live is just as important (as being a good game composer and sound designer). These communities, I think it's important for them to meet. Important for them to see there are people there, that they are not alone. These people deserve a voice that I can give them, and why wouldn't I give them? (Maja, student)[136]

> I remember hearing the song from *Ico* "You were there". It's a beautiful song and I heard that when I was sort of young and starting to get interested in singing and I just thought 'wow, that's a beautiful song and that kind of sounds like something that I could do. […] I signed up to a classical singing course, and then my mom said to me 'but Amelia, you don't even like opera'. And that's true, that's always been a bit of a difficult thing for me because if I don't like opera, then where do I fit? But I think that because at that stage, I already had these influences from video games, anime and other musics that I loved like early music, I felt confident that I had a path in front of me. […] With the video game stuff, it's exciting because really want to come and really want to be there. They get so enthusiastic about it, and I know that it means a lot to them as well. Because it means a lot to me. (Amelia, professional)[137]

Noah is a professional singer and composer, taking his first steps into the world of video game music composition with his recent work for the educational games *Karaton* and *Stutter Stars*. As a singer, he recently became a member of ANÚNA, a vocal ensemble covering various repertoire, including video game music. He interprets this as the result of a chain reaction that started with

[136] Interview Milas, Maja.

[137] Interview Jones, Amelia.

playing video game themes on the piano as a child. His greatest dream as a composer is to compose music for a Japanese RPG, his favorite genre. **Thomas** is a composer and musicologist. His scholarship is primarily in video game music. He is currently working on the representation of various factors of identity, so gender, race, and religion in video game music. Though Thomas is no video game composer, he lets video games inspire him, referring to it as "seeds" that are planted by playing video games. In his composition lessons, he uses video game music as one of the many sources to teach his students how to approach instrumentation and texture.

> I think video game soundtracks have informed me aesthetically for all my writing, whether it's writing my opera or a concert piece for marimba or piano and electronics. […] Recently, I composed a piece called 'Concerto Ludus' for piano and Gameboy. […] I think it really shows musically where I'm coming from in my story. It's done in a chiptune style (…) utilizing compositional techniques I learned from [chiptune] video game composers primarily, and sort of taking the narrative structure of a video game to organize it. Then moving beyond that into my own style by applying some more advanced theoretical constructs that I'm working on in terms of scales and other things but using that in a video game music idiom. (Thomas, professional)[138]

A gateway, but not for everyone

Of the 30 interviewees, 14 did not report experiencing video game music as a gateway to classical music. In most cases, this is because their relationship with classical music started to develop earlier, for example, through their parents or in music school. Others simply never perceived a connection between both worlds of music in the first place. Some participants commented that video game music was a gateway into *other* musical genres, like metal and jazz. For example, **Samuel** remembers developing an appreciation for metal through the *Devil May Cry* series and **Yentl** reports gaining a better theoretical understanding of jazz through *Super Mario Galaxy*'s score. He now uses this music to teach friends and students about jazz harmony and improvisation.

> I've always listened to classical music and jazz; those were my two genres that I was exposed to at home. I believe that video game music probably led me to explore other genres. For me, video game music served as a gateway to electronic music. I also listened to quite a bit of

[138] Interview Yee, Thomas B.

> metal for a while. I had heard music from *Devil May Cry*, and I thought, 'Okay, that sounds pretty good. Maybe I should give metal a try.' (Samuel, enthusiast)[139]

> In my self-study as a composer, I would listen to music and try to figure out the chords to see how it was put together. I did that with classical music, but also with jazz and video game music. [...] For me, video game music has actually taught me a lot about jazz harmony. Even though a video game soundtrack may sound more classical, the way it is constructed and structured is closer to the jazz approach than the classical partimento approach. One soundtrack that I was a big fan of as a young teenager was *Super Mario Galaxy*. It sounds classical because it primarily uses orchestral instruments, but the harmonic way the pieces are written is often a sequence of non-functional harmonic colors. They strongly resemble jazz harmonies or some jazz standards that you come across. The way they handle modes also really reminds me of my jazz education. (Yentl, student)[140]

Other participants mentioned experiencing a gateway effect in the opposite direction: from classical music to video game music. For example, **Clara** grew up fascinated by classical music and playing various instruments. She only started listening to video game music in her late teens, and at first as background music to her keep focus during studying. As she gradually discovered more varieties of video game music, she started recognizing classical styles and techniques, which positively influenced her appreciation of the music. Nick tells a similar story, as he began appreciating video game music more after he started noticing the similarities with romantic symphonic repertoire. Bram argues that his musical knowledge learned in music school helped him understand video game music on a deeper level. Just like Nick, he experiences the same 'goosebump moments' in video game music that before would only occur with classical music.

> In the music of *Hollow Knight*, especially in the main theme, there is a cello. And in that, you can really hear musical lines similar to classical music. For me, that's a strong resemblance that probably attracted me to that game. [...] Video game music hasn't had an extreme influence on my musical development, but it has given me an appreciation for what we now call classical music, and the complexity and diversity we see there. (Clara, enthusiast)[141]

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[139] Interview Bloch, Samuel (translation by author).

[140] Interview Tijssens, Yentl (translation by author).

[141] Interview Wubbenhorst, Clara (translation by author).

> Since I started with the KSO (*kunstsecundair onderwijs*, music secondary school), I've started listening more to orchestral music and realized that video game music is actually a very cool genre. [...] So for me, it's been the other way around. Because I was involved with a wind orchestra, I also listened to classical works. And then, I noticed when I was playing a game, 'Ah, this music is actually very interesting.' [...] In classical music, the best moments are the 'goosebump moments'. And for example, in video game music, I find that they occur even more often than in certain classical works. That's why I find it very interesting to listen to. (Nick, student)[142]

> I consider game music as part of classical music because it can also give that 'goosebumps effect'. I experience that much more often with classical music than with music you would simply hear on the radio. [...] In games with an original soundtrack, like *The Legend of Zelda*, I still find it very cool to analyze the themes and in what way they are incorporated. That's how I like to explore classical music too. Having had a classical education and then applying the knowledge I gained there to video game music, gives that music added value for me, I think. (Bram, enthusiast)[143]

6.3 Conclusion

This ethnography confirmed that video game music is widely experienced as a gateway to classical music in various ways. Through the stories of 16 of the 30 participants, three distinct gateway 'paths' could be discerned: fostering appreciation, acting as a motivator during the music study, and providing guidance in the development of one's musical identity. Some participants mentioned video game music was a gateway into other genres like metal and jazz, indicating that these effects are not exclusive to the relationship between video game music and classical music. The gateway works in the other direction as well, as some reported how classical music positively impacted their view on video game music. These results seem to align with the hypotheses presented in the introduction, arguing that the gateway effect is related to the development of musical taste in puberty and that familiar music genres are more positively valued.

Video game music's function as a tool for classical music appreciation can be subdivided into two paths: through sparking curiosity and by developing musical understanding. Video games can spark interest in classical music by using either preexisting classical repertoire (e.g. *Civilization 4* and *Eternal Sonata*) or featuring classically-inspired soundtracks (e.g. *Final Fantasy*). By searching for

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[142] Interview Bulté, Nick (translation by author).

[143] Interview van der Heijden, Bram (translation by author).

this music, for example, on websites like YouTube or in the library, listeners automatically come into contact with related repertoire and have a starting point to begin their personal journey into the world of classical music. Video game music can improve musical understanding on a technical level by introducing music based on classical composition techniques such as counterpoint, leitmotivs, and harmonic variation on a theme, and on an emotional level by teaching the attribution of emotion by through the associations between the game's narrative, player experiences and the soundtrack.

Video game music also functions as a motivator in classical musical education to both autodidacts and students in school. Video games have the ability to forge deep connections between the music and the player through the repetition of the music and interactivity, which increases emotional response and nostalgia. Following the idea that new skills are more easily learned through something familiar, video game music is learning material for those starting a study of music. Musical material and knowledge are abundant online and easily accessible through in video game music affinity spaces. The possibility to engage with fellow fans and contribute to the community also motivates members to learn new skills, for example, transcribing or arranging. For those who are already advanced in their study, video game music can still positively impact their growth as a musician by being an inspiration in difficult moments.

Finally, video game music can be a guiding element in one's personal musical development. The interviews revealed how classically inspired video game music can lead to the study of classical music at a professional level, like seeds that sprout later in life. This is based on the development of musical taste and the familiarities between video game music and classical music. Additionally, engagement with video game music can evolve into a professional career in music and help people concretize their ambitions in life.

These experiences revealed to be unrelated to preferred game genre, general listening habits, the presence of classical music during childhood and nationality. As a hypothesis, I argue that the gateway effect might be related to the perception of similarities between video game music and classical music and the degree of engagement with video game music outside the game context. The diversity of individual stories provides room for future research into the causality of this gateway effect.

7 Conclusion

This thesis addressed one central question: “in what ways can video game music be a gateway into classical music”. The study started out by illustrating how classical music is ‘gamified’ and how video game music is ‘classified’, followed by a literature study on prior findings regarding video games and musical education. This pointed to video game music’s merit in teaching transferable musical skills while simultaneously illustrating its limitations. Using the similarities between video game music and classical music, theories on affinity spaces, transferable skills of music games and musical taste development as a framework, the case studies revealed that the intersection of classical and video game music is a complex, dynamic, and formative space where different musical worlds interact, sparking both appreciation and creativity.

The first case study evaluated the classical music rhythm game *Pianista* and its educational potential for traditional music education. An assessment of the “Turkish March” level suggested that the game’s effectiveness in teaching traditional musical skills, such as sight-reading and analytical insight, is limited. The absence of a practice mode and the high difficulty of the technical game mode is a missed chance in teaching players techniques of fragmented practice and discipline. However, the game's strength lies in its ability to introduce players to classical repertoire. Both popular and lesser-known pieces are introduced in an engaging and accessible manner, fostering positive attitudes, and sparking curiosity towards classical music. Despite its potential shortcomings, *Pianista* offers an engaging platform for players to explore and appreciate classical music through interactive gameplay.

The second case study analyzed "The Rebel Army" from Piano Opera Final Fantasy I/II/III as an exemplary piece for classical piano lessons, offering valuable exercises in various technical and musical aspects of basic piano technique. The piece's romantic style encompasses long phrases, tension arcs, chromaticism, virtuosity, and expressiveness, providing an ideal platform for students to develop both technique and musicality. On a technical level, the arrangement trains skills like wrist flexibility and independent finger control, rhythmical accuracy, jumps, and nuances in pedal use. Additionally, the students are encouraged to musically interpret the piece according to indications in the sheet music, like articulation markings, dynamic signs, phrasing bows, and the arranger's commentary. The inclusion of a CD recording offers critical listening opportunities for students. Beyond its role in piano lessons, I argue for a broader potential of video game music arrangements in music education. This type of material can provide insights into arranging techniques and deeply motivate students with a personal connection to video game music.

The third case study confirmed how video game music can be a gateway into classical music through fostering appreciation, by acting as a motivator during music study, and shaping one's musical identity. Some participants noted that classical music was their gateway into video game music, reversing the dynamic. The anecdotal experiences confirm hypotheses from the case study 1

on *Pianista* and the case study 2 on "The Rebel Army" piano arrangement. The idea that video games can communicate cultural knowledge was found to be the main strength of rhythm game *Pianista*, and while rhythm games were not mentioned in the interviews (arguably because classical music games are extremely rare), *Civilization 4* and *Eternal Sonata* were cited as major catalysts in interest in classical repertoire. Multiple participants mention playing video game music arrangements on piano, both at home *and* in class, confirming the conclusion of case study 2 which states that video game music arrangements are viable as teaching material and play an important role in keeping students motivated.

Much more is to be discovered about the link between video game music and classical music in terms of musical analysis, audience perception and pedagogy. I refer to possibilities of large-scale studies to get more insight in the motivational force of video game music in music education, or experiments on audience's appreciation when mixing video game music and classical repertoire in symphonic concerts. To outsiders, the two worlds arguably stand far apart. With this study, I have shown significant similarities on a theoretical, practical, and perceptional level. Ultimately, it is my hope that both music traditions grow closer to each other and support each other in this fast-moving, modern world.

8 Appendix

8.1 List of composers and repertoire in *Pianista – Invitation to Classical Music*

Composer:	Pieces:
Baroque Era	
Purcell, Henry (1659-1695):	
	A New Ground, Z. T682
	Abdelazer Suite: II. Rondeau
Couperin, François (1668-1733):	
	Les Barricades Mysterieuses
	Les Petits Moulins à Vent
	Le Réveil-Matin
Vivaldi, Antonio (1678-1741):	
	L'Estro Armonico, Op. 3, No. 6
	L'Estro Armonico, Op. 3, No. 8
	L'Estro Armonico, Op. 3, No. 10
	Winter from "The Four Seasons"
	Spring from "The Four Seasons"
	Autumn from "The Four Seasons"
	Summer from "The Four Seasons"
	Concerto for 4 Violins and Cello in B minor, RV 580
	Oboe Concerto in F major, RV 455, Mov. I
	Violin Concerto in C major, RV 185, Mov. II
Bach, Johann Sebastian (1685-1750)	
	Minuet, BWV Anh. 114
	Jesu, Joy of Man's Desiring
	Toccata and Fugue, BWV 565

Orchestral Suite No. 3, II, Air
Harpsichord Concerto, BWV 1052
Invention in A minor, BWV 784
Brandenburg Concerto No. 3 in G major, Mov. I
Concerto for Violin and Oboe in C minor, BWV 1060
Brandenburg Concerto No. 3 in G major, Mov. III
Brandenburg Concerto No. 4 in G major, Mov. I
Prelude and Fugue in C minor, BWV 847
Violin Concerto in A minor, BWV 1041
Concerto for Oboe d'Amore, BWV 1055, Mov. III

Händel, Georg Friedrich (1685-1759)

Lascia Ch'io Pianga from "Rinaldo"
Water Music, II. Alla hornpipe
Arrival of the Queen of Sheba
Suite in D minor, III. Sarabande
Music for the Royal Fireworks, IV. La Rejouissance
Concerto Grosso in A minor, Op. 6 No. 4, HWV 322

Classical Era

Haydn, Joseph (1732-1809)

Serenade from String Quartet, Op. 3, No 5
Trumpet Concerto, Mov. I
Trumpet Concerto, Mov. III
Keyboard Sonata in E minor, Mov. I
Symphony No. 94 in G major, Hob. I: 94 "Surprise"
String Quartet in D major "The Lark"
Cello Concerto No. 1 in C major, Hob. VIIb: 1: I. Moderato
Oboe Concerto in C major, Hob. VIIc: 1, Mov. I
Divertimento in G major, Hob. XVI: 8, Mov. I
Violin Concerto in C major, Hob. VIIa: 1, Mov. III

Boccherini, Luigi (1743-1805)

String Quintet in E major, G. 275 “Minuetto”

Mozart, Wolfgang Amadeus (1756-1791)

Eine Kleine Nachtmusik, Mov. I
Eine Kleine Nachtmusik, Mov. IV
Piano Sonata No. 8, Mov. I
Piano Sonata No. 8, Mov. III
Piano Sonata No. 16
Turkish March
Symphony No. 25
Symphony No. 40, Mov. I
The Marriage of Figaro
12 Variations on “Ah, vous dirai-je maman”
String Quartet No. 14 in G major, K. 387
Queen of the Night Aria from ‘The Magic Flute”
Rondo in A minor, K. 511
Oboe Concerto in C major, K. 314, Mov. III

van Beethoven, Ludwig (1770-1827)

Sonata Pathetique, Mov. II
The Tempest, Mov. III
Moonlight, Mov. III
Symphony No. 5, Mov. I
Sonata Pathetique, Mov. III
Moonlight, Mov. I
Für Elise, Wo Op. 59
Violin Sonata No. 5 in F major, Op. 24 “Spring”
Sonata No. 20 in G major, Op. 49, No. 2
Symphony No. 9, Op. 125

Sonata Pathetique, Mov. I
Cello Sonata No. 3 in A major, Op. 69: II. Scherzo
Trio for 2 Oboes and English Horn, Op. 87, Mov. IV
Piano Sonata No. 23, Op. 57, Mov. III

Romantic Era

Paganini, Niccolò (1782-1840)

Caprice No. 24 (Franz Liszt)
La Campanella (Franz Liszt)
Violin Concerto No. 1, Op. 6, Mov. III

Rossini, Gioachino (1792-1868)

Semiramide, Ouverture
L'Italiana in Algeri, Ouverture
William Tell, Ouverture: Finale
Largo Al Factotum from "The Barber of Seville"

Schubert, Franz (1797-1828)

Serenade from "Swan Song"
Three Marches Militaires, No. 1
Moments Musicaux, Mov. III
Fantaisie in C major, D. 760, Mov. IV
Arpeggione Sonata, D. 821
Der Erlkönig
Piano Trio No. 2 in E-flat major, Op. 100
Piano Quintet in A major, D. 667, Mov. IV
Piano Sonata in B-flat major, D. 960, Mov. III
Symphony No. 5, D. 485, Mov. III
Fantasie in C major, D. 760, Mov. I
4 Impromptus No. 2 in E-flat major, D 899

Glinka, Michail (1804-1857)

Nocturne
The Lark
Ruslan and Lyudmila
Valse-Fantaisie
Nocturne “La Séparation”

Mendelssohn, Felix (1809-1847)

Songs Without Words, Op. 62, No. 6
Songs Without Words, Op. 19, No. 6
Violin Concerto, Op. 64
Symphony No. 4, Mov. I
A Midsummer Night’s Dream, I. Scherzo
Dance of the Clowns
A Midsummer Night’s Dream, V. Wedding March
Songs Without Words, Op. 67, No. 4 in C major
Piano Concerto No. 1 in G minor, Op. 25
Piano Trio No. 1 in D minor, Op. 49

Chopin, Frédéric (1810-1849)

Nocturne, Op. 9, No. 2
Revolutionary Etude
Black Key Etude
Waltzes, Op. 64, No. 2
Grande Valse Brillante, Op. 18
Fantaisie-Impromptu, Op. 66
Waltzes, Op. 64, I. Minute Waltz
Etudes, Op. 10, No. 4
Polonaise in A-flat major, Op. 53 “Heroic”
Scherzo in B-flat minor, Op. 31

	Waltz, Op. 69, No. 2
	Etude, Op. 25, No. 11
	Cello Sonata in G minor, Op. 65: II. Scherzo
	Prelude in F-sharp minor, Op. 28, No. 8
	Prelude Op. 28, No. 15 in D-flat major, “Raindrop”
	Piano Concerto No. 1 in E minor, Op. 11, Mov. III
Liszt, Franz (1811-1886)	
	Liebestraum, No. 3
	Hungarian Rhapsody No. 2
	Transcendental Etude, IV. Mazeppa
	Un Sospiro
	Tarantella
	Hungarian Rhapsody No. 6
Verdi, Giuseppe (1813-1901)	
	La Donna è Mobile from “Rigoletto”
	Brindisi from “La Traviata”
	Anvil Chorus from “Il Trovatore”
	Requiem: Dies Irae
Offenbach, Jacques (1819-1880)	
	Can-Can from “Orpheus in the Underworld”
Strauss II, Johann (1825-1899)	
	Frühlingsstimmen, Op. 410
	Annen-Polka, Op. 117
	An Der Schönen Blauen Donau, Op. 314
	Pizzicato Polka (with Josef)
	Tritsch-Tratsch-Polka, Op. 214

Brahms, Johannes (1833-1897)

Waltz, Op. 39, No. 15
Piano Sonata No. 3, Op. 5, Mov. I
Hungarian Dance No. 5
8 Klavierstücke, Op. 76, II. Capriccio
Cello Sonata No. 1, Op. 38: II. Allegretto quasi menuetto
Intermezzo in A major, Op. 118, No. 2
Piano Trio No. 1 in B major, Op. 8, Mov. II
Piano Sonata No. 1, Op. 1, Mov. I

Saint-Saens, Camille (1835-1921)

Bacchanale from “Samson et Dalila”, Op. 47
Danse Macabre, Op. 40
6 Etudes, Op. 111, No. 6
The Carnival of the Animals: XIV. Finale
The Carnival of the Animals: XIII. The Swan
The Carnival of the Animals: XII. Fossils

Bizet, George (1838-1875)

Minuet from “L’Arlésienne Suite No. 2”
Farandole from “L’Arlésienne Suite No. 2”
Habanera from “Carmen Suite No. 2”
Prelude from “Carmen Suite No. 1”
Chanson du Toreador from “Carmen Suite No. 2”

Tchaikovsky, Pjotr Iljitsj (1840-1893)

Swan Lake, Op. 20
March from “The Nutcracker”
Piano Concerto No. 1, Op. 23, Mov. I
Dance of the Sugarplum Fairy from “The Nutcracker”

Chinese Dance from “The Nutcracker”
Waltz from “The Sleeping Beauty”
Waltz of the Flowers from “The Nutcracker”
The Seasons, Op. 37 a: December
Piano Concerto No. 1, Op. 23, Mov. III
Piano Concerto No. 2, Op. 44, Mov. III
Miniature Overture from “The Nutcracker”
Dance of the Reed Futes from “The Nutcracker”
Waltz of the Snowflakes from “The Nutcracker”
Symphony No. 1, Op. 13, Mov. I
Symphony No. 1, Op. 13, Mov. III

Dvořák, Antonin (1841-1904)

Humoresque, Op. 101, No. 7
Slavonic Dances, Op. 72, No. 2
Slavonic Dances, Op. 46, B. 78, No. 7
From the New World, Mov. IV
Serenade for Strings, Op. 22, II. Tempo di valse
Piano Trio No. 4, “Dumky” in E minor, Op. 90, Mov V
Violin Concerto, Op. 53, Mov. III

Grieg, Edvard (1843-1907)

Piano Concerto in A minor, Op. 16, Mov. I
In the Hall of the Mountain King
Morning Mood
String Quartet No. 1 in G minor, Mov. I
Piano Sonata, Op. 7
March of the Dwarfs, Op. 54, No. 3
Piano Concerto in A minor, Op. 16, Mov. III
Piano Sonata, Op. 7, Mov. IV

Sarasate, Pablo (1844-1908)

Zigeunerweisen, Op. 20
Spanish Dance, II. Zapateado
Carmen Concert Fantasy, Op. 25

Elgar, Edward (1857-1934)

Salut d'Amour, Op.12
Pomp and Circumstance, Op. 39, No.1
Symphony No. 1, Op. 55, II. Allegro molto
Violin Concerto, Op. 61, Mov.III

Debussy, Claude (1862-1918)

Suite Bergamasque, IV. Passepied
Valse Romantique
Arabesque No.1
Suite Bergamasque, III. Clair de Lune
Suite Bergamasque, II. Menuet
Petite Suite, L. 65: II. Cortège
Piano Trio in G major, Mov. II
Suite Bergamasque, I. Prelude

Scriabin, Aleksandr (1871-1915)

3 Pieces, Op. 2, No. 1
Valse, Op. 1
12 Etudes, Op. 8, No. 12
12 Etudes, Op. 8, No. 6

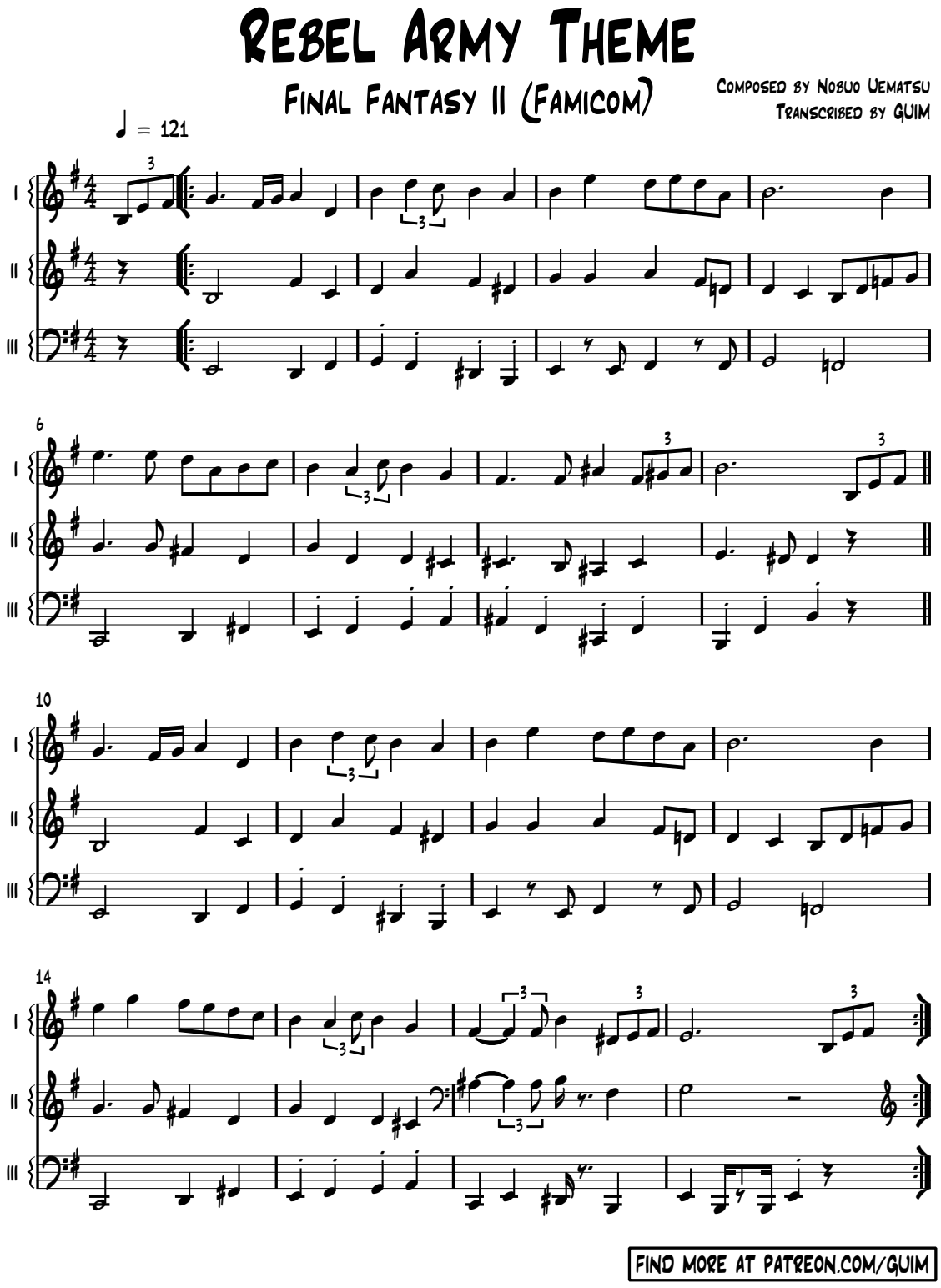
Rachmaninoff, Sergej (1873-1943)

Piano Concerto No. 2, Op. 18, Mov. I

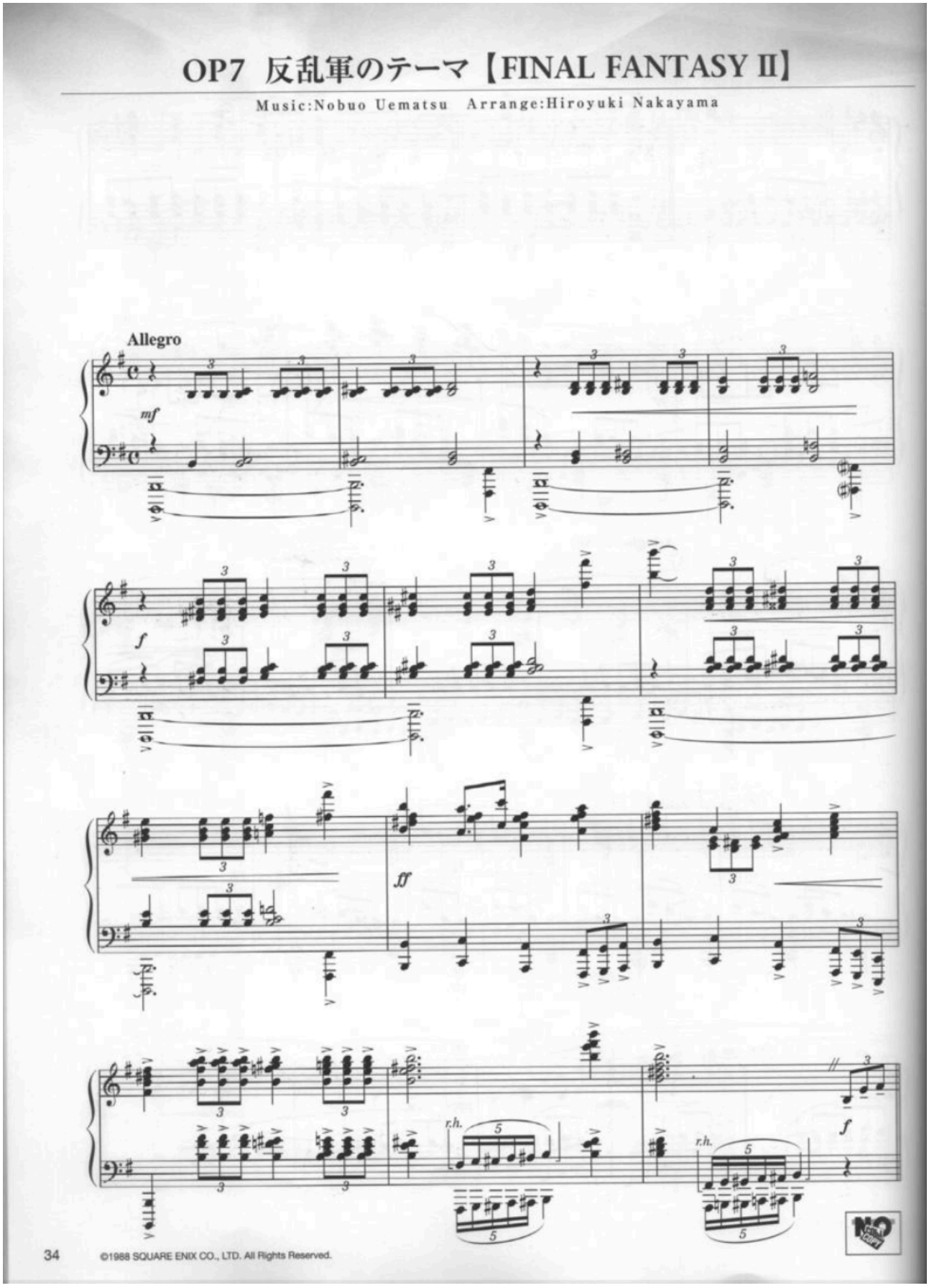
Six Moments Musicaux, Op. 16, No. 4
Flight of the Bumblebee (Rimsky-Korsakov)
10 Preludes, Op. 23, No. 5
Piano Concerto No. 3, Op. 30, Mov. I
Prelude in C-sharp minor, Op. 3, No.2
10 Preludes, Op. 23, No. 6 in E-flat major
Piano Concerto No. 3 in D minor, Op. 30, Mov. III

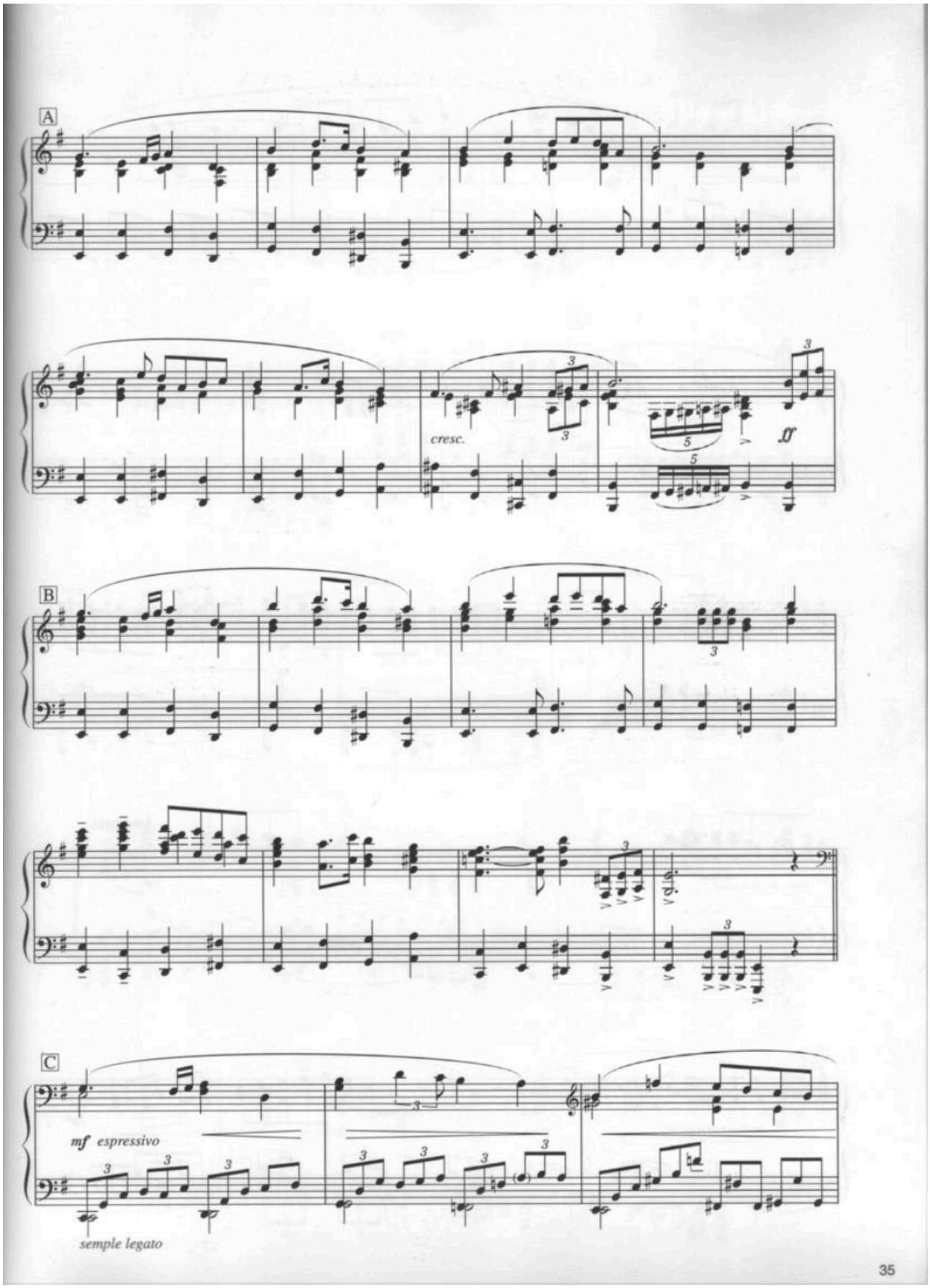
8.2 “The Rebel Army” from *Final Fantasy II*

Transcription original soundtrack by Nobuo Uematsu. (GUIM, 2017).



Score *Piano Opera I/II/III* arrangement (Uematsu and Nakayama 2012)

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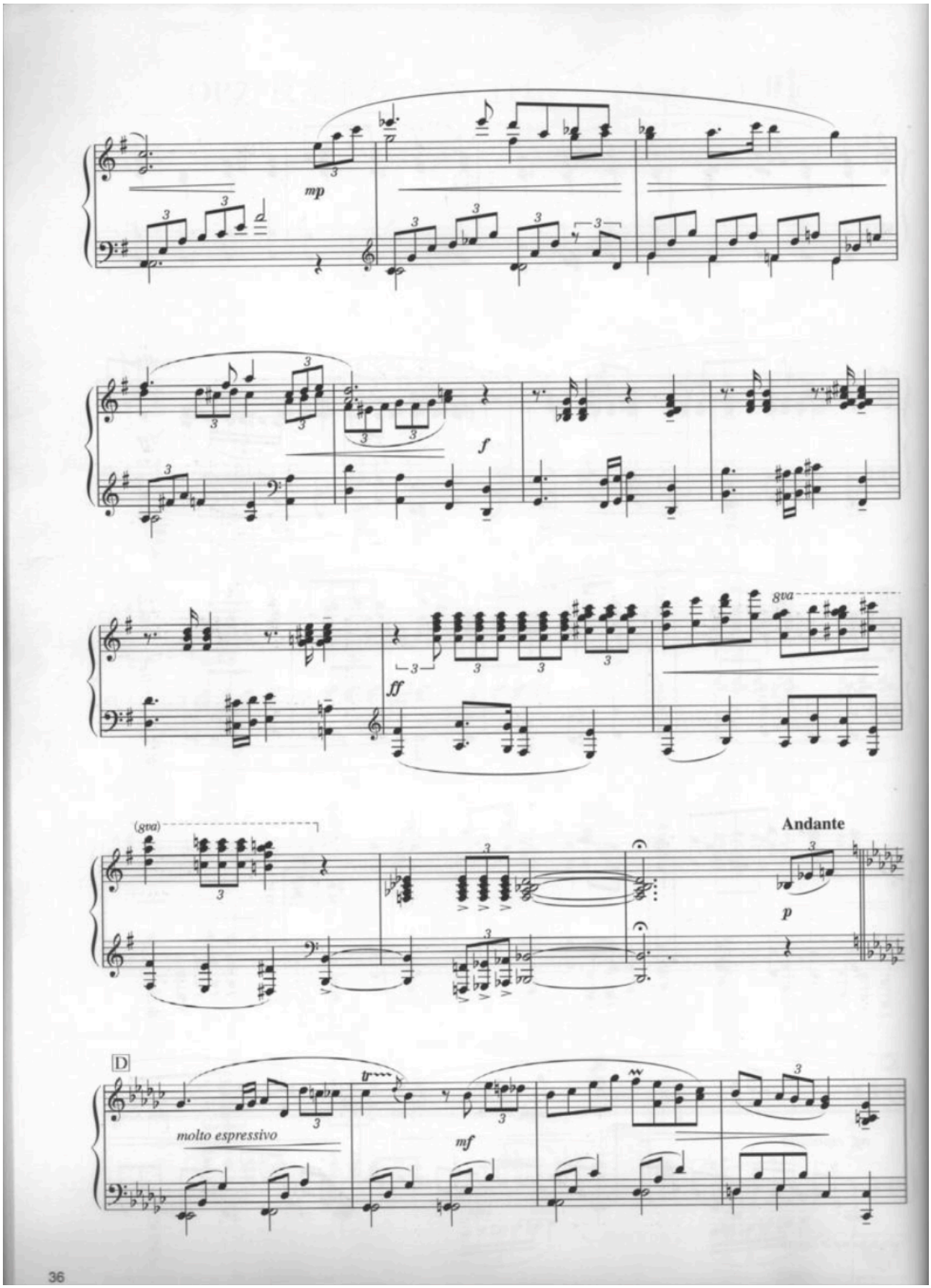
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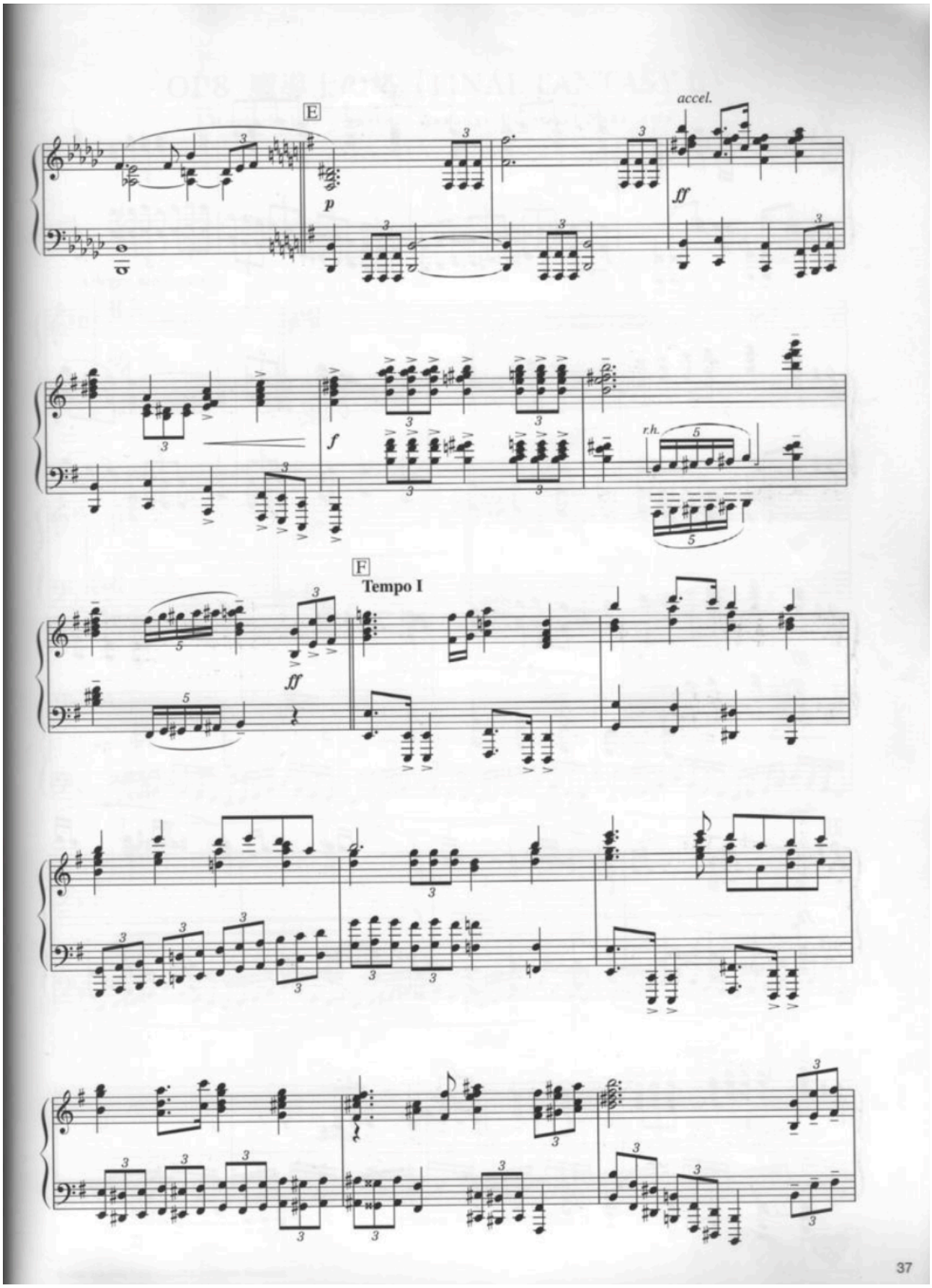
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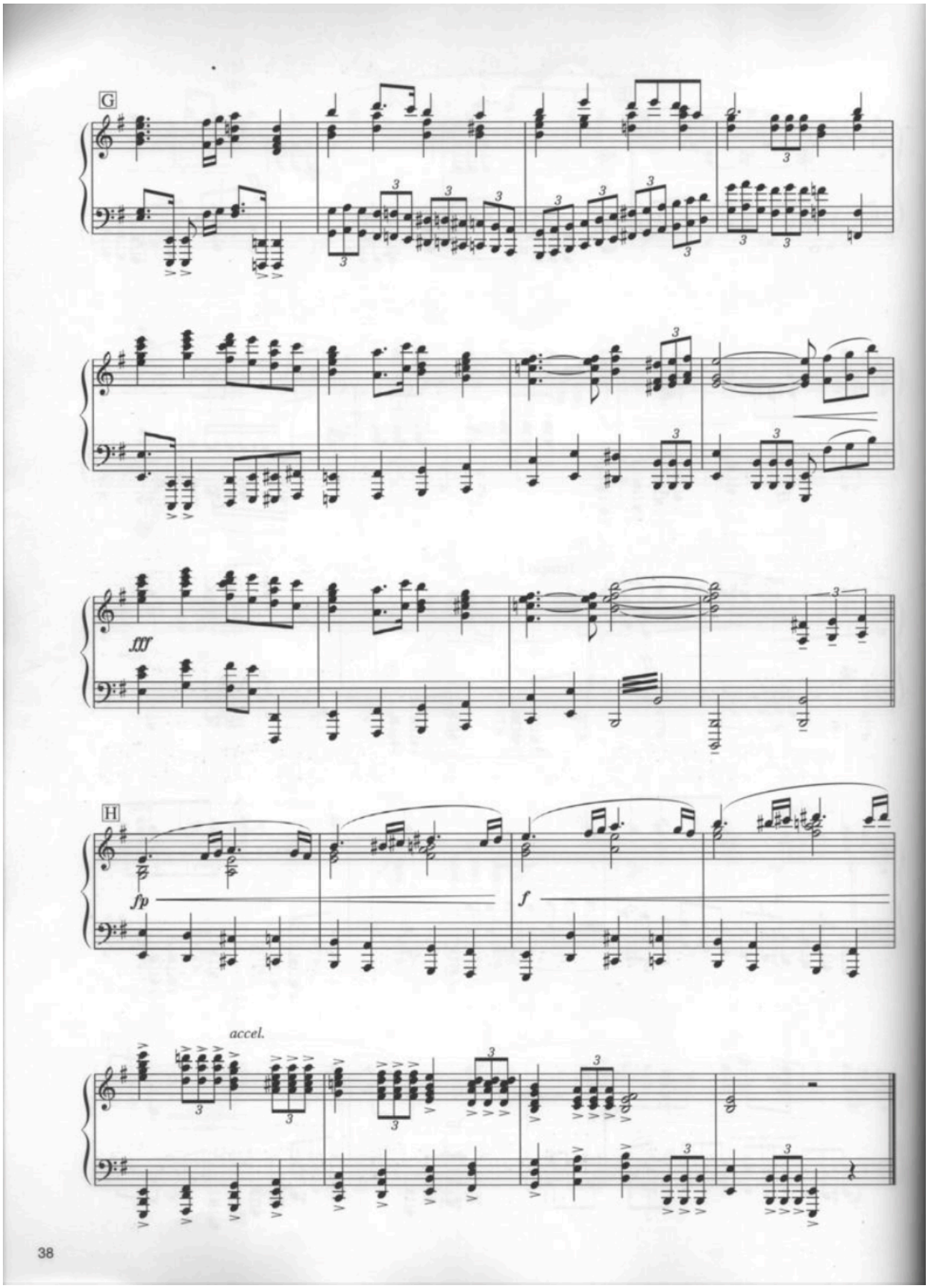
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8.3 Participants biographies

Professional

Amelia Jones (age 30) is a multi-genre soprano, born in Wales. Among other things, she works as a recording artist for video game and anime soundtracks, some notable titles including *Hollow Knight, Made in Abyss* and *The Rising of the Shield Hero*. Amelia used to game with her brother when she was young, and rediscovered this hobby during the COVID-19 pandemic. Her love for soundtracks was mainly sparked by anime music and the music of Joe Hisaishi in particular. Amelia grew up in a musical household and had learned to play the piano and clarinet, but never attended singing lessons. Her experience in the university choir during her study in Australia awakened her passion for singing and led to her decision to enroll in a professional singing course, marking the start of her career as a professional singer.

Giorgos Kakitsis (age 32) is a plucked string instrumentalist specializing in early music and classical guitar, born in Athens. During his childhood, he played video games on PlayStation and Gameboy, with *Final Fantasy* and *Kingdom Hearts* as his favorite franchises. Even though the music of Final Fantasy IX was a major influence in his preference for early music, Giorgos does not listen to video game music outside the game context, noting that "if I've experienced it in the context of the game, it's never nearly as intense as I would want it to be (outside the game)." He started playing music at the age of four (first piano and later classical guitar), encouraged by his grandfather who was a conductor. Giorgos got his music degree in classical guitar in Greece and moved to Brussels to study at the Brussels Conservatory six years ago. This is where he came into contact with early music through his teacher, after which he began studying historical plucked string instruments.

Marnix Peeters (age 26) is a classical composer, living in Aarschot. Marnix has been playing video games since he was eight years old, with *Pokémon* and *Final Fantasy* being the most influential franchises. Marnix did not grow up in a particular musical household, but he started attending accordeon lessons in music school as a child and later went on to the art secondary school Kunsthumaniora Lemmensinstituut. Here, he came into contact with classical repertoire for the first time and learnt many other skills, like piano and improvisation. He eventually continued his higher studies in music too in the composing department. He recently graduated from LUCA School of Arts.

Noah Thys (age 30) is a composer and baritone specializing in choir music, living in Ghent. He has been gaming since he was 6 years old and was mainly drawn to Japanese RPGs. From a young age, he fell in love with the music and the "strong statements" that can be found in these game's soundtracks. His dream is to compose music for a Japanese RPG game. Noah did not come from a

musical family and discovered classical music by himself through movies and piano playing. Video game music has always been a key element in his development as a musician, and recently Noah composed for educative video games *Karaton* and *Stutter Stars*. Besides composing for video games, he writes in various classical styles and performs as a singer in various ensembles.

Thomas B. Yee (age 31) is a composer and musicologist from the United States. He currently works as an assistant professor at the University of Texas with a scholarship in primarily video game music. His research focuses on music semiotics and the representation of gender, race and religion. From his early childhood until now, playing video games has been Thomas' main hobby. Since games have been present throughout his life, they influence him as a composer as "pieces dropped like seeds in my musical soul". As a child, his parents subscribed him to violin lessons, but later Thomas choose to study percussion and started learning to compose by himself during high school. He now teaches composition to his private student, where he occasionally uses video game music as examples. As a composer, Thomas writes for various ensembles and aims to adapt human stories into immersive works.

Student

Jan-Bart de Muelenaere (age 43) is a comedian, scenarist and musicology student at the University of Ghent. He used to be active in the gaming industry as a reviewer and columnist for *Eurogamer* and *PlayStation Magazine*. Jan-Bart has been playing video games since he was eight years old and experienced all evolutions in gaming from the first *Game &Watch* to the current virtual reality technology, making him a self-proclaimed 'video games expert'. Classical music did not play a prominent role in his childhood. It was only through his activity as cantor in a student organization that he discovered the classical origin of student songs and started to dive deeper into classical music in general. Up until the start of the COVID-19 pandemic, he also took singing classes and played percussion in the local music school. As a musicologist, he has a special interest for the dynamics between modern entertainment media (especially video games) and art.

Maja Milas (age 22) is a pianist, organist and music theory student specialized in video game music and church music from Osijek, Croatia. Video games have been part of her life from early on, as her father was a gaming enthusiast which gave her access to various consoles. She fell in love with game music through *The Legend of Zelda* series and *Final Fantasy*. Maja did not come from a musical family but nevertheless started the piano at the age of 7 out of her own interest. She continued studying organ and composition in higher music education. Even so, she has always felt a much deeper connection with video game music culture than classical music culture and sees it as her "life's

calling". To date, she has composed for various game development student projects. As a professional performer Maja aims to promote the live performance tradition in video game music culture and resume her study in video game composition and sound design at the Sibelius Academy in 2024. .

Yentl Tijssens (age 24) is a pianist, music teacher and composition student at LUCA School of Arts in Leuven Video games have been part of his life from early childhood, with Yentl's first memories being the *Super Mario*-games for the Super Nintendo Entertainment System and *Pokémon* on the Gameboy Color. To him, video game music is inevitably connected with the medium and he does not actively listen to video game music outside of gaming. However, Yentl is fascinated by how video game composers work with colors and emotion to complement the gameplay. Classical music was very prominent in his family and Yentl started playing the piano at age 7. From the beginning on, he liked to compose his own music for the instrument. While video game music did not have any relation to classical music in his life, he recently composed music for an indie-game. Yentl hopes to do more video game music in the future, bringing inspiration from classical music from Bach to Messiaen in his work.

Yoeri Daniels (age 30) is a musicology student at the University of Ghent. He has been playing video games since he was 7 years old, with his favorite genres being RPGs. At the same age, he started learning music through singing in a choir, and saxophone lessons in the local music school where he also played in the marching band. Yoeri would stay deeply interested in music, with a soft spot for early music and medieval instruments, a preference he attributes to the medieval-inspired games he used to play in his childhood. He believes that music is the art that speaks to human emotions the most, and his ever-growing interest in the subject lead him to study musicology. His musicology thesis focuses on the subjective experience of time in music.

Yune Paepe (age 29) is a musicology student at KU Leuven and composition student at LUCA School of Arts. Before this, she got a teaching degree for English, music and music theory. In her free time, she sings and works as a vocal coach for musical productions. Yune started playing video games at the age of 4, when she got a Gameboy. Since the very beginning, she has loved video game music and her favorite franchises are *The Legend of Zelda*, *Pokémon* and *Fire Emblem*. Classical music was not prominent in her family during childhood, but Yune had always felt attracted by the atmosphere of the orchestra and especially Mozart's music. In the first year of secondary school, she experienced a true classical music 'awakening' in the music classes by David Anne, where she learned music theory and made her first compositions.

Nick Bulté (age 21) is a percussion student of LUCA School of Arts. He started gaming when he was around 10 years old. First, he played games on the Nintendo Wii, and later changed to multiplayer games on PlayStation and PC. Nick discovered most video game music through playing the games himself, but some of his favorite soundtracks are those he discovered through YouTube or Spotify. Nick is the only musician in the family, and it was his own idea to start an instrument. His passion for fanfare and amateur orchestra made him decide to enroll in the art secondary school Kunsthumaniora Lemmensinstituut. There, he was properly introduced to classical music for the first time. For him, it was classical music that spraked his love for video game music, as he would start to experience the same 'goosebump moments' that monumental symphonic repertoire could give him.

Enthusiast

Bram van der Heijde (age 32) is an engineer and amateur cellist, living in Hasselt. His earliest memories of classical music are a CD of André Rieu and Shostakovich's "Waltz no.2". Bram fell in love with cello during an instrument demonstration in elementary school. Ever since, he started taking cello lessons and began playing in various amateur orchestras such as USO (University Student Orchestra of KU Leuven) and ConForte Symphonic, where he is still active today. Even though he attended music school for many years, Bram initially learned most about classical music repertoire through the video game *Civilization 4*, which features full-length classical pieces in its soundtrack.

Clara Wubbenhorst (age 21) is a luthier and amateur violinist from Keerbergen. Her family is very classical-minded and often took Clara to classical concerts when she was little. As a 4 years-old child, she remembers hearing a live orchestra and being enchanted by the violinist. After this experience, Clara started playing violin with the Suzuki-method and later studied piano, viola and guitar on the side as well. Clara's connection with video game music came much later, when she started attending university and she began listened to up-beat Nintendo music to focus during studying.

Gommaar L. Elst (age 29) is a Japanology student at KU Leuven. When he was around 8 years old, Gommaar got a Gameboy Color and began gaming. Video games became one of the main sources through which he consumed music as a child, as he would sometimes just put the Gameboy on only to hear the music. His first memories about classical music date back from car rides with his mother, as she was a fan of Bach and would often play classical music during driving. Even through his study choice is not related to music, Gommaar has tried studying musicology before and had considered applying for composition at the conservatory. He plays the piano, fagot, and recently started taking carillon courses.

Mihael Koh (age 23) is a medicine student in the United Kingdom. He's been playing video games for as long as he can remember, his favorite games being *Pokémon*, *Kirby* and *MapleStory.* His family is from Brunei, where he lived before going abroad to study at university. While classical music is largely absent in the country's cultural landscape, Michael's mother was member of the Brunei Music Society. It is through this association that Michael had the opportunity to hear visiting musicians and ensembles from all over the world. Michael started learning piano when he was 6 years old and also took violin lessons from his 10 until 18 years old. Because of his study in medicine, he has now stopped taking instrument lessons. Recently he started composing and arranging, a skill he developed through self-study in online video game music arrangement groups.

Robin van Limbergen (age 29) is a cybersecurity expert from Herenthout. In his free time, he is a choir singer, organist and composer. As a child, Robin was not allowed to have gaming consoles, and secretly installed emulators on the family computer to get to play video games until his parents finally gave in. Robin was captivated by video game music for the first time in *Hitman 2*, and listened the soundtrack-cd that came with the game countless times. Classical music was not something brought on by his parents, and it's the discovery of the music from *Final Fantasy* by Nobuo Uematsu that became Robin's entry into the world of classical music.

Tom Van Roy (age 33) is an accountant from Aarschot. When he was only 3 years old, his father got him a Nintendo Entertainment System. Ever since, Tom has been an avid gamer on both consoles and PC, and a big fan of video game music. Tom started playing cello after being encouraged to do so by his uncle, who is a cellist. Through his education in music school, he discovered classical music repertoire. For Tom, playing cello is very closely linked to the expression intimate emotions, something that is hard to express for him due to his autism. During his cello education, he often had a hard time putting emotion in his performances of classical pieces, as he could not relate on a personal level with this type of abstract music. He did not have this problem with video game and film music and encouraged by his cello teacher Tom played and transcribed music from soundtracks. He used to host these transcriptions on his website *Cellotaku*.

8.4 Interview quotes

Music appreciation

Bram:

> "Wat ook wel bijzonder was denk ik, ik had wel al jarenlang cello en piano gevolgd, daar ook wel in ensembles. […] Ik vond dat wel tof om te doen, maar qua repertoire of echt kennis van klassieke muziek heb ik daar nu niet superveel van opgestoken. Dat ging meer over het spelen van de muziek op zich eerder dan genieten van muziek ofzo. Maar ik denk wel dat met zo die muziek (van *Civilization 4*) te gaan opzoeken, dat ik meer appreciatie heb gekregen voor klassieke muziek en ook zo stukken heb leren kennen en herkennen.

Jan-Bart:

> "Los van het feit dat ik wel een klein beetje op de hoogte was van klassieke muziek en er al mee in contact gekomen was, is er wel één game geweest die mij nog iets bewuster gemaakt heeft van klassieke muziek, en dat was *Eternal Sonata*. […] Ik denk dat ik tot nu toe nog altijd het gevoel heb dat ik een Chopin expert ben dankzij *Eternal Sonata*. […] Dat is heel gek, omdat het ook wel een goede game was, werd de componist automatisch ook gewoon beter.

Robin:

> Ik ben in de loop der jaren een ontzettend grote Bach-fan geworden. De roots daarvan liggen 100% bij Uematsu. […] Bij mij is een van de belangrijkste kwaliteiten die muziek kan hebben, meerstemmigheid, iets waardoor ik het ook meermaals wil luisteren. Ik denk dat het door de technische limitaties [van oudere consoles zoals de Super Nintendo] is dat er daar toen magie is gebeurd. […] Wat knap is aan Bach, is dat hij constant werkte met technische limitaties voor zichzelf. Een fantasia, passacaglia en fuga zijn allemaal concepten die moeten werken binnen een bepaalde regelset. […] Ik weet nog heel exact wanneer ik voor de eerste keer luisterde naar Beethoven 9, ik was toen ongeveer 13 jaar. Dat was via YouTube, het speelde op de achtergrond bij een video of kwam na een video van Uematsu. En dat was het wel voor mij, sindsdien heb ik niet meer teruggekeken.

Tom:

> Wat wel misschien in mijn geval is, is dat ik al wat blootgesteld was aan klassieke 'technieken' om het zo te zeggen, via game muziek, en dat ik die gemakkelijker kon analyseren en appreciëren in klassieke muziek. Middeleeuwse polyfonie, bijvoorbeeld. De meeste mensen als die dat horen, die kruipen onder banken. Maar ik heb zoiets van 'ohja, dat is geweldig', omdat ik (polyfonie) al gewend was via de game muziek.

Robin:

> Als je luistert naar een soundtrack, hoor je bijvoorbeeld leitmotivs, wat basis Wagner is. Als je luistert naar Uematsu in zijn Super Nintendo-carrière, dan heb je gewoon heel goede voorbeelden van contrapunt, wat Bach heeft grootgemaakt. Je hebt heel veel technieken, ontwikkeld in klassieke muziek, die terugkomen in videogame muziek en in soundtrack muziek tout cour. In videogame muziek is het, waarschijnlijk ook vroeger door de technische limitaties, allemaal simpel. Het is een gemakkelijke instap. […] Ik denk dat mensen kunnen leren hoe ze zich moeten laten omringen door muziek. En videogame muziek, ik spreek altijd over die van de 'Golden Age' nu, die is meestal niet super technisch complex en dat neemt wel een soort barricade weg die klassieke muziek echt wel heeft. […] Mahler is iets dat ik enkel heb leren waarderen omdat ik mijn stapjes heb kunnen maken van game muziek naar complexer en complexer.

Adriaan:

> De intro van GTA 3 (*Grand Theft Auto 3*) bouwt heel rustig op. Eerst heb je een piano, dan komt er een bas bij, dan een trompet en achteraf strijkers. Het thema wordt altijd geloopt, en ik vond dat ongelofelijk saai. En op een bepaald moment was GTA aan het laden en ik was iets gaan halen ondertussen, dus ik hoorde die soundtrack dan volledig tot het moment dat de strijkers erbij komen. En het zotte was dat de strijkers daar een harmonie onder plakte [waardoor het geloopte thema als iets nieuw klonk]. […] Ineens veranderde dat van een tweedimensionaal stuk 3D, er kwam een extra dimensie bij door die harmonieën. […] Dat is later nog vaker teruggekomen. Als ik bijvoorbeeld een fuga van Bach speel, dan heb je altijd een thema of een motief en doorheen het stuk kijkt hij op alle mogelijke manieren hoe hij die x-aantal noten in een ander duet kan zetten door er andere noten en harmonieën aan toe te voegen.

Yune:

> Videogame muziek (is) de eerste muziek is die mij getriggerd heeft. En als ik dan klassieke muziek luisterde, omdat dat ook zonder woorden was net als videogame muziek, dan zag ik videogame beelden. […] Ik denk videogame muziek voor mij, zeker met wat na de 8-bit muziek kwam op de Nintendo 64 en Playstation 1 vanaf mijn 5, 6 jaar, ik dan ook in aanraking kwam met de meer dan 16-bit zal ik maar zeggen, en de brug naar klassieke muziek werd zo veel kleiner omdat die klanken ook meer realistisch probeerden te zijn. Ik merk dan toch dan bijna tegelijkertijd mijn interesse in klassieke muziek echt is gekomen. […]

Tom:

> In videogames dient muziek ter ondersteuning van bepaalde scenes en emoties, tegenover in klassieke muziek is muziek de emotie. Het ene is wel een opstap naar de andere. Als ik [in een game] een scène zie afspelen en daar een bepaalde melodie of compositie achter hoor dat gelinkt is aan bepaalde emoties, als ik diezelfde technieken dan in klassieke muziek hoor, is het voor mij veel makkelijker om daar terug iets aan te koppelen. […] De vier jaargetijden van Vivaldi geraakten er voor mij veel gemakkelijker in, omdat ik een gelijkaardig fenomeen heb gezien in *Banjo-Kazooie*. Daar zit een stuk in dat vier keer hetzelfde is maar op een andere manier gespeeld. En dat symboliseert dan de vier verschillende seizoenen die je ook in een bepaald level kunt tegenkomen. En daardoor denk ik dat gemakkelijker een beeld kon vormen bij de vier jaargetijden van Vivaldi.

Noah:

> Videogame muziek is voor mij een heel emotionele beleving, ik ben deel van de game en kruip zelf in dat personage. Daarom heeft videogame muziek voor mij een heel emotionele connectie, die mij ook de emotie in muziek in het algemeen een beetje heeft doen realiseren. […] We zijn gewoon aan popsongs, die bijna altijd gezongen zijn. Als je dan ene instrumentaal stuk hoort, dan is het zo van 'wat moet ik mij daar nu bij voorstellen"? Terwijl dat in videogames door de thema's die je dan herkent van waar je op dat moment in het spel bent of wat er gebeurt met het personage aan wie dat thema is gelinkt, leer je [die setting] misschien te associëren met bepaalde emoties, waardoor je dat gaat herkennen in andere genres. Als je bijvoorbeeld een emotionele piano track hebt in een game wanneer een personage sterft, dan ga je misschien die emotie ook herkennen in een klassieke sonate ofzo. En dan begin je te denken van 'misschien heeft die componist ook wel een verlies gekend, want dat gevoel is gelijkaardig'.

Motivator

Vincent:

> Een van de eerste dingen die ik gespeeld heb en echt als moeilijk ervaarde, dat was iets van *Kingdom Hearts*. Dat was wel een van de redenen dat ik into piano ben geraakt. Er was een liedje, dat heette "Passion", en ik kwam dan op YouTube op bij een pianist, Kyle Landry. […] Toen dacht ik wow, dat is geweldig. YouTube was ontzettend belangrijk, dat is de reden dat ik into piano ben geraakt. Omdat ik die filmpjes begon te vinden. Toen was Synthesia ook heel groot, daardoor ben ik erin kunnen geraken toen ik nog geen noten kon lezen.

Noah:

> Ik ben autodidact begonnen met muziek. Mijn moeder had mij een keyboard uit de Aldi gekocht voor mijn zevende verjaardag, zoiets met vier à vijf octaven. En dat was eigenlijk al meteen gelinkt aan videogames voor mij. Ik speelde toen games als *Chrono Trigger*, *Zelda Ocarina of Time* en *Super Mario Brothers* en dan probeerde ik op gehoor die thema's na te spelen. […] In het begin heb ik echt leren spelen door te kijken hoe mensen speelden [op YouTube-video's]. […] Met het klein beetje muziektheorie dat ik had gedaan [tijdens een jaar muziekschool], ben ik partituren gaan opzoeken. Dat waren zo van die websites, ichigos.com ofzoiets, waar je dan simpele piano arrangementen kon vinden.

Yune:

> Toen ik in het eerste middelbaar muziekles kreeg van David Anne en daardoor veel meer invested raakte in muziek, was video game muziek het eerste waar ik naartoe greep in mijn vrije tijd. Om daar op [de manier waarop we klassieke muziek behandelden in de les] naar te gaan kijken. In het derde middelbaar hadden we dan een soort mini-compositielesje en moesten we een kleine compositie maken en ik haalde mijn inspiratie echt uit Zelda-muziek.

Noah:

> Mijn eerste stukjes waren meer klassiek gedacht, maar toen ik mijn eerste laptop kreeg, stond er *GarageBand* op. Dan had ik een hele geluidsbibliotheek waar ik verschillende instrumenten mee kon uitproberen. Zo kon ik ook stukjes maken die klonken zoals de game muziek die ik vroeger speelde, en dan maakte ik zo van die mock-up stukjes zeg maar. Bijvoorbeeld een thema dat klinkt als wanneer je in een RPG in een shop binnenstapt, of een battle theme.

Marnix:

> Ik heb meer geleerd op vlak van piano spelen via Nobuo Uematsu's score dan de scores van Bach en wat dan ook.[…] Ik vond het makkelijker om mij in die muziek te vinden, je hebt de context van het spel waarin je de muziek al mooi vond, die appreciatie is er al, dus werd het veel makkelijker om er ook muzikaal mee te zijn. Ik vond het veel moeilijker om muzikaal te zin met partituren die geschreven zijn voor een edelman uit de jaren 1700. […] In dezelfde zin als Final Fantasy op piano leren spelen, was het [arrangeren van videogame muziek] ook gewoon een manier om te zeggen 'kijk, ik kan daar dingen mee leren die andere muziek mij ook kan leren'. […] Ik zou sowieso begonnen zijn met muziek te studeren. Maar ik had makkelijker kunnen afhaken als het niet voor game muziek en filmsoundtracks was geweest. Die twee hebben er echt wel voor gezorgd dat ik mijn liefde voor muziek niet ben kwijtgeraakt.

Ik ben in het begin van mijn studies heel vaak op blokkades terechtgekomen omdat dingen me gewoon niet lagen. En dan heeft het feit dat ik mij achter een piano kon gooien en de soundtracks van iets proberen te leren spelen de vlam voor piano, accordeon en muziek ervaren in het algemeen aangewakkerd gehouden.

Noah:

Ik ben nu een mis voor koor en orgel aan het schrijven en was bezig aan het credo, waar ik superlang op heb gezwoegd omdat het veel tekst is. Ik probeerde dat heel klassiek te maken omdat ik dacht dat het de esthetiek is die de mensen verwachten. Maar dat werkte niet en dan zat ik al aan versie drie of vier, het lukte me niet. En dan dacht ik 'weet je, ik ga nu gewoon eens schrijven alsof dat een super coole boss battle in een RPG is'. En dan opeens vlotte dat en ging het. Die authenticiteit voor mij komt uit wat ik voel en wat er dicht bij mij staat, daarom vertrek ik vaak vanuit videogames omdat dat voor mij het meest natuurlijk vloeit.

Tom:

Toen ik cello speelde vond ik de muziekstukken die mij werden toegereikt maar niks. Ik kende ze niet, en omdat ik ze niet kende speelde ik ze niet graag, en omdat ik ze niet graag speelde ging ik niet oefenen. Dus ja, een vicieuze cirkel. Toen heeft Koen, mijn instructeur, gezegd 'weet je wat, breng zelf stukken mee'. Maar ik vond niet meteen iets, ik heb het over 1999 ongeveer. Veel game muziek partituren vond je online nog niet. Wat ik deed was luisteren naar muziek, en op gehoor met veel trial-and-error maakte ik transcripties.

Guidance

Yoeri:

Ik denk dat games vrij belangrijk zijn geweest, toch wanneer het gaat over in contact komen met een ruimer instrumentarium. […] Je bent aan het spelen, maar tegelijkertijd ben je ook volop aan het fantaseren en die klank (de soundtrack van de game) doet daar heel veel aan. […] Dan zijn er heel veel kiemen al gelegd door het feit dat je 8- of 16-bit interpretaties van middeleeuwse muziek via de computer hebt gehoord en daar een bepaalde herinnering of fantasie aan hebt gekoppeld die je dan later brengen tot een studie van effectief middeleeuwse muziek.

Samuel:

> Ik heb altijd al naar klassieke muziek en jazz geluisterd, dat waren altijd zo mijn twee genres die ik van thuis uit heb meegekregen. Ik denk dat videogame muziek mij waarschijnlijk meer naar andere genres geleid heeft dan dat het omgekeerd gedaan heeft. Voor mij was videogame muziek vaak de gateway naar elektronische muziek. Ik heb ook een tijd lang redelijk wat naar metal geluisterd. Ik had dan muziek van *Devil May Cry* gehoord en toen dacht ik 'oké, dat klinkt eigenlijk ook wel goed. Misschien moet ik eens naar een beetje metal luisteren'.

Yentl:

> In mijn zelfstudie als componist beluisterde ik muziek en dan probeerde ik de akkoorden te vinden om te zien hoe het in elkaar zat. Ik deed dat met klassieke muziek, maar ook met jazz en videogame muziek. […] Voor mij heeft videogame muziek me eigenlijk veel geleerd over jazz harmonie. Ookal klinkt [een videogame soundtrack] soms eerder klassiek, de manier van bouwen en structureren is eerder de jazz-manier dan de klassieke partimento manier. Een soundtrack dat ik als jonge tiener dus een heel grote fan van was, was die van *Super Mario Galaxy*. Die klinkt klassiek omdat het vooral orkestrale instrumenten gebruikt, maar de harmonische manier hoe de stukken zijn geschreven, is meestal een opeenvolging van harmonische kleuren die niet functioneel zijn. Die heel hard lijken op jazzharmonieën of sommige jazz-standards die je ziet terugkomen. Ook hun manier met modi omgaan doet me echt denken aan mijn jazzopleiding.

Clara:

> In de muziek van *Hollow Knight*, vooral in het hoofdthema, is er een cello te horen. En daar kun je wel gelijkaardig met klassieke muziek echt, kun je daar echt (muzikale) lijnen in herkennen. En voor mij is dat een grote gelijkenis (met klassieke muziek) dat mij ook waarschijnlijk zou heeft aangetrokken aan dat spel. […] Video ame muziek heeft geen extreme invloed gehad op mijn muzikale ontwikkeling. Maar het heeft mij wel een appreciatie gegeven voor, wat we nu klassieke muziek noemen, wat we daar in complexiteit en diversiteit zien.

Nick:

> Sinds ik met KSO ben begonnen ben ik ook meer naar zo de orkestrale muziek beginnen luisteren en dan eigenlijk ook gehoord van, ah, videogamemuziek is eigenlijk ook een heel tof genre. […] Bij mij is dat eerder eigenlijk omgekeerd een beetje gelopen. Omdat ik meer bezig was met het harmonieorkest en dan hoort je ook klassieke werken. En dan viel het mij eerder op als ik een spel aan het spelen bent van 'ah, die muziek is eigenlijk wel heel interessant'. […]

Bij de klassieke muziek zijn de beste momenten de kippenvelmomenten. En dan bijvoorbeeld bij videogamemuziek heb je die, vind ik, zelfs meer dan bij bepaalde klassieke werken. En daarom vind ik dat nu ook heel interessant om dat te luisteren.

Bram:

Ik reken game muziek wel bij klassieke muziek omdat dat ook wel zo'n kippenvel-effect kan geven. Ik heb dat bij klassieke muziek veel vaker dan bij muziek die je gewoon op de radio zou horen. […] Bij spellen met een originele soundtrack, bijvoorbeeld *The Legend of Zelda*, vind ik het nog altijd heel tof om daarbij te gaan kijken welke thema's erin verwerkt zitten en op welke manier. Dat is hoe ik me ook graag verdiep in andere klassieke muziek. Door de klassieke opleiding gehad te hebben en dan ook de kennis die ik daar heb opgedaan toe te passen op videogame muziek, krijgt die muziek voor mij wel een meerwaarde denk ik.

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