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Playing Games with Postmodernism: Matthew Hindson's *Nintendo Music* (2005)

Jessica Crowe

Ludomusicology—broadly, the study of video game music—is a relatively young sub-discipline of musicological inquiry spanning about a decade in earnest, which has seen particularly rapid expansion in scholarly interest over the last five years.[1] It is yet to resolve fundamental questions of how to explore game music, how to draw from other disciplines, and how to successfully secure a place of its own within scholarly investigation. Indeed, the term 'video game' itself is up for definitional debate. For the purposes of this paper I use the term rather than, for example, 'computer game' or 'digital game,' borrowing Karen Collins's definition of 'any game consumed on video screens, whether these are computer monitors, mobile phones, handheld devices, televisions, or coin-operated arcade consoles.'[2] Roger Moseley defines ludomusicology as the 'study of both the musically playful and the playfully musical.'[3] Similarly, as the 'ludo' in ludomusicology etymologically stems from the Latin word for 'play,'

[1] The neologism was originally conceived by Guillaume Laroche—see Michiel Kamp, Tim Summers and Mark Sweeney, eds, *Ludomusicology: Approaches to Video Game Music* (Sheffield, UK: Equinox Publishing, 2016), 1. An extensive ludomusicological bibliography is kept current by the Society for the Study of Sound and Music in Games; see www.sssmg.org/wp/bibliography.

[2] Karen Collins, *Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design* (Cambridge, MA: MIT Press, 2008), 3.

[3] Roger Moseley, 'Playing Games with Music (and Vice Versa): Ludomusicological Perspectives on *Guitar Hero* and *Rock Band*,' *Taking It to the Bridge: Music as Performance*, ed. Nicholas Cook and Richard Pettengill (Michigan: University of Michigan Press, 2013), 7.

the discipline is perhaps best defined as exploring 'the relationship between music and play.'[4] This paper examines ways in which the study of video games, game sound, and art music can converge, with particular regard to Australian art-music composer Matthew Hindson (b. 1968) and his 2005 chamber music piece *Nintendo Music*;[5] as William Cheng states, 'by considering how music is playful and how play is musical, we can learn much.'[6] Conceptualising video games *as* music is a compelling idea. The former editor-in-chief of *Kill Screen* magazine, Chris Dahlen, summarises this point: 'Both forms marry performance and production, gut and theory, and repetition and spontaneity … a classic will endure a million renditions, as the performers move from practice, to mastery, to reinvention.'[7] Kirk Hamilton postulates that 'games *are* music, they have a real musical aspect to them. Leaving harmony aside, even the simplest video games have a rhythm … and rhythm is a vital, often-misunderstood element of every video game.'[8] Thus, while ludomusicology is primarily concerned with studying game music, it also considers games in a musical way, and music in a playful way: the common thread is the word 'play.' Playfulness is likewise at the heart of postmodernism, an aesthetic and critical approach to music written in response to the tenets of modernism. Postmodern music tends to play with the boundaries and possibilities of what can be musically achieved in a piece, and it is these playful impulses I investigate within *Nintendo Music*.

The programme note for *Nintendo Music* provides immediate clues as to Hindson's specific intentions for this piece. Citing the 'consoles of [his] youth,'[9] Hindson's musical inspiration is drawn from the constraints that were placed on composers in creating the sound of the 8-bit video game era, spanning roughly 1975–85, which saw the growth in popularity of home gaming consoles like the Nintendo Entertainment System (NES) and their associated games, such as *Super Mario Bros.* (Nintendo, 1985).[10] Hindson translates the particular, and occasionally peculiar, aural characteristics of these consoles to the clarinet and piano.

Nintendo Music offers a unique chance to investigate both art music through a ludomusicological lens, and game music through various perspectives seen in traditional musicology, while avoiding many of the issues often encountered when attempting to analyse game music itself. As a ludomusicological case study, this piece is not strictly taken from a video game context; however, *Nintendo Music's* reliance on musical tropes from video game audio, particularly those of the 8-bit era,[11] forms a significant part of its *raison d'être* and thus provides an interesting intersection between the two worlds for examination.

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[4] Kamp, Summers and Sweeney, *Ludomusicology*, 1.

[5] Biographies of Hindson can be found online, for example, through Faber's website (his publisher); additionally, Hindson maintains a website of information regarding his compositions and other writings. See 'Matthew Hindson (1968–),' *Faber Music*, http://www.fabermusic.com/composers/matthew-hindson; 'Matthew Hindson: Composer. Head of School, Sydney Conservatorium of Music. Curator, Australian Music Program, Canberra Symph,' http://hindson.com.au/info/.

[6] William Cheng, *Sound Play: Video Games and the Musical Imagination* (New York: Oxford University Press, 2014), 5.

[7] Chris Dahlen, quoted in Kirk Hamilton, 'The Case for Video Games as Music,' *Kotaku*, http://kotaku.com/5920350/the-case-for-video-games-as-music.

[8] Hamilton, 'Video Games as Music.'

[9] Matthew Hindson, *Nintendo Music* (London: Faber Music, 2005).

[10] See Collins, *Game Sound*, 20–8.

[11] The term '8-bit' simply refers to the processing speed of the hardware: these game consoles 'could simultaneously process eight binary digits (bits) of data.' See Karen Collins, 'In the Loop: Creativity and Constraint in 8-bit Video Game Audio,' *Twentieth Century Music* 4, no. 2 (2007): 209, footnote 5.

Overworld: *Nintendo Music*

The piece, written for clarinet and piano, is perhaps surprisingly challenging particularly when considering the simplicity of the 8-bit concepts it draws from: Hindson has cited it as approaching Licentiate level in difficulty.[12] *Nintendo Music* uses 'the structure of video games themselves to create the structure of the music,' with each section of the piece given a descriptive title that one would see in a typical video game (see Table 1).[13]

Table 1. Structure of *Nintendo Music*

Bars	Hindson's section titles	Total length (in bars)
1–3	Coins / Programmer Screen	3
4–9	Level Select Screen	6
10–12	Level Select	3
13–60	Level 1	48
61–63	Level 1 completed	3
64–66	Bonus Calculation	3
67–82	Level 2: Underwater Scene	16
83–89	Restarting Level	7
90–102	Speed Up Item	13
103–106	Level 2 completed	4
107–109	Bonus Calculation	3
110–131	Clarinet Solo	22
132–186	Boss Level	55
187–209	Closing Credits	23

Not only does Hindson divide the piece into sections as commonly encountered within an 8-bit game, these sections are also in the correct order one would expect when playing such a game. Additionally, they are of a similar length to that experienced in-game. Each 'level' takes up much of the piece (excluding the clarinet cadenza), with the transition stages being much shorter: 'Level 1' is 48 bars, the complete experience of 'Level 2' (including the restart and acquisition of the speed-up item) is 36 bars, and the 'Boss level' is 55 bars—each a significant proportion of the total 209 bars.

The remarkable thing about this intentional, and readily perceived, temporal alignment becomes clear when considering what a player hears when playing any game that includes music and sound effects. No player ever truly hears the same thing twice, given that each playthrough of a game is always itself different. Iain Hart characterises games as 'sets of experience potentials,' encompassing all possible goals and activities permitted within a game

[12] He specifically says: 'Bear in mind that it's a VERY difficult piece. Probably L.Mus. (diploma level).' See Matthew Hindson, 'Nintendo Music for Clarinet and Piano,' http://hindson.com.au/info/nintendo-music-for-clarinet-and-piano/. However, the Australian Music Centre labels it as 'Advanced—AMEB A.MusA.' See 'Nintendo Music: for Clarinet in A and Piano,' www.australianmusiccentre.com.au/workversion/hindson-matthew-nintendo-music/16378.

[13] Matthew Hindson, programme note to *Nintendo Music*, http://hindson.com.au/info/nintendo-music-2005/.

that a player can encounter.[14] This set is reconfigured by each individual player making certain choices at certain times, resulting in a 'unique overall experience' of the game.[15]

Sometimes this difference in a set of game experience potentials is trivial; playing the puzzle game *Tetris* (Alexey Pajitnov, 1984) does not change in any meaningful way from one session to the next, regardless of what is heard while doing so. In a platform game such as *Super Mario Bros.*, however, at first an uninitiated player may take several attempts to complete the first level—if at all—whereas a more experienced player may fly through in thirty seconds. This, of course, determines what a player hears: a game's sound is often reliant on player choices. Actions such as reaching the end of a level or picking up an item may trigger new music that is *only* heard upon such actions being initiated. Hearing thirty seconds or thirty minutes of varyingly dynamic audio forms a substantially different aural encounter, and could potentially affect how a player experiences a game.[16]

Hart continues by applying the idea of experience potentials to sound, suggesting that the audio of each game similarly constitutes a set of 'musical experience potentials.'[17] This can be likened, for example, to Henry Cowell's *String Quartet no. 3* (1935), also known as the 'Mosaic' Quartet. This piece consists of five movements, with instructions requiring the performers to determine both the order of playing and the number of times each movement is to be repeated during a performance. An earlier example is seen in various eighteenth-century musical dice games, where bars of pre-composed music could be assembled together based on the result of rolling two or more dice to form small pieces such as waltzes, minuets, and polonaises.[18]

For present purposes, therefore, it is worth noting that Hindson's *Nintendo Music* is not then a literal, or even strict, 'transcription' of a hypothetical 8-bit video game. More accurately, it is a representation: one of many possible configurations of a set of musical experience potentials, drawn from the aesthetics of 8-bit video game sound that were themselves designed to elicit certain responses from, and communicate certain meanings to, the player.

Video Game Audio History: A Look Back …

Before examining the piece, a brief overview of 8-bit game sound is necessary to highlight the idiosyncrasies Hindson has emulated. One of the more memorable and easily identifiable aspects of 8-bit gaming is the distinctive sound *itself*, generated by specific types of soundwaves from the console's sound chip.[19] Game composer Hirokazu Tanaka points out that as music could not be pre-loaded to early game hardware as a full sample, it had to be specifically programmed bit by bit, literally: 'music and sound were even created directly into the CPU

[14] Iain Hart, 'Meaningful Play: Performativity, Interactivity, and Semiotics in Video Game Music,' *Musicology Australia* 36, no. 2 (2014): 281.

[15] Hart, 'Meaningful Play,' 281.

[16] The importance of sound and its potential for changing the experienced meaning of a game is perhaps better demonstrated when considering a more modern iteration, such as an open world role-playing game like *The Elder Scrolls IV: Oblivion* (Bethesda Softworks, 2006). See Hart, 'Meaningful Play,' 287–90.

[17] Hart, 'Meaningful Play,' 283.

[18] The most famous example of musical dice games, *Musikalisches Würfelspiel*, is often attributed to Mozart (catalogued as K516f); however, there is no proof he ever actually wrote it. See Gerhard Nierhaus, *Algorithmic Composition: Paradigms of Automated Music Generation* (Vienna: Springer-Verlag, 2009), 38; Stephen A. Hedges, 'Dice Music in the Eighteenth Century,' *Music and Letters* 59, no. 2 (1978): 183.

[19] Collins provides a thorough explanation of each type of wave, and their sonic properties: see Collins, *Game Sound*, Box 2.3, 16–18.

port by writing 1s and 0s, and outputting the wave that becomes sound at the end.'[20] This was naturally a time-consuming process.

An obvious method for overcoming this tedious task was to limit the amount of music to be written, which had the additional benefit of requiring less of the hardware's memory and processing power. Additionally, composers could rely on the logic of programming code to manipulate smaller modules of sound into an overall larger musical theme. Looping, then, became the most efficient and effective compositional technique for music in games in the 8-bit era.[21]

The flagship console of this period was the Nintendo Entertainment System (NES), first released in 1983.[22] Where other consoles of the time such as the ColecoVision (1982) had sound chips allowing four tracks (meaning four possible simultaneous sounds—not necessarily tonal—could be produced), the NES had five: two pulse-wave channels, a triangle wave, a noise channel, and a sampler.[23] With this, composers had three tonal tracks to work with, which allowed them to create multi-layered music with bass, treble lead, and accompaniment. The noise channel allowed for percussive effects and drum patterns, and the sampler was used predominantly for sound effects and occasional vocal emulation.[24] Even with these improvements, the 'sound effects and music would often clash with each other aurally.'[25] While these five channels had specific characteristics that made them suited to certain sound roles (such as bass and melody), these were not set in stone. Sometimes different sounds shared a single channel, and because of this, it was possible for the music to be inconveniently overtaken or interrupted by the onset of a sound effect.

In addition, a distinctive feature in the music of many early games was the inevitable presence of abrupt musical transitions. Across multiple genres, games often included levels or stages that would begin and end based on the player's actions. The player may take forty seconds, or five minutes, to complete the actions required of them in that particular game stage. Thus, the music that accompanied these stages needed not just to be capable of looping an indefinite number of times to allow for the level's unspecified length; it had to be able to start and stop based on player input and sound designers needed to write music that *could* start and stop at any time without sounding overly uncoordinated.[26] Looped music worked best if the beginning and end of the loop matched well musically, so often these loops began with a short introductory section, or ended with imperfect cadences, in order to make sure the whole continuous musical phrase transitioned smoothly.[27]

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[20] As quoted in Erik Youngdahl, 'Play Us a Song: The Structure and Aesthetics of Music in Video Games' (Honours thesis, Wesleyan University, 2010), 11. Tanaka emphasises this point by then saying, 'such prehistoric work makes me laugh every time I think about it.' For more specific technical information regarding the capabilities of the sound chips and other hardware, see Collins, *Game Sound*, 9–20.

[21] See Collins, 'In the Loop,' 218.

[22] In Japan, the console was released as the Famicom.

[23] Nathan Altice, *I Am Error* (Cambridge, MA: MIT Press, 2015), 253–4.

[24] Collins, *Game Sound*, 25.

[25] Collins, *Game Sound*, 26.

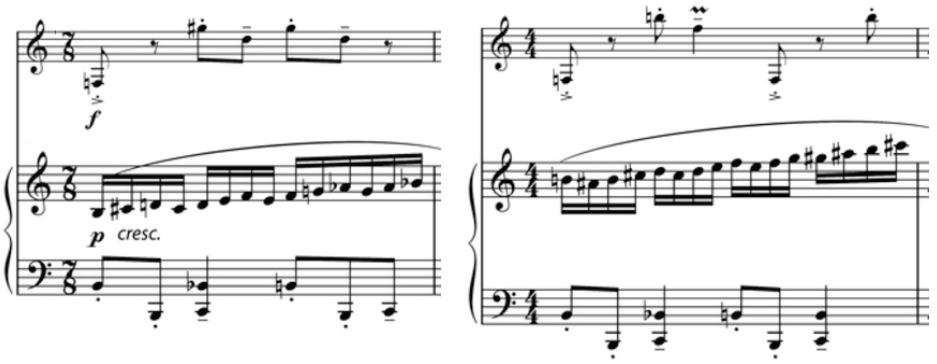
[26] However, Collins makes the point that at this time, given the lack of appreciation for the influence of immersion on a player's experience of a game, often the music (and sound effects) were less than subtle and generally did not tend to dynamically respond to a player's actions, causing some occasionally awkward (and amusing) sonic results. See Collins, *Game Sound*, 28.

[27] Collins identifies five distinct categories of looping in 8-bit game sound: 'accumulative form, random loops, pattern repeats in different registers, a mesoloop-built song, and variations in the order and length of loops.' See Collins, 'In the Loop,' 218–23.

… to Look Forward: Instances of 8-bit Aesthetics in *Nintendo Music*

The nature of these electronic and electronically manipulated sounds—alongside the fiddly process of programming them into the game—meant that generally the music and sound effects within 8-bit games often included much shorter, harsher, more percussive-sounding notes ('bleeps and bloops') than the well-phrased legato lines Hindson has written in places for the clarinet.[28] The pointed, jarring quality of 8-bit game sound is still imitated within *Nintendo Music*, however, throughout both the clarinet and piano parts, as demonstrated within the 'Boss level' section (Ex. 1).[29]

Example 1. Hindson, *Nintendo Music*, bars 152–3



This quality is further emulated in the way Hindson takes advantage of the timbral possibilities of the clarinet. There are two instances requiring the player to create multiphonics, and the end result of a player adjusting their embouchure or fingering to produce multiple concurrently sounding notes in this way can often be noisy and distorted. The first multiphonic occurs during the 'Restarting Level' section (bars 83–9).

The structure and melody of this section is almost the same as that heard in the earlier 'Level 2: Underwater Scene' section (bars 67–82), as would be expected given the descriptive titles. In bar 80 a sudden disruption occurs—marked by a pair of high-register interruptions—followed by an 'ad lib.' rapid eighteen-tuplet chromatic descent in the clarinet over a dissonant transposable pattern in the piano (Ex. 2). Looking again at the descriptive titles, given the next section is titled 'Restarting Level,' one can safely assume bars 80–2 are indicative of the player losing a 'life.'[30]

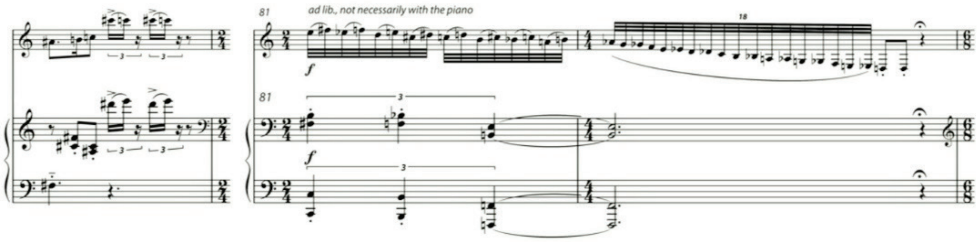
After losing this 'life,' the player restarts the same second level of the game (hence the title) and hears the same music as before. Hindson makes this section musically more interesting by adding ornamentation, and slightly modifying the trajectory of the melody line in the clarinet, taking some of the notes and displacing them by an octave or greater to either raise

[28] The term 'bleeps and bloops' is used by many scholars, such as Collins in *Game Sound*, and William Gibbons in 'Blip, Bloop, Bach? Some Uses of Classical Music on the Nintendo Entertainment System,' *Music and the Moving Image* 2, no. 1 (2009).

[29] All musical examples have been taken from the score: Matthew Hindson, *Nintendo Music* (London: Faber Music, 2005). A perusal score is available online for reference: see 'Matthew Hindson: Nintendo Music,' *Faber Music Score Library*, http://scorelibrary.fabermusic.com/Nintendo-Music-7663.aspx.

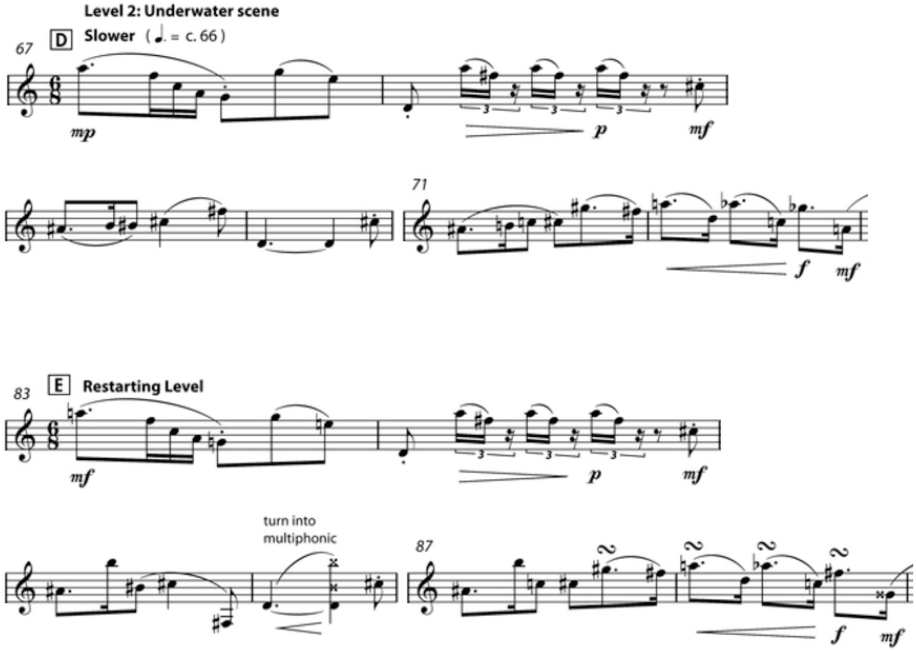
[30] A video game 'life' refers to the gameplay mechanic that defines the period of time between start and end of play. Often it can be based on health points or similar, and by losing lives, the player is compelled to restart the level, the whole game, or to stop playing entirely.

Example 2. Hindson, *Nintendo Music*, bars 80–2



or lower them into comparatively more extreme registral areas (Ex. 3). These compositional choices, combined with the first multiphonic appearance at bar 86, could represent the player's frustration at their failure to successfully complete the level on their first attempt.

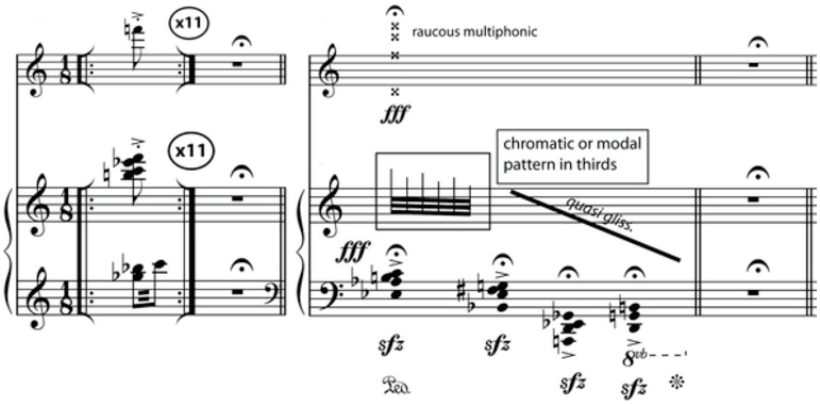
Example 3. Hindson, *Nintendo Music*, clarinet melody, bars 67–72 and 83–8



The second multiphonic is heard towards the end of the 'Boss Level,' acting as the point of climax to the whole turbulent section. After eleven emphatically-repeated staccato quavers and a bar of pause, the score calls for a 'raucous multiphonic' in the clarinet at *fortississimo*, over an almost aleatoric piano part involving a collection of chord clusters and a descending pattern in the right hand (Ex. 4). Referring to the title of this section, this music could very well indicate the player successfully overthrowing the presumably formidable titular enemy by conclusively landing the final blow. It is also similar to the music heard when the player loses a 'life' at the end of the 'Level 2: Underwater scene' section. The descending pattern in particular evokes a falling motion: perhaps off a bridge, reminiscent of defeating the final boss Bowser in *Super Mario Bros*.[31]

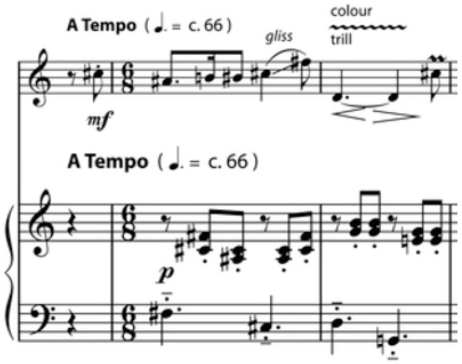
[31] For an example of this defeat, see 'Super Mario Bros. – NES Gameplay,' YouTube video, 10:00, posted by 'nesguide,' 30 Dec. 2008, https://youtu.be/ia8bhFoqkVE?t=3m35s.

Example 4. Hindson, *Nintendo Music*, bars 175–8



In addition to multiphonics, Hindson has also written in colour trills for the clarinet, where a timbral effect is executed by 'oscillating between alternative fingerings producing the same pitch.'[32] This effect mimics the way pulse-wave channels in the NES sound chip were capable of replicating 'vibrato (pitch modulation), tremolo (volume modulation) … echo effects,' and other variations of timbre.[33] During the 'Level 2: Underwater scene' section at bar 78, the melody appears to repeat the same phrase heard through bars 69–70, but with an additional glissando from the C♯ to F♯, followed by a colour trill on the D (Ex. 5), assumedly placed here by Hindson to differentiate this repetition of the melody from previous iterations.

Example 5. Hindson, *Nintendo Music*, bars 77–9



The other colour trills are both located within the two 'Bonus Calculation' sections of the piece at bars 64–6 and bars 107–9. Each is a trill on B♭—the second falling an octave—occurring after an unaccompanied repeated minor-third figure (Ex. 6). The sound produced here is akin to that heard in *Super Mario Bros.* as the points accrued on completing a level are added to the player's running total.[34]

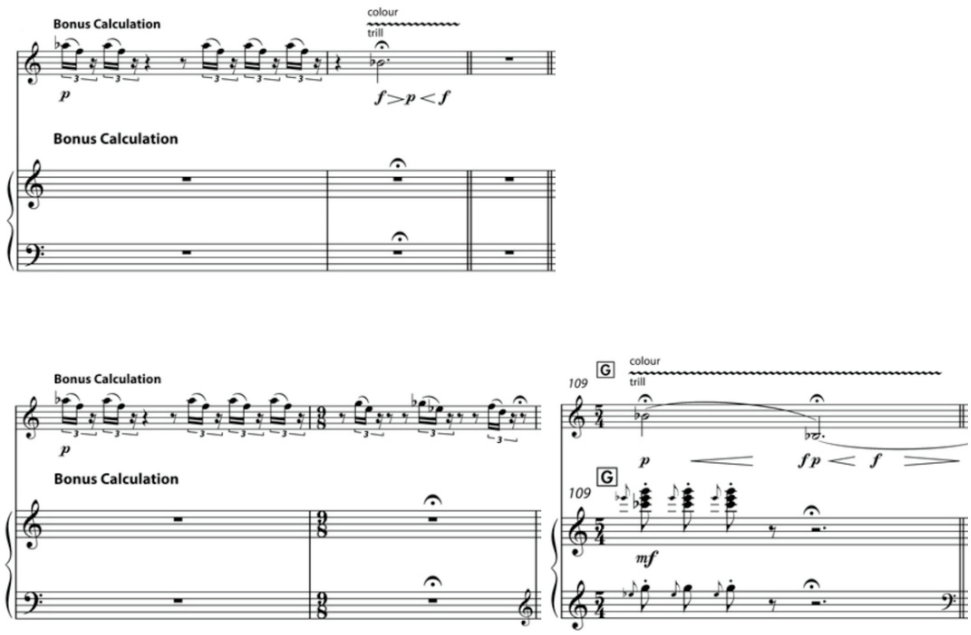
The use of colour trills in this way—aurally marking the calculation of bonus points—can be compared to the use of sound effects in 8-bit gaming. Sound effects preceded

[32] Ann Griffiths, 'Bisbigliando,' *Grove Music Online*, http://www.oxfordmusiconline.com.

[33] Collins, *Game Sound*, 25.

[34] An example of this sound, for reference, is heard in the previously mentioned clip in footnote 31: 'Super Mario Bros.—NES Gameplay,' https://youtu.be/ia8bhFoqkVE?t=3m3s.

Example 6. Hindson, *Nintendo Music*, bars 64–6 and 107–9



the inclusion of music in games; due to the inherent difficulties of including any sound whatsoever with the primitive hardware, in the early days it was far easier to introduce short bursts of sound than to compose full tunes accompanying gameplay. Sound effects that initially performed an attract function in the arcade—persuading a player to choose a particular machine, then marking 'wins or *near* wins'—evolved to become an integral part of interactive game audio in the home gaming context as well.[35] A player pressing a button to make their character jump, for example, may result in a sound effect being played that helps define the action; another button-press and the character 'swings their sword and makes a "swooshing" noise.'[36]

The 'Level 1' section of *Nintendo Music* can be divided into subsections. This is similar to the way the *Super Mario Bros.* 'Overworld' theme is split into recurring sections (see Table 2 for comparison). These repeated sections are indicative of Hindson drawing on the looping aesthetic previously discussed as an element of 8-bit game sound, where limiting the musical content made game composition (and coding) much more efficient.

Within this section, Hindson writes a recurring arpeggiated motif in the clarinet that is used explicitly as a sound effect. At the return to the A1 theme in bar 47, rather than repeat the same melody as heard through bars 15–22, Hindson inserts this sound-effect motif marked *forte* at bar 48 (Ex. 7). Much like the colour-trill use seen in Example 5, it distinguishes this next instance of the melody from its first appearance in bars 15–22.

[35] Collins, *Game Sound*, 8.

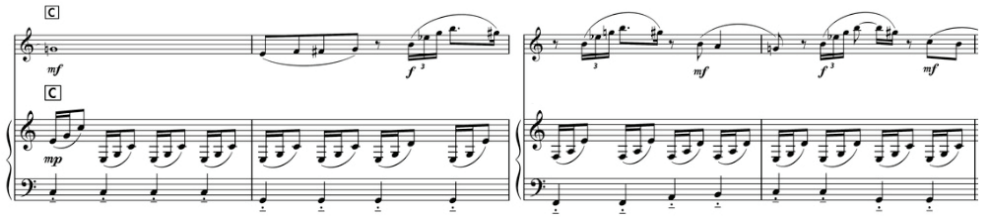
[36] Karen Collins, 'An Introduction to the Participatory and Non-linear Aspects of Video Games Audio,' *Essays on Sound and Vision*, ed. John Richardson and Stan Hawkins (Helsinki: Helsinki University Press, 2007), 26.

Table 2. Comparative structures of 'Level 1' (*Nintendo Music*) and 'Overworld' (*Super Mario Bros.*)*

Nintendo Music: **'Level 1'**			*Super Mario Bros.:* **'Overworld'**		
Section	**Bars**	**Structure**	**Section**	**Bars**	**Structure**
Intro	13–14	(derived from **end of B**)	Intro	1	(derived from C)
A_1	15–22	8	A	2–5	2 + 2
A_2	23–30	8	B	6–13	(2 + 2′) x 2
B_1	31–38	(2 + 2′) + 4	C	14–17	2 + 2′
B_2	39–46	(2 + 2′) + 2 + **2**	A	18–21	2 + 2
A_1	47–54	8	D	22–29	(2 + 2′) x 2
A_2	55–60	4 + 1.5 *	C	30–33	2 + 2′
* The time signature in bar 60 changes from 4/4 to 2/4; hence, 'half' a bar.			D	34–37	(2 + 2′) x 2

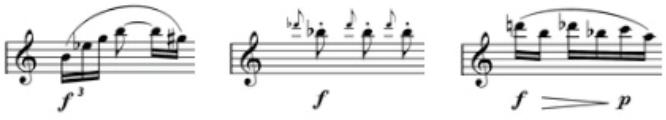
* The structure of *Super Mario Bros.* 'Overworld' as shown in this table has been reproduced from Guillaume Laroche, 'Analyzing Musical *Mario*-media: Variations in the Music of *Super Mario* Video Games' (Masters thesis, McGill University, 2012), 41–2. I have replicated his tables' notation across to *Nintendo Music*. He explains his [2+2] notation as referring to a 'two-bar fragment that is stated, then repeated. [2+2′] indicates that the ending of the second statement is modified, but that the two statements largely resemble one another. The notation [x2] means that the entire statement … is repeated' (see Laroche, 'Analyzing Musical *Mario*-media,' 42).

Example 7. Hindson, *Nintendo Music*, bars 47–50.



This motif returns multiple times throughout the rest of the section, alongside two other figurations based on the minor third that could similarly be considered sound effects (see Ex. 8). Each is marked *forte* (at least initially) against the *mezzo-forte* of the melody line.

Example 8. Hindson, *Nintendo Music*, taken from bars 48, 53, and 56.

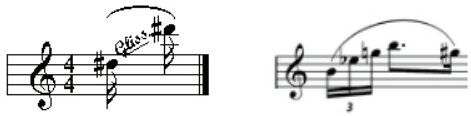


There are two reasons to consider these as sound effects. The first is that the way Hindson has written them to interrupt the melody line—without changing the melody or interacting with it in any way, simply appearing and blocking out the notes that would have otherwise been present—is exactly what would sometimes occur within 8-bit game sound. Given the limited number of channels present in sound chips, and the inevitable sharing of music and sound effects within one channel, the sound effects were prioritised (due to their importance

to the sense of interactivity being engendered in the player) and would obstruct the music.[37] Their seemingly random placement within the melody line adds weight to this idea; if sound effects are representative of a player-initiated action, that action could take place at any moment during the playing of the game.

Secondly, these motifs are easily interpreted as representative of action. One of the purposes of sound effects is to reinforce an action occurring on-screen by aurally matching it in some way. Zach Whalen discusses this phenomenon, known as 'mickey mousing,' at length with particular regard to *Super Mario Bros*. Sound effects rely on the synchronisation of certain established aural tropes and musical cues to give life to an otherwise non-musical object: these tropes are often derived from early film, even 'the earliest days of animation when theatre pianists would accompany silent cartoons with appropriate music.'[38] Whalen argues that 'videogame music encourages and enhances the narrative experience of game play;' the story of Mario and his (the player's) experience travelling through the Mushroom Kingdom is heightened by the presence of both music and sound effects, particularly that of Mario's frequently initiated 'jump' sound: a rapid ascending chromatic glissando.[39] Arguably, Hindson's arpeggiated motif is similarly representative of some sort of jumping movement (Ex. 9).

Example 9: Mario's 'jump' sound effect, and Hindson's sound effect. Taken from Whalen, 'Play Along,' and Hindson, *Nintendo Music*, 5, respectively



The other sound-effect figures Hindson writes could also represent common video game actions: the repeated grace-note minor third could signify collecting coins or firing a gun; the descending minor-third pattern could indicate losing health or falling off a ledge. This is similar to sections of *Nintendo Music* already examined, such as the player losing a 'life' occurring over a descending chromatic line. It is these, and various other 8-bit aesthetics that Hindson has drawn on, that help to successfully emulate the sound of a video game within *Nintendo Music*.

Playfulness Writ Large

When discussing the common ground between music and games, and the implications of examining each through the lens of 'play,' Cheng argues that 'listening for resonances across these two artforms [sic] stands to deepen our comprehension of both.'[40] I now turn to a broader discussion of elements

[37] For example, the following clip demonstrates: 'NES Longplay [005] Super Mario Bros,' YouTube video, 18:50, posted by 'World of Longplays,' 22 June 2009, https://www.youtube.com/watch?v=rc62hFksKo4. At 0:11 seconds, Mario collects a mushroom, which initiates a sound effect. This effect happens to make use of the channel assigned to playing the soprano line of the melody in the accompanying theme, and thus the main 'top' line of the theme cuts out momentarily. This happens again in particular at approximately 0:18 seconds, when Mario jumps into a hidden brick to reveal a second mushroom, and at 0:19, when a longer sound effect occurs cutting out all but the bass line of the main theme.

[38] Zach Whalen, 'Play Along—An Approach to Videogame Music,' *Game Studies* 4, no. 1 (2004), http://www.gamestudies.org/0401/whalen/. See also David Neumeyer and James Buhler, 'Analytical and Interpretive Approaches to Film Music (I): Analysing the Music,' *Film Music: Critical Approaches*, ed. K.J. Donnelly (New York: Continuum, 2001).

[39] Whalen, 'Play Along.'

[40] Cheng, *Sound Play*, 5.

of musical postmodernism as heard within the piece (and indeed many of Hindson's works), but with particular regard to the way in which this merging of art music and game sound offers an opportunity to examine affinities between postmodernism and ludomusicology.

Though the term has historically held—and continues to hold—various definitions, this discussion of postmodern music centres around it being a reaction to, or reinterpretation of, the ideals and aesthetics of modernism (hence 'post').[41] Jonathan Kramer outlines sixteen traits that can characterise postmodern music, such as embracing irony, pluralism, referencing other musics through quotation or pastiche, and '[challenging] barriers between "high" and "low" styles.'[42] He is careful to note that these traits should not act as a prescriptive checklist with which to confirm the correct label for a piece, as he conceives of postmodernism as 'an attitude more than as a historical period.'[43]

Hindson has previously been labelled the 'postmodern "bad boy" of contemporary Australian art-music.'[44] Though no longer a boy chronologically speaking, he has certainly effected a youthful persona throughout his active compositional years which is signalled by his many and overt references to popular music; even a brief review of his output reveals the deliberate and distinct integration of popular-music elements into art-music settings. *Homage to Metallica* (1993) incorporates the textures, rhythms and harmonies of the heavy-metal genre; *SPEED* (1996) references the layers and repetition commonly heard in techno music; many of his other works follow suit. Often these pop-music elements can be inferred from the title of the piece alone; for example, *Rave-elation* (1997), *Techno Logic* (1997), and *Headbanger* (2001).[45] Hindson states in his PhD exegesis that techno and death-metal are the genres of music 'with which [he feels] the strongest connection,'[46] but the presence of musical elements from these genres within art music is considered, to some, to be something of a musical violation.

When discussing features of postmodern music that oppose modernist aesthetics, Kramer outlines several musical elements that are also found in popular music: 'Postmodernism's defining compositional practice is its deliberate attempt to reach out by using procedures and materials audiences are believed to relish: diatonicism, singable melodies, metric regularity,

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[41] Andrew Dell'Antonio, 'Postmodernism,' *Grove Music Online*, http://www.oxfordmusiconline.com. David Bennett provides an excellent overview of the issues involved in defining and discussing postmodernism with particular regard to the contributions of Ihab Hassan, Jean-François Lyotard, Fredric Jameson and Jonathan Kramer: see David Bennett, 'The "Undefinability" of Postmodernism,' *Sounding Postmodernism: Sampling Australian Composers, Sound Artists and Music Critics* (Sydney: Australian Music Centre, 2008), 32–46. Similarly, an extensive outline of the development of postmodernism in Australia exists in Linda Kouvaras, *Loading the Silence: Australian Sound Art in the Post-Digital Age* (Farnham: Ashgate, 2013).

[42] Jonathan D. Kramer, 'The Nature and Origins of Musical Postmodernism,' *Postmodern Music/Postmodern Thought*, ed. Judy Lochhead and Joseph Auner (Oxford: Routledge, 2002), 16.

[43] Jonathan D. Kramer, 'Postmodern Concepts of Musical Time,' *Indiana Theory Review* 17, no. 2 (1996): 22. It should be noted, however, that postmodernism (as a label) holds currency as applied to works of music and other arts that were created after the time of modernism: the more literal definition of post-modern. Kramer's conception of postmodernism as an 'attitude' allows him to critically examine compositions that were composed throughout history through this lens; for example, Beethoven's String Quartet in F Major (op. 135), the finale of Mahler's Seventh Symphony, and Charles Ives' *Putnam's Camp*.

[44] David Bennett and Linda Kouvaras, 'Modernist versus Postmodernist Aesthetics: Contemporary Music Criticism and the Case of Matthew Hindson,' *Musicology Australia* 27, no. 1 (2004): 54.

[45] See Hildy Essex, 'An *Enfant Terrible* in the Concert Hall: The Influence of Popular Music on the Works of Matthew Hindson' (Masters thesis, University of Melbourne, 2003), 42–85.

[46] Matthew Hindson, 'Compositions by Matthew Hindson' (PhD thesis, University of Sydney, 2001), 5.

foot-tapping rhythms, tonality, and/or consonant harmonies.'[47] By including these elements, postmodern music embraces 'many cultural values previously thought to be *inimical* to successful art and even to simple good sense;' that is, in opposition to modernism.[48]

The view that popular music is somehow inherently inferior to classical music is one that continues in some quarters to this day; the traditional hierarchical view of musical value places classical music's intellectualism above popular music's accessibility. This is similarly observed in the division between modernist and postmodern aesthetics: modernists view the inclusion of popular-music elements in classical music as disrespectful. In disrupting this traditional conception by bringing popular music into a classical space, Hindson has earned the label of the *enfant terrible* of contemporary art music.[49]

It is important to note Hindson does not place any intrinsic value on either popular or classical music; merging the two in his compositions stems purely from his personal preferences. He states: 'As an Australian composer living at the beginning of the twenty-first century, I believe in the importance of exploring musical and extra-musical ideas that I regard as relevant to, and representative of, the society in which I live.'[50] Thus, Hindson is not deliberately trying to destabilise the idea of a musical value hierarchy; his compositional preferences are simply 'unconsciously informed by his cultural milieu, rather than as responses to cultural theory.'[51] While the environment in which he completed his Master of Music degree (from 1991 to 1992 at the University of Melbourne) was one that strongly encouraged a modernist approach to composition, Hindson's works would come to incorporate more elements of popular music purely in an attempt to create a more personally relevant compositional style, one that playfully blurs the boundaries between different music genres.[52]

But how is this boundary-blurring playful? Both 'play' and 'playfulness' are difficult concepts to define,[53] as many scholars who have grappled with these concepts elucidate.[54] Nevertheless, play and playfulness can certainly be described. Brian Sutton-Smith compares the broad concept of play to language, as 'a system of communication and expression, not in itself either good or bad.'[55] Miguel Sicart considers play to be 'a movement between order and chaos. Like tragedy, it fulfils its expressive purpose when it manages a fragile, oscillating

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[47] Kramer, 'Nature and Origins,' 13.

[48] Kramer, 'Nature and Origins,' 13 (italics added).

[49] The phrase was 'first used by Fred Blanks, *The North Shore Times* 18 Apr. 2001, and subsequently by other reviewers'—see Essex, 'An *Enfant Terrible*,' 2. When asked about the title, Hindson stated: 'As for the "bad boy" epithet, I don't know where this came from, or even what it is supposed to refer to. My guess is that maybe because I have written some pieces that are loud (*Homage to Metallica*), which dare to do things in a slightly different way, hence I am a "bad boy." Maybe it's about breaking with people's preconceptions?' See Bennett and Kouvaras, 'Modernist versus Postmodernist Aesthetics,' 63.

[50] Hindson, 'Compositions,' 2.

[51] Bennett and Kouvaras, 'Modernist versus Postmodernist Aesthetics,' 59.

[52] Hindson has remarked: 'I use aspects of popular music in my own compositions, basically because (1) that is the sort of music I like to listen to a lot of the time, and (2) there is a real vibrancy in popular music performance that I would like to convey in my own music.' See Essex, 'An *Enfant Terrible*,' 37.

[53] Such as Johan Huizinga, *Homo Ludens: A Study of the Play-Element in Culture* (Boston: Beacon Press, 1992); Roger Callois, *Man, Play and Games* (Urbana: University of Illinois Press, 2001); Brian Sutton-Smith, *The Ambiguity of Play* (Cambridge, MA: Harvard University Press, 1997); Miguel Sicart, *Play Matters* (Cambridge, MA: MIT Press, 2014).

[54] As Miguel Sicart remarks: 'I am trying to understand play and why it matters, but I am not trying to formally define play.' See *Play Matters*, 106, footnote 20.

[55] Sutton-Smith, *Ambiguity*, 219.

balance between both.'[56] He expands on this idea further in noting that play is, among other things, disruptive in the sense that it takes over the context in which it occurs.[57] Play 'breaks the state of affairs,' and in doing so, 'disruptively [reveals] our conventions, assumptions, biases, and dislikes.'[58] Hindson, through his value-free (not either good or bad) merging of popular and classical music, both disrupts and draws attention to the comparatively implied musical hierarchy of each while not attempting to purposely undermine; some may consider that he introduces chaos to order.

However, Hindson is not strictly 'at play' here in a frivolous sense;[59] his goal remains to write music. This important distinction determines, according to Sicart, the difference between 'play' and 'playfulness'; the latter is an attitude: 'Playfulness is a way of engaging with particular contexts and objects that is similar to play but respects the purpose and goals of that object or context.'[60] As such, it 'lacks the autotelic nature' of play itself, in conserving the original purpose of the activity with which it is concerned.[61] Thus, Hindson blurs boundaries while keeping his original ultimate goal of writing music with which he is personally connected.

In avoiding the modernist ideals under which he worked during his Masters studies—that it was 'necessary to re-invent the wheel with each piece; that "newness" was paramount, and that tradition was something that should be necessarily actively ignored, even despised'[62]—Hindson contravened the expected norms of composition of the time and place, and continues to do so in later works. A parallel can be found in Cheng's discussion of gaming experiences: 'While [they] aren't always outwardly radical or resistant, they can be productively interpreted as activities bound up in *potentialities* for transgression.'[63] Just as games can be constructed to allow for transgression (deliberately by the designers or accidentally by the players, or indeed vice versa),[64] the 'post' in postmodern music can be interpreted as transgressive.[65]

If we interpret transgression as disruption, as per Sicart's thoughts on play and playfulness, Hindson's compositional style is just that: playfully disruptive.[66] In addition, while play often

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[56] Sicart, *Play Matters*, 3.

[57] Sicart, *Play Matters*, 14.

[58] Sicart, *Play Matters*, 15.

[59] As in considering play as 'a waste of time, as idleness, as triviality.' See Sutton-Smith, *Ambiguity*, 201.

[60] Sicart, *Play Matters*, 21.

[61] Sicart, *Play Matters*, 26.

[62] As quoted in Bennett and Kouvaras, 'Modernist versus Postmodernist Aesthetics,' 59.

[63] Cheng, *Sound Play*, 5 (his italics).

[64] For example, the notion of *emergent gameplay* describes when 'interactions between objects in the game world or the players' actions result in a second order of consequence that was not planned, or perhaps even predicted, by the game developers, yet the game behaves in a rational and acceptable way.' See Penny Sweetser, *Emergence in Games* (Boston: Charles River Media, 2008), 3. This similarly parallels the way in which many chance-based compositions, like the musical dice-games discussed previously, can result in emergent, original, unique performance realisations.

[65] As is composing in such a manner—certainly in the eyes of some critics; see for instance many comments listed at Matthew Hindson, 'Reviews,' http://www.hindson.com.au/reviews.html. Historically, the critical reception of Hindson's music has been mixed. David Bennett and Linda Kouvaras have traced the attitudes present in the critical reception of Hindson's works, and found reviewer responses can be divided into two possible categories: those from critics who express personal dislike of the music, and those who misunderstand his intentions behind its creation. See Bennett and Kouvaras, 'Modernist versus Postmodernist Aesthetics.'

[66] Importantly, however, while play can be disruptive through being transgressive or rebellious, the reverse is not always true; for instance, civil wars are not fun and games.

occurs 'for the sake of laughter, for enjoyment, for passing pleasures,'[67] Hindson does not assign any essential hierarchical value to different music styles, so it follows that behind his pluralistic compositional decisions there is no intent to 'poke fun at' or satirise. As he confirms: 'I'm not deliberately aiming at laughter.'[68]

A piece like *Nintendo Music*, with its clearly outlined, obviously intentional referencing of 8-bit game sound is an example of pastiche,[69] in the sense of Fredric Jameson's 'blank parody.'[70] The modernist attitude towards appropriating other styles of music emerges in parody, by satirising in order to mock the 'lesser' style (whether light-heartedly or otherwise) in order to further underscore the perceived divide between high and low art. This fundamentally elitist approach appears as long ago as Schoenberg, and his oft-quoted ideal: 'If it is Art, it is not for all, and if it is for all, it is not Art.'[71] Postmodernism, Jameson argues, instead engages in pastiche rather than parody. It draws on alternative musical styles in a humourless way, 'without that still latent feeling that there exists something *normal* compared to which what is being imitated is rather comic.'[72] Hindson's *Nintendo Music* is an example of a genuine engagement with the aesthetics of a different genre of sound, free from any judgement of value; hence, the 'blank' in Jameson's 'blank parody.' The simplicity of melody and harmony within the piece is a direct reference to the simplicity of melody and harmony often heard within 8-bit video game sound, as is the inherent playfulness of the structure and elements included within the piece.

The notion of 'blank parody' again surfaces when considering Kramer's identification of irony as a postmodern trait. *Nintendo Music* is certainly ironic, in that 8-bit game sound is not what one might expect to hear in a traditional classical music situation, and this unexpected pairing *could* be interpreted on some level as amusing. However, *Nintendo Music* is not intentionally funny (and therefore not parody), even on an ironic level.[73] Just as the incorporation of pluralistic combinations of music genres into art music is indicative of postmodern practice, today's video games are regularly supported by similarly pluralistic sound-worlds (often orchestral, always eclectic).[74]

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[67] Sicart, *Play Matters*, 14–15.

[68] As quoted in Bennett and Kouvaras, 'Modernist versus Postmodernist Aesthetics,' 67.

[69] Where pastiche refers to 'writing music in the style of,' for example, a composer from the past.

[70] Fredric Jameson, 'Theories of the Postmodern,' *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991), 65.

[71] Arnold Schoenberg, 'New Music, Outmoded Music, Style and Idea (1946),' *Style and Idea: Selected Writings of Arnold Schoenberg*, ed. Leonard Stein (London: Faber, 1984), 124.

[72] Fredric Jameson, 'Postmodernism and Consumer Society,' *The Anti-Aesthetic: Essays on Postmodern Culture*, ed. Hal Foster (Washington: Bay Press, 1983), 114.

[73] Though of course, audiences may well interpret it as such, regardless of Hindson's compositional thought. For the purposes of this discussion I regard 'intentionality' from the composer's perspective, but I acknowledge the perceived meaning of a work by its audience may be starkly different—as discussed by Roland Barthes, 'The Death of the Author,' *Image-Music-Text*, trans. Stephen Heath (New York: Hill & Wang, 1977).

[74] To illustrate, the soundtrack for *Journey* (thatgamecompany, 2012) is ambient, lush, and orchestral, often featuring solo lines for the cello, viola, flute and bass flute, harp, and serpent. The soundtrack to *Assassin's Creed: Syndicate* (Ubisoft, 2015) includes many pieces scored for a smaller nineteenth-century style chamber ensemble, and is at times quite erratic and pointillistic. Both soundtracks were created by the same composer, Austin Wintory. Another example of pluralism is heard more explicitly in *inFAMOUS 2* (Sucker Punch Productions, 2011): the game is set in an analogue of New Orleans, and includes elements of location-specific music such as funk and second-line, mixed with a gritty, metallic combination of extended string techniques, unsettling percussion, and electronic effects.

Towards Altermodernism, or 'Playing' with 'Time'

Megan McKittrick contends that pastiche is not 'a direct copy of the past; instead, it results in a mixture of styles that leans towards the contemporary.'[75] Similarly, Umberto Eco argues that postmodernism engenders the 'flattening of the real against fake and the old on the modern.'[76] If these ideas are applied to *Nintendo Music*, it is difficult to discern whether it is the game-sound aesthetics or the classical instrumentation that is the 'old' or the 'modern';[77] writing a chamber piece for clarinet and piano that references game music is itself contemporary, regardless of the traditional nature of the instrumentation, and 8-bit games are no longer considered modern in comparison to the latest iterations released on today's consoles. Additionally, 8-bit sound conceptualised as old is also problematic, as 'if 8-bit music is produced and consumed in the present, it's not necessarily a style of the past.'[78]

Problematising timelines also questions the concept of nostalgia, which is undoubtedly an element of *Nintendo Music*. Hindson himself could be considered a 'veteran gamer,'[79] according to his programme note for *Video Game Dreaming* (1996/2010) within which he states: 'For the past 30 years or so of my life I have been an avid player of video games, going right back to the advent of Pong and Space Invaders in the late 1970s through to the first-person shooter and real-time strategy games of the current day.'[80] With specific regard to the 8-bit content of *Nintendo Music*, it has been suggested that 'the aestheticisation of nostalgia has emerged in a cultural moment *able* to access, circulate, and reconfigure the textual traces of the past in new and dynamic ways.'[81] In other words, tautologically, the ability to create new works based on multiple styles from all periods of history stems from 'the ready accessibility that … new technologies of (re)production and transmission afford for a wide variety of cultural styles and experiences.'[82] Hindson references 8-bit game sound in a classical space because he can.

The postmodern conception of nostalgia requires a little more nuance to be fully understood: as Kramer notes, 'nostalgia for the good old days of tunes and tonality, however, is actually opposed to certain strains of postmodernism.'[83] Postmodern music that engages with nostalgia does not necessarily do so simply by outright referencing old music; it does not just

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[75] Megan McKittrick, 'Scott Pilgrim vs. The Veteran Gamer: The Canonization and Commodification of Nostalgia in Anamanaguchi's 8-bit Video Game Soundtrack,' *Reconstruction: Studies in Contemporary Culture* 14, no. 1 (2014).

[76] Umberto Eco, *Travels in Hyperreality* (Orlando: Harcourt Brace & Company, 1986), 10.

[77] Or of course, the 'real' and the 'fake.' Are the instruments 'pretending' to be NES sound chip channels? Is game sound less 'real' than classical music?

[78] McKittrick, 'Scott Pilgrim.' This is of course similarly true for art music written with traditional instruments; however, I provide clarification in the following paragraphs. Additionally, 8-bit music is indeed produced and consumed in the present, as demonstrated through the phenomenon of chiptunes: electronically synthesised music created today using the microchip-based audio hardware of early home computers and gaming consoles.

[79] A term used by McKittrick to refer to those who, by virtue of their age and membership within a cultural identity surrounding gaming, are able to participate in a shared sense of nostalgia for older games. See McKittrick, 'Scott Pilgrim.'

[80] Matthew Hindson, 'Video Game Dreaming (1996/2010),' http://hindson.com.au/info/video-game-dreaming-19962010/.

[81] Christina Baade and Paul Aitken, 'Still "In the Mood:" The Nostalgia Aesthetic in a Digital World,' *Journal of Popular Music Studies* 20, no. 4 (2008): 356 (italics added).

[82] Bennett and Kouvaras, 'Modernist versus Postmodernist Aesthetics,' 62.

[83] Kramer, 'Nature and Origins,' 13.

re-embrace previous musical styles in the fashion of anti-modernism.[84] Instead, postmodern works 'simultaneously embrace *and repudiate* history.'[85] A rejection of the notion of a coherent, linear sense of historical time certainly exists within *Nintendo Music*, alongside many other typically postmodern traits as discussed. There is a case to be made here, however, for a subtler classification, as *Nintendo Music* is arguably representative of Linda Kouvaras's concept of the altermodern. She states: 'The strong focus upon the historical – with the essential dimension that advances a hankering for traits that postmodernism typically resists, if not a pang for an era that pre-dates postmodernism – that overlays these [altermodern] works, calls for a term that nuances "mere" postmodernism.'[86] 8-bit game sound, while 'retro' today (and perhaps even kitsch to some), was in its heyday the epitome of modernity, being borne of technology, the new and the now; thus *Nintendo Music's* nostalgia is 'hankering' for a modernist ideal, and an *Ur-* one at that. Additionally, Hindson's emulation of 8-bit sound (new, modern, noisy, pro-glitch) on classical instruments (old, traditional, conservative, 'musical') further problematises the timelines involved—as does the fact that video game sound as a whole (in tandem with elements of *Nintendo Music*) relies on historical audio elements drawn from, for instance, silent film, Ragtime, and early cartoons.[87] To illustrate, while the arpeggiated sound effect Hindson writes could be an aural reference to the jump sound effect heard in *Donkey Kong* (Nintendo, 1981),[88] it is also remarkably similar to the sound of the cartoon character Woody Woodpecker's laugh.[89] In this sense, Hindson has written in *Nintendo Music* a piece that engages in altermodern questioning of temporal multiplicity: engaging with the sound of the so-called past (8-bit game sound) that actually exists in complete form today, through a vehicle (classical instrumentation, drawing on earlier musical modernist *Ur*s) traditionally belonging to the past—all at a point in time (the early 2000s) starkly removed from those modernist *Ur* moments. To complete the picture, each of these multiple, simultaneous contexts playfully—disruptively, but purposefully—co-exist.

Hindson's *Nintendo Music* provides a fascinating case study of just one example in which art music and game sound collide. The two worlds overlap in remarkable ways; neither video games nor music really exist in any meaningful way until a 'player' engages with them. To wit, Roger Moseley asks: 'What might it mean to conceive of chamber music as "multi-player co-op," of Chopin's "Minute" Waltz as engaging "speed run" mode, or of Liszt's *Réminiscences*

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[84] In explaining the difference between postmodernism and anti-modernism, Kramer states: 'There is a significant difference between these two aesthetics: antimodernist yearning for the golden ages of classicism and romanticism perpetuates the elitism of art music, while postmodernism claims to be anti-elitist.' See Kramer, 'Nature and Origins,' 13.

[85] Kramer, 'Nature and Origins,' 13 (italics added).

[86] Kouvaras, *Loading the Silence*, 198.

[87] For further discussion of these elements see Whalen, 'Play Along,' and Lerner, 'Mario's Dynamic Leaps.'

[88] Refer back to Example 8.

[89] For an aural example of the laugh, see 'Woody Woodpecker Laugh,' YouTube video, 0:13, posted by 'John Wood,' 2 Mar. 2011, www.youtube.com/watch?v=s637-5A9Gro. First appearing in 1940, the younger generation of potential audience members for *Nintendo Music* today may not recognise this iconic laugh and connect it with Hindson's sound effect—nor was this necessarily an intentional connection made on the part of Hindson. Nevertheless, this represents as an example another modernist *ur* of its time that *Nintendo Music* draws on, whether explicitly, unconsciously, or unintentionally. See Donald D. Markstein, 'Woody Woodpecker,' www.toonopedia.com/woody.htm.

de Don Juan as a "single-player mod" of Mozart's opera?'[90] It appears Hindson, in *Nintendo Music*, has responded to these very questions, with the result that the piece draws not just on literal 8-bit video game sound aesthetics, but more broadly, elements of postmodernism (playing with boundaries), altermodernism (playing with time), and general game sound (playing with genres). This discussion of art music, through a specific focus on *Nintendo Music*, issues surrounding postmodernism, game sound, and game sound emulation, has revealed a distinct link between all with the concept of play.

About the Author
Jessica Crowe holds an Honours degree in Musicology from the Melbourne Conservatorium of Music, University of Melbourne, where she has worked since 2017. She is the current Secretary for the Lyrebird Music Society.

[90] Moseley, 'Playing Games with Music', 38.