Chapter Three
Postmodern Temporalities

Music do I hear?

Music
Ha, ha! keep time: how sour sweet music is,
When time is broke and no proportion kept!
So is it in the music of men’s lives.
And here have I the daintiness of ear
To cheque time broke in a disorder’d string;
But for the concord of my state and time
Had not an ear to hear my true time broke.
I wasted time, and now doth time waste me;
For now hath time made me his numbering clock:
My thoughts are minutes; and with sighs they jar
Their watches on unto mine eyes, the outward watch,
Whereto my finger, like a dial’s point,
Is pointing still, in cleansing them from tears.

—Shakespeare, *Richard II* (5.5.41–54).

Temporality is subjectivity, and subjectivity is temporality.

—David Couzens Hoy¹

A Theory of Modern Temporalities

Karol Berger opens his study of musical linearity, *Bach’s Cycle, Mozart’s Arrow*, by juxtaposing two paintings—Nicolas Poussin’s *Il ballo della vita humana* (*A Dance to the Music of Time*, 1639–40) and Giandomenico Tiepolo’s *Il Mondo Novo* (*The New World*, 1791).² This contrast provides a

lucid visualization of the transition from what Berger labels ‘God’s Time’ (cyclical and eternal) to ‘Man’s’ (teleological):

The earlier of the two abounds in circular images: bodies move along circular orbits to the music of Time’s lyre. Poussin’s time is cyclical, ruled by the sun’s daily rising and setting, the annual succession of recurring seasons, turns of the wheel of fortune—all the eternal cycles that govern human life. Tiepolo, by contrast, observes from behind a thoroughly modern crowd assembled to gawk at a spectacle made possible by the newest technological medium...a magic lantern displaying the exotic marvels of “the new world”. These humans are not subject to an eternal, unchanging order. On the contrary, they are children of a unique historical moment, their gaze fixed on a dimly imagined future, a new, emerging world. Tiepolo’s time is linear, progressive, oriented toward the future.  

Berger argues that it was not until the late eighteenth century that a teleological attitude to musical structure was seriously adopted: the progression from past to future became goal-oriented with ‘time’s arrow.’ Before this, ‘music was simply “in time.”’ In Christian philosophy, human temporality (in both senses of the word) was framed by God’s eternity. The change from ‘Bach’s Cycle’ to ‘Mozart’s Arrow’ thus reflects the paradigm shift that brings about modernity: a move away from Christian eternity to a directed Hegelian conception of history and the Enlightenment’s emphasis on Kantian reason and Newtonian scientific causality.

In this chapter, I will consider the temporal features of the videogame aesthetic in this broader philosophical context. First, I will briefly outline theories of modern temporalities, referring primarily to Berger. This will be supported by a brief discussion of two games, Shadows of the Colossus (Team Ico/Sony Computer Entertainment, 2005) and Journey (thatgamecompany/Sony Computer Entertainment, 2012) that exemplify teleological form.

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5 Of course, Newton’s own theological works are testament to the fact that these have not always been considered fundamental opposition here. There is an uncanny parallel between these philosophical and scientific developments. In the mid-nineteenth century, pertinent discoveries such as entropy in the second law of thermodynamics, and Maxwell’s equations, clearly relate to the ‘arrow of time’. The full and dramatic impact of Einstein’s mathematics on the public consciousness came precisely forty years after the publication of Special Relativity, pre-empting the paradigm shift proposed by this thesis. Nevertheless, to draw direct connections or causal relationships would be spurious. However, James Winters has made the point that the richness and diversity of different temporal aesthetics in the post-war era has reconfigured postmodern temporality in Einsteinian rather than Newtonian ways. Therefore, he claims that the writing of multiple historical narratives (rather than a single ‘master narrative’) was inevitable. See James A. Winters, ““Narratime”: Post-Modern Temporality and Narrative,” *Journal of Issues in Integrative Studies* 11 (1993): 27–43.
Following this, I will consider an extension to Berger’s narrative in the form of a postmodern paradigm shift in the ways time is conceived. This will be supported by a more in-depth discussion of two further games, *The Witcher 2* (CD Projekt RED/Namco Bandai Games, 2011), and finally, *BioShock Infinite* (Irrational Games/2K Games, 2013).

To elucidate these ideas of temporal aesthetics a little further, but now in explicitly musical terms, the popular and oft-mentioned idea that Mozart’s music is ‘perfect’ and came to him in ‘perfect form’—in other words, in such an order that you could not displace so much as a single note without disrupting its finely-tuned aesthetic balance, let alone reorder movements in a multi-movement work—can be sharply juxtaposed with Bach’s apparently easy-going attitude with regards to reorganizing musical events and recycling musical material in often incongruous contexts.\(^6\) This is, of course, more a matter of perception than historical fact, but that makes it no less significant, and it is certainly a perception that existed in Mozart’s day.\(^7\) Teleological forward-driving motion is widely regarded as an idiomatic feature of Beethoven’s music, and as a touchstone for the temporal exploits of subsequent Romantic composers, its carefully crafted linear structure is assumed to be of vital and central aesthetic importance.\(^8\) Yet, a more pragmatic disposition can still be found in Beethoven: in an oft-cited letter (dated 1819) to his one-time pupil, Ferdinand Ries, Beethoven exhibited a great deal of artistic flexibility by suggesting that Ries reorder or even omit the slow movement of Opus 106 (Sonata No. 29 in B-flat) if he felt it more suitable for the London audience.\(^9\) Of all the works in his extensive *oeuvre*, to concede to

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the whims of fashion over the *Hammerklavier* has been taken as powerfully indicative of Beethoven’s pragmatism overriding retrospectively configured ideals.

In any case, certainly for the most part, such pragmatism was heavily submerged for the remainder of the nineteenth century, and it would be another hundred and forty-five years before composers explicitly permitted and deliberately engaged with performer and audience ‘choice’. This date of 1964 saw the composition of Terry Riley’s *In C* (previously discussed in Chapter 2), in which the performers are afforded a considerable degree of ‘compositional’ authority. Two earlier works—Stockhausen’s *Klavierstück XI* (1956) and Boulez’s Third Piano Sonata (1955–7)—have been taken by many music historians as *exempla prima* of the avant-garde aleatoric music popular in the 1950s and ‘60s, at least amongst its composer proponents (see Chapter 5). However, the particularly accessible format and minimalist style of the ostensibly tonal *In C* have enabled wider dissemination and longevity. Works such as these provide an important counterpoint to both videogame music, and from a more interdisciplinary angle, videogames themselves, and help to frame videogames as a quintessentially *postmodern* cultural phenomenon involving a complex and paradoxical relationship with both avant-gardism and Enlightenment thinking as a whole. This chapter, therefore, addresses two related questions: ‘Why has order (defined both broadly as hierarchical organization, and specifically as linearity) in music mattered?’, and ‘How might videogames reflect contemporary postmodern conceptions of linearity?’

Music’s temporal nature has long been considered as a parallel for the most significant aspect of temporal experience: mortality. Nearing his own end, Shakespeare’s Richard II notes music’s innate ability (as a performative art) to mark our experience of time, observing that its temporal structure—the order and proportion of its constituent parts—mirrors the proper

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hierarchy that governs life. The music taunts him because he hears in it the disorder he failed to notice or failed to deal with in life. Yet, it is also a gift to him, and thus a rare ‘sign of love’. Order and disorder as functions of time are therefore often understood as a critical philosophical underpinning to temporal experiences in general, and musical experiences in particular. However, issues relating to musical ‘chance’ and ‘choice’ have not been systematically addressed, and given their prevalence in videogames (due to its interactive nature), an appreciation of the difference is critical in order to properly understand and situate the medium within a broader framework.

In the central chapter (‘Jean-Jacques contra Augustinum’) of Bach’s Cycle, Mozart’s Arrow, Berger explains how Rousseau, followed closely by Kant and Hegel, established Enlightenment thinking by developing a viable alternative to the predominant Christian worldview. The issue was of man’s moral responsibility and involved a problematic dichotomy between maintaining God’s omnipotence and allowing for the gift of free will. Rousseau proposed that the concept of free will should be supplemented with freedom as “autonomy” and that the first could exist without the second (free of causal determination but without rational guidance), but not the reverse. Berger goes on to show that the modern (Enlightenment) system of moral politics is based on balancing traditional freedom with autonomy. Within this framework, liberalism emphasizes the former (individual freedom over determination by society), democracy the latter (society over the rights of the individual). He also highlights the inherent dangers of sitting too closely to either pole. The result of this line of thought was that early modern Enlightenment thinkers essentially dispensed with God (at least in terms of earthly matters), and replaced Him with nature (a central theme of Romanticism). The ‘supreme good’, or, the principal goal of life, changed from Augustinian ‘eternal life in peace’ (Heaven) to ‘perpetual peace’ on earth:

11 Rousseau considered himself a musician, albeit dilettante. The 300th anniversary of his birth was marked by a useful series of papers, accessible at <http://oxfordjournals.org/subject/humanities/rousseauarticles.html>. 
3. Postmodern Temporalities  The Aesthetics of Videogame Music  Mark Sweeney

The essential difference is that Kant’s goal is innerworldly; hence, unlike the otherworldly goal of Augustine, it neither postulates the eventual escape from time into eternity nor privileges rest over change. On the contrary, the whole point of establishing perfectly constituted states and peaceful relations among them is to create conditions in which humanity’s rational capacities for self-improvement can be fully unleashed. The end of history is not the state of passive, atemporal contemplation of divine perfection but rather a state of active, open-ended development.

Consequently, Man’s time was emancipated from God’s; God was replaced by Nature.

This “meta-narrative” of temporality is well established, and is largely endorsed in various ways by several studies on musical temporality. The two key premises of Jonathan Kramer’s work on musical non-linearity are, first, that time is manifold and can be characterized in music in multiple ways, and second, that art, and music in particular, ‘offers metaphors for all levels of temporality.’ (These ideas intersect with structures such as James Hepokoski’s “rotational form” in ways that will be picked up on in the next chapter.) However, Kramer’s analyses were almost entirely limited to the twentieth century, and they have not been adopted more widely, in part due to the complexity of his overlapping categories of musical-temporal experience. Robert Adlington has argued that onward musical motion should be considered as just one of many bodily metaphors, and not a uniquely privileged condition of musical temporality. He further suggests that the commonplace conception of music’s path-like forward motion actually stems from widespread metaphorical ideas of temporal motion. Benedict Taylor has argued that in spite of the numerous lacunae and aporias involved in theorizing musical temporality, ultimately the

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12 Berger, Bach’s Cycle, Mozart’s Arrow, pp. 169–70.
13 See Berger, Bach’s Cycle, Mozart’s Arrow, p. 151.
16 Kramer did consider other a limited number of other examples, such as ‘Multiple and non-linear time on Beethoven’s Op. 135’, Perspectives of New Music 11/2 (1973): 122–45.
imperfect metaphorical approaches of hermeneutic and historical discourse are valid, if problematic pursuits.¹⁸

Berger juxtaposed the music of Bach and Mozart, although he did not fall into the trap of suggesting that cyclical procedures do not occur in the latter. Rather, Mozart lays emphasis on Man’s time, or as Berger puts it, Mozart demonstrates a ‘preference’ for one over the other.¹⁹ This is evident in Berger’s reading of sonata structure—arguably cyclical, to a degree—which elevates a sense of ‘real change through time.’²⁰ Indeed the prevalence of da capo form in the Baroque, alongside variations and ritornello form, is sharply contrasted by the dominance of sonata structure in the Classical period. This observation alone seems enough to corroborate Berger’s principal hypothesis. It is worth pointing out that a circle of fifths produces some harmonic momentum, but often with no direction, finishing where it started. Frequently, the sense of drive found, for instance, in Vivaldi’s concertos, is derived from a perpetuum mobile (constant rhythm combined with a particular texture and instrumentation) that arguably drives forward but does not change. In this regard, the sense is of an unchanging vigorous effect, rather than a dynamic process.

Charles Rosen identifies one of the principal conceptual changes from the Baroque to the Classical style as the destruction of musical linearity. However, by this, he means neither a teleological impulse nor even a temporal category. Rather, he conceives of a kind of linearity in terms of horizontal (contrapuntal) and vertical (harmonic) lines, or voices. He points to the prevalence of figured bass as ‘a conception of the flow of music in terms of a series of vertical

¹⁹ Susan McClary has also written about the particular sense of timelessness and focus on the present in the music of D’Anglebert as a preference that serves a political function in seventeenth-century Versailles. See Susan McClary, ‘Temp work: Music and the cultural shaping of time,’ Musicology Australia 23/1 (2000): 160–175.
lines... carried by a strong horizontal bass line."\(^{21}\) The ever-pervasive classical mannerism of Alberti bass

blurs the independence both of the three contrapuntal voices which it theoretically contains and of the chordal or homophonic harmony which it supposedly illustrates. It breaks down the isolation of the voices by integrating them into one line, and of the chords by integrating them into a continuous movement. Linear form is essentially the isolation of the elements of music, and the history of music, until our day, may be seen as a gradual breakdown of all the various isolating forces of the art—contrapuntal independence of voices, homophonic progression, closed and framed forms, and diatonic clarity...

[This was achieved] by isolating the phrase and articulating the structure. Late eighteenth-century phrasing is emphatically periodic, and comes in clearly defined groups of three, four, or five measures, generally four. Imposing this new periodic system upon the musical flow and blurring the inner progression of that flow by the new accompaniment figures meant that the linear sense of the classical style was transferred to a higher level, and had to be perceived as the continuity of the whole work, and not as the linear continuity of the individual elements.

The vehicle of the new style was a texture called the sonata.\(^{22}\)

Discussions about the nature of the Classical concept of development are of interest here too. Its function in Sonata structure is to delay the return of the tonic and heighten the drama of that return.\(^{23}\) Indeed, the Recapitulation as ‘a dramatic reinterpretation of the exposition’ is the more important structural goal. What sense there is of “real change” in the first and final movements of Beethoven’s Pastoral Sonata, however, is debatable. The sense of return or cycle is very powerful in the finale, after its development section runs out of steam, and the rondo theme returns in the exact same fashion as the opening. (Whether the coda amounts to real change is also a matter for debate.) The sense, by the end of all four movements (and the multi-movement structure is surely an important factor here), is certainly not one of change, progress or forward momentum. Rather, if anything, it is one of calm reassurance of the presiding pastorale atmosphere, nostalgic or “current”. One feels more like having been on a journey after Bach’s Goldberg Variations, in spite of the obvious cyclical nature of that genre, and the exact repeat of the opening theme at the end.


One of the first features of Baroque music taught in school music classes is its recognizable “drive”. Certainly this can be characterized as forward momentum. In contrast, the Classical Sonata structure consistently breaks up the whole into demarcated sections, sometimes pushing onwards, at other times pausing for respite. But the lesson learned from Adorno’s criticism of Stravinsky and one of the key problems of minimalism, is that this kind of rhythmic pulsation, whilst retaining a sense of forward drive, more often than not negates itself and remains static (see also the following chapter). It is these very moments in the Classical idiom where the music slows, pauses, or changes direction, that make direction important. The whirlwind finale of Beethoven’s Fourth Symphony, the entire “narrative” of the Fifth, the rhythmic ‘apotheosis of the dance’ in the Seventh (to borrow Wagner’s characterization), or the build to the Recapitulation in the first movement of the Eighth serve as just four clear examples where this dynamism creates forward momentum quite unlike anything found in the Baroque. (One could add that Beethoven’s well-known socio-political agenda—more clearly expressed in the ‘Eroica’ and ‘Choral’ Symphonies—is, perhaps, even more in keeping with Berger’s discussion of Rousseau than Mozart.) Berger shows how Beethoven and his followers immediately began the work of problematizing this Classical forward-driven momentum. Composers such as Schubert, as mentioned above, also experimented with the listener’s temporal experience by interpolating tonally removed (often in the flat-submediant key) and harmonically static reveries, entirely in keeping, of course, with the Romantic disposition. This only serves to heighten the overall sense of direction, and has encouraged numerous narrative (or more often “emotional-narrative”) interpretations of so-called absolute music (see also chapters two and four).

24 An alternative dialogical sonata theory proposed by James Hepokoski and Warren Darcy explains the rhetorical structure as a series of action sets punctuated by compositional defaults or deformations. See Hepokoski and Darcy, Elements of Sonata Theory: Norms, Types and Deformations in the Late Eighteenth Century Sonata (New York and Oxford: Oxford University Press, 2006).

Berger’s argument is essentially historical, not philosophical or theological, and this difference of framing is crucial. The strength of Berger’s argument (like Lydia Goehr’s ‘1800 thesis’\textsuperscript{26}) lies not in the detail of establishing clear-cut binarisms, but rather, in how they enrich understanding and provoke a reconsideration of their overlapping bodies of texts. Peter Williams remains sceptical both of Berger’s overarching vision and of his detailed analysis.\textsuperscript{27} As Green aptly put it, a clear-cut ‘bifurcation’ of predominantly ontological concepts will always leave the author open to the simplest of criticisms—that it is reductionist.\textsuperscript{28} Indeed, any discussion of paradigms and paradigmatic shifts involves an element of generalizing historical narrative that has long been held suspect. In spite of this, Berger nevertheless provides a framework in which meaningful observations can be made, and makes explicit the reasons why these issues (the way temporality is experienced and manipulated in contemporary cultural artefacts) might be important.

\textit{Shadows of the Colossus} and \textit{Journey}

\textit{Shadows of the Colossus} has often been held as a prime example of videogame art.\textsuperscript{29} Chris Roper wrote that the game shares a particular sense of solitude with its predecessor, \textit{Ico} (2001), and this sense helps to create the necessary time and space for the player to think and “play”.\textsuperscript{30} The


\textsuperscript{27} Peter Williams, ‘Review. Karol Berger: Bach’s cycle, Mozart’s arrow,’ \textit{The Musical Times} 149/1903 (Summer 2008): 116–118, 117.


game’s minimalist approach (even by the standards of the day the game world is sparse and simple) sees the player travelling on horseback with little else to do but admire the scenery and contemplate their goals. These goals come in the form of sixteen boss encounters in which the player must defeat seemingly innocent and largely unprovocative Colossi in order to achieve their final quest—bringing an unknown girl back to life (the plot gradually thickens, ultimately into a fully-formed narrative that qualifies much of the action in hindsight). Each battle with a colossus is more involving and lavish than the last as the player gradually draws nearer the ultimate goal, but the time interspersing these encounters becomes an increasingly difficult experience for players contemplating the morality of their actions.  

Music is only heard at the cutscenes and Colossi battles that intersect the player’s exploration and travel sequences. William Gibbons has argued that the (formal) interplay

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between silence and decidedly un-triumphant musical “rewards” creates a particularly successful pacing between moments of musical saturation and relief, an aesthetic experience critical, he suggests, to the moral contemplation touted by players and critics alike.\textsuperscript{32} To this end, the audio mix points to something more, in that while there is no music playing, other sound effects come to the fore when they would otherwise have been drowned out. I would argue that these sounds even have a musical quality to them—the wind sometimes having a particular tone and the rhythm of the horse, Agro’s hooves, for instance—sounds that are both more noticeable and all the more meaningful, affective and effective. The music (and sound) of \textit{Shadows} is a crucial part of the experience of aesthetic form. The player navigates by holding up a sword and pointing it around until the controller vibrates to indicate the direction. As a result the game can be described as a linear teleological experience, but with a cyclical form.

\textit{Journey} is a profoundly teleological and linear experience, in spite of the sense of freedom the gameplay affords. Like \textit{Shadows}, it is minimalist in its aesthetic, but even more so in terms of its narrative. Players find themselves in a vast desert landscape with a huge mountain in the distance as their only goal.\textsuperscript{33} The title provides the only clue to understanding the metaphoric landscapes the player can explore: the journey is explicitly based on Joseph Campbell’s monomyth theory of narrative (the hero’s journey archetype), and the ultimate destination is of lesser importance.\textsuperscript{34} There is a multiplayer element, but all forms of competition and direct communication are avoided. Instead, the player may come across one or two other real players (all appear identical) on their journey and both have the opportunity to continue together, co-operating for mutual benefit and the sheer enjoyment of the shared experience. The only way in

\textsuperscript{32} William Gibbons, ‘Keynote address,’ at \textit{Ludomusicology Conference 2013} (Conference Paper, Liverpool University, 11–12 April 2013).
\textsuperscript{33} Artist David O’Reilly’s \textit{Mountain} (2014) provides a similarly artistic aesthetic experience.
\textsuperscript{34} See Joseph Campbell, \textit{The Hero with a Thousand Faces} (Novato, California: New World Library, 2008).

The music to the game was composed by Austin Wintory, and is based entirely around a theme for the cello that represents the player/protagonist and his/her journey. Wintory worked closely with the sound designer, Steve Johnson, in order to link the dynamic score closely to in-game events.\footnote{See nofi, ‘Interview: Composer Austin Wintory On Journey,’ on thesixthaxis.com (15/03/2012), retrieved from <http://www.thesixthaxis.com/2012/03/15/interview-journey-composer-austin-wintory/>, accessed 25/04/2013.} The score is predominantly (but not exclusively) orchestral, and Wintory aimed to purge any specific cultural references in order to ensure the language remained ‘as universal and
culture-less as possible. Inevitably there are fragments but by and large, I just wanted to make something that felt right, without needing to justify any choices based on references to cultures, etc."37 Such claims to universality, and even the possibility of being cultureless, are highly suspect, especially keeping in mind the issues raised in the discussion of Brazil in the previous chapter. However, in its attempt to remove the tropes of individuality, Journey unlocks for many players a deeper layer of personal aesthetic experience—shared, but not disrupted by others. I argue that this also assuages Adorno’s fear of ‘pseudo-individualization’, demonstrating that videogames can occupy the space of mass culture without necessarily adopting the negative traits assigned to them by his Culture Industry. Indeed, the polarization of mass culture and high art categories is once again challenged.

Relatedly, thatgamecompany’s approach to gameplay and narrative has led some critics to question whether Journey ought to be classified as a game or some other interactive aesthetic experience. As Keith Stuart puts it, Journey has no ‘fail state’:

...although there is perceived peril, it seems impossible to actually “die” while playing. There is no time limit, so solving puzzles has no sense of tension. And although the presence of puzzles suggests challenge and therefore a game-like experience, these tasks are simple and toy-like.

Players cannot compete for resources or physically interact (the collision detection was apparently removed so that participants couldn’t knock each other off walkways). Although there is exploration, the experience ends inevitably with one conclusion—though of course, that conclusion can be interpreted differently by each player.38

Stuart argues that Journey should therefore be thought of as ‘interactive art’, rather than a game, as ‘Through its gorgeous emotionally resonant soundtrack, its looming symbolic landscapes, its exploration of interactivity and telepresence, it wants us to ask questions and experience feelings, without necessarily having to engage with game-like structures.’39 He concludes that it is:

37 Ibid.
39 Ibid.
art without all the baggage; it is art without a gallery, art without a critical elite telling you what it means or where it fits in to their esoteric pantheon.

All art is about communication – that’s the only definition that really works. And at the centre of *Journey*, is the conundrum – how do two players who find themselves in this landscape, with no traditional means to talk to each other, share the experience? And what is the game trying to tell us, anyway?\textsuperscript{40}

Though he adopts the tone of the ‘critical elite’, Stuart clearly does not consider himself a replacement for them, and does not regard the large and powerful media industry as a potentially more subtle influencer of canon than a gallery or museum. In any case, thatgamecompany now enjoy a reputation for developing aesthetic experiences as much as games (for instance, *fL0w* from 2007 and *Flower* from 2009).\textsuperscript{41}

*Journey* is arguably more teleologically focused than *Shadows*, without the cyclical stages to temper the linear form. Of course, the interactivity and duration of the game involve various optional non-linear deviations, but the fact that the game is about life and mortality supports this interpretation. Indeed, the game’s aesthetic experience of a powerfully teleological temporal form supports the themes it explores as an additional metaphorical layer. Although there is no ‘fail state’, there is an ending. This perhaps differs from Hegelian teleology which has as its *raison d’être* continual development. As in the music of Bach and Mozart, although the temporal form of these videogames can be interpreted in various ways, one temporal mode is evidently predominant. The same cannot be said for the categorization of *Journey* as a game, aesthetic experience, interactive artwork, or a function of mass entertainment—it is all of these things.

\textsuperscript{40} Ibid.

\textsuperscript{41} Thatgamecompany are developing a new game but taking their time over what they promise will be a ‘game-changer’ for the industry. See <http://uk.ign.com/articles/2013/04/09/new-thatgamecompany-project-is-years-off>, accessed 25/04/2013. These ‘aesthetic experiences’ are often talked about in terms of the most fertile sector of videogames as art. See Tavinor, *The Art of Videogames*, p. 196.
Postmodern “People’s Time”

To supplement Berger’s narrative, I searched for a third image to explicate an analogous shift from Modernity to Postmodernity and found David Hockney’s “joiner”, *Pearblossom Highway No.2* (1986, see Figure 3.3). This collage is made up of over 700 photographs, taken over several days. The subject matter is a famously dangerous Californian highway, route 138, seen from the perspectives of both the driver and passenger. A sense of momentum and urgency is created by the fleeting fragments and the persistent warnings to ‘Stop’. Scale and angle are misaligned in the final montage as if snapshots of many localized objects were taken from one or other of the subject positions and then through their collaboration, internalized and reassembled ‘in the mind’s eye’. The resultant image blurs the boundaries between multiple subject positions and supports the ambiguous play with time.

![Figure 3.3: David Hockney: *Pearblossom Highway*, 11th to 18th April 1986 No.2, photographic collage, 77x112 1/2 in.](image)

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42 In Panography, a joiner is the common term for the whole picture that comprises multiple images, usually photographs.
Postmodernism is highly sceptical of teleological attitudes, alongside all grand narratives, not least because they are considered reductive and exclusionary. Indeed, even though Lyotard was one of the first and most influential exponents of the very term “postmodernism”, he later became suspicious of its usage. As Peter Sedgwick has explained, holding onto the ‘post’ in postmodernism reaffirms the very modernist tendencies it supposedly subverts by continuing to rely on pre-/post- binarisms and meta-narratives. Even philosophy itself, Lyotard noted, is open-ended, not teleological, since ‘Philosophical discourse has as its rule to discover its rule: its a priori is what it has at stake.’

James Winders has argued that the aesthetic contexts of postmodern music, art and literature have provided ‘Einsteinian’ didactic examples for historians wed to ‘Newtonian’ chronological narrative. Music that has most often been accredited with the postmodernism label—and this task is clearly problematic—has been so recognized due to its multifarious nature and eclectic poly-stylish. Jonathan Kramer, involved in this debate from the outset of New Musicology in the 1980s, rejects the view that postmodern music is a ‘nostalgic return to a past consisting of recognizable tunes, regular rhythms, tonality, and the like. In such a view, the postmodern turn expresses a conservative desire to recapture a lost sense of unity.’ Instead, Kramer argues that postmodernists ‘reconfigure’ the past with ‘unity as an option’. (How this

sits with the fragmentation common in modernist literature, such as T. S. Eliot and James Joyce, is part of Postmodernism’s simultaneous rejection of and engagement with Modernism.) This preference for disunity is combined with other common traits: ‘a tendency simultaneously to break with and to extend the logic of modernism, irony, the rejection of the distinction between “high” and “low” art, quotation[...], fragmentation, plurality, multiple meanings, [and] an emphasis on the role of the listener in the construction of musical meaning.’\(^5\) (The rejection of high and low has particular relevance to this thesis, and is addressed again in the conclusion.)

Kramer’s full list from 2002 suggests that postmodern music:

1. is not simply a repudiation of modernism or its continuation, but has aspects of both a break and an extension;
2. is, on some level and in some way, ironic;
3. does not respect boundaries between sonorities and procedures of the past and of the present;
4. challenges barriers between “high” and “low” styles;
5. shows disdain for the often unquestioned value of structural unity;
6. questions the mutual exclusivity of elitist and populist values;
7. avoids totalizing forms (e.g., does not want entire pieces to be tonal or serial or cast in a prescribed formal mold [sic]);
8. considers music not as autonomous but as relevant to cultural, social, and political contexts;
9. includes quotations of or references to music of many traditions and cultures;
10. considers technology not only as a way to preserve and transmit music but also as deeply implicated in the production and essence of music;
11. embraces contradictions;
12. distrusts binary oppositions;
13. includes fragmentations and discontinuities;
14. encompasses pluralism and eclecticism;
15. presents multiple meanings and multiple temporalities;
16. locates meaning and even structure in listeners, more than in scores, performances, or composers.\(^5\)

For Kramer (following Umberto Eco, and Lyotard himself), these sixteen facets together make up an attitude rather than a rigid stylistic definition or historical period, and as a result, it is possible to talk of postmodern temporalities in Beethoven, Mahler and Ives (his chosen examples).

Sedgwick understandably complains about the ‘list-making’ of those authors (Kramer included)

\(^{50}\) Sedgwick, 131.

attempting to offer definitions of this elusive category, as their lists inevitably allow for music to be uncritically labelled anachronistically and incorrectly. However, this very issue is a result of postmodern thinking, so that a definition can only ever consist of a ‘family of resemblances’, in Wittgenstein’s parlance. Kramer himself adds an important caveat to this, explaining that it is not a ‘checklist’ by which one can simply identify postmodern music—it ‘is not a category with neat boundaries.’ The evidence presented above suggests that it is viable to conceive of new temporalities that have arisen out of a postmodern paradigm shift. (Again, this very statement eschews the postmodern aversion to meta-narrative, but it remains useful with the proviso that it is not intended as a single, objective, “master” history.)

Postmodern Temporalities in Videogames

*The Witcher 2* and *Bioshock Infinite* are both non-linear narrative games that each pose a different set of problems. Such non-linear games are becoming increasingly popular; companies like Quantum Dream have made a name for themselves as interactive story-tellers with games such as *Heavy Rain* (Sony Computer Entertainment, 2010), a non-linear thriller billed as an interactive film noir, and their more recent *Beyond: Two Souls* (2013), starring Ellen Page and Willem Dafoe. The *Max Payne* trilogy is another example of film-noir inspired games that attempt to present a filmic linearized narrative based on non-linear player decisions. Many recent RPGs also have similar aspirations, for instance, the *Dragon Age* and *Fable* series.

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52 Kramer, Sedgwick, 131.
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3. Postmodern Temporalities The Aesthetics of Videogame Music

Mark Sweeney

The Witcher series of games is an exemplary case of artistic aspirations apparently superseding commercial concerns. As with Shadows and Journey, I will evaluate the series as an attempt to ‘artify’ the medium by developing the complexity and seriousness of narrative content, especially with regard to players making meaningful (by which game developers tend to mean consequential) and morally equivocal decisions. The economic argument for this approach simply relies on the belief that the players will recognise and value higher-quality “products” (perhaps as art) and, in turn, will be willing to pay more for them. More specifically, I will consider what role the music has and how the game’s structure can be thought of in terms of a postmodern conception of non-linear temporality. These ideas are taken further in Bioshock Infinite, which overtly plays with issues of temporality with its postmodern narrative, often in ways foregrounded by the music. The game offers ostensibly meaningful choices that ultimately turn out to be largely insignificant. Indeed, although the narrative seems to resolve in a satisfactory way, the cliffhanger in the epilogue reminds the player that all their efforts were arguably wasted.

Choice in The Witcher 2: Assassins of Kings

In May 2011, the Polish Prime Minister Donald Tusk welcomed United States President Barack Obama on his state visit to Poland with an iPad preloaded with a collection of notable Polish films, including Tomasz Bagiński’s 2002 animated short, Katedra, several signed English-language translations of Andrzej Sapkowski’s novels, and CD Projekt’s The Witcher 2: Assassins of Kings, a videogame based on a series of books by the same author. This could be taken as an indication

55 Tim Summers has talked about ‘artifying’ rather than ‘high-artifying’ videogame studies. ‘Wagner, Kant and a Metaphysical Rubber Chicken: Perception and Interaction in Adventure Games,’ at Ludomusicology Conference 2013 (Conference Paper, University of Liverpool, 11–12 April 2013).

that the videogame has come of age, and is now treated on a similar footing to any other cultural artefact. The Witcher franchise is the highest-profile international game franchise produced in Poland, having sold over 6 million copies to date, and being based on fantasy lore steeped in Slavic mythology by Poland’s ‘answer to Tolkien’, it is perhaps no surprise that the Premier was proud to present it.\footnote{See Robert Purchese, ‘CD Projekt Red announces 6 million The Witcher sales,’ on eurogamer.net (25/10/2013), retrieved from <http://www.eurogamer.net/articles/2013-10-25-cd-projekt-red-announces-6-million-the-witcher-sales>, accessed 03/08/2014.}

The games are third-person perspective (predominantly employing an over-the-shoulder camera) single-player RPGs, the first released in 2007 and the third due for release in February 2015. Focus here will be on the second game, Assassins of Kings. In order to immerse new players in the game world, complex background story and extensive lore, CD Projekt released a Retail Premium Edition as the standard edition of the game, including a DVD of bonus materials, the soundtrack, a paper world map, a game guide and manual, a pamphlet and brass coin, and two unique Origami figures.\footnote{The ‘Enhanced Edition’, provided for free in April 2012, substantially adds to this both in terms of volume of content and through the patching of various problems and adding miscellaneous improvements.} This provides tangible physical artefacts that were intended to help make the overall experience more immersive and involving. The physical map, for instance, is completely unnecessary as an in-game tool already exists, but it helps to encourage players to care about otherwise unfamiliar and meaningless fictional locations.

The primary selling point of the game highlights some of the developer’s key goals:

Complex, expansive adventure in which every decision may have grave consequences. An intense, emotionally charged, nonlinear story for mature players, offering over 40 hours of gameplay, 4 different beginnings and 16 different endings. Make choices that really matter. Your decisions impact [sic] relations with other characters and entire communities, and may also influence the political situation in the Northern Kingdoms.

The apparent freedom of choice is limited with the game’s framework—you play a particular character, who has his own background, and you are immediately ‘plunged into the deep end’ as the story continues where the first game left off, with many relationships already developed.

Interestingly, for those players who completed the first instalment and wish to continue their
own brand of the saga, it is possible to load their final saved game file from *The Witcher* into *The Witcher 2* and start where they left off. This means that any decisions and events that took place in a particular way during the first game will be properly reflected in the second—for instance, if a particular character was killed, or if the player/protagonist developed a close relationship with another particular character. Alternatively, the game can run standalone, with a default set of narrative options built in. What is evident in the sequel, is that even more so than the first game, the key decisions are not highlighted to the player as they are in many other games of this kind. The player is not presented with overtly good/evil binary decisions that will clearly impact upon the narrative and their positioning on the game’s moral compass. (Neither of these games actually represents this sort of information directly, although many RPGs do, such as the Light-/Dark-side spectrum in the *Star Wars: Knights of the Old Republic* games—see Figure 3.4 below.) Instead, the player often inadvertently initiates a particular series of events, and is occasionally forced into making tough decisions based on limited information and lack of knowledge about their consequences.\(^{59}\) The Enhanced Edition of the game helps to clarify these moments, but only in retrospect by summarizing the key points of the saga at the end of each chapter.

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\(^{59}\) In some games like *Heavy Rain* (Quantum Dream/Sony Computer Entertainment) and *Star Wars: The Old Republic* (Bioware/EA and LucasArts), the player must make their decision within a time limit before a default/other option is declared. This mechanism is generally implemented to ensure that the player cannot look up the consequences online or suspend the dramatic action of the scene to think through their choices unrealistically. Of course, not all choices need be limited in this way.
The game presents the Northern Kingdoms in turmoil, following on just months after the first instalment, but unlike its predecessor, it is narrated by the protagonist’s friend, the bard, Dandelion. The protagonist, Geralt of Rivia is an amnesiac “witcher”—essentially a superhuman mutant monster-slayer.60 Race is a core theme to the narrative. On the whole, race in this context refers to the various civilized humanoids—humans, elves, dwarves, gnomes and halflings.61 Other sentient creatures exist but are considerably different either physically, or perhaps in terms of their degree of consciousness or intelligence. They are generally categorized collectively, and negatively, as monsters. As witches are sterile mutants, they are treated uniquely and occupy a space between humans and other civilized races. Furthermore, the lore in both the game and the books suggests that witches generally adopt a politically neutral path, preferring to opt out of the various social struggles around them in order to focus on what they do best—slaying monsters. It is clear from this that when talking about racial issues in the game, one is talking as much about differing species. Nevertheless, the conflicts in the narrative between the Scoia’tael faction (freedom fighters or terrorists?) and the humans, and the tensions Geralt encounters all across the Northern Kingdoms due to partition policies (non-human ghettos) are treated by the characters as an issue akin to racial issues in the real world. This problematizes the idea of race even further, and is made all the more apparent when Geralt engages with Trolls, for instance, whose categorization as sentient monsters is clearly problematic due to their peaceful collaboration with other humanoid races. These details are representative of the developers’ conscious effort to elevate the thematic content of the game beyond stereotypical expectations of the medium.

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60 Geralt is known also as Gwynbleidd, Elder Speech meaning ‘The White Wolf’, a name given to him by the dryads.
61 The Witcher Wiki adds ‘Of these, humans and elves are capable of interbreeding, thus producing half-elves. Dryads are also a humanoid, but less civilized race,’ retrieved from <http://witcher.wikia.com/wiki/Race>, accessed 23/05/2012.
3. Postmodern Temporalities  The Aesthetics of Videogame Music  Mark Sweeney

Geralt’s journal does not provide a single narrative, but functions rather more as a folder, providing key functionality in tracking and organizing the many quests, characters, locations, and other sorts of information Geralt needs to retain. However, the entries are written in Dandelion’s hand (despite the fact that he is often elsewhere), and they are always kept up to date, though it is written retrospectively. As such, it consistently reflects the player’s decisions exactly as if that was the saga, and it could not have been any other way. Nevertheless, the difference of voice is an important element to the narrative, not only in preserving Geralt’s stoic and un-heroic persona, but also in adding some distance between the telling of the events and the player’s motivations for any one decision.

The quest ‘With Flickering Heart’ presents the player with an innocuous choice that is closely related to music. While Geralt is conducting an investigation, the player is given control of Dandelion who must lure a succubus by selecting lines from a particular ballad. Naturally, Dandelion commences his journal entry with the prideful line ‘And now let me tell you how I solved a crime in Vergen with a bit of help from Geralt…’ He later continues:

The book the witcher found had been stolen from me some time before. Needless to say, I was glad to recover it. This clue suggested that the succubus was an avid fan of poetry. Thus, I had no choice but to return to the village to lure the beast out with some moving lyrics. As many an epic romance states, and as Geralt reassured me, succubi are nocturnal creatures, so the witcher and I agreed to meet at midnight.

If Dandelion does not select the correct lyrics, and the quest fails:

I tried to charm the succubus with sonnets to no avail, throwing my verses to the wind. The she-beast would not emerge from her den. Certain that no one could have done better in my place, I could but throw my arms up in helplessness. Thus, my career as a detective came to a premature and disappointing end.62

If Geralt decides to talk to Ele’yas after meeting the succubus:

The succubus literally ate out of my hand – such was the power of my poetry. With my aid, the witcher could speak with the demon. According to the beast, the murderer was the elf Ele’yas, a jealous lover, for you must know that the succubus had many lovers, all the murder victims among them. Geralt listened to her testimony and went to speak to the elf.

Obviously Ele’yas protested his innocence. And, to be honest, Geralt and I had no evidence to prove either his or the succubus’ guilt beyond a reasonable doubt. The word of a monster against the word of a bandit – the decision was hard indeed.

Musically the song is unsophisticated—Dandelion speaks the lyrics rhythmically over a series of familiar chords as if reciting a poem. The player gets a time-limited choice of three lines for each of the three verses, and gets more than one chance should they select an inappropriate line. The correct lines can be found in Dandelion’s poetry sketchbook:

If our bodies could a song compose... (second dialogue option)

My heart would inquire of your hands pale and fine... If they’d grasp it gently, to hold like a rose... (first dialogue option)

Or treat it as a morsel upon which to dine? (second dialogue option)

Much of the folk music heard in the game is structurally straightforward, but in this specific narrative context, the gameplay requirements have apparently led the developers to simplify the musical potential of the quest to such a degree that there is little of musical interest left. This is noteworthy, however, as it demonstrates a potential conflict between artistic potential and commercial resources or concerns about accessibility.

Figure 3.5: ‘A Tavern on the Riverbank’ (Tavern Piana 1)

The extensive use of folk music in the first *Witcher* game is reduced somewhat in *The Witcher 2* but nevertheless continues to provide an important source of immersion. Diegetic folk music in particular adds a certain depth to the social interactions in the game, as well as an additional source for more obscure references to the lore. The music transcribed in Figures 3.5–7 is representative of the folk music in the game (Figure 3.5 is from *The Witcher 2*, but Figures 3.6 and 3.7 are from *The Witcher*). The melodic profile of these instrumental pieces helps to create a coherent and consistent soundworld for the game, with a reliance on modal harmonies common to real-world folk music. (These issues will be picked up on in the following chapter.)
These short pieces have a timeless quality that is particularly fitting considering the context in which they are heard—not during moments of drama or combat. They serve to create a sense of calm rural landscape that, like an aria in an opera, temporarily steps outside of the teleological machinations of the plot. Dandelion’s song juxtaposes this musical style with the tension created by the goal-orientated quest—should the player fail to find the correct combination of lines (or if they had not checked in his book), they run the risk of failing to lure their target, bringing the quest to an abrupt close. However, gameplay and narrative take clear precedence over the music, which is treated as “flavour” rather than an essential component of the storytelling.

Figure 3.7: ‘Trade Quarter—Peaceful Moments’

‘With Flickering Heart’ represents the most common type of decision the player is required to make. It is consequential only insofar as the small secondary quest provides entertainment and a small amount of experience points. Such quests are useful for the player but
are not all required to proceed through the main questline. The song, or rather, recitative, is only heard if the player chooses to take up this particular quest, and subsequently does not reflect a significant compositional investment. However, the transcriptions in Figures 3.5–7 do represent a notable proportion of the musical material in the game. Although there is greater musical variety in the folk songs from the first game, in both games the majority of the folk music is broadly in keeping with, if not directly motivically connected to the rest of the thematic material. The folk music provides relief in the form of static temporal experiences that punctuate more intense periods of gameplay. As the player determines which secondary quests to follow, and the pacing between explorative role-playing gameplay, and action that develops their character or moves the main plot forward, they are determining the aesthetic form of the game through play.

Certain quests are pivotal to the narrative structure. Table 3.1 lists all the quests in the game alphabetically with those that entail important decisions marked in bold.64 The list provides a sense of the scale and macro-form of the game.

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64 Table 3.1 is derived from <http://witcher.wikia.com/wiki/The_Witcher_2_quests>, accessed 01/05/2013.
### 3. Postmodern Temporalities

#### The Aesthetics of Videogame Music

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**Chapter I**

- At the Fore
- Barricade
- Blood of His Blood
- By the King's Will
- Melitele's Heart
- Returning Memories
- The Assassins of Kings
- The Dungeons of the La Valettes
- To the Temple!
- Trial by Fire
- Woe to the Vanquished

**Chapter II**

- A Sackful of Fluff (DLC)
- A Score to Settle
- Death Symbolized
- From a Bygone Era
- Hatred Symbolized
- The Eternal Battle

**Path: Roche**

- Against the Blue Stripes
- Ave Henselt!
- Bring it on: Kaedweni Camp
- Conspiracy Theory
- Courage Symbolized
- Faith Symbolized
- In Cervisia Veritas
- Little Sisters
- Lost Lambs
- Poker Face: Kaedweni Camp
- Prelude to War: Kaedwen
- The Blood Curse

**Path: Iorveth**

- A Matter of Life and Death
- Baltimore's Nightmare
- Brin it on: Vergen
- Hey, Work's on in the Mines!
- Hunting Magic
- One on One: Vergen
- Poker Face: Vergen
- Prelude to War: Aedirn
- Royal Blood
- Suspect: Thorak
- The Harpy Contract

**Chapter III**

- A Rough Landing
- A Sword for Monsters
- At a Crossroads: Sclaoítael
- At a Crossroads: Vernon Roche
- Bring it on: Flotsam
- By the Gods - Stringing Up Sods
- Death to the Traitor! (Side with Roche)
- Fight Club
- Hung Over
- In the Claws of Madness
- Indecent Proposal
- Little Shop of Dreams
- Malena
- Margot's Disappearance
- Mystic River
- One on One: Flotsam
- Poker Face: Flotsam
- The Ballista
- The Endrega Contract
- The Floating Prison (Side with Iorveth)
- The Kayran
- The Kayran: A Matter of Price
- The Kayran: Ostmurk
- The Nekker Contract
- The Rose of Remembrance
- The Scent of Incense
- Troll Trouble (DLC)
- Where is Triss Merigold?

**Path: Roche**

- The Butcher of Cidaris
- The Path to Vision
- The Rotfiend Contract
- The Spear of Destiny
- The Spellbreaker
- Pacta Sunt Servanda
- For a Higher Cause!

**Path: Iorveth**

- The Queen Harpy Contract
- The Walls Have Ears
- The War Council
- Vergen Besieged
- With Flickering Heart

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**Table 3.1: Quests in The Witcher 2**

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The narrative structure of the game can therefore be summarized as Table 3.2, in which the most important decisions in the game determine major paths. The number of significantly different endings is equal to the number of significant decisions squared ($4^2 = 16$, the third game will provide 32 separate endings):

<table>
<thead>
<tr>
<th>Prologue (La Valette Dungeon)</th>
<th>Chapter I (Flotsam)</th>
<th>Chapter II (Vergen/Aedirn)</th>
<th>Chapter III (Loc Muinne)</th>
<th>Epilogue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Determine fate of Aryan La Valette</strong></td>
<td><strong>Align with Iorveth and the Scoia’tael or Vernen Roche</strong></td>
<td><strong>Permit or prevent the lynching of Stennis</strong></td>
<td><strong>Influence King Henselt’s fate</strong></td>
<td><strong>Aid either Triss or Filippa</strong></td>
</tr>
<tr>
<td><strong>Path: Iorveth</strong></td>
<td><strong>Path: Roche</strong></td>
<td><strong>Path: Iorveth (Stennis)</strong></td>
<td><strong>Path: Roche (Henselt)</strong></td>
<td><strong>Aid either Triss or Anais</strong></td>
</tr>
<tr>
<td><strong>Permit or prevent the lynching of Stennis</strong></td>
<td><strong>Influence King Henselt’s fate</strong></td>
<td><strong>Aid either Triss or Filippa</strong></td>
<td><strong>Aid either Triss or Anais</strong></td>
<td><strong>Aid either Triss or Anais</strong></td>
</tr>
</tbody>
</table>

The consequences of these decisions can be expressed as a flow chart (Figure 3.8) that maps out the multiple pathways through to the end of the game (quests are colour-coded with the consequences in a paler shade):

![Figure 3.8: Decision Flow Chart](image-url)

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The details surrounding each of these decisions are considerably more complex than these Boolean diagrams portray. In the ‘Assassins of Kings’ quest in Chapter I, Geralt confronts Letho, the ‘Kingslayer’, and the player is required to make perhaps the most significant narrative choice in the game in helping either Iorveth or Roche. This decision has immediate consequences for the remainder of Geralt’s time in Flotsam (Chapter I), specifically, affecting the ‘Where is Triss Merigold?’ quest. However, it is not Geralt’s final answer on the matter and it is not until the player reaches the quest ‘At the Crossroads’ that they are forced either to confirm or revoke their initial intentions. Once Geralt makes this decision, the whole of chapter two is spent in an entirely different location, with different characters and a unique set of quests. The other area cannot be accessed unless the player starts the game again (or reloads a saved game prior to the pivotal decision).

The gap between choice and consequence was stretched in the first game in an attempt to deepen the player’s sense of determinism and morality. This helps to disguise the underlying simplicity of the game’s Boolean narrative tree structure, giving an impression of free choice and self-determination. As one reviewer pointed out, in most games of this type, a quick save before choices are made permit the player to reload and replay their option if it does not work out the way they hoped.65 Due to the delayed and largely unforeseeable consequences, the developers attempted to emulate the “butterfly effect” and to deter players from cheating the game’s narrative mechanisms. The player is presented with the results and they often regret earlier decisions. However, it usually transpires that whichever decision the player makes, the possible outcomes can rarely be characterized in binary good/bad categories. More often than not, they occupy a not great/slightly worse territory, or otherwise both have unforeseen negative consequences to temper any sense of achievement. Another key tactic employed by the

developers is to have far-reaching consequences disguised by seemingly innocuous choices. (Some decisions are time-limited to force the player’s hand and prevent them from over-thinking or cheating by looking up the consequences online.) In this way, the developers attempted to ‘artify’ the game at the expense of making a large amount of material redundant, as is evident in the number of quests that are bypassed by the branching narrative in Table 3.1.

In terms of musical resources, the game engine (RED Engine) makes use of perhaps the most popular audio middleware on the market—Firelight Technologies’ FMOD, the main alternatives being Audio Kinetic’s Wwise, Microsoft’s DirectSound or Creative Labs’ OpenAL. FMOD is a software audio engine that enables the creation and playback of interactive audio. In The Witcher 2 it is predominantly employed as a soundbank and system of simple audio cues, and on inspection of the game files with FMOD Designer and RedKit—the freely available downloadable modding tool provided by the developers—it seems little use was made of FMOD’s dynamic music features. The most obvious result of the use of dynamic music in the game occurs when Geralt is travelling or exploring and a musical battle cue fades in indicating the presence of a nearby foe, whether or not the player has seen them. The result is disruptive—as one player put it, ‘dynamic music [should] approximate your mental state, but [not] dictate it.’

With over 40 hours of gameplay advertised, it is unsurprising but interesting to note that the composers produced approximately three hours of music. The narrative structure of the game (outlined in Tables 3.1 and 3.2, and Figure 3.8) is to an extent indicative of the macro-musical form. The musical tracks extracted from the game (as opposed to those on the extended soundtrack) give a good indication as to the sorts of categories that are most voluminous. The categories listed in Appendix C are mine, based on the track titles, and can be summarized by the

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following table and graph, which total up the durations of each category and present them as a percentage of the total duration of the music:

<table>
<thead>
<tr>
<th>Category</th>
<th>% duration (rounded)</th>
<th>No. Tracks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>25%</td>
<td>30</td>
</tr>
<tr>
<td>Battle</td>
<td>24%</td>
<td>29</td>
</tr>
<tr>
<td>Area</td>
<td>15%</td>
<td>9</td>
</tr>
<tr>
<td>Specific</td>
<td>14%</td>
<td>21</td>
</tr>
<tr>
<td>Piana</td>
<td>11%</td>
<td>5</td>
</tr>
<tr>
<td>Ambient</td>
<td>8%</td>
<td>2</td>
</tr>
<tr>
<td>Debate</td>
<td>2%</td>
<td>3</td>
</tr>
<tr>
<td>Jingle</td>
<td>1%</td>
<td>6</td>
</tr>
<tr>
<td>Minigames</td>
<td>1%</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>107</td>
</tr>
</tbody>
</table>

Table 3.3: Categories as Percentage of Total Duration

Many of the tracks do not obviously belong to one category or another but, nevertheless, certain trends can be deduced. (Many of the track categories that have been marked as ‘Other’ may well belong to the ‘Specific’ category, and there may be crossover between the various categories.) The key point is that there is a great deal of specific music (at least 14 percent of the total duration)—that is, music that has been composed for specific moments in the narrative—much of which may not be heard on a single play-through of the game. One might have expected that musical tracks would be re-used across the various endings and decision points. The results are surprising, economically speaking, but given the developers’ stated aims, it is in keeping with their intention to create a film-like musical score for a non-linear narrative videogame. (Figure 3.10 is a reduction of the filmscore-like main theme, which employs similar topical reference to the main theme from *Crysis.*) Much of the music is made necessarily redundant when the player makes choices and takes specific narrative (and geographical) paths.
The music reflects a postmodern approach to narrative in that its non-linear structure is contingent on the non-linear narrative and the player’s own decisions. However, the music to the game plays a more significant role than a simple mirror. Obviously, the game is not ‘through-composed’, and non-diegetic underscoring is not always required or desirable. There are plenty of opportunities for diegetic folk music in the game. Sonically, the game employs two core sound-worlds—that of the epic orchestra, and “other” ethnic and folk elements including “folk metal”. In both games, Geralt gradually overcomes his amnesia through a series of stylized flashback sequences. These are markedly different visually, and the camera pans over a semi-animated image stylized as a graphic novel. They are differentiated sonically too, with the folk metal music occurring only in these pre-rendered cutscenes. These short narrative constructs punctuate the

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67 The developers have in fact produced a series of five graphic novels over the years to accompany the series. See, for example, Michal Galek, Arkadiusz Klimek, and Łukasz Poller, *The Witcher: Reasons of State* (Komiksowe Hity, 2011). Prior to this, a six-issue graphic novel series of *The Witcher* was written by Maciej Parowski and illustrated by Bogusław Polc in the mid-1990s.
five main ‘acts’ of the game (including the Introduction and Epilogue) and occur regardless of the player’s choices. This structural punctuation, alongside the lack of suturing between different states of dynamic music, is somewhat reminiscent of the ways in which Wagner’s music in The Ring cycle reflects the so-called ‘interlace structure’ of its narrative sources: ‘In place of the classical Aristotelian unity of time, place, and action, the interlace design sets up a literary form based on sudden disjunctions, mysterious failures of explanation, and multiplicities of motive.’

In a similar way to the music in The Ring, structural points are clearly highlighted with aesthetic disjoints, and the entirety of the non-linear narrative structure encourages polysemy and multiple perspectives. These ideas will be returned to in the following chapter. While The Witcher games aim to complicate their approach to narrative by experimenting with non-linear branching techniques (and, obviously, the usual layers of interaction afforded by the medium), there are other, very different ways in which videogames can reflect postmodern temporalities.

**Postmodern Temporalities in Bioshock Infinite**

*Bioshock Infinite* is set in the dystopian floating city of Columbia (the female personification of the United States of America) and, like its prequels, *Bioshock* (2007) and *Bioshock 2* (2010), it was inspired by American exceptionalism and Ayn Rand’s objectivist philosophy. The game is rich with allusions to real-world history, political ideologies and religious ideas. (Figure 3.11 shows one of the many propaganda posters from Columbia in which the character, Songbird, can be

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seen as an allusion to the Holy Ghost in Christian iconography. However, the key idea explored by the game is that of the “multiverse”—an infinite number of possible universes in which every possible combination of choice and chance event takes place.

The player takes on the role of Booker DeWitt, whose unscrupulous actions as a soldier in the US Army 7th Cavalry Regiment at the Battle of Wounded Knee (the 1890 massacre of American Indians) lead him to look for absolution by way of a baptismal rebirth. However, in the end, Booker rejects the baptism, and after his wife dies in childbirth, he descends into alcoholism and gambling. After being sacked from the Pinkertons for his extreme methods in breaking up union strikes, he turns private investigator but soon builds up insurmountable debts. A stranger (Robert Lutece) brokers a deal between him and Father Zachary Comstock in which Booker gives up his daughter, Anna, in exchange for Comstock clearing his debts. Booker eventually agrees but then immediately regrets his decision and pursues them to a strange portal in an alleyway. In trying to wrestle Anna from Comstock’s grasp as the portal closes, the tip of Anna’s finger is the only thing Booker manages to keep on his side. He later brands his right hand with her initials, ‘AD’ (letters that appear on warning posters around Columbia).

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73 This is likely a reference to the film, *The Last Samurai* (2003).
74 Flashbacks to Booker’s office prior to arriving in Columbia show the mirror lettering on his door: ‘Investigations into Matters both Public & Private’.
Twenty years later, Robert Lutece returns and offers Booker a chance to bring Anna back from Columbia. Booker agrees and enters a ‘Tear’ in the fabric of space-time but doing so confuses his memories of his mission with Comstock’s offer, remembering only the instruction ‘Bring us the girl, and wipe away the debt’, a phrase now with a double meaning. The game starts with Robert and Rosalind Lutece dropping Booker off at a lighthouse off the Coast of Maine, at the top of which a chair transports him up through the clouds to Columbia’s Welcome Centre. (The Luteces provide existential comic relief in the style of Rosencrantz and Guildenstern, specifically referencing Tom Stoppard’s coin-flipping scene from Rosencrantz and Guildenstern Are Dead.) In order to enter the city, Booker is forcibly baptized before reaching the Columbia annual raffle and fair. Father Comstock, also known as The Prophet, turns out to be a religious zealot who rules the city. Comstock is holding his daughter Elizabeth (this is Anna, whose name is all but forgotten by Booker, and meaningless to the player) captive in a tower, and attempting to siphon her valuable ability to create Tears. Elizabeth is guarded by Songbird, a huge flying

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75 Tears are essentially portals between different universes or worlds—a common feature of fictional fantasy literature such as Philip Pullman’s His Dark Materials book series.
76 See also Kevin James Wong, ‘Bioshock Infinite is a Metacommentary on the Nature of Video Game Storytelling,’ on kevinjameswong.com (08/04/2013), retrieved from <http://kevinjameswong.com/2013/04/08/bioshock-infinite-is-a-metacommentary-on-the-nature-of-video-game-storytelling/>, accessed 29/04/2013.
78 There are clues in the game that this is in fact Booker’s 123rd attempt to rescue Elizabeth.
mechanical creature. (In posters and public announcement tannoys around the city, Elizabeth is referred to as the Lamb, and Booker, the False Shepherd.)

Elizabeth’s desire to escape to Paris—her imprisonment is a key theme—is referenced through a Tear that shows *Revenge of the Jedi* on at the cinema. Elizabeth’s Tears can sometimes be traversed and, in normal gameplay, the player can even instruct her to open Tear anomalies to access additional health or ammunition, for example. After war breaks out in Columbia between The Founders, a faction of rich white supremacists led by Comstock, and the Vox Populi, a multi-racial and multi-nationality group of poor working class citizens, Elizabeth takes Booker through a Tear into another universe where he becomes a hero of the revolution (see Figure 3.14).
In an alternative timeline, Comstock has succeeded in his goal of brainwashing Elizabeth into a ‘purer’ (more monstrous) version of himself, and she therefore succeeds him. Elizabeth informs Booker that he can prevent this and gives him an encrypted clue that unlocks the ability to control Songbird. Back in what is assumedly the “original” universe, the player/Booker manages to rescue Elizabeth and together they decrypt her clue and, with Songbird’s help, they defeat Comstock. Elizabeth soon understands what is happening and tries to explain the multiverse to Booker by taking him through yet another Tear to Rapture, the submarine city from the original BioShock game. The player is given little time to ponder the parallels between the two worlds, as Booker is swiftly taken through a doorway to a sea of lighthouses that Elizabeth explains are the doorways to every possible universe. At this point, through a series of doorways and flashbacks, the narrative unfolds rapidly.

79 Rapture was also a dystopian state, created and ruled by Andrew Ryan based on his own personal philosophy. For a more detailed comparison, see Paul Tassi, ‘The One Twist in BioShock Infinite’s Ending You Might Have Missed Completely,’ on Forbes (March 2013), retrieved from <http://www.forbes.com/sites/insertcoin/2013/03/29/the-one-twist-in-bioshock-infinite-you-might-have-missed-completely/>, accessed 02/05/2013.
It is revealed that in one timeline, Booker chooses not to be baptized after the Battle of Wounded Knee and instead attempts to live with the atrocities he committed, becoming the character the player knows at the start of the game. (This timeline includes both the Booker who sold his daughter, and the one who led the Vox Populi to victory over Comstock.) However, in another universe, Booker accepts the baptism and, believing that he is now cleansed of his sins, he takes a new name—Zachary Hale Comstock. After building Columbia, Comstock realizes he has become sterile due to prolonged exposures to space-time Tears, and in order to secure his creation, he sends Lutece to another universe to fetch his own child, Anna DeWitt, (whom he renames Elizabeth). At the very end of the game, Booker is confronted by an assortment of Elizabths, all from different timelines. Instead of baptizing him this time, realizing the only solution, they drown him to prevent either the Comstock or the Booker sides of his character emerging. This causes them to vanish one by one, as each of their timelines no longer exists. Finally, following the game’s credits, there is a short epilogue cliff-hanger that Paul Tassi describes as the

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80 It also transpires that the Lutece’s are not twins, or husband and wife, but in fact the same person. In Comstock’s universe, Lutece is born as Rosalind, a physicist who helps Comstock to create his floating city using quantum mechanics. In DeWitt’s universe, it is Robert Lutece who collects Anna. The two become a team when Comstock’s siphon starts to open Tears between various universes, and when Comstock eventually kills them in his universe for knowing too much, they return to Booker and offer him the mission that starts the game.
‘Schrodinger’s Cat scenario’: DeWitt is back in his apartment in 1893 and calls out to Anna, but before he can see into her cot, the camera cuts to black.  

_BioShock Infinite_ could be described as a postmodern game for a number of reasons. The references to contemporary physics (quantum mechanics and the multiverse) notwithstanding, the game’s narrative directly questions the validity of a single narrative perspective. _BioShock Infinite_ can also be seen as a “meta-game” in that it provides a commentary on the nature of playing videogames. If the player dies before meeting Elizabeth, for instance, they appear in a black-and-white room like those of Booker’s flashbacks, and Booker says ‘What the... What just happened?’ before exiting his office back into the world where he died. (When Booker dies with Elizabeth as his companion, a similar scenario is used in which Elizabeth gives him an injection as if saving his life in a quiet corner.) Kevin James Wong has noted the distance between the emergent (player’s) and fixed (designer’s) narratives—what the Luteces refer to as ‘constants and variables’—while the game offers a degree of freedom and the actual experiences of various

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players will be different, all of these differences will conform to Elizabeth’s description of the lighthouses:

There are a million, million worlds. All different and all similar. Constants and variables. There’s always a lighthouse, there’s always a man, there’s always a city... Sometimes something’s different... yet... the same.  

Unlike The Witcher 2, the decisions BioShock Infinite presents players give the illusion that their choices will be significant, although there is no “number tracking” morality system in the game. One such example is the choice between the bird or cage brooch that Elizabeth asks Booker to select—a choice that seems meaningful but ultimately only changes what Elizabeth wears on her choker for the game’s duration. A more potent example is the time-limited decision to throw a ball at either the racist character Fink or the couple on stage (see Figure 3.18). The player has to make their decision quickly at three levels: they may weigh the potential consequences in terms of gameplay, they may consider what their version of Booker would most likely do (role-playing), or they may base the decision on their own personal response. Kevin Levine has reported that a staggering 100% of people who had played the demo of the game had chosen to risk exposing Booker’s identity in this dangerous situation rather than appear racist. Again, whichever decision the player makes, Booker is caught and identified by the police before he actually throws the ball.

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82 See Wong, ‘Bioshock Infinite is a Metacommentary on the Nature of Video Game Storytelling.’ The idea is similar to that explored by Borges in ‘The Library of Babel’, in which the infinite informational capacity renders the knowledge contained within useless.

83 See interview with Ken Levine: outsiderbox, ‘Bioshock Infinite - Ken Levine Interview and Gameplay - Ending, Racism and Quantum Mechanics,’ on YouTube (13/12/2012), retrieved from <http://www.youtube.com/watch?v=8EbsuHrC0c0>, accessed 02/05/2013.

Ben Popper argues that the significance in presenting the player with (the illusion of) choice is that it offers the player a chance to participate in the narrative in an active way. All the significant decision moments in the game are presented as a commentary on this fashionable

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85 See Ben Popper, ‘BioShock Infinite makes great art from America’s racist past and political present.’
narrative construct, but in *BioShock Infinite* they all turn out to be largely irrelevant. As Wong puts it,

> Players are led by prior experiences with similar games to think that these binary choices matter with respect to the game’s narrative, and by subverting these expectations by making these choices almost irrelevant to the game’s conclusion, Bioshock Infinite raises questions about whether or not truly meaningful choice can really exist within a designer-driven narrative.

Indeed, there are numerous moments throughout the game where the player is not afforded choices, but is forced to either accept the game’s narrative progress and continue, perhaps with something they do not like—such as taking the preacher’s hand and initiating the forced baptism scene—or to stop playing altogether. This creates a certain unease when the only “option” on the screen is so often, ‘Press F’. This self-reflectiveness creates a commentary not only on the games narrative themes, but also on the nature of the medium itself with its innate conflict between linear algorithm and non-linear choice. (*The Stanley Parable* [Davey Wreden, 2011] received critical acclaim for its self-conscious narrative in which the narrator toys with the player about the confines of the game’s rules.) Returning to the terminology of Chapter 2, the illusory choices presented by the game are a construct that allows the player to be Reader of the Text but, simultaneously, the player does not have autonomy in the fictional world:

In the game’s final sequence, Booker finds himself reliving the moment he sold his daughter to repay his debt. Booker tries to resist, and players, disgusted at this grim reality, will too. “You can wait as long as you want, eventually you’re going to give him what he wants. You don’t leave this room until you do.” says Elizabeth. At this point, the only option available to the player is to pick up the baby and hand it over to the man at the door, players cannot fight back or escape the room. Players will inevitably surrender the baby, since they cannot progress until they do. Both Booker, and the player, are rendered incapable of making any other decision by the very nature of Bioshock Infinite’s method of storytelling.

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87 See Wong, ‘BioShock Infinite is a Metacommentary on the Nature of Video Game Storytelling.’


Aside from surrendering the baby after waiting for an indefinite time, the only other option available to the player is to quit the game.

So is Booker an autonomous being, or is he controlled by an omniscient force called the Player? Perhaps the question being raised here is whether players are autonomous beings or simply actors controlled by the invisible hand of game design. The interactive nature of the medium would suggest that players are truly autonomous and capable of making rational decisions that influence the world of the game, but all this is an illusion. It is impossible for true, meaningful autonomy to exist in a single-player narrative game because the authored nature of fiction prohibits players from making choices outside of the ones that a game’s system allows.90

The multiverse aspect of the narrative also suggests that such choices are meaningless as a universe will exist in which the consequences of each permutation has been fully realized. (This line of thought also remains at the end of the game, bringing into question the usual paradoxes associated with narratives that explore the manipulation of ‘timelines’.)

The concept of “ludonarrative dissonance”—now an important component of videogame theory—was originally coined by Clint Hocking to describe the disconnection between BioShock’s gameplay and narrative.91 Hocking employed the term in a negative sense because he felt the game was mocking him by removing real freedom of choice (or rather, the developers were). He argued that the dissonance created a violation of aesthetic distance and thereby broke the immersion for the player. In their 2013 Freeplay Independent Games Festival presentation, Marigold Bartlett and Stephen Swift recognized a problem with the term:

The word “dissonance” comes from music theory. And as music theory tells us, dissonance is pregnant with resolve... So when an immersive sim, which has simulatory systems and a character narrative, has a dissonance between those things which is left unresolved, it implies an incompleteness... The idea of ludonarrative dissonance implies a utopian future where these things can resolve themselves.92

Noting that the terminology had been misused as an invitation for facile criticism of games that did not appear to ‘resolve’, they then went on to defend it:

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90 See Wong, ‘Bioshock Infinite is a Metacommentary on the Nature of Video Game Storytelling.’
For many people, truths are inarticulate. For many people, the world doesn’t work the way people tell them it does. For many people, dominant narratives our culture is fed are certainly dissonant with the systems they have agency within.

We don’t want to develop a critical language which subjugates truths that are incoherent, that are told on their own terms, and that are nonetheless very true.

... games [like BioShock] are destructive. Not because they refute what mainstream games do, but because they refute the very dichotomies we’ve constructed to judge mainstream games. Shallow concepts of aesthetics which portray ourselves as superior to others.

The musical metaphor is a useful and provocative one, but the dissonance may not require a resolution in the sense Hocking desired. In *BioShock Infinite*, the music, narrative and gameplay combine to form a dissonant “whole” that takes these issues further still.

Like the music to *BioShock* and *BioShock 2*, there is a juxtaposition between modernist string-dominant orchestral music and early twentieth-century piano and vocal popular music (often from diegetic sound sources).93 The preference for a small string ensemble for Elizabeth’s theme (a descending scale scored for three violins, violas and cellos) was emphasized early on.94 (Its use in both ‘The Girl in the Tower’ and especially ‘Elizabeth’ is reminiscent of the opening to Schoenberg’s *Verklärte Nacht*.) In all three games, the aim was to produce the music like a film score and largely avoid dynamic music. As a result, all the cues are put in ‘deliberately by hand’.95 However, in *BioShock Infinite*, the audio team experimented with combat dynamic music (such as ‘headshot sync stingers’).96 The synchronization of elements of gameplay with musical events is the most remarkable aspect of this system, as there is no larger scale mobile structure.

3. Postmodern Temporalities  The Aesthetics of Videogame Music  Mark Sweeney

The majority of the non-diegetic music consists of relatively sparse and short incidental cues, usually triggered on entry to a new location. The track ‘Lighter than air’, for instance, is heard only once in the game when leaving the Welcome Center through the doors and entering New Eden Square—the first real sighting of the floating city. The melody for solo violin (transcribed as Figure 3.19) evokes the openness of the famous cor anglais theme from the second movement of Dvorak’s ‘New World’ Symphony. However, it is overlaid with music in a different key and altogether different style, with string effects (solo violin harmonics with celesta and flutes) reminiscent of those in the final scene of Strauss’s Der Rosenkavalier. Joseph E. Jones references these orchestral effects as the ‘rose chords’ because they signify the silver rose central to the plot of that opera, but he also notes that they ‘transport the listener to a musically distant

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98 Omair Shariq has rescored the cue to see the effect that removing these ‘dissonances’ (as he describes them) has. He suggests that it might be what a player would hear in an ‘uncorrupted’ Columbia. See Omair Shariq, ‘Lighter Than Air - Gary Schyman - Bioshock Infinite OST (Without Dissonant Undertones),’ on YouTube (08/04/2013), retrieved from <http://www.youtube.com/watch?v=nvZmlkHxPTw>, accessed 22/05/2013.
realm where indeed, time seems to stand still. The combination of these sounds in the Strauss is not unlike the overlaying of harmonic worlds found in part three (‘The Housatonic at Stockbridge’) of Charles Ives’ *Three Places in New England: An Orchestral Set*.

*Der Rosenkavalier’s* idiomatic *fin de siècle* confusion of hope and melancholy is also evident in Scott Joplin’s *Solace*, an excerpt of which forms the basis for the loading screen music (see Figure 3.20). In the game, the track has been manipulated to sound like an old recording. The mood it encapsulates is heightened by the ‘very slow march time’ tempo marking, and the repetitive nature of this seemingly light-hearted merry-go-round piece almost mocks the player/protagonist for the futility of their efforts.

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Figure 3.20: Solace by Scott Joplin (excerpt)
Music also plays an important role in the game’s narrative, as Kevin Levine explains, ‘It’s very intentional... We don’t break the fourth wall a lot, we’re not commentating in that way. But music is an important aspect of what’s going on in that world.’ In other words, whilst strictly speaking the game does not ‘break the fourth wall’ by contravening the diegetic fiction and communicating directly to the player (aside from gameplay features such as the HUD, which in this game is relatively minimalist), it nevertheless provides a layer of “meta-fiction” as part of the narrative. Music is a crucial part of the story as well as the storytelling. The clue the elderly Elizabeth gives to Booker is an image of a birdcage, which she realizes is a musical code: the notes C-A-G-E played on a special musical device summons Songbird. Similarly, when Booker first arrives at the lighthouse at the very start of the game, in order to enter the room at the top and take the rocket up into Columbia, he must ring three bells in a sequence laid out for him on a card in a box of his possessions. Ringing the bells summons Columbia to the lighthouse, and Booker hears a loud musical response coming from the clouds as the light changes and the city draws near.

Figure 3.21: Albert Fink’s ‘Musical Melodies’

More significant than these examples is that the player often finds Tears throughout the city which are signalled by anachronistic popular music. When Booker and Elizabeth come across a Tear emitting the original 1969 Creedence Clearwater Revival song, ‘Fortunate Son’, Elizabeth remarks that she doubts anybody has heard the song before—ironic given its use in many films and videogames based on the Vietnam War. In the latter half of the game, the player comes across Albert Fink’s (the brother of Jeremiah Fink) ‘Magical Melodies’ music house (see Figure 3.21) in which there are clues that indicate that Fink was able to appropriate music from ‘the future’ through a Tear in his studio and rearrange it into 1912 pastiche. Elizabeth, it turns out, was wrong, as ‘Fortunate Son’ can later be heard reimagined as a negro spiritual sung by a member of the Vox Populi under a pair of gallows, although this seems an unlikely target audience for Fink, a member of the Founders’ establishment. Now rather than an anti-war song, it has become a reflection on the revolution and a commentary on the injustice and poverty suffered by the minorities. Similarly, the use of R.E.M.’s ‘Shiny Happy People’ in another part of the game (the Hall of Heroes) turns the original song’s sarcastic adoption of the titular phrase from a Chinese leaflet (published after the 1989 Tiananmen Square Massacre) back on its head as a fresh work of propaganda.

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102 Many players have commented on the usage of anachronistic music in the game as a ‘postmodern’ strategy. See, for instance, Sean Hamill, ‘The Postmodern Crisis of Bioshock Infinite,’ on shamillartnttech.blogspot.co.uk (April 2013), retrieved from <http://shamillartnttech.blogspot.co.uk/2013/04/the-postmodern-crisis-of-bioshock.html>, accessed 29/04/2013.

103 It was his success that led his brother to appropriate technologies such as Raptor’s Plasmids and Big Daddys which in Columbia are reinvented as Vigors and Handy men.

104 Arguably, R.E.M.’s intention also backfired, as the subtle sense of irony has been largely lost without the prerequisite knowledge.
Perhaps the most recognizable example early on in the game is the use of The Beach Boys’ ‘God Only Knows!’ reimagined as a turn-of-the-century Barbershop quartet.\textsuperscript{105} The song’s lyrics (which ask what the singer would do if they were to lose their lover) are obviously pertinent to Booker’s predicament. However, it is presented more as if praising Comstock, the Prophet, for his gift of Columbia. As another example, ‘Everybody Wants to Rule the World’ by Tears For Fears is heard as a simple song with piano accompaniment playing in Jeremiah Fink’s home. The lyrics promote action over indecision, accurately summarized by the Latin aphorism, \textit{carpe diem}.\textsuperscript{106} Like ‘God Only Knows’, the song is reflective of various themes and pertinent to the positions of several characters. (For instance, Jeremiah Fink’s attempts to hire Booker to keep control of his workforce and maintain his industrial monopoly.) The song also highlights one of the core themes

\begin{footnotesize}
\begin{footnotes}
\item \textsuperscript{105} Originally, in an early trailer for the game, instead of referencing Fink’s involvement, the barbershop quartet was advertised as ‘The Bee Sharps’, a reference to the ‘Be Sharps’ quartet from \textit{The Simpsons}.
\end{footnotes}
\end{footnotesize}
of the game in that both the Founders and the Vox Populi rebelled in order to create a ‘better world’ but in practice they both end up adopting equally ruthless methods.

All of these songs can be classified as diegetic in one sense or another, and even music such as August Wilhelmj’s ‘Air on the G String’ (an arrangement of Bach’s ‘Air’ from Suite No. 3 in D major, BWV 1068) is emitted from a locatable sound source—radios and phonographs are pervasive across the game. The following tables (3.4 and 3.5) list all the pre-existing and anachronistic music in the game respectively. Table 3.6 lists the original music composed for the game’s soundtrack, the bulk of the non-diegetic music to the game. Even here there is some crossover, in that the song ‘Will the Circle Be Unbroken’ is at one point performed by Elizabeth and Booker in the game but is also heard in various other non-diegetic renditions.

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107 Tables 3.4, 3.5, and 3.6 were derived from <http://bioshock.wikia.com/wiki/BioShock_Infinite_Soundtrack>, accessed 07/05/2013.
### 3. Postmodern Temporalities

The Aesthetics of Videogame Music

Mark Sweeney

<table>
<thead>
<tr>
<th>Title</th>
<th>Artist/Composer</th>
<th>Year</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Wild Prairie</em> [sic] <em>Rose</em></td>
<td>Ommie Wise</td>
<td>Original</td>
<td>The Fair, stage</td>
</tr>
<tr>
<td><em>Ain’t We Got Fun?</em></td>
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<td></td>
<td></td>
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<tr>
<td><em>It All Depends On You</em></td>
<td></td>
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<tr>
<td><em>[Ain’t She Sweet]</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>I’m Wild About That Thing</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Canon in D Major</em></td>
<td>Johann Pachelbel</td>
<td>1694</td>
<td>Comstock House, projector room</td>
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<tr>
<td><em>Air on the G String</em> (‘Air’ from Suite No. 3 in D major, BWV 1068)*</td>
<td>J.S. Bach</td>
<td>1723</td>
<td>Cult of John Wilkes Booth</td>
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<tr>
<td><em>Nocturne in E-flat major, Op. 9, No. 2</em></td>
<td>Frederick Chopin</td>
<td>1832</td>
<td>Finkton</td>
</tr>
<tr>
<td><em>Bridal Chorus</em></td>
<td>Richard Wagner</td>
<td>1850</td>
<td>Raffle Stage, First Prize #77</td>
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<tr>
<td><em>The Bonnie Blue Flag</em></td>
<td>Polk Miller Harry McCarthy (original)</td>
<td>1861</td>
<td>Outside the entrance to The Hall of Heroes</td>
</tr>
<tr>
<td><em>(Give Me That) Old-Time Religion</em></td>
<td>Polk Miller</td>
<td>1873</td>
<td>Lighthouse at the beginning</td>
</tr>
<tr>
<td><em>Will the Circle Be Unbroken</em></td>
<td>Courtnee Draper (vocals), Troy Baker (guitar), Ada R. Habershon (lyrics), Charles H. Gabriel (composer)</td>
<td>1907</td>
<td>VGA trailer</td>
</tr>
<tr>
<td><em>Shine On, Harvest Moon</em></td>
<td>Ada Jones and Bill Murray Nora Bayes, Jack Norworth (original)</td>
<td>1908</td>
<td>In The Fellow Travellers Bar</td>
</tr>
<tr>
<td><em>Watermelon Party</em></td>
<td>Polk Miller</td>
<td>1909</td>
<td></td>
</tr>
<tr>
<td><em>Solace</em></td>
<td>Scott Joplin</td>
<td>1909</td>
<td>Loading Screen</td>
</tr>
<tr>
<td><em>After You’ve Gone</em></td>
<td>Jessy Carolina Marion Harris (vocals), Henry Creamer (lyrics), Turner Layton (composer)</td>
<td>1918</td>
<td>Menu, Monument Island, Comstock House</td>
</tr>
<tr>
<td><em>(What Do We Do on a) Dew-Dewey Day</em></td>
<td>Charles Kayle &amp; His Orchestra Tin Pan Alley (original)</td>
<td>1927</td>
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<td><em>Me And My Shadow</em></td>
<td>Al Jolson, Billy Rose, and Dave Dreyer (original)</td>
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<tr>
<td><em>St. James Infirmary Blues</em></td>
<td>Duke Ellington</td>
<td>1928</td>
<td>Shantytown</td>
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<tr>
<td><em>Makin’ Whoopee</em></td>
<td>Eddie Cantor (original)</td>
<td>1929</td>
<td>In The Salty Oyster Bar</td>
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<tr>
<td><em>Button Up Your Overcoat</em></td>
<td>Helen Kane (vocals)</td>
<td>1929</td>
<td>Emporia Towers, abandoned bar</td>
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<tr>
<td><em>Goodnight, Irene</em></td>
<td>Jim Bonney (Producer), Bill Lobley (vocals) Lead Belly (original)</td>
<td>1932</td>
<td>The Raffle</td>
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<tr>
<td><em>Just a Closer Walk With Thee</em></td>
<td>Courtnee Draper (vocals), James Edwards (piano) Unknown, The Selah Jubilee Singers (original)</td>
<td>1941</td>
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</tr>
</tbody>
</table>

| Table 3.4: Pre-existing Music                   |                                                                             |        |                                               |

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The Aesthetics of Videogame Music

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<table>
<thead>
<tr>
<th>Title</th>
<th>Artist/Composer(s)</th>
<th>Additional performer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>La Mer (Beyond the Sea)</strong></td>
<td>Django Reinhardt</td>
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<tr>
<td><strong>Tainted Love</strong></td>
<td>Scott Bradlee (piano), Miche Braden (vocals) Ed Cobb, Gloria Jones (original)</td>
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<tr>
<td><strong>God Only Knows</strong></td>
<td>The Beach Boys (original) as sung by A Mighty Wind barbershop quartet</td>
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<td><strong>Shake Sugaree</strong></td>
<td>Elizabeth Cotten (guitar), Brenda Evans (vocals)</td>
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<tr>
<td><strong>Fortunate Son</strong></td>
<td>Creedence Clearwater Revival (original) Jessy Carolina (Vocals)</td>
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<td><strong>Girls Just Want to Have Fun</strong></td>
<td>Jim Bonney (calliope) Cyndi Lauper (original)</td>
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<tr>
<td><strong>Everybody Wants to Rule The World</strong></td>
<td>Scott Bradlee (vocals, piano) Tears for Fears (original)</td>
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<tr>
<td><strong>Shiny Happy People</strong></td>
<td>Tony Babino R.E.M. (original)</td>
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Table 3.5: Anachronistic Music

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<td>1</td>
<td>Introduction</td>
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<td>Performed by Oliver Vaquer, Jennifer Hale, Troy Baker</td>
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<tr>
<td>2</td>
<td>Welcome to Columbia</td>
<td>G. Schyman, J. Bonney</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Will The Circle Be Unbroken – choral version</td>
<td>A. Habershon, C. Gabriel</td>
<td>Arranged by Marc Lacuesta Maureen Murphy (vocal soloist)</td>
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<td>4</td>
<td>Lighter Than Air</td>
<td>G. Schyman</td>
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<td>5</td>
<td>Lutece</td>
<td>G. Schyman</td>
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<td>6</td>
<td>The Battle For Columbia I</td>
<td>G. Schyman, J. Bonney</td>
<td></td>
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<td>7</td>
<td>The Girl In The Tower</td>
<td>G. Schyman</td>
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<td>8</td>
<td>Elizabeth</td>
<td>G. Schyman</td>
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<td>9</td>
<td>The Songbird</td>
<td>G. Schyman</td>
<td></td>
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<tr>
<td>10</td>
<td>Rory O’More/Saddle The Pony</td>
<td>S. Lover</td>
<td>Rodney Miller (fiddle)</td>
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<td></td>
<td></td>
<td></td>
<td>Elvie Miller (piano, accordion)</td>
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<td></td>
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<td>David Porter (guitar)</td>
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<td>11</td>
<td>The Battle For Columbia II</td>
<td>G. Schyman</td>
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<td>12</td>
<td>The Readiness Is All</td>
<td>K. Levine, J. Bonney</td>
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<td>13</td>
<td>Lions Walk With Lions</td>
<td>G. Schyman</td>
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<td>14</td>
<td>Will The Circle Be Unbroken</td>
<td>A. Habershon, C. Gabriel</td>
<td>Courtnee Draper (vocal)</td>
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<td></td>
<td></td>
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<td>Troy Baker (guitar)</td>
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<td>15</td>
<td>Unintended Consequences</td>
<td>G. Schyman</td>
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<td>16</td>
<td>The Battle For Columbia III</td>
<td>G. Schyman</td>
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<td>17</td>
<td>Family Reunion</td>
<td>G. Schyman</td>
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<tr>
<td>18</td>
<td>Solace</td>
<td>S. Joplin</td>
<td>Duncan Watt (piano)</td>
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<td>19</td>
<td>The Battle For Columbia IV</td>
<td>G. Schyman</td>
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<tr>
<td>20</td>
<td>The Battle For Columbia V</td>
<td>G. Schyman</td>
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<td>21</td>
<td>Let Go</td>
<td>G. Schyman</td>
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<td>22</td>
<td>Doors</td>
<td>G. Schyman</td>
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Brittany Vincent says that Cyndi Lauper’s 1979 ‘Girls Just Wanna Have Fun’ is ‘a jubilant expression of womanhood and living on your own terms, and it’s an important (if cheesy) song celebrating feminism and choice.’  

The arrangement is heard as steam organ music at the Battleship Bay beach, Elizabeth’s first taste of freedom. The game’s pervasive drowning symbolism (Booker drowns Comstock with Elizabeth standing by, Elizabeth drowns the over-protective Songbird with Booker standing by, and finally, Elizabeth drowns Booker, with alternate versions of herself standing by) is here juxtaposed with Booker and Elizabeth’s dramatic arrival at Battleship Bay: after the player’s first encounter with Songbird (who destroys the tower which houses the main siphon), they fall into the sea where Songbird cannot endure the pressure for long. For once in the game, the water saves Booker and Elizabeth and they arrive on the beach in an area of safety, providing dramatic relief after the previous sequence.

The decision to include both pastiche arrangements as well as snippets of these original songs has an impact beyond that of storytelling. The Tears that emit futuristic sound-worlds do not simply provide an explanation for Fink’s success, they also realize multi-dimensional/temporal experiences. These Tears are not placed conveniently for side-by-side comparisons, but rather like Easter eggs, they are placed off the main pathways of the game (although they are not difficult to discover). Often, there is a considerable interval between hearing a pastiche and an

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109 Even Comstock’s prophetic propaganda employs similar terminology to describe Elizabeth’s destruction of New York: ‘The Seed of the Prophet shall sit the throne and drown in flame the Mountains of Man.’
excerpt of the original. The arrangements are carefully balanced between being appropriate for
the period (the music of Stephen Foster was one clear inspiration\(^{110}\)) and local context in the
game and reflecting the original music enough to be meaningful to an attentive player with the
prerequisite knowledge. Players have also discussed how their experience of hearing these songs
outside of the game is irrevocably infused with new references. This phenomenon is not exclusive
to videogame music, or film music for that matter, but *BioShock Infinite* plays on the issue and
offers an additional layer of richness.

The game also plays with the player outside of the game experience itself through the
inclusion of Easter eggs.\(^{111}\) One musical example of this “meta-temporal playing” is the discovery
that when an unusual ambient sound heard in certain areas around the game is recorded and
then sped up outside of the game, it turns out to be an excerpt from another song, hidden in a
‘temporal fold’.\(^{112}\) The somewhat obscured lyrics are approximately ‘In times far... they will catch
up to... us to relive.’ This is obviously the sort of detail that is deliberately crafted for a particular
type of audience, as it could not be discovered in the game. However, once one is aware of it, it
does have an impact on the game experience.

William Gibbons describes these popular songs as a functioning part of the game’s
aesthetic in that they evoke the time period of the setting (and in doing so, dichotomize the
optimistic American dream with the dystopian reality) and often act as ‘title-based musical puns’

\(^{110}\) See Leo, ‘Sound Byte: Meet the Composer - BioShock Series.’

\(^{111}\) There are also backmasked messages such as the reversed lines ‘... Give me my Romeo; and, when he
shall die, Take him and cut him out in little stars, And he will make the face of heaven so fine...’ from
Shakespeare’s *Romeo and Juliet*, heard when Booker gains the ‘Possession’ Vigor in ‘The Welcome Center’
[sic]. Other similar easter eggs are documented in GamesSeriesNetwork, ‘BioShock Infinite Easter Eggs and
Secrets,’ on YouTube (20/04/2013), retrieved from http://www.youtube.com/watch?v=ObNh8Zr6gsc>,
accessed 07/05/2013.

\(^{112}\) See cakechieveables, ‘BioShock Infinite - Music Hidden in Ambient Noise (Easter Egg),’ On YouTube
(5/04/2013), retrieved from http://www.youtube.com/watch?annotation_id=annotation_768866&feature=iv&src_vid=pK74rxBDd-
characteristic of silent-film cinema pianists. Andra Ivănescu has highlighted that the song ‘Will the Circle Be Unbroken’ is the game’s theme song in that it contains the core narrative beyond the superficial relevance of its lyrics:

Booker DeWitt and Zachary Hale Comstock are revealed to be different versions of the same person, brought together by Rosalind/Robert Lutece. He then chooses to save the world by sacrificing himself, thus ‘breaking the circle’ and preventing any versions of himself from continuing to live. The lyrics of the song are, as with ‘Beyond the Sea’ taken literally, at least to begin with. The salvation seems to lie in the sky; that is, in the city of Columbia. However, as is revealed at the end of the game, the original, metaphorical meaning seems in fact to be the appropriate one and salvation might lie not in the actual sky but in death and the heaven that Booker might reach after it.

Ivănescu does not note the reason Fink is named as the ‘composer’ for the anachronistic music but suggests that the music ‘operates like the Proustian madeleine, acting as a constant reminder to the player’, who notices anachronisms that their character cannot. In fact, the narrative goes deeper; Booker can become aware that the songs are taken from another time and place, and even remarks on their alien soundworlds. Nevertheless, Ivănescu quite reasonably links the breaking of the fourth wall with Kristin e Jorgensen’s argument that videogames characteristically or inherently blur diegetic/extradiegetic spaces. Through a comparison of BioShock Infinite to Plato’s Republic, Roger Travis reconciles the game’s “ludonarrative dissonance” as an invitation ‘to imagine a way to make ethical choices without presuming that those choices are freely made.’ In other words, the game challenges the player to contemplate their actions within and outside of the narrative. Ivănescu concludes that although the songs in BioShock Infinite do not...

115 Other papers on BioShock Infinite have also accepted the premise that the characters in the game are unaware of the source of the music. See, for example, Enoch Jacobs, ‘There’s Always a Lighthouse: Commentary and Foreshadowing in the Diegetic Music of BioShock: Infinite,’ at North American Conference on Video Game Music (Conference Paper, Youngstown State University, Youngstown, Ohio, 18/01/2014), retrieved from <http://thetheoretician.weebly.com/presentations.html>, accessed 11/08/2014.
fulfil specific ludic or narrative functions, they simultaneously enhance and subvert immersion. In this, they are crucial to the aesthetic make-up of the medium.

Conclusion

Throughout this chapter, I have been considering the relationship between the “art status” of videogames and the aesthetic prerequisites for a postmodern interpretation of their temporal structures. It is no coincidence that these games are also the most often cited as examples of videogames as art, at least by those players invested in gaming culture; one blogger even suggested that the form of BioShock Infinite is a ‘narrative fugue’ that places it on a par with ‘one of the rare “games” like Chess or Go, [or] one of the Masterworks like the 9th Symphony or the Ulysses, the Magic Flute, Guernica, the Sistine Chapel, Hamlet, Faust, 2001: A Space Odysee that are considered a cultural heritage of mankind [sic].’ Avoiding the tendency towards master narratives of other narrative-based forms, videogames such as The Witcher 2 exemplifies a “proof of principle” for non-linear narratives in the medium. Although in all videogames a tension

remains between the requirements of gameplay and a meaningful narrative (games such as the *Max Payne* series achieve an interesting compromise between action and an interactive film noir), games such as *BioShock Infinite* demonstrate a degree of self-reflectiveness that to an extent transcends such limitations. While *BioShock* does not attempt to achieve the non-linear narrative through a meaningful decision-consequence system, the ways in which it explores the limits of the medium through narrative and gameplay arguably provide a more interesting commentary. The music in *The Witcher 2* and *BioShock Infinite* signal what is important about these games. Both offer very different realizations of postmodern approaches to temporality. The game discussed in the next chapter will provide a third perspective.