Article

Video Games as Objects and Vehicles of Nostalgia

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Abstract: Barely 50 years old, video games are among the newest media today, and still a source of fascination and a site of anxiety for cultural critics and parents. Since the 1970s, a generation of video gamers have grown up and as they began to have children of their own, video games have become objects evoking fond memories of the past. Nostalgia for simpler times is evident in the aesthetic choices game designers make: pixelated graphics, 8-bit music, and frustratingly hard levels are all reminiscent of arcade-style and third-generation console games that have been etched into the memory of Generation X. At the same time, major AAA titles have become so photorealistic and full of cinematic ambition that video games can also serve as vehicles for nostalgia by "faithfully" recreating the past. From historical recreations of major cities in the *Assassin's Creed* series and *L. A. Noire*, to the resurrection of old art styles in *80 Days*, *Firewatch* or *Cuphead* all speak of the extent to which computer gaming is suffused with a longing for pasts that never were but might have been. This paper investigates the design of games to examine how nostalgia is used to manipulate affect and player experience, and how it contributes to the themes that these computer games explore. Far from ruining video games, nostalgia nonetheless exploits the associations the players have with certain historical eras, including earlier eras of video gaming. Even so, the juxtaposition of period media and dystopic rampages or difficult levels critically comment upon the futility of nostalgia.

Keywords: nostalgia; video games; independent style; retro aesthetics; historical recreation; simulation; nostalgic dystopias

1. From Personal Reminiscences to Communal Experiences: An Entryway into Video Game Nostalgia

Nostalgia has a predictable rhythm: the ebb and flow of generations. Nostalgia is that unique combination of pain and pleasure as we realise our cultural capital has gained a temporal quality and the aura of coolness around everything we saw and did, once thought everlasting, became evanescent when we were not looking. Nonetheless, old artefacts are never simply props for personal reminiscences, they serve as material reminders that the past is shared, lying in wait, to be actualised by memories, to be re-enacted and thus restored to their former glory in the community of our peers, the blemishes blurred by rose-tinted glasses.

Video games are paradoxical objects in the sense that they are the newest medium of storytelling, but also the quickest to become obsolete. Even when their cabinets are restored, old arcade machines no longer run on the same hardware as in the heydays of the 1970s and 80s, when every inch of their bulky frames was jam-packed with circuit boards, wires, and CRT monitors that dominated the shop floor of the arcades. Many video games that once graced cartridges can no longer be played as consoles fail to start up, ROM chips, floppies and CDs suffer data or disc rot, codes for games disappear, MMO servers go permanently offline, and just like that—another game is lost in the deep, dark dungeons of time. Emulators and recreations of obsolete hardware are murky territory again, as many of the games in need of resuscitation by amateur aficionados are still legally copyrighted, and coin-operated cabinets

might not be exhibited if tax agencies catch a whiff of someone trying to make money without a licence. Thus, mediated nostalgia for a youth filled with video games becomes a minefield for the enthusiast and a gold mine for canny producers (McFerran 2018). Prominent researchers of the medium argue that "video games present a unique context within which to study nostalgia because they carry with them associations with childhood, technology and technological change as well the influence of prior forms of media" (Whalen and Taylor 2008, p. 11). This article takes this statement as its starting point, asking the question: To what extent can nostalgia be expressed and generated by particular platforms, genres and games, and how?

As I've hit 30 in 2018, I have reached the point that is familiar in every adult gamer's life where I now have the money to purchase any game I like, but no time to play them. At the same time, I have started to look at the games of my childhood with a different eye: games that were once hailed as having stunning graphics appear shabby today, and innovative game design practices now feel repetitive and poorly implemented. Yet I cling to old business sims and adventure games, replaying them regularly, as if rereading an old book or listening to some record that I have known the lyrics for since I was 10.

In this article, I examine video games as objects of nostalgia for the generation(s) that grew up with them, and as vehicles of nostalgia, since they are a medium capable of evoking long-gone eras. Intriguingly, Svetlana Boym argues that "nostalgia is about the virtual reality of human consciousness that cannot be captured even by the most advanced technological gadgets" (Boym 2001, p. 351). She might once have been right about this, but no longer. Today's technology, from actual virtual reality (VR) to hyperrealistic (or for that matter, very stylised) computer simulations, many, maybe all aspects of human consciousness can be simulated in artistic ways for the pleasures of their users, and the experiences of virtual space themselves can be objects of strong emotional attachment, fuelling nostalgia by the feel of immediacy. In any case, experiences of virtual reality or computer games are not "virtual" in the sense of being removed from reality; even though they are mediated, the medium is neither invisible or outside of the real world—they are experiences of the same order. They are real and true, "for a given value of true," as Terry Pratchett would say (Terry 1999, p. 12). They also engender real nostalgia: walking up to an old Mortal Kombat machine, even after a decade of not playing the game, upon touching the controls, gamers instinctively remember deadly combos as muscle memory kicks in, giving them a jolt of pleasurable expertise rooted in the past (Grodal 2013; Gundersen et al. 2018; Wymbs and Grafton 2014). Generations of gamers share personal stories of their favourite childhood games and how to reanimate them on newer platforms through forums and social media, bringing people together by virtue of their common gaming histories.

Video games have reached a stage in their history where, like films, they "have become their own objects of nostalgia" (Burnham 2016, p. 66). There are several trends in the commercial utilisation of the nostalgic mood in gaming. Firstly, some big name manufacturers produce facsimiles of earlier, iconic console generations, but with updated hardware, as is the case with Nintendo's (Super) NES Classic edition, a miniaturised version of the original (Super) Nintendo Entertainment System, or the Atari 8 Flashback Deluxe, a recreation of the legendary Atari 2600. These and other Plug-N-Play style consoles come with a selected library of titles pre-installed on them, which makes it easier for regular consumers to access games in a casual manner. Secondly, more technologically adept and dedicated hobbyists can opt instead to download emulators for conventional PCs, and then rip and install the original ROMs of their favourite games (in most cases, illegally). Thirdly, old PC games are being brought back from "abandonware" status (i.e., out of print, where the original developer and/or publisher has gone defunct) by digital distribution channels such as Steam or GOG.com, itself a nostalgic initialism: Good Old Games.

On a different note, independent video game developers have come to re-explore the cheaper-to-produce graphical style and gameplay of earlier video games. A number of indie titles merely adopt the graphics and music of a bygone era, delivering gameplay reminiscent of arcade and console titles of the past, such as *Shovel Knight*, *The Binding of Isaac* or *Rogue Legacy*. These retro games

might exploit the aesthetics of earlier periods of video gaming history, but, as Robin Sloane warns, nostalgia in video games is "dismissed as a sentimental pandering to the consumer–creator longing for a lost past. In this context, I believe that it is important that we avoid dismissing a game due to its apparent nostalgic aspirations, and even hold back from using the word nostalgic as a negative term" (Sloan 2016). Retrogaming is as much a sentimental adventure as a rediscovery of forgotten coding practices and game mechanics, which will be necessarily iterated upon for new audiences. Some independent games do not simply make use of old pixel art for increasing authenticity, but to underscore the period setting of the game world, bringing entirely new mechanics to gaming, like the self-styled "docu-thriller" *Papers, Please*!, set in 1982 on a fictional Eastern European country's borders, or *Evoland*, a game whose mechanics and art style change, imitating older consoles, recapitulates older forms of gameplay as the player progresses through the story.

In more mainstream and AAA titles, engagement with the past takes different forms, depending on the profile of the publisher and the genre of games. Some, like the *Fallout* or the *BioShock* series, use a visually stunning, retrofuturistic style combined with meticulous worldbuilding to critically reflect on the past as it never were, but existed in the dystopian imaginary of the Nuclear Age and of Objectivist, laissez-faire capitalism, respectively. Others, like the *Assassin's Creed* series or *L.A. Noire* bring a more verisimilitudinous approach to the table, faithfully recreating cities and regions of the past, while also indulging in genre conventions, such as the swashbuckling adventure or the film noir, to tell convincing, long-form stories. I will be taking a more detailed look at a few of these titles to uncover the complexities of nostalgic representation in the games, but in order to do so, we have to theoretically contextualise why we label particular aesthetic practices as nostalgic. First, I wish to investigate cultural studies' attention to games, specifically, the systematic biases that critical cultural theory has when dealing with nostalgia in games, which, I argue, are fairly predictable and do not do justice to the wealth and breadth of nostalgic representations.

2. The Balance between Critical Engagement and Jaded Dismissal: How Cultural Critics Proceed to Ward Off the Intended Effects of Nostalgia

There is a crucial distinction at the heart of nostalgia studies, originally drawn by Svetlana Boym in her seminal *The Future of Nostalgia* (Boym 2001), that of restorative and reflective nostalgia. Fundamentally, restorative nostalgia is envisioned as a serious, solemn effort to "rebuild the lost home and patch up the memory gaps," which engages in the "antimodernist myth-making of history" via conspiracist thinking to create "total reconstructions of monuments of the past," unblemished and perfect, whereas reflective nostalgia is dedicated to "the imperfect process of remembrance," examining "ruins, the patina of time and history, in the dreams of another place and another time" in order to become more conscious of what has passed, often resorting to whimsy and irony to mitigate the pain of loss (Boym 2001, p. 41). Boym equates restorative nostalgia with a fundamentally reactionary, right-wing project, and reflective nostalgia with a canny, in-the-know, detached, and at the same time, attentive, progressive political view. One does not need to read too hard between the lines to get what's behind the polysyllabic, Latinate terms in their naked, monosyllabic, Anglo-Saxon truth: there's bad nostalgia and there's good nostalgia, and we know which is which. And it's not just Boym. Summarising sociological approaches to the subject, Schiermer and Carlsen argue that "nostalgia figures as a rather vilified sentiment in much 'critical' sociology. It reeks of ideology and escapism. The nostalgic individual, so the critics reckon, is unaware of the fact that the problems prompting the search for nostalgic escape—modern loneliness and alienation—are created by society and can only truly be remedied by social change" (Schiermer and Carlsen 2017, p. 159). Nostalgia needs to be saved from itself, so that socially conscious, politically active scholars can distance themselves from any whiff of conservativism, but still reap the emotional benefits of experiencing it. Nostalgia is rooted in our cognitive capacity to remember, so that all modern human beings (that is, living in the past 10–20,000 years) with intact episodic memory have the potential to experience nostalgia, and indeed,

there is evidence in the earliest of recorded literature and philosophy that nostalgia was rampant in Ancient times (Boardman 2002; Hanink 2017). Psychologists argue that:

> nostalgic experiences might arise as a consequence of the positive affect that accompanies successful remembering. . . . People often experience a burst of positive emotion when details of their past come to mind spontaneously and rich in detail. . . . It is by incorrectly perceiving this positive response as originating from some prior stage of life that may cause people to fall prey to the romantic sentiments and sense of longing that define nostalgic experience. (Leboe and Ansons 2006, pp. 597, 607)

Or it might just be the weather: people are more likely to feel nostalgic when a storm is coming, it's raining, and all is gloom and doom outside (van Tilburg et al. 2018). In any case, psychologists of affect are in the process of re-evaluating nostalgia as something other than hopeless escapism and navel-gazing. They have found evidence that nostalgia is a largely positive, adaptive experience, one that motivates people who experience it, generating optimism about the future, and prosocial behaviour (Sedikides and Wildschut 2016; Sedikides et al. 2015; Cheung et al. 2016).

To be fair, personal nostalgia, rooted in an individual's history and strongly related to childhood memories, is not entirely homologous to larger narratives of nostalgia about a community of people, with a cultural memory expanding far beyond the memories of living individuals. Expressions and negotiations of personal nostalgia are necessary building blocks for constructing collective memories of the past. Collective nostalgia is known to strengthen the bonds of the community who share the nostalgic memories, but they can also foster action against the out-group that threatens the nostalgic community (Cheung et al. 2017; Wildschut et al. 2014).

Even so, the forms of collective nostalgia present in a generation of gamers, I would argue, do not create a strong out-group, and especially not one that the in-group would take collective action against. Community scandals in gaming, such as GamerGate, are not fuelled by nostalgic affection, but by the polticisation and the institutionalisation of game production and game reviews. Nor are nostalgic/vintage gaming particularly activistic/social movements, and, compared to the hardcore gamer identity, nostalgic gamers are more inclusive than exclusive.

Meanwhile, cultural critics have largely focused on the detrimental effects of nostalgia as a cutesy-folksy way of generating sales by exploiting our fond memories of the past. While I would agree that advertising exploits the fact that nostalgia weakens the desire for money (Lasaleta et al. 2014), critics' suspicion of positive affect for brand-related nostalgia has led them to losing the plot when they try to explain just why and how nostalgia operates. The so-called "anhedonic school" of critics (Marcus 1999) are steeped deep in the tradition of what Rita Felski has called "the hermeneutics of suspicion, . . . a technique of reading texts against the grain and between the lines, of cataloguing their omissions and laying bare their contradictions, of rubbing in what they fail to know and cannot represent" (Felski 2011, p. 574). Critics investigating mediated nostalgia primarily focus upon the workings of ideology in material culture and the exploitation of the consumer. To offer an example, Ryan Lizardi claims that "contemporary media nostalgia engenders a perpetual melancholic form of narcissistic nostalgia ... exploited by contemporary media to develop individualized pasts that are defined by idealized versions of beloved lost media texts pumped up with psychic investment to a level of unreality" (Lizardi 2015). A withering critique, to be sure, and one might come up with anecdotal evidence which illustrates his point, but nostalgia is hardly the melancholic, narcissistic, or individualising menace that it is portrayed as.

Critics also use portmanteaus to colour nostalgic practices a shade darker and more suspicious than they really are. Pickering and Keightly coin the phrase "retrotyping" in order to castigate the strategic selectiveness of the nostalgic imagination in advertising. They claim that this "retrotyping always acts to inoculate us against this sense of historical movement and change. It constructs idealised images of past moments, ... it stunts the mnemonic imagination" and "retrotypically oriented consumerism exploits a generalised sense of pastness rather than a sense of particular

pasts" ([Keightly and Pickering 2014](#), 92; 90). The phenomenon they study is described in categorical terms as a harmful, debilitating form of historical denialism that operates in a deterministic fashion and leaves no room for alternative readings. "This is not a good posture from which to practice criticism," argues Greil Marcus, this "angry defensiveness," which manifests itself in a fear that consumers of nostalgia products gobble up the intended meanings wholesale, or that the critic's "faculties or tools of analysis are not up to the job," and the whole tenor of the discussion suggests that the critics are "suspicious, afraid, envious, chilled" for themselves, and for the ordinary consumers whom they want to protect from manipulative nostalgia ([Marcus 1999](#), p. 204).

Crucially, these critics fail to explain just why nostalgia is so powerful an effect, with its pleasures, homeliness, and social bonds that people have been willing to embrace since time immemorial. Gary Cross urges us to acknowledge its beneficial aspects, reconsidering the kind of suspicious reading that has been essential in performing the nostalgia critic in writing and lecturing: "Far from its leading us into a kind of intolerant tribalism or narrowly cast familialism, modern consumed nostalgia creates mostly an exuberant individualism. Critics miss how the new consumed nostalgia is liberating and, in fact, often fun" ([Cross 2015](#), p. 14). Individualism gets a bad reputation for atomising society, especially under modern capitalism, for thwarting collective action, but it can create communities through shared memories evoked by nostalgic objects, as Cross' book attests.

With regard to computer games, critics of mediated nostalgia resort to reductive readings of what makes a game entertaining, and their efforts to police the nostalgic impulse is palpable. Describing the experience of playing *Syberia*, an adventure game set in a steampunk Central-Eastern Europe filled with machine-men, Fletcher opines that "the peculiar pleasure of computer games is that they exploit their audience's taste for rehearsing procedural behaviours," because we "seem to like behaving like automatons" ([Fletcher 2008](#), p. 260). It's a reading that effaces the difference between computer gameplay and assembly-line work, or the history of workers' and ordinary citizens' resistance to procedural behaviour ([Thackray 1981](#); [Smith et al. 1999](#); [Braverman 1998](#); [Davis 2000](#)). In fact, a more sophisticated reading of the pleasures of gaming states that video games provide allegories of control by delivering "to the player the power relationships of informatic media first-hand, choreographed into a multivalent cluster of play activities," as they "present contemporary political realities in relatively unmediated form" ([Galloway 2006](#), p. 92). The players take pleasure in knowing that they are not being exploited or ideologically hoodwinked, that fun is to break free from the rote algorithmic work and to humanise machines, which is also a central theme of *Syberia*. A more thoughtful form of nostalgic video game criticism is essential to understand the complex relationship between product, nostalgic content and player affect. This paper proceeds in that direction.

3. Beyond the Independent Style: Making Nostalgic Affect Accessible for Posterity

As objects of nostalgia, old gaming consoles and arcade machines have been revitalised by gaming companies to attract a new generation of players. This practice—now called "retrogaming"—has also faced criticism from scholars. Similarly to Boym's facile distinction between restorative and reflective nostalgia, Matthew Thomas Payne insists that retrogaming has two strands, one that bleaches out video game history and another that is more redemptive, a constructive sustenance of play's real values. These two attitudes are epitomised, respectively, by the mass-manufactured Plug-and-Play (PNP) consoles, with their calculatedly dated design and off-the-shelf playability, and hobby emulators like MAME (the Multiple Arcade Machine Emulator), which require considerable technical skill to get them working. He contends that "by collapsing the retrogaming experience into a simple, easy-to-use device, PNPs threaten to efface or supplant other gaming histories that include marginal games and alternative play experiences" ([Payne 2008](#), p. 53). But what exactly is lost here? The marginal games and alternative play experiences that he tried to save were marginal and alternative because video arcades provided cheap gameplay and intuitive interfaces, aiming for a democratic common denominator of play experience, whereas DIY game design, amateur coding, and hacking games were

all practices of a minor IT elite who then cashed their chips in, figuratively and literally, by founding big-name game development companies ([Levy 1984](#)).

Contemporary developers have gone back to gaming's roots in an effort to produce new experiences in a more economical and coder-friendly fashion, which do not require the institutional powerhouses of a large-scale modern company. This movement, bolstered by digital publishing platforms, has resulted in an immediately recognisable lo-fi aesthetic and economic design philosophy; an Independent Style. The indie style is unabashedly nostalgic, often a remediation of earlier games, "a representation of a representation. It uses contemporary technology to emulate low-tech and usually 'cheap' graphical materials and visual styles, signalling that a game with this style is more immediate, authentic, and honest than are big-budget titles with high-end 3-dimensional graphics" ([Juul 2014](#)). Indie-style games revel in large pixels and 8-bit chiptune music, and they often offer challenges that are lacking in pricier games. Juul's example in the platformer genre is *VVVVVV*, which mimics the appearance of old C64 and ZX Spectrum games. But while Juul only focuses on the visuals, the game is more renowned because of its fiendish difficulty: pixel-perfect jumps are required to survive and genre conventions are exuberantly flaunted to subvert the player's ossified conception of what a platformer is: its main mechanic is that the player can shift the direction of gravity, and they should, if they want to avoid the 7612 V-shaped spikes, whose mere touch results in instant death.

4. Weaving the Past and Future Together: *Braid*'s Meditation on the Backward Flow of Time

A few indie games take the skeleton of gameplay from prototypical instances of their genre, but they favour a more polished look, where a cryptic story becomes a driving force behind the mechanics. Jonathan Blow's *Braid*, for example, is not a pixel-art game, but its gameplay is recognisably indie. It belongs to that category of games which "by design and in practice, correspond to a nostalgic experience the first time they are played—games that are nostalgic in their very address to the player. Such games offer . . . self-reflexive examples of gaming's power to affectively 'situate' us in the world when we play" ([Goetz 2018](#)). Playing *Braid* is nostalgic, first and foremost, because it's a loving tribute to Super Mario and Donkey Kong: our protagonist, Tim goes on a quest to rescue the princess, and the game's level design incorporates elements from both genre classics, but the gameplay is a deftly executed re-examination of platformers' willingness to adhere to damsel-in-distress fantasies.

The core game mechanic of *Braid* is the expression of a nostalgic wish: with the push of a button, you can turn back the time to undo past mistakes and cheat death. Without it, the player cannot beat the game; most puzzles require you to rewind time, especially since not all the game elements react to the rewind function the same way—some objects that sparkle and glow green are unaffected by the player's powers. Granted, time-rewind mechanics are not unique, with the most famous example being *Prince of Persia: The Sands of Time*. But in that game, the rewinding of time is an anti-frustration measure, facilitating progress through the game, as the difficulty of its predecessors invoked harsh criticism in the player community. In *Braid*, however, rewinding time acquires a poetic function.

The Worlds (i.e., levels) of the game are distinct, discontiguous, and each feature a title screen in which snippets of a short story are presented for the player to read, retelling Tim's relationship with a princess, tinged with philosophical musings about time. The text for the level Time and Forgiveness teaches: "Our world, with its rules of causality, has trained us to be miserly with forgiveness. By forgiving too readily, we can be badly hurt. But if we've learned from a mistake and become better for it, shouldn't we be rewarded for the learning, rather than punished for the mistake?" In terms of the mechanics: what if you could avoid falling into a spike trap by the push of the button? Indeed, much of the gameplay is devoted to undoing past mistakes at the microcosmic level. Neither restorative nor reflective, this is reparatory nostalgia. Some puzzles will even prove to be unbeatable without the player resetting them—in these levels, a select few platforms move in such a fashion that their movement in the game is irreversible. To solve these puzzles, first, one most observe what a level does without player interference, and why the natural logic of the level would hinder progress before a player can intervene and alter the gameworld to their advantage.

Furthermore, the Worlds are numbered weirdly: players begin in World 2, and make their way to World 6, then the final stage: World 1. Thus, the ultimate nostalgia of returning to the beginning, before things went wrong, is enacted in the course of ordinary gameplay, if one dares to call *Braid*'s gameplay ordinary. The setting and the story reinforces the nostalgic longing at the very beginning of the game by showing us a world burning after a huge disaster, underscored by Jami Sieber's dreamy-drony soundscape, "Maenam," a melancholic, contemplative track, heavy on the strings. In a final twist, World 1 is an escape sequence, where the player must act fast to run away from an advancing wall of fire, and defeat the final boss while receiving help from the princess. Once Tim reaches the princess, though, the game plays back the whole sequence in reverse, now showing what seemed to be a heroic act of rescue to actually be Tim's creepy-stalky chase, which the princess actively tries to stop.

This double-edgedness of reversal in nostalgia is hinted at in the introduction to World 1, which asserts that finally finding the princess "would be momentous, sparking an intense light . . . that reveals the secrets long kept from us, that illuminates-or materializes!—a final palace where we can exist in peace." The use of the word "palace" instead of "castle" suggests that the levels function as palaces of memory, which the person has to literally pass through in order to remember. "But how would this final light be perceived by the other residents of the city, in the world that flows contrariwise? . . . It would be like burning down the place we've always called home, where we played so innocently as children." From the perspective of Tim, the whole game is at once a nostalgic yearning for a time when the princess used to be hers, and an undoing of that nostalgia by the game mechanics, a shattering of innocence about nostalgia. Surely, one could call reflective if one wishes, but the game's moral, explicitly stated in one of the game's dialogue boxes, is more confrontative than reflective: some things cannot be fixed by turning back the clock. In that gesture, *Braid* provides a critical interrogation of the process of fond remembering.

5. Frustrations of Childhood and Drudgeries of Adulthood: *Cuphead* and *Papers, Please!* As Reflections of Difficult Times

Other games use nostalgic aesthetics to soften the blow of just how crushingly difficult the game is. A special favourite of mine, *Cuphead*, breathes new life into "bullet hell" gameplay by featuring old-style animation, lovingly hand-drawn, and an upbeat, big band jazz score. "Bullet hell" is a special subgenre of shoot-'em-up arcade games in which the player has to man an automatically advancing vehicle and dodge, literally, hundreds of bullets from an overwhelming number of on-screen enemies. These games were popular in the arcades in the late 1980s and early 1990s, then waned in popularity for decades. After almost 30 years, *Cuphead* revives the old genre tradition by placing it in an unusual setting: Inkwell Isle is a cartoon world that mimics the "rubber hose" style of animation favoured by Max Fleischer in the 1930s.

The choice might seem odd for a video game genre that is often set in the near-future or in contemporary military settings, until one remembers that the world of the Fleischer cartoons is a natural fit for the exaggerated violence of shoot-'em-ups. Described as "a loose-limbed, exuberant, metamorphic style, as fluid as a blob of mercury on a glass plate" (Solomon 1989, p. 73), the vibrancy of the Fleischer cartoons translate easily to a game world, aided by the fact that the Fleischers "relied heavily on repeated cycles of drawings" (Solomon 1989, p. 74), something that suits the algorithmic nature and cycling of computer animation. Curiously, animation historian Charles Solomon argued that the computer graphics industry "bears more than a passing resemblance to the conventional animation industry during the teens and twenties" (Solomon 1989, p. 299), and this affinity is something the developers of *Cuphead*, StudioMDHR have artfully played off of.

Additionally, *Cuphead* adopts many of the conventions of the theatrical studio cartoon: alliterative titles such as Perilous Piers, Forest Follies, Sugarland Shimmy, or Funhouse Frazzle evoke the classic Merrie Melodies and Silly Symphonies of yesteryear; the screen is artificially, skeumorphically grainy, the images stained and flickering, as if printed on cels; the outlines vibrate; the animated characters pop out of the background; parallax scrolling is very pronounced to suggest depth of field, which is a

convention that arose out of Ub Iwerks' invention of the multi-plane camera; colours have a slightly washed-out look; scene transitions use the aesthetics of title cards and intertitles similar to the original cartoons; finally, the jazz score is dynamic and whimsical—with occasional barber shop singing–, just like the kind of sound Walter Lantz would use for theatrical cartoon shorts: "the spirited, up-tempo scores gave these shorts a propulsive energy that pleased audiences" (Solomon 1989, p. 140), and this self-same energy propels the protagonists, Cuphead and Mugman, forward in the game.

　　The gameplay itself consists of a fairly standard mix of run-and-gun levels and boss fight segments with multiple stages, similar to many other shooters and platformers. What sets *Cuphead* apart from the competition is its incredible difficulty and the record-breaking 30 boss encounters, each requiring very careful timing to land a hit. Timing also became an essential element of animation as the medium developed, with some directors such as Friz Freleng being particularly noted for "honing the timing in his films down to the individual frame" (Solomon 1989, p. 149). Ultimately, it is hard to say whether the game is more a nostalgic tribute to the look, sound, and nonsensical comic business that was the hallmark of the Fleischer Studios, or to an old arcade game genre. As Chad Moldhauer, one of the lead designers, says, "as kids, we watched old VHS tapes of Popeye, Betty Boop, Silly Symphonies and more—the art style has always stuck with us. . . . Everything that we've done since then has been us just trying to do the memories of those cartoons justice" (Sullivan 2017). It might be the case that this unique amalgamation of expletive-inducing difficulty, charming art style, and high production values could only be made possible by the nostalgic impulse for childhood itself. Still, although *Cuphead* might originate from a sense of personal enchantment within their creators, the game's popularity undoubtedly owes much more to the initial reach of the lively cartoons and difficult games that suffused the childhood culture of earlier eras, joining kids in front of screens in a virtual community of experience.

　　On the other hand, no game epitomises Boymian reflective nostalgia more clearly than Lucas Pope's critically acclaimed *Papers, Please!* Set in the early 1980s in the fictional Eastern bloc country of Arstotzka, the player is cast as a border guard inspector in East Grestin, who operates a checkpoint to neighbouring Kolechia's half of the city, West Grestin. The player has to process travellers and immigrants as they try to pass the checkpoint, deciding whether they can enter the country based on the validity of their travel documents, and registering that they have the necessary paperwork. The player's job is to earn enough money from processing information to eventually emigrate from the country with their family, which is particularly tough because forged paperwork costs a lot of money, and living costs also rise as the game progresses. By making the player collude with the state machine and offering them an opportunity to rebel against it, *Papers, Please!* prompts its interactors to pose critical questions about governmentality and what life under Communism must have been, pre-empting any rose-tinted nostalgie.

　　The game's look is decidedly part of the "independent style," with large pixels reminiscent of resolutions for the EGA/VGA era. Pope has told fellow players that "to me, the look of the game is not dependent on the pixels. . . . Pixels are great but they introduce an unintended roughness. . . . But, after a week at GDC, . . . I've decided to just stick with pixels for Papers Please. I guess the look has grown on me" (TIGForums, #322). Actually, the roughness resonates well with the cold, hard facts of doing soul-sucking bureaucratic work for a dictatorship, as well as bringing to mind the look and feel of early 1980s games.

　　Although not ostensibly about any particular Eastern bloc country, it seems like *Papers, Please!* echoes or plays around with themes that mattered to period Russian culture in particular: "Soviet popular culture of the 1970s and 1980s was permeated by dreams of escape; . . . . It is as if the main psychological drama of Russian characters requires some geopolitical agenda" (Boym 2001, p. 65). The geopolitics of regional conflict in-game and the harsh oppression of Arstotzka faithfully recreates the sentiments that many citizens of former Eastern bloc countries have felt before the fall of the Berlin Wall. By not sentimentalising or trivialising autocratic regimes, *Papers, Please!* focuses on the pain of having to leave home. The game is geared towards a certain kind of ideal player, a "morally

reflective player, who factors moral considerations into their decision-making" (Formosa et al. 2016, p. 213), and uses the game mechanics to push these players to either turn against the government or to flee the country. Of course, one can be a loyal civil servant and complete the game by mindlessly carrying out the duties of a border inspector, but many of the possible endings of the game feature the player-protagonist being fired from the job, being executed, or their family dying due to poverty, all of which are a direct result of governmental abuse of power. *Papers, Please!* thus enacts a collective memory of what it was like to live under a dictatorship.

6. Accuracy's Role in Activating Affect: Recreating Cities for Nostalgic Play in *L. A. Noire* and the *Assassin's Creed* Series

L. A. Noire (2011) couldn't be more different from the shabby, pixellated aesthetics of *Papers, Please!* Set in California's arguably most famous town during the immediate aftermath of World War II, *L. A. Noire* is a police procedural/neo-noir game. The player takes on the role of Cole Phelps, a tough-talking, hardboiled cop on the LAPD force, who deals out justice in a town enamoured by the glitz of Hollywood, fast cars, and the post-war boom of the United States. Seven years in the making, and recognised as the most expensive video game ever made, *L. A. Noire* has stellar production values: it features extensive motion-capturing of recognisable real-world actors to lend convincing facial expressions to in-game characters, not to mention a meticulously accurate recreation of the city as it stood in 1947, based on "upwards of 180,000 images, police records, newspapers and maps" (Spring 2015). In an apt comparison with another game I have touched upon, critics have remarked that ,"much like *Cuphead*, the appeal of *L.A. Noire* lies largely in the game's ability to recreate the look and feel of a vintage era in entertainment" (Green 2017). This painstaking approach highlights one important fact about the special quality of nostalgia in games: their "most prevalent nostalgic mode is less a wish to return to the past, and more a wish to return to a *place*, a place one has never visited and could never visit" (Goetz 2018, p. 61, emphasis in original).

Despite its central theme of crime-fighting and seeing the seedy underbelly of a metropolis, the actual presentation of the game is nostalgic in its restoration of LA to its former glory, its invocation of noir tropes and intermedial references to films like *The Untouchables* or *LA Confidential* (Marcus 1999) Critics have opined that "the permanence of film noir's intrigue might indeed be part of one of the more worrisome aspects of the nostalgia mode of our modern world. . . . The darkest aspect of the contemporary noir resurgence may be its suggestion that past emotions are sentimental trinkets to be memorialized" in popular culture (Sharrett 1998, p. 79). Certainly, *L. A. Noire* seeks to capture the whole array of dreams, hope, deceit, betrayal, anger and longing that are inscribed into the urban fabric of the city, which "is cold, rootless, oppressive, and mean. . . . Mutual deceit, paranoia, and barely restrained violence seem to inflect all social interaction among its residents" (Macek 2002, p. 376).

And yet, games like *L. A. Noire* can trigger actual nostalgia in people who lived in the city at that era. One particular anecdote stands out to me: that of a games journalist showing the game to his father, who grew up LA during the 1940s with a cop for a father. This stern man, dismissive of video games, went slack-jawed, flooded with emotions, when he first glimpsed a building of his childhood that was torn down the early 1960s. The reporter goes on to write:

> We're a family of family stories, and I thought *L.A. Noire* would trigger more of that kind of stuff. In the end, however, the whole experience was actually far more affecting, I think, and far more powerful, too. Dad just trailed off, really, lost in the texture of *L.A. Noire*, surfacing now and then to announce a car or a familiar sight. . . .
>
> So did my dad find *L.A. Noire* accurate? Intoxicatingly so, I suspect: he thought the streets were wider than he remembered, but he liked the way they were fairly dark, just like the underlit boulevards he knew when he was a kid. He liked the white painted boxes in the middle of the roads, where people would queue for the streetcars—even though he said that traffic used to slip around on the streetcar railings a lot more than they did in the game. The little details were the most affecting, though: the tyre-changing bay outside a gas station,

or the wooden crate of bottles stacked next to a vending machine. The cop uniforms looked the way his dad's had when he left for work in the morning. The diners had the right kind of window displays and lettering. (Donlan 2017)

Needless to say, few people of Donlan's fathers' age would play video games featuring faithful historical recreations of cities they have lived in, nor is it likely that many games would go to the trouble Rockstar Games and Team Bondi went to evoke the feel, architecture, and generic conventions of Los Angeles as depicted in noir fiction. Still, this story stands as a testament to the power of video games to evoke deep personal memories of ages gone by.

As I hope to have demonstrated, "employing the nostalgic conventions of films of the period like their 'breezy' tone, cinematic games explore . . . situations unusual to gaming. Furthermore, the use of Hollywood tropes and conventions in the video game format help broaden the game medium by supporting new subject matter and new genres" (Jankowich 2008, p. 126). Film noir is one of those newly remediated genres, but swashbuckling movies are perhaps even more fitting subjects for nostalgic play. The *Assassin's Creed* series of video games are a highly acclaimed set of action-adventures, partially set in the past and partially in an alternative present. The hero of the initial games is Desmond Miles, a New York City bartender who is a direct descendant of a long line of fabled Assassins, a historical guild of death-dealers who have fought the Templars. In the universe of the game, the Assassins and Templars have lived past the time of the Crusades, infiltrating the political power structures of every historical period, waging a secret war between the two factions for the control of the mythical artefacts known as Pieces of Eden. Templars are looking for these objects in order to enslave humankind and begin ruling the world, while Assassins are doing everything within their means to stop them. At the start of the eponymous first game, Desmond is captured by a Templar organisation, and is forced to relive the memories of his Assassin ancestors in the hope that the new information will bring the Templars closer to their goal.

In order to relive memories, Abstergo invented a machine, the Animus, which can extract genetic memories from the mind and body of its users. In terms of gameplay, it means that present-day Desmond's ancestors (and thus the player) gets to carry out assassinations of historic personages. But the game's greatest allure is watching our hero perform parkour moves and death-defying acrobatic feats that are impossible in real life, and that have more in common with Hollywood stunts than the laws of physics and physiology. Then again, because Desmond is in a bona fide computer simulation, physics is hardly a concern.

The Animus' simulations also allow the game to switch between the present day and past historical eras to tell the story. *Assassin's Creed* explores the Middle East at the time of the Crusades, *Assassin's Creed II* is set in Renaissance Firenze, *Assassin's Creed III* plays out during the American Revolutionary War, *Assassin's Creed IV: Black Flag* takes place during the Golden Age of Piracy, *Rogue* follows the events of the Seven Years' War, *Unity* trembles underneath the weighty events of the French Revolution, *Syndicate* is dedicated to depicting London at the height of the Victorian era, whereas *Origins* takes the player back to Ptolemaic Egypt, and the latest instalment, *Odyssey* to Homer's Greece. As the appearance of new titles every few years suggest, the series is wildly popular, mostly because of their immersive and deeply explorable gameworlds, which are faithful recreations of the feel and look of cities of the past. *Unity*'s iconic Paris buildings, for example, are built on a 1:1 scale, and as Nicolas Guerin explains,

Over the course of three months . . . he looked at more than 150 maps of the city, which provided information on the layout of Paris at the time, and how it changed over the years. . . . Paris is incredibly dense, with cramped streets and tightly-packed buildings, which conflicted somewhat with *Assassin's Creed*'s free-roaming movement. So in order to make Paris more of a playground, the team used a process called "radial scale" to change its layout. It's a simple concept: in the center of the city it's essentially a one-to-one recreation, but the further you move from Paris' core, the more spread out things get. Key landmarks are all

in the right place so that it still looks and feels like Paris, but the added space means things won't feel cramped while you run across the city's rooftops. (Webster 2014)

The historical recreations of the Assassin's Creed series strive for verisimilitude, but in order to make the experience playable, they are never fully accurate: they are "allegories of space" (Aarseth 2007) designed to accommodate the main mechanics of the game. In addition, level designers have strayed from full historical accuracy in order to fit with existing player expectations, such as including the by-then destroyed Bastille in the game, as well as adding the famous spires to the Notre Dame, that were not yet built at the time of *Unity*. So in that respect, despite claims to the contrary, the game-world is more of "a romantic environment derived distantly from the historical reality" (Jankowich 2008, p. 132), restoring a nostalgic version of past cities as they are in the head of the players, not as in the history books. As Jankowich notes, action-adventure games like *Prince of Persia* find their filmic counterparts in "the realm of historical adventure, where physical skill is linked to heroism, rather than film noir, where cynical intelligence is frequently necessary for success" (ibid). This is reflected in the contrast between the point-and-click style of adventuring in *L.A. Noire*, and the stealthy, acrobatic swordplay of the *Assassin's Creed* series, the latter of which "emphasizes the ability of a human body that is at the fore in combat and in movement throughout the environment of the game" (Jankowich 2008, p. 133). Generic conventions are also apprehensible in how historical adventure films "frequently emphasize vertical movement, and characters are often shown moving quickly up walls and jumping down from heights" (Jankowich 2008, pp. 134–5). In fact, a significant portion of gameplay consists of the Assassin player scaling tall buildings in order to see the surrounding landscape. And one of the most iconic moves that Desmond Miles' historical alter-egos can perform is the so-called Leap of Faith, in which the player can escape their rooftop chasers by jumping off the top of these buildings into conveniently placed haybales. Thus, the *Assassin's Creed* games also evoke past media conventions of the 1930s and 1940s adventure movies to ground the historical backdrop of their games in a filmic language that the players find familiar and feel nostalgic for.

What is more, we also have to account for the fact that, like *L.A. Noire*'s triggering of nostalgia for the son of a cop in the 1940s, the *Assassin's Creed* games also have a non-Western target group, for whom seeing the Holy City of al-Quds or Dimashq restored to their former glory is heart-warming: "For a Middle-Easterner, wandering through the original *Assassin's Creed* game world might be purely driven by nostalgia, in the hope of identifying with the elements of the past. . . . The attention to detail . . . brings nostalgic feelings especially for Maha and Magy, who are from Saudi Arabia and Egypt, respectively and have been away from home. . . . The game-play experience was a transportation to their homeland. Every corner, every shadow, every detail in the environment carried with it many nostalgic feelings" (Seif El-Nasr et al. 2008, pp. 1, 4, 13). Just as Desmond Miles relives the memories of their ancestors, the Middle-Eastern players of *Assassin's Creed* experience historical cities of the Middle East as nostalgic resources.

Ubisoft's take on history is by definition restorative in the sense that they aim at historical verisimilitude and a filmic reality effect. At the same time, their attention to detail and nostalgic evocations of the past are also self-congratulatory in their references to the cinematic style that is associated with classical Hollywood swashbucklers and historical films. As Thomas Leitch astutely observes, "Hollywood's disinclination to celebrate any history but its own defines and markets Hollywood history as a series of aesthetic and technological triumphs" (Leitch 2018); in like manner, the frame narrative of Ubisoft's *Assassin's Creed* series, with the inclusion of Abstergo Industry's subsidiary Abstergo Entertainment, an in-game Montreal company, celebrates at once the invention of the Animus console and Ubisoft's triumph of making video game history by recreating real-world history.

Video games serve as important mediators of cultural history, for a number of reasons. They "can represent the past as it was, or as it never was, but they can also represent how players wish to remember it, revisiting or revising the past to make players yearn for it, and they can offer players the possibility of not only *being* there but of *doing* things there–of *playing the past*" (Whalen and Taylor 2008, p. 27). Because they create virtual worlds, they can be used to recreate cities of the past. Because the

computer is a metamedium, they can reproduce the audiovisual aesthetics of any period of art. Because they can accommodate a narrative structure, they can simulate all known genres of fiction, whether filmic or literary, popular or highbrow. Finally, because they depend upon player interaction with the game environment, the agency experienced in gameworlds can support power fantasies or critical examinations of the self-same power. Above all, they generate communities of consumers who share a slice of their life histories among them, and they also generate profits that fuel the development of new, more sophisticated experiences. And if the current trends of videogaming are indicative of a direction that playing with the past is headed towards, we will see more and more faithful recreations of the past, but also more and more reflective and critical engagements with that past, utilising nostalgia to create emotional bonds with virtual worlds that span across generations, forming a unique cultural history for computer games, accessible only through this medium.

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