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ABSTRACT

In this paper I argue that there is a need for game studies to look beyond nostalgia as a period style or form of remediation, and to more carefully consider the role of nostalgia as an affective state experienced by players. Specifically, I argue that nostalgia is a positive emotional response that can be elicited in players without the need to embed period or historical referents in games. Extending this, I argue that the experience of nostalgia might enhance player motivation to explore game spaces, which has repercussions for game design. This paper makes use of existing literature on the psychology and aesthetic qualities of nostalgia to develop an initial theoretical basis for the study. To explore the implications of affective nostalgia, a case study analysis of two recent games is presented. Both of these games are dependent upon player motivation to explore their game worlds.

Keywords

Nostalgia, memory, exploration, visual design, music

INTRODUCTION

In recent years there has been an evident growth in consumer, designer, and academic interest in gaming nostalgia. Nostalgia is a key factor within game preservation and presentation, as games and game paraphernalia are curated and preserved as part of a wider move to integrate our gaming history into museums and collections (Swalwell 2013). Within games culture, we can observe the practices of gamers and reveal how they form emotional connections to the material forms of digital games (Toivonen and Sotamaa 2011). Games history can be considered an integral part of game consumption (Suominen 2012), as classic games and franchises are appropriated and resold to today's gamers. Meanwhile, game designers have sought to incorporate period styles into their original games, with notable examples such as *Fez* (Polytron Corporation 2012), *Shovel Knight* (Yacht Club Games 2014), and *Downwell* (Moppin 2015) imitating an 8-bit audio-visual style. To account for this broad interest in game nostalgia, Garda (2013) developed a nostalgia continuum to distinguish between restorative (classic 8-bit) and reflective (neo 8-bit) games, building upon Boym's (2001) notions of restorative and reflective nostalgia.

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While it is clear that there is an established interest in nostalgia within game design, play, and consumption, the human experience of nostalgia can raise critical and conceptual questions for game designers. The proliferation of nostalgic design within contemporary gaming could be regarded as regressive or overly sentimental: a subjective obsession with the past that distracts us from progressive thinking and experimentation. Jameson lamented this in relation to nostalgia films, noting the "insensible colonization of the present by the nostalgia mode" (1991 p.21). Additionally, when we regard the experience of nostalgia as being reliant upon definitive memories of the past, it is clear that this can in turn lead to inconsistencies in how different player demographics experience and interpret games that make use of period styling or references. Nevertheless, the aesthetics of nostalgia can provide game studies with a means of deconstructing and interpreting both game design and games culture (e.g. Heineman 2014; Johnson 2015). And as I will discuss in this paper, relatively recent developments in Psychology regarding the role and function of affective nostalgia could help us to better understand player motivations.

In this paper I aim to discuss how the player experience of nostalgia could provide enhanced motivation for explorative gameplay. To frame my analysis, I have made use of the literature on the psychology of nostalgic emotions and the aesthetics of nostalgia. Specifically, I have set out to deconstruct how the audio-visual and thematic design of games can be associated with elicited nostalgic experience. For the current paper, I have selected two videogames that strongly emphasise explorative play: *Everybody's Gone to the Rapture* (The Chinese Room 2015) and *Life is Strange* (Dontnod Entertainment 2015), henceforth abbreviated as EGttR and LiS respectively. Both games fall within the overarching genre of the adventure game, as they focus on environmental exploration and storytelling. Importantly, both games have been discussed in the context of nostalgia.

EGttR is a first-person adventure game set in 1984 in the fictional English village of Yaughton. As the title suggests, the game opens after the disappearance of the village community following an unexplained astronomical event. It is not clear who the player-character is, while non-playable characters (NPCs) are represented as abstract particles of light. These characters are in fact captured conversations that took place both before and during the event. By finding and listening in on these conversations, the player learns how the impending apocalypse impacted on the relationships of the villagers. Taking influence from classic British science fiction authors such as John Wyndham, EGttR imagines how ordinary people might cope with the end of the world. Given the period setting, we might assume that nostalgia would be most relevant to the development of an authentic production design. However, as this paper will show, the aesthetics of nostalgia in EGttR are not limited to the implementation of nostalgic game content in the form of historical or period referents.

LiS is a third-person adventure game set in 2013 in the fictional town of Arcadia Bay, Oregon. The player takes on the role of Max, a senior year student who has returned to her hometown to study photography. As Max, the player interacts with a cast of NPCs over five episodes. At the start of episode 1, Max witnesses an altercation in which her best friend, Chloe, is murdered. In the aftermath of the murder Max discovers that she has developed an ability to rewind time, which she can use to return to the past and stop the murder. The ability to rewind time is subsequently used as the main gameplay mechanic, allowing the player to solve puzzles and make alternative decisions. As the game is set in a contemporary time period, the opportunities for LiS to use period-specific artefacts of nostalgia are less obvious than they are for a game such as EGttR. However, creative director Jean-Maxime Moris has discussed that nostalgia was an aesthetic emotion that

the team wanted to capture, and that this impacted on design choices such as the autumnal setting of Oregon and the selection of modern folk for the soundtrack (GamerHub 2014).

By analysing these two games framed by the literature on nostalgia, I aim to discuss two core ideas that could inform exploration-based game design:

- 1. Game designers can incite player feelings of nostalgia without relying on explicit use of period styles or historical referents.
- 2. Nostalgia is an emotion that generates a sense of curiosity and spatial interest that in turn may support the design of explorative gameplay.

In the following analysis, I discuss how nostalgic experience can be elicited through: encounters with broadly familiar settings and spaces¹; observation of mementos of human action and relationships; artistic use of nature, light, and music; and thematic exploration of time and loneliness. Firstly, I draw upon psychological and aesthetic discussions of nostalgia to help frame what is meant by nostalgic experience and to better understand the effects of nostalgia on players.

PSYCHOLOGICAL AND AESTHETIC NOSTALGIA

Nostalgia – from the Greek nostos (homecoming) and algos (pain) – was first identified as a medical condition in the 17th century by Johannes Hofer (1934), before it was assigned a broader definition as a psychological disorder in the 19th and 20th centuries (Rosen 1975). For much of this period, the original conception of nostalgia as a form of mental illness seemed to persist. Traditionally regarded as a regressive experience centred solely on the past, more recent research into the psychological experience of nostalgia has revealed a far more complex affective state. In particular, there is a growing trend towards an understanding of nostalgia as a positive and constructive experience (Sedikides et al. 2008). For example, Cheung et al. (2013) suggest that nostalgia is a transformative experience that, while stimulated by personal reflection on a lost past, has a direct impact on our positive, constructive thinking about the future. In their study, they demonstrate that elicited feelings of nostalgia enhance feelings of social connectedness, self-esteem, and optimism, which underlines the common labelling of nostalgia as a bittersweet emotion (Wildschut et al. 2006). Indeed, Routledge et al. (2008) propose that nostalgia is a vital human quality that not only enables us to cope with existential threats but also provides life with meaning.

For the purposes of this paper, I have aimed to work with this narrowed definition of nostalgia as a transformative affective state: an emotional response experienced when presented with appropriate stimuli that can in turn lead to an adjustment in behaviour. Although I will discuss the externalised conceptualisation of nostalgia within the paper – i.e. objects, ideas, and events that can be considered symbolic of particular sociocultural pasts – my emphasis will be on nostalgia as an internalised affective state that can be triggered or otherwise facilitated by such external factors. I would compare this to the concept of emotions as adaptive behaviours (Plutchik 1994), where the emotional experience (joy, sadness, anger, or, in this case, nostalgia) is activated by an external stimulus. The intention then is to consider what this affective state of nostalgia can mean for players in the context of game world exploration.

There are two aspects of nostalgia that are of most relevance to the current paper and to game designers more generally: the triggers of nostalgia, and the subsequent emotional

effects on players. Firstly, we should note that one of the primary psychological triggers for feelings of nostalgia is a present feeling of loneliness (Zhou et al. 2008). It is believed that affective nostalgia can be a universal means of tackling and repairing the negative feeling of loneliness, as I will return to below. Studies such as that by Zhou et al. have shown that nostalgia tends to be experienced more strongly when someone is feeling lonely, or is otherwise experiencing a negative mood. Designing spaces and narratives that support a general sense of isolation, disconnection, and melancholy can therefore be regarded as a means of triggering player nostalgia, without the need for specific historical or memorial referents.

What we may commonly perceive to be the triggers for nostalgia are acknowledged in the literature. Hepper et al. (2012) show that the central exemplars of nostalgia include but are not limited to; fond memories, the past/days gone by, remembrance, relationships, and longing. What is important to consider is that these exemplar antecedents of nostalgia need not be specific to the spectator/player, but can instead be regarded as archetypal. The inference of memory, longing, the past, and lost youth can be achieved through what we might consider the "the aesthetics of the nostalgic mood, its atmosphere, its colouration" (Bishop 1995 p.57). Here, Bishop is referring to the aesthetics of the pastoral and, specifically, the works John Constable, famous for his nostalgic English landscapes. Bishop notes that "Constable's paintings are concerned with the way spots of time become spots of place. In his work, time becomes not just spacialized but landscaped and placed." (p.54). The patchwork creation of space from temporal cues is one strategy that game designers might use to build worlds that infer the nostalgic exemplars listed above. Although there are depictions of period settings and technologies in Constable's works, the nostalgic qualities of his paintings are more ambiguous: the use of thick brush strokes to create impressions rather than clear depictions of space, the emphasis on light and atmosphere, and the rough representations of nature all help to trigger general feelings of loss and longing, without relying on explicit references.

To return to the current trend for reflective and restorative retro games, I therefore believe that it is important that we separate the surface cues for labelling a game as 'nostalgic' (the explicit references to period objects, forms, or styles) from the more generic psychological and aesthetic triggers for nostalgic experience. As Erll (2005 p.8) explains, "memories are not objective images of past perceptions, even less of a past reality. They are subjective, highly selective reconstructions, dependent on the situation in which they are recalled." When it comes to the triggering of nostalgic memories, we could therefore argue that historical accuracy and referencing is less important than the creation of tone, mood, and setting. The goal is to stimulate players to reflect on their own memories, rather than confront them directly with explicit references that might only be recognised by certain demographics. Starobinski (1966) has postulated that nostalgia arises from what he terms 'memorative signs': images that trigger our memories for spaces in time, and which in combination facilitate reflection on a past which can no longer be completely restored. Hence, game designers can consider how they might design environments that facilitate the triggering of individual memories by building in memorative signs that are more widely applicable to our shared human experience, rather than targeted at the specific memories of particular audiences.

The second aspect of nostalgic experience that needs to be considered for the current paper is the effect on player emotion and behaviour. In particular, I'd like to draw attention to how the psychological properties of nostalgia can impact upon our motivation to explore. When conceptualised as a warm emotion associated with positive perceptions

of a secure and loving past, we can relate nostalgia to feelings of attachment and trust. In this context it is noteworthy that a greater sense of attachment enhances our tendency and willingness to explore (Elliot & Reis 2003; Green & Campbell 2000). More compellingly, it has been claimed that nostalgia interacts indirectly with our avoidance and approach motivations (Stephan et al. 2014). It is proposed that nostalgic experiences can serve to reverse our motivation to avoid and, consequently, enhance our motivation to approach. This draws upon the evidence that aversive feelings such as loneliness lead to an increase in the positive feeling of nostalgia (Zhou et al. 2008), which counteracts the aversive state and in turn rebuilds our motivation to explore.

In practice, we can propose that incorporating the player experience of nostalgia into the design of a game world can enhance player motivation and the subsequent desire to explore. To achieve this we should consider how environmental storytelling supports player elicitation of nostalgia through the construction and presentation of spaces indicative of past times and events. For example, Vella (2011) discusses how games make use of embedded narratives, which are oriented towards the events of the past. Similarly, indexical storytelling emphasises player assemblage of the narrative through discovery and interpretation of traces incorporated into the spatial and systems design (Fernández-Vara 2011). Jenkins (2004) argues that narratives can be embedded into the game world to create what he identifies as "information space" or a "memory palace". The mise-en-scene of the game is used to reflect the character's internal states, character relationships, or key events with which we can empathise. In particular, Jenkins suggests that players can "become overwhelmed with powerful feelings of loss or nostalgia, especially in those instances where the space has been transformed by narrative events" (p.127). The nostalgia evoked here is driven by a sense of curiosity (which in turn drives the desire to explore the space and uncover more of the story). But it is also an abstracted nostalgia: a longing for more ambiguous memories of past times, events, and relationships, rather than a nostalgia for an explicit time, setting, or period style.

THE PLAYER EXPERIENCE OF NOSTALGIA

The above psychological and aesthetic qualities of nostalgia were used to frame an analysis of the PlayStation 4 versions of EGttR and LiS. Concepts raised in the literature were turned into codes. These codes aided in the documentation of audio-visual and gameplay design that could be connected to player feelings of nostalgia. Documentation primarily consisted of screenshots captured using the PlayStation 4 Share button. These screenshots depicted instances where an audio-visual cue or gameplay mechanic was observed to contain qualities that could be considered conducive to nostalgia, or where player exploration was observed to be complemented or supported by nostalgic triggers. Additional observational notes were recorded at the same time as screenshots to provide context and capture my only feelings as a player at that moment.

Memorative signs

In the first instance I'd like to consider how the production design of EGttR and LiS can trigger player feelings of nostalgia. Both games present detailed spaces to explore that are, to an extent, familiar. In EGttR we encounter spaces in and around the fictional English village of Yaughton. Much of the research that went into the making of Yaughton considered not only the architecture of rural English villages, but also the mid-1980s setting. This is evident in the presentation of vehicles, signs, electronics, books, and other props. However, the use of period design across the environments and props of EGttR should be regarded as surface detail: in effect, a means of grounding the game in the time period established in the narrative. When examined more closely, we find that the

environments and props of EGttR are, in effect, timeless. These are homely spaces, incorporating artefacts of family and working life that should be more broadly identifiable by players.

In this sense, the decision to set LiS in a contemporary time period is no different from the decision to set EGttR thirty years in the past. The time period is important to the story the designers are looking to tell, and to the authenticity of the production design. Where nostalgia is concerned, however, I'd argue that neither the selected time period nor the subsequent styling is necessary for the elicitation of player nostalgia. That is not to say that EGttR's setting does not invoke nostalgic memories in players who are familiar with the specific time period or setting. Where the period styling is concerned, audiences who lived through or grew up in rural, 1980s England are likely to experience stronger feelings of nostalgia than those who have no direct experience of the period, of rural England, or Western environments generally. Nevertheless, I'd argue that it is the generic familiarity with the spaces depicted in EGttR and LiS that can more successfully and consistently lead to the player experience of nostalgia, across not only age demographics but also social backgrounds and nationalities². To break this down for discussion, I suggest three main categories for player familiarity that can be identified in both games: familiar settings, familiar imagery, and familiar tactile artefacts. I have included examples of these categories from EGttR and LiS in Figure 1.

Firstly, games such as EGttR and LiS depict settings that general audiences will have some familiarity with. These settings tend to focus on the homely, on communities and relationships, and on familial or childhood memories. While many of the buildings in EGttR cannot be entered, those that can be accessed tend to present familiar living spaces, including lounges, kitchens, and bedrooms. These spaces are not as saturated with props and subtle details as the homely spaces of LiS, but the emphasis in both games is on the presentation of recognisable, lived-in spaces. This is often supported through the design of the game narratives, linking homes to characters and then establishing the family and community links between those characters. Other spaces – such as public houses and the village church in EGttR - reinforce the feeling of community. Interestingly, the gardens and parks of EGttR often appear more detailed, which makes a stronger connection to the outdoors and nature (which I will return to).

The same familiarity of setting can be identified in LiS, which places greater emphasis on the familiarity of the generic hometown and of the spaces of teenage memory. At the heart of the narrative is a player-character – Max – who has made a return to her hometown, only to find an Arcadia that is simultaneously familiar to her and yet different from her memories of it. Within Arcadia, the player has opportunities to thoroughly explore a high school building (including classrooms, corridors, toilets, grounds, and dormitories), family homes and gardens, and restaurants and other buildings around the town. Again, ignoring surface details, we see spaces and settings that could be considered more broadly familiar. When thought of this way, the set design of spaces such as Max's dormitory room, Chloe's bedroom, and Chloe's kitchen (all shown in Figure 1) encourage reflection on our own memories of cluttered yet homely family spaces and of messy teenage dens. The fact that Max encounters these settings as both warmly familiar yet somehow changed from her memories of them reinforces the aesthetic of nostalgia in the game world.

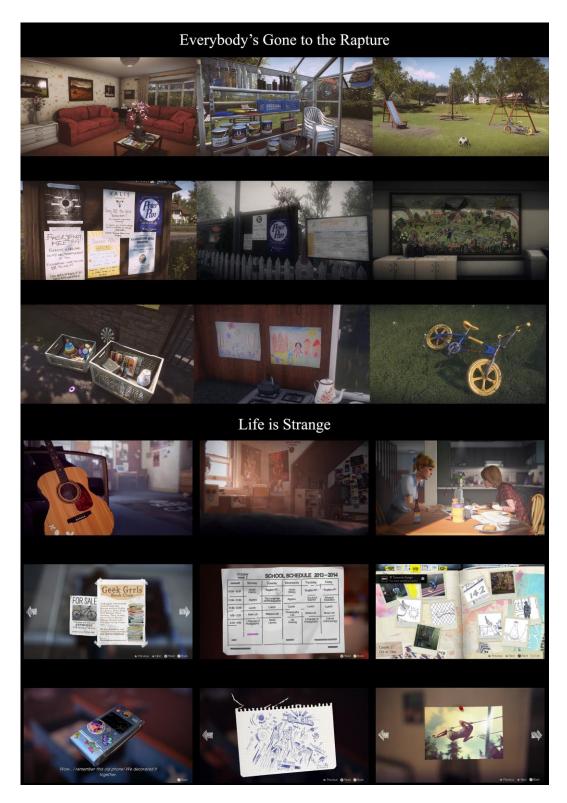


Figure 1: Comparison of familiar settings, familiar imagery, and familiar tactile artefacts (top, middle, and bottom rows respectively for each game) from *Everybody's Gone to the Rapture* and *Life is Strange*.

I argue that many of the settings in these games are adequately generic to act as memorative signs that can trigger the player's own, personal memories of the past. Rather than present players with explicit references, the seemingly innocuous use of a play park, caravan park, or greenhouse in EGttR can be sufficient to elicit players' childhood memories of play, holidays, or helping grandparents in the garden. In both EGttR and LiS, then, the spaces presented to the player are designed in such a way as to elicit feelings of nostalgia based on the player's own memories, rather than exclusively through the use of temporal cues based on a given time period. By extension, and drawing upon the literature on the psychology of nostalgia, I'd argue that the player's drive to explore these spaces is enhanced by the feelings of nostalgia these settings generate.

In addition to the settings, I would identify familiar imagery as a secondary means of generating player feelings of nostalgia. Again, I would separate familiarity with imagery from familiarity with a given time period. While many games present period graphic design and other visual imagery within their game worlds, I do not believe that this use of visual signposting is necessary for the elicitation of player nostalgia. Instead, the imagery depicted in EGttR and LiS can be considered visual triggers for the exemplars of nostalgia identified in the previous section, i.e. fond memories, the past/days gone by, remembrance, and past relationships. Figure 1 shows some examples of this type of imagery: hand written flyers, posters advertising an amateur theatre production, a holiday park schedule, a mural produced by children, posters for clubs, a private sales advert, a school timetable, and a scrapbook. Within this imagery there is little to signify a clear time period. Instead, I'd argue that these images serve as memorative signs for personal memories that many players are likely to share: memories of being on holiday, of being in community centres and youth clubs, or of being at school. As with familiar settings, this approach to the design of familiar imagery can support the elicitation of nostalgia across a broader group of players. And in both EGttR and LiS, these images can be seen to underpin exploratory gameplay. In EGttR, much of the imagery that is encountered creates links between characters, events, and settings. The overall narrative of the game is best understood when the images (such as posters and book covers) are approached and examined. In LiS, many of the environments are saturated with images on walls, surfaces, and in drawers and cupboards, driving the player to move around rooms and examine everything that can be interacted with. It is clear, then, that the familiar images in EGttR and LiS not only incorporate nostalgic qualities but also underpin exploratory gameplay. When we take into account the literature on the psychology of nostalgia, we can identify the potential linkage between these two effects.

The last category of familiarity in production design that I'd like to propose is potentially the most emotive and personal: familiar tactile artefacts. I'd define familiar tactile artefacts as objects within the game worlds that physically represent either remembered activities or human relationships. Figure 1 shows examples of these types of objects: in EGttR we see toys and books, children's crayon drawings, and a child's bike, while in LiS we see a customized mobile phone, doodles on notepaper, and a personal photograph. As with the previous categories, there is no clear need here for the objects to reflect period product styles or make reference to activities that were popular in particular decades. The toys, books, and bike in EGttR are designed with the qualities of 1980s England in mind, but as I've already argued this can be considered a surface detail. What is more important here is the elicitation of player personal memory by drawing attention to how these objects would have been used. In EGttR, for example, the crates of toys, books, and other knickknacks have been donated. This subtly but effectively targets the player's feelings of nostalgia. These are items that have been found in the home –

potentially in those common homely repositories of nostalgia, the attic or garage – and are now being given away. The specific items are not as important as the act that is being performed and the common, shared memories that are being signified. The giving away of children's toys, for instance, can be aligned with the exemplars of nostalgia both from the perspective of the children (reflecting on their old toys) and the parents (reflecting on their children growing up too fast).

Likewise, the customised mobile phone in LiS is an object representative of nostalgic friendship. In the game, Max and Chloe decorated it when they were younger, and its discovery trigger's Max's own memory of their innocent youth. But for the player it serves as a marker for a human relationship. A specific memory of decorating a clamshell phone is not necessary: a personal memory of being creative with a best friend is what is of most importance to the player. Many of the artefacts such as those shown in Figure 1 – from drawings and photographs to old toys and books – are designed and presented in a manner that is conducive to nostalgic reflection. Again, I'd connect this directly to the player motivation to explore, based on the literature on nostalgia. With these tactile items, the drive to explore can be likened to the pleasure derived from rummaging through an attic of forgotten objects. On the one hand the objects belong to the characters of EGttR and LiS, which creates the memory palace Jenkins (2004) described: environments left changed by narrative events and character relationships. But I'd argue that players could easily make a connection to their own memories when they are examining and exploring the worlds of both of these games, and it is this that makes the player experience of nostalgia and subsequent motivation to explore much stronger. In short, the familiarity of the production design seeds curiosity, which in turn emboldens us to explore.

Atmospheric nostalgia: nature, light, and music

Moving beyond the visual presentation of familiar environments and objects, we could consider how other, subtler audio-visual cues might elicit feelings of nostalgia. Specifically in the case of EGttR and LiS, I'd like to draw attention to how the representation of nature, depiction of light, and composition of music might trigger player nostalgia and, in turn, support exploratory gameplay.

The link between nature and the experience of nostalgia can be established in a number of ways (Ladino 2004). Nature can be considered simply as an Eden (in the psychoanalytical sense of a nostalgia for mythical origins), as the symbolic landscape of the preindustrial golden age, as the link to traditional cultures and childhood experience, or as a relic to be preserved by national parks. Both EGttR and LiS represent nature extensively in the game worlds. In LiS, nature plays an important thematic role in the game narrative, as it is presented as a destructive force in Max's visions. But nature is also contrasted against urban decay. For example, in episode 2 of the series, Max and Chloe visit a junkyard that they frequented when they were younger. This environment juxtaposes a vibrant, natural setting with the rusted and scrapped items of the dilapidated vard. Given time to explore, Max finds markers of childhood friendship in a makeshift den in the yard, but also heads into the tranquil woods where she has an encounter with a deer. The vibrancy and power of nature in LiS is contrasted with decaying urban environments and failing human relationships. This in turn can be considered an analogy for the contrast between the innocent, idealised past on the one hand, and the grim, complex reality of the present on the other. The predominantly natural setting of EGttR embodies a similar vision of a better past. For EGttR, the aesthetics of the pastoral clearly played a key role in visual design of the game: there are many vantage points that encourage the player to become a spectator, and much of the fictional Shropshire countryside is presented as if it were a

Constable landscape. The picturesque world of EGttR represents the idealised golden age, when communities were closer to and more integrated with nature. In both games, then, nature plays an important role in triggering our longing for a better past. As a result, we as players are intrigued and driven to explore these worlds.

While the representation of nature in EGttR and LiS can be seen as a means of triggering our shared feelings of nostalgia for a lost past, it is interesting to also note similarities in the use of naturalistic lighting (see Figure 2). Both games make extensive, artistic use of light for theatrical effect, often using light to saturate or blur scenes. It is striking how many scenes in EGttR and LiS target sunrises/sunsets, or 'the golden hour'. As Gurney (2010 p.180) describes, strong colours and lighting occur infrequently in nature, with the most opportune moments for dramatic light and atmospherics taking place around dawn and dusk. This is why many landscape artists and photographers select dawn and dusk scenes for their work. In Figure 2 we can see how the narrative of EGttR is mapped on to a day cycle, emphasising bold colour and light in the opening and final sections of the game. We can also note the prominence of golden hour lighting in LiS, while low sunlight is used for dramatic effect in some of the more emotive scenes. Where this golden light of dawn and dusk is used, the effect is to create dreamlike, almost ethereal scenes, and to emphasise mood and tone over the specific subjects being depicted. Many of the examples shown for EGttR are aesthetically similar to the atmospheric, nostalgic landscape painting of artists such as Constable or J.M.W. Turner, both of whom were interested in how rough depictions of light, skyscapes, and weather could capture the essence of a scene. In LiS, lighting and adjustments to camera focal length create scenes that appear visually similar to photographs. In both games, I'd argue that the use of lighting and composition supports the triggering of nostalgic exemplars. By focusing on



Figure 2: Example thumbnail-style screenshots that highlight use of colour and light. Above, an overview of the external colour and light progression in *Everybody's Gone to the Rapture* and, below, examples of scene lighting in *Life is Strange*.

emotion, mood, and tone, EGttR and LiS present lit scenes that can be interpreted more generally as memories of past experiences, times, and relationships, which in turn the player can connect to their own experiences. By extension, I'd argue that this nostalgic impulse supports the player's desire to explore both the dramatically lit rolling fields of EGttR and the moody rooms and personal spaces of LiS.

The other notable approach used in both EGttR and LiS to generate an atmosphere of nostalgia is the composition and selection of music. Despite a marked difference in style in the soundtracks, I'd argue that both soundtracks aim for and achieve a nostalgic tone without the need to import music that signifies or harks back to specific time periods. This is interesting, as selecting period or retro music would be one fairly predictable way of focussing the player on the past and triggering nostalgic exemplars. But, as discussed earlier, this strategy is problematic when player diversity is likely to mean varying degrees of familiarity with period musical genres or artists.

In the case of EGttR, composer Jessica Curry moved away from the initial temptation to utilise 1980s synth music to instead develop an orchestral and choral soundtrack, as she explains:

"I wanted to evoke nostalgia for an England that has gone, with a sense of deep beauty but with sadness always wrapped round the wrapped round the music. I wanted capture an England that never really existed anyway, one that only exists in the mind." (Jessica Curry in Steighner 2015)

The final composition for EGttR, rather than forming a link with the time period, connects to and embodies the scenes of nature and the dramatic lighting of Yaughton and the surrounding countryside. By specifically aiming for a timeless quality in her work, Curry has created a soundtrack that more successfully elicits feelings of loss, longing, and remembrance in players, irrespective of their own personal musical memories. The decision to link musical movements to individual characters in the game strengthens the sense of nostalgia. When details about the characters' lives and relationships are revealed, this is accompanied by the musical motifs associated with the characters. Subsequently, the score serves to reflect the emotions those characters experienced and the memories they shared. It is the emotional and reflective qualities of the score, then, that helps to elicit feelings of nostalgia for days gone by and the relationships of our own past. With LiS, the curation of a body of music for the soundtrack achieves a similar end result. Much of the soundtrack is instrumental or focuses on acoustic guitar, and again the musical choices mirror the tone and mood of the scenes depicted in the game. Indeed, music is often tied directly to the actions of characters in the game: for example, Max playing her acoustic guitar, or Max and Chloe listening to music on a bedroom stereo. This connects music to actions and memories, rather than focussing in on styles or artists representative of particular time periods.

From EGttR and LiS, then, I believe much can be learned about the development of a general atmosphere of nostalgia, based primarily on natural scenes, artistic use of lighting, and the selection of timeless, melancholic music. This additional layer of audiovisual design can be applied to different narrative contexts, augmenting an underlying production design that may or may not reference a past time period. Where gameplay is concerned with exploration, a nostalgic atmosphere could support the transformative impulse to head towards the horizon, or move on to the next room.

Thematic nostalgia: time, reflection, and loneliness

The key exemplars for nostalgia – fond memories, days gone by, remembrance, relationships, longing – are understandably rooted in our perception of time: particularly on the past and what has been lost. It is interesting, then, that EGttR and LiS have been designed around the theme of time. Not only that, but both games explore choice and its consequences on relationships. Within this we can observe that regret and remorse are frequently raised within the narrative and, in LiS, in gameplay.

In EGttR, nostalgia is most likely to be elicited through encounters with the fond and fraught memories of the game's characters. We could consider EGttR to be similar to a radio soap opera – an obvious choice being the BBC's nostalgic rural drama The Archers (1950) – in which the player finds and listens in on exchanges between characters. These exchanges reflect more general ideas of family, friendship, and romance that players are likely to find familiar from their own pasts. In EGttR, we bear witness to the choices characters have made and the subsequent impact of those choices on relationships. But we cannot act to change or influence these past choices. The result is a sense of loss and a longing to go back. In LiS, we are given this exact ability: the power to rewind time at key moments and make alternative choices. But often what we observe is that different choices lead to similar outcomes, or simply shift pain and suffering on to someone else. We could interpret that what EGttR and LiS are really concerned with is the need to let the past go, to focus on the present, and retain hope for the future. On the one hand, our past cannot be undone. On the other, alterations to the past do not necessarily make any improvement to the present. Both games therefore aim to elicit nostalgic experience through consideration of the past, and then shift our attention to living in the moment and engaging with the present: in other words, exploring the game worlds we currently occupy.

It is clear that thematic exploration of the past, present, and future in EGttR and LiS can support elicitation of nostalgic experience in players. But I'd argue that both games take this a stage further by encouraging a degree of player reflection and contemplation. This is certainly stronger in EGttR, which by design is concerned with player exploration of past events. But even in LiS – which more clearly takes place in the present and is concerned with unfolding events – there are sections of play that are designed to focus the player's attention on the past.

EGttR and LiS are slow-paced games with very little in the way of action-orientated or reactive gameplay. For the most part, players will be deeply engrossed in environmental examination and investigation. Exploration is generally not time-limited, and players will often be given as much time as they need or want to explore each environment or scene. LiS does mix this up by including some gameplay scenarios that require the player to explore and exit environments quickly: for instance, when Max and Chloe break into a swimming pool in episode 3, the player has to guide Max to dodge a guard and avoid detection. This places spatiotemporal pressure on the player. LiS also frequently mixes environmental exploration with significant player choices and the use of the rewind mechanic (to be used when the player wants to undo a choice, or where the player has failed in a more pressurised scenario). Nevertheless, the majority of play time in both games is unhurried, which in turn encourages curiosity and interest in the environments that can be explored. More interestingly, though, both games incorporate player activities that are purposefully designed to encourage reflection and contemplation.

In EGttR, enhanced player reflection and contemplation is accomplished through a careful balancing of walk speed versus environmental scale. There are no shortcuts in EGttR: no transport, teleports, not even a run button. The player must walk, slowly, from location to location. And for the most part, these walks take place through beautifully lit natural landscapes. Striking landmarks such as the Appleton's Mill (a windmill that can be seen from some distance) focus the player on long, winding walks through meadows and corn fields. At these moments, the slow pace of the player as they ramble through picturesque scenes of nature, combined with the use of atmospheric light and music, ensures that the player cannot help but feel reflective and contemplative. In turn, a desire to continue exploring is strengthened. There is no game to beat here, or score to best: the reflective player becomes focused on what they might find over the next ridge. LiS – with its more constrained environments - takes a different approach, but with an equivalent result. Throughout the game, the player is provided with opportunities to take time out and relax. This typically results in Max spending time alone: listening to music on a stereo, playing her guitar, or simply sitting on a bench and taking in the nature around her. These sections of 'play' loop until the player chooses to end them and return to active gameplay. But while these opt-in cut scenes are running, the shifts in camera position and the focus on Max's calm mental state encourage the player to share in Max's own contemplation and reflection.

What these reflective moments draw attention to in both games is an almost overwhelming sense of loneliness, which we know to be one of the most important contributing factors to the transformative experience of nostalgia. Loneliness is clearly pervasive in EGttR. Even before the opening sequence of the game, which establishes a strong sense of isolation, the game's title signifies that the game is primarily concerned with the most extreme form of loneliness: that of being the last person left on Earth. The manner in which other characters are presented – as joyful, sad, and melancholic memories that cannot be interrupted or altered – reinforces the isolation of the player. But it is the long, lonely walks that perhaps elicit the greatest feeling of loneliness (and, subsequently, nostalgia) in the player. In LiS, Max's time alone in her room or on a bench reinforces the loneliness that is experienced not just by Max (who receives much of her communication from friends and family via text message) but by other characters in the narrative who feel alone or abandoned by those they were once closest to.

AN IMPRESSION OF HOME AND THE IMPULSE TO EXPLORE

In this paper I set out to demonstrate the need to consider the player experience of affective nostalgia in game design. Many academic authors and game journalists have drawn attention to the growing trend towards nostalgia for past gaming. This has had repercussions on audio-visual and gameplay design, on the collection and consumption of gaming merchandise, and on the acquisition and preservation of games and games hardware by museums and galleries. However, as I have shown in this paper, the psychological and aesthetic experience of nostalgia need not be tied to specific historical or stylistic references. Additionally, the more general player experience of nostalgia can be considered a useful means of inciting player motivation to explore game worlds.

Based on my discussion of the literature and my examination of EGttR and LiS, I would draw two important conclusions that could inform game design practices. Firstly, I would recommend that designers consider how they might construct games and game narratives that promote player feelings of nostalgia without resorting to signposting specific period styles or conventions. As shown in this paper, it is possible to create impressions of shared pasts that encourage reflection on our more personal and inherently subjective

memories. This is an alternative (and potentially more effective) strategy to the remediation and/or representation of past styles and forms. On the one hand, the nostalgic pastiche represented by games such as *Far Cry 3: Blood Dragon* (Ubisoft 2013) can be effective where the target audience is one that shares a common frame of reference and a shared appreciation of past media (i.e. 1980s cult science fiction, synth rock, and action gaming). On the other hand, the impressions of homely spaces, of youth, of communities, and of relationships represented in EGttR and LiS stimulate the personal memories of a wider (although admittedly not all-inclusive) demographic of players. While our memories are by definition subjective, these games are able to invoke personal memories by suggesting the intersubjectivity of our shared memories (of the childhood home, of play, of holidays, of familial and romantic relationships). Just like Constable's atmospheric paintings, it is the looser impression of past times that supports the broader player experiences of nostalgia in EGttR and LiS.

Secondly, as our understanding of the psychological role of nostalgia improves, it is clear that the player experience of nostalgia is a useful one to the design of exploration-based games. As the literature discussed in this paper shows, nostalgia is most commonly a positive and transformative experience that tackles negative feelings of loneliness and stimulates the desire to approach and explore. If we present players with spaces that appear familiar, character relationships that reflect our own past experiences, and objects and audio-visual stimuli that rouse personal memories, the resulting experience of nostalgia can enhance player curiosity and drive them to delve deeper into the game world. In other words, when gameplay is dependent on player exploration, an understanding of the effects of nostalgia on player motivation can inform design practice and decision-making.

As a species we are innately curious about our world. The natural instinct to explore is what makes the worlds of adventure games so appealing to players. But with so many game worlds to explore, it is interesting to consider what it is about our shared human experience that underpins our environmental curiosity. While strategy games map our evolutionary desire for resources and control of land on to exploratory and expansive gameplay, adventure or narrative games must map on to other human desires. In part we can consider the pleasure of discovery, and the sublime qualities of virtual landscapes. But the aesthetic experience of nostalgia can also be a powerful motivator for curiosity, and a driver for environmental exploration. Games such as EGttR and LiS can be considered exemplars of this type of player experience, where the stimulation of nostalgic emotions peaks our curiosity and pushes us to continue exploring. As David Lowenthal states: "what pleases the nostalgist is not just the relic but his own recognition of it, not so much the past itself as its supposed aspirations, less the memory of what actually was than of what was once thought possible." (1985 p.8). Framed this way, we can consider EGttR and LiS to be games that curate triggers for personal reflections on a lost past that is not only perceived to be better than our current situation, but that can also provide us with hope and direction for the future. It is this sense of renewed hope for the future that is the perhaps unexpected outcome of nostalgia: an outcome that could motivate players to continue pushing on toward the horizon.

ENDNOTES

¹ The selected case studies depict Western, English-speaking, and predominantly middleclass environments. As the research aims to discuss broader player familiarity with these environments, this could be considered a limitation for the current study. Future research should consider examination of games that depict a wider range of social and cultural settings. Nevertheless, it is important to note that the current paper strives to identify archetypal elements within the environments, rather than focus on specific references that may only be understood by players who have direct experience of the cultures, societies, or time periods represented in the games.

² By generic familiarity I mean cues within game environments that, when deconstructed and categorised, could be considered triggers for personal memories, opening up the potential for player affective nostalgia beyond nostalgia that is elicited through familiarity with specific time periods, settings, and styles.

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