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CHAPTER 9.

WALKING AND WORLDING: TRAILS AS STORYLINES IN VIDEO GAMES

Finn Arne Jørgensen

Video games have grown into a major industry, ranging across a variety of genres that appeal to many kinds of users. No longer a niche phenomenon, video games are part of mainstream popular culture. During the COVID lockdowns of 2020 and 2021, more people than ever turned to video games for entertainment and social interactions.[1] Confined to their homes by lockdowns and restrictions, many embraced video game worlds as complements to, not replacements for, the world outside their homes. Games are not only a way to pass the time, but also a truly meaningful activity to many.[2]

It is not uncommon for video games to feature expansive, nuanced, and lively three-dimensional worlds that serve as venues for storytelling, exploration, social interactions and shared memories. Players traverse and navigate video game landscapes, observe virtual scenes and vistas and come to attach meaning to places in the game worlds. Players interact with video game worlds through controllers, often represented by an avatar in the game world.[3] As players move through game worlds, they also proceed through the plot of the game. Avatar movement is key to the act of getting to know video game worlds; it is not only a mechanism for transporting the player from place to place, but also a way of gradually introducing players to stories, characters and places.

This chapter is concerned with the place of trails, movement and heritage in a popular – and growing – genre of games called 'walking simulators'. Such environmental narrative games tend to focus on movement through and immersive interaction with landscape, rather than gameplay mechanics centred on competition, puzzles, urgency and structured branching or linear narratives. The chapter considers walking as a narrative practice, in video games and beyond, as evidenced by the vast amount of nature writing that uses walking as a method for reflection.[4]

1 Bengtsson, Bom and Fynbo, 'Playing Apart Together'.

2 Shi, et al., 'Understanding the Lives of Problem Gamers'.

3 Wolf, 'World Design', 71.

4 E.g. Macfarlane, *The OId Ways*.

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In essence, walking simulator games create a world based on walking, and they use the act and mindset of walking as a way of facilitating the experience of this world. 'Paths and trails exist because there is walking', write the editors to this book in their introduction. While that is true, walking on paths and trails also stages the landscape through which they pass in particular ways, drawing the attention of the walker to particular features. Paths and trails bring into being relationships between the ones who walk, and the landscapes being walked through and upon. This chapter asks whether the mechanisms through which such world-making relationships develop are similar in video game worlds and 'the real world'.

The chapter develops an argument that games and virtual worlds can involve some form of movement heritage too. Building on Rodney Harrison's argument that heritage isn't something that *is*, but something that *does*, and which is thus dependent on continuous use or memory work to remain, the chapter argues that walking simulators can hold some lessons for the study of movement heritage, in particular when it comes to the relationship between walking and worldmaking.[5] If physical walking relationships can become heritage, as is the central argument in this volume, could the same be true for walking in virtual worlds? Walking simulator games direct our attention to particular gameplay mechanics, where paths and trails are used by designers to signal to a player the continuation of a story. Heritage is always articulated, represented, mediated and experienced in negotiations between different actors. Trails give the player direction and structure in an otherwise unstructured landscape. As such, these trails are traversed by players – in some games millions of them – who have shared experiences of these landscapes. Anthropologist Tim Ingold highlights the close connection between storytelling and movement, arguing that a story is a journey between locations and subjects.[6] Walking trails create storylines in digital game landscapes. This insight can apply to scholarship on trails and heritage: trails provide a common shared space for narratives about the landscape the trail passes through.

In this chapter, we will go on hikes through three games, framed by an introduction to 3D game worlds and a concluding discussion of heritage, walking and worlding in video games. The chapter discusses the interpretation and representation of movement heritage, but also the experience, and even enacting of, movement heritage in and through media.

5 Harrison, *Heritage*.

6 Ingold, *Lines*, p. 90.

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A brief history of virtual worlds

Most of us have, at some point in time, encountered some form of video game world, as a player or as a spectator. Many classic video games take place along two axes, X and Y. In such two-dimensional games, players can go left or right, up or down. Basic two-dimensional games generally do not require massive computational resources to run. Early 3D games, which introduced a Z axis as well, were severely limited by computer processing capabilities, so they were designed to be simple and empty, with as few objects as possible, so that they could run on low-powered computers. For example, *Battlezone* (1980), which is generally acknowledged as the first 3D game, uses simple wireframe vector graphics (Figure 1) to evoke a three-dimensional world. In *Battlezone*, players drive a tank around a simple, flat landscape, with mountains in the background, a moon in the sky, and various solid geometrical objects on the ground that players can hide behind while battling other tanks. 3D graphics of this type opened the way for an entirely different feeling of space to be navigated by players.

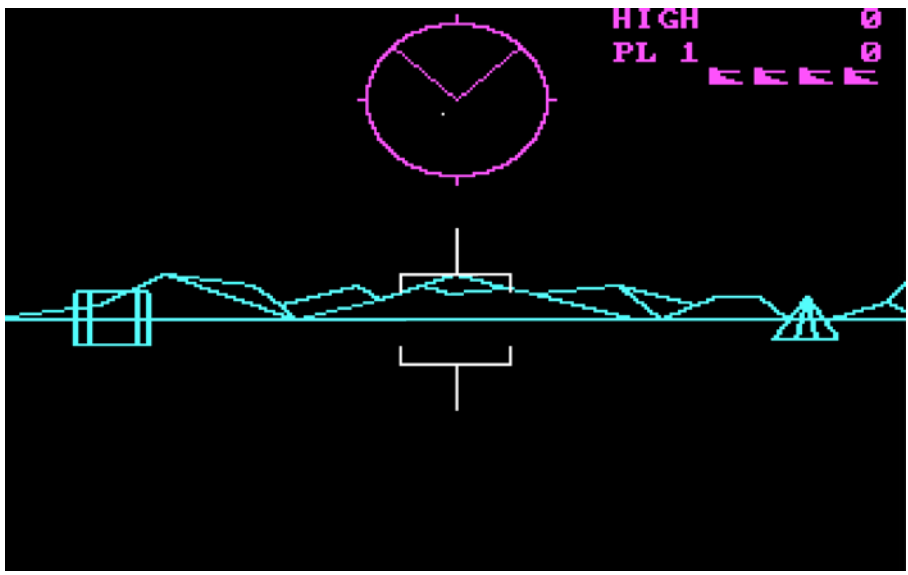

Figure 1.

Screenshot from *Battlezone* (Atari, Inc., 1980), captured by Finn Arne Jørgensen.

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As games moved from 2D to 3D, they allowed for freer navigation and exploration by players. The spaces of video games worlds changed, making movement in video games more similar to the way we orient ourselves in the physical world. As digital media scholar Michael Nitsche argues, while video game worlds are processed in particular ways, depending on algorithms and mathematical rules, the players' experience of video game spaces cannot be explained solely by the technology creating these spaces.[7] There are emergent qualities to the experience of players. Nitsche highlights how video games are often spatial, presenting the player with spatial environments to be interacted with through navigation, exploration, movement and manipulation. In games, '[s]pace is understood best through movement, and complex spaces require not only movement but navigation', argues media studies scholar Mark Wolf.[8]

With increasing computing capabilities over time, the 3D engines that power these game worlds became more and more powerful and sophisticated. Game worlds are now filled with detailed objects that can often be manipulated and not just observed by players. They exist as entities in space, reflecting light and casting shadow. These objects also exist in relation to one another, with physics and collision detection as an integrated part of the game engine. Common game engines like Unity, Unreal Engine or Source Engine games are software frameworks for game development that feature graphics rendering in 2D or 3D, a physics engine, game assets such as objects and sounds, and so on. Using the tools at their disposal, game world designers combine text, images, visuals, sounds and space to create and shape environments. In practice, 3D games are engines, settings, environments, experiences, all in one. The resulting game worlds vary tremendously in detail; some are small and bounded, not reaching much further than the immediate surroundings of the player. Others are vast and open, feeling like living breathing worlds where there is always something more to discover just around the corner. Some approach photorealism in style, whereas others are cartoonish. Some games pay close to attention to the physics of avatars moving through the world, with a field of view that bobs as the player walks, runs or jumps, at speeds that vary depending on the terrain, and player endurance that requires rest and recovery at regular intervals. In other games, the avatar feels strangely disconnected from the game world, with movement patterns that don't feel right, either floating effortlessly over the ground or feeling heavy and sluggish.

Within the broad category of 3D game worlds, many different genres exist

7 Nitsche, *Viteo Game Spaces*, 8.

8 Wolf, 'Theorizing Navigable Space in Video Games'.

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and each features different mechanisms and purposes of movement within the game. This chapter will particularly focus on the 'walking simulator' genre. The term 'walking simulator' was initially a derogatory term, indicating that such games were not 'proper' games and that simply walking was not a sufficient gameplay mechanism, but game makers quickly embraced the term and made it their own.[9] The online game store Steam currently has more than 1,100 games categorised as Walking Simulators.[10] Notable popular games on this list are *Gone Home*, *Death Stranding*, *Firewatch*, *Everybody's Gone to the Rapture*, *Dear Esther* and *What Remains of Edith Finch*. There is a huge variety within this selection, but most games emphasise immersion and the experience of a place as major parts of the gameplay. Game studies scholar Alenda Chang, in her study in environmental games, characterises walking simulators by highlighting 'their slowness, their lack of action, the absence of people, their spatial storytelling'.[11]

In some games, your role as player is to make the narrative unfold and follow it to the end. For example, games like *Dear Esther*, *Gone Home*, and *What Remains of Edith Finch* build on exploration of limited spaces and scripted events, allowing players to take part in a story by exploring an environment. Media studies scholar Ian Bogost, in critique of walking simulators, notes that environmental storytelling in games 'invite[s] players to discover and reconstruct a fixed story from the environment itself'.[12] Despite the interactivity of these games, they are in essence linear experiences, as there is a set story to follow – to enact – and a strictly bounded space in which to experience them. In other games, such as *Red Dead Redemption 2*, you create the narrative, moving freely in open worlds between scripted or algorithmically-generated encounters with landscapes and stories. Some qualities and features of these worlds are emergent, whereas others are predetermined by the creator of the game.

Within these walking simulator games, the act of walking along a trail or path often plays a central role, though there is variation in how these relate to heritage. In the following sections, we will take three hikes on the paths and trails of different games, in order to discuss some of the forms of digital movement heritage in walking simulators.

9 Zimmermann and Huberts, 'From Walking Simulator to Ambience Action Game'.

10 Steam web store, 'Browsing Walking Simulator': https://store.steampowered.com/tags/en/Walking%20Simulator/ (accessed 12 April 2021).

11 Chang, *Playing Nature*, p. 43.

12 Bogost, 'Video Games Are Better Without Stories'.

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Hike 1: *Dear Esther* (no landscape is a blank slate)

Dear Esther – originally from 2008, released commercially in 2012 – is often labelled as the first walking simulator. In the game, the player walks repeatedly along a path on an island (Figure 2), listening to audio fragments from people who lived on the island. With each playthrough – or walk across the island – new fragments appear and add up to a more detailed story that explains why the player is on this mysterious island. But there is no ultimate goal or end beyond the gradual immersion in a story, something which characterises walking simulators. There are no opponents, no fights, no challenges to overcome. Yet, *Dear Esther* differs from later walking simulators in that there is less room for individual explorations. The game takes place along the path, in a linear fashion, with very little interaction with the game world itself. Even

Figure 2.

Screenshot from *Dear Esther* (The Chinese Room, 2012), captured by Finn Arne Jørgensen.

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the player avatar feels strangely disconnected from the game world, hovering at eye-height from the ground, but never bobbing around or being jostled when moving through the landscape.

Walking in *Dear Esther* is an exploration of heritage. The audio clues from the past that appear through the act of walking reveal the path as a keeper of the past. In walking, the player discovers the existence of other stories, but never fully, only in fragments.[13] There is no complete and orderly storyline in the game but, by walking the path, the player figures out the story piece by piece. As observed by Rebecca Solnit, trails and paths cannot be experienced as a whole at the same time by a traveller, and so it is also in this game.[14] While players of *Dear Esther* are limited to the path and can't break out to explore other parts of the island, they are still reminded that walking is a cultural act, of experiencing, but also of reinforcing, the traces of those who have gone there before.

Walking the trail in *Dear Esther*, we are reminded that no landscape is a blank slate. If we glance over to some of the tropes of traditional travel writing, one can get the impression that the explorers of the nineteenth and early twentieth centuries, upon 'discovering' scenic mountain regions for the first time, considered them blank slates.[15] But we know that these landscapes were not undiscovered; the travellers used local guides who knew the mountains, and they often walked along paths made by people and animals, and so on. Trails remind us of those who have gone before us; they are incomplete traces of a past that we can't fully know.

Hike 2: *Firewatch* (modeling on real-world environments)

Firewatch is a 2016 game that puts the player in the position of a fire lookout named Henry in the Shoshone National Forest in Wyoming, one of the oldest national parks in the US. As such, the game world is modelled on a real place (though not actually replicating it). The game is also situated in time, taking place in 1989, a year after the largest fire in the history of the Yellowstone National park. Like in many other walking simulators, the game lets the player gradually uncover a story through snippets. The story features mystery and even some drama that is put into motion by the player's character, Henry, leaving a fire lookout to navigate the outdoors, using trails, maps, and a compass, as shown in Figure 3. In doing so, Henry discovers other sites and other people in the forest, and these discoveries propel the story along.

13 Şengün, 'Ludic Voyeurism and Passive Spectatorship'.

14 Solnit, *Wanderlust*.

15 Dolan, *Exploring European Frontiers*; Fjågesund and Symes, *The Northern Utopia*.

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Figure 3.

Screenshot from *Firewatch* (Campo Santo and Panic, 2016), captured by Finn Arne Jørgensen.

Firewatch puts great emphasis on the act of walking and navigating the outdoors, writes Alenda Chang.[16] Unlike in *Dear Esther*, players in *Firewatch* can choose to wander freely within the area of the game world, even though the story depends on the player locating particular places in the world to move the story forward. Rather than accurately copying landscape features from 'the real world' to the game, the game designers chose to instead evoke the feeling of the place through extensive place-based research. This feeling of 'place-ness' is central to many compelling game worlds, where visual style, narrative, game engine physics and landscape features come together to create an experience that feels right.

Firewatch shows us how the relationship between game worlds and the physical world is a complicated one. Place and location are never something that can be copied completely into a game – or into any heritage setting – so designers have to choose which characteristics are important to convey. It can be physical features – an iconic peak – or it can be a feeling. We can't say that one feature is better than the other, or more important to translate into a game setting. Maps like the ones featured so prominently in *Firewatch*, serve to mediate the relationship between the player, the physical world and the game world.

Henry uses a map and a compass to navigate the game world, matching up landmarks and environmental clues to features on the map. This game map draws heavily on conventions of real-world maps, serving as a representation of a physical space that highlights some things while leaving out others. The

16 Chang, *Playing Nature*, p. 44.

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Firewatch map, which we see in Figure 3, is topographical, using contour lines to represent landforms and terrain, including bodies of water and forests. It shows both natural and man-made features, including roads and trails. Finally, the map is annotated with placenames and a compass rose that aligns the map with the cardinal directions. As the player moves throughout the game and its story, Henry scribbles notes on the map, contributing to further annotation of the landscape.

While maps are common in video games, they are often displayed as a part of the technical interface of the game, rather than as an object in the game that the avatar must handle, as is the case in *Firewatch*. Most video game maps also show the location of the player on the map, making navigation relatively easy. This is a convention most of us also know from using modern GPS units, where the user is always located at the centre of the map, while the rest of the world revolves around them. However, in *Firewatch*, players can choose in the settings whether to have their location displayed on the map or to only navigate in a more realistic way by using a compass and reading the landscape. In doing so, the game gives the player the option to engage with the game world in a different way.

Firewatch evokes heritage by allowing players to explore a game world that builds on real-world environments and real-world navigation conventions. As in *Dear Esther*, the story is revealed and experienced as the player moves through the game world, pieced together from small and incomplete components. The game directly addresses the ways in which the player makes sense of a landscape through annotating the map with notes about their experiences. The map becomes a form of heritage, a recollection of the journey the player has taken and the paths they followed.

Hike 3: *Red Dead Redemption 2* (immersion in vibrant worlds)

Even in games that feature more traditional gameplay mechanics, users can sometimes choose to disregard these aspects of gameplay and instead explore the world through walking and a gameplay approach that borrows heavily from walking simulators. In the high-profile action-adventure game *Red Dead Redemption 2* (2019), set in a fictionalised representation of the US southwest in 1889, the player is Arthur Morgan, an outlaw member of the van der Linde gang. While the game has a compelling, action-oriented and often violent plot, many players instead spend a considerable amount of time exploring the carefully crafted game world, through activities like birdwatching, animal spotting and walking or riding along trails. Through such activities, players develop a

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Figure 4.

Screenshot from *Red Dead Redemption 2* (Rockstar Games, 2019), captured by Finn Arne Jørgensen.

deep knowledge of and connection to the game world. A recent survey found that playing *Red Dead Redemption 2* increased players' knowledge of animal behaviours and interspecies interactions, as well as improving their ability to identify wildlife.[17] These connections are built through movement and experience of place.

The appeal of diverging from the main plot of the game in large part stems from the stunningly detailed game world of *Red Dead Redemption 2*. Unlike the early 3D games that had to take a minimal approach, this game environment is filled with rich details, where plants, trees, birds, animals, fish, weather and light makes the world feel alive (Figure 4). This makes the game more of an immersive environmental simulator than a walking simulator. The player has some freedom in deciding how far to follow the storyline and how much time to spend exploring the world, either through side quests or just enjoying

17 Crowley, Silk and Crowley, 'The Educational Value of Virtual Ecologies in Red Dead Redemption 2'.

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landscapes, views and wildlife. This has to some extent been included in the game design. For example, the player keeps a log of all species encountered, and even makes little sketches of plants and animals. To get an animal entered into the log, the player has to study it for a little while. Many animals are wary and/or very mobile, so it is challenging to get close enough. For this, the player has binoculars, which let them study animals (and landscapes) at a distance. They can also sneak up on animals on foot, by crouching or hiding behind landscape features, and also by considering wind direction and scent. The player has to develop a very careful environmental sensibility, being aware of the relationship between their virtual body, the landscapes it moves through and the other virtual entities inhabiting this space.

Calling *Red Dead Redemption 2* a walking simulator is not entirely unproblematic, but it borrows many characteristics from the genre. One commentator notes how one of the quests in the game basically recreates the setup of *Gone Home*, another well-known walking simulator.[18] In this quest, Arthur, the game's protagonist, agrees to visit the seized home of an old man he meets to recover some valuables – his pistol, pocket watch and an old ledger. Upon visiting the house and breaking down the door with an eviction notice, Arthur finds various clues that reveals that the old man was a slave catcher in the south before the Civil War. This exploration of environmental clues to piece together a history is a common trope of the walking simulator genre, unveiling that any place encountered in the game can have hidden histories and a deep heritage. Furthermore, the walking in this game is clearly designed to be slow and deliberate, to stimulate immersion and attention to detail. Players who want more speed can run, but their stamina is limited. Players can also ride horses, which arguably is a major part of the game. Horses come in many different breeds with different characteristics, and over time the player builds a deeper relationship with the horses. But even though horses are faster than walking, their capacity to gallop is also limited by their stamina.

Like many open-world games and walking simulators alike, *Red Dead Redemption 2* requires exploration of the world in order to proceed in the story. The large game world of *Red Read Redemption 2* is navigable through an extensive network of paths and trails, ranging from large and well-used to small and sometimes hardly even noticeable. These paths and trails can be seen on the in-game map, where a fog-of-war mechanism also shows the player which areas have been explored (Figure 5). The existence of unexplored areas on the map is something that encourages players to seek out these areas, as

18 King, 'Is Red Dead Redemption 2 A Walking Simulator?'.

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Figure 5.

Game map from *Red Dead Redemption 2* (Rockstar Games, 2019), captured by Finn Arne Jørgensen.

do the trails that lead there. Over time, previously explored landscapes can be accessed through fast travel, in this case by taking the railroad from one of the stations on the map.

The paths, trails, and roads in Red Dead Redemption 2 facilitate discovery and navigation in a very large and lively world that feels storied and inhabited, dense with characters, non-human life, varied landscapes and traces of a past that the player constantly must negotiate as Arthur Morgan. Over time, as the player gets to know the layout of the game world through constant movement and navigation, trails become familiar routes between key locations, taking on additional meaning. Players learn what kind of animals are common in particular areas and they figure out which areas are safe, and which are more risky to be around. Weather effects and regional climate differences also contribute to the lived-in feeling of game world of *Red Dead Redemption 2*.

Movement heritage in video games

We have seen three examples of games where walking, paths and trails play a central part. Video games have spaces that can become places. They can also have heritage, shared understandings of past and place. There is no doubt that trails and footpaths in physical landscapes represent some form of heritage – we have inherited them from longue durée uses of landscape. They represent modification through use. They structure a landscape as well as accommodate movement. They are a form of engagement with space, stretched over time. By making the detour (following the path) through video games, we can learn

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something about how paths and trails function as media in landscapes. They set the scene for experiencing landscape. Trails in particular (unlike paths) are often specifically designed to direct wanderers' attention to particular things and particular landscapes.

Games present interpretations of landscapes and infrastructures, with inherent expectations about how players might use and understand them. But game makers also pay such attention to the act of walking and the mediating role of paths and trails because they are an established way of making sense of landscapes. What is being interpreted in games is thus not just the landscapes, but also the movement through them, and the relationships that evolve through this movement. This is movement heritage, as I see it.

Rodney Harrison argues that we should consider heritage as 'a series of strategic sociotechnical and/or biopolitical assemblages composed of various people, institutions, apparatuses (*dispositifs*) and the relations between them'.[19] In games like the ones that have been discussed here, heritage exists as something we might call worlding or world-making, an emergent process where 'realities are built, designed and held together by observational and ordering practices'.[20] Geographer Yi-Fu Tuan wrote that 'When space feels thoroughly familiar to us, it has become place.'[21] This also happens in video games. Some game worlds are persistent over time, for example in series of games or in massive multi-player games like *World of Warcraft*, where imagined geographies are explored and shaped over time. As one of the best-known games in the genre, *World of Warcraft* launched in 2004 and is still receiving updates and expansion packs that extend the gameplay and develop the game world.[22] Like many other such games, *World of Warcraft* builds on even older games – the first in the series, *Warcraft: Orcs & Humans,* launched in 1994 – and generates sequels and spinoff games. Over their long lifespan, games like *World of Warcraft* gain a history, and become full of lore. Another famous franchise, the *Elder Scrolls* game series, does something similar, where a series of games developed over decades take place in the same world, gradually gaining more and more depth and identity – a heritage – that returning players continue to immerse themselves in over time, learning more and forming new attachments to the world. The time players invest in such game worlds is considerable, easily moving into hundreds or even thousands of hours.

19 Harrison et al., *Heritage Futures*, p. 37.

20 Harrison et al., *Heritage Futures*, p. 251.

21 Tuan, *Space and Place*, p. 73.

22 The last expansion pack, *Shadowlands*, was released in 2020, and received its last major patch in mid-2021.

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Questions about heritage in games and virtual worlds will only become more relevant as large corporate actors continue to commercialise virtual reality through initiatives like *Second Life* (which saw a big push in the mid-2000s and early 2010s) and the Metaverse (which is Facebook's 2021 big bet on the future). Such virtual worlds will not only require heritage that users can explore but will also become heritage over time, as Rodney Harrison argued in his study of museums, monuments and buildings in *Second Life*.[23] This has major implications not only for the ways in which we think about video games and virtual worlds, but also for how we conceptualise and manage heritage. Game worlds in particular are tied to software and hardware platforms that become obsolete over time, so either the games need to be actively maintained and transitioned to new platforms in order to remain usable or the platforms need to be preserved so that the game can run on them (a point explored in Raiford Guins' excellent study of the afterlives of video games).[24] Like many preserved heritage experiences, video game worlds can also be saved as snapshots, unchanging and frozen in time. Yet, like so much cultural heritage, a significant part of the heritage consists of active communities of people, who use, discuss, develop and change heritage. Perhaps here we can find a final paradox of movement heritage – in order for it to become heritage, it needs to remain in movement, never to be fully captured and frozen in time.

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23 Plunkett, 'On Place Attachments in Virtual Worlds', 174; Harrison, 'Excavating Second Life'.

24 Guins, *Game After*.

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