CURRENTS. A Journal of Young English Philology Thought and Review. Vol. 6/2020
Ed. J. Siepak, E. Lorek-Jezińska, N. Strehlau, D. Watkowska & B. Jankowska, www. currents.umk.pl
ISSN 2449-8769 ||

Natalia Anna Bracikowska
Nicolaus Copernicus University

ENVIRONMENTAL STORY-TELLING—THE LIMINAL SPACE BETWEEN EMBEDDED AND EMERGENT NARRATIVE

Keywords: environmental storytelling, game environments, gamespaces, storytelling, video games

Introduction[1]

Game studies, a formal study of games, is a relatively young academic field attracting scholars from various disciplines, including literary theory, media studies, cultural studies, psychology, sociology, and computer science. Frans Mäyrä notes that the "highly interdisciplinary character of game studies can partly be seen to be born out of necessity" (313), since the history of the field has been rather brief and heavily reliant on approaches rooted in other academic fields. More recently, game studies has grown rapidly as a discipline in its own right, closely paralleled by the increased sophistication of video games[2] and their growing cultural influence. As such, video games constitute texts worthy of academic study, especially in the humanities where they remain vastly underexplored in comparison to other media forms.

Drawing from the fields of computer science, graphic design, and creative writing, game environment design is intrinsically linked to the narrative aspect of contemporary video games and ought to be taken into consideration for a nuanced analysis of games as cultural texts. After a brief introduction of video games as a narrative medium, the paper focuses on the examination of selected aspects of the interrelation between the game environment and narrative within the context of *environmental storytelling*—a technique of telling a story through details in the environment. The paper later argues that environmental storytelling exists in a liminal space between embedded and emergent

narrative, as the former emerges only through the player's active involvement in its (re)construction.

Video Games as a Narrative Medium

Although at this juncture the narrative potential of video games is virtually non-debatable, the question of whether they can be perceived as fully-fledged narratives has been highly contested since the inception of the field (Mukherjee 1–2). While the story tends to be one of the central elements in the majority of video games, not every game is designed to tell a story—and when it is, some theorists argue, its narrative "operates at a fundamentally different level […] than it does in other media" (Pearce 144). Moreover, the importance of story in story-driven games "varies across genres as well as from player to player, since different player types focus on different kinds of experience when playing" (Thon 105). Given the novelty of the medium and the divergent theoretical approaches to the study of games, it is hardly surprising that the game studies' discourse centered, for a while, around the relationship between narrative and play[3]. However, as much as the attempts to create new research methods were well-grounded, the same cannot be said for the dismissal of the narrative-centered method of analysis of video games and, subsequently, their narrative potential.

In line with the main assumptions of transmedial narratology—applied to the study of video games already at its formative stage as a distinct discipline—stories possess a universal quality of capturing and examining themes relevant to the human experience, but "the choice of medium makes a difference as to what stories can be told, how they are told, and why they are told" (Ryan 25). Piotr Kubiński explains that contrary to the traditional approach to narrative, which viewed it as an act of storytelling inherently linked to language, transmedial narratology considers narrative a mental construct that emerges in response to a text, rather than being manifested solely through linguistic expression (23). In order to effectively talk about game environments and

environmental storytelling, it is essential to outline the aspects that distinguish video games from other narrative media, and analyze the affordances of these medium-specific features in terms of the structure and experience they offer.

Scholars point to *interactivity*, or *interaction*, as one of the defining elements of digital media (e.g., Crawford 1984, Aarseth 1997, Nitsche 2008). Arguably, one of the core reasons for the immense success of story-driven video games is their ability to provide players with agency, situating them as active participants in rather than observers of the unfolding events. Dovey and Kennedy write that "a text was [originally] said to be 'interactive' when an individual could directly intervene in and *change* the images and texts that he or she sees" (6, original emphasis). Scholars have since argued, however, that other media texts may also be considered interactive, since any act of media consumption is essentially an active process (e.g., Fiske 1987, Jenkins 1992).

In order to solve the problem of the overgeneralization of interactive texts, Sebastian Domsch proposes a useful tool for categorizing media in terms of their *nodality*. His model builds on Christoph Bode and Rained Deitrich's concept of a *node*, which denotes "a situation that allows for more than one continuation" (Domsch vii). The first differentiation specifies that both types of media are governed by a fixed set of rules, but only actively-nodal media produce alternative results based on the user's input (6). The second differentiation identifies media that depend on the user for temporality and movement, and those that do not—the former referred to as "static," and the latter "dynamic" (6–7). Most video games operate on the branching narrative model and depend on the user for story progression, at the same time allowing their existents (such as non-player characters and enemies) to act independently from the player. Applying Domsch's terminology, video games fall into the category of dynamic actively-nodal media, as the perceptible form can be transformed through the player's input, but the medium itself changes in real-time and independently of the player.

Another feature characteristic of video games is their *spatiotemporality*. Every game is essentially bound within a certain demarcated space governed by its own laws, logic, and time. This idea is directly linked to the concept of the magic circle[4], first defined for the purpose of games by Salen and Zimmerman as an artificial space separate from reality, in which all the rules of the outside world are overridden by the rules of the gameworld[5] (95). This, naturally, does not mean that the player's behavior and choices outside of this space have no effect on what happens within it—and vice versa. On the contrary, some players claim that their real-life experiences often determine the kind of choices they make, some maintain that certain games have had a lasting impact on their lives, and others point to the social aspect of games and gaming culture as such[6]. It should therefore be stressed that the boundary delineating the gamespace[5] is not unbreakable, as the line between virtual worlds and the real world has become increasingly blurred.

Apart from the magic circle, the inseparability of time and space is very much apparent in the way in which video games structure and convey stories. Instead of a purely temporal sequence, it is worthwhile to view video game narrative as a blend of the temporal and the spatial; for David Herman, "narrative enables spatial and temporal information to be woven together into spacetime coordinates defining successively encountered places and events in narrated worlds" (2000). In consequence, various narrative elements of a game become conceptually mapped and stored in the player's memory in the form of spacetime coordinates, which can be readily recalled and rearranged as new elements come to light[7].

Discourse on Environmental Storytelling

Environmental storytelling is the most commonly used term denoting the practice of utilizing the game environment as a means of world-building and storytelling. Although definitions vary, two major applications of this phenomenon emerge on the basis of various approaches: first, the narrative

aspect is reflected in the environment design, and the movement through the designed space generates the story; second, the player reconstructs the story by interpreting different objects, scenes, and events embedded in the game environment (Fernández-Vara 3). Environmental storytelling is, however, not entirely specific to video games. Originating in the theater and later adopted by film scholars, the French term *mise-en-scène* (literally "putting on stage") is used in reference to the arrangement of components involved in the staging of a scene in a play or film production. These include set design, props, costume, lighting, actors, and other elements required to stage a particular event for the audience or camera (Bordwell and Thompson 169–189). Despite the fact that *mise-en-scène* has its roots in theater and film theory, it is frequently brought up in relation to virtual environments because of a number of similarities between set dressing and game environment design. As will be shown in this section, a number of game scholars and game designers have already drawn a connection between these two concepts.

Environmental storytelling was first defined by Don Carson, a former theme park designer for Walt Disney Imagineering, with reference to the idea that physical spaces can evoke stories. Carson argues that in themed environments "the story element is infused into the physical space a guest walks or rides through" (1)—a concept closely related to video games on account of their reliance on space and movement. Carson saw potential in establishing a dialogue between theme park and game designers, as the rapid evolution of computer technology at the turn of the century allowed for the creation of increasingly believable representations of real and imagined worlds. Thus, a major part of his article offers practical advice on the creation of more detailed and story-saturated game worlds, such as the importance of establishing the player's relationship to the fictional world through the environment, the use of cause and effect vignettes that shape the player's understanding of past events, the use of reference points that allow the player to anchor themselves to something familiar in an otherwise alien environment, and the use of contrast

and asymmetry to create accurate and engaging representations of the world (1–4).

Game scholars continue to discuss environmental storytelling in the light of Carson's contribution. The next influential work on the concept came from Henry Jenkins at the height of the "story versus play" debate in game studies—2004. Jenkins acknowledges that "a discussion of the narrative potential of games need not imply a privileging of story over all the other possible things games can do," as the experience of playing games should not be reduced to their narrative component (120). He posits, however, that a majority of contemporary digital games *do* tell stories, and therefore it is indispensable to develop a solid understanding of the relationship between narrative and games (121). Positioning games within a much older tradition of spatial stories, he argues that

> [e]nvironmental storytelling creates the preconditions for an immersive narrative experience in at least one of four ways: spatial stories can evoke pre-existing narrative associations; they can provide a staging ground where narrative events are enacted; they may embed narrative information within their mise-en-scene; or they provide resources for emergent narratives. (123)

Jenkins's narrative architecture explicates the relationship between the game environment and narrative by pointing to the various ways in which the former can support video game narratives. According to this architecture, *evoked narratives* are based on the pre-existing familiarity with a genre tradition, story, or franchise (123). Indeed, apart from being stand-alone texts, video games often embrace broadly shared genre traditions or exist in a dialogue with a larger narrative system—a storyworld. Environmental storytelling can be used in such a scenario to facilitate meaning-making by appealing to the player's knowledge or memory of relevant themes and events from other texts. Enacted narratives depend on "broadly defined goals and conflicts pushed forward by the character's movement across the map" (124) and micronarratives, or memorable moments, meant to appeal to the player's emotions (124). Such a narrative includes a combination of pre-determined narrative sequences, cut-

scenes, and gameplay proper, with environmental storytelling facilitating "the protagonist's forward movement towards resolution" (124–125). In *embedded narratives*, the "story is less a temporal structure than a body of information (...), presented across a range of spaces and artifacts" (126). The virtual environment becomes a kind of information space, with the story element embedded in the mise-en-scène and awaiting discovery. In contrast, *emergent narratives* are generated through gameplay in game environments that are "designed to be rich with narrative potential, enabling the story-constructing activity of players" (129). This arrangement highlights the unconstrained player agency typical of most sandbox, life simulation, and strategy games, where the narrative is largely authored by the player.

The interrelation of space and narrative remains prevalent in discussions among game studies scholars. Michael Nitsche proposes the term *evocative narrative elements*, meaning the elements in the environment which support the player's understanding of the gameworld and their relationship to it (37). Even though he does not explicitly refer to environmental storytelling, his account on the integration of the story element within the gamespace corresponds to other theories on this concept. Nitsche approaches narrative in video games from a cognitive perspective, arguing that it is produced through the player's continuous effort to make sense of the gameworld and "evoked and directed by evocative narrative elements, formed by encounters or situations in the game that prime some form of comprehension" (44). Such elements are intentionally dispersed or arranged in certain ways to "trigger reactions in players in order to help them create their own interpretations" (44). The player can then assign meaning to each element and contextualize it in relationship to others.

Building upon Nitsche's contribution, Clara Fernández-Vara coined the term *indexical storytelling*, illustrating how environmental storytelling can be—and often is—practically implemented in video games. She defines it as "generating stories through traces, both on the part of the designer and on the player" (4),

and, applying the concept of indices from Charles Peirce's semiotic theory, argues that video game environments contain a full array of indexical clues, which the player is encouraged to interpret (4–5). Apart from being suggestive markers that guide the player through the gameworld, these traces often play a world-building role, pointing to past and/or current events of the embedded narrative (4–5). The resulting vagueness and uncertainty create room for multiple interpretations within the constraints of the conveyed story (4–5). Examples of indexical storytelling can be as simple as a blood trail, or as intricate as a body of clues that delineates the socio-political landscape of a given gameworld. What indices and evocative narrative elements have in common is a semiotic approach to the study of gamespaces and reliance on the player's involvement in meaning-making. In both cases, Fernández-Vara aptly notes, "storytelling becomes a game of *story-building*" (1, original emphasis), since "the story is not told in a traditional sense, but rather put together through different pieces" (5).

The growing interest in environmental storytelling is observable not only in game studies, but also in the game industry. In the last decade, the concept has gained prominence as a result of the emphasis placed on fitting narrative in a player-focused interactive experience (Campbell, polygon.com). The 2010 GDC (Game Developers Conference) in San Francisco saw at least two presentations devoted to the examination of the ability of game environments to communicate stories. Game designers Harvey Smith and Matthias Worch offered the following definition of environmental storytelling: "staging player-space with environmental properties that can be interpreted as a meaningful whole, furthering the narrative of the game" (16, in a presentation). These environmental properties operate on the level of subtext, which encourages the player to infuse potentially meaningless scenes with meaning (17), but they can also be employed to facilitate navigating a particular area, warn the player of imminent danger, or signal specific qualities of the environment (30–33). More importantly, Smith and Worch understand environmental storytelling as a

design tool for providing narrative context and reinforcing the player's identity without the need for conventional exposition, which is typically realized through dialogue-heavy cut-scenes that—if longer than necessary—might reduce engagement and risk breaking immersion. Not unlike Fernández-Vara, they posit that environmental storytelling "relies on the player to associate disparate elements" and "invites interpretation of situations and meaning according to player's views and experience" (34).

The other presentation given by game designer Richard Rouse III used an alternative term, *environmental narrative*, understood as "the little stories told through the world itself" (5, in a presentation) and "as if the player was not there" (8)—something that games excel at in comparison with other media. Rouse emphasizes the importance of intentionality in world design, which helps players become immersed in the story and contributes to the overall quality of the narrative. With the help of cinematic techniques, such as lighting and camera movements, game designers can focus the player's attention on important environmental details that would otherwise be easily omitted (33). Various design techniques, including "embedded story elements" (signs, graffiti, in-world audio, and ambient life), puzzles, retracing steps, and collecting resources often serve to complement the overarching story and expose the player to situations, which enable them to learn about the game world as they traverse it (23–50). Rouse stresses that a designer must also ensure that the player is given enough time to explore the game environment, since "without downtime, [they] may charge blindly ahead, missing all the environmental storytelling you have carefully set up" (38).

Video Game Environments as Narrative Spaces

The technological advancement of computer technology lends itself to a greater creative freedom and the creation of increasingly engaging game environments, enabling game designers to reduce overt exposition through cut-scenes[8] and textual prompts in favor of subtle environmental clues. Narrative in video

games can be broadly divided into two categories: *embedded narrative*, which constitutes "pre-generated content that exists prior to the player's interaction with the game" (Salen and Zimmerman 383) and provides "motivation for the events and actions of the game" (383), and e*mergent narrative*, which is linked directly to gameplay and arises from a meaningful interaction with the gameworld (384). In order to bring the gameworld to life, writers, environmental artists, and level designers work closely together to ensure that all elements of the game environment reflect the atmosphere of the overarching story and support the narrative emergent through gameplay. As a storytelling technique, environmental storytelling exists in a liminal space between embedded and emergent narrative because it engages the player as an active participant in the (re)construction of a game's embedded narrative. In other words, environmental storytelling serves as a channel through which such pre-authored, narrative-infused elements are conveyed, but they do not emerge as part of a coherent narrative save for the player's active involvement.

Nitsche writes that "gamespaces can evoke narratives because the player is making sense of them in order to engage with them," generating meaning "through a comprehension of signs and interaction" (3). Environmental storytelling is a productive concept for story-driven video games, because it specifies their reliance on space not only for story progression in the traditional sense, but also in less linear world-building. The following figure represents the three mutually inclusive levels in which environmental storytelling can contribute to a game's embedded narrative:

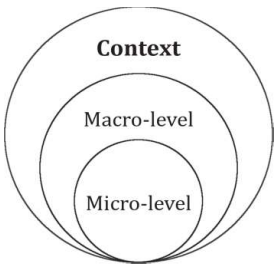

Figure 1. A visual representation of the three levels at which environmental storytelling can contribute to a game's embedded narrative (N. Bracikowska).

On the level of *context*, the game environment communicates to the player the overall setting, serving as a backdrop for both embedded and emergent narrative. Corresponding to the accounts on environmental storytelling discussed above, the design of the game environment may appeal to the player's knowledge of the preconceived notions of genre norms and conventions in order to contextualize the events of the game and build certain expectations with regard to the plot, often in order to subvert them later on. On the *macro-level*, the game environment consists of world-building scenes, scenarios, and objects that are embedded in the mise-en-scène and contribute to the player's understanding of the gameworld**.** Finally, the *micro-level* is confined to localized incidents in which the gamespace is replete with objects, scenes, and situations, carefully arranged to tell self-contained stories. A vast majority of contemporary video games utilize environmental storytelling in this way to create detailed and authentic worlds that feel lived-in regardless of the player character's presence. Due to the obvious spatial limitations of this paper, the following examples taken from *Dark Souls* (2011) and *Dark Souls III* (2016) are meant to illustrate how environmental storytelling can be used to flesh out a game's embedded narrative without conventional exposition, and are merely representative of numerous other instances of this strategy in the entire trilogy.

The *Dark Souls* trilogy (2011**–**2016) remains one of the most influential and widely discussed game series of this decade (Hussain, gamespot.com). Having come from an underdog Japanese studio (FromSoftware), the games received mainstream recognition only in the years following the release of *Dark Souls* in 2011, and since then spawned a myriad of articles praising their exceptional game design and intricate story. Apart from a common universe, the games share an unconventional approach to storytelling, which has become a staple in the so-called "Soulsborne" genre**—**the three primary ways in which the embedded narrative can be accessed being minimal exposition through dialogue, descriptions of items found in the nooks and crannies of the world, and, of primary importance to this paper, the environment of the game itself.

Fernández-Vara aptly points out that certain games "revolve around discovering the history of the game world, [or] what has happened before the player enters the space" (6). The games in the *Dark Souls* series are certainly a good example of this interdependence; even though unearthing their "history" (more commonly referred to as lore[9]) is not obligatory for their successful completion, it is nonetheless of great interest for the kind of players who wish to make their in-game encounters and interactions more meaningful.

Dark Souls and its sequels are set in a world governed by the cycles of a life-sustaining flame. Each begins, rather conventionally, with a cinematic opening, which constitutes the only instance of narrative exposition delivered by an extra-diegetic narrator. These concise retellings mark some of the crucial events of the embedded narrative and become a set of temporal reference points meant to support the games' minimalist approach to storytelling. What follows is a long journey through an inhospitable, dark fantasy world, where each location makes for a distinct tone piece evoking different emotions and hinting at a story that will never be told in greater detail. When the player first arrives in Lordran, the setting of *Dark Souls*, and sets to ring the two Bells of Awakening, it quickly becomes obvious that the once vibrant civilization has fallen into ruin. Apart from that, most inhabitants seem to be ghosts of their former selves, as they have visibly deteriorated both physically and mentally. It is only a matter of time before the player realizes that other human-looking non-player characters and even their own avatars are subject to the same curse of "hollowing." Most areas of Lordran are veiled in mystery from the start, and it is only through exploration, and at times backtracking, that particular sights or encounters begin to make sense. As a case in point, the moment the player sets foot in the New Londo Ruins, they are met with a rather unusual scene: the typically hostile hollows are completely oblivious to the player character's presence, some of them walk around aimlessly, some appear visibly disturbed, while others stare blankly into space. Moreover, the location is almost completely submerged, and, when the player ventures further, turns out to be

plagued by ghosts. The sight may trigger both questions and plausible stories in the player's mind: "Why was the city flooded," "Was it a natural disaster or was someone responsible for it," "Are the ghosts the former residents of the city," "What was the city like before," and so forth. Although most of these questions are never explicitly answered, the game employs the environment to stimulate the player's imagination and encourage them to form their own assumptions and interpretations. Lowering the water level in the course of the game reveals remnants of the city of New Londo, now populated by hostile darkwraiths, guarding the gateway to the Abyss. Near the city's floodgates, a towering pile of drowned bodies serves as a grim reminder of New Londo's past. These environmental clues point to an atrocity or a natural disaster, which caused the entire population of New Londo to perish under water, but it is through other elements that the player can learn why it happened or who was responsible for it. These include dialogue with non-player characters and flavor text[10].

In Lordran, sites once bustling with life have been slowly reclaimed by nature. In the course of the game, the player learns that Lord Gwyn, one of the four Lords of Cinder, sacrificed his soul and became kindling for the First Flame to prolong the current era called the Age of Fire. Albeit overrun by undead, a by-product of Lord Gwyn's effort to artificially sustain the Flame, the world of *Dark Souls* does not yet seem to have been significantly affected by the disruption of the natural order of things. In *Dark Souls III*, however, chasms, ravines, and the omnipresent wither become recurring images, delineating a reality struggling to maintain its physical shape. The ruined kingdom of Lothric comes to represent a world on the brink of collapse—both in the literal and metaphorical sense. Not unlike in the example above, the environmental qualities prompt the player to infuse the elements of the gameworld with significance to make the experience of it more meaningful. The trilogy culminates in the image of an abnormal disfigurement of the world, with all the lands and kingdoms converging in one place. Each subsequent sacrifice to save the fading flame would see a new king erect a new great kingdom, built on top

of the remnants of those that had fallen. While everything manmade has been preserved in some form, nature has become malformed and distorted. It would seem as if each iteration of the cycle caused the depicted world to deteriorate until the time and space themselves became convoluted, triggering the lands to move and amalgamate into one twisted whole. At no point, however, is the player offered a clear explanation of what had caused the world to crumble. Instead, the game uses subtle, yet meaningful, environmental clues to convey that even the world struggles to go on and perpetuating the cycle means delaying the inevitable end. Although not exhaustive of the subject matter, the examples above illustrate that the *Dark Souls* trilogy relies heavily on environmental storytelling at all three levels (context, macro, and micro) to convey the story, and support the argument that this storytelling method lies at the threshold of the embedded and emergent narrative.

Conclusion

The overview of the pertinent discourse in game studies demonstrates that environmental storytelling is a nebulous concept, susceptible to varying interpretations and involving a wide range of design techniques. Environmental storytelling perfectly embodies the subtle interplay between the narrative and ludic aspects of a game by integrating the elements of story with the interactive character of the medium. Unlike other forms of video game storytelling, it does not interrupt gameplay and engages the player as an active participant in the (re)construction of the embedded narrative. However, environmental storytelling has one major limitation: it can rarely be used to tell a whole, coherent story. While certain video games *do* make exclusive use of environmental storytelling and gameplay (e.g., Journey 2012), most employ it as a method supporting other forms of storytelling, including exposition in cut-scenes, dialogues, recordings, and flavor text. When used skillfully, environmental storytelling can add a significant amount of depth to the gamespace and create an immersive narrative experience unique to this

medium. Further study on the interrelation between game environments and narrative is needed, as environmental storytelling is illustrative, but certainly not exhaustive of this phenomenon.

Endnotes

1. This paper expands on selected aspects explored in the BA thesis *Game environments and environmental storytelling in* Dark Souls *and* Dark Souls III, written under the supervision of dr Katarzyna Marak at Nicolaus Copernicus University in Toruń.
2. Thereafter also referred to as "games."
3. The late 1990s and early 2000s saw a division within the formalist group of game studies, later dubbed as "the ludology versus narratology debate," sparked by the need to differentiate games from other media. The so-called narratologists approached video games as vehicles for narratives, applying the existing methodology within the field of literary theory. The ludologists, on the other hand, argued for a more game-centered perspective and a departure from the narrative paradigm in analyzing games, whose influence they deemed "colonialist" and severely impeding the understanding of the medium. Whether or not the debate has been truly resolved, it has necessitated the understanding of video games as cultural artifacts operating on the "nuanced interplay between mechanics and narrative" (Filipowich 71–72).
4. The concept of the magic circle originates in Johan Huizinga's seminal work *Homo Ludens* originally published in 1983, in which he discusses the importance of play in the generation of culture. The term is used as a metaphor for a physical boundary or imaginary space in which play—rather than a game—occurs.
5. Understood here as the virtual space within which the play of the game takes place.
6. For players' opinions on the social aspect of gaming and gaming culture, see: www.reddit.com/r/AskReddit/comments/9t7dl3/gamers_of_reddit_how_did_video_games_affect_your.
7. Due to spatial limitations, the paper does not engage with positioning video games within the discourse on cognitive narrative theory. For a comprehensive overview of this subject, see: Krzysztof M. Maj's "Słowo gra znaczy świat. Przestrzeń gry wideo w kognitywnej teorii narracji."
8. A cut-scene is "any non-interactive storytelling or scene-setting element of a game" (Hancock 1). Pre-rendered cut-scenes, also referred to as cinematic cut-scenes, are among the most common storytelling techniques presently encountered in video games. Cut-scenes appear at various points in video games and are, as Rune Klevjer has it, "an efficient tool for conveying story, being more visually interesting than purely verbal narration, and more uncomplicated than disturbing the necessary information through scripted events" (196–196). However, as Jesper Juul points out, "[pre-rendered] cut-scenes are often considered problematic because they prevent the player from doing anything and are in a sense a non-game element in a game" (135).

9. The game's lore refers to the details about its universe and history outside the main plot.

10. Originating in descriptions of playing cards of certain card games, such as *Magic: The Gathering*, flavor text refers to snippets of text providing additional information about the fictional world of the game. Examples include item descriptions, bestiaries, or text displayed on the loading screen.

References

Aarseth, E.J. 1997. *Cybertext: Perspectives on Ergodic Literature*. Baltimore: Johns Hopkins University Press.

Campbell, C. 2019. "Gaming's Biggest Trends of the Past Decade," www.polygon.com/features/2019/12/19/20997738/gaming-trends-2019-2010-decade, DOA 12.08.2020.

Carson, D. 2000. "Environmental Storytelling: Creating Immersive 3D Worlds Using Lessons Learned from the Theme Park Industry," www.gamasutra.com/view/feature/131594/environmental_storytelling_.php?page=1, DOA 12.08.2020.

Domsch, S. 2013. *Storyplaying: Agency and Narrative in Video Games*. Berlin–Boston: De Gruyter.

Dovey, J. & H. W. Kennedy. 2006. *Game Cultures: Computer Games as New Media*. Berkshire: Open University Press.

Fernández-Vara, C. 2011. "Game Spaces Speak Volumes: Indexical Storytelling," www.digra.org/wp-content/uploads/digital-library/Game-Spaces-Speak-Volumes.pdf, DOA 15.08.2020.

Filipowich, M. 2015. "'Thou Art I': The Interaction of Play and Narrative in Persona 3," in: M.W. Kapell (Ed.), 69–85.

Hancock, H. 2002. "Better Game Design Through Cutscenes," www.gamasutra.com/view/feature/131410/better_game_design_through.php, DOA 27.08.2020.

Herman, D. 2000. "Narratology as a Cognitive Science," www.imageandnarrative.be/inarchive/narratology/davidherman.htm, DOA 21.09.2020.

Hussain, T. 2019. "The Most Influential Games of The 21st Century: Dark Souls," www.gamespot.com/articles/the-most-influential-games-of-the-21st-century-dar/1100-6466811, DOA 21.09.2020.

Jenkins, H. 2004. "Game Design as Narrative Architecture," in: N. Wardrip-Fruin & P. Harrigan (Eds.), 118–130.

Juul, J. 2006. *Half-Real: Video games Between Real Rules and Fictional Worlds*. Cambridge: The MIT Press.

Kapell, M. W. 2015. "The Ludic and Narrative as Dialectic About 'What Games Do'," in: M.W. Kapell (Ed.), 1–15.

Kapell, M. W. (Ed.) 2015. *The Play Versus Story Divide in Game Studies: Critical Essays*. Jefferson: McFarland & Company, Inc.

Klevjer, R. 2002. "In Defense of Cutscenes," in: F. Mäyrä (Ed.), 191–202.
Kubiński, P. 2015. "Gry wideo w świetle narratologii transmedialnej oraz koncepcji światoopowieści (storyworld)," *Tekstualia* 43: 4, 23–36.
Maj, K. M. 2017. "Słowo gra znaczy świat. Przestrzeń gry wideo w kognitywnej teorii narracji," *Teksty Drugie* 2017: 3, 192–208.
Mäyrä, F. (Ed.) 2002. *Proceedings of Computer Games and Digital Cultures Conference*. Tampere: University of Tampere Press.
Mäyrä, F. 2009. "Getting Into The Game: Doing Multi-Disciplinary Game Studies," in: B. Perron & M.J.P. Wolf (Eds.), 313–329.
Mukherjee, S. 2015. *Video Games and Storytelling: Reading Games and Playing Books*. London: Palgrave Macmillan.
Nitsche, M. 2008. *Video Game Spaces: Image, Play, and Structure in 3D Worlds*. Cambridge: MIT Press.
Pearce, C. 2004. "Towards a Game Theory of Game," in: N. Wardrip-Fruin & P. Harrigan (Eds.), 143–154.
Perron, B. & M.J.P. Wolf (Eds.) 2009. *The Video Game Theory Reader 2*. New York-London: Routledge.
Rouse III, R. 2010. "Environmental Narrative: Your World Is Your Story," www.paranoidproductions.com/miscwritings/EnvironmentalNarrative.ppt, DOA 15.08.2020.
Ryan, M-L. & J-N. Thon. 2014. *Storyworlds Across Media: Toward a Media-Conscious Narratology*. Lincoln: University of Nebraska Press.
Smith, H. & M. Worch. 2010. "'What Happened Here?'—Environmental Storytelling," www.worch.com/files/gdc/What_Happened_Here_Web_Notes.pdf, DOA 15.08.2020.
Thon, J-N. 2016. *Transmedial Narratology and Contemporary Media Culture*. Lincoln: University of Nebraska Press.
Wardrip-Fruin, N. & P. Harrigan (Eds.) 2004. *First Person: New Media as Story, Performance, and Game*. Cambridge: MIT Press.

Ludography

Dark Souls. 2011. Namco Bandai Games.
Dark Souls III. 2016. Namco Bandai Games.

Abstract

Though stories take different forms, they possess a universal quality of capturing and examining themes relevant to the human experience—a truism indeed, but also one of the driving forces behind various forms of storytelling. This paper examines the interplay between the game environment and narrative within the context of environmental storytelling, a technique of telling a story through details in the environment. A review of the various perspectives on the concept is preceded by a brief discussion on the nature of video games as a storytelling medium, with particular emphasis on the issues of interactivity and spatiotemporality as two characteristic

features of this media form. The paper draws upon the existing theories on environmental storytelling and introduces a conceptual model to represent the three levels (context, macro, and micro) at which the game environment contributes to the game's narrative. The paper further argues that environmental storytelling exists in a liminal space between the embedded and emergent narrative. Selected aspects of cited game texts are analyzed with the purpose of illustrating this interdependence. The paper concludes by identifying environmental storytelling as a successful yet frequently insufficient storytelling device and shows the need for further research on the relationship between game environments and narrative.