"Wind's howling." Meteorological Phenomena as Atmospheres in Digital Games

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INTRODUCTION

When Geralt of Rivia, the protagonist of the open-world game THE WITCHER 3: WILD HUNT, mutters the above-quoted "wind's howling," the line seemingly functions as little more than a throwaway comment, one of many remarks Geralt makes about his environment.[1] In a different light, however, his comment can be understood as an indicator of the game's approach to atmospheres, along with other utterances about environment and weather. In this sense, the line acts as a recentering element, further immersing players in the game's world, reminding them that Geralt feels the atmosphere surrounding him and is affected by it. The line verbalizes the game's intradiegetic atmosphere, initially in a literal and physical sense as it references meteorological phenomena, but it also alludes to the game's worldbuilding, in which the weather makes up an important part of experiencing the playable world.[2]

In GHOST OF TSUSHIMA, wind, breath, and air hold an important role in story and gameplay right from the beginning.[3] A breath of wind, depicted as a

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1 THE WITCHER 3: WILD HUNT (Warner Bros. Interactive 2015, O: CD Project RED).

2 My use of the term "phenomenon" as well as the plural „phenomena" predominately refers to the field of meteorology. However, seeing as the study of atmospheres is closely tied to the philosophy of phenomenology, I also employ the term in this sense and seek to make it clear when the respective meanings apply.

3 GHOST OF TSUSHIMA (Sony Interactive Entertainment 2020, O: Sucker Punch Productions).

multisensory sensation consisting of noise and visual markers, reawakens the seemingly murdered protagonist, Jin Sakai. This wind, as a stream of air, carries leaves and dirt, foreshadowing the vital role of airborne phenomena for navigation and orientation in the game's vast open world. The atmosphere serves as a life-giving force and as a connector of player and game. In this vein, the game uses meteorological phenomena in a similar way to THE WITCHER 3. The game world's atmosphere exhibits a physical dimension (in the sense of referencing/depicting real-life meteorological phenomena), but at the same time this physical element becomes, in the case of GHOST OF TSUSHIMA, a gameplay mechanic and, in both games mentioned above, a signifier for plot and narration that exceeds a sheer reference or a simple attempt at realism.

The atmosphere thus exceeds its status as a purely physical phenomenon, in that it becomes an "atmosphere […] with which we can resonate aesthetically and of which we can feel a part."[4] This 'feeling a part' is, as philosopher Angelika Krebs describes it, a result of the "aesthetically attractive, i.e., functionally beautiful, sublime or absolutely beautiful" expressed by landscapes or architecture.[5] Similarly, I argue in this paper that players experience this aesthetic sense of being a part of the gameworld and thereby enjoy what Katie Salen and Eric Zimmerman describe as meaningful play.[6]

At its core, meaningful play occurs "when the relationship between actions and outcomes in a game are both *discernable* and *integrated* into the larger context of the game."[7] More relevant to this paper's approach to atmosphere in game-worlds is the following addition: "The word 'meaningful' in this sense is less about the semiotic construction of meaning (how meaning is made) and more about the emotional and psychological experience of inhabiting a well-designed system of play."[8] The focus on in-game atmospheres taken here, then, slightly shifts from only analyzing subjectively attributed semiotic meaning to a given meteorological phenomenon. Instead, the emphasis lies on the question of how in-

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4   Krebs, Angelika.: "Stimmung: From Mood to Atmosphere", In: *Philosophia* 45 (2017), pp. 1419-36.

5   Ibid.; Krebs is mainly interested in applying different concepts of atmosphere to land-scapes and architecture. While her article makes no connection to digital games, I hold that her conceptualization of atmosphere as a spacial phenomenon applies quite seam-lessly to the game-worlds examined in this paper.

6   See: Salen, Katie/Zimmerman, Eric: *Rules of Play. Game Design Fundamentals*, Cambridge, MA / London: MIT Press 2004.

7   Ibid., p. 34 [emphasis in original].

8   Ibid.

game atmospheres, both in a meteorological and an aesthetic sense, contribute to creating the gameworld as an environment for meaningful play.

What has now become evident is a multilayered approach to in-game atmospheres. The following entanglement of these layers will therefore encompass two meanings of the term *atmosphere*: a scientific one (games referencing real life meteorology and dynamic weather changes) and an aesthetic one (games employing meteorological phenomena as a device for creating beautiful spaces).

More specifically, I seek to untangle different approaches to a gameworld's atmosphere. I intend to do so by examining the use of wind in four popular digital games that depict it as a physical phenomenon while at the same time using it to create aesthetic atmospheres, which in combination result in the possibility for meaningful play. Defined as "a current of air,"[9] the wind is semantically close to a scientific definition of the atmosphere as a gas-filled domain surrounding a planet.[10] While the wind may not be the 'moodiest' or traditionally most aesthetically pleasing meteorological phenomenon, I argue that it is an especially relevant source of aesthetic atmospheres in digital games.[11] In its creation of movement, sound, physical resistance, and friction, the wind illustrates in-game atmospheres as navigable spaces more so than most other meteorological phenomena. The wind exposes avatar and player alike to atmospheric phenomenon, while also representing movement and direction.

In a first step, a short overview of the tradition of the term atmosphere will show how it is used both in meteorology and aesthetics/phenomenology for describing our primary world as well as landscapes, architecture, and spaces in the arts. The subsequent section will compare different concepts of atmospheres and how they can be applied to the experience of meteorological phenomena in digital games.

Therefore, the following observations are less concerned with (changing) climates but rather focus on immediate and short-term effects, evident in the

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9   "wind", In: *Cambridge Academic Content Dictionary*, Cambridge University Press https://dictionary.cambridge.org/de/worterbuch/englisch/wind.

10 "atmosphere", In: *Cambridge Academic Content Dictionary*, Cambridge University Press https://dictionary.cambridge.org/de/worterbuch/englisch/atmosphere.

11 For an analysis of more 'atmospheric' (in an aesthetic sense) meteorological phenomena see i.e. Mathias Fuchs' work on Phantasmal Spaces: Fuchs, Mathias: *Phantasmal Spaces. Archetypal Venues in Computer Games*, New York/London: Bloomsbury Academic 2019. Neither meteorology nor a critical approach to the term atmosphere are on the forefront of his analysis concerning archetypical spaces in digital games. Both however play an inherent role in most of his chapters (i.e. "The Cloud", pp. 53-67).

connections between weather and its phenomenological experience. Following Angelika Krebs' findings, I reference these short-lived phenomena as transitory atmospheres.[12] Therefore, my paper will not engage with the growing body on ecocritical research on digital games. Still, this research is a productive avenue for a further and wider analysis of in-game atmospheres.[13,14]

Atmospheres and the In-Between

Conceptualizing the phenomenon of 'atmosphere,' even in a basic or everyday context, is no easy feat. Its diffuse and in-between status is especially evident when we talk about mediated atmospheres, which are already two-fold in their attempt to combine natural phenomena and aesthetic experience. By going back to the basics, this section will disentangle the different meanings and uses of the term, at least when it comes to the intersection of natural-scientific (here: meteorological) and aesthetic and philosophical approaches to atmospheres in digital games.

In its Greek etymology, the term atmosphere is composed of "atmós"- "steam, vapor, breeze"-and "sphairos" -"sphere,"[15] and describes the body of air or gas surrounding a planet. In meteorology, then, atmospheric phenomena account for any physical process taking place in layers of air reaching up to 15 km in height.[16] The scientific and cultural knowledge production connected to the atmosphere and the institutionalization of said knowledge are therefore traditionally

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12 Krebs, Angelika: *Stimmung: From Mood to Atmosphere*, p. 1423.

13 For a first overview, see for example: Chang, Alenda.: *Playing Nature: Ecology in Video Games* (Volume 58) (ElectronicMediations). 1st ed., Minneapolis: Univ. of Minnesota Press 2019; Chang, Alenda and Parham, John: "Green Computer and Video Games: An Introduction", In: *Ecozona: European Journal of Literature*, Culture and Environment 8 (2017), pp. 1-17. https://doi.org/10.37536/ECOZONA.2017.8.2.

14 Möring, Sebastian/Schneider, Birgit: "Klima – Spiel – Welten: Eine medienästhetische Untersuchung der Darstellung und Funktion von Klima im Computerspiel", In: *PAIDIA, Zeitschrift für Computerspielforschung* (2018), https://www.paidia.de/klima-spiel-welten-eine-medienaesthetische-untersuchung-der-darstellung-und-funktion-von-klima-im-computerspiel/.

15 Heibach, Christiane: „Einleitung", In: Heibach, Christiane (eds.), *Atmosphären. Dimensionen Eines Diffusen Phänomens*, Munich: Wilhelm Fink 2012, pp. 9-24, p. 9.

16 Roth, Günther: *Die BlV-Wetterkunde*, München: BLV 2009, p. 31.

linked to the study of meteorology—including both weather and climate. Evidence of the term atmosphere describing moods or ambiances dates back to the eighteenth century, where the connection to the physical origin is still apparent: atmosphere is attributed to the mood in the air surrounding people or spaces.[17] This adaptation marks the beginning of the ambivalence of the term: As philosopher Madalina Diaconu remarks, a meteorological and an aesthetic description of atmosphere run more or less parallel without much interconnection.[18]

Bridging this growing gap, mainly by reintroducing nature to aesthetics, is one of Gernot Böhme's concerns for his *New Aesthetics*. Heavily influenced by thinkers like Hermann Schmitz and Martin Heidegger, Böhme emphasized the importance of materiality and bodily/sensual experience relating to atmospheres.[19] As the connector between the physical and the aesthetic, he recognizes meteorological phenomena:

"The mediating link obviously is the weather: the weather is affecting my mood – a rising thunderstorm may frighten me; bright weather may raise my spirits. Today, the atmosphere may be defined briefly as [...] a space with a certain mood. From here, two more traits of the theory of atmospheres can be advanced: atmospheres are always something spatial, and atmospheres are always something emotional."[20]

Critics like Tim Ingold would describe Böhme's emphasis on connecting nature and aesthetics as reinforcing the mutual indifference between discourses of atmospheres as 'tuned spaces' (Ger.: *gestimmter Raum*) and meteorological phenomena. Ingold claims "[b]oth meteorologists and aestheticians, from their respective sides, are inclined to say that their particular meaning of atmosphere is primary, and the other is merely metaphorical."[21]

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17 Büttner, Urs/Theilen, Ines: *Phänomene der Atmosphäre. Ein Kompendium Literarischer Meteorologie*, Stuttgart: J.B. Metzler 2017, p. 2.

18 Diaconu, Mădălina.: "Wetter, Welten, Wirkungen. Sinnverschiebungen der Atmosphäre", In: Heibach, Christiane (eds.), *Atmosphären. Dimensionen Eines Diffusen Phänomens*, Munich: Wilhelm Fink 2012, pp. 85-99, p. 85.

19 Böhme, Gernot.: *Aisthetik. Vorlesungen über Ästhetik als allgemeine Wahrnehmungslehre*, München: Fink 2001, S. 31f.

20 Böhme, Gernot: "The origin of the term atmosphere and its original use as a concept in science and humanities," in: Böhme, Gernot and Jean-Paul, Thibaud: *The Aesthetics of Atmospheres* (Ambiances, Atmospheres and Sensory Experiences of Spaces). 1st ed., New York: Routledge, 2016, p. 17.

21 Ingold, Tim: *The Life of Lines*, New York: Abingdon 2015, p. 74.

Scholars have attempted to connect physical and aesthetic atmospheres in different contexts.[22] Many of these studies strive to mediate between physical realities and metaphorical or mediated atmospheres by showing how scientific, artistic, and cultural means of creating knowledge feed into one another. All of these approaches shape our acquisition of knowledge about worldliness and culture.[23] In the opening chapter of this paper, I similarly connected a physical (albeit mediated) in-game atmosphere with an aesthetic atmosphere, arguing that their interaction creates meaningful play. The following observations seek to illustrate how different kinds of media reference different concepts of atmosphere and how, in the case of digital games, these different modes of referentiality overlap in the immediate gaming experience.

ATMOSPHERES AND REFERENTIALITY

In the following, I will limit my observations to literature and film, where the reference to physical atmospheres and meteorological phenomena holds a long and established tradition. The above-mentioned volume *Phantasmal Spaces* by Mathias Fuchs follows a similar route in emphasizing how literature and art influence (western) perception of and engagement with spaces in the arts.[24] My approach excludes other media, such as performance art or virtual reality (both certainly fertile ground for further research), but builds on a similar tradition of depicting meteorological atmospheres. To further narrow the subjects of analysis, the games analyzed below share similarities in their approach to simulating a gameworld that creates the impression of existing as a self-sufficient physical atmosphere independent of player input.

This approach differs from literary meteorological phenomena with text-immanent functionality, i.e., motifs for characterization or reference to text-external

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22 I.e.: M. Diaconu: *Wetter, Welten, Wirkungen*; U. Büttner, I. Theilen : *Phänomene der Atmosphäre*.

23 A few examples being: Barnes, Jessica/Doce, Michael R: *Climate Cultures: Anthropological Perspectives on Climate Change*, New Haven/Connecticut: Yale University Press 2015., Boia, Lucian: *The Weather in the Imagination*, London: Reaktion Books 2005., Griffiths, M. et al. (eds.): *The New Poetics of Climate Change: Modernist Aesthetics for a Warming World*, London: Bloomsbury Academic 2019. Hulme, Mike: *Weathered: Cultures of Climate*, London: SAGE Publications Ltd 2017.

24 Fuchs, Mathias: *Phantasmal Spaces*, pp. 1-10.

elements.[25] In addition to these predominantly symbolic references, McKim describes weather in cinema as "a spectacle twice over, this moving art of cinema that both contains and mimics atmospheric dynamism."[26] McKim's observation is especially relevant in comparison to digital games:

"Cinematic experience of weather invites a way of being surprised by the beauty of what we perceive to be controlled by artifice: as innumerable film weather examples illustrate, cinema can transform any sunlight, rain shower, hailstorm, snowfall, or cyclone into not only character or setting but also a pause or an attraction in its own right."[27]

Similarly, digital games, especially photorealistic titles, aim for this kind of 'surprise'—in simulating dynamic weather changes—while trying to conceal the artifice of in-game weather. The simulation of a meteorological atmosphere within an open world design invites players to equate in-game weather (and for that matter, in-game nature) with its game-external counterpart. The convergence of real-life atmospheres and simulated ones encourages a 'blended' view of physical atmospheres and their aesthetic perception. This seems especially evident in Krebs' approach, where real-life landscapes are never devoid of atmospheres in an aesthetic sense either:

"When nonhuman entities such as landscapes, cities, buildings, or rooms are said to have aura or atmosphere, they are regarded not only as integrated wholes [...] but also as full of feeling, e.g. as full of peace or melancholy [...]. The atmospheres of landscapes for example change with the weather, the time of day, and the season. These transitory atmospheres can be distinguished from the more enduring atmosphere, gestalt, or *character* of landscapes."[28]

Compared to literature and cinema, digital games not only create aesthetic atmospheres that are meaningful for a player's interaction with story and gameworld, but also reference pre-existing atmospheres that are already inherent to our connection with the primary world.

The spatial representation of atmospheres in literature and film are closely related to the respective symbolic structures of these media. In light of these textual

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25 Delius, Friedrich Christian: *Der Held und sein Wetter. Ein Kunstmittel und sein ideologischer Gebrauch im Roman des bürgerlichen Realismus*, Hanser: Munich 1971.

26 McKim, Kristi: *Cinema as Weather: Stylistic Screens and Atmospheric Change* (Routledge Advances in Film Studies). 1st ed., New York: Routledge 2013.

27 Ibid., p. 192.

28 A. Krebs: *Stimmung: From Mood to Atmosphere*, p. 1423.

and visual means (and perhaps limitations) of representation, the unique means of referentiality of digital games becomes clear. This becomes especially evident when we think back to the example of wind, so closely tied to dynamic movement. It is this interaction, the player's agency to *experience* atmospheres within a navigable world, that gives digital games the means to simulate the arbitrariness and contingency of meteorological atmospheres while also inviting an implicit aesthetic confrontation. In this intersection and interaction of meteorological and aesthetic atmospheres with the agency to experience them that allows for meaningful play.

PLAYER EXPERIENCE AND ATMOSPHERES

If the experience of atmospheres in digital games is central to understanding how atmospheres contribute to meaningful play, we also need to investigate how we experience games in the first place. The implications of atmospheres and the player-avatar connection could fill volumes—as well as how different perspectives or game-genres might affect this connection. In this paper, a basic concept of player involvement and a small number of examples will have to suffice. The games analyzed below, namely THE WITCHER 3: WILD HUNT, GHOST OF TSUSHIMA, and THE LEGEND OF ZELDA: BREATH OF THE WILD, all share similar characteristics: a third-person perspective with relative freedom and agency in exploring open worlds that simulate dynamic weather changes.[29] These games also focus parts of their thematic and narrative layers on atmospheric phenomena. To conceptualize the presence of the avatar and the player in the game, I will follow Britta Neitzel's category of spatial involvement, which describes the "interweaving of the material and virtual world."[30] Here, the avatar serves as a digital extension and 'data-body,'[31] doubling the player in the gameworld and thereby connecting the experiences of player and avatar in a unique way. This enables the player to experience atmospheres in a way that structurally resembles the experience of atmospheres in the primary world:

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29 THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo 2017, O: Nintendo EPD).

30 Neitzel, Britta: "Involvierungsstrategien des Computerspiels," in *GameScoop* (eds.): Theorien des Computerspiels zur Einführung. Hamburg: Junius Verlag 2017, pp. 75-103, p. 99 (translated by the author).

31 Ibid., p. 100 (translated by the author).

"Connected to the virtuality of the game via the avatar or a cursor and a hardware interface, a player can understand the gameworld as an extension of his or her action space, so that an entanglement takes place; spatial, sensorimotor, and visual involvement enter into a strong connection. The player's body is involved in the virtual reality or the game in different forms."[32]

Conceptualizing the player's involvement in this way not only allows for the above-mentioned multilayered approach to in-game atmospheres, but also for another connection to Gernot Böhme's definition of experiencing atmospheres. In his phenomenology, the nature of the experience neither consists of direct physical contact nor is it exclusively a sensory perception (that is, the reception of sensual data), but it is rather a 'bodily sensing.' This sensual-bodily (Ger.: *leiblich*) experience of atmospheres "investigates the connection between the qualities of environments and the states of mind. It asks how certain, quite objectively ascertainable qualities of environments modify our state of being in these environments."[33]

When we think of the wind as a 'quality of the environment,' our bodily experience of being exposed to it will have an effect on our mind and our experience of these phenomena as a whole. We might be hot, and a cool breeze will change our mood for the better, in turn making us experience our natural surroundings in a more enjoyable state. We might be cold, with the wind making us freeze even more, and thereby we might view our surroundings as harsher or more unpleasant. Or we might play READ DEAD REDEMPTION 2 to experience the howling wind as an audiovisual phenomenon, as well as physical barrier, which makes us move at a slower pace, more aware of our protagonist's surroundings and the way in which we interact with the gameworld.[34]

These connections are not the straightforward A to B (wind leads to being cold, leads to an outcome of preferring or disliking this new state) sketched out here. Rather, these experiences are inseparable and immediate, creating, in this connection, the multilayered atmosphere surrounding our body.

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32 Ibid., p. 99-100 (translated by the author).
33 Bohme, Gernot: *Atmosphäre. Essays zur neuen Asthetik*. Berlin: Suhrkamp 2014, p. 16.
34 RED DEAD REDEMPTION 2 (Rockstar Studios, 2018: Rockstar Games).

REPRESENTING THE INVISIBLE:
WIND AS ATMOSPHERE IN DIGITAL GAMES

THE WITCHER 3: WILD HUNT

CD Projekt Red's open world game THE WITCHER 3: WILD HUNT, published in 2015, marks the third title in the studio's WITCHER SERIES (2007-2015), based on the novels by Andrzej Sapkowski. THE WITCHER 3 offers the first openly navigable world in the series. Often praised for its scenic landscapes and the aesthetic atmospheres/moods (both terms are used synonymously in this analysis) created by the weather, the game features wind as one of the most vivid and dynamic meteorological phenomena. It does not have immediate effects on gameplay mechanics and so, on a structural level, it mostly blends into the backdrop atmosphere. Out of all the games referenced here, the wind has the least impact on gameplay and movement within the gameworld, serving primarily as an intensifier of mood and landscape aesthetics. On a larger narrative scale, these transitory atmospheres also have little impact, even though a more general change in climate (a dooming Ice Age-like apocalypse) lingers in the background of both the source material and the grand scheme of the game's narrative world.

What brings the wind to the forefront, however, is a surprising focus on its immediate experience, namely on the audiovisual impact it has both on the player and the surrounding (in-game) nature. While games typically represent the wind by means of its howling sound alone, THE WITCHER 3 often includes the noise made by the objects the wind affects—like creaking wood, rustling leaves or grass, or a crushing sound when the wind picks up near large bodies of water. While background music is quite omnipresent, it never overpowers the natural phenomena—remarkably, even the weakest breeze is audible over the score.

The wind in THE WITCHER 3 also references the dynamics of meteorological atmospheres by (1) being ever-present in its visualization concerning vegetation and surroundings in outside-spaces and (2) by intensifying and increasing shortly before weather changes, i.e. before developing into more forceful storms, or before it starts to rain. It is this focus on the representation of believable atmospheres that *can* make the weather and thereby the wind an important factor for interaction in this game. In the game's structure, long periods of time can be spent away from civilization, where the weather enforces Geralt's exposure to nature and the open world. The titular line "Wind's howling" comes up during these exploration or travel periods, recentering the player in the game's meteorological atmosphere and reminding them of the implication the wind has for meaningful play through its effects on Geralt as a subject. This can be bypassed by using the fast travel

mechanic, where signposts mark the goals and are never far from villages or cities. As the exploration of the continent is a strong selling point for the game, the weather proves to be an important factor for creating a believable, dynamic, and realistic open world, where it is both a source of meaningful play in an aesthetic sense but also a force of nature to live with or to survive.

GHOST OF TSUSHIMA

GHOST OF TSUSHIMA is an open world action game set in 13th century Japan. Visually it was inspired by Japanese samurai films, such as the films of Akira Kurosawa. The game features an open world that does away with visible waypoints on the HUD and replaces these navigational tools with an omnipresent wind. After selecting a location on the map, the player can swipe up on the controller's touch-pad to summon a gust of wind that points them in the right direction. When looking at different meteorological phenomena in GHOST OF TSUSHIMA, the wind is clearly paramount both to the gameplay and the aesthetic background, recurring as a *leitmotiv* throughout the game. It is, in this sense, a mediator between aesthetic and meteorological atmospheres. Furthermore, it connects gameworld to gameplay by serving as a means of orientation (by replacing waypoints) as well as serving as a factor for narrative world building and plot, as it permeates both cutscenes and play on a structural level, and the past and the present on a temporal level.

Visually, the wind is represented by the objects it moves and carries-mostly leaves, grass, or other fauna, and occasionally hair, both on animals and humans. The audio covers a spectrum from soft noises to roaring, depending on the weather or transitory atmosphere of a given landscape.

Finally, on a thematic level, the above-mentioned layers converge. GHOST OF TSUSHIMA's story entails themes of grief, as our protagonist Jin loses his uncle in the Mongol invasion but also of revenge, as Jin tries to avenge him. The game deals with themes of moving on, and moving in the right or honorable direction. But the game also offers Jin the chance to depart from traditional pathways by no longer ascribing to the Samurai code and instead becoming the titular ghost: A protector of the island of Tsushima and a carrier of hope for its people. Since his movements are dependent on the wind, Jin does not only move with nature, but with the one meteorological phenomenon that in itself represents change and transition. In the dynamics and varying intensity of the weather, depending on whether the moral direction of our protagonist is right (honorable) or not, the thematic underpinnings of the game find their representation in the player's surroundings. Thus, the visual surface of GHOST OF TSUSHIMA creates an aesthetically pleasing

atmosphere, as the wind shows both the dynamism and the fragility of the game-world. If we look beyond the sensual experience, we find the atmosphere to be tied strongly to inner characteristics of the world represented in the game, as well as the narrative we experience along with it.

The Legend of Zelda: Breath of the Wild

As the connection of 'breath' and 'wilderness' in the title suggests, the wind plays an important role in The Legend of Zelda: Breath of the Wild (henceforth: BOTW). The game was published by Nintendo in 2017 and marks the latest installment in The Legend of Zelda franchise (established in 1986).[35] Controlling the protagonist Link, players are encouraged to explore the kingdom of Hyrule in a nonlinear and experimental fashion. The climate heavily effects gameplay here, as meteorological atmospheres can have either detrimental or beneficial effects on Link's health and constitution.

Instead of global observations, I would like to analyze a specific quest titled "Master of the Wind shrine." As a part of a series of quests in which Link can find shrines and master different puzzles and objectives to gain abilities, this quest showcases the role that wind mechanics play within the game. In BOTW, the wind is visually represented by flowing white streams in the air, almost iridescent at times, evoking images of the wind carrying dust or other particles. Interestingly enough, the wind is relatively quiet in this quest, at least without any tweaks to the audio. Any action you take to reach the goal (destroying rocks, swimming, running on stone) makes more noise than the constant howling of the wind in the background.

The quest sends you through an ocean bay scattered with large rocks. The objective is to destroy or move any obstacles blocking the wind's path, so the air can flow. Once the air can flow freely along the given path, Link can ride the wind with his kite to reach the shrine that marks the end of the quest. Again, the wind serves as a metaphor for movement and direction, as well as acting in its physical ability to move the player forward. This is especially evident in the last action of the quest: If you simply cancel riding your kite and drop on the target, the desired shrine does not appear. Instead, the player must learn to ride the wind according to the game's meteorological atmosphere and adapt to its movement. Only by landing *with* the wind and not *against* it, can Link successfully finish the quest. As the player, you can feel the wind's resistance but you cannot overcome or

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35 The Legend of Zelda (Series, 1986-: Nintendo).

control it: In order to advance in the game, you must surrender part of your agency to Link's natural environment.

While it is obvious that this audiovisual representation is far from a purely realistic approach to the weather, it makes sense within BOTW's gameworld. As meteorological phenomena play an important role in gameplay, a heightened representation blends in and does not seem out of place. It is vital for the player to know its force and direction to enable movement, as Link's kite is an important and quick mode of transportation within the game. The wind, like other meteorological phenomena such as thunder and frost, is not only an aesthetic component of the game-it is also a central game mechanic that directly influences player behavior.

Conclusion

This paper has positioned the concept of atmospheres as diffuse but valuable to approach the analysis of gameworlds. Theoretical considerations and case studies alike have shown how the atmospheres created by meteorological phenomena in digital games are characterized by a specific form of referentiality. In-game weather creates an atmosphere by simulating and referencing meteorological phenomena we encounter not only in the game-external reality but also in other art forms. Depictions of the weather are thereby never an objective simulation of a physical atmosphere devoid of meaning. The weather is a meaningful part of creating involvement as our being-there in the gameworld and does so by attempting a realistic depiction of extradiegetic meteorological atmospheres.

In all three analyzed examples, the wind is found to be a multisensory phenomenon, making the gameworld a navigable space with meteorological (air-filled) atmospheres as well as an aesthetic realm. These atmospheres can be more of a background phenomenon or an active part of gameplay, but in either case their existence and interaction possess the opportunity for meaningful play, as multiple layers of atmosphere create an immediate and aesthetic experience of fictional spaces. The wind in this sense was found to be more than decor in all three games. While heavily invested in weather as a 'dramatic' and mood-inducing effect, the games analyzed in this chapter also demonstrate (to different extents) the potential for the wind to convey meaning within narrative world-building.

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