Regenerative Play and the Experience of the Sublime in THE LEGEND OF ZELDA: BREATH OF THE WILD

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Introduction

When Link and the player enter Hyrule, they encounter a majestic place and natural world. Lush grasslands and towering mountains create an environment for animals to thrive and offer the player a *wilderness* to explore and interact with. Vibrant colours and a myriad of natural sounds and noises are here merged with the vastness of the gamespace and remind one of an expressionist painting come to life in the gameworld. It is this ergodic and imaginative openness of open world games which fuels players' creative faculties and their desire for exploration, to seek out possibilities the tranquil scenery offers.

Players of THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2017) thus enter a natural space "uncontaminated by civilization ... mobilised to protect particular habitats and species ... a place for the reinvigoration of those tired of the moral and material pollution of the city" (Garrard 2004: 66). Yet this *imaginary counter-space*, created in and through the act of play, is also a hostile one and conforms to an idea of wilderness that "combines connotations of trial and danger with freedom, redemption and purity" (68). Despite all its beauty, Hyrule's natural world is, in fact, dangerous. It confronts players with perilous mountain ranges and weather phenomena, like thunderstorms or hot and cold climates, deep chasms, and a partially dangerous wildlife.

This "outright hostility" (70) of wilderness is juxtaposed to its serene ambiance and evokes both *terror* and *awe* in players. It thus creates a tension in them between positive and negative affects—when Link and the player, for example, scale a dangerous mountain (where failure and death are imminent companions) but are nonetheless astounded by its impressive magnitude. It is this

¹ See, Sebastian Möring and Birgit Schneider (2018) for a comprehensive analysis of climate and weather phenomena in THE LEGEND OF ZELDA: BREATH OF THE WILD.

primordial affect, known as the *sublime*, that makes players feel *petty* in contrast to the wilderness they experience and evokes in them reflections about life, nature, and culture, which gives way to new insights into existence (Burke 2017: 35-37; Garrard 2004: 70-75). The result is not only a sentiment for the natural world but also the creation of a *utopian enclave* as "a place of freedom in which we can recover our true selves we have lost to the corrupting influences of our artificial lives" (Cronon 1996: 80, qtd in Garrard 2004: 77).

Figure 1: The experience of the sublime is arguably the most prominent form of regenerative play in The Legend of Zelda: Breath of the Wild—when players experience a myriad of contrary affects in their involvement in Hyrule's natural world.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Hyrule Field.

Yet it is exactly this notion of Utopia,² as a *regenerative counter-space* to the ecological challenges of our times, which is at risk in BREATH OF THE WILD. For when Link and the player step into Hyrule, an ancient evil (Calamity Ganon) has disrupted the world's natural and cultural balance. This destructive "pollution" (Garrard 2004: 1) is the cause for hordes of enemies roaming the environment and has cast the four elements (*water*, *fire*, *wind*, *earth*) into strife. Usually, these are "held together by the chains of love (*philia*) [and are] pulled apart through endemic strife (*neikos*) (Cohen and Duckert 2015: 2), but in BREATH OF THE WILD this intricate balance has tipped. Extreme weather phenomena now have a negative impact on the game's four races and cultures (Gorons, Zoras, Rito, and Gerudos), while the world of Hyrule awaits a long forgotten hero.

² The concept and philosophy of Utopia is here used in terms of a cautious desire which indicates "a direction for man to follow, but never a point to be reached" (Viera, 22). It thus takes on "the shape of a process" and "a programme for change and for a gradual betterment of the present." (22; cf. 22-23).

Given this ecological foregrounding and the inherent struggle for Utopia it outlines, our argument runs as follows: As a nature parable, THE LEGEND OF ZELDA: BREATH OF THE WILD involves players in a dreamlike gameworld in which their unconscious desires for an ecological sustainable Utopia and a romantic imagery of nature are evoked, exposed to distress, and eventually saturated. By sending players on the journey of a hero to restore order in a polluted but majestic world, the game evokes a bewildering variety of affects in them. These oscillate between positive and negative ones—such as *curiosity* and *fear*, *excitement* and *distress*, *startle* and *anger*, *pleasure* and *terror*—and are outlined by the game's structural peculiarities (its implied player) in different ways, depending on the region of the gameworld. The players' affective responses then culminate in the *tumultuous emotion of astonishment* and in the aesthetic response of the *sublime*. The experience of play—in the interaction between (*eco)game*, *player*, and *world* (*culture*)—is thus a *regenerative* one on an affective and subsequent aesthetic level. It resensitises players to the beauty of the natural world, while granting them a different point of view on ecosystems and ecological issues that plague their contemporary surroundings.

It is clear that this experience of regenerative play can primarily, but not exclusively, be found in ecogames or green gaming. As such, we will analyse BREATH OF THE WILD from an ecocritical (cultural ecology) point of view, which is influenced by dream theory and the struggle of the hero for an ecological sustainable Utopia. Moreover, through the lens of Edmund Burke's deliberations on the sublime and affect theory, we will be able to illuminate the form of regenerative play to be found in BREATH OF THE WILD. This will be conducted through the scrutiny of the game's affordance and appeal structure (the implied player) and in the analysis of how different affects and resulting emotions are outlined by it. By describing four regions of the game (Goron, Zora, Rito, Gerudo domain) and a restorative fifth one (Korok forest) as different types of gardens and their interrelations, we will illuminate how contrary affects and emotions are triggered and result in the aesthetic response of the sublime.

Heroes, Night-Time Dreams, and the Playful Experience of the Sublime

It is the task of the hero, as Joseph Campbell writes, "to retreat from the world of secondary effects to those causal zones of the psyche where the difficulties really reside, and there to clarify the difficulties, eradicate them in his own case" (2008: 12). With this statement, Campbell irrevocably lays the focus of the hero's journey on a reason ingrained in the human psyche. Within the unconscious, he argues, rest the "keys that open up the whole realm of the desired and feared adventure of the discovery of the self" (5), and the task of the hero is to exorcise these inner demons, to come to terms with his hidden desires.

Campbell traces back his claims to Sigmund Freud's interpretation of dreams and to the oedipal complex, which haunts the son's emancipation and diverts this endeavour to the struggle for

maternal security (4). This inert desire runs into first hindrances with the "intrusion of another order into reality into the beatitude of this earthly restatement of the excellence of the situation within the womb" (4). With the appearance of the "the unfortunate father" (4), an "enemy" (4) is introduced, and a first distribution between evil and good is established: between "death (*thanatos: destrudo*) and (*eros: libido*) impulses" (4).

The plot in BREATH OF THE WILD's closely follows what Campbell describes as the monomyth structure. It has players immersed into the role of the hero, Link, who embarks on a noble quest to fight evil by helping princess Zelda to save Hyrule from darkness. Calamity Ganon is then depicted as "the tyrant-monster" (11) and a father figure. "He is the monster avid for the greedy rights of 'my and mine'," (11) who is on a selfish quest for power and gain. This "inflated ego of the tyrant is a curse to himself and his world" (11).

Figure 2: The intrusion of Calamity Ganon causes disturbances to Hyrule's natural and cultural balance and can be described in terms of anxiety dream that harbour the wish for an ecological sustainable Utopia—a safe haven from the pollutions of our contemporary surroundings.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Hyrule Field.

Given this constellation, Link's journey could be considered as a re-enactment of the Oedipus complex as described by Freud. However, this may only be part of the truth. For BREATH OF THE WILD connects the hero's struggle and his unconscious desire for a return to the mother's womb to a cause (and repression) greater than the individual. This inert wish-fulfilment lies in his relation to mother nature, her ecosystems and elements, and human and animal cultures.

In fact, even Freud is aware that personal dreams, as "(disguised) fulfilment[s] of a (suppressed, repressed) wish" (1997: 68), can assume a universalised form. For when the artist converts their appearance into representational artwork—in creating storyworlds, characters, events, and plots—she makes them accessible to the public by enabling free floating interpretations (2001). These observations chime well with Fredric Jameson's deliberations on two interlinked types of wishfulfilment: "a repellent purely personal or individual 'egoistic' type, [the artist's] and a disguised version which has somehow been universalized and made interesting, indeed often gripping and insistent, for other people" (2005: 46). This wish, he continues, shows a decisively utopian form and strives to undermine forms of repression while upholding the desire for better tomorrow (53). Myth seems to work similar in this respect, as Campbell describes the dream as "the personalized myth," and "myth the depersonalized dream; both myth and dream are symbolic in the same general way of the dynamics of the psyche," but "in myth the problems and solutions shown are directly valid for all mankind" (2008: 14).

It is this facet that links utopian philosophy to mythology, whose function is "to supply the symbols that carry the human spirit forward" (7). Of course, each work of art negotiates the utopian impulse differently—and THE LEGEND OF ZELDA connects the struggle for Utopia to ecological issues and the hero's desire to restore balance in Hyrule: to appease the four elements disturbed by Ganon and to have a restorative influence on the land's ecosystems.

To participate in such an activity is a fundamentally *regenerative* experience. It has players engage with a gameworld, its natural wonders, characters, and elements through play, and sends them on quests in which they come to better understand Hyrule. Long hikes, for example, have players gain *respect* for the land they traverse, offering them a sense of scale and the duration of time. In addition, they will pass landmarks and savour breathtaking vistas, search for food and set up camp, and also come into touch with the wildlife and domesticated animals: whether this means observing a herd of wild horses, domesticating them as companions, or witnessing a flock of sheep who seek shelter from heavy rain.

These serene moments familiarise players to a life in balance with nature and trigger positive affects in them such as the *affection* for living beings, the *curiosity* for wilderness and the unknown, and their *commitment* to preserving this natural beauty. Yet BREATH OF THE WILD complements this tranquil experience with the thrills of adventure and the dangers a stroll through the wild entails. Thereby, the *elements* play a vital role and not only add to players' possibilities of traversal—Link may use the wind and his paraglider to traverse long distances in a short amount of time or fire (arrows) to open up passageways covered in bushes—but also expose them to danger. This may happen when players come into a thunderstorm and might be hit by lightning or when extremely cold temperatures cause hypothermia. Challenge and failure are thus a constant companion in BREATH OF THE WILD, yet these natural perils add to players' experience of wilderness in positive ways. They grant them an escape to simpler times and offer a refuge from the capitalist world system surrounding us and the pollution it entails.

It is this pollution and the loss of a nature enclave within civilisation that is also at stake in BREATH OF THE WILD and which fuels the regenerative experience of the hero's task. Thereby, the notion of regenerative play can include all the above-mentioned interactions with the natural world and other creative enterprises such as Michelle Westerlaken's vegan run in which she refuses to utilise in-game material made from animal products or have Link consume meat (2017). This sort of transgressive, emancipatory stance makes playing BREATH OF THE WILD more challenging, for certain objects are out of players' reach. Yet it also grants them an experience in which they can express themselves creatively and in ethical manners—to act out their inner desires and values, and also to try out different ways of life and conduct (in case one is not a vegan) and thus experience an aesthetic effect that may challenge one's habitual dispositions (Farca 2016; 2018: 301-318).

Regenerative play thus comes close to what Miguel Sicart describes as the aesthetic experience of play in the interplay "between the rational pleasures of order and creation and the sweeping euphoria of destruction and rebirth, between the Apollonian and the Dionysiac" (2014: 96). Play, in this sense, "is always dangerous, dabbling with risks, creating and destroying, and keeping a careful balance between both" (96) and thus regenerative in that it leads players from safety to danger. It is when the act of ideation (the creation and constant revision of cognitive images during play) has players create revelatory, sometimes shocking, connections between the gameworld and the empirical world and thus grants them a different perspective on both worlds (Farca 2016; 2018).

Such a potential of play may be found in a wide variety of ecogames: in the tranquil experience and flow of playing FLOWER (Thatgamecompany, 2009) and in the sensation of loneliness in No MAN'S SKY (Hello Games, 2016-2018) while being confronted with the sublimity of an infinite Other, the vastness of a procedurally generated universe. Both games thus create a creative space for ergodic interaction and imaginative reflection. However, regenerative play is not necessarily confined to ecogames and may extend, for example, to politically engaging games, such as MASS EFFECT: ANDROMEDA (Bioware, 2016) and PAPERS, PLEASE (3909, 2013), or negotiations of technology and posthumanism in REMEMBER ME (Dontnod, 2013) and DEUS EX: MANKIND DIVIDED (Eidos Montreal, 2016). Although these games do not foreground ecological issues, their experience of play is regenerative in that players are similarly engaged in an interaction between game, player, and world (culture), which can be emancipatory in different ways.

In BREATH OF THE WILD, however, regenerative play centres primarily around the hero's ecological journey to restore balance in Hyrule. It involves players in a myriad of affective turbulences and has the struggle for Utopia find an outlet in their *experience of the sublime*—which alters players' perceptions of nature, its ecosystems, and their relations to animal and human cultures. For Burke, this affective and aesthetic effect is due to the natural world's potential to evoke the sensation of *terror* and the *fear* of death in its observers (2017: 35-36)—when they witness the vastness of mountain ranges and deserts, the unknown realm of oceans (45-46), or the obscurity of forests and the appearance and sounds of the wildlife (37, 50, 52-54). In the words of Burke:

Whatever is fitted in any sort to excite the ideas of pain and danger, that is to say, whatever is in any sort of terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling. (22)

The sublime, however, can only be experienced if one is not in imminent danger and observes the natural wonders from a certain distance. Then, Burke claims, the observer will experience "delight" (21) as a result of fearful emotions (23, 84). This is also why the sublime can be experienced with fictions, since participants always find themselves in a relation of proximity (psychological, imaginative, ergodic) and distance (interpretation, reflection, in a safe space without the story- or gameworld) to the work of art (Farca 2018: 188-189, 213; Vella 2015b: 55-72). Their fictional venture then culminates in the affect of "astonishment," a "state of the soul in which all motions are suspended, with some degree of horror" and where the effects of the sublime are at its highest; "the inferior effects are admiration, reverence, and respect" (Burke 2017: 35).

Yet, whereas non-ergodic fictions (such as film and literature) evoke astonishment in their participants through imaginative involvement and the power of sounds and images, video games employ their systemic nature to help outline this affect. Here, players will become astounded not only by the vastness of the gamespace and frightful interactions with characters but also by the underlying processes of this world and their own reactions to certain things and events. This may occur, for example, when players scale a volcano that endangers their ascent with obstacles, such as flowing lava and falling rocks, or when they enter a dark forest to encounter creatures that follow their specific routines but might also *surprise* and *startle* players.

Consequently, players' interactions with these systems and their potential to outline different affects becomes of importance to our analysis. Thereby, we will discuss a form of the *ludic sublime* which was initially introduced by Daniel Vella. Following Immanuel Kant's conception, Vella argues that the sublime is experienced when one perceives things that our cognitive mechanisms cannot grasp as a whole (meaning we are aware that they extend beyond our perception). So the ludic sublime pertains to the sense that players know they have not exhausted a game's 'secrets' and are confronted with "the impossibility of obtaining complete, direct knowledge of the underlying system" (2015a: n. pag.). "The player, then, remains aware of an essential, and unbridgeable, gap, between her experience of the game, [and] her understanding of the game as system" (Ibid.)

Vella uses the sublime in the sense of the moment when players are *astounded* by the opacity of a game system and its forms of indeterminacy—that is, the potential forms of interaction with it. Players will never have complete knowledge about this system, and this form of uncertainty (indeterminacy) arouses both *curiosity* and *terror* in them. This sensation of *astonishment* is further reinforced (and composed) by players' sensorial impressions of a majestic gameworld, its structure, characters and objects of terror, and the task of the hero to restore balance in Hyrule.

To analyse the different affects, then, created in and through the act of play and how they culminate in the experience of the sublime, we will scrutinise the empirical player's dialectic with the game's implied player, which can be described as the *affordance and appeal structure* of BREATH OF THE WILD that holds all those predispositions necessary for the game to exercise its aesthetic effect. This underlying structure is composed of a perspectival network that includes:

- 1) a sensorial perspective (visual, auditory, haptic);
- 2) a world perspective (the settings, objects, labyrinthine structures, characters);
- 3) a plot perspective (the hero's journey);
- 4) a system perspective (processes, playing styles and actions) (Farca, 2016; 2018: 210-249).

Before coming to this application and how the different (but always intertwining) perspectives evoke diverse affects in players, the next section will briefly discuss affect theory in relation to cultural ecology. Affects and their entailing emotions will be described as originating in the implied player and coming to live in the act of play—thus resulting in a form of play that can be regenerative in various ways. In the case of ecogames, such emotionalising strategies promote the potential to raise awareness for the environment and encourage a green counter-discourse.

Affect Theory and Regenerative Play as a Form of Cultural Ecology

The scope of this study revolves around the diversity of affects created in the act of play, which are outlined by BREATH OF THE WILD's implied player as emotionalising strategies. These elicit players' unconscious desires for an ecological sustainable Utopia and are thus regenerative on both affective and aesthetic levels. However, to lay bare these emotionalising strategies and the affective impact of the implied player, one needs to differentiate between affect and emotion (two intertwined phenomena that are often hardly separable from one another). As a point of entry, the approximation of a definition by Gregg and Seigworth is thus useful, in which affects are described as

those intensities that pass body to body (human, nonhuman, part-body, and otherwise), in those resonances that circulate about, between, and sometimes stick to bodies and worlds, and in the very passages or variations between these intensities and resonances themselves. (2010: 1)

Consequently, affect can be understood as a form of bodily reaction—but the intertwined phenomena of affect and emotion still need to be made graspable. Here, James's three-step model becomes of importance, which is summarised by Stanley (2017). James inverts the relation of emotion as the cause of bodily reaction. Therefore, one does not cry/wince/tremble because one is sad, but is sad because one is crying/wincing/trembling (Stanley 2017: 98-99). As a consequence,

three steps can be distinguished, which do not happen in a successive or causal manner but are a mere construct to make the simultaneously happening elements more understandable:

- 1) the perception of the stimulating event;
- 2) the bodily reaction of the recipient (affect);
- 3) the interpretation of those reactions (emotion) (99).

Connecting this triad to the proposed function of the implied player as source of the affective potential of video games, the stimulating events would be situated in the video game itself and its different perspectives (of course in their interplay with empirical players). Therefore, one can translate James's triad to video games and the act of play:

- 1) the perception of the stimulating event in the gameworld as outlined by the implied player;
- 2) the affective response of the empirical player's body (affect);
- 3) the interpretation of those bodily reactions (emotion), which turn into aesthetic response.

To give an example, James mentions an encounter with a bear, which he describes as follows:

The sight of the bear excites changes in one's muscles, glands, heart, and skin, which are only recursively felt as fear; we may already be running by the time our emotional response identifies and synchronizes with the more instantaneously immediate visceral reaction. (Stanley 2017: 99).

Although James's bear is real, one can nonetheless draw comparisons between such an encounter and the players' with a Lynel in BREATH OF THE WILD, for example. This chimera, made from the body of a horse, a human torso, and the head of a lion, is a giant creature with a vicious and powerful appearance. Players perceive the Lynel as threatening and mighty. As a result, the virtual appearance causes change in the body of players and they begin to act (affect), while realising that they fear this frightful entity (emotion): "the sense of jeopardy and self-preservation manifest in gooseflesh and twitching flight muscles—at which point those physical excitations can become felt as an emotion, such as fear" (Stanley 2017: 99).

By reviewing this mundane example, one can assume that the structural organisation of the implied player's perspectives outline and trigger certain affective responses. These are interpreted by empirical players and result in aesthetic-response. Weik von Mossner describes this form of embodied simulation as "play[ing] a crucial role in our engagement with the world as well as in aesthetic response" (Weik von Mossner 2017: Pos. 159-160). She further relates this to empathy and, thus, to the potential for ecological awareness through simulated actions by "our capacity for an empathic response" (Pos. 711-713). This resonates well with the established connections of green games and the ecological awareness on an experiential, affective, and interpretative level

(Chang 2011, Parham 2016, Lehner 2017), which is best described as a form of cultural ecology, well-known from Hubert Zapf's research in literary studies.

In Zapf's terms, "imaginative literature" influences the discourse by "deal[ing] with the basic relation between culture and nature in particularly multifaceted, self-reflexive, and transformative ways" (2016a: 139). The "ecological' dimension" is produced especially by its "semantic openness, imaginative intensity and aesthetic complexity" (Zapf 2016a: 139). Literature thus functions as a kind of *regenerative force* within the cultural system, opening up an "imaginative space" to enable readers to reflect and explore their own perspectives (Zapf 2016: 141). This functions primarily through "representation of the unrepresented [and] the reader's participation in the textual process" (Zapf 2016a: 141–142). Elsewhere he states that "[w]hat is especially important is the emphasis on the active, participatory role of the recipient in the creative processes of art [in the sense of imaginative activity], which are [...] necessary for the continued evolution and self-renewal of human civilization" (Zapf 2016b: 20–21). Thus, two key features concerning the medium literature can be discerned that enable it to function as a form of cultural ecology: the openness and creativity of imaginative literature and the active participation of the reader in the textual-processes.

However, "videogames go beyond the mere representational ... mode of literary writing" (Lehner 2017: 60). They do not merely work through semiotic means but employ ergodic, spatial, and procedural means to outline certain experiences. Therefore, Chang claims that "to play is always to inhabit" (2011: 78) and that video games offer "a chance to think procedurally about the consequences of actions on the environment itself as a system with its own particular inputs, triggers, instabilities, affordances and dangers" (2009: 4). Similarly, Parham argues that players are able to "learn ecological principles through playing a game" (2016: 214).

The affective potential of video games is deeply rooted in the affective structure of the implied player. It offers the "semantic openness" and "imaginative intensity" Zapf ascribes to literature and triggers not only interpretative engagement in the ergodic and semiotic perspectives encountered and created through play—like wandering through willows, climbing mountains, and slaying enemies, etc. It also adds affect as a perspective inscribed into the implied player and urges empirical players to consider the different affects and the connected emotions on a conceptual level and in relation to empirical reality. For example, players' affective response to Calamity Ganon's presence disrupting Hyrule's balance is to eradicate him and support Zelda on her quest to first to retain and, eventually, defeat him. This, of course, may connect to greed and longing for power in reality (symbolised, for example, in Ganon's part of the Triforce, which is power) that destroys the natural-cultural environment and needs to be overcome by courage (Link) and wisdom (Zelda). The emotional turbulences created by the implied player of BREATH OF THE WILD, thus, trigger imaginings and reflections concerning the triade between world (culture), (eco)game, and player. It is here where it unfolds its power as a form of cultural ecology and, consequently, as something one may call regenerative play.

To explain this diversity of the implied player, the affects it outlines, and how this connects to the notion of the sublime, we will now analyse the most important game regions in BREATH OF THE WILD and their corresponding cultures. The different regions are designed in such a way that they cause problems for players in different ways—which evokes a variety of negative affects in them. Of course, their difficulty also depends on the order the regions are tackled and how well players are equipped; nonetheless each of them causes *terror* and *astonishment* in players in different ways. The elements discussed will thus entail the previously mentioned perspectives: 1) *sensorial*; 2) *world*; 3) *plot*; and 4) *system*. Their analysis will demonstrate how the different affects and emotions manifest themselves in players, which strategies of the game outline them, and how they result in the affective and aesthetic experience of the sublime through play.

Death Mountain: Curiosity, Respect, Haste, and Terror

Probably the most obvious source of players' emotional turbulences and the astonishment created by the sublime is the ascent of Death Mountain. The volcano can be seen from afar and from different perspectives as players steadily move closer. They might be surprised at the one or other view on it: for example, when they wander the lush fields of Hyrule and Death Mountain majestically enters their field of view on the horizon. Streams of red lava are relentless flowing downwards, and the permanent ash cloud above the volcano's peak reminds players of Ganon's intrusion in its ecosystem (*sensorial*, *plot*). This experience from afar excites *curiosity* in players—it fuels their desire to reach and scale the volcano—but also *respect* for an unknown Other, in observing its magnitude and unfathomable appeal.

Of course, Death Mountain is well-known to players of the THE LEGEND OF ZELDA series and evokes imaginings (and memories) of a unforgivable wilderness and utmost hostility. The mountain is a rocky landscape but it is not a still, quiet one. It is full of movement, full of life, almost a living entity in itself, and reminds one of the *Mountains and River Sutra* (1240) of Dôgen (himself heavily influenced by Chinese poet Su Shi), in which the Zen Master writes of "mountains flowing" (2015: 176). Death Mountain, like Dôgen's mountains, seems to have a will of its own, and a terrible one. This triggers emotions in players such as *fear* and *terror* yet at the same time *delight* and the *anticipation* to explore the volcano's bounds. Once players get closer, the tranquillity of the gameworld and its openness—the freedom to approach the mountain from multiple cardinal directions—gets narrowed down to a unicursal labyrinth that sends players on a linear and intense route towards the volcanic crater (*world*). Players need to be prepared here, otherwise their journey will be brief. For it is not only monsters and the narrowness of the route that exposes them to threat but, more importantly, the scorching heat and the element of *fire* (*system*).

Figure 3: Death Mountain confronts players with a unicursal labyrinth that sends them on a linear and dangerous journey towards the crater and the Divine Beast Vah Rudania.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Death Mountain.

This is so because the entire region is plagued by the Divine Beast, Vah Rudania—a gigantic mechanical lizard that causes tremors and is responsible for a severe increase in temperature. Even the Gorons, who are usually accustomed and adapted to their hostile environment are suffering. They are a friendly race, organised as an industrial culture and in social hierarchies, who treat Link with *respect* and as one of them. Players may easily become attached to the Gorons and *admire* their values and affectionate way to treat one another. Such affects and emotions evoked by the encounter with this culture serve players as an ethical incentive to help them defeat Vah Rudania and to restore balance in a disturbed ecosystem (*plot*).

Yet, the way there is filled with hurdles in a barren, at times, unbearable environment, which players have to overcome as heroes (*world, system*). As mentioned above, there is only one way that stretches upwards in a circular fashion and which blocked on both sides by large cliffs and lava streams. Burning enemies are plentiful, and there is a variety of other obstacles such as falling rocks and flying Sentries that aggravate Link's ascent, causing *distress* and *terror* in players. Most perilous, however, is the unbearable climate. To climb the mountain, players have to search for a means to endure the burning heat and equip the right gear (for example, wooden swords and shields will burst into flames). This is possible in that they either buy an elixir at the foot of the mountain that protects them from heat for a certain amount of time or in that they stack up on food, which attenuates the loss of life energy, but whose half-life is even lesser (players may only acquire the Flamebreaker Set in Goron City, which is located high up on the volcano). This results in the

emotions of *haste, frustration*, and *distress*, when the game system in combination with players' interactions and the entrapment through the world's labyrinthine structures evoke *terror*. Yet this sense of *terror* also leads to *delight* through play and the *excitement* and *joy* the thrill of adventure entails. The result is the emotion of *astonishment*, when the aesthetic effect of the sublime penetrates players' self and has them reflect on nature as a force and system incomprehensible in its entirety, with many wonders and perils, while setting in context the gameworld with their empirical surroundings and ecosystems.

Thereby, the elements play a vital role in this process and how players negotiate them through play. While *fire* and *earth* are depicted as dangerous in this respect, *wind* and *water* come to players' aid. For one, players may use their paraglider and several wind streams to ascend the mountain, while hot springs regenerate Link's life energy. Although seemingly a didactic juxtaposition, the elements are however not depicted as either negative or positive but in a neutral way as both perilous and life-giving. For their function changes from region to region, as will be made clear in the next sections.

Zora's Domain: Anger, Excitement, and Wonder

In Zora's Domain, torrential rain and darkness aggravate players' perception and have the element of water shine in a different light—as disorienting and mysterious, where danger resides underneath the surface of river streams and vast lakes (sensorial). Yet, there is also an element of the sacred in ZELDA's water bodies, an aesthetic presentation that seems to highlight the presence of the divine and the otherworldly in them. Water is important in many religions and cosmologies as a tool for purification and a life-giving source, and Shinto is no exception. Water in BREATH OF THE WILD is thus both enigmatic and mesmerising. It elicits different emotions in players and various imaginings are evoked by a lack of information in the Zora area. There are many wondrous things awaiting, without harmful intentions (such as animals, other travelers, treasures, and the promise of sacred temples), as well as ill-willed monsters hiding within the element of water. Similar to Death Mountain, this triggers curiosity as well as terror in players, which eventually leads to astonishment of the natural world and its elements.

To outline these emotional turbulences, the game strategies work similarly to those in the Death Mountain region, yet the elements are configured differently. While travelling to Zora's Domain, players follow a linear river, winding through a narrow valley. Enemies swarm this unicursal labyrinth, in which players only have few possibilities to dodge or escape their attacks without losing progress—which creates a *distressful* atmosphere (*world*). The heavy rain contributes to this negative emotion. It functions as a game mechanic and decreases players' possibilities to act within the environment by making it virtually impossible to climb walls or mountains and escape the labyrinthine system. The result is a feeling of *entrapment* within the confines of natural powers, which can become *frustrating* for players and even *enrage* them (*system*).

Figure 4: In Zora's Domain heavy rain plagues the inhabitants.

THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Zora's Domain.

This sense of hostility is also felt on a cultural, interpersonal level (*plot*). Due to Mipha's death (the Zora princess and pilot of the Divine Beast Vah Ruta), caused by the Calamity and Link and Zelda's failed mission to defeat Ganon in the past, the Zoras have started to disdain the Hylians. This racism is also shown in the example of Trello, the town's priest, who holds a personal grudge against Link and was present when Mipha vanished. Therefore, the Divine Beast Vah Ruta does not only function as a cause of imbalance due to Calamity Ganon's presence but also stands as a reminder of Mipha's death and Link's (and the Hylians') guilt in failing to protect her (*plot*). As Trello ponders why Vah Ruta would punish his people with the pouring rain, he makes this connection abundantly clear: "I think that the rain is the tears of Lady Mipha, who was defeated without fulfilling her duty" (Nintendo, 2017, location: Zora's Domain). This creates *anger* in players, since they are facing the Zoras' disdain without actively causing it. However, players can empathise with their feelings on a certain level. *Remorse* can thus become an emotional motivation and plot an incentive to make things right and help the Zoras in calming Vah Ruta in a quest for redemption.

Again, the elements play a vital role in the players' experience of the sublime in this region—specifically the element of *water*. From being conceived as a threat and opaque in nature, which causes *terror* but also *curiosity* of the unknown, Link (and the players) steadily learn to use it to defeat the Divine Beast. This can be experienced when they receive the Zora Set, which enables them to swim rapidly in currents and even up waterfalls. The use of water culminates in the challenges inside Vah Ruta, where Link manipulates the flow of water coming from the elephant's trunk to solve puzzles within the mechanical giant (*system*).

Rito Village: Respect, Admiration, and the Thrills of Reflection

The Rito are a proud nature culture of bird-like specimen. Their appearance is colourful, as are their homes, situated high up (like bird nests) on a towering and narrow cliff. Houses are built around the rock structure and wind up alongside a wooden staircase. The location is surrounded by deep chasms, forests, and vast grasslands. Various platforms are located high above the grounds and allow the Rito to practice their flying and combat skills, but also facilitate their distribution of goods throughout Hyrule. These endeavours are however severely restrained because of Ganon's intrusion. For the trade and warrior race are suffering from environmental hazards, as are the other cultures of Hyrule. In their case, the Divine Beast, Vah Medoh, is shooting down anything that flies in the vicinity of Rito Village, which not only restrains the Ritos' commercial business but also their way of life and leisure activities (world, plot). Link and the player are treated well by the Rito, with respect, which may result in admiration and the will to help them calm the Divine Beast.

Figure 5: Rito Village and its surrounding areas resemble a garden that evokes imaginings in players about nature and the wilderness they are exploring.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Rito Village.

Rito Village and its surroundings are different from the other regions in Hyrule discussed here. It is a most tranquil place and hub space surrounded by an open, peaceful wilderness (*world*). In this, the area brings to mind Miyamoto's famous (and probably mistranslated) description of ZELDA as "a miniature garden that you can put into a drawer and revisit anytime you like" (Paumgarten 2010: n. pag.). Gardens are man-made, recreational spaces that are made to be looked at as much as traversed (Mehta and Tada 2008: 11) and reconfigure nature for a human perspective. It would

however be reductionist and even orientalist to analyse ZELDA as a Japanese garden—and, moreover, there is not one single, monolithic concept of what a "garden" is in Japan. At the same time, we can assume some local gardening notions could have influenced the franchise, including BREATH OF THE WILD. The design of landscapes and vistas in ZELDA games usually go beyond the functionality and challenge of mazes and the chains of events of funhouses, and seem to be made to entice players and make them feel *awe*. These landscapes seem to follow the notions of *shotoku no sansui* ("mimicking nature"), *shakkei* ("borrowed landscape") and *fuzei* ("following the spirit of the environment"). *Shakkei*, in particular, establishes a direct relationship with the "natural" (or wild) landscape, incorporating "far-away elements in the background" into the design of the garden (Flath et al. 2016, XXX). Gardens, and particularly Zen gardens, are reductions of nature to a manageable, human scale made to provide calm and to represent nature through simulation (Jung Lee 2005: 12). Chaim Gingold, again following Miyamoto's quote, also makes this connection between gardens and the more contemplative side of games:

A garden has an inner life of its own; it is a world in flux which grows and changes. A garden's internal behaviors, and how we understand those rules, help us to wrap our heads and hands around the garden. The intricate spaces and living systems of a garden surprise, delight, and invite participation. Gardens, like games, are compact, self-sustained worlds we can immerse ourselves in. Japanese gardens often contain a multiplicity of environments and places, such as mountains, oceans, or forests that we can look at, walk around, or interact with. Gardens are a way to think about the aesthetic, cognitive, and representational aspects of game space. (Gingold 2003: 7)

This conception of the gameworlds as gardens of different types has, of course, consequences on playing styles, which in the Rito area are slower, more reflective—and it also shows repercussions on how the sublime exerts its influence. In Rito Village, players experience majestic vistas from high above and ponder the natural beauty of the untouched wilderness below. They look into deep chasms, which might evoke *terror* in them, and savour the *thrills* of jumping from the platforms to glide across vast stretches of land. The element of *wind* is thus foregrounded by the Rito region and in players' use their paraglider. It culminates in the encounter with Vah Medoh in which Link uses the streams of wind within and outside of the Divine Beast to solve its riddles.

Gerudo Desert: Confusion, Distress, and the Sense of Otherness

The terrain of Gerudo Desert is a vast, open space with small oases serving as safe havens, which renders an impressive view for players, astounding them in most diverse ways (*sensorial*). Unlike gardens, the scale of the desert is vast and overwhelming, hostile to exploration. The desert is empty, monotonous, hot and cold, not made to be traversed. On entering the area, players get lost in this world, filled with sandstorm mazes and only few calming oases, which are gardens that provide relief from the wild, vast nature (*world*). Especially the extreme temperatures make traversing the desert area highly dangerous: during the day the sun heats up the terrain, whereas at

night it becomes freezing. The alternation between these temperatures becomes a strategy for instilling *distress* and *haste* in players. For especially badly equipped players cannot hop from one oasis to another to traverse the dangerous desert and often fail to stay alive (*world*). To survive in this hostile environment, they need to prepare for both conditions, either by equipping the proper gear (warming or cooling armor), the corresponding elemental weapons (fire and ice), or bringing cooling or heating potions (*system*).

Figure 6: Gerudo Desert is a most hostile place, with sandstorm mazes and a disorienting environment awaiting players. Moreover, extreme temperatures expose them to severe threat, and the unprepared players will find it difficult to survive in this environment.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Gerudo Desert.

Moreover, *confusion* is achieved by taking away certain informational resources from players, which they already have conventionalised in their playing styles. This can be exemplified by the quest "The Silent Swordswomen" in which players need to follow directions indicated by several statues. This becomes a demanding task, since these statues are located within a sandstorm maze (an invisible multicursal labyrinth constructed not by its physical arrangement but by its obstacles to sensorial perception) that causes the Sheika Slate and, therefore, the mini map to malfunction. Consequently, players' interface is reduced to what they see within the game environment—which causes *confusion* and *distress* due to uncertainty, since they have used the map habitually to navigate through the environment (*sensorial*, *system*). Players thus need to find a new way to achieve their goal, i.e. finding a way out of the maze without navigational help and reaching a shrine to fulfil the quest.

This sense of *terror* the Gerudo Desert instils into players is further propelled by the first encounter with one of the four Moldugas. These are giant creatures resembling a whale 'swimming' through the desert, indicating their position by merely lifting up sand. Players need to decipher the creature's behaviour and come up with a strategy to survive and defeat it (*system as player agency*). Since they need a specific strategy (bombing the Molduga while it jumps through the desert's surface) to make it vulnerable, this is decidedly different from, say, fighting a Lynel; the latter only needs to be attacked hard enough, while for the Molduga this strategy does not work. Consequently, *terror* is created through an uncertain situation and encounter which requires critical thinking and problem solving. This opaqueness of the game system, and coming to terms with it, is a major reason for the players' struggle for survival in the gameworld and tantamount to the experience of the sublime in this region.

Such an encounter with Otherness and its unfathomable appeal is further experienced from a cultural perspective (if one takes the Western World as a point of reference). The Gerudos are a conservative race, a matriarchal society of warriors, depicted in a highly orientalised manner. They are a proud and sometimes violent people with a strong hierarchy and a society shaped by women (a man is only born every 100 years). The emotions created here are primarily *respect* for the Gerudos and their power, but also *curiosity* for their culture, or even its *rejection* (as it strongly differs from a westernised or Japanese perspective). This fear of the Other is especially instilled upon first entering Gerudo Town, which can only be accessed by females of any race. After receiving the female Gerudo Set, Vilia, the seller, warns players of the wind that could expose Link as a male by lifting his veil. This, of course, cannot occur (it is not a possibility within the game system). However, players are not aware of this facet and *fear* being exposed in the Gerudo society. Here, the *fear* of Otherness becomes the *fear* of becoming the Other, and being punished for being different. This sense of *terror* is also felt by players, as they ergodically participate in and make their way through this confining ideology (*system*, *plot*).

In conclusion, Gerudo Desert is a magnificent example of the sublime's fascinating spell in video games. It shows how all game elements come together and subject players to an entity that is ungraspable for them in its entirety. The vastness of the gamespace and its mazes, the Otherness of characters and monsters, and the opacity of the game mechanics—limited visibility, the lack of a map, the constant danger from heat or cold, which means players are never at ease to explore—make the Gerudo Desert almost a textbook example of how games can evoke the affective and aesthetic response of the sublime. This *astonishment* is also felt for the elements, which again have players renegotiate their functionality. While *wind* and *earth* are clearly depicted as perilous here, *fire* and *water* come to players' aid in attenuating the effects of the extreme temperatures or in seeking shelter in the oases.

Korok Forest: Curiosity, Confusion, Panic, and Terror

The last area that deserves attention is Korok Forest, situated in the central northern area of the world map, and at the heart of Hyrule. It interconnects the different game areas discussed above (and also Central Hyrule) and functions as a source of wisdom and power: with the Deku Tree located in its centre and the Master Sword as an efficient means to defeat Ganon. Korok Forest can thus be seen as the ecological epicentre of Hyrule that holds in balance the elements surrounding it, but which is also isolated for this reason, protected from the outer Hyrule and its potential pollution (world, plot). When players approach the area, they notice that the forest lies on a island covered in deep mist, where only one entrance grants access to its realms. Light and darkness now alternate as players move further into the forest and experience a place of utter beauty, lush and alive, a home to an open-hearted nature-culture called the Koroks, but also with dying regions (sensorial, plot). This evokes a bewildering variety of contrary emotions in players—such as compassion and caution, curiosity and distress, excitement and terror—which are outlined by the region's discourse strategies.

Figure 7: Korok Forest lies at the heart of Hyrule and represents an isolated island that nonetheless interconnects the gameworld's different areas.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Korok Forest.

Getting to the centre of Korok Forest requires overcoming a mystical maze that defies logic and geography. But once players are there, they are received by nature at its most unruly and overgrown. In this, the forest space evokes imaginings of the most spiritual aspects of gardens, and particularly Zen gardens. These require a certain degree of asymmetry, tension, and depth, where

the landscapist hides its hand and their work looks natural, as if the garden "grew by itself" (Habib et al. 2013: 16). There is a sense of lawlessness in this forest that coincides with a calm harmony, which evokes both *excitement* and *terror* in players (*sensorial*, *world*). Contrary to what it may seem, these two former aspects complement each other. Nature has grown widely by itself here (or that is what this designed simulation wants players to think), but has done so following a hidden order, a "way" not unlike the Taoist *wuwei* or "non-interference," "an effortless way of comporting oneself in the world with supreme harmony or efficacy" (Barrett, 2001: 681). The gardener lets nature manifest through its craft, and the level design of the Korok Forest could be compared to this understanding of creation. It is a landscape untouched by human hands, a sacred, ancient space for sensitive and courageous heroes.

Figure 8: Light and dark areas alternate as players move further into the forest, while at its centre, the Deku Tree as an emblem of wisdom and the Master Sword as a symbol of power await the players.



THE LEGEND OF ZELDA: BREATH OF THE WILD (Nintendo, 2016), location: Korok Forest.

Korok Forests thus awaits players a place of sanctuary, trial, mystery, and reflection. These different aspects and their resulting emotions are closely outlined by the implied player's strategies and give rise to the experience of the sublime in this region. Yet again, this is created in the interaction of several game elements—and specifically the Lost Woods and their structural arrangement stand out in this regard, for they function as a major source of players' astonishment. On entering the area, players encounter a multicultural labyrinth they need to pass to find the Deku Tree and the Master Sword (plot). An obscure and unsettling mist lies over the area, while the sounds and noises of the wild contribute to the intense and threatening atmosphere and evoke emotions in players such as confusion, panic, and terror (sensorial, world). What contributes to the intensity of these emotions—and adds additional ones, such as anger and frustration—is the obscurity of the game system. For overcoming this maze is largely based on trial and error and on

deciphering its underlying system. There is only one way through it, and going astray will lead to failure, since players will be surrounded by blinding mist and the haunting screams of spirits. They are then teleported back to the starting point of the maze and have to start over again (*system*).

In the Lost Woods, then, game elements such as the confusing structure of the world and its gloomy and terrifying appeal are combined with an oblique game system which makes players *suffer*. Yet these negative emotions are also a source of players' *enjoyment* and the *delight* of experiencing a dark wilderness in the relative safety of their homes. In addition, they are on hunt for loot and treasure, particularly the Master Sword, and enact a plot that will eventually lead them to the restoration of order and balance in Hyrule (*plot*). The function of the Korok Forest is therefore not to be underestimated. It evokes *respect* and *admiration* for this untouched realm, the *desire* to protect it from the outside pollution, and the sheer *astonishment* of its natural wonders.

Conclusion

THE LEGEND OF ZELDA: BREATH OF THE WILD immerses its players in a magical realm and a video game narrative that employs all of its game elements (*sensorial*, *world*, *plot*, *system*) to create a coherent participatory experience—and what Hans-Joachim Backe considers to be an efficient ecogame that employs both systemic and semiotic means to convey its message (Backe, 2017). Players are set in the role of the hero Link and his struggle to restore balance and the natural order in Hyrule by defeating Calamity Ganon as a source of pollution. Yet this journey, as has been made clear, entails more than a simple quest for peace and addresses a repression fundamental to humankind: the loss of a life in balance with nature and the protective shell of her womb. This wish-fulfillment and unconscious desire is deeply ingrained in BREATH OF THE WILD and its game structure and comes in the form of the hero's struggle for an ecologically sustainable Utopia. During the act of play, players become sensitised to nature's many wonders and awe as they explore its bounds and elements, an untamed wilderness filled with perils and confusing mazes that aims to overwhelm players. Yet these landscapes are also designed ones and resemble gardens of different sorts, domesticated yet wild, ambiguous spaces to be appreciated visually and traversed ergodically.

The gameworld of ZELDA and players' potential interactions with it are thus constructed and outlined in such a way as to evoke contrary affects and emotions in them. Suffocating mazes are here juxtaposed to the tranquillity of open world areas and hub structures, with their respective processes and systemic (ludic) possibilities that lead to different playing styles. The result is a variety of tumultuous emotions which are triggered in players, such as *curiosity* and *distress*, *delight* and *terror*, and the *astonishment* of a natural world, its cultures and underlying system, which are incomprehensible for players in their entirety. This aesthetic experience of the sublime evokes various imaginings in players and has them ponder the similarities and differences between the gameworld's ecosystems and cultures and their empirical surroundings—when they connect

the pollution caused by Ganon to ecological issues that plague their times and the imbalances with nature that are caused by humankind's exuberant lifestyle.

Playing ZELDA is thus essentially a regenerative experience on both an affective and aesthetic level and represents a form of cultural ecology. It occurs when the fascinating spell of fiction grasps players' attention and has them implicitly ideate the meaning behind their interactions in the gameworld, when they connect the virtually enacted to similar situations in the empirical world. In other words, this dialectic between (eco)game, players, and culture (world) shows the potential of emancipated, ethical play and may thus exert influence of players' self, changing their habitual dispositions and images of nature, culture and their mutual dependence.

Games

DEUS EX: MANKIND DIVIDED. Eidos Montreal/Electronic Arts, PS4, 2016.

FLOWER. Thatgamecompany/Sony Computer Entertainment, PS4, 2009.

MASS EFFECT: ANDROMEDA. Bioware/Electronic Arts, PS4, 2016.

No Man's Sky. Hello Games/Sony Interactive Entertainment, PS4, 2016-2018.

PAPERS, PLEASE. 3909, PC, 2013.

REMEMBER ME. Dontnod/Capcom, PC, 2013.

THE LEGEND OF ZELDA: BREATH OF WILD. Nintendo, Nintendo Switch, 2017.

References

Backe, H. (2017). Within the mainstream: An ecocritical framework for digital game history. *Ecozon@: European Journal of Literature, Culture and Environment, 8*(2), 39-55. Retrieved from http://ecozona.eu/article/view/1362/2088

Barrett, N. (2011). Wuwei and Flow: Comparative reflections on spirituality, transcendence, and skill in the zhuangzi. *Philosophy East and West*, 61(4), October 2011, 679-706.

Burke, E. (2017). *A philosophical enquiry into the origins of the sublime and beautiful*. Calgery: Anodos Books.

Campbell, J. (2008). *The hero with a thousand faces*. Bollingen Series 18, 3rd ed. Novato: New World Library.

Chang, A. Y. (2011). Games as environmental texts. *Qui Parle: Critical Humanities and Social Sciences*, 19(2), 57-84.

Cohen, J. J. and L. Duckert. (2015). Eleven principles of the elements. In J. J. Cohen and L. Duckert (Eds.), *Elemental ecocriticism: Thinking with earth, air, water, and fire* (pp. 1-26). Minneapolis, Minn: University of Minnesota Press.

Cronon, W. (1995). The Trouble with Wilderness; or, Getting Back to the Wrong Nature. In *Uncommon Ground: Toward Reinventing Nature*, William Cronon, ed. New York: W. W. Norton & Company.

Dôgen, E. (2015). *Shōbōgenzō: a preciosa visión del dharma verdadero*. Translated by Dokushō Villalba. Barcelona: Editorial Kairós.

Farca, G. (2016). The Emancipated Player." *Proceedings of the First International Joint Conference of DiGRA and FGD, 13*(1). Retrieved from http://www.digra.org/digital-library/publications/the-emancipated-player/.

---. (2018). Playing dystopia: Nightmarish worlds in video games and the player's aesthetic response. Bielefeld: Transcript.

Flath, J., Orengaa A., Rubio C. and H. Ueda. (2016). *Sakura: Diccionario de cultura japonesa*. Gijón: Satori.

Freud, S. (2001). Creative writers and day-dreaming. In *The Standard Edition of the Complete Psychological Works of Sigmund Freud* Volume IX. Translated by The Institute of Psycho-Analysis (pp. 141-154). London: Vintage.

---. (1997). *The interpretation of dreams*. Translated by A. A. Brill. Hertfordshire: Wendsworth. Garrard, G. (2004). *Ecocriticism*. New York: Routledge, 2004.

Gregg, M. and G. J. Seigworth. (2010). An inventory of shimmers. In M. Gregg and G. J. Seigworth (Eds.), *The affect theory reader* (pp. 1-28). Durham, N. C: Duke University Press.

Habib F., S. Nahibi, H. Majedi. (2013). Japanese garden as a physical symbol of japanese culture. International Journal of Architecture and Urban Development, *3*(4), 13-18.

Jameson, F. (2005). *Archaeologies of the future: The desire called utopia and other science fictions*. London: Verso.

Jung Lee, Y. (2005). Inquiry into and succession to traditional japanese zen gardens. Master's Thesis at University of Georgia.

Lehner, A. (2017). Videogames as cultural ecology: *Flower* and *Shadow of the Colossus*. *Ecozon@: European Journal of Literature, Culture and Environment, 8*(2). 56–71. http://ecozona.eu/article/view/1349/2089.

Möring, S. and B. Schneider. (2018). Klima – Spiel – Welten: Eine medienästhetische Untersuchung der Darstellung und Funktion von Klima im Computerspiel. *Paidia: Zeitschrift für Computerspielforschung*, 02. 2018. http://www.paidia.de/?p=11517

Mehta, G. K. and K. Tada. (2008). *Japanese gardens: Tranquility, Simplicity, Harmony*. Clarendon, VT: Tuttle Publishing.

Parham, J. (2016). *Green media and popular culture: An introduction*. London: Palgrave Macmillan.

Paumgarten, Nick (2010, December 20 and 27). Master of play: The many worlds of a videogame artist. *The New Yorker*. https://www.newyorker.com/magazine/2010/12/20/master-of-play

Sicart, M. (2014). Play Matters. Cambridge, Mass.: MIT Press.

Stanley, K. (2017). Affect and emotion: James, Dewey, Tomkins, Damasio, Massumi, Spinoza. In D. R. Wehrs and T. Blake (Eds.), *The Palgrave handbook of affect studies and textual criticism* (pp. 97-111). London: Palgrave Macmillan.

Vella, D. (2015a). No mastery without mystery: *Dark Souls* and the ludic sublime. *Game Studies*, 15(1). Retrieved from http://gamestudies.org/1501/articles/vella

---. (2015b). The ludic subject and the ludic self: Analyzing the 'I-in-the-Gameworld'. PhD Diss., IT University of Copenhagen. *ITU.dk*. Retrieved from https://en.itu.dk/~/media/en/research/phd-programme/phd-defences/2015/daniel-vella---the-ludic-subject-and-the-ludic-self-final-print-pdf.pdf?la=en

Vieria, F. (2010). The Concept of Utopia. In Gregory Claeys' (ed.), *The Cambridge Companion to Utopian Literature* (pp. 3-27). Cambridge: Cambridge UP.

Weik von Mossner, A. (2017). *Affective ecologies: Empathy, emotion, and environmental narrative*. Columbus, OH: Ohio State University Press. Kindle Version.

Westerlaken, M. (2017). Self-fashioning in action: Zelda's *Breath of the Wild* Vegan Run. 11th *International Philosophy of Computer Games Conference*, Krakow, 2017. Retrieved from https://gamephilosophy2017.files.wordpress.com/2017/11/westerlaken_pocg17.pdf

Zapf, H. (2016a). Kulturökologie und Literatur: Ein transdisziplinäres Paradigma der Literaturwissenschaft. In H. Zapf (Ed.), *Kulturökologie und Literatur: Beiträge zu einem transdisziplinären Paradigma der Literaturwissenschaft* (pp. 15-43). Heidelberg: Universitätsverlag Winter.

---. (2016b). *Literature as cultural ecology: Sustainable texts*. London: Bloomsbury.

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