Pixelated nature: ecocriticism, animals, moral consideration, and degrowth in videogames

Natureza pixelada: ecocrítica, animais, consideração moral e decrescimento nos videogames

RESUMO

O campo dos game studies ecocríticos cresceu significativamente nos últimos anos. O entendimento dos videogames através das demandas da crise climática e dos debates sociais sobre o que significam ecologia e natureza nos ajuda a avaliar seu papel na cultura e como cultura. Este artigo combina a análise de conteúdo do jogo e das maneiras de jogar oferecidas por esse conteúdo para delinear um rascunho de um mapa de jogos sobre e em defesa da natureza. As questões norteadoras são: como esses jogos criam seus discursos e quais estratégias eles usam em prol de seus objetivos, fazendo a distinção entre representação (ou como a natureza aparece) e ecocrítica (ou o que é dito sobre a relação entre as pessoas e seu ambiente), bem como que tipo de comportamento do jogador tais jogos permitem e favorecem. Para estudar essas questões, são empregados três conceitos intelectuais centrais: ecocrítica, a teoria da consideração moral na filosofia dos direitos dos animais e a teoria econômica do decrescimento.

Palavras-Chave: ecocrítica, direitos dos animais, decrescimento, natureza, consideração moral.

ABSTRACT

The field of ecocritical game studies has grown significantly in recent years. Reading videogames through the demands of the climate crisis and the social debates around what ecology and nature mean helps us assess their role in culture and as culture. This paper combines the analysis of game content and of the ways of playing afforded by that content to delineate a draft of a map of games about and in defense of nature. The guiding questions are how they create their discourses and what strategies they use for that, distinguishing between representation (or how nature appears) and ecocriticism (or what is said about the relationship between people and their environment), as well as what type of player behaviour they allow and favour. To study that, three central intellectual concepts are employed: ecocriticism, the theory of moral consideration in animal rights philosophy, and the economic theory of degrowth.

Keywords: ecocriticism, animal rights, degrowth, nature, moral consideration.

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The Legend of Zelda: Breath of the Wild (H. Fujibayashi, Nintendo EPD, 2017), *Shadow of the Colossus* (F. Ueda, Team Ico, 2005), and *The Witcher* (J. Brzeziński, CD Projekt, 2007) have all played with the idea of a sublime, open air nature meant to overwhelm the player. *Stardew Valley* (E. Barone, ConcernedApe, 2016) and *Animal Crossing* (Nintendo, 2001–2017) include complex ecosystems where elements are connected in a network of interdependency and relations of care. *Thunderbird Strike* (E. LaPensée, 2017) proved that games can articulate critical discourses on ecology. Players, whether aware of it or not, are more accustomed to dealing with (representations of) nature than it may seem at first glance.

Recently, researchers Benjamin Abraham and Darshana Jayemanne (2017) wondered where all the games on climate change were. Using the concept of *cli-fi* (fiction set in the near future as a response to the growing problem of climate change), they concluded that the genre has few interactive works. Cases like *Thunderbird Strike* are, still, a rarity. However, if we change the focus from the content of the game to what the player does with that content, as Hans-Joachim Backe (2017) proposes, we discover that many videogames allow ecocritical behavior. Many players have refused to kill harmless creatures in *Red Dead Redemption* (Rockstar San Diego, 2010) or who have completed *Breath of the Wild* without feeding on animals, inventing a "vegetarian mode" (Michelle Westerlaken, 2017) that the system does not include.

Videogames about and in defense of nature do exist. The question is how they create their discourses and what strategies they use for that, distinguishing between representation (or how nature appears) and ecocriticism (or what is said about the relationship between people and their environment). To find these games that say something, or that allow us to say something, about nature, I present here a first attempt at a corpus/canon interpreted from three central concepts: ecocriticism, the theory of moral consideration in animal rights philosophy, and the economic theory of degrowth.

1. A PHILOSOPHY OF (PIXELATED) NATURE

Let's first describe each of these three central philosophical concepts and inquiry how could apply to videogames.

1.1 ECOCRITICISM IN VIDEOGAMES

The word "ecocriticism" is defined as the "study of the relationships between literature, culture, and the environment" (Flys Junquera et al., 2010). That is, the relationships between human beings and their environment expressed in cultural manifestations. Ecocriticism is concerned with how literature thinks about the natural world, focusing on issues such as the social consequences of the ecological crisis or the duality between the natural and urban world.

Are ecocritical videogames possible? They are, indeed, as scholars such as Backe or Gerald Farca and Charlotte Ladevèze (2016) have argued. The European magazine of literature, culture and environment Ecozon@ dedicated an issue (vol 8, n ° 2) to green videogames. And how can videogames be ecocritical? If literature represents reality using words, and cinema does it with images, movement, and sound, videogames add interactive fictional worlds, processes, and the actions of the player.

Videogames are, first and foremost, fictional worlds (Planells, 2015) that players can explore and with which they can interact. This interaction happens within rules previously created by the game makers, in what can be called a directed freedom (Navarro-Remesal, 2016). The first step of a videogame ecocriticism could be to analyze the representation of nature as a fictional world with possible, impossible, obligatory, and forbidden actions. These fictional worlds are articulated through processes in real time. When we talk about processes, we refer to the connections between virtual elements, to systems and logics of action and reaction, to how things work (Bogost, 2007, p. ix). Preparing food is a process, as is ordering a coffee, taking an exam, or democracy. Each process has a series of interconnected steps in which doing X has a Y consequence. Normally, consequences in videogames have value: some actions make us win and others are harmful. Thus, we can infer that when developers design a system they are in turn expressing an opinion or worldview: if a system rewards us for hunting, it is implicitly approving of hunting (within that fictional world - let's not forget that representation does not imply sanction); if it penalizes us for stepping on some flowers, it is implicitly defending caring for them.

Processes are central in videogames but that should not make us forget the non-interactive and more traditional aspects they remediate from cinema or literature. Many works, for example, include ecological reflections in their cutscenes. All the elements of a fictional world work together and, in practice, no element is irrelevant. Nor should we forget that in each game the player interacts with them following their own interests and conveniences, often acting against the implied margins of the design. Thus, it is possible to find playthroughs of *The Sims 3* (The Sims Studio, 2009) as a homeless person, or *Minecraft* (M. Persson and J. Bergensten, Mojang, 2011) played without harming any living being.

An ecocritical reading of videogames, then, should address four aspects that form a whole: the game's ludofictional world, the intentions that are intuited in its processes (both through authorial intent and the implied player), its audiovisual and narrative aspects, and the final use that the player makes of it all.

1.2 ANIMALS: CARE AND MORAL CONSIDERATION

In our social imaginaries, animals are often representatives of the natural world. In the same way, we can consider that virtual animals embody nature as a ludofictional world. To interact with an animal is to do it, at the same time, with the game system as a whole and the conception of nature embedded in the game. Rarely do virtual animals appear in a neutral way. Our interactions with them will always end up having a positive or negative outcomes (even if they are just symbolic), that is, they will be governed according to certain values. In order to analyze these (virtual) values from an ecocritical perspective, we must first consider what real world values are being used as reference.

I follow here the theories of philosophers Jesus Mosterín (2014) and Mark Rowlands (2013). Both of them consider that animals deserve moral consideration; that is, their welfare ought to be taken into account when making decisions that affect them directly or indirectly. This well-being, following Jeremy Bentham and Buddhist thought, has as a guiding factor in suffering. As the title of a book by animal rights philosophers Francisco Lara and Olga Campos (2015) reads, the principle to follow should be "they suffer, hence they matter" (*Sufre, luego importa*).

Of course, there's no ethical panacea nor universal norm that could solve all possible situations when dealing with animals. If a wild animal threatens us, we have the right to defend ourselves, and it is reasonable to protect our dog from the ticks that attack it. Moral consideration is not so much a universal rule as a principle from which to start our deliberations. A principle that, on the other hand, seems to be innate to all of us: Rowlands asks us to imagine using a chainsaw against a tree or a chicken - our predictably visceral reaction to the second image makes us see the difference between beings.

Animals, in addition to the capacity to suffer, have vital and non-vital needs. We humans add to that the capacity to choose. For Mosterín, choosing to provoke suffering is a moral evil. Rowlands, in the same line, says that causing pain (or depriving a being of a vital need) to satisfy a non-vital need is not justifiable. In this way, experimentation in pharmaceutical laboratories, when done to fight against diseases, presents a moral dilemma that deserves to be taken seriously, whereas the one carried out to test cosmetics (sacrificing vital needs to satisfy non-vital needs) it is unjustifiable.

Let's go back to the question of animal rights: philosopher Adela Cortina (2013) affirms that they have value but not rights, because they cannot recognize obligations and moral commitment. Rowlands, an animal rights defensor, also thinks in a similar way, saying that having rights implies an active participation in human society. Mosterín, who defends an ethic of compassion, specifies that someone can have rights without having obligations: what is necessary is that others have obligations to him (as, for example, we do have to babies). In any case, all these scholars agree on the moral value of animals - and that this moral value implies that we humans have obligations, regardless of their degree or type, to them.

With this in mind, the question that an ecocritical reading (or design) of videogame should ask about virtual animals is: are they designed and integrated in the system and processes in a way that deserves moral consideration or are they used just as obstacles, items, or even set dressing?

1.3 DEGROWTH: LIVING WITHOUT EXHAUSTING

The *State of the World Report 2012: Moving Toward Sustainable Prosperity,* from the Worldwatch Institute, defines degrowth as the intentional redirection of economies away from the perpetual search for growth, which includes taking into account the limits of our planet. For economist Serge Latouche (cited in Worldwatch Institute, 2012, p. 23), degrowth is the opposite of recession, because it does not imply decomposition or suffering. Nothing vital needs to be sacrificed. Economist Tim Jackson (íbid.) also talks about prosperity without growth. Degrowth is more reform or reorientation than revolution. It has as much to do with consumption as with waste. Let's go back to Mosterín: The concern for the biosphere does not mean forgetting ourselves or renouncing economic progress.

What form, then, would a rhetoric of degrowth take in videogames? In simple terms, it would require systems and discourses that did not reward infinite accumulation, that pointed out the damage of excessive consumption in the whole virtual world, reward moderation, showed imbalances between regions, and/or recognized the waste produced by the action of the player. A system of limited resources that did not demand an impossible Schopenhauerian resignation but encouraged players, by means of strategies of compassion, to be conscious of its limits. A system that, lastly, would not only refer to its own ruleset but also bring attention to the real world. This could be done by highlighting to how the game fits in the economy, its material production, the social impact and the power relations of its industry; following, for example, the critical theory that Greig De Peuter and Nick Dyer-Witheford put forward in *Games of Empire* (2009). This seems to go against many game design and marketing practices. Truly ecocritical games, as we will see in the following ludography, are usually created from the margins, outside the core of the industry.

2. TOWARDS A CANON OF NATURE AND ECOCRITICISM IN VIDEOGAMES

With these philosophical framings as guiding ideas, we can try and establish a first attempt at a reading of the representation of nature in videogames, organized around ten wide conceptual categories.

2.1 EARLY GAMES: NATURE AS A FRAMEWORK OF ADVENTURE

The technical limitations of early videogames resulted in a handful of space-based works and abstract labyrinths, although nature settings did not take long to appear. In *Centipede* (E. Logg and D. Bailey, Atari, Inc., 1980), players shoot at enemies in the shape of centipedes, scorpions, or spiders. *Pitfall!* (D. Crane, Activision, 1982) used the basic colours of the Atari 2600 to recreate a jungle inspired by pulp literature and adventure movies.

In the mid-80s, with the third generation of consoles, forests, caves, snowy mountains, sea beds, or volcanoes abounded, populated by enemies such as turtles, bats, spiders, or even snails. This was the case of platformers such as *Wonder Boy* (R. Nishizawa, Escape, 1986) and its adaptation *Adventure Island* (S. Matsushita, Hudson Soft, 1986), of action games such as *Gauntlet* (E. Logg, Atari Games, 1985), or of RPGs like *Dragon Quest* (K. Nakamura, Chunsoft, 1986) or *Final Fantasy* (H. Sakaguchi, Square, 1987), which presented vast natural spaces in the tradition of fantasy literature. Nature here was synonymous with spaciousness (escaping the claustrophobia of closed labyrinths) and adventure, and realism was never a priority. Animals appeared as avatars or as obstacles, without will, discursive intention, or moral complexity.

It should also be noted that the use of tropes from literature or cinema is still frequent in war games such as *Call of Duty: Ghosts* (Infinity Ward, 2013), where the forests of South America provide a context to conflicts in the line of the American action films of the 80s, with no role other than to offer an epic scenario to the hero of the story.

2.2 NATURE AND EXPLORATION

Adventure is associated with a word commonly used in videogame culture: exploration. The pioneer textual adventure, *Colossal Cave Adventure* (W. Crowther and D. Woods, 1977), focused on speleology: investigating natural caves was its main objective and its greatest attraction. From this and similar works, a whole tradition spun.

It is an overtold anecdote that *The Legend of Zelda* (S. Miyamoto and T. Tezuka, Nintendo R&D 4, 1986) was born from the will of Miyamoto to capture the sense of freedom and discovery that he experienced as a child when exploring the forests of Kyoto. All *Zelda* games can be seen as miniature gardens (see: Gingold, 2003), from the vast sea of *Wind Waker* (E. Aonuma, Ninten-

do EAD, 2002) to the plains of *Breath of the Wild,* suggestive spaces full of secrets and surprises that invite the player to explore and wander.

2.3 INTERACTIVE ECOSYSTEMS: CRAFTING

Some games use the processing power of computers to build real-time interactive ecosystems. An early example of this would be *Balance of the Planet* (Chris Crawford, 1990) and a more recent one, *Spore* (Maxis, 2008). I will distinguish here three ways to use these ecosystems: in games of exploitation of resources, of care for the environment, and of survival. As with all of these categories, these are not closed, exclusionary concepts, but can and do often appear in combination.

The exploitation of resources produces worlds in which the natural environment serves almost exclusively as a source of raw material: players collect basic materials such as wood or stone and elaborate complex objects with them. This game mechanic, crafting, has become a common element in the industry, popularized mainly by RPGs and *Minecraft*. We can also find a strong focus on crafting in *The Trail: Frontier Challenge* (22Cans, 2017), in which players play as a pioneer newcomer to North America, or in *Steamworld Dig* (Image & Form, 2013), where players assume the role of a mining robot in a fantastic far west.

2.4 INTERACTIVE ECOSYSTEMS: CARE FOR THE ENVIRONMENT

The care for the environment predominates especially in the games that, in a more or less realistic way, simulate rural life. The *Farming Simulator* series (Giants Software, 2008-present) recreates American and European agriculture in detail. *Story of Seasons,* a franchise that started with *Harvest Moon* (Amccus, 1996), also simulates life on a farm by adding a narrative and social component, in a kind of rural melodrama. The aforementioned *Stardew Valley* is mainly inspired by this franchise. In these games the animals have moral consideration and achieving some kind of balance is the main objective.

The popular series *Animal Crossing* (Nintendo, 2011-present) also takes place in environments to which the player must pay attention, but relegates them to the background, subject to the social or community simulator that shapes its design (the neighbours are, interestingly enough, anthropomorphic animals). Collecting is also present, in a similar way to *The Sims*: players can invest our profits in buying decorative items and expand our home, as well as our clothing and other ornamental items. In this sense, *Animal Crossing* is heavily focused on consumerism and can motivate the player to consider the natural environment as a set of resources to exploit, be it to earn money collecting fruits and shells from the sea or to expand their collection of insects and fish. This is accentuated in *Animal Crossing: Pocket Camp* (Nintendo EP & D, 2017), which changes the purchase of finished furniture for the crafting of

materials. The friendly and cozy art style of the series softens the tensions between these two behavioural models: care and exploitation.

2.5 INTERACTIVE ECOSYSTEMS: SURVIVAL

Inspired by medieval and post-apocalyptic fantasy, the survival subgenre has become popular in recent years. In it, players are presented with hostile fictional worlds, with systems centered not on caring for the environment but for the avatar, where they have to tend to a series of constantly threatened vital needs. Survival games originate from the classic conflict of "man versus nature" and make it procedural, posing situations in which ethical reflection is challenged by the urgent demands of physical bodies. Thirst, hunger, fatigue, or cold are codified as metrics and statistics and occupy the centre of the system. *Minecraft,* in its main mode, belongs to this subgenre.

Lost in Blue (K. Takata, Konami, 2005) is another good example of survival games: players control a castaway and have to build some shelter and expand their resources, gradually improving their capacity to explore. Every action has an energy cost and the first days on the island can be extremely demanding, resulting in a difficulty curve that decreases as players progress, contrary to most videogames.

Another paradigmatic example of this genre is *Don't Starve* (Klei Entertainment, 2013), set in a fantasy world inspired by Lovecraft where players, besides taking care of their health and hunger, must keep track of a sanity meter. This hybridization of genres is very common in videogames: for example, we can find elements of survival in the aforementioned *Breath of the Wild,* which forces players to hunt and collect ingredients, cook them, or protect themselves from severe weather.

2.6 PETS AND ANIMAL ALLIES

Virtual pets have been a pillar of interactive entertainment for decades. *Dogz* and *Catz,* the first installments of the *Petz* series (PF Magic, Mindscape, Ubisoft, 1995–2014), were released in 1995. The following year saw the success of Tamagotchi, a toy that became a global icon, sold millions of units, and gave way to dozens of imitators. The brand is still going relatively strong in 2019. Its creator, Aki Maita, claimed she designed it as a companion pet she could bring anywhere, adapted to her accelerated pace of life. The act of taking care of a living being was thus turned into a virtual process, a concept that the much more complex *Nintendogs* (K. Mizuki, Nintendo EAD, 2005) solidified into a whole subgenre.

The conventions of this genre are well known: the pet has vital needs such as hunger and sleep, responds in some way to the player's inputs (tactile or otherwise), can be trained, requires players to take care of its hygiene, complains if it is neglected, can be cosmetically modified with

costumes and accessories, participates in some kind of playful interactions with the player, and in some versions can meet (and interact with) other pets. *Pou* (Zakeh, 2012), a virtual mascot for smartphones, is one of the most recent examples of this.

Beyond virtual pets, many games include an animal companion for their protagonists, and these animals normally work both as allies in the fiction and as sets of additional skills in the mechanics. In the aforementioned *Call of Duty: Ghosts,* the protagonist has a dog, Riley, to whom players can give orders and even control in specific missions. Mega Man has had a dog, Rush, from *Mega Man 3* (M. Kurokawa, Capcom, 1990) onwards, and this robot dog can be summoned as a temporary aid. In *Fallout 3* (Bethesda Game Studios, 2008) and *Fallout 4* (Bethesda Game Studios, 2015) players also have canine companions, and in several *Zelda* games the horse Epona acts as a companion for the protagonist and a facilitator of the riding mechanics for the player.

One of the more well known examples of this is the work of Fumito Ueda and his team: Ueda always includes in his games a companion character that helps the player overcome obstacles and who, in turn, must be protected. In *Shadow of the Colossus* (F. Ueda, Team Ico, 2005) this companion is a horse, Agro, that players use to traverse the land and also stars in one of the most memorable moments of the story. The control over Agro is not direct. Players give it orders through their avatar and it always shows some resistance and autonomy. Ueda's latest production, *The Last Guardian* (F. Ueda, SIE Japan Studio, 2016), focuses on the relationship between a child and a mythological creature, Trico, which has a complex artificial intelligence and makes decisions on his own. Without Trico, it is impossible to progress in the game, and at the same time players need to feed him and take care of his wounds. In addition, the controls allow players to caress him to calm him down and show affection. The player's relationship with Trico is both mechanical and affective. This fantastic animal is the central element of its ludofictional world, and the ruleset makes it clear he deserves moral consideration.

2.7 VIDEOGAMES OF ECOLOGICAL DENUNCIATION

The works mentioned so far belong, to varying degrees, to the mainstream industry. Even when they have a more or less discursive or persuasive intention, they all share a commercial objective. Outside of this mainstream, or at least in its margins, lie videogames created by activists and NGOs with the explicit goal of denouncing ecological and social problems. This is the case of *Phone Story* (Molleindustria, 2011) and *Burn the Boards* (Cause Creations, 2015), two mobile games that denounce the consequences on a planetary scale of the smartphone industry, from the process of obtaining minerals such as coltan (which involves guerrillas and results in the practical enslaving of African workers) to the recycling of their electronic components in countries like India under dangerous and unhealthy conditions.

These games emphasize the materiality of the very phones on which they are played and their human and environmental cost. They shift the focus from the technological to the geological (and geopolitical) and emphasize the power imbalances between countries, as well as the need to rein in uncontrolled consumption. They not only illustrate real situations but also include calls to action in the form of donations and suggestions to raise awareness. Our consumption habits, *Phone Story* and *Burn the Boards* tell us, always have consequences, and only by acting as responsible consumers (that is, only through degrowth) can we stop or at least reduce this impact.

The aforementioned *Thunderbird Strike* uses a much more symbolic strategy to talk about the protection of nature (and to vindicate indigenous traditions), in a style similar to Ôkami (H. Kamiya, Clover Studio, 2005). In this Japanese production, very indebted to the *Zelda* series, players control the Japanese goddess Amaterasu in a fantastic feudal Japan ravaged by the demonic serpent Orochi. Amaterasu, using a magic brush, can slowly bring life back to the world. This brings us back to the beginning of this section: commercial games may not be "denunciation works", but the lines between these categories are not as clear cut as it may seem. The ludo-fictional affordances they employ are more or less the same, however different their goals are.

2.8 THE POST-APOCALYPSE AS A POP SCENARIO

In recent years, and almost in parallel to the Great Recession (Pérez Latorre et al., 2017), stories set after a major planetary catastrophe have invaded popular culture, especially in the zombie genre. The setting is not new and has a long tradition in videogames, with early productions such as *Wasteland* (B. Fargo, Interplay Productions, 1988), *Bad Blood* (C. Roberts, Origin Systems, 1990) or *Fallout* (B. Fargo and T Cain, Interplay Productions, 1997), but in its contemporary form it does have its own defining traits: on the one hand, it has become a common framework for stories of adventure, action, or terror, with a social imaginary full of tropes shared by the audience and the creators; on the other, some of these terrible futures include allusions to the environmental crisis.

The nuclear panic of the 80s has given way to viruses, wars, and other unspecified phenomena, and many current "post-apocalypses" (a questionable term in itself, since there could not really be a time after the apocalypse) go a step beyond and imagine a planet reclaimed by nature. In these fictions, cities in ruins are full of vegetation and wild animals that roam freely. This is the case of *The Last of Us* (B. Straley and N. Druckmann, Naughty Dog, 2013), perhaps the most paradigmatic ecocritical post-apocalypse. The story, a kind of road movie inspired in equal parts by zombie films and *The Road* (Cormac McCarthy, 2006), portrays the relationship between (the traditional idea of) nature and urban spaces as an opposition, almost as a struggle. In the absence of human beings, the natural world recovers the land that was stolen from it. This natural

world, in turn, offers the possibility of a more "authentic" way of life: the fall of urban civilization is an invitation to start over.

A similar scenario is presented in *Enslaved: Journey to the West* (M. Davies, Ninja Theory, 2010), a videogame adaptation of the Chinese classic *Journey to the West* (Wu Cheng'en, 16th century) set in a post-apocalyptic United States invaded by robots. The dichotomy is no longer just between urban environments and nature but between nature and technology. This is also how *Nier: Automata* (Y. Taro, PlatinumGames, 2017) shapes its world. In this Japanese action game, robots and androids fight a war in an abandoned, ruined land, once again covered in vegetation. *Tokyo Jungle* (SCE Japan Studio, 2012) is a rarity that allows players to explore a deserted Tokyo by controlling different animals (dogs, deer, lions, hyenas) that struggle to survive and control the territory. In this imagined struggle, the absence of humans is a total victory for nature, and these games allow us to take a peek into a world where we no longer rule.

None of these games does even consider models of urban ecology and sustainable, green cities (such as the "forest city" project of architect Stefano Boeri in Liuzhou, China). Neither do they seem to consider that our habitats are also part of nature and that the "artificial" could be designed to achieve a better balance with fauna and flora.

2.9 SLOW GAMING: CONTEMPLATION AS PLAY

The last category I present here has a more diffuse character, defined not so much by genre structures or themes but by a tone and a pace that favours contemplation, slowness, and a reduced focus on "doing". Slow gaming implies doing little or nothing at all and letting the game-world reveal itself, playing in a way as to relate to the environment without haste, without too many plans or objectives.

This "slow gaming" can be theorized using three coordinates: (a) a dilated sense of time, (b) an invitation to contemplation, and (c) a non-economic sense of action. These coordinates fit easily in games of an ecological and ecocritical character, as well as to degrowth systems. Slow gaming would be similar to Taoism, a Chinese philosophy that defends letting things flow, not resisting them ("*wu wei",* inaction or non-doing, but more accurately "not opposing"), and not imposing one's will.

Prune (J. McDonald, 2015) asks players to prune plants to accompany them in their growth, and too much intervention will make them not sprout well by themselves. In *Orchids to Dusk* (P. Clarissou, 2015), players control an astronaut stranded on a desert planet and can only walk or sit down and wait for oxygen to run out, contemplating oases of vegetation. *Mountain* (D. OReilly, 2014), an experimental piece in which we observe the passage of time in a mountain, epitomizes the aspirations of slow gaming in its instructions: "controls: nothing". OReilly is also the author of

a recent example of slow gaming, *Everything* (D. OReilly, 2017), a complex ecosystem in which players can take control of any subject and access its thoughts. With this, players are invited to be (and identify themselves with) everything, and to explore that whole "everything" with patience and freedom.

Productions such as *Attack of the Friday Monsters! A Tokyo Tale* (K. Ayabe, Millenium Kitchen, 2013) or *Firewatch* (O. Moss and S. Vanaman, Campo Santo, 2016) have players walk calmly through rural or wild spaces, in closed levels that do not require the labyrinthine navigation of open worlds. The "walking simulator" genre lends itself well to slow gaming, as do farming simulators like the aforementioned *Stardew Valley. The Stillness of the Wind* (C. Cardenas, Fellow Traveller, 2019) is a minimalist take on that genre based on an unfocused, slow, and goalless sense of time. *The Witness* (J. Blow, Thekla, Inc., 2016) places its puzzles on a sunny desert island with an art direction that hurries not the player. Set also on an island, *Proteus* (E. Key and D. Kanaga, 2013) is another experimental piece in where players can delight in the electronic sounds produced by plants and animals while they leisurely explore the land. The works of Thatgamecompany, such as *Flower* (J. Chen, Thatgamecompany, 2009) or *Journey* (J. Chen, Thatgamecompany, 2012), are close to this category and have been self-described as "Zen gaming". Their aesthetics highlight the sublime and, at the same time, cozy qualities of their natural environments. *Flower, in* addition, incorporates a visible ecocritical element in its last levels, where the world is invaded by metal structures and electrical wiring that turn the bucolic fields of the beginning into nightmare scenarios.

Slow gaming does not require players to transform digital landscapes but to see them clearly. Thus, the best way to summarize this style could be what one character says in *Lovely Weather We're Having* (J. Glander, Glanderco, 2015): "Everything is going well for once. Please be silent and let things continue to go well for a few more seconds".

2.10 TRANSCENDENTALIST GAMES

As ecocritical texts, most slow games, like *Quiet as a Stone* (Richard Whitelock, 2018), bring to mind the American Transcendentalism of Ralph Waldo Emerson or Henry David Thoreau, a 19th century movement that defended self-reliance, individualism, and a return to a nature uncorrupted by society.

It is not coincidental that one of the more relevant proponents of contemplative gameplay, *Walden, a Game* (Tracey Fullerton, 2017), is a direct adaptation of one of the main texts of this movement. In this interactive version, players must balance exploration, survival, and inspiration, taking care of four meters for the second (food, fuel, shelter, and clothing) and four for the latter (visitors, sound, solitude, and reading). Thus, we could speak of Transcendentalist games

as a relative or variant of slow games (with some elements of survival) with a focus on isolation in an idealized, romantic nature.

3. CONCLUSIONS

For a general audience, videogames are commonly associated with digital culture and opposed to the natural world. This could be seen as another apocalyptic and nostalgic gesture: digital things deprive us of going out in the sun, and they're to blame for our lost paradises. Without forgetting their material and industrial practices (which do have an ecological impact), we should look at the discourse of games (be them mainstream, independent, activist, or experimental), as reflections of, and dialogues with, the culture in which they originate. This includes the ideas on nature and ecologism of that culture. Videogames can invite us to think about nature, to better explore our relationship with it, and to be critical of the problems of our time. At the same time w, as players, can in turn reflect on these issues, even through games that do not contemplate them in their construction. In both these cases, we need tools for critical analysis and for critical performance, and the moral consideration of animals, degrowth economics, and ecocriticism can provide them. Although it is true that cli-fi videogames are not common (yet), the works presented here show a complex "pixelated nature" that, a digital natural world that, interpreted with the appropriate intellectual tools, allow us not only to explore it but to reflect on it. We can play in (digital) nature and we can play to understand nature, or better yet: we can play to understand ourselves as part of this nature.

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