Narratives of environmental crisis in Chrono Cross: settler colonialism, inter-species conflicts, and environmental injustice

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Abstract

This article examines narratives of environmental injustice through representations of settler colonialism and resource exploitation in the digital game \textit{Chrono Cross}, as a case study to demonstrate how narratives of environmental crisis can be mobilized by developers to raise awareness on how resource exploitation can be harmful in a manifold of ways, from species extinction to violation of Indigenous peoples. Additionally, this study explores how game mechanics – specifically those related to inter-species conflicts and resource gathering – mobilize readings that are inconsistent with the environmental narrative intended by the game.
Narratives of environmental crisis in *Chrono Cross*: settler colonialism, inter-species conflicts, and environmental injustice.

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**Abstract**

This article examines narratives of environmental injustice through representations of settler colonialism and resource exploitation in the digital game *Chrono Cross*, as a case study to demonstrate how narratives of environmental crisis can be mobilized by developers to raise awareness on how resource exploitation can be harmful in a manifold of ways, from species extinction to violation of Indigenous peoples. Additionally, this study explores how game mechanics – specifically those related to inter-species conflicts and resource gathering – mobilize readings that are inconsistent with the environmental narrative intended by the game.

**Keywords**

Decolonial epistemologies, game environment, videogame studies, ludonarrative dissonance, environmental injustice.
Introduction

Digital games (and more specifically videogames) are considered to be an immersive medium that allows enunciators to articulate and deliver complex narratives while mobilizing distinct readings by players that experience these stories (McGonigal 2011, Galera 2010). They also act as counter-emplacements of sorts, in which all the possible real emplacements, found within and among cultures, are simultaneously represented, contested, and inverted (Luo 2022). Depending on their motivations, video games can question real-life discourses and disturb the narratives of a given collective. Accordingly, digital games are considered to be one of the many narrative forms through which social and political issues are critiqued and problematized.

Among global communities, Japan is possibly one of the most prolific groups in exploring the intersections between the ‘human’ and ‘non-human’ through new technologies (Jensen & Blok 2013). Artists, designers, and scientists from Japan frequently mix advanced technologies with spiritual capacities with unconscious ease, whether through toy figures (Allison 2006), animation (Morgan 2015), or ‘spiritual robots’ (Geraci 2006). This ‘unconscious’ intersection between ‘natural’ and ‘technological’ is also frequently explored by Japan-based developers in videogames (Foster 2009, Hutchinson 2018).

One of the major videogame developers in Japan, Square, consistently explored this approach to contest social and cultural narratives in their corresponding times. Certain Square media frequently explored narratives of environmental crisis – more specifically *Final Fantasy VII* (Foster 2009, Hutchinson 2018, Youngblood 2018), but also other installments of the franchise, such as *Final Fantasy The Spirits Within, Final Fantasy Advent Children* (Foster 2009), and *Final Fantasy VI* (see Hutchinson 2018) – with their diegetic dimensions frequently evoking
feelings of fear and ambivalence toward nuclear power (Hutchinson 2018). However, the company did not extensively explore other dimensions of environmental crisis in other franchises – e.g., habitat loss, overexploitation of natural resources, and species extinction. Yet, those dimensions were the focus of, at least, one of the instances of the *Chrono* franchise, namely *Chrono Cross*.

Among several themes, *Chrono Cross* (henceforth just *Cross*) tells the history of consequences. Throughout the game, the developers explore the possible results of quandaries past and, through the choices of the inhabitants of the El Nido archipelago, the different worlds are fashioned. Of the many sensitive topics that the game explores (e.g., the disintegration of self), the prevailing one is about environmental crises. The developers consistently stress the role of local environmental impacts on regional catastrophic events, from the extinction of local species to the aridification of lush environments. At the same time, they emphasize the intrinsic relationship of Indigenous peoples with the islands, arguing that mainland settlers are responsible for disrupting this relationship through acts of social injustice.

Considering the exposed above, the goal of this work is threefold: (i) to explore the origin of the El Nido Archipelago game environment, (ii) to understand how developers represent interactions between Indigenous peoples and the game environment, (iii) to argue how the representations of settler colonialism in-game is a tentative effort to promote reflection about social and environmental injustices beyond the game, and (iv) to analyze ambiguity and dissonance between game mechanics and the purported ‘pro-environment’ narrative of the game.

**Methods**
Addressing representations of human-environment in *Cross* can be quite challenging, since the developers invoke several distinct, and sometimes opposing, cosmologies to build its diegetic systems, which, in turn, are used to elaborate the narratives of environmental injustice in the game. Although some representations can be connected to Shinto philosophy (e.g., deities as manifestations of some fundamental natural element), certain motivations and references can also be connected to contemporary cosmologies throughout the *Chrono* series (i.e., *Chrono Trigger, Radical Dreamers*, and *Chrono Cross*), which incorporate in its narrative several concepts that are pervasive in ‘scientific’ stories (e.g., time travel and dimensional splitting). To navigate the plethora of references and to address the proposed questions, we used Chang’s (2019) approach to ‘game environment’ to better explain how environments and ecological dynamics are narrated in *Cross*. Additionally, we derived some interpretations of human-environment interactions using Whyte’s (2022) theory of collective continuance, giving special attention to the concept of interdependence (i.e., interdependent relationships). Although Whyte’s theory is built upon experiences specifically from the Anishinaabe (Neshnabé), it provides a robust framework that allows some comparisons between in-game representations and real-life interdependent relationships on a broader scale. We did not restrict our analyses to this specific theory, however, and drew extensively from South American decolonial literature to first circumscribe the concept of “settler colonialism” and then to explore the shared histories of the peoples and species in *Cross*, and how the narratives and representations of environmental injustice reverberated through the different space time of the game.

Throughout the text, we discuss the implications of ‘settler colonial practices’ in the process of environmental injustice towards peoples and environments in-game. Accordingly, we approach the topic and conceptualization of ‘settler colonialism’ through the lens of Lelia Gonzalez’s
Ame
ticanidade (Gonzalez 1988), which conceptualizes shared histories of resistance against colonial forms of power, denouncing racist and dehumanizing violence that targets Black and Indigenous peoples as a legacy of the conquest of Americas (Mollett 2021). The epistemic basis of Ame
ticanidade entangles feminism with an interconnected approach to racism, colonialism, imperialism and its effects (Cardoso 2014). In this sense, then, ‘settler colonialism’ here is understood as racial geographies in the form of a ‘coloniality of power’ which considers the entanglement of several socio-spatial histories in the practice of colonization (see historiography of the term further in the text).

To substantiate our discussions and conclusions, we used parts of the game’s script transcribed directly from in-game dialogues and narration (based on Chrono Cross: The Radical Dreamers Edition Ver. 1.0.1), with additional support from Zeality’s updated transcription of the original version of the game (Zeality, 2009). Relevant transcriptions are added as footnotes, containing the name of the character responsible for the statement, followed by the spatial locality (e.g., Arni Village) and dimension (i.e., Home World or Another World) where the dialogue took place. The transcribed dialogue is expressed in quotation marks; sections of the dialogues considered to be offensive were modified or removed from the footnotes and are indicated by brackets.

**Brief historical background during game’s development**

Cross started being developed in mid-1998, with Masato Kato being the director and script writer for the project. Mr. Kato had already worked as a script writer on previous Square projects, most notably Chrono Trigger, Final Fantasy VII, and Xenogears.
Several important climatic and environmental-oriented political events took place at that same year: Japan’s signature of the Kyoto Protocol (United Nations, 1997), warmest anomalies in the Northern Hemisphere (NOAA, 1999), high suppression of net CO₂ uptake from 1997 to 1998 in association to one of the worst El Niño events in the 20th century (Japan Meteorological Agency, 2022). At the same time, climatic and environmental changes were already being perceived and indicated by Indigenous peoples around the world, arguing how poor natural resources management (e.g., overexploitation) of industrialized nations (e.g., Japan) could have exponential environmental impacts in the long-run and in a global scale. According to Krenak (2020: 19-20), the “desolated land” (terra desolada) was already perceived by Indigenous people as a result of overexploitation of natural resources by industrialized nations. Similarly, Davi Kopenawa (Kopenawa & Albert 2013: 458-459) narrated how gold extraction and intensive land modification by miners in Brazil directly affected the environment (i.e., abiotic and biotic dimensions) and neighboring Indigenous populations through lead-poisoning and species loss.

Although the topic of environmental crisis and nature conservation was not inherently intended by Mr. Kato in Cross (GamePro Staff 2000), the director mentioned that he hoped that the game would be a trigger for players to think about “(...) the connections between people and the world, among different peoples, and between people and other living things.” In addition to that, it is important to highlight that, as a digital game, Cross is a narrative of broad reach under Hall’s theory of communication (Hall 2006), meaning that it mobilizes its reading through different possible frames, including those not intended by the enunciator – i.e., in this case, the developers. As two Brazilian researchers living through the challenges of economic development and socio-environmental responsibility in the 21st century, this game meant something more than what was intended by the original scope (and that’s part of the fun!).
As mentioned above, despite not being intended as a ‘pro-environmental’ game, *Cross* was received by some players as a game that carried ‘pro-environmental’ messages (Ewert-Krocker 2017). At the same time, other players were faced with a sense of futility caused by *Cross*’ “melancholic” environmental narrative (Hughes 2022), which could be interpreted as a contradictory position in terms of an environmentally progressive story. This sense of futility towards *Cross*’ main narrative arc is particularly important, as we discuss further in this study.

Regardless, previous games of the same company, and that had Mr. Kato as a member, tackled questions regarding the environmental crisis and the role of overexploitation of natural resources in global environmental catastrophes (Foster 2009, Hutchinson 2018). Also, other companies had already explored environmental and nature conservation discourse in videogames since 1990 (most notably *Sonic 2* and *Ecco The Dolphin*), possibly triggered by climatic changes and political events that took place at the time (such as the 1992’s Rio de Janeiro Earth Summit).

In the next sections, we will discuss how the developers represent each one of these connections with examples from specific events in-game, arguing that these representations contribute to the alleged narrative of environmental crisis in the game.

**Establishing a position: Framing “settler colonialism” under decolonial theories and its implications for environmental injustice.**

To talk about settler colonialism and its impacts on environmental justice, one must position it in historical circumstances. Accordingly, as Mollett (2021) so importantly said, the understanding of the history of settler colonialism can only be fully explored when framed through a hemispheric, relational, and intersectional way.
Settler colonialism – fundamentally defined as the “sustained institutional tendency to eliminate Indigenous populations” (Wolfe 1999:163) by physical removal and/or through policies of assimilation – is considered an important phenomenon that was responsible for shaping Americas through time (Mollet 2021). In this sense, insights from Indigenous geographies have been especially important to understand how a particular racial geography – i.e. settler colonialism – enacted policies of violence through oppressive economic, social, and environmental subjectifications and practices. Accordingly, settler colonialism, being understood as a technology of power under Saldaña-Portillo’s (2016) definition of racial geographies, is responsible for indexing the series of techniques used to produce space in racial terms.

Departing from these premises, it is possible to directly connect theoretical discussions of settler colonialism to decolonial programs. As mentioned by Mollett (2021), Quijano’s (2007) “coloniality of power” can be a fruitful approach to explain how the production of racialised power is responsible for shaping regimes of exploitation and how different struggles arise over capitalist forms of accumulation (Escobar 2008; Mollett 2016; Werner 2011). This coloniality of power, as argued by Quijano (2007), was responsible for materialising Indigenous and Afro-descendant dehumanization throughout the Americas (most profusely in the so-called Latin America) through co-constitutive processes of capitalist land accumulation, Christian conversion, and Indigenous and Black labour exploitation. Historically, it is argued that those processes were responsible for defining and consolidating contemporary racialised colonial policies in the region, grounding them to the invasion of the Americas (Escobar 2008; Quijano 2007).

‘The Seeds of Life’: Brief history of the origin of El Nido Archipelago’s game environment
The process of origin of El Nido Archipelago’s game environment is complex and it’s directly related to events that took place after the end of Chrono Trigger and before Cross’ story. From the second third to the endgame of Cross, the player starts comprehending the origin of humankind and how it evolved since Lavos’ first contact. At the same time, the game tries to explain how the entity FATE terraformed the archipelago and how the fundamental natural elements, in the form of colors and Dragon Gods, came to be.

The El Nido Archipelago (henceforth, just El Nido) is, as the name suggests, a set of islands situated at a sea encircled by a reef, which, possibly, corresponds to an atoll, although there are no evidence in-game that suggests that the structures surrounding the sea are coralline in nature. The region is located far from the Zenan mainland and, according to the game’s story, remained disconnected from there for several years\(^1\).

The origin of El Nido has the research center called Chronopolis as a starting point (located in the Sea of Eden). The center was envisioned by the character Belthasar (also known as Guru of Reason in Chrono Trigger and Prophet of Time in Cross) as an expansion of the Time Research Lab\(^2\), and was powered by the artifact known as Frozen Flame, a splinter that was separated from Lavos when it crashed on the planet\(^3\). To officiate and regulate the facility, a partly sentient supercomputer named FATE was constructed\(^4\) by Belthasar.

Along with several other events that take place in-game, FATE was responsible for the origin of El Nido, from the terraforming of the main and adjacent islands to the split of the Dinopolis

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1. Steena, Guldove Dragon Shrine, Another World: ‘But several hundred years have passed since settlers from the mainland came to El Nido.’
2. Chronopolis Chief, Chronopolis Docks, Another World: ‘The Time Research Lab, which served as the foundation of this research center, appeared out of nowhere in the year 2300 and was headed up by the scientific genius, Belthasar.’
3. Belthasar, Terra Tower, Another World: ‘The Frozen Flame is a splinter from the extra-terrestrial Lavos.’
4. Ghost, Chronopolis Level 4 West Lab, Another World: ‘FATE is a large-scale prototype, completed in the year 2300. It integrated the old Mother Brain computer circuitry into a more powerful super-computer.’
construct power-source called Dragon God\(^5\). In the case of the splitting of the Dragon God, FATE divided it into six separate entities, and spread them throughout El Nido: the Sky Dragon at Sky Dragon Isle, the Black Dragon in Marbule, the Earth Dragon at Earth Dragon Isle, the Fire Dragon at Mount Pyre, the Green Dragon at Gaea’s Navel, and the Water Dragon at the Water Dragon Isle. At the same time, FATE created all the islands and environments in the archipelago and dispatched the workers of Chronopolis to these new islands, erasing their memories in the process. Concurrently, Dragonians – a survivor species of Dinopolis, a city brought from another dimension by the planet to counterbalance the existence of Chronopolis in the past, which had been exposed by an event called Time Crash – also began settling in different islands, and started forging Elements, which are manufactured devices obtained directly from natural ‘power sources’ spread throughout the archipelago. During some moment when humans from the Zenan continent started settling in El Nido, Dragonians went extinct\(^6\).

Considering this brief exposition of the game environment, it is possible to circumscribe some general concepts that will be used throughout this work. We will consider all people that are knowingly from El Nido as Indigenous peoples (i.e., demi-humans, dwarves, fairies, and humans from Chronopolis), while considering settlers all of those that came from Zenan or those that are explicitly connected to them through heritage. Most of the time, however, it is difficult to explicitly ascribe a character to one of those two categories solely by in-game representations.

**Representations of settler colonialism and environmental injustice: Marbule and Hydra Marshes**

\(^5\) Ghost, Chronopolis Level 2 Lab, Another World: ‘Originally, El Nido was nothing but ocean. The El Nido Archipelago is purely artificial, created by FATE. It was a remodeling plan that took place 10,000 years ago. A plan to include islands, blessed with nature, in the sea of El Nido. The main Island of El Nido, Earth Dragon Isle, Water Dragon Isle, Black Dragon Isle... The development of Elements, using the energy of the natural world...’

\(^6\) Explorer, Sky Dragon Isle, Another World: ‘About a hundred years before humans from the continent came here, the Dragonians and demi-humans still existed in great numbers.’
Several events that take place during the game highlight the role of settler colonialism in environmental injustice. Settler colonialism can be understood under the premises (i) that environmental impacts have a role in displacing Indigenous peoples, and (ii) settler colonialism has a serious impact on the socio-cultural dynamics of Indigenous peoples, directly affecting the preservation and restoration of native environments.

In a certain part of the game, the player must obtain dragon relics to enter the region known as Sea of Eden and, within it, find Chronopolis. For this, the player must find the six dragon gods and obtain their corresponding relics. Specifically in the case of the Black Dragon, contrastively to its counterparts, the entity remained for a long time in deep sleep at the island of Marbule (Figure 1) in Another World, their dreams manifesting as a form of ‘enemies’ (specifically, Lagoonates) in Home World. The dream from the Black Dragon manifested itself in the other dimension possibly due to the demi-humans leaving the village after hunters started storming it in search of powerful Elements. After that, the demi-humans were forced to seek other ways to live, moving to the cruise ship S.S. Zelbess, owned by former pirate Fargo. Considered to be a close friend to the demi-humans in Marbule, he overexploited them in a working system analogous to a slave regime.

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7 The Great Explorer Toma, Marbule, Home World: ‘Marbule, with its rich Element resources, became the target of Element hunters. With nowhere else to go, most of the demi-humans left the village to work on the Cruise Ship - S.S. Zelbess. They work as laborers and are treated [poorly]. I feel really bad for them. Anyway, that's why you have this ghost town here.’
8 Sage, S.S. Zelbess, Home World: ‘Ahhh, so you are his son... I guess history does repeat itself. I had high hopes for that man. High hopes that he would one day tear down the wall between demi-humans and humans.’
9 Demi-human Woman, S.S. Zelbess Hold, Home World: ‘...I'm sure you'll find it hard to believe, but it was Fargo... He used to be such a nice man... What made him change...?’
10 Demi-human Man: ‘Please...don’t make me work overtime today...’
11 Demi-human, S.S. Zelbess Hold, Home World: ‘Hey, at least we get fed, you know... I don't think it's all that bad.’
**Figure 1.** A. General overview of El Nido Archipelago, with Marbule marked with a white star; B. Marbule landscape, showing the settlement which comprises most of the island. Modified from *Chrono Cross©* Square Enix Co., Ltd. All rights reserved.

To restore Marbule to its previous condition, the player, along with other playable and non-playable characters in-game, must eliminate the dream of the dragon in a cleansing ritual. The ritual involves the performance of a theatrical play, which tells the story of how demi-humans and humans can unite and change the world. The play is used as a surrogate; the main aspect of the cleansing ritual is to perform a demi-human song that will be responsible to ‘materialize’ the dragon’s dream, so the player can slay it and awake the Black Dragon in another dimension (i.e., Another World). After cleansing the island and retrieving the black relic from the Black Dragon, the island of Marbule starts being reconstructed by demi-humans and non-settler humans alike in Home World.

Despite having a satisfying conclusion to its issue, the case of Marbule is not the only representation of injustice towards Indigenous people and, certainly, not the only one that relates to environmental injustice. The case of the Hydra Marshes’ dwarves is, possibly the most striking one.
In the first third of the game, the player is exposed to a turntable event, forcing them to choose whether to help Kid, another playable character that has an important role in the plot, who fell ill in events that took place in Another World. If the player chooses to help her, they must travel to Home World and seek a very rare ingredient to prepare a healing elixir. The ingredient, in turn, can only be extracted from individuals of Hydra, a rare species living in Hydra Marshes (Figure 2). The Hydra Marshes is located in the southeast region of the main island (Figure 2.A) and consists of a system of swamps and unique vegetation components (Figure 2.B). Since Hydras are extremely important for maintaining a good environmental balance of the marshes, the Indigenous people that live in there protect Hydras\(^{12}\) from hunters that would frequently enter the marshes in search of rare ingredients\(^ {13}\).

![Figure 2](image)

**Figure 2.** A. General overview of El Nido’s Main Island, with Hydra Marshes marked with a white star; the small square of the top-left corner highlights the central position of the Main Island in the Archipelago. B. Hydra Marshes, showing one of the main landscape components of the locality. Modified from *Chrono Cross* © Square Enix Co., Ltd. All rights reserved.

\(^{12}\) Daggy Dwarf, Hydra Marshes, Home World: ‘*We must protect this forest... by finishing off anyone who has seen the Hydra!*’

\(^{13}\) Doc, Doc’s House in Guldove, Another World: ‘*The blood, bones, meat... Every part is valuable. It’s considered to be a panacea for various illnesses. That is the reason Hydras were hunted to extinction in El Nido.*’
The dimensional travel, in this case, is motivated by the extinction of a species, which is considered, in-game, as a source of highly rare goods. In that dimension, the species was hunted to its demise, motivated by the high value of several parts of its body. The players are presented, then, with some consequences of human-environment interactions through species’ extinctions. Nonetheless, despite the choice of the player, they have no responsibility over the act of extinction itself. However, if the player chooses to help their friend, not only they are accountable for a species extinction in the near future, but also, they are responsible for destabilizing a habitat and forcing a whole people to move to another island or face extinction themselves.

The displacement of the demi-humans from Marbule and the dwarves from Hydra Marshes was originally driven by human influence, at least in one of the dimensions (i.e., Home World). Before that, however, demi-humans were already displaced from El Nido’s main island and from some neighboring smaller isles when settlers from the mainland Zenan arrived at the archipelago. The displacement of demi-humans from their homelands by human settlers is a representation of the impacts of settler colonial domination in the relationships between Indigenous peoples and the environment. According to Whyte (2022), one way how settler colonialism commits environmental injustice is by strategically undermining Indigenous collective continuance (i.e., social resilience and self-determination) by ways of vicious sedimentation and insidious loops. In the first case, the injustice relates to how the environmental changes compound over time to reinforce and strengthen settler ignorance against Indigenous peoples and, in the second case, the injustice relates to how historic settler industries violated

14 Great Explorer Toma, Marbule, Home World: ‘Demi-humans were originally located up in the northern region, but after Porre's colonization, they were forced out of the mainland and ended up here.’
Indigenous peoples when they began and how they reverberate many years later in further environmental violence (Whyte 2022).

In the cases of demi-humans of Marbule and dwarves from Hydra Marshes, the representation of displacement of the Indigenous people due to Element and Hydra hunting reinforces the idea that colonization in Cross is mainly related to the exploitation of resources through settlers’ industrial practices. Despite those events occurring specifically in one dimension – Home and Another World, respectively –, violation of Indigenous peoples appears to reverberate not just in time, but through different dimensions. In the case of the Hydra Marshes’ dwarves, for example, despite being possibly decimated in Another World due to the Hydra humour’s overexploitation industry, the same cycle of violence against dwarves – and against is repeated in Home World15. Unironically, when the dwarves leave Hydra Marshes and “invade” the Water Dragon Isle, committing violence against the fairies that inhabit that place, they are reproducing the same acts of violence committed against them. As pointed out by at least two characters16,17, this aggression among two different people is another manifestation of the settlers’ initial violation towards the dwarves.

This repetitive movement can be understood as a representation of vicious sedimentation of Zenan settlers’ ecologies towards El Nido Indigenous peoples’ ecologies. The dwarves’ own environmental ontologies are aggressively subjugated by the settlers’ environmental ontology, defined by object-orientation and utilitarianism. The dwarves’ understanding of space and

15 Explorer Captain, Hydra Marshes, Home World: ‘Huh? Dwarves? Oh, you mean the […] inhabitants of this forest? Heh… We took care of them, too. They were even kind enough […] to lead us to the Hydra.’

16 Dwarf Chieftain, Hydra Marshes, Home World: ‘What do you humans intend to do with our mother planet? (…) Do you think that you are the only ones who live on this planet!? Do you even know the works of life-forms other than yourselves?’

17 Demi-human, Marbule, Another World: ‘The sea is having a dream. A deep, blue dream. We’re all part of this dream the sea is having…’
‘resources’, then, are weakened by the settler’s own environmentality and the environment – once an interdependent component of their own existence – is reified and violated. Although these representations of cyclic violence are directed mostly to the different dimensions of interdependence between Cross’ Indigenous peoples and the game environment, they are also manifested in the game as acts of physical aggression that are perpetuated by violated peoples.

According to Whyte (2022), the concept of interdependence includes a sense of identity associated with the environment and a sense of responsibility to care for the environment. This notion of interdependence is reinforced to some extent through narratives in-game, both by demi-humans and dwarves, when characters consistently mention the absence of some sense of belonging when they are forced away from their homeland or the necessity of protecting the environment so they can protect themselves and the whole. In these particular cases, forced relocations are represented literally by complete removal of demi-human and dwarf communities from their places of belonging and, through that, settlers’ are also represented as imposing reservations towards those peoples, preventing them from keeping fundamental qualities that create interdependence between social institutions and ecosystems.

At the same time, the idea of interdependence holds that agency, spirituality, knowledge, intelligence etc. are not unique to humans since non-humans have their own agency and ways of knowing as well (Whyte 2022). Hence, human identity and caretaking responsibility also includes those same properties found in non-humans. In Cross, a dwarf dialogue\textsuperscript{18} hints to the idea of in-game representation of non-human agency and knowledge and how human activity violates interdependence in yet another dimension. Similarly, demi-humans are represented as

\textsuperscript{18} Irenes, Captain's Quarters – SS Zelbess, Home World: ‘Only when the song is sung by one with special power can the effects be brought into full play. (...) Marbule no longer has its true power without that song.’
recognizing that the environment has agency and spirituality on its own\(^{19,20}\), and that denying it those dispositions is considered a violence against the environment’s own identity\(^{21}\).

The dispossession from their places of belonging – and also from their ways of being – and by which means they are formulated are reflections of an in-game coloniality of power, as defined by Quijano (2007), in which settlers’ prescribed values of environmentality are used to disenfranchise demi-humans and dwarves’ environmental subjectivities. The manifestations of resource exploitation and peoples’ dispossession in-game simulates, in a sense, what Ailton Krenak calls ‘the sustainability myth’ (\(o\ \text{mito da sustentabilidade};\) Krenak 2019: 9). The game environment is understood by settlers as something ‘other than human’ and defined as a market-based subject; a space of exploitation disentangled from and subordinated to ‘humanity’. The myth here is understood in one of its dimensions, mainly as a severance of the interdependent dynamics held by the game environment and all its component parts, as posited by the approach of collective continuance.

The examples of environmental injustice described here could also be understood as acts of ‘slow violence’ that exponentially contribute to a large-scale crisis (similar to Final Fantasy VII, to some extent; Milburn 2016). Focusing on those examples, the developers may have tried to expose local dynamics of injustice, at least to some degree, challenging the ideas of large-scale environmental crises that were predominant at the time.

\(^{19}\) Irene, Captain's Quarters – SS Zelbess, Home World: ‘The Mabule you once knew is no longer there...! You will only find a nightmare.’

\(^{20}\) Dragon God, Terra Tower, Another World: ‘I shall cleanse this blue planet of you [...] humans once and for all!! (...) Now prepare to receive your retribution from the planet!’

\(^{21}\) Ghost, Level 3 East Lab – Chronopolis, Another World: ‘From the planet's viewpoint, humans are just destroyers and a cursed, yet perhaps pathetic, blight on the world.’
Interestingly enough – and paradoxical, to some extent – is that Cross’ developers also perpetuate some of these perceptions of environments as exploitable subjects through game mechanics and, in some cases, through narrative acts. Although leveling and material acquisition in Cross are comparatively less ‘aggressive’ when analyzed relative to other JRPGs from that time (including Trigger, which employs a cumulative next value mechanics for leveling characters), gameplay feels mostly ambiguous, since players are encouraged to engage in the game environment exploitation (i.e. ‘farming’ mechanics, especially for acquiring forging materials) and also in committing injustices towards peoples and other non-human species residing in El Nido (i.e. leveling system, to some extent, and overall story progression).

**Ludonarrative dissonance and narrative ambiguity**

The main theme in Cross centralizes its story in the fundamental idea of ‘humanity’ destroying the world, with adjacent narratives of environmental injustice against Indigenous peoples through settler colonialism. Mostly, the story is consistent with the proposed idea of conservation, although reinforcing misconceptions through simplified representations of environments and non-human species agency\(^\text{22}\). Additionally, story progression requires that players engage in battles with individuals from other species (collectively referred as ‘monsters’) that are not necessarily aggressive towards players and are merely belonging to the game environment. In terms of game mechanics, those individuals are embedded in that digital landscape to address gameplay demands of resource and stats acquisition. This ambiguous approach is problematic, especially considering how Cross ‘pro-environmental’ narrative can be radicalized in certain moments\(^\text{23}\); the game requires that players engage in conflicts, subduing

\(^{22}\) SnibGoblin, Hydra Marshes, Another World: “It don't matter! They be our enemy, just like that other one! Let's get 'em! This be our forest!”

\(^{23}\) Ryosuke Aiba, Second Lobby – Viper Manor, Ending 1 – Programmer’s Ending: ‘I made a lot of monsters. Over 100, actually! But because they're monsters, every one of them will be defeated. That's kinda sad, really... They
other peoples and species to address mechanic’s demands while elaborating on a narrative of conservation and environmental responsibility and admonishing players about acts of environmental and social injustice.

Despite managing to balance level progression and material acquisition in a less exploitative way when compared to other JRPG games, Cross still makes use of farming and violent engagement as core mechanics required for progression. Additionally, the developers frequently monstrify all the ‘non-human’ Others, reducing other species’ existence as mere resources for stats acquisition, contradicting the idea of interdependence hinted in several parts of the game. This monstrification also perpetuates the notion that some acts of brutality in-game are excusable as long as they are directed to the ‘abnormal’ Other. In one of the many possible Endings in Cross, the player can interact and engage in conversation with several characters spread throughout Viper Manor, each one representing one of the major developers of the game. One of these characters (the one representing Ryosuke Aiba, the developer responsible for Monsters Design and Textures; GameFAQs 2023), mentions that every single monster created for the game would, necessarily, be defeated because of their very nature of monsters24, whether they did or did not do anything ‘wrong’. It presupposes, then, that the non-human Other is merely a subject that belongs to the game to solve internal demands, being conveniently positioned in parts of the narrative to address possible gaps in the environmentalist subjectification of the game. The same example of Marbule’s Black Dragon, mentioned in the previous section, can be used to exemplify this argument: players have to indiscriminately slay individuals from other species (i.e. Lagoonates) to awake the Black Dragon. Similarly, at another point of the game, players have to slay several individuals from other species, in Gaea’s Navel, so they can attract the

24 Fairy, Water Dragon Isle, Home World: ‘They said that they were chased out of the forest by the humans. And they drifted down to our island...so the humans are to blame!!!'
Green Dragon and collect its relic. There are no real consequences to players, in terms of narrative or game mechanics, when they perform these actions. As a matter of fact, players cannot decide if they will engage in these acts of violence or not; they are stripped of their power to choose and to act, much like most of the ‘non-human’ Others inhabiting El Nido.

Likewise, level progression contributes to ambiguity in *Cross*. In terms of mechanics, stats are obtained after conflicts that are, most of the time, key points to a certain narrative arc (whether the main or a side story). Additional bonus stats are acquired after players engage in additional conflicts, which can be mandatory (mostly defined by environmental constraints related to level-design, i.e. environmental puzzles) or non-mandatory. After some engaging in these additional conflicts (from four to five, most of the time), bonus stats are capped and even if players choose to engage in additional conflicts, they are not rewarded with increased stats. However, players can exhaust foes in a given environment, since there is a limited number of them and there are no random encounters in the game. However, most foes can respawn if the player leaves and re-enter a certain area. Nonetheless, some foes will not respawn even if the player leaves and promptly re-enter the area. This may be interpreted to be a self-reflexive hint to the consequences of player overexploitation to the game environment, although these consequences are not explicitly raised or mentioned during game progression. At the same time, there are no consequences in terms of game mechanics and to the game environment to overexploitation induced deliberately by players.

Another issue in *Cross*’ narrative is that, in certain moments of the story progression, it shifts responsibility for El Nido’s environmental issues from specific actors (i.e. mainland settlers) to humans as a whole\(^\text{25}\). This displacement of responsibility takes advantage of the fuzzy

\(^{25}\) Dwarf Chieftain, Water Dragon Isle, Home World: ‘*You humans taught us that the world is built on the dead bodies of other species...*’
boundaries between settler and non-settler humans and coalesces the motivations and histories of those groups in one single reductive outcry: ‘humanity is destroying the planet’. The insistence on the narrative of ‘humanity as nature’s enemy’ reinforces the ‘human-non human’ simplistic dichotomy instead of calling attention to the entrenched systemic practices of environmental injustice directed, consistently, on a local scale. This approach led by Cross’ developers sometimes perpetuates the idea of environmental crises as catastrophic, large-scale events, compelled by a homogenized ‘human’ collective with an innate and inexplicable need for destruction.

At the same time, however, this homogenized ‘human’ collective could be understood as an in-game representation of the Western concepts and frameworks related to conservation and environmental responsibility. When players mention that the game is “…about how very little of what we do actually matters” (Hughes 2022), it highlights how certain environmental subjectivities and conservation solutions – which are frequently mobilized through discourses of ‘ecological’ salvation through individual actions of ‘environmental heroism’ - are embedded in peoples’ imaginaries: “there is only one way to solve the environmental conundrums and injustices caused by our society, and it is through our own ideas of environmentality, environmental justice, and environmental responsibility”. These ‘own environmental ideas’ are normally derived from the contemporary notions of environmental justice as practices of ‘redemption’ towards ‘marginalized and fragilized’ Others (i.e. the environment or otherwise). As Mignolo (2011, xxiv) so aptly put, “the rhetoric of modernity is a rhetoric of salvation”, and colonial perceptions of ‘hope’ and environmentality are inevitably crystallized through neoliberal solutions (e.g. decentralization of environmental responsibility from governmental to non-governmental actors) even in the so-called progressive frameworks to conservation and
environmental justice (Trisos et al. 2011; Machaqueiro, 2020; 2022). Yet another instance of Krenak’s sustainability myth.

**Conclusion**

Despite not having the intention to elaborate narratives of environmental crisis based on Indigenous epistemologies and decolonial practices, Cross’ developers explore some interesting aspects of environmental injustice towards Indigenous groups caused by settler colonialism, through representations of interdependent relations between characters and the game environment and by which means those interactions are violated. The cases studied here are just two of several arcs in the game’s story and, while not delving too deeply in the ramifications of the in-game conflicts, developers narrate different types of tensions to briefly explore the many dimensions of environmental crisis.

Although providing interesting representations of environmental injustices through conflicts between these different actors, Cross’ developers also perpetuate environmental injustices through paradoxical narrative and exploitative mechanics.

Despite being filled with ambiguous messages throughout, Cross hints to different ways of perceiving and understanding environmental crises beyond the recursive climate change/global warming discourse. The game highlights the importance of understanding that peoples and environments are inherently entangled, and that environmental responsibility is also social responsibility. Finally, Cross’ game environment is a rich and complex entity, and several different dimensions of representation can be studied, not only to explore narratives of environmental crisis, but also environmental resilience. From landscape aesthetics to game mechanics, El Nido is filled with elements that invite the players, in one way or another, to
reflect about the outcomes of the humanity-nature dichotomy that is so pervasive in contemporary environmental discourses.
References


