Typologies of Pokémon ROM Hacks

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1. ABSTRACT

This term paper provides an overview of the typologies of ROM Hacks developed by modders of *Pokémon* games, with a focus on ROM Hacks of the core series and almost all examples featured in PokéCommunity's *ROM Hacks Showcase* page. The paper also discusses the motivations for ROM Hacking, how the pokémon modding community shares resources and is influenced by the rest of the pokémon players community at large, how these ROM Hacks often re-create the conventions of the original game but also how they differentiate themselves from them in both narrative and gameplay.

1.1. Keywords

ROM Hacks, pokémon, modding

2. INTRODUCTION

Modding is a widespread practice in videogame cultures that consists in modifying the files pre-existing games (Sotamaa, 2010) (Postigo, 2007) (Barnabé, 2018). In the context of most *Pokémon* games this consists in modifying the digitalized versions of the files originally stored on Read-only memory chips (ROMs), which is why, like other ROM games, Pokémon mods are commonly referred to as ROM Hacks (Jordan, 2007). My objective with this paper is to give an overview of the typologies of ROM Hacks produced by the pokémon modding community. To do so, first I'll explain what the terms "modding" and "ROM hacking" mean, and then I will describe and categorize various examples of pokémon ROM Hacks. I will also discuss the motivations behind the creation of these typologies and identify where they tend to stay close to the design of classic pokémon and where they differentiate themselves to varying degrees of innovation.

3. MODDING

Mods are alterations of pre-existing games made by players (Sotamaa, 2010), and in the context of videogames the process of modding involves

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modifying game files (Hugelmann, 2020). According to Postigo (2007), modding can be an artistic endeavor, a contribution to the communities of players that form around the base game, another way to engage with the base game, or a way to gain experience and create something to demonstrate it when looking for a job in the game industry.

The latter motivation for creating mods can be at odds with how the company that owns the pre-existing game deals with copyright and modifications of the game. This paper discusses mods of *Pokémon* games created by modifying the files extracted from the ROMs of the original games. Distributing Hack ROMs, which are the non-modded files, is a form of piracy against which Nintendo warns and occasionally enacts take-downs (Jordan, 2007) (Barnabé, 2018). Nintendo reserves itself the right to object to any content that "involves illegally copied or modified game software, game software produced using Nintendo's copyrighted material without Nintendo's authorization" (*Nintendo Game Content Guidelines for Online Video & Image Sharing Platforms*, 2024) regardless of whether the content is monetized or not. This makes it unlikely that being able to show their mods in a portfolio could be a motivating factor for the modders.

3.1. Pokémon ROM hacking

Like with other vidoegames originally stored on ROMs, the free distribution of hacked files of *Pokémon* games and the use of emulators to play them is common practice among classic and retro gaming fans (Jordan, 2007). Playing a Hack ROM on an emulator is a distinctly different experience from playing the same game on the console it was originally intended for. Emulators allow to play these games on different devices, from PCs to mobile phones, with different control inputs like keyboard and mouse, controllers from other consoles and touch screens. For *Pokémon* games, similarly to other RPG games, emulators turn gaining experience points to train the player's pokémon team a less time-consuming experience by allowing players to speed-up the emulation (Jordan, 2007). Emulators also allow players to save and loading game states (Jordan, 2007), which, contrary to normal saving and reloading does not re-randomizes pokémon encounters, and thus allows players to repeat the same exact encounter if they wish to try different strategies.

While the mods of *Pokémon* games, usually referred to as ROM Hacks (Hugelmann, 2020), are sometimes distributed through hacked physical ROM chips, it is more widespread to distribute them online as patches, which then players have to apply to the corresponding hacked ROM on their own. Some *Pokémon* games are more commonly used by modders than others as a basis for their projects. For example, by looking at the ROM Hacks featured on the website PokéCommunity (*ROM Hacks Showcase*, 2024), it is possible to note that the most used are *Pokémon Crystal* (Game Freak, 2000), *Pokémon FireRed* (Game Freak, 2004) and *Pokémon Emerald* (Game Freak, 2004), which are all games from what is referred as the "core" series developed by Game Freak, while spin-off games are under-represented (see *Table 1* in the *Appendix*). PokéCommunity is also a space where modders can find guides to learn how to mod ROMs, as well as scripts and assets (maps, graphics, audio, etc.) made available by other users

(*About the Binary ROM Hacking Forum*, 2022) (*About the Decomps & Disassemblies Forum*, 2022) (*About the Resources section*, 2022).

Like other mods, Pokémon ROM Hacks can deviate from the original games to a greater or lesser degree depending on the ROM hacker's goals. ROM hacker might want to remain close to the original and modify the code to fix bugs and make enhancements that do not change the game's design in a fundamental way, make "partial conversions" that change the game in more visible ways, or create "total conversions" that transform the original game into a different one (Barnabé, 2018).

Barnabé (2018) argues that ROM Hacks contribute to enhancing and expanding the expressive potential of videogame language. ROM hackers introduce new storylines, dialogues, pokémons, pokémon types, moves, abilities, characters, objects, sprites, rules and maps. As Barnabé observes ROM Hackers' creativity is on one hand freer to explore different types of gameplay and themes than the original designers, as they are not limited by the need for the game to be commercially successful, and on the other they are limited to work within the original game's structure (Barnabé, 2018).

Barnabé's (2018) analysis of the ROM Hacks *Pokémon Eclipse* (Christos, 2015), *Pokémon Glazed* (redriders180, 2022) and *Pokémon My Ass* (Lucas Urso and Bobby, 2010) shows how many ROM hacks still replicate the structure that makes a *Pokémon* game from the core series recognizable as such. *Pokémon Eclipse*, for example, replicates the classic structure of the core series of *Pokémon* games' stories, alternation of environments, puzzles and naming conventions (Barnabé, 2018). All three case studies examined by Barnabé also show an understanding of the conventions when their designers choose instead to break them, through parody, comedic contradictions and puzzles that go against the established rules of how the player usually moves through the levels in *Pokémon* games (Barnabé, 2018).

4. TYPOLOGIES OF POKÉMON ROM HACKS

Most of the examples used in this paper come from PokéCommunity's ROM Hacks Showcase, with the exception of *Pokémon Crystal Clear* (ShockSlayer, 2024), which is shared in less public spaces because of Nintendo's attitude towards ROM Hacks. As mentioned in the previous section, the website's community of users does not only share ROM Hacks, but also tools and resources to create them, which is likely to influence the types of ROM Hacks created in these spaces. From those examples I've identified the following types of modding practiced and shared by them:

- Narrative Hacks, of which most examples consist in new narrative content or even new stories that follow pretty closely the standard formula of the core series, while a few cases opt instead for different types of narrative point of views and structures.

- Gameplay Hacks, which can vary from tweaking mechanics, allowing for gameplay customization, adding new mechanics and systems, creating new game modes, up to changing the game into a different RPG subgenre.

    - Enhancement Hacks are a type of Gameplay Hacks that focuses on tweaking and or updating various gameplay elements (combat system, moves, stats, etc.) while still leaving most of the narrative content unchanged so that the player still feels like their experience is closer to the original game than to playing a new game.

- Fakemon Hacks, which introduce unofficial pokémon species or unofficial regional variants.

- Anachronistic Hacks, which use older games to re-create content from newer games.

As it'll be shown through the examples described in this section, more often than not, individual ROM Hacks present a mix of those types of modding.

4.1. Narrative Hacks

Videogames from Pokémon's core series all present the same overall narrative structure, which has remained more or less the same since the third generation games, *Pokémon Sapphire* and *Ruby* (Game Freak, 2002) and *Emerald*. The player character is a pokémon trainer whose main objective is to overcome the series of challenges presented by the Pokémon Gyms, the distribution of which determines also the narrative pace of the game. This main objective and narrative of mastering the strategies behind pokémon battles finds its conclusion by overcoming the final challenge presented by the Pokémon League. As the player progresses through this plot thread, however, their primary objective is interrupted by a second plot thread: an organized team of antagonists is causing a catastrophe involving the mythological pokémons of the region, which prevents the player from progressing toward their primary objective. Only after resolving the catastrophe the player can return to normality and complete their journey as a pokémon trainer.

Official spin-off series present different narrative structures and tropes. In the *Pokémon Ranger* series (Creatures, Inc., 2006-2010), for example, the defeat of the antagonistic team is the main objective, because the role of the player character is specifically that of protecting their community of humans and pokémons from harm. Similarly, in the *Pokémon Mystery Dungeon* series (Spike Chunsoft, 2005-ongoing) the objective is to avoid a catastrophe that is either caused by a mythological pokémon or can be prevented by seeking their aid.

4.1.1. Replicating the Pokémon's core series narrative formula

Apart from *Eclipse* and *Glazed* previously analyzed by Barnabé, other examples of Pokémon ROM Hacks that follow the classic *Pokémon* games' narrative formula are *Pokémon Gaia* (Spherical Ice, 2018) and *Pokémon Unbound* (Skeli, 2021). These types of ROM Hacks allow players to play games that are very close to the experience of a *Pokémon* game from the core series, but with enough

differences, such as a new story, new region and new characters, to feel like a new *Pokémon* game.

In the *Pokémon FireRed* ROM Hack *Pokémon Gaia*, the dialogues with the NPC's indicate that the player's main objective in *Gaia* is not the challenge of the Pokémon League, but rather the plot thread related to the new region's mythological pokémon and the team of antagonist that seeks to control it.

Pokémon Unbound is another *FireRed* ROM Hack and it presents itself as connected to the story of one of the official games: the new region created for *Unbound* is introduced the one against which the region of Kalos from *Pokémon X* and *Y* (2013) had fought in the past. There are some important changes in how the player character starts their journey, as in the prologue they find themselves prisoner of the antagonistic team and they obtain their starter pokémon while trying to escape it. After their escape, their mission becomes to investigate the activities of the antagonistic team and to defeat it.

In both examples, since defeating the Gyms is necessary to unlock new areas of the game, the challenge of the Pokémon Gyms remains present and it maintains its role in the narrative's structure and rhythm. A consequence of this change, however, is that moving on to defeating the Pokémon League feels less as a return to normality that is part of the player character's narrative arch, and more as post-game content. This impression is more strongly felt in *Gaia* than in *Unbound*, as the latter continues to explore the backstory of the NPCs and antagonistic team after the main threat has been defeated.

Unbound also presents a mission system that adds non-linearity to the narrative of the player's adventure. However, the side missions that the player encounters are similar to those present in other games from the core series: the main difference is that *Unbound* makes them easier to keep track of through the User Interface. Both the main story's and the side-quests' plots of *Unbound* are more intricate than the ones from the games of the core series, but the overall formula remains the same.

4.1.2. Altering the Pokémon's core series narrative formula

On the other hand, there are also Pokémon ROM Hacks that differentiate their story's structure from that of their original games. For example the two *FireRed* ROM Hacks *Pokémon Saiph* (Vytron, 2020) and *Pokémon FireRed: Rocket Edition* (colonelsalt, 2021).

Despite being a *FireRed* ROM Hack and the player character still being a pokémon trainer, *Pokémon Saiph*'s story is a sequel to the official spin-off game *Pokémon Ranger: Shadows of Almia* (Creatures, Inc., 2008), from which *Saiph* takes its main change in the narrative formula. Here the Gyms' challenge is removed altogether, and, like in the *Pokémon Ranger* series, the narrative structure is now mission-based with a focus on resolving the threat posed by a mythological pokémon. Additionally, the player character has his own backstory and dialogue lines.

Pokémon FireRed: Rocket Edition's story instead takes place during the events of the original game, but from the point of view of a Team Rocket recruit and not of a pokémon trainer. This change in role also requires a necessary

change in the narrative structure for the story to be consistent. Instead of following the Gyms' challenge (now optional) and defeating antagonistic team, the player needs to complete missions for Team Rocket to rise through the ranks. Another consequence of changing the type of protagonist is also a change in themes: the introduction explains how Team Rocket recruits trainers, and while playing the player learns of the organization it makes money, as well as how it takes advantage of and encourages corruption among Kanto's institutions and economy.

4.2. Gameplay Hacks

Gameplay in the *Pokémon* core series generally consists in exploring the game world in an overall linear way, collecting pokémons and defeating other pokémon trainers and wild pokémons. The player progresses through the exploration by overcoming challenges (pokémon battles), solving puzzles and obtaining keys (items or pokémon moves) to unlock new areas. They collect by fighting and catching wild pokémon or by exchanging their pokémons with other players online or with NPCs in-game. Fighting other trainers and wild pokémons consists instead in a turn-based combat system. On their turn, the player can either use one of their pokémon's moves, switch to another pokémon in their team, use an item, or escape if they're fighting against a wild pokémon. Building their pokémon team is thus one of the main elements of the gameplay in the *Pokémon* core series, be it purely for strategy, just to have one's favorites or a bit of both.

4.2.1. Enhancement Hacks

PokéCommunity's ROM Hacks Showcase's guidelines make a distinction between "enhancement hacks" and any other type of ROM Hack, with the former needing clear tags that identify them as such when they are submitted to the showcase. The rule is meant to clearly distinguish between ROM Hacks that make changes to the base game, but could not be experienced by a player as their own independent game "for example, a game that changes the battle engine but leaves the story intact" (*ROM Hacks Showcase*, 2024). Some examples of enhancement Hacks *Pokémon Polished Crystal* (Rangi, 2016) *Pokémon Platinum Boost* (pikX, 2023), and *Pokémon Emerald++* (mynameisPooky, 2024).

It can be noted that Enhancement Hacks are indicative of what kinds of features the ROM Hacker and the community around them are interested in changing, which features from different generations they implement in their ROM Hack, and which ones they tend to remove, while still wanting to experience the narrative content of the original games.

All three ROM Hacks mentioned above, for example, change the amount of pokémons available in the game (either by making accessible all the pokémons from the original game's generation like in *Polished Crystal* and *Platinum Boost*, or adding pokémons from later generations like *Emerald++*), add pokémon moves from later generations, and increase the difficulty of trainer encounters. Both *Emerald++* and *Polished Crystal* also incorporate "quality of life" features introduced in later generations (e.g., HMs can be replaced with other learned

moves, toggable EXP Share to share the experience points among different pokémons, healing multiple pokémons at once, etc.), while *Emerald++* and *Platinum Boost* introduce also additional features (e.g., making pokémons' hidden values such as IVs and EVs viewable, type effectiveness shown in battle, rebalanced level scaling, etc.).

Less common modifications can also be seen in these ROM Hacks. *Polished Crystal* also adds characters from the second generation games' remakes *Pokémon HeartGold* and *SoulSilver* (Game Freak, 2009), *Platinum Boost* changes the typing and stats of various pokémons, and *Emerald++* adds the *HeartGold* and *SoulSilver* of having the first pokémon in the player's team follow them around the world outside their pokéball.

4.2.2. Changing game mechanics

Another type of change to the original game's gameplay consists in changing or adding new game mechanics.

The previously mentioned *FireRed: Rocket Edition*, for example, introduces the possibility of stealing pokémons from other trainers to be consistent with the new role of Team Rocket member given to the player. After defeating a trainer, the player gets to choose the pokémons they want to steal from them, the number of which is limited to the player's rank in the organization (e.g., a Grunt can steal only one pokémon). While it is still possible to catch pokémons in the wild, some trainers can be fought only once, so choosing which pokémons to steal is a strategic choice to acquire otherwise unobtainable pokémons. There is also a bounty system tied to the stealing mechanic: the player's bounty will grow and they will be able to earn money by handing the stolen pokémon back to the police. This does not discourage the theft at all and is consistent with the fact that in the original game the police are ineffective in dealing with the Team Rocket, contrary to the protagonist and their rival.

4.2.3. Introducing gameplay customization

Rather than changing or adding only specific mechanics, some ROM Hacks allow the player to tailor the gameplay to their preferences instead. This is done, for example, in two ROM Hacks mentioned previously: *Unbound* and *Saiph*.

Unbound allows the player to select the difficulty level of pokémon battles and of the puzzles they encounter, which the player can change at any time. It also gives them the option to play with rebalanced stats for all pokémons, and in earlier versions of the ROM Hack it was possible to select the tone in which the story was conveyed as either "dark" and "grittier" or one more in line with the original game. *Saiph* instead gives players the options to enable level scaling for both wild pokémons and other trainers' pokémons, and to activate a mode that restricts them to save the game only at designated save spots (like in the *Pokémon Ranger* series of which the ROM Hack is a sequel). Both *Unbound* and *Saiph* also allow the player to apply various randomization options (e.g., wild pokémon encounters, movesets, abilities).

Additionally, it is also possible to find ROM Hacks that feature built-in a Nuzlocke mode, like *Polished Crystal* and the *FireRed* ROM Hack *Pokémon*

RadicalRed (soupercell, 2020). Normally a Nuzlocke Challenge is a set of self-imposed rules that players can choose to follow to increase the difficulty of *Pokémon* games (변성민, 2024). While over the years players have come up with various optional rules and variants, at its core the main two rules of a Nuzlocke Challenge are: (1) the player can only attempt to catch the first pokémon encountered in each area, (2) pokémons that faint cannot be revived and must be released, and (3) if the player runs out of non-fainted pokémons they have lost the challenge. These ROM Hacks enforce rules from the Nuzlocke Challenge through the game system itself, so that the player is not tempted to cheat (*Nuzlocke Challenge*, 2024).

4.2.4. Modding into a different game genre

Many *Pokémon* games, both of the core series and of the spin-offs fit within the role-playing videogame genre. The core series has a turn-based combat RPG, while the *Pokémon Ranger* series leans more into the action RPG subgenre, the *Pokémon Mystery Dungeon* series goes instead in the direction of roguelike RPGs, and *Pokémon Conquest* (Tecmo Koei, 2012) is a tactical RPG. Fewer spin-off games are distinctly not RPGs, a few examples being *Pokémon Snap* (HAL Laboratory, 1999), which is a first-person photography game, the virtual pet game *Hey You, Pikachu!* (Ambrella, 1998) and the racing game *Pokémon Dash* (Ambrella, 2004).

Due to the previously mentioned limitations identified by Barnabé (2018), for a ROM Hack it is difficult to completely change the genre of a *Pokémon* game from the core series into a non-RPG game, but it is however possible to move into a different subgenre.

One example is the open-world RPG *Crystal* ROM Hack made by ShockSlayer: *Pokémon Crystal Clear* (2024). The player gets to choose their town, with each location associated with a difficulty level, then they go through an extensive character customization screen, and finally choose a starter pokémon between a higher number of options instead of the usual three starters. From there the player is free to explore the Johto and Kanto regions, collect pokémons and challenge Pokémon Gyms in whichever order they see fit, with the only limitations being that some key items (e.g., HMs) become available only after defeating a specific number of Gyms. While the levels of the Gyms' pokémon are scaled based on the player's level, the levels of the wild pokémons are not, which is why starting in towns that would be encountered later in *Crystal* or *Pokémon Red* and *Blue* (Game Freak, 1996) is going to be a harder challenge for the player. In order to allow for the game to be truly open-world, various elements of *Crystal*'s story have been removed, as in they rely on the linearity of the original game.

Another interesting example of a change in genre is the *Emerald* ROM Hack *The Pit* (2024) by the user "Team Aqua Leader Archie", who wanted to create a roguelite *Pokémon* game inspired by the "Pit of 100 Trials" from *Paper Mario: The Thousand-Year Door* (Intelligent Systems, 2024). The main feature of roguelike (da Silva, 2015) and roguelite games that the Hack presents is the randomization of the dungeon: the player starts with three random pokémons and then

proceeds to descend through the dungeon, where they fight other trainers, one to four in each room, with randomized teams, when completing the floor, the player will get one to three random items as a reward and every twenty-five floors they will receive a new random pokémon. Like in other roguelike and roguelite games, it's important that the player manages their resources, meaning pokémons, items and money, in order to complete the challenge. And similarly to the permadeath (da Silva, 2015) of other games in the genre, the player's team is defeated they lose all their pokémon and progress.

4.3. Fakemons Hacks

An important typology of modifications found in Pokémon ROM Hacks is the addition of completely new unofficial pokémons, also known as fakemons. The *FireRed* ROM Hack *Pokémon Vega* (anonymous team, 2011) and the *Emerald* ROM Hack *Pokémon Emerald Z* (Z-nogyroP, 2018) for example present both official pokémons and fakemons. Another way to add new pokémons is to create unofficial regional variants, like the Sinnohan forms found in *Pokémon Altered Platinum* (Lithium, 2022), a modified version *Pokémon Renegade Platinum* (Drayano, 2019) which is itself a ROM Hack of *Pokémon Platinum* (Game Freak, 2008).

4.4. Anachronistic Hacks

ROM Hacks can present various types of anachronisms, like adding pokémons from generations that came after the original game (e.g., *Gaia*), adding moves and mechanics from later games (e.g., *Unbound*) or including characters and storylines from the remakes (e.g., *Polished Crystal*).

Some more radical examples of anachronism are the *Pokémon Gold* (Game Freak, 1999) ROM Hacks *Pokémon Gold Sinnoh* (2020) and *Gold Unova* (2020) by ericgall23, who remapped the entire game to re-create the regions of Sinnoh and Unova, respectively from generation four and five of the core series. However, instead of presenting NPCs and pokémons from *Pokémon Diamond* and *Pearl* (Game Freak, 2006) and *Platinum*, in *Gold Sinnoh* the NPCs of *Pokémon Gold* are re-used to create a new story, and through the region the player will only encounter first and second generation pokémons, and the same goes for *Gold Unova*. Another example is *Pokémon Black and White 3: Genesis* (Azure_Keys, 2021), which a *Crystal* ROM Hack created as a sequel to *Pokémon Black 2* and *White 2* (Game Freak, 2012), with a re-created Unova region like in *Gold Unova*, and a new story. Sinnoh and Unova feel out of place when depicted in the generation two art style, and *Black and White 3: Genesis* even features re-made music from *Pokémon Black and White* (Game Freak, 2011) and *Black 2* and *White 2*, as well as various gameplay elements are updated to newer generations.

Remakes like are common in the core series, with *FireRed* and *LeafGreen*, *HeathGold* and *SoulSilver*, and *Pokémon Omega Ruby* and *Alpha Sapphire* (Game Freak, 2014) taking back the player to old regions and stories with newer game mechanics, systems and art direction. However, the recreation of newer regions with the retro aesthetics of older *Pokémon* games is that is not done by official pokémon games and is thus unique to the pokémon modding community.

5. DISCUSSION

From the examples presented in the previous section, it's possible to conclude that almost all general motivations of modders identified by (Postigo, 2007) are present in the modding community of *Pokémon* ROM Hacks.

The creation of new regions, stories and fakemons is an artistic endeavor from which new unofficial games are created. Many of the examples reported here show an application of creativity in modifying and/or creating new narratives and designs.

Contributing to the community of players that has formed around the *Pokémon* games is also very much present as a motivation. Major ROM Hacks are never made exclusively by the creator(s) of the ROM Hack itself. The original games are disassembled and studied by different users who share and put together what they have learned as well as the tools they have created as resources for other modders to use. Features modded by different people can be integrated into different projects (e.g., *Unbound*). And some games even use other ROM Hacks as a starting point instead of the original game (e.g., *Altered Platinum*). The creation of ROM Hacks with integrated Nuzlocke modes is also an exchange between the pokémon player community at large and the pokémon modding community and vice versa (e.g., *Radical Red*).

Due to Nintendo's position against Hack ROMs, and consequentially ROM Hacks, the modders of *Pokémon* games cannot officially show the results of their efforts as portfolio pieces as a way into the game industry. However, this does not exclude that gaining experience could be a motivation for many modders, as it is nevertheless a work that requires study both from a design and technical perspective.

Although, as Barnabé (2018) argues, a majority of ROM Hacks that create new games still follow the classic formula of the core series, it is interesting to note where popular ROM Hacks like *Gaia*, *Glazed* and *Unbound* diverge. In all three cases the player character's main objective is switched: they are not starting the journey purely for the sake of overcoming the Pokémon League's challenge, but instead the competition of Gym Battles serves the purpose of investigating the activities of the antagonistic team. Additionally, ROM Hacks like *Pokémon Saiph* and *FireRed: Rocket Edition* speak to an interest in creating and playing *Pokémon* games from a different perspective from that of a classic trainer, while still keeping the usual combat and catching systems.

The true breaks from the core series' classic design usually happen on a gameplay level, either by changing the game genre (e.g., *Crystal Clear*), by introducing new game mechanics (e.g.; *FireRed: Rocket Edition*), or by introducing different game modes (e.g.; *Polished Crystal*). The creation of fakemons is not an element of innovation by itself, as the fakemons follow the conventions of the original pokémons, but they could be if combined with new game mechanics and systems.

Lastly the creation of ROM Hacks that represent newer regions, mechanics and pokémons through older games is an interesting form of anachronism. On one hand, the work that was put into creating the Hack ROM of *Pokémon Gold*

and *Crystal* was a form of what Garda (2013) refers to as restorative nostalgia: it allows contemporary players to play those games through emulators when the original ROMs and the platforms they used to be played on are now difficult to access, even if with the differences previously noted in the section *Modding: Pokémon ROM Hacking*. On the other hand, the modifications present in *Pokémon Gold Sinnoh*, *Gold Unova* and *Black and White 3: Genesis* is an act of reflective nostalgia (Garda, 2013): it's an innovation of the nostalgic experience not only of the older games used for the ROM Hack, but also of the newer games from which the regions are imported, as there is at least a ten year gap between the release of these games and latest update of *Gold Sinnoh*, *Gold Unova* and *Black and White 3: Genesis*.

6. CONCLUSIONS

The typologies of ROM Hacks produced by the pokémon modding community are quite varied and this paper attempted to focus on how narrative and gameplay are modified to either create "enhanced" versions of the original games or to make entirely new *Pokémon* games. The interest in expressing oneself creatively, contributing to the community and learning are likely the main motivations behind the creation of these ROM hacks, like they are for modding in general.

Given the extra steps that player must make to acquire and patch together the original ROM and the mod, it is not surprising that the ROM Hacks presented in this paper tend to cater to a different audience than the one of the original games. The gameplay's difficulty is often increased and more complexity is added, the narratives shift towards more complex storylines and more mature themes, and by nature of the games used as a base for these ROM hacks they also tend to lean towards nostalgia.

While this paper discusses only ROM Hacks of core series *Pokémon* games, mods of the spin-off games exist, even if in limited number, and it could be interesting to see if they feature similar typologies and where do they differ from their base games.

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8. LUDOGRAPHY

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Pokémon Crystal (Game Freak, 2000)

Pokémon Sapphire and *Ruby* (Game Freak, 2002)

Pokémon FireRed (Game Freak, 2004)

Pokémon Emerald (Game Freak, 2004)

Pokémon Dash (Ambrella, 2004)

Pokémon Mystery Dungeon series (Spike Chunsoft, 2005-ongoing)

Pokémon Diamond and *Pearl* (Game Freak, 2006)

Pokémon Ranger series (Creatures, Inc., 2006-2010)

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Pokémon Platinum (Game Freak, 2008)

Pokémon HeartGold and *SoulSilver* (Game Freak, 2009)

Pokémon Black and *White* (Game Freak, 2011)

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Pokémon Conquest (Tecmo Koei, 2012)

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8.2. ROM Hacks

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Pokémon Emerald++ (mynameisPooky, 2024)

The Pit (2024)

9. APPENDIX

	Game	Number of ROM Hacks featured on PokéCommunity
Core series	*Pokémon Red* (Game Freak, 1996)	8
Core series	*Pokémon Blue* (Game Freak, 1996)	3
Core series	*Pokémon Yellow* (Game Freak, 1998)	7
Spin-off	*Pokémon Stadium* (Nintendo, 1998)	1
Spin-off	*Pokémon TCG* (Hudson Soft, 1998)	3
Core series	*Pokémon Silver* (Game Freak, 1999)	1

Core series	*Pokémon Crystal* (Game Freak, 2000)	27
Core series	*Pokémon Ruby* (Game Freak, 2002)	9
Core series	*Pokémon FireRed* (Game Freak, 2004)	96
Core series	*Pokémon LeafGreen* (Game Freak, 2004)	4
Core series	*Pokémon Emerald* (Game Freak, 2004)	62
Spin-off	*Pokémon Mystery Dungeon: Red Rescue Team* (The Pokémon Company/Chunsoft, 2006)	1
Core series	*Pokémon Platinum* (Game Freak, 2008)	5
Core series	*Pokémon HeartGold* (Game Freak, 2009)	3
Core series	*Pokémon SoulSilver* (Game Freak, 2009)	1
Spin-off	*Pokémon Mystery Dungeon: Explorers of Sky* (The Pokémon Company/Chunsoft, 2009)	6
Core series	*Pokémon White* (Game Freak, 2010)	1
Core series	*Pokémon Black 2* (Game Freak, 2012)	5
Core series	*Pokémon White 2* (Game Freak, 2012)	1
Spin-off	*Pokémon Conquest* (Tecmo Koei, 2012)	3
Core series	*Pokémon X* (Game Freak, 2013)	4
Core series	*Pokémon Alpha Sapphire* (Game Freak, 2014)	1
Core series	*Pokémon Moon* (Game Freak, 2016)	2
Core series	*Pokémon Ultra Sun* (Game Freak, 2017)	2
Core series	*Pokémon Ultra Moon* (Game Freak, 2017)	1

Table 1: This table shows how many ROM Hacks are featured on PokéCommunity are based on specific official *Pokémon* games. Games that are not listed are simply not present among those used in the ROM Hacks showcased on PokéCommunity, but this does not mean that there are no existing ROM Hacks of said games.