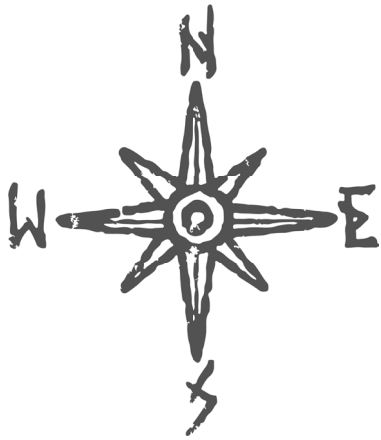

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I express my heartfelt thanks to my thesis advisor, Daniel Sciboz, for his essential guidance and support during this project.

My sincere gratitude also extends to Demajen and Ashenfactory for their insightful interview exchanges, which significantly enriched this work.

2024 - HEAD - Geneva

COMMUNITY-DRIVEN CARTOGRAPHY: DESIGNED BY THE METAGAME



EXPLORING THE IMPACT OF FAN-MADE VIDEO GAME MAPS AND METAGAMING ON CONTEMPORARY VIDEO GAMES

DRAWN INTO VIDEO GAME MAPPING

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DRAWN INTO
VIDEO GAME MAPPING



In this introductory chapter, I will explain the motivations behind this study, outline the theoretical foundations of my research, and present a detailed plan for my approach.

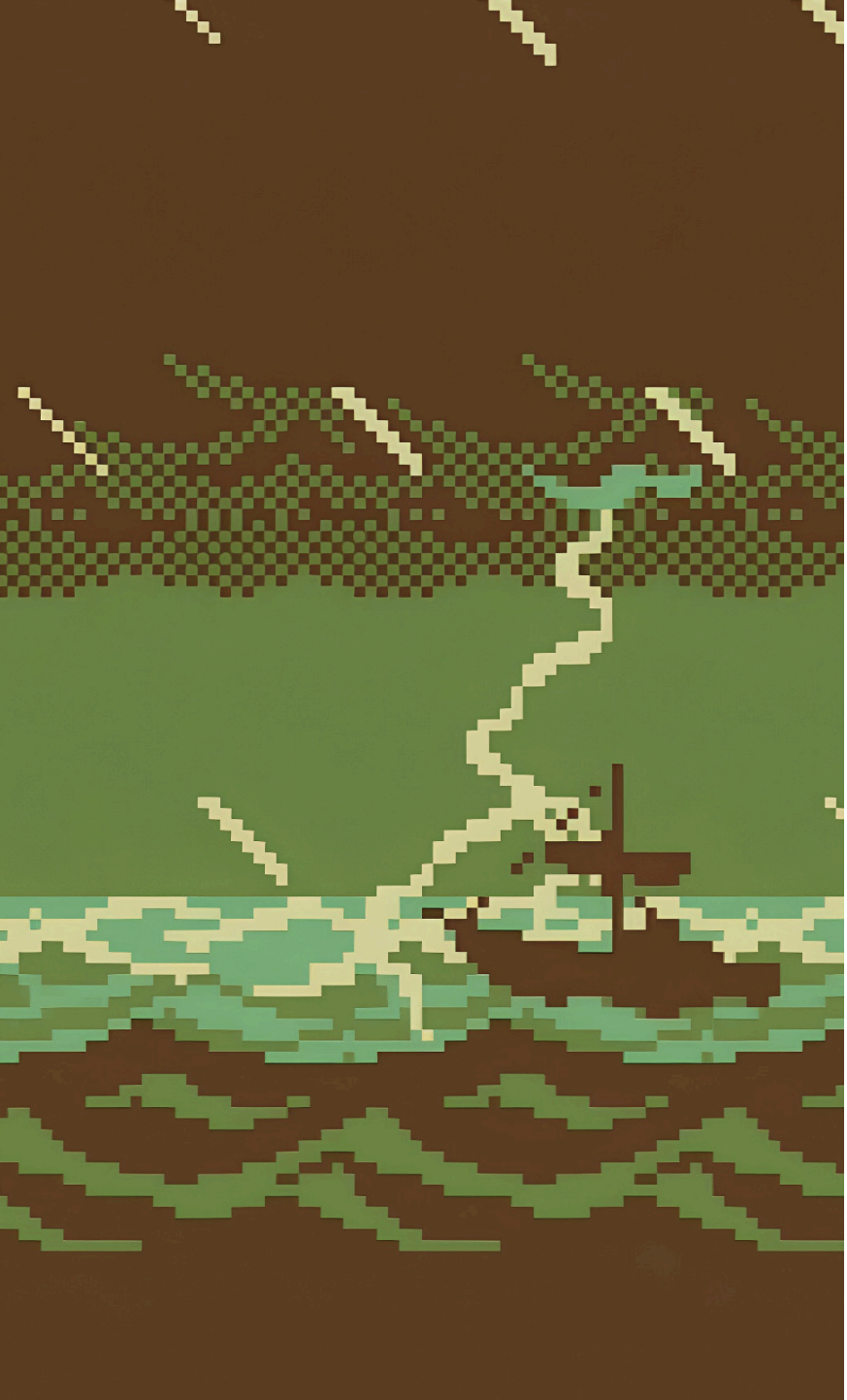


Fig. 01 : Intro from The Legend of Zelda: Link's Awakening (1993)

Growing up in the early 2000s, when video game consoles were becoming common in every household, I remember holding for the first time, an amazing yellow *Game Boy* that my father bought for himself. My playtime was limited since I had other childhood activities to enjoy, like playing with sticks, learning to draw, how to play music, and building my imagination. Yet, I still remember that every time I was allowed to switch it on, I was immersed, through an old-school grey cartridge, in an amazing pixel art world called *The Legend of Zelda: Link's Awakening*.

I remember wanting to explore every corner of the world that was opening before my eyes. No one could tell me where to go, as Internet access was not as readily available as it is today. The only guidance I had came from courtyard rumours shared during school breaks or, occasionally, special-edition magazines purchased with my weekly pocket money. While playing, I would frequently keep a pencil close to my gaming system, sketching dungeons on scraps of paper, and meticulously drawing all nook and cranny. Solving challenging puzzles this way allowed me to remain immersed in this world of trolls and ghouls, even after switching off my father's console.

One evening, my father brought back from work, huge documents of hundreds of pages that he kindly crafted for me. They were complete guides for *Pokémon: Ruby* and *The Legend of Zelda: A Link to the Past*. I carried these guides everywhere and, with their help, I managed to complete both games. More importantly, they sparked my imagination, inspiring me to create stories that I could share during group games or school discussions. In a way, I built my own versions of those worlds, blending and re-imagining them into entirely new ones.

I later discovered FromSoftware's games through *Bloodborne*. The captivating plot and gameplay intrigued me, sparking my curiosity about their other titles. Around that time, I began searching for maps of those worlds, consulting detailed guides and listing all items I could find to complete the games despite their challenges.

These experiences led me to ask the following questions: What impact have these guides and maps had on my gaming experience? What is their larger impact? What is the purpose of these external resources? And, in some cases, is it a deliberate game design decision to encourage their use?

Since William Gibson introduced the term "cyberspace" in 1984, the concept of space has been continually altered and redefined by digital technologies. The rise of augmented reality games and interactive digital tools has blurred the lines between physical and virtual worlds. Video games, as a unique aspect of this digital revolution, provide a rich environment for exploring the intersection of real and virtual spaces. With the success of augmented reality games such as *Pokémon Go*, video games have emerged as a prominent cultural activity, shaping not only entertainment but also our perception and navigation of space.

As I sought to understand more about the connections between virtual and physical spaces, I began by examining Kevin Lynch's definition of mental maps.

"Most often our perception of the city is not sustained, but rather partial, fragmentary, mixed with other concerns. Nearly every sense is in operation, and the image is the composite of them all."

- (Lynch, 1960) -

The concept of mental maps represents how people perceive and emotionally engage with spatial relationships, whether in physical or digital spaces. As Hovig Ter Minassian explains in his studies (2018), when people sketch a location, they are not just depicting it, but also revealing something about their own identities. They are expressing a spatial experience and their attachment to places. In the context of video games, these maps can provide insight into how players internalise, navigate, and emotionally connect with these worlds. Maps shared online show how players perceive the intersection of physical and digital spaces, revealing the spatial and emotional dimensions of gameplay.



Fig. 02 : Intro from The Legend of Zelda: Link's Awakening (1993)

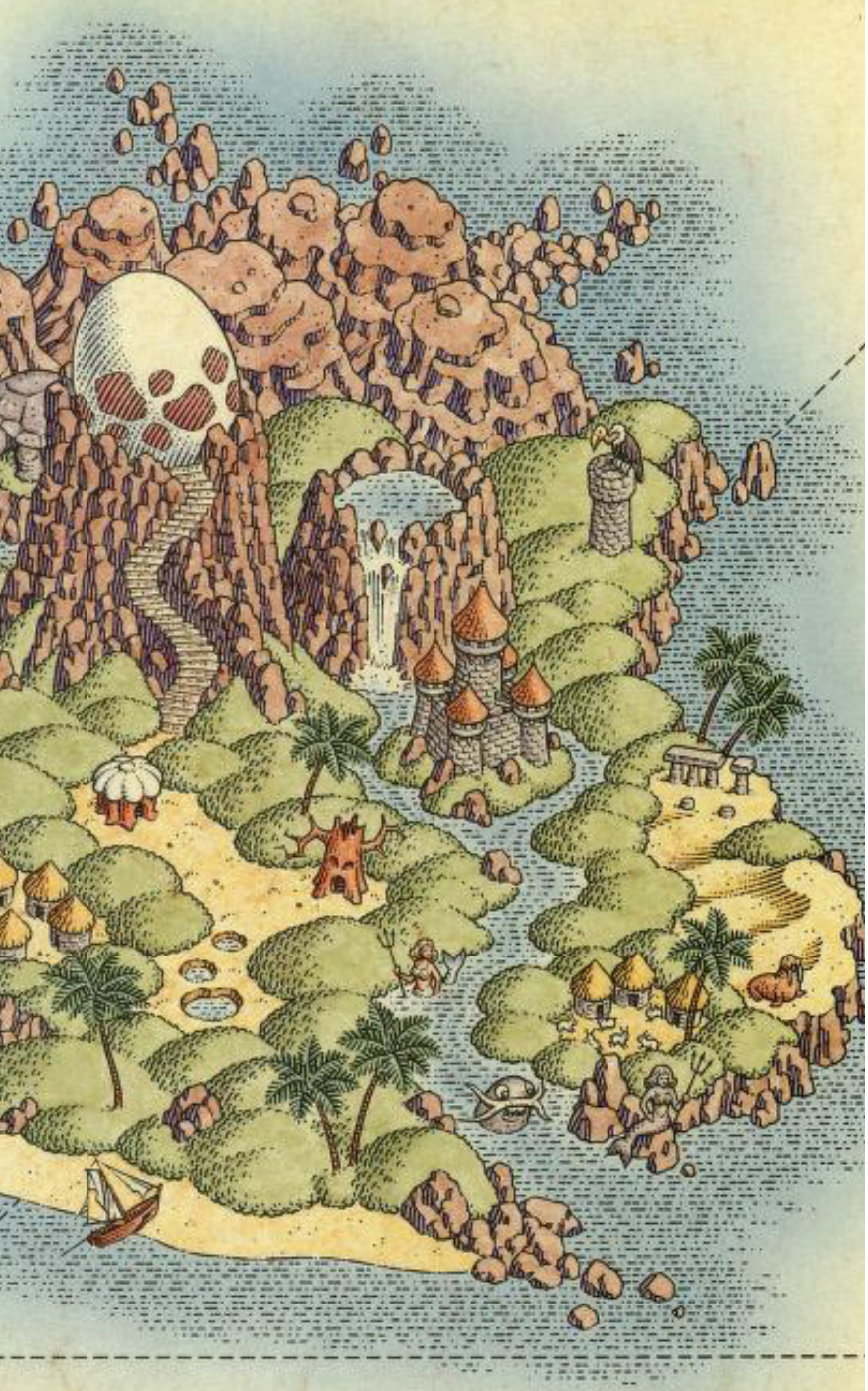


Fig. 03 : *The Legend of Zelda Link's Awakening Nintendo Player's Guide P: 2*

The use of maps in video games could aligns with the framework established by Griffin and McQuoid, who identified three main ways in which maps engage with human emotions. Firstly, maps can directly represent emotions through diagrams, such as creating a map of world happiness or success. Secondly, maps can elicit emotions by provoking feelings of nostalgia, tension, or achievement. Thirdly, and the most interesting for video games, maps can serve as a medium for emotional data, reflecting the *"emotional associations individuals have with certain places"* (Griffin and McQuoid, 2012).

Maps become powerful tools for understanding the emotional experiences of people, and in this specific context, of players. By examining the concept of mental maps and fan-made cartographies created by communities, we gain insight into how players internalise and emotionally connect with the spaces they navigate.

Intrigued by the meticulous maps created by gaming communities, I began searching for similar examples in other games I own. Each map took on a unique form, often accompanied by dedicated websites built by fans.

This led to several further questions: What if the maps themselves were a key gameplay element? How far does this practice, with its diverse visuals, extend? Are community-created maps more than just navigational tools? Are they also vehicles for artistic expression? What unique opportunities do game maps offer that other gaming-related activities do not? And what causes video game to be such an emotionally enthralling computer art form?

This has led me to formulate the central question of this thesis: *"How do fan-made maps reflect personal gaming experiences, and what role could they play in contemporary game design? "*

As a Master's student in Media Design, I seek through this thesis to explore how game design practices can relate to those of players. I want to view these practices as something more deeply intertwined, rather than as two distinct poles. In the context of the interaction between the realms of gaming and game design, I am particularly interested in the formation of these communities, their dynamics, how these maps are created, who creates them, and in what context.

When I read *Videogames Atlas* (Thames and Hudson, 2022), I realised that my experience with *Zelda: Link's Awakening* was shared by many others. This realization grew stronger as I explored platforms like Reddit and joined Discord servers. My research led to two interviews with video game cartographers. During our online conversations, we discussed various aspects of game mapping, including how *Zelda*'s visual and gameplay influenced their work. These discussions demonstrated how such creations resonate with a diverse range of players, providing insights into both the practical aspects of map-making and the personal significance they hold.

My research on video game cartographers' tools and the insights they shared helped me better understand how these tools affect the visual aspects of maps. However, I recognised the importance of developing an analytical framework to investigate how gaming practices and personal interpretations of game worlds are represented through maps.

To deepen my understanding, I conducted research on game design and game studies. Richard Garfield's writings on metagaming provided an important framework for connecting amateur cartography to broader player practices. His ideas provided useful context for understanding player-driven map-making practices, revealing the changing and adaptable meanings of the term "metagaming."

This insight inspired me to create a sorting tool, allowing me to develop a personal catalogue of game maps. This catalogue provides results for the map analysis technique. The system's creation incorporates theories from the first chapter into my personal gaming list. This method evaluates how well the classification system could works in real-life situations and is presented as an initial conclusion to this trial.

Finally, captivated by FromSoftware's distinct design approach, I focused on the creative vision of its director, Hidetaka Miyazaki. I hoped to learn how his understanding of player-driven practices, such as map-making and sharing, could influence not only indie communities but also the creation of large-scale AAA games. This study revealed how knowledge of metagaming practices has influenced the design of their game worlds, highlighting the industry's potential for a mutual relationship between player creativity and game development.

To answer my research question, this thesis is divided into three sections. The first establishes the theoretical framework for understanding player experiences. The second examines the formation of cartographer communities, focusing on how they share their work and the tools they use to create maps. The third section contains two case studies: one tests the proposed classification system for mapping experiences, and the other investigates how metagaming can be conceptualized within games through a study of FromSoftware's game design practices.



Fig. 04 : *Village in The Legend of Zelda: Link's Awakening (1993)*

"One of my earliest, and fondest, videogame memories is playing Legend of Zelda: A Link to the Past with my father. (...) We play as a team. My role is to remember shortcuts and routes not yet taken, to familiarise myself with the geography and landscapes and to recognise anything that is out of the ordinary to help uncover any hidden secrets. (...) I am granted the ability to experience and perceive the world of the game in an entirely different way."

- Foulston (*Videogame Atlas*, 2022) -

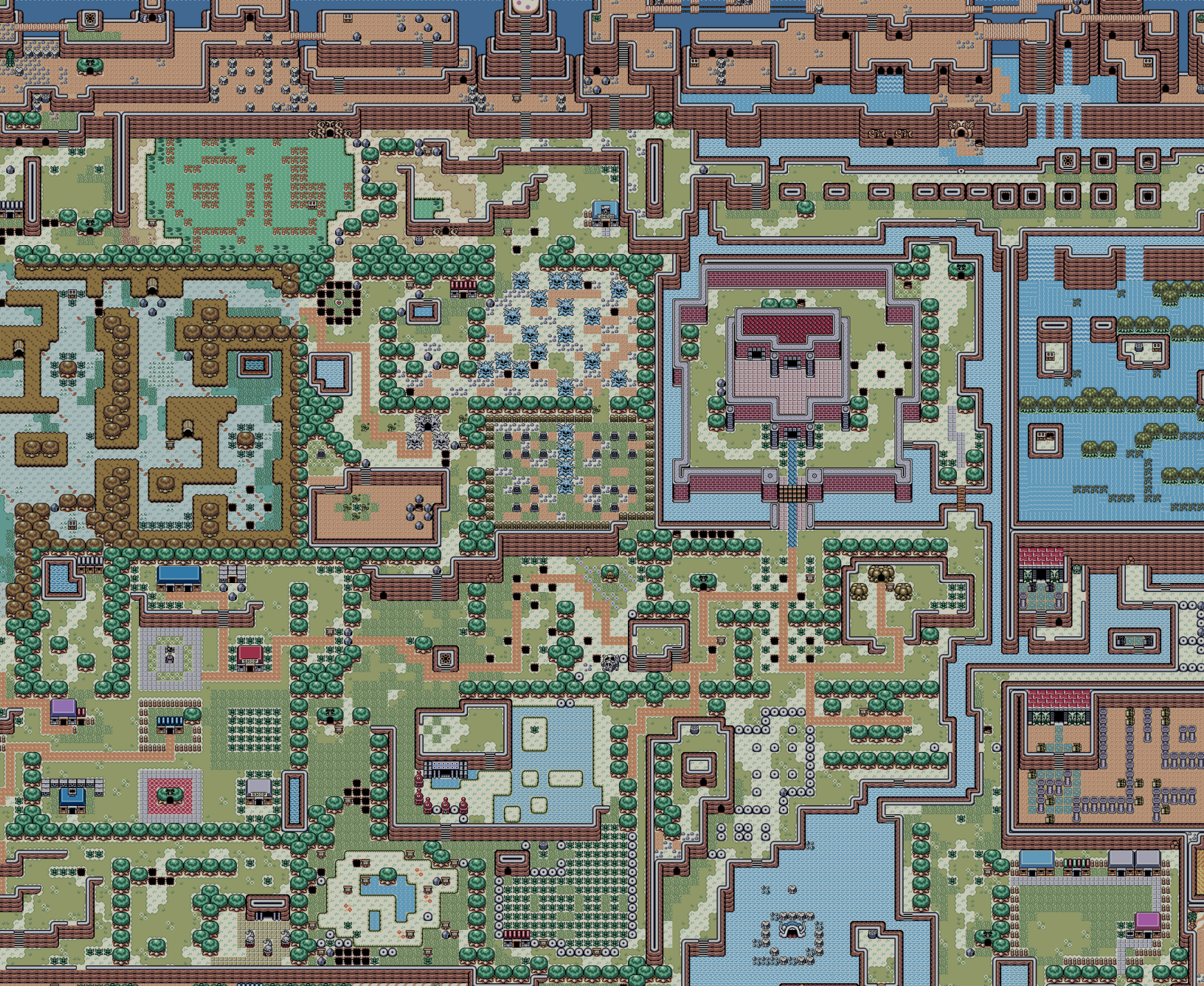


Fig. 05 : Collage and Colorised map from The Legend of Zelda: Link's Awakening

I
A CONNECTION WITH METAGAMERS



In this chapter, I will examine how Marie Foulston's childhood gaming experiences mirror mine and how this relates to the fluid definition of video game maps as mediums. Through analysing the ideas of Richard Garfield, Stephanie Boluk, and Patrick Lemieux, I aim to link player practices with game studies by clarifying the concept of metagaming. This will then be refined to understand the community aspect of maps. Finally, I will present the theoretical foundation and the initial stages of my personal categorisation.

A Connection with Metagamers

As I read Marie Foulston's introduction in *Videogame Atlas*, I was struck by how closely her experiences mirrored my own. I came to understand that I wasn't the only one who felt this way; the worlds we dive into as gamers become vivid in our imaginations and extend beyond gaming consoles. Marie Foulston reflects on how her collaboration with her father deepened her understanding of these fictional spaces. In the same way, my early experiences were shaped by a personal connection with game worlds, which later evolved into collaborative activities with friends at school, mirroring, in some ways, the dynamics of cartographers in gaming communities.

These activities present themselves as extensions of video game experiences, transforming into practices like drawing and storytelling. They are made possible by their permeable nature. Both of us, along with countless others, have experienced the games we loved, as they spill into other forms of expression and reflection, extending beyond their own medium.

Take the *Elden Ring* community, for example, whose players meticulously mapped its world even before the game's official release, using trailers and *leaks*[1] to create speculative collages of the game's map. These maps weren't just a quest for accurate representation; they were a way for players to extend the game experience, trying to engage with the world before even stepping foot in it.

To understand why FromSoftware's games, break the boundaries between game design and its extensions, we must first examine the playful mind of *Demon's Souls*[2] creator, Hidetaka Miyazaki.

"I see it as almost an interaction between the two, in terms of, 'Oh, I actually didn't think of that, but you took it in a different way and found YOUR way or interpretation of how you would like to enjoy Bloodborne."

– Miyazaki (IGN, 2024) –



Fig. 06 : Hand drawn map of Zelda: Breath of the wild, posted on X by user Itika89



Fig. 07 : *Elden Ring, pre-release map collage posted on redit by user StuwiSux*

During his childhood, Miyazaki liked to devour books, often choosing texts that were beyond his comprehension. This led him to use his imagination to fill in the gaps in the stories, making sense of the unfamiliar. This habit of filling in fragmented story plots at an early age established a key principle for his game design.

"Growing up, as a kid, I loved to read. I liked to read books that were above my range. I always tried to aim higher and read difficult books. What would happen is, although I could read them, sometimes -- because I was so young -- I couldn't read TOO deep into them. Maybe I would understand half of the story? What would happen is that my imagination would help fill the other half, and that imagination element would just blow up. That's kind of the part I enjoyed as well, filling the gaps of where I didn't understand the readings, where my imagination took me eventually to think that I understood what I was reading."

– Miyazaki (IGN, 2024) –

Restricted from video games until university, Miyazaki accessed role-playing games through books like "*Steve Jackson's Sorcery!*" (1983) and "*Dungeons & Dragons*" (1974). His games, such as *Dark Souls* and *Bloodborne*, feature ambiguous, deconstructed lore that encourages players to construct meaning and interpret events by themselves, mirroring the imaginative filling-in he did as a child .

While researching for FromSoftware maps, I came across Sinclair Lore, a community of *Bloodborne* players who are deeply invested in exploring the game's lore. After joining their Discord server, I was able to speak with Ashenfactory, one of their moderators. We exchanged about their discrete practice of cartography. Still dissatisfied with the results and still working on their tools, they shared with me their progress over several months. These tools, which they coded by themselves, are intended to accompany RPG[3]-games they enjoy exploring but where traditional paper mapping is less practical for solving certain dungeons.

This encounter taught me that some cartographers do not showcase their work, and that others are currently developing new cartographic tools with the intention of sharing them later.

Ashenfactory was not the only one who replied to my inquiries. Demajen, a well-known cartographer in the *Metroidvania*[4] mapping communities, replied to my questions with several written pages outlining his methods and sharing his thoughts on mapping these specific video games. More surprising Demajen revealed a strong affection for *The Legend of Zelda: Link's Awakening*. Which was also one of the first games that inspired him to make video game maps.

Those generous insights helped me gain a better understanding of how cartographers' practices work and the effort involved in these creations.

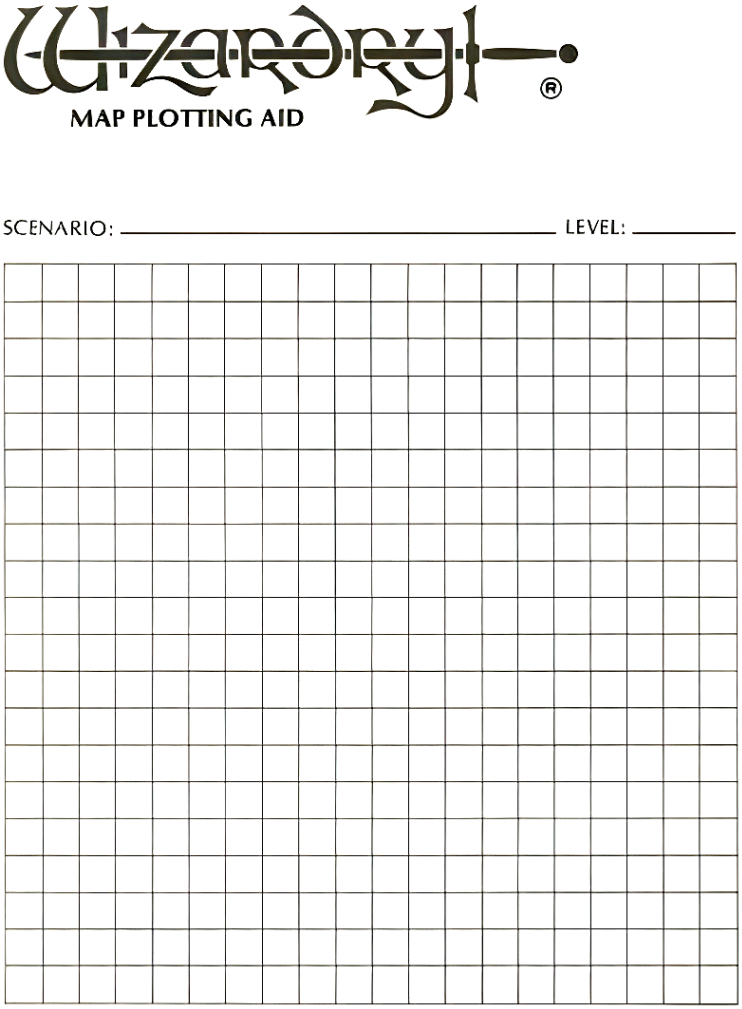


Fig. 08 : *Wizardry 1987 official manual, providing a mapping grid for the game*

Metagaming: A Shift in Game Studies

Game studies slowly began in the early 1970s[5], initially focusing on the appeal of video games and the negative impact arcade rooms had on people, especially the youth. By the early 2000s, the field shifted to analyse MMO[6] players and their addictive behaviours, using again these communities to highlight the more negative impacts of gaming. The concept of metagaming began forming around the same era, with the work of scholars like Jesper Juul focusing on games' *formal properties* (Jesper, 2003).

Richard Garfield's introduction of metagaming in the 1990s marked a pivotal shift, exploring how players engage with games beyond formal rules through social and strategic behaviour. His contributions, alongside those of other scholars, influenced the course of game studies around 2010, when the emphasis changed from hardcore gamers to a broader examination of players and the influence of games on their daily lives. This helped reposition gaming in a more positive light, moving away from solely focusing on negative aspects to highlighting the enriching and participatory side of gaming experiences.

Garfield defined metagaming as: "*The use of knowledge external to the game's framework to influence gameplay*." (Garfield, 2000). According to him, metagaming brings together strategies and tactics that players develop based on their knowledge of any game's given rules, using mechanics and social dynamics rather than solely relying on in-game information. His research highlights the intersection of gameplay with cultural and social factors, suggesting that understanding metagaming is crucial for both game design and game studies.

In the past two decades, game studies have acknowledged metagaming's importance in shaping contemporary games. With the rise of Mods (player-driven modifications), online communities, video game specialized websites, and livestreaming platforms, player agency has become part of game analysis. These new practices show that player involvement is not just a supplement but can redefine the games themselves.

The term metagaming can be applied in a broad range of contexts, from casual to professional player, and from card games to video games. Initially and still used in competitive gaming, often seen with a bad eye as cheating in this field, Garfield expanded on it by defining metagame in the context of casual gaming. He defines it as "*how a game interface beyond itself.* "(Garfield, 2000).

Stephanie Boluk and Patrick Lemieux further refined Garfield's concept, arguing that metagames are often more important than games themselves. They suggest that metagaming can be applied to nearly all forms of play and that it is, in some part, inevitable and deeply linked to gaming itself. They state that metagaming "(...) *results from the entanglement of philosophical concepts, the craft of game design, and the cultures of play that surround videogames.*" (Boluk and Lemieux, 2017)

While the term of metagaming can be applied to a wide range of gaming activities, in this text, I will refer specifically to the type of metagaming mentioned by Stephanie Boluk and Patrick Lemieux. More precisely, I will focus on casual, non-competitive metagaming, a form of metagaming that does not serve to cheat or win but instead serves to enhance the gaming experiences through creative practices. This perspective on metagaming naturally brings us to the practice of mapping as a powerful tool in game design but also as a tool for games' reappropriation.

This will be further exemplified by the worlds created by Hidetaka Miyazaki, whose games are famous for their intricate map designs. Miyazaki's approach shows how metagaming and game cartography represent key aspects of gaming activities, allowing players to engage deeper as they explore, interpret, collaborate, and reappropriate these carefully crafted worlds.

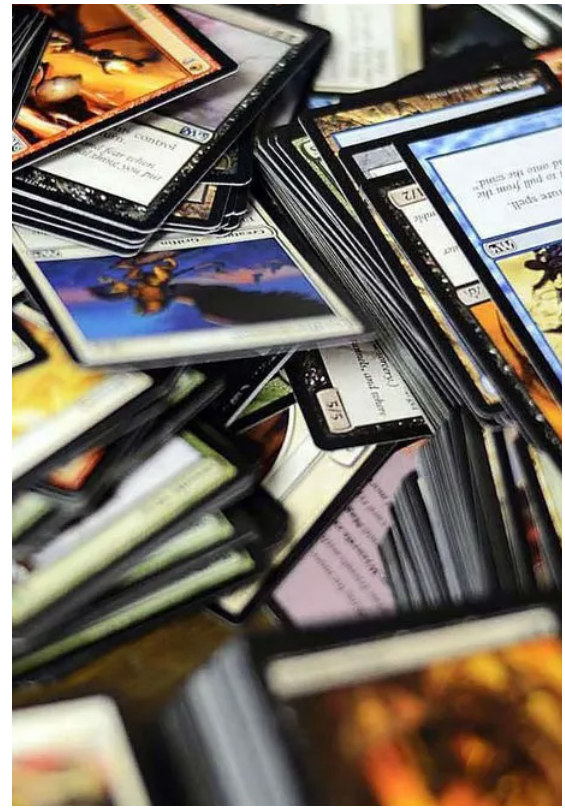


Fig. 09 : A pile of Magic the Gathering cards.



Fig. 10 : Bloodborne concept art of the Lecture Building

"Of course, there are areas or storyline for example that I would like for the users to experience or take away from Bloodborne, but there's always kind of a thought that it would be interesting from my or the team's point of view as well, where the gamers take it and how they get creative and how they want to play."

- Hidetaka Miyazaki (IGN)-

Mapping as Social Metagaming

The potential for collaboration in game mapping, especially in online communities, is one of its key features. By extending the gaming experience beyond the immediate action, mapping is a type of metagaming that turns exploring virtual worlds into a collaborative and artistic endeavour. In addition to charting these worlds, players collaborate on forums, social media, and fan websites, exchanging routes, strategies, and interpretations.

Mapping serves as a unique example in metagaming practices because it blurs the lines between documentation and creation. Vinciane Zabban's work in "*Les enjeux du métajeu*" (2014) underscores the social dimension of metagaming, further emphasizing that the act of collecting knowledge about the game worlds is integral to the gaming experience. Zabban writes, "*playing is, before any activity, about constructing a world*" (Zabban, 2014). The iterative mapping process allows players to define the game world's boundaries, which helps them understand and give shape to the space they explore.

Zabban draws on Erving Goffman's concept of the "*playful encounter*" to describe how these exchanges create a social space where metagaming becomes not just a tool but a communal practice that deepens engagement with video game worlds. These maps often merge both the factual (locations of resources, routes, and objectives) and the speculative (unconfirmed rumours or hypothetical features).

These aspects of mapping challenge earlier conceptions of games existing solely within a "*magic circle*," a term brought by Huizinga (1938) to describe the bounded, separate nature of play. Scholars like Mia Consalvo, Jesper Juul, and Ian Bogost have refined this perspective, showing how metagaming practices like mapping blur the borders between gameplay and everyday life. Mapping, contrary to beliefs and rather than being the boundaries of a game, show a way of resisting the closure of that space.

While the "*magic circle*" concept is still useful for examining the structured aspects of play, metagaming demonstrates how the boundaries between playing and non-playing are fluid. Maps illustrate this fluidity by serving as tools for discussion and speculation that extend the game world into the social and creative lives of players.

In that sense, mapping strengthens the connections between users and the environments in which they travel together by encouraging cooperation and communication, converting games into shared spaces for creativity and exploration.

Building on Marie Foulston's reflections and Richard Garfield's concept of metagaming, we've seen how mapping takes games beyond the screen, combining video game documentation and collective reinterpretation. These maps, as exploratory tools and collaborative vessels, blur the distinction between play and creation.

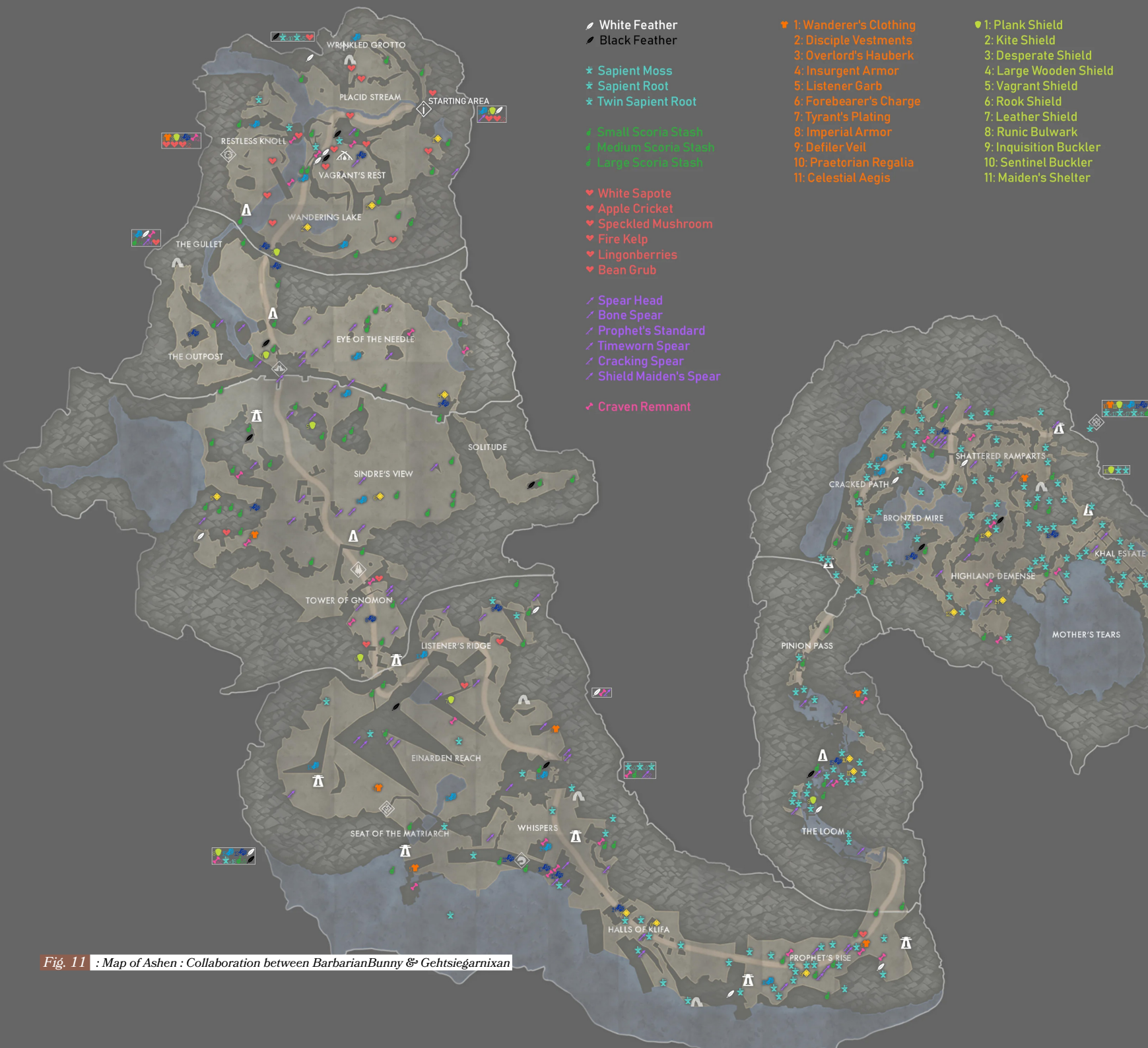


Fig. 11 : Map of Ashen : Collaboration between BarbarianBunny & Gehtsiegarnixan

The Cartographies of Player Experience

To understand the materials created by communities, I faced the challenge of how to sort and make sense of such a diverse set of maps. With the goal of creating a research tool for my own game catalogue, I used my personal list[7] of games as a starting point to find and analyse relevant maps. Using metagaming theories to delve deeper into different map typologies, I have been working on a system that investigates how these maps could represent gameplay needs and personal metagaming experiences.

In order to create my own classification system, I initially analysed the different mapping tools available to the communities. While these tools, discussed in the second chapter, shape the creation of maps, their flexibility often makes it difficult to produce consistent, predictable results in a conceptual sense. In other words, I was looking for a tool that would help me better understand the various uses of maps created by communities.

I started by using a combination of Richard Garfield's metagaming theories and Dominic McIver Lopes's framework from his book "*Philosophy of Computer Art*" (2009) to try to produce a relevant typology. This was done to consider if these maps could be considered as works of computer art and to uncover what they could symbolise in terms of various players experiences.

By focusing on its potential forms, *interactive*, *algorithmic*, and *immersive*, McIver Lopes distinguishes the differences between computer art and digital art. By including "*user inputs*" in the list, he concludes that the nature of this creation field is hybrid. By analysing the differences between digital and computer art forms, McIver Lopes argues that the special nature of the latter, including interactive maps, lies in its use of computer-based interactivity by its audience.

Accepting that media have become computable (graphics, moving images, sounds, shapes, spaces, and texts, according to Lev Manovich), the author of *A Philosophy of Computer Art* (2011) shows that interactivity is the key feature distinguishing computer art (video games, for instance, or maps that are interactive because they run on a computer) from digital art (where one may find maps that are interactive to some extent).

What makes video games such an emotionally enthralling computer art form (McIver Lopes, 2011, "Atari to Art" in *A Philosophy of Computer Art*) is the "*interactive gameplay*," which is strong enough to "*realise positive aesthetic properties*" as the audience creates their own experience.

These concepts could be essentials to ask whether guide maps should be considered as more than tools but also as a type of video game specific digital art, allowing us to better understand their conceptual aspect and their usability.

By building on these influences, I initially began organizing my guide maps into the following categories:

First, Explicit Maps are the rawest form of a mapping process. Often extracted from in-game assets or recreated directly from game captures, they offer players a reliable visual guide without added modifications. These maps appeal to those seeking clarity and completeness, acting as overviews of these fictional spaces.

Personal/Emotional Maps reflect raw individual creativity, exploration, and feelings. Created manually by players sketching during gameplay, they capture unique interpretations of the game world. These maps often include personal annotations and creative reinterpretations.

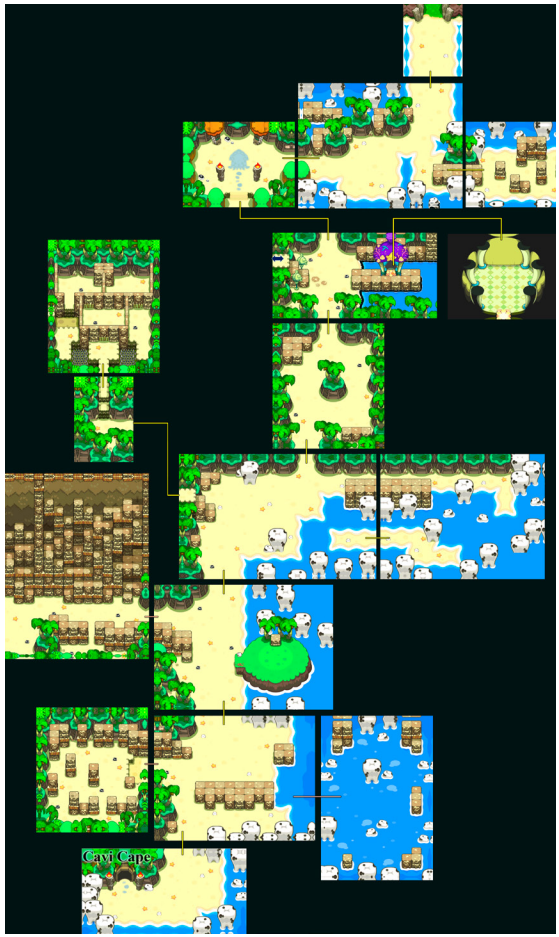


Fig. 12 : Mario & Luigi Bowser's Inside Story Mushroom Kingdom Plack Beach

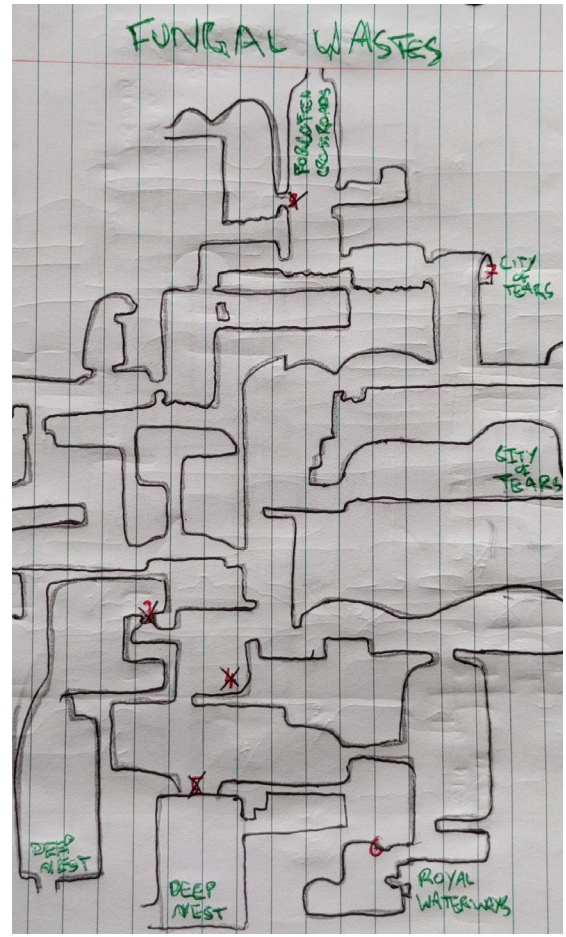


Fig. 13 : Hand drawn map of Hollow knight by Reddit user _sleeplost

Optimized Maps focus on gameplay efficiency while offering the tools for accomplishing objectives, such as resource farming or speedrunning. These maps, which appeal to both high-skill players and those who prefer simplified, efficiency-driven playstyles, illustrate the combination of strategic planning with topographical fidelity.

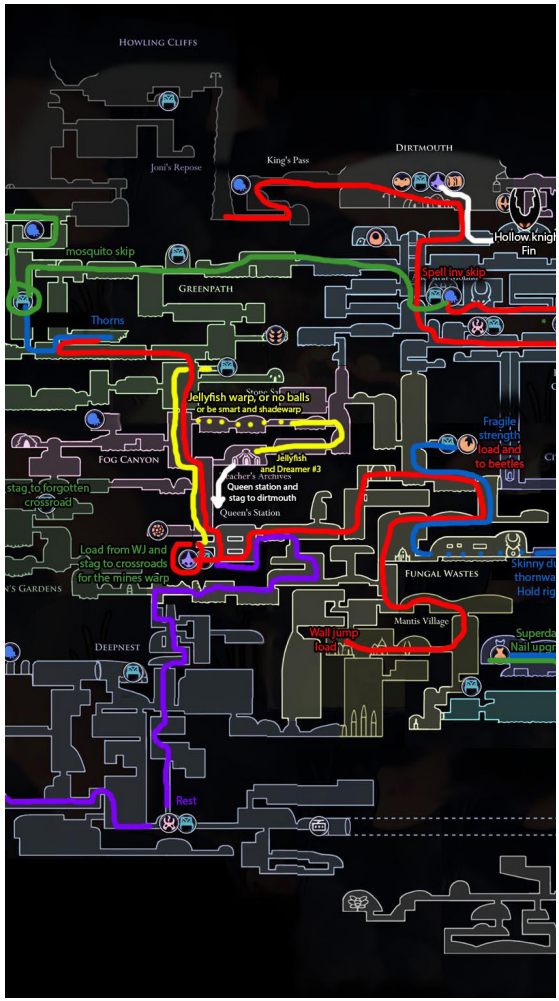


Fig. 14 : Any% speedrun map of Hollow Knight by Reddit user G3fo

Road Maps are another essential tool for players who want to master a game completely. These maps hold comprehensive guides, covering everything from hidden items to quest guidelines. They respond to completionists, ensuring that no secret or goal is left out. Demajen's maps are notable examples, with intricate illustrations of every room, obstacle, and hidden feature, allowing players to fully immerse themselves in the game world while achieving 100% completion. These may also include images and screenshots integrated into text-heavy navigation

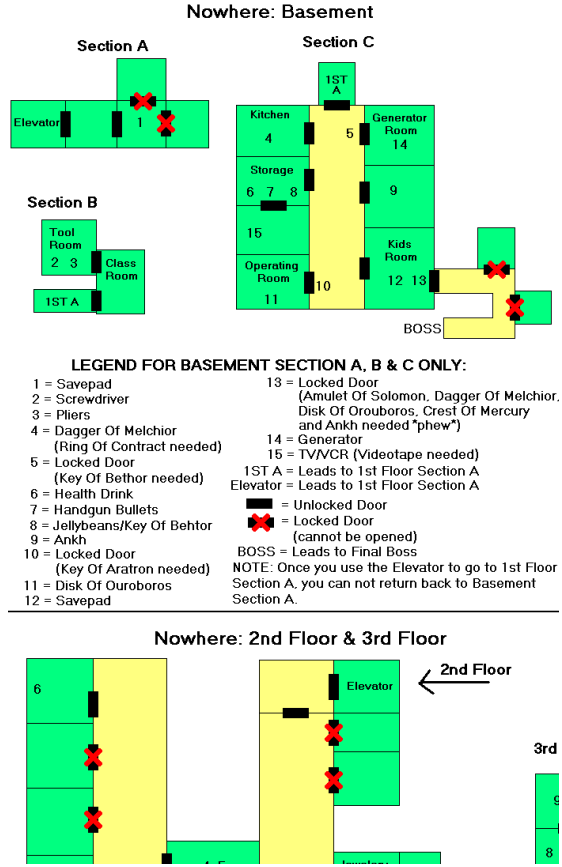


Fig. 15 : Silent Hill walkthrought Nowhere map by StarFighter76 on GameFAQs

Finally, Community-Based Maps demonstrate the power of collaboration in gaming communities. Often hosted on online platforms, these dynamic projects are created and updated collectively by players. They exemplify how mapping can evolve into a communal activity.

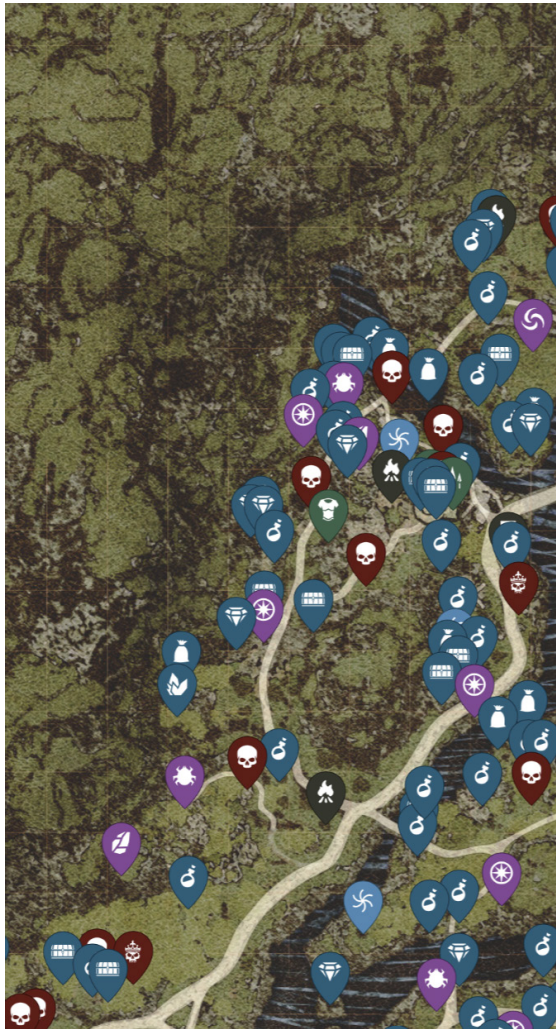


Fig. 16 : Dragon's Dogma II interactive map on Mapgenie

In refining this system, I explored Ross Thorn's "*4 I*" (2019) framework for video game map analysis: *Interactive, Immersive, Incomplete,* and *Interpersonal*. Thorn's system emphasises user interaction, engagement with game narratives, exploration-driven design, and social collaboration. I used these categories to refine the unique dimensions of each map type listed above.

Interactive and Interpersonal aspects are evident in Community-Based Maps, where players modify and interact within online maps to address specific challenges. They are as McIver Lopes states, interactive art because they run on a computer. Meanwhile, Immersive maps, like Road Maps, enhance the connection between players and the game's narratives.

Finally, Incomplete Maps, such as Personal and Explicit Maps, capture the curiosity and unique exploration of individual players. These maps illustrate an organic process of discovery, as players document their journey through uncharted territory.

This laid the groundwork for developing a classification system for video game guide maps by drawing on metagaming theories, game studies, and Lopes' framework. These resources offer a diverse perspective on how maps can be used as reflective artefacts for game engagement.

This foundation helped me create my own classification system, which I will be discussing in the following chapters. Using my game catalogue as an example, I aim to demonstrate how the system organises and interprets diverse types of maps, highlighting their utility and significance as metagaming objects.

This chapter provides the theoretical framework for analysing video game maps, viewing them not only as navigational tools, but also as reflective artefacts that capture players' metagaming practices. The following chapter will explore the platforms where these maps are shared and disseminated, examining how communities contribute to their creation, interpretation, and evolution.

1 In gaming, “leaks” are unauthorized reveals of unreleased game content or information.

2 Demon’s Souls, released on February 5, 2009, is an action RPG known for its challenging gameplay and as the precursor to the Souls series.

3 RPG stand for “Role playing games”. In this case the game is Phantasy Star from 1987.

4 Metroidvania is a subgenre of action-adventure games or platformers combining non-linear exploration and progression, inspired by the Metroid (1986) and Castlevania (1987) series.

5 As Seen on, PSYCHGEIST. A (brief) history of game studies. YouTube.

6 Massive Multiplayer Online games.

7 As found on my GitHub : https://github.com/chap-0ng/md-master-thesis/tree/main/DATA/24.05.15-videogames-inventory



Fig. 17 : *Isometric map of Knight Lore, found in Crash magazine*

II
THE DESIGNING OF VIDEO GAME MAPS



This chapter focuses on how different communities and the tools they use contribute to the development of certain aesthetics in game maps. I will start by investigating the platforms where these maps are distributed. Then, drawing from conversations with the map makers Demajen and Ashenfactory, I will examine the methodologies and technologies used to create them.

The Collaborative Territories of Mapmakers

Sharing behaviours have existed since the earliest days of gaming, growing alongside the medium itself. Even in the early Internet era, the act of sharing knowledge was integral to the gaming experience. Young players would meet on playgrounds to share insights, hand-drawn maps, and strategies, setting up informal networks of collective knowledge. Magazines, television shows, and even casual discussions functioned as early collaborative places, encouraging a cooperative approach to gaming before the current sharing platforms appeared.



Fig. 18 : Cover of Your Spectrum Magazine issue number 14

Maps have evolved in response to the many needs of video games as they have grown into a multitude of genres. Additionally, new opportunities for their development and diffusion were made possible by the popularization, evolution, and growth of sharing supports. For instance, platformer maps would differ from puzzle-heavy maps, such as those in *Silent Hill* (Konami, 1999) games, in terms of needs and visual guidelines. Maps in *Silent Hill* do not need to meet the same demands as those seen in open world games like *Zelda: Breath of the Wild* or *Elden Ring*, where the huge area of play requires a significantly different approach.

Experiencing game freeze in the 80s typically meant being completely unable to progress. Although friends could help occasionally, they were often just as clueless. Occasionally, popular TV shows like *Gamesmaster* (1992) would share tips, but the chances of them focusing on your specific game were slim.

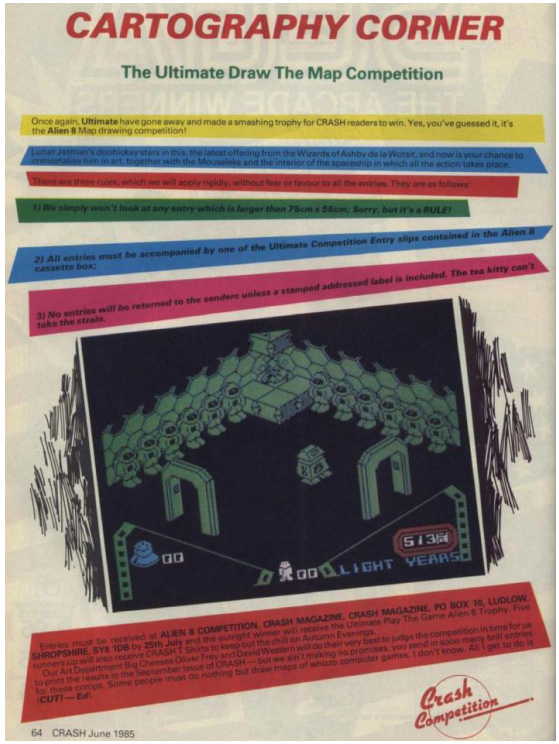
For real guidance, one could turn to gaming magazines like *Crash* or *Your Spectrum* (1984). These were treasures for gamers, filled with detailed maps and tips, often just screenshots stitched together, but sometimes beautifully hand-drawn maps of the games. They offered secrets, solutions, and a sense of camaraderie, all packed into a few pages of ink and paper.

Crash and *Your Spectrum* played a significant role in highlighting the community's work on maps during these years. Though not the first of their kind as *Play Meter* began in 1974, *Crash*, dating back to 1984, provided with its affordable price due to cheap printing, a wonderful platform for the gaming community.

Magazines like those significantly contributed to the development of an independent spirit among gamers. These publications also featured maps created by fans, emphasising on a personal and imaginative style of cartography. Annotated sketches, community-made layouts, and zine-like presentations gave them a raw, punk-inspired aesthetic.

Official guides and magazines like *Nintendo Power* (1988), by contrast, came mostly from the large publishing companies themselves and were representing an industry-oriented perspective. These professionally designed tools provided players with lore, illustrations, complete maps, detailed walkthroughs, and comprehensive annotations that complemented the games' themes. These guides were more organized and comprehensive than their independent counterparts, which appealed to players looking for accurate, trustworthy information that was curated straight from the source.

The former often displayed an indie philosophy, focusing on personal discovery and collaborative spirit, while the latter leaned on structured, corporate-driven presentations aimed at reinforcing the company's vision. The coexistence of punk-inspired unofficial magazines and polished official guides offers a balance between personal expression and official insight.


CARTOGRAPHY CORNER

The Ultimate Draw The Map Competition

Once again, **Ultimate** have gone away and made a smashing trophy for CRASH readers to win. Yes, you've guessed it, it's the **Alien 8** Map drawing competition!

Lunar Jetman's doohickey-ators in this, the latest offering from the Wizards of Ashby de la Wotsit, and now is your chance to immortalise him in art, together with the Mouseleks and the interior of the spaceship in which all the action takes place.

There are three rules, which we will apply rigidly, without fear or favour to all the entries. They are as follows:

1) We simply won't look at any entry which is larger than 75cm x 55cm; Sorry, but it's a RULE!

2) All entries must be accompanied by one of the Ultimate Competition Entry slips contained in the Alien 8 cassette box;

3) No entries will be returned to the senders unless a stamped addressed label is included. The tea kitty can't take the strain.

Entries must be received at ALIEN 8 COMPETITION, CRASH MAGAZINE, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1DB by 25th July and the outright winner will receive the Ultimate Play The Game Alien 8 Trophy. Five runners up will also receive CRASH T Shirts to keep out the chill on Autumn Evenings.

Our Art Department Big Cheeses Oliver Frey and David Western will do their very best to judge the competition in time for us to print the results in the September issue of CRASH — but we ain't making no promises, you send in 6000 many brill entries for these comps. Some people must do nothing but draw maps of whizzo computer games, I don't know. All I get to do is CUT! — Ed.

Crash Competition

64 CRASH June 1985

Fig. 19 : *P64 of Crash magazine issue 17, displaying a cartography competition, 1985*



Fig. 20 : *Cover of Nintendo Power issue 001, 1988*

Today, fan hubs[8] are the most used sources. These include wikis and platforms that make it easier to share mapping work and research. As an example, Wiki platforms like *Fextralife,* allow users to suggest additions or updates, with moderators incorporating this feedback and insights into their database. These also often have Discord servers or other chat rooms to communicate together about common research.

Innovative and interactive map-sharing platforms also gain attention from communities. *MapGenie.io* exemplifies how modern mapping platforms combine the collaborative spirit of earlier efforts with the capabilities of online technologies. These platforms not only provide information about popular games but also allow users to contribute by sharing their discoveries. For example, the *Elden Ring* map on *MapGenie.io* lets users add markers for hidden treasures and boss locations, highlighting the platform's depth and utility. The result is a hybrid artefact, part guide, part creation, which evolves alongside the community's understanding of the game.

Some digital platforms blend old aesthetics with contemporary functionality, preserving many of the conventions set up by earlier printed formats. Wikis, for example, often mirror the organised, annotated layouts of classic guidebooks, while keeping the layered depth that online platforms provide.

Another key difference lies in how annotations are shared and integrated. In the era of paper maps, annotations were often highly personalised, added as scribbled notes or doodles in the margins of magazines or on photocopied maps shared among friends. These annotations carried a tactile, intimate quality that made each map a one-of-a-kind artefact. Digital tools, while efficient, streamline this process by embedding annotations directly into interactive layers. Users can toggle markers on and off or add notes for public viewing, creating maps that are collaborative yet standardised. This integration, while powerful, changes the nature of the interaction, and could make the map less about personal expression and more about collective utility.

This applies of course only to platforms that offer their own way of mapping. This shift from paper to digital has not diminished the creative and communal aspects of mapping, it has rather amplified them, making it easier for players to connect and share their work on a global scale. They prioritize clarity and accessibility, often using minimalist designs that highlight key information while enabling users to toggle between layers of detail. At the same time, they retain the collaborative and creative essence of their predecessors.

Communities can connect through platforms such as Reddit, Facebook, and Steam, where they can create threads[9] to share screenshots, speculate about hidden areas, and critique each other's map interpretations. Discord servers, in turn, enable real-time collaboration, with users discussing their discoveries on how to solve puzzles, how to uncover secrets, or about their newly shared content.

Forums, guidebooks, wikis, and online platforms become hubs for such efforts, producing a shared vocabulary of video game expertise. These interactions transform maps into living documents that reflect the ongoing interaction between players and game worlds. Players become active co-creators in the games they enjoy. These platforms represent the latest stage in a long tradition of shared play, proving that while the tools have changed, the act of sharing has been integral to gaming since its earliest days.



Fig. 21 : *A portion of From Software's : Elden Ring map, in game.*



Fig. 22 : Screenshot of Elden Ring map, annotated by players on MapGenie.

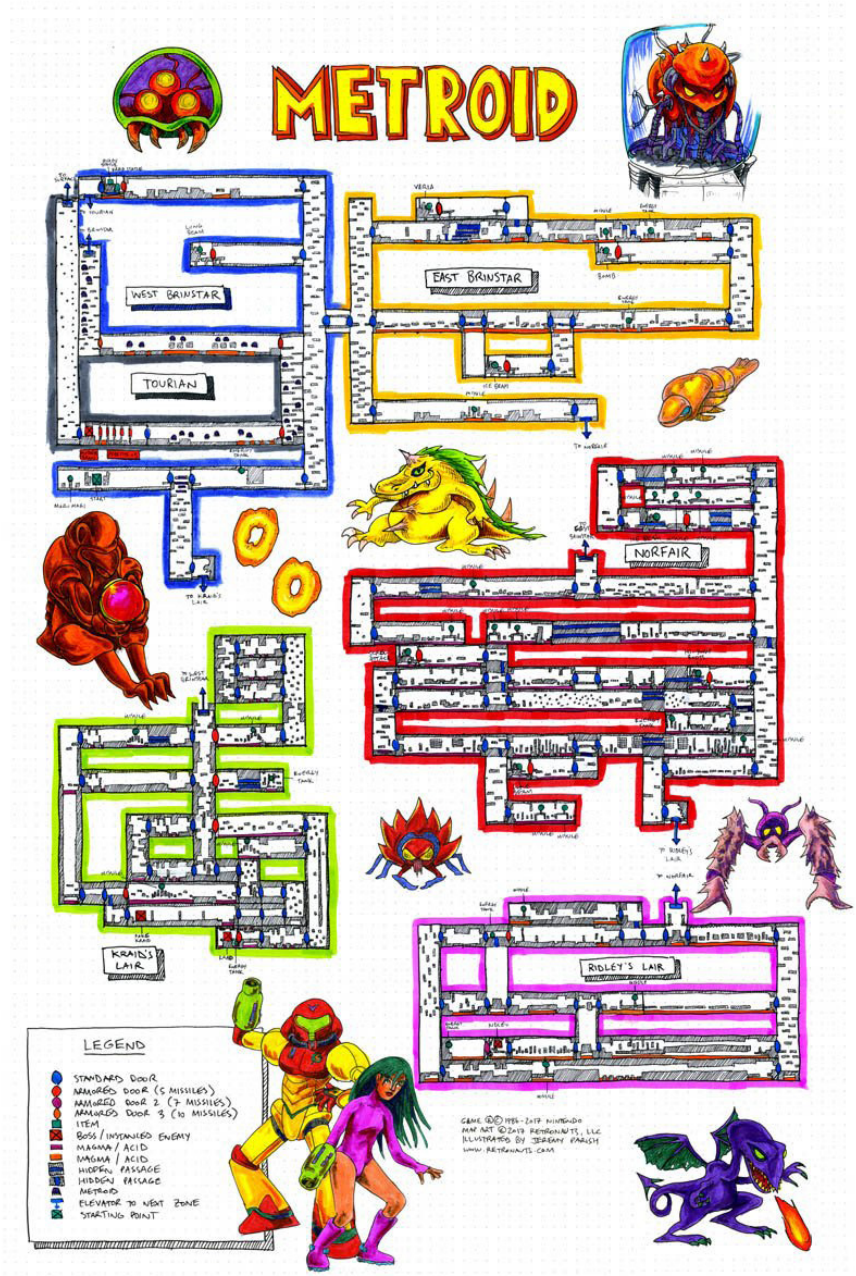


Fig. 23 : *Metroid map by Jeremy Parish*

A Cartographer's Toolkit

The tools used for video game mapping are diverse. Depending on the player's practices, they remain distinct but can occasionally be combined to produce new visual results. Thanks to these tools, the designs of these video game representations are vast and colourful. Each person I have met or found in chat rooms, uses multiple ones or even builds their own from scratch, establishing this cartographic practice as a personal and unique activity for everyone. In this chapter, I will divide these tools into several categories. The first two are the distinctions between analogue and digital, with each encompassing a diverse range of options. Finally, two subcategories emerged from digital tools: in-game tools, which infiltrate the games, and post-game tools, which are used alongside or after the gameplay experience.

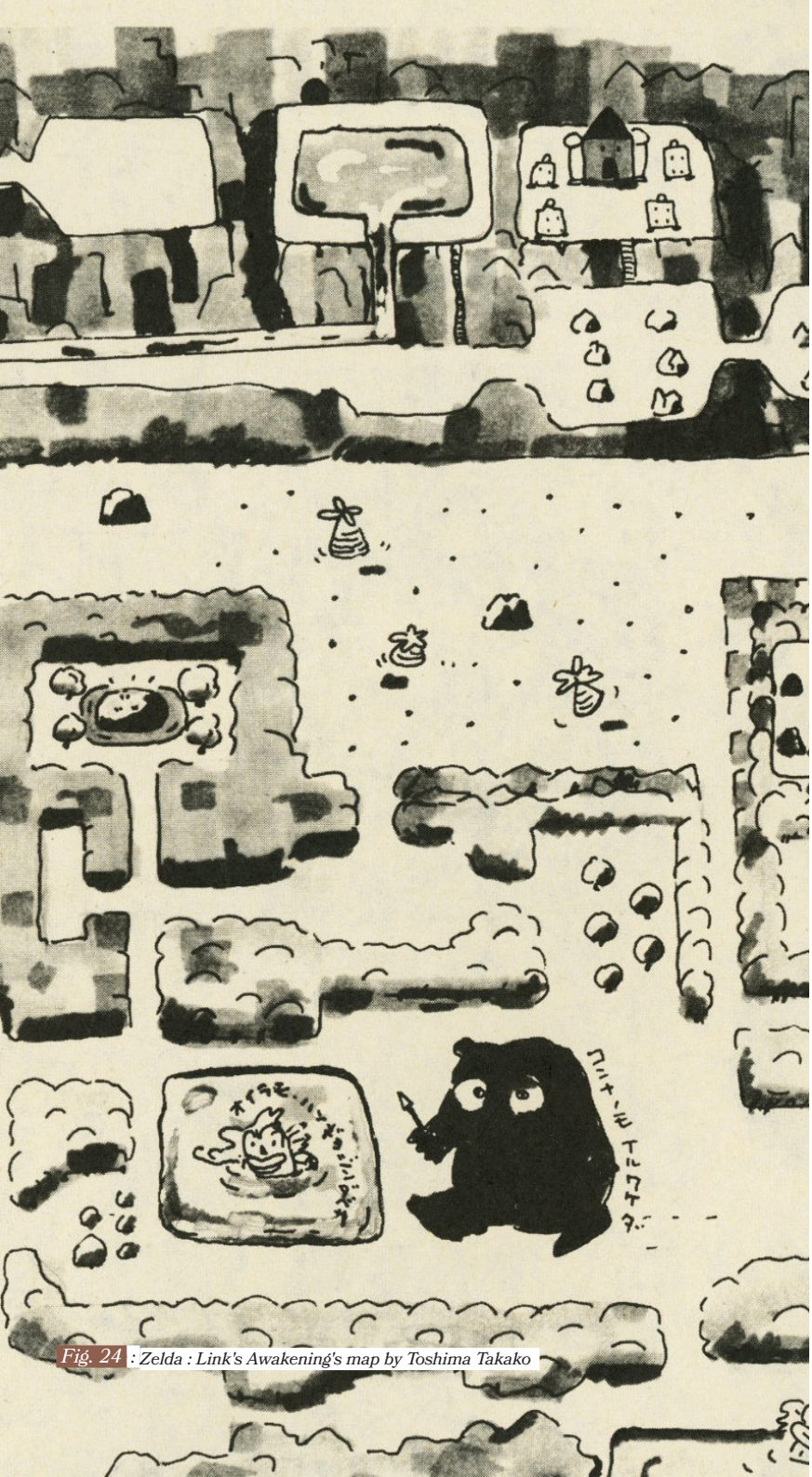


Fig. 24 : *Zelda : Link's Awakening's map by Toshima Takako*

Analogue To Digital

Analogue tools, as the first category, have been integral to the history of handmade video game map guides, from the school yards of the 90s to the present day. Notebooks, sketches, and paper maps, allow players to mark item locations and chart game worlds with the simple use of pen and paper. This personal and intimate style of mapping remains a popular practice among both long time gamers and newcomers.

Grid-based games, such as early role-playing games or dungeon crawlers[10], benefit greatly from the use of graph paper as an alternative to conventional drawings on white paper. Its pre-drawn grids simplify charting paths, obstacles, and treasures, enabling precise and detailed maps with minimal tools. Because of its ease of use and nostalgic appeal, this hands-on approach is still widely used.

Additionally, the use of home printing can be added to physical practices. These consist of official guides or fan-made maps, shared online or in magazines, which are then printed and often annotated with extra notes and secrets that players have discovered.

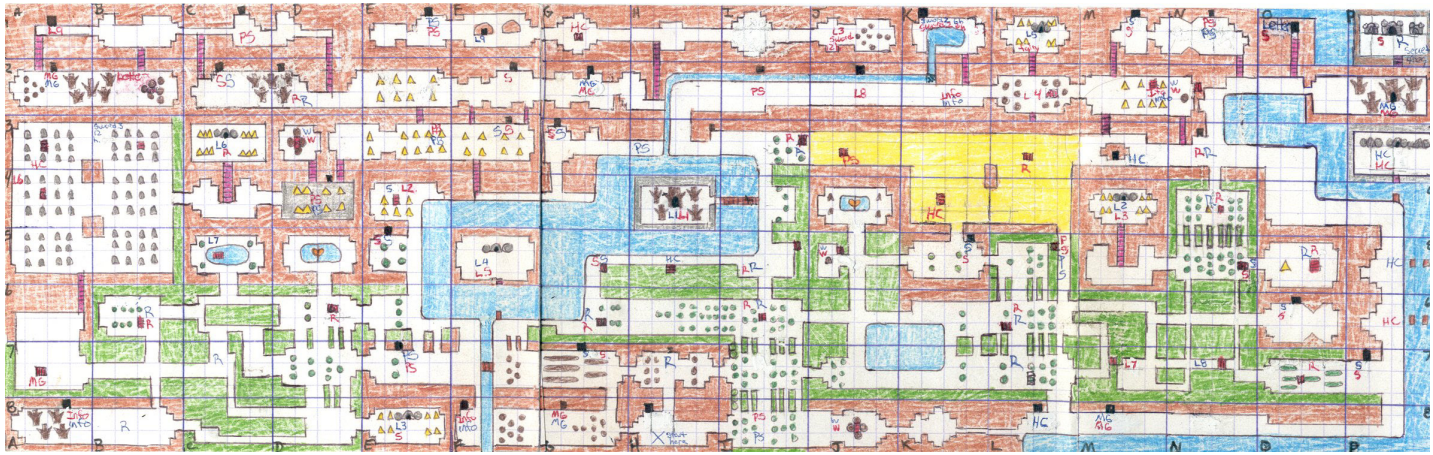


Fig. 25 : Hand drawn Zelda : Link's Awakening, full map

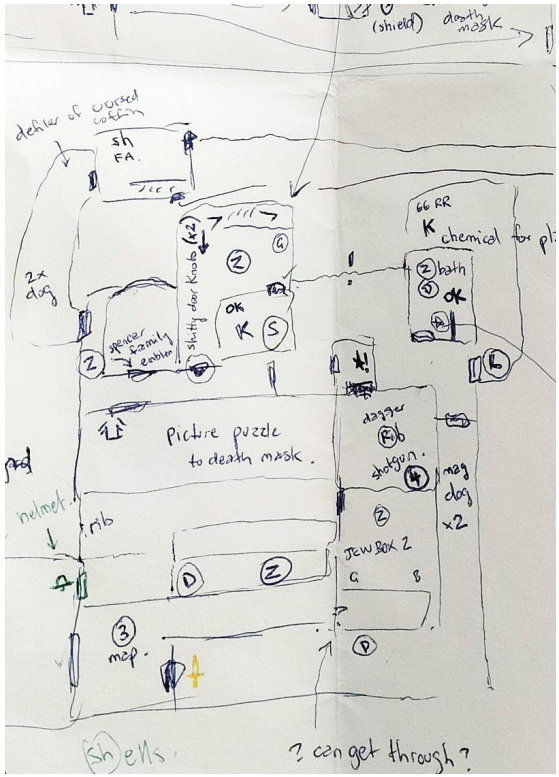


Fig. 26 : Resident Evil map by Redit user Snoe_Gaming

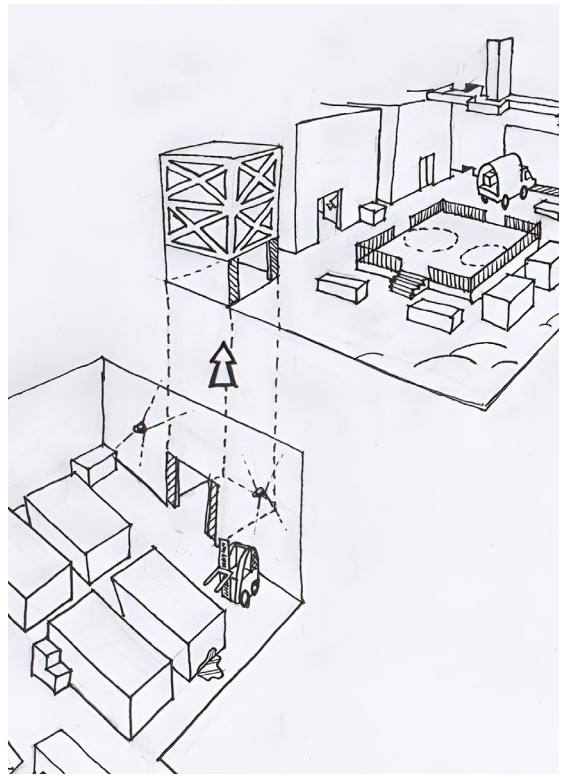


Fig. 27 : Metal Gear Solid from memory by churl



Fig. 28 : Kentuky Route Zero, Wiki's map

Digital tools : In-game and Post-game

With the development of technologies, having a computer or portable tablets allows the use of software and other techniques to go further in mapping processes.

The first category in the digital arts toolkit is in-game tools. These are primarily used for extracting and collecting data from game engines to create an accurate database.



Fig. 29 : Demon's Souls remake, photo mode

In-game : Captures

Tools of that kind include photo mode, screenshots, and recordings. Today, many games offer a built-in photo mode, allowing players to capture in-game footage from various angles. These can later be annotated to build custom guides and road maps. Alternatively, many computers and consoles possess a built-in screenshot & video recording option that can be used for more precise captures. The latest can be used to obtain images of in-game maps for further annotations. While some games may restrict these options, software like *OBS Studio* or *ShadowPlay* are used as alternatives to built-in screen captures. Often used as streaming tools for *Twitch* and *YouTube*, capture-cards offer another solution that bridges the gaps between computers and consoles.



Fig. 30 : *In game photo mode in Death Stranding*



Fig. 31 : *Ps5 controller share button, enable image captures within games.*



Fig. 32 : *Bloodborn anotated screenshot. From Fextralife wiki*

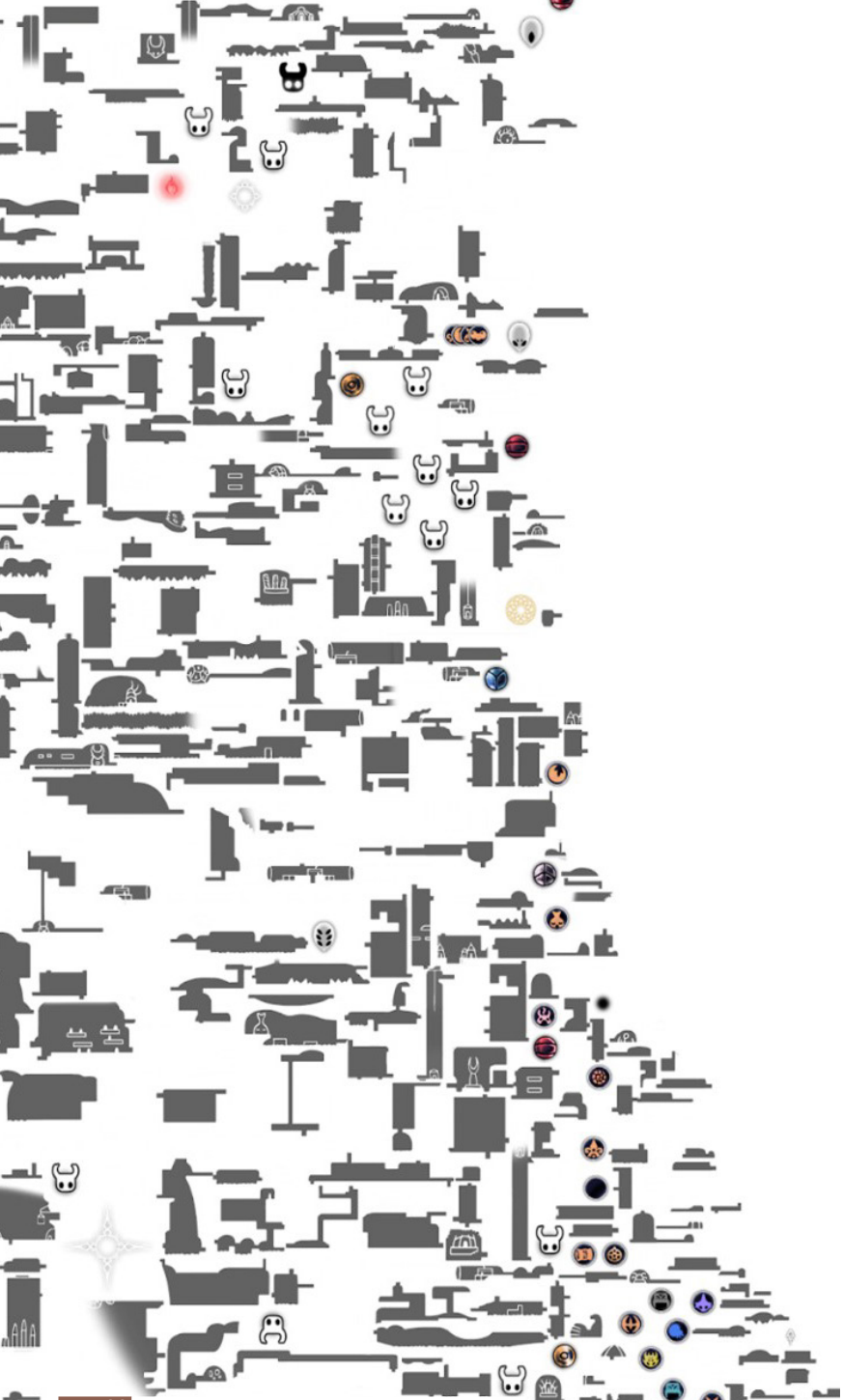


Fig. 33 : Demajen extracted assets from Hollow Knight

In-game : Files Extraction & Modification

In-game tools also include techniques like ROM (Read-Only Memory) hacking and modding for asset[11] extractions. The older method involves modifying a game's ROM files, which are typically found on older games' physical cartridges of early consoles. This process typically involves editing the original game code, such as changing graphics, text, or game mechanics. Modding, derived from the term modification, refers to the broader concept of changing or adding files within the code. These tools are broadly shared by the community, but also by platforms like Steam, and, in some cases, game developers. Both allow users to disable basic in-game navigation, allowing for out-of-bounds exploration and direct extraction of raw game data. These are useful to uncover hidden areas and secrets that would be challenging or even impossible to discover through regular gameplay.

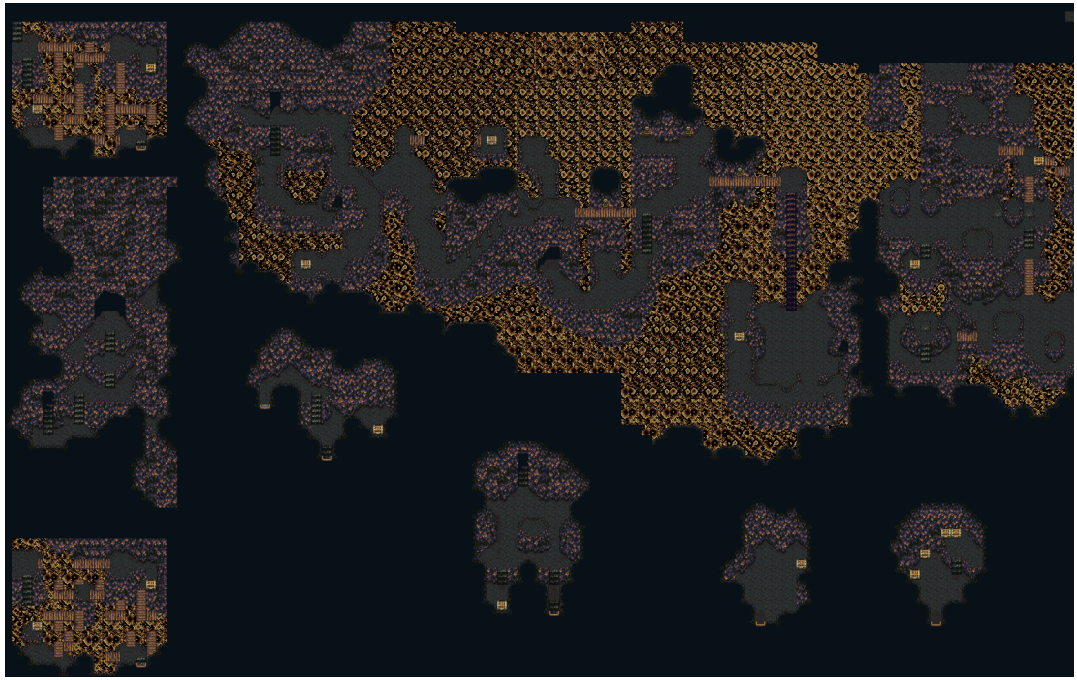


Fig. 34 : Ripped final fantasy 6 SealedCave map on fantasyanime

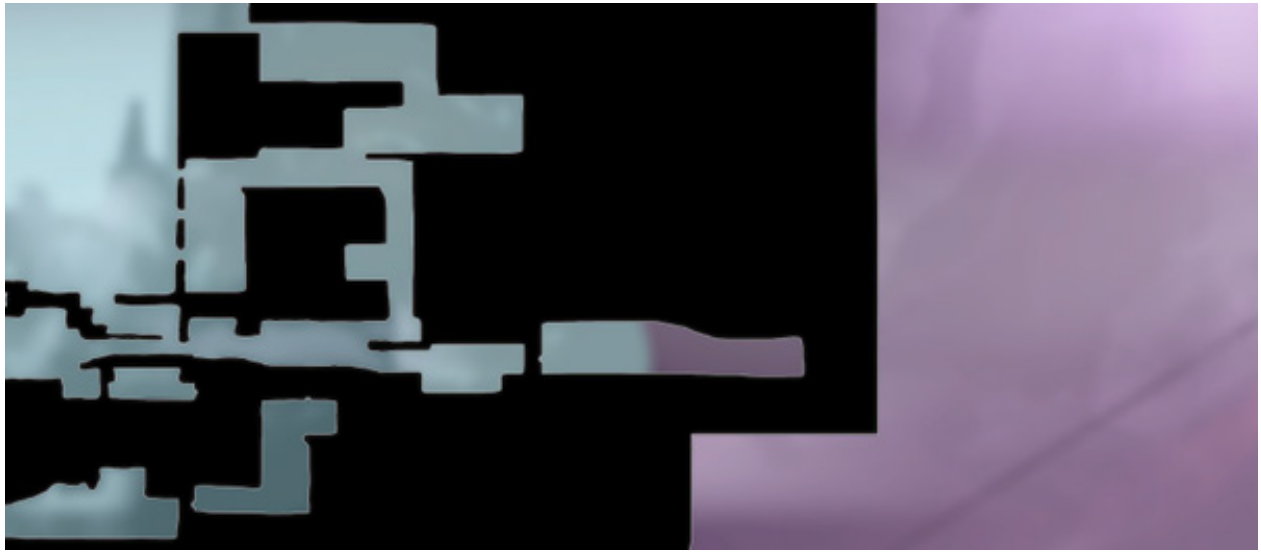


Fig. 35 : A part of Grime's ripped map given by Demajen's. There's about 50 of these.



Fig. 36 : *Shadow of the colossus by VGCartography*

Post-game : Editing

Post-game tools, in the other hand, are used to render collected data, enabling clear and creative presentations. In some cases, these tools exhibit characteristics that resemble analogue methods due to their diversity of use. While in-game tools work within the game's engines, post-game tools act outside of games. These tools enable users to draw, annotate, and edit in-game screenshots without requiring complex manipulations.

Image editing software used by cartographers, are the most likely to share similarities with analogue ones. With programs like Photoshop, Procreate, Gimp, and Illustrator, mapmakers have transitioned toward digital technologies and their advantages. Used in many mapping processes, these tools also require some drawing and image editing skills. They make it easier to create more polished, cleaner, and detailed designs, which can be challenging to achieve using traditional methods. They also let users combine screenshots, notes, and drawings to improve upon already existing maps. The biggest benefit of these digital tools is their ability, similarly to analogue ones, to encourage personal expression and creativity during the map-making process.

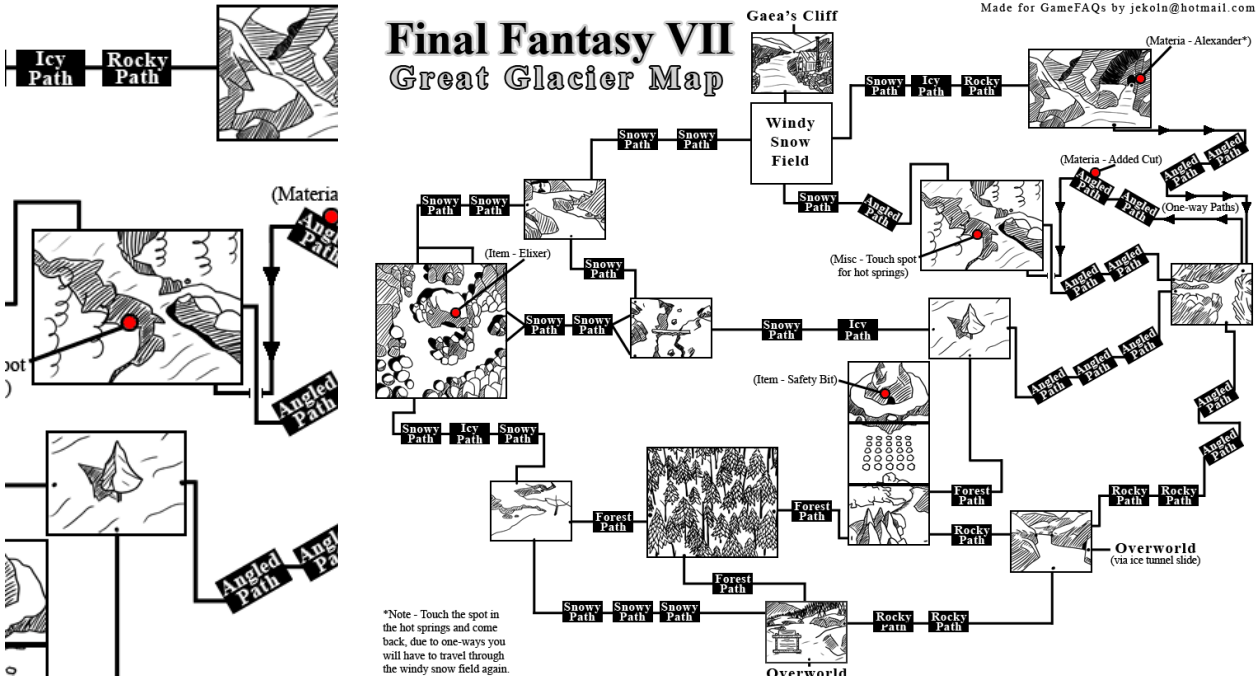


Fig. 37 : *Final Fantasy 7 by jekoln on GamerFAQs*

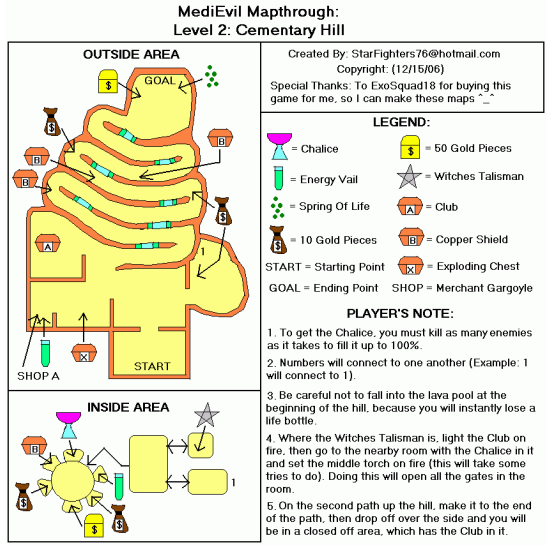


Fig. 38 : *MediEvil by StarFighter76 on GamerFAQs*



Fig. 39 : *alone in the dark underground maze map by VGCartography*

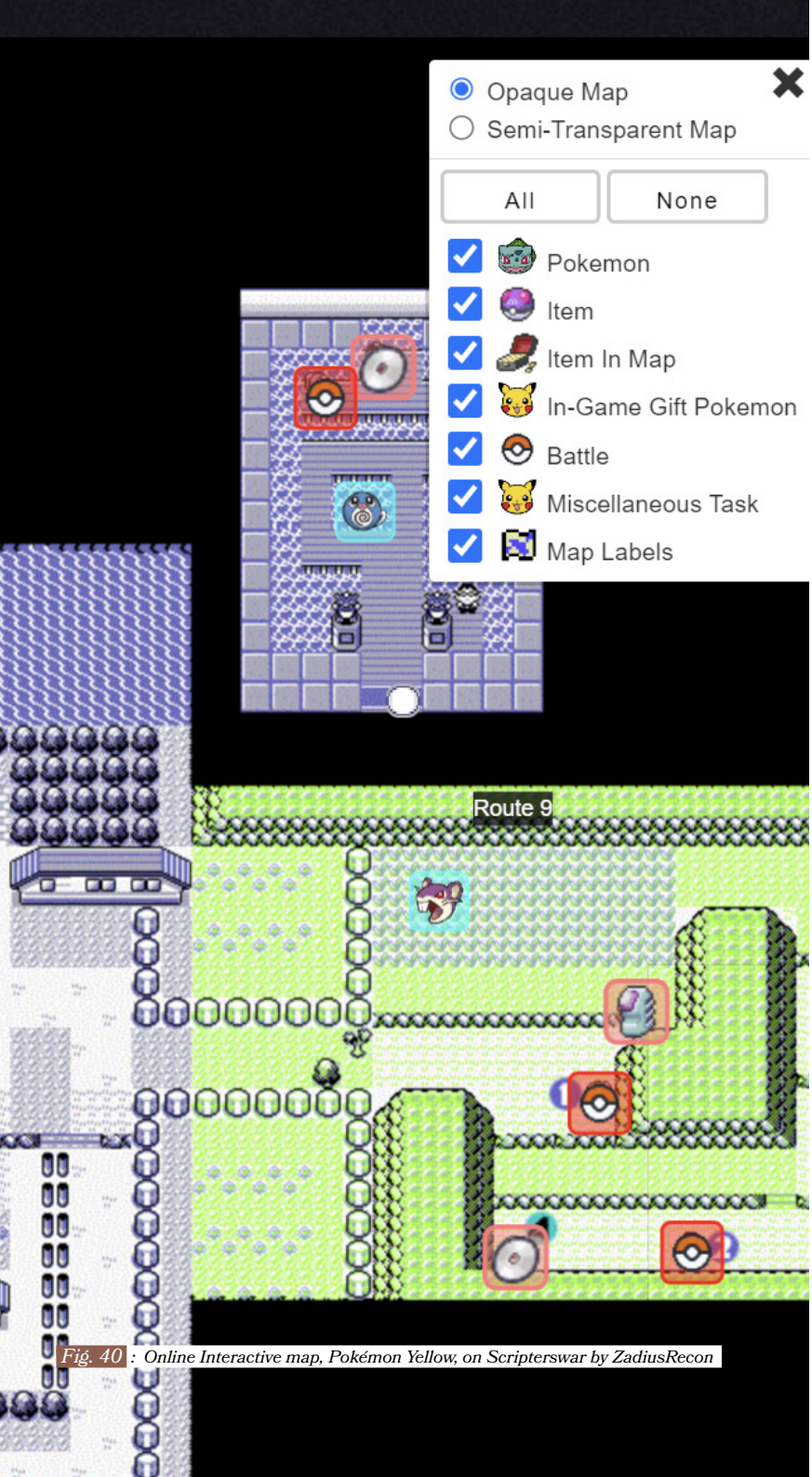


Fig. 40 : *Online Interactive map, Pokémon Yellow, on Scripterswar by ZadiusRecon*

Online Cartography

As discussed in previous chapters, online cartography platforms can also be included as potential tools for mapping. Their defining characteristics are the speed with which they can be updated due to their digital nature, and how they are frequently used by players as co-pilots for their adventures. However useful they may be, they lack the same level of personalisation or visual flexibility as other tools. Their reliance on standardised icons and pre-set functionalities often prioritises practicality over personal artistic choices.

find a loose syringe on a bench (it's probably fine). There are also a couple of stray boxes of handgun bullets lying around the park if you run a quick sweep.

There are **several different monuments to Silent Hill history** scattered around Rosewater Park. Most of them are only here to add texture, but one will become relevant later in the game. It's roughly in the center of the boardwalk, next to the concession stand, and **memorializes the people lost in some long-gone plague**. Make a note of it.

When you're ready to move on, **go to the boardwalk and walk to the end of its pier to meet somebody new**. Sort of.

Meeting Maria for the first time unlocks the **Uncanny** trophy/achievement.

Uncanny

Once you've made Maria's acquaintance, a previously locked gate on the boardwalk will mysteriously open, which lets you enter the west half of the park. She'll follow behind you for the next stretch of the game to offer color commentary.

There are a few more items to find on this side of Rosewater, like a box of bullets on the chessboards. The big find is a **Strange Photo**, which can be found in one of the seating areas that's built into the exterior hedges. As you leave the boardwalk with Maria, hang a right and you should see it immediately.

Strange Photo #14: "So far from home"

As you exit the park, you'll end up on Nathan Avenue. According to Maria, your next destination is to the south, which requires you to cut through the lot of the nearby Jacks Inn.

At this point, **you have a choice to make**. You can **go west to explore Nathan Avenue**, or go **straight to the Jacks Inn**.

Ending Discussion: There's Something About Maria

This section contains **mild spoilers** about SH2R's potential endings. Skip down to the next section if you don't want to hear about it.

You might've just met Maria, but as fans of the original game can tell you, **your relationship with her counts for a lot**. Heading down Nathan Avenue with her can have a significant impact on that relationship, which in turn influences what ending you get.

On the positive side, this is a chance to spend extra time with her, and Maria has a few interesting things to say about various locations on Nathan Ave. **It's worth making this run with her at least once**.

Fig. 41 : Written map guide for Silent Hill 2 remake by IGN

On the negative side, Nathan Avenue's got its share of dangers, including one of the nastier ambushes in the game. While **enemies usually ignore Maria**, it's easy for her to catch some stray hits in a pitched battle, and a Lying Figure might still try to grab her if it gets close enough. It doesn't seem like Maria can actually die from incoming damage, but it'll tank your relationship with her. **If you're trying to build points with Maria, it might**

Written maps :

Written maps are both analogue and digital. Their versatility allows for alternative approaches to map-making. Often known as *road map*s, they maintain a deep connection with traditional game guide magazines. They often provide players with detailed step-by-step paths to achieve a 100% completion. Just like receiving friendly advice from someone while navigating a city, these written cues provide support that closely resembles real-life oral guidance. These written guides also maintain similarities with map-based ones, often using game screenshots with annotations layered on top. These pictures very precise routes that allow players to fill their checklists in a specific order.

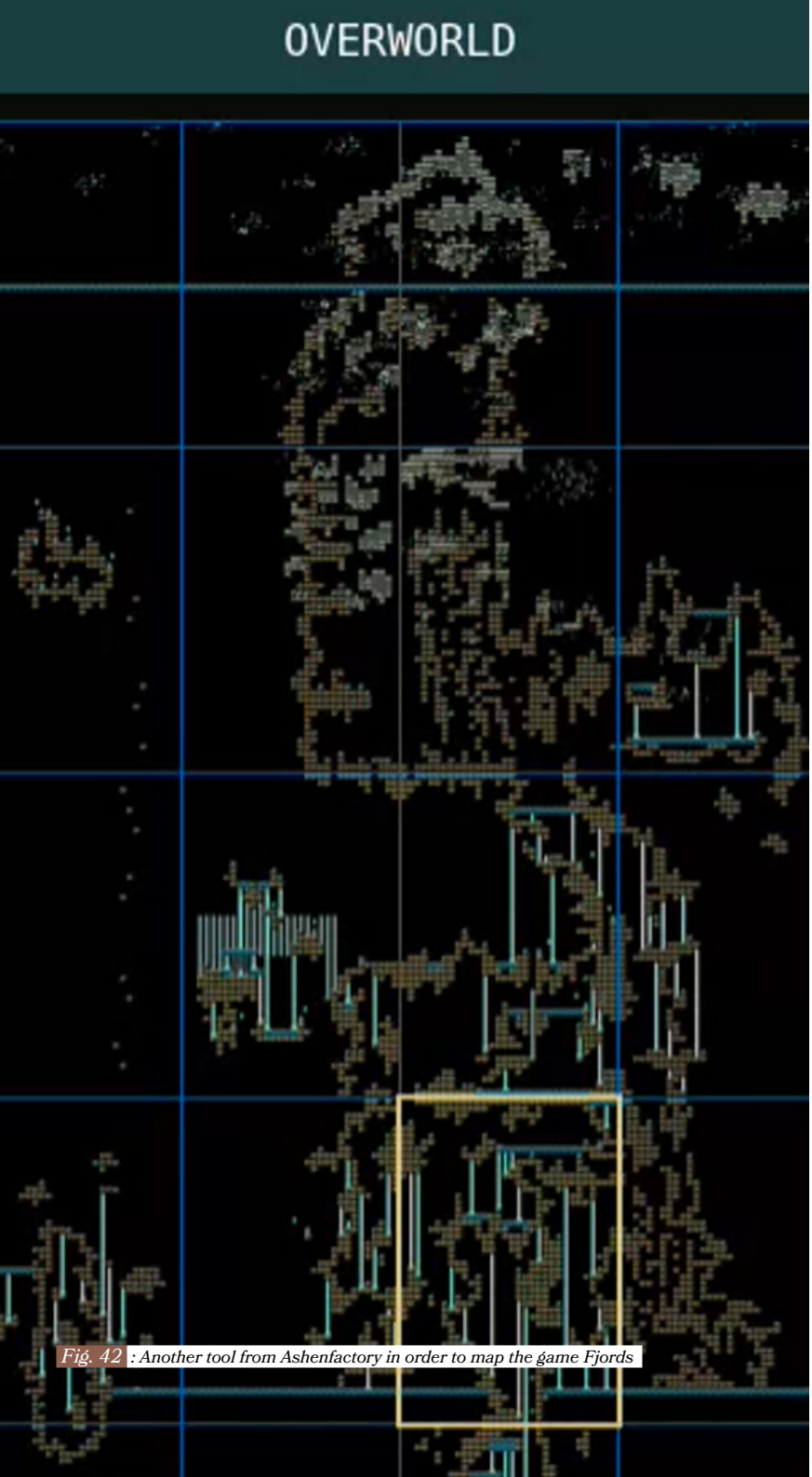


Fig. 42 : Another tool from Ashenfactory in order to map the game Fjords

Custom coded tools :

Custom coded tools:

After connecting with a member of the Sinclair Lore community, I was introduced to Ashenfactory, a dedicated player who developed their own mapping tools. These are good examples in how digital tools can blur the distinction between in-game and post-game classifications.

"(...) sure I could've saved time by using save states in some way too, but I was making it a point to power through the game on its own terms and just using the game's original manual for help.

While finding my way around I made a partial map on paper and another version in a Paint-like program. In both cases I ended up making errors because I got a little turned around with keeping track of my orientation and that was a big part of the inspiration for how I wanted the tool to work. I wanted it to function the same as traversing the dungeon in the game, so you could map it by moving a cursor with the arrow keys (or WASD) to go forwards, backwards and turn left or right." – Ashenfactory (Discord, 2024) -

Ashenfactory began coding their own tools to facilitate mapping in the RPG *Phantasy Star* (1987). They initially relied on analogue technologies such as pen and paper, but these proved insufficient to suit their needs. As they got lost in a difficult dungeon, their goal was to design a mapping tool that was as close to the in-game experience as possible, to be able to play and map in a similar way. While the tools are still in development, Ashenfactory wants to improve them for personal use and eventually share them with the larger community.

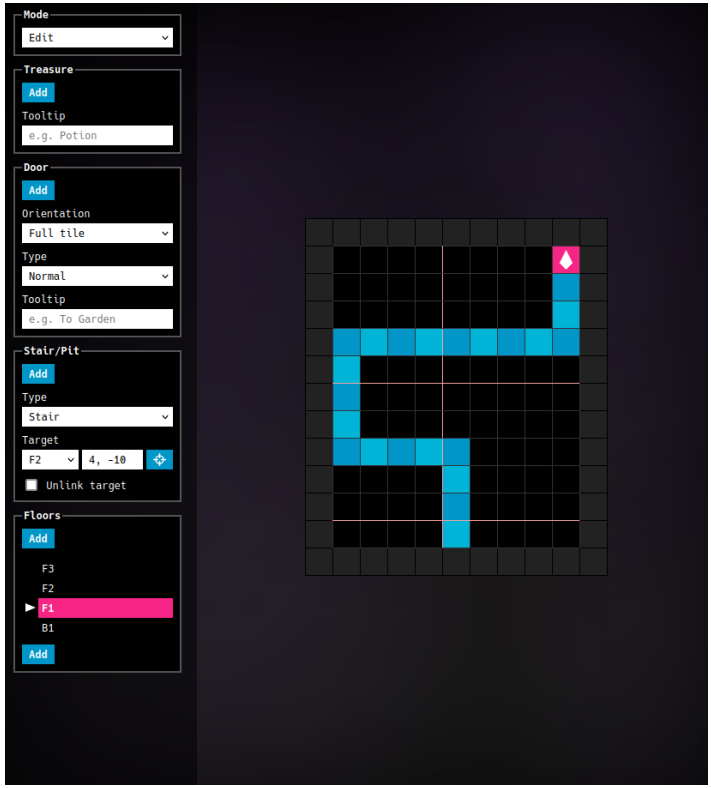


Fig. 43 : *Last update to their dungeon mapping tool with the addings of a UI.*

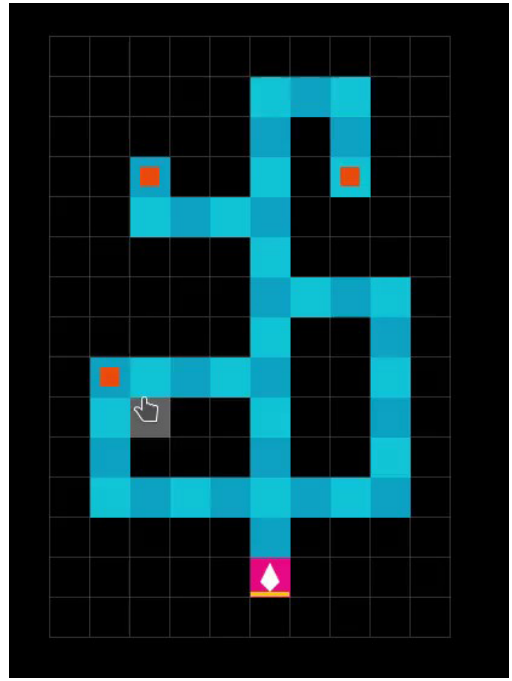


Fig. 44 : *First version of their custom tools*

During my research, I also had the opportunity to talk with Demajen, a well-known cartographer of *Metroidvania* worlds. As he explained in our conversation, producing video game maps shows the adaptability and porosity of cartographic methods. His approach blends software knowledge, manual craftsmanship, and playing, illustrating how mapmakers switch between methods when tackling certain obstacles.

The procedure begins by playing and recording a game, followed by rewatching the recording at double speed. It also involves meticulous note-taking and progressive map building, which can take much longer than playing the game itself. Demajen puts it as follows: "*It's basically: 1. play the game; 2. watch myself back playing the game; 3. add stuff onto the map as I go*."

For grid-based maps, Demajen uses Photoshop 2019. While he owns other programs like Affinity Designer, familiarity with Photoshop drives his continued use. "*I have a few template rooms of appropriate sizes... it's a case of literally duplicating and aligning each room to a grid in Photoshop,"* he explains, highlighting the time-consuming but rewarding nature of his process.

For file extraction, he employs AssetStudio for Unity and uModel for Unreal Engine, while also relying on freecam tools from modloaders like BepinEx or MelonLoader for games where direct file access is limited. As he notes, *"For games like 'Voidwrought,' this allowed me to take control of the game's camera and zoom out or pan around."*

This openness to adapting tools is not merely pragmatic but essential. The ability to switch between detailed file extraction and manual composition, highlights the importance of adjusting workflows to particular game requirements. Demajen's approach to cartography demonstrates how maps are created by fluidity and integration rather than strict boundaries. His workflow illustrates a porous system in which tools and processes are repurposed, reinterpreted, and integrated to generate functioning maps.

Here, we can observe that a distinction between analogue and digital tools is possible. Despite their similarities, they do not represent the same artistic approach. Analogue tools bear a stronger resemblance to traditional illustration, as they demand more intricate drawing techniques to create maps. However, they allow for greater flexibility in visual language and interpretation. Digital tools, on the other hand, enable users to extract or replicate maps directly from games, which aligns more closely with McIver Lopes' definition of computer art. In some cases, resulting in interactive works that function "*via computers*".

Within digital tools, two distinct approaches can be identified, which may be used independently or in combination. In-game tools use the medium's interactivity, allowing players to alter or manipulate the game environment, revealing information that was previously hidden from players. Meanwhile, post-game tools, benefit from contemporary digital illustration techniques. They can provide an accurate representation of these locations, as well as a personal interpretation using image processing software.

Amateur maps are copies of game worlds; the methods used to produce them tell as much about the tools and philosophies behind their development as the games themselves. By studying the cartographic tools available to players, it becomes clear that they shape not only the aesthetics of maps but also the gameplay experiences they represent. From the intimate hand-drawn maps to the sophisticated interactive online maps, each era of mapping reflects distinct practices and technological possibilities.

8 Video game specific websites that serve as tools for communities to share around their favourite games.

9 A Reddit thread refers to a series of connected posts and comments that stem from an original post. This original post is called the “OP” (Original Post or Original Poster) and serves as the starting point for discussion.

10 A dungeon crawl is a fantasy RPG scenario where heroes explore labyrinths, fight monsters, solve puzzles, and collect treasure. Well known ones are the Wizardry franchise.

11 A game asset is any resource used in video game development, such as 3D models, textures, sounds, or music, created by various professionals.

12 The name of the main Bloodborne city you travel throughout the game.

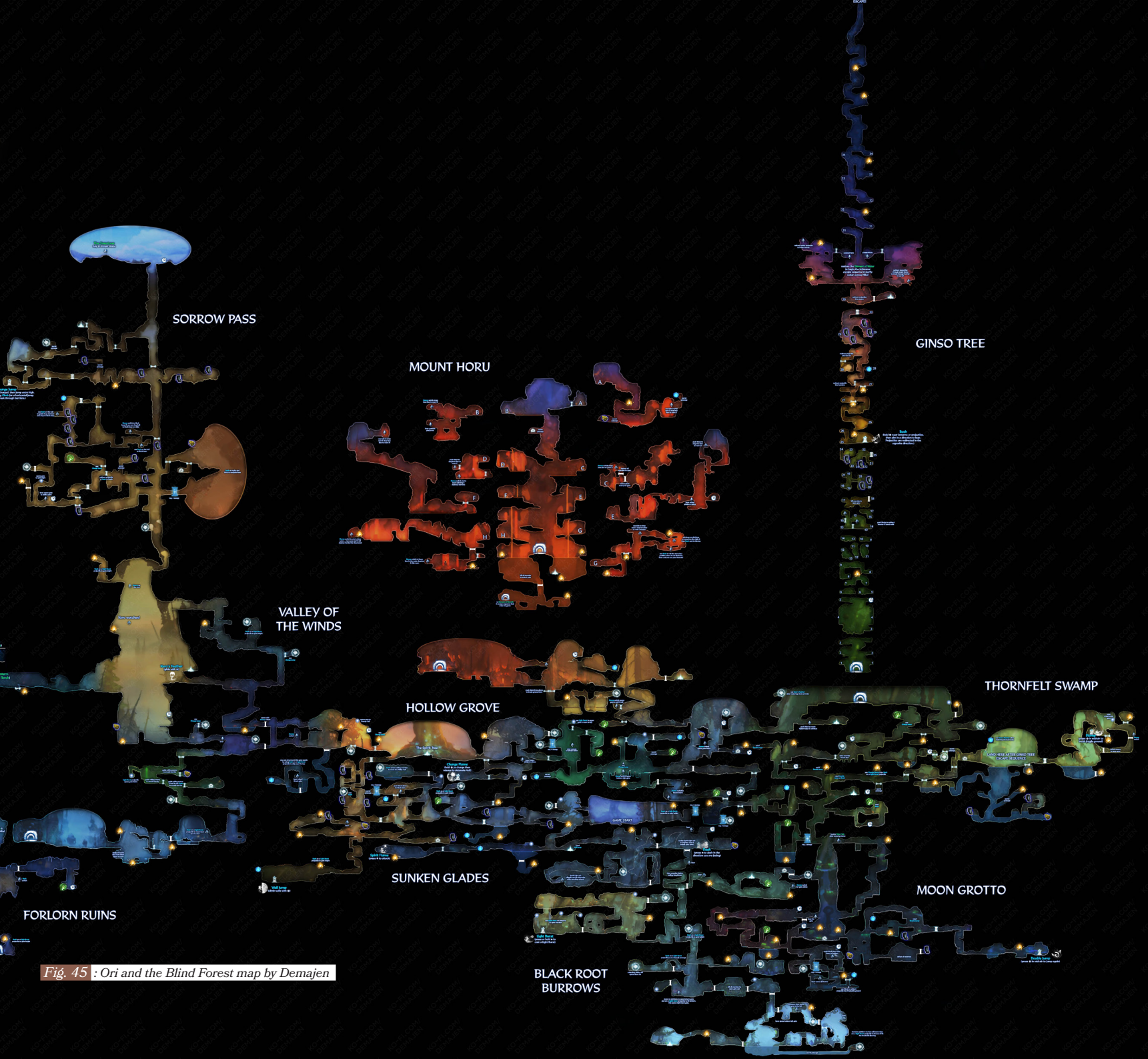


Fig. 45 : *Ori and the Blind Forest map by Demajen*

III
CASE STUDIES



The chapter features two case studies: Building upon Building upon previous section, the first one delves into players' behaviours and the use of map types in games, resulting in a catalogue of my games, that were reviewed using this classification system. The other examines Hidetaka Miyazaki's game design and interactions with fans. The studies aim to enhance understanding of gaming concepts and incorporate metagaming ideas into modern productions, building on previous research. Miyazaki's approach and connection with fans will be explored further within the context of FromSoftware's games.



Fig. 46 : Elden Ring : Mountain top, reworked by Spam

Curating Video Game Maps: a test run

Utilizing the theoretical framework from the first chapter, I integrated various studies to analyse the significance of maps in gaming as tools and products of metagaming activities. Using Richard Garfield's idea of metagames, which involve using outside knowledge to impact gameplay, Dominic McIver Lopes' assertion that art is interactive because it runs on a computer, and Ross Thorn's classifications (*Interactive, Immersive, Incomplete, and Interpersonal*) for understanding maps in games usefulness and playfulness, I created a structure for classification. With these sources, I developed a system for cataloguing my personal collection of maps into five specific groups, establishing a metalanguage for analysing them.

This catalogue aims to provide a structured system for organizing different types of video game maps, as well as a framework for analysing their functions, styles, and effects on gameplay. This typology could offer insights into how maps can enhance immersion, strategy, exploration and how players experienced them.

By integrating the first five map types I got as a first output, with Ross Thorn's "*4Is*" framework, a nuanced typology emerges. This synthesis captures their multifaceted roles, blending functionality, creativity, and social interaction.

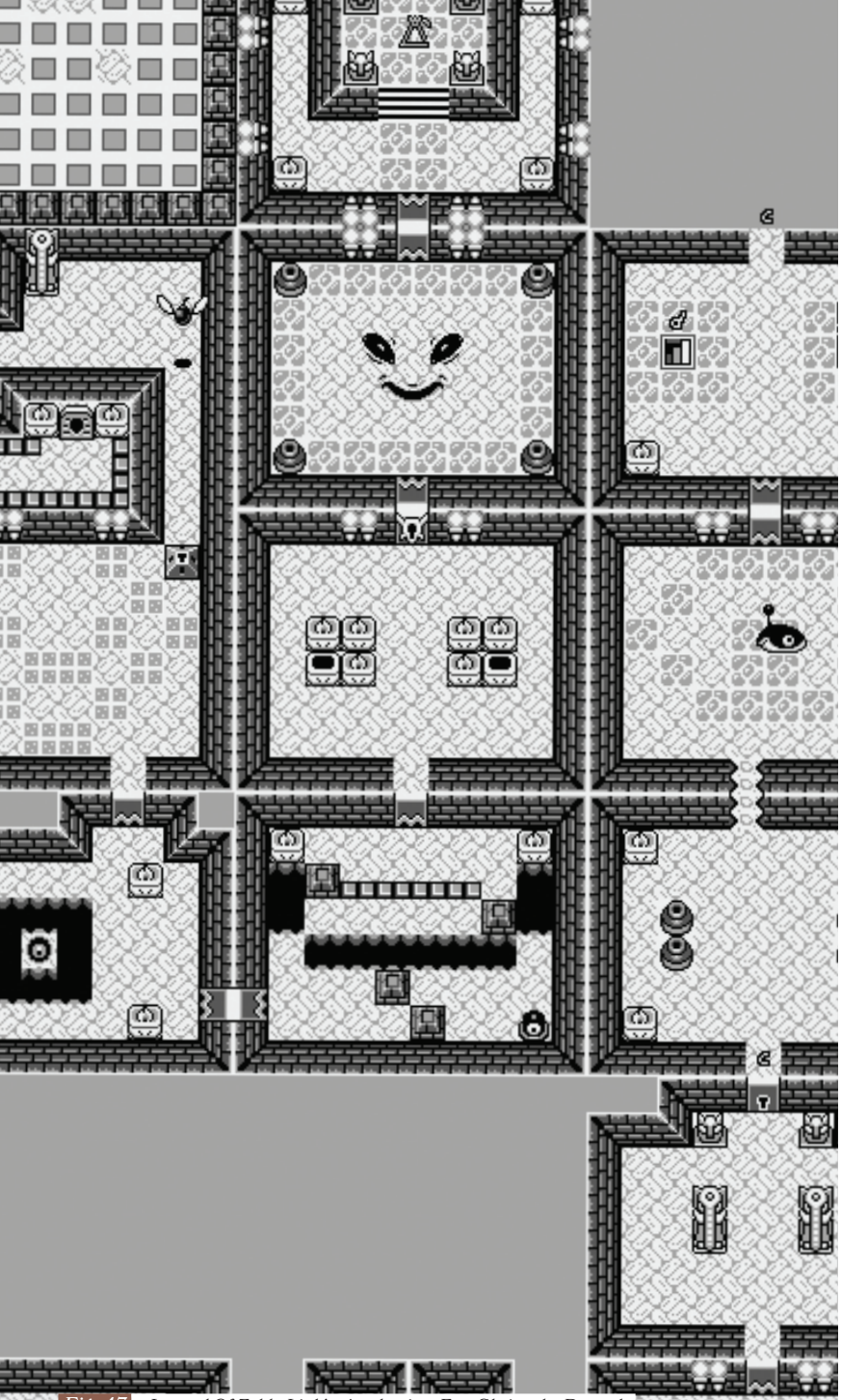


Fig. 47 : *Legend Of Zelda Link's: Awakening, FaceShrine, by Revned*

I

First category is Immersive-Explicit Maps. They are unaltered layouts and visual representations of game environments. Often pure data ripped directly from game files or sometimes screenshots, they strengthen the connection between players and the narrative by presenting game worlds in their most accurate form. This highlights the role of maps in increasing immersion while maintaining the artistic integrity of games visual design. Like other digital art forms, they are the direct representation of the game's visuals, removed from their interactivity, offering a static overview and intimate experience with the map or level design of a game.



Fig. 48 : *Silent Hill 2, Lake View Hotel, by VGCartography*

II

Immersive-Complementary Maps encompass comprehensive guides aimed at revealing every detail. They immerse players in the world's lore and mechanics while satisfying completionist tendencies. This shows how maps can fuel curiosity, offer players a way to fully uncover hidden elements, and how they could represent a player's in-depth exploration of a game. They reveal the meticulous process of dissecting every corner of a world, which is then transcribed in the most exhaustive way possible. They also reflect the community's effort in sharing secrets, as well as the desire of those who use them to gain a complete and precise view of the layout of hidden in-game objects.



Fig. 49 : Hand drawn Skyrim map, by Reddit user TheGorilla0fDestiny

III

Incomplete-Emotional Maps reflect the player's most personal interpretation of these spaces. They remain open-ended and often unfinished, shaped by direct and often solitary gameplay experiences. They can simultaneously reflect the map's unrefined, exploratory nature and a precise, personalized artistic vision, highlighting curiosity and individual creativity, akin to hand-sketched maps. Becoming personal artifacts that document a player's unique experience and personal emotions.

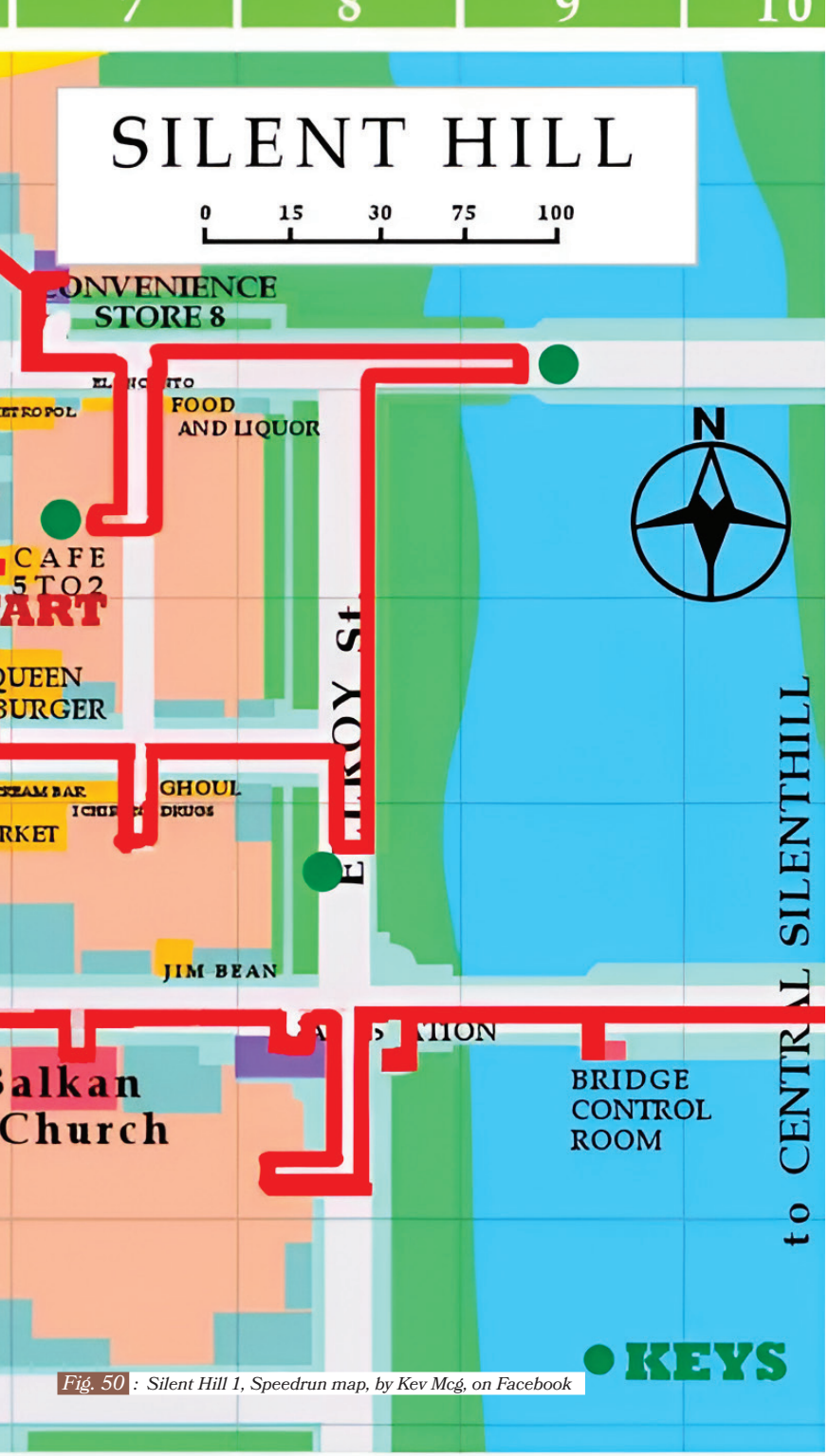


Fig. 50 : *Silent Hill 1, Speedrun map, by Kev Mcg, on Facebook*

IV

Interpersonal-Optimized Maps often revolve around the shapes of speed-run guides or resource farming strategies. They increase engagement by adapting to evolving challenges and objectives, making them an active part of gameplay strategy. This demonstrates how maps can directly impact players' performance and efficiency in gameplay.



Fig. 51 : *Borderlands : Interactive Map, on Mapgenie.io*

V

Finally, Interpersonal-Interactive-Networked Maps represent players' collaborative efforts to build around shared resources. Interactive platforms demonstrate how mapping promotes social dynamics and collective creativity, bringing players together to achieve shared goals, highlighting the most straightforward aspect of communities' actions. These maps can also be considered interactive, hosted on websites and requiring a computer or smartphone to access the experience. As Ross Thorn's *"Interpersonal playful maps"* are here to showcase the collective nature of online games maps; this Interpersonal-interactive category shows how maps can also offer a deep multiplayer experience to offline games.

To try out each one of the above categories and see how they could highlight the multifaceted role of video game maps, it seems useful to run a test based on a collection of video game maps. That is why I chose a personal selection of my own favourites found during my research. This approach led to the creation of the catalogue included with this thesis.

Based on that section of the research, it can be concluded that:

Maps in gaming represent creativity and interactivity, whether used for personal exploration, teamwork, or strategic planning. In the upcoming chapter, I will explore how Miyazaki and FromSoftware show this evolution, with map and game design becoming a crucial tool for immersing players, promoting exploration, and pushing them to fully engage with their game worlds.

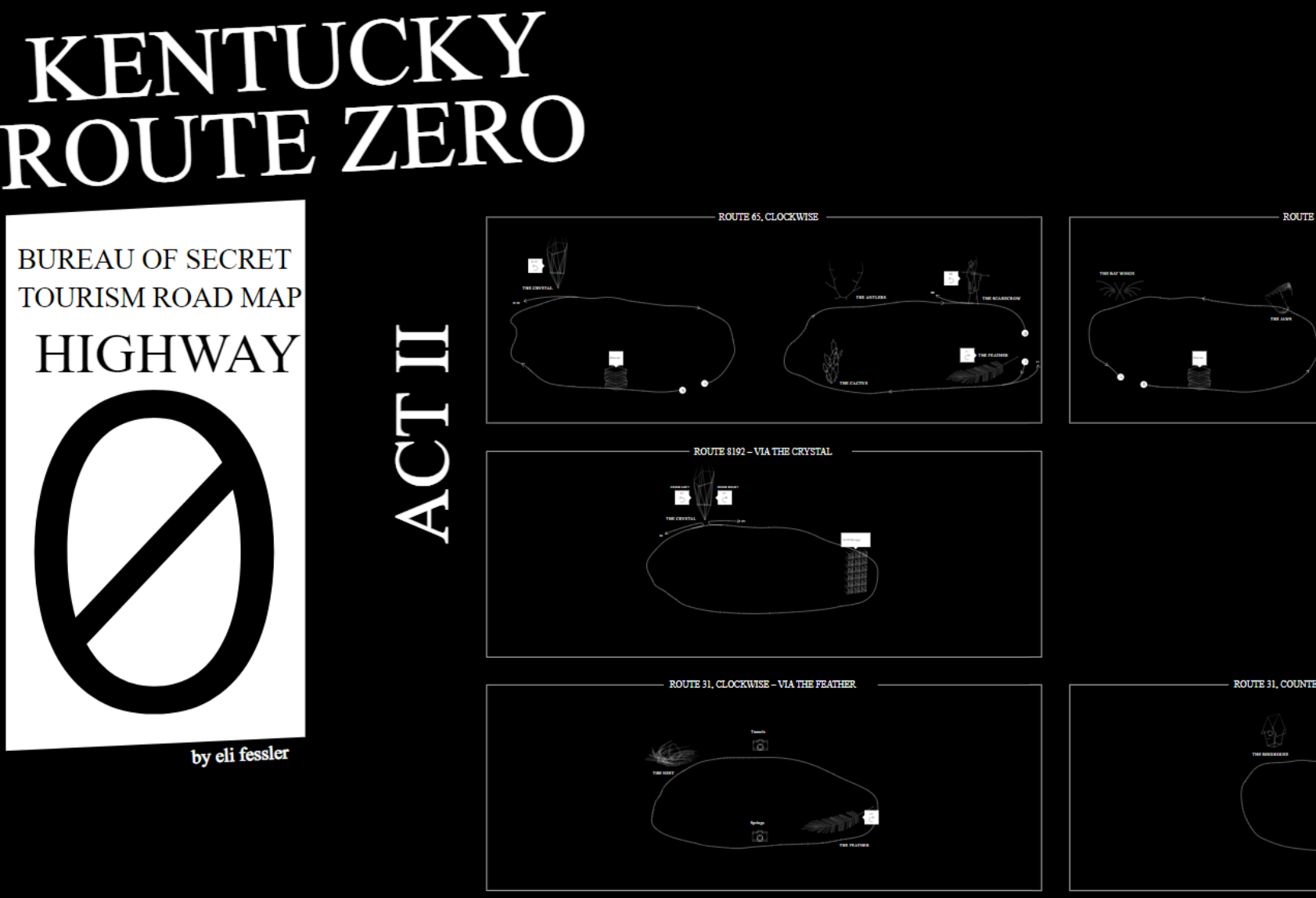


Fig. 52 : Kentucky Route Zero, Interactive Road Map By eli fessler

FromSoftware's Metagaming Rooted Mechanics

As stated in the first chapter, Hidetaka Miyazaki is a designer who actively participates in metagaming. His games, defined by their hidden narratives, intricate world design, and difficult mechanics, have evolved into their own genre, the *Soulslike*, or sometimes called *Soulsborne* games (a blend of *Dark Souls* and *Bloodborne*). These games encourage players to use their imagination to map out the missing pieces of the story. Mapping, in this context, goes beyond geographical space; it's about creatively bridging narrative and worldbuilding gaps. This mirrors Miyazaki's childhood experience of filling in stories with his imagination, which now extends to how players interact with his games.

Miyazaki's approach pushes the fundamental concept of in-game maps further, shifting the focus to the act of mapping itself. Rather than simply acting as boundaries, maps become tools to navigate both the physical and narrative landscapes. By hiding the maps in most of his games, Miyazaki challenges players to craft their own paths. Players must rely on their own instincts and creativity to understand their positions, the world around them, and the hidden stories within it. Miyazaki's game-design philosophy transforms these maps into objects that blur the line between players and their virtual characters. They become explorers of the unknown, so they can orientate themselves and uncover hidden narratives.

Here, mapping allows us to transition from the direct experience of playing to a more analytical and exploratory viewpoint of the game world. Whether physical or digital, maps define spatial boundaries in imaginary worlds and provide clarity for navigating them. Maps become artefacts of play, embodying the creativity, effort, and collaboration players invest in unravelling the mysteries of their favourite games. They reflect a desire for deeper engagement with the game world and its community, blurring the line between the virtual world and reality.

The interaction between the game and its fanbase defines the *Soulslike* genre's cultural significance. Communities don't just consume content; they actively shape the understanding and longevity of these games.

By rarely conducting interviews, Miyazaki reinforces the idea that the lore is for players to discover on their own. His games provide them with small clues, such as environmental details, item descriptions, and cryptic NPC (Non Playable Characters) dialogue, to help them piece together their discoveries and fit them into the larger story.



Fig. 53 : bloodborne all bosses speedrun by Ahady

"I'm very well aware of how players are enjoying the speed runs. I would like to correct that I'm nowhere near perfect and that was nowhere near what I was aiming for or expected. That was actually behavior by the consumer base that I did not anticipate. I have watched those and I actually enjoy that kind of...almost... interaction, in some ways and that is also at the core of my thinking or philosophy upon game design."

– Miyazaki (IGN, 2024) –

Miyazaki describes how he enjoys seeing players find their "way or interpretation" within his worlds and embrace the unexpected paths he creates for them. He admires how fans work together to create content using shared theories, speed runs, and online platforms. His works promote hidden worldbuilding as a key element of modern game design and express a deep envy for seeing the community take the creative lead in their interpretation of a story.

"Of course, there are areas or storylines for example that I would like for the users to experience or take away from Bloodborne, but there's always kind of a thought that it would be interesting from my or the team's point of view as well, where the gamers take it and how they get creative and how they want to play."

– Miyazaki (IGN, 2024) –

FromSoftware has been a significant presence in the video game industry for many years. However, a major shift occurred in 2014, following the success of *Demon's Souls*, under the leadership of Hidetaka Miyazaki. This marked a drastic change in the studio's approach to gameplay and its use of metagaming elements.

One notable aspect of FromSoftware's games, particularly in the *Soulslike* series, is Miyazaki's ingenious approach to map design. The intricate, maze-like environments are more than just backdrops for the action; they are an important part of the player experience, acting as both a primary source of challenge and a vehicle for discovery.

"Another key principle of picturesque design was laid out by landscape architect William Shenstone in the mid-18th century, that "the foot should never travel to [the object] by the same path which the eye has travelled before." This concept – that one should never reach a scenic destination in the distance via a direct route – could also serve as a clear summary of Dark Souls' approach to spatial design."

– Pearson & Youkhana (Videogame Atlas, 2022) -

These games, *Elden Ring* being a new exception, change traditional User interface by eliminating clear directional markers and detailed mini maps. Instead, Miyazaki focuses on environmental design to guide players by getting rid of all kinds of potential map guidance. He created a sense of wonder and discovery in his work that was lost in most recent triple A games.



Fig. 54 : Dark Souls, Blightown. An area were dodging is dying.

"Tension is elevated through the sense that not only the enemy but also the architecture around the player is trying to defeat them."

– Pearson & Youkhana (Videogame Atlas, 2022) -

As environments serve both as an enemy and an ally, players are required to engage with them to progress. Success relies on exploration, memory, and the shared knowledge of online communities. One example is the various narrow shortcuts players must traverse in these games, often while being attacked by an enemy. These shortcuts change the gameplay by punishing players who attempt to dodge an attack, causing them to fall, but often rewarding those who succeed with powerful objects or save points.

""Bloodborne" for me is a near perfect union of map design, combat systems, and storytelling/atmosphere/tone, (...) For me, the best Soulslikes (and, arguably, metroidvanias) are the ones where you suddenly find yourself linking back up to an area from hours before and that "Holy shit!" moment"

- Demajen (Interview, 2024) -

Bloodborne has its unique way of building its world around map and level design. The city of *Yharnam*[12] itself is more than a setting, it is a living entity, filled with architectural and environmental cues that hint at its cursed history. The game's gothic environment hides itself by not providing players with any maps. The developers have had to create maps for themselves to build their world but chose, as a deeper game mechanic, to hide them. From the streets of *Yharnam* to the very end, the game world guides you through its narrow environment and the use of well-built scenery, which serves as an indicator for the next area you need to reach.

"Much of this direct relationship between direct view and indirect circulation is enhanced by 'borrowed scenery' or shakkei, a term derived from Japanese garden design that describes techniques for incorporating distant views into a design."

– Pearson & Youkhana (*Videogame Atlas*, 2022) -

Bloodborne's narrative, like its mechanics, challenges simple interpretations. Its fragmented storytelling echoes Gothic horror and cosmic dread literary traditions, encouraging players to work together to establish meaning.

Items in *Bloodborne* are important artefacts from the vast and intricate myths that manifest throughout the game. Each object, from weapons and armour to consumables, has a description that reveals fragments of the game's lore. Frequently placed in the line of sight and scattered throughout the world, they serve as indicators that an unexplored area is nearby and act as rewards for exploration.

According to ALT 236, the monocular, for example, has "*no other utility than to allow us to admire the landscapes, to try to understand how the city is laid out.*"(2017) It is a source of reflection, inviting players to pause and immerse themselves in the layered world, where every element, from Gothic spires to labyrinthine streets, contributes to the oppressive, nightmarish atmosphere.

Even the player's actions have symbolic meaning, as they play roles such as "*archaeologist*", sifting through fragmented clues, or "*initiate*", enduring trials to uncover hidden truths. In *Bloodborne*, nothing is purely functional; everything, from objects to architecture, has a storytelling purpose.

Members of the Sinclair Lore community exemplify this with a live-streamed discussion over an hour long (YouTube, 2019), exploring together the theories about *Bloodborne*'s map. They uncovered numerous hidden narrative elements by comparing the in-game designs with early drafts displayed at a FromSoftware event in Tokyo. This event showcased initial map designs and concept art for *Bloodborne*, offering a glimpse into the game's developmental process.



Fig. 55 : *Bloodborne monocular*

"Very often, the more hidden an item is and the rarer it is, the greater its value. The reward is the incomparable feeling of laying your hands on an artefact that few have managed to discover... [13]."

- ALT236 (YouTube, 2017) -

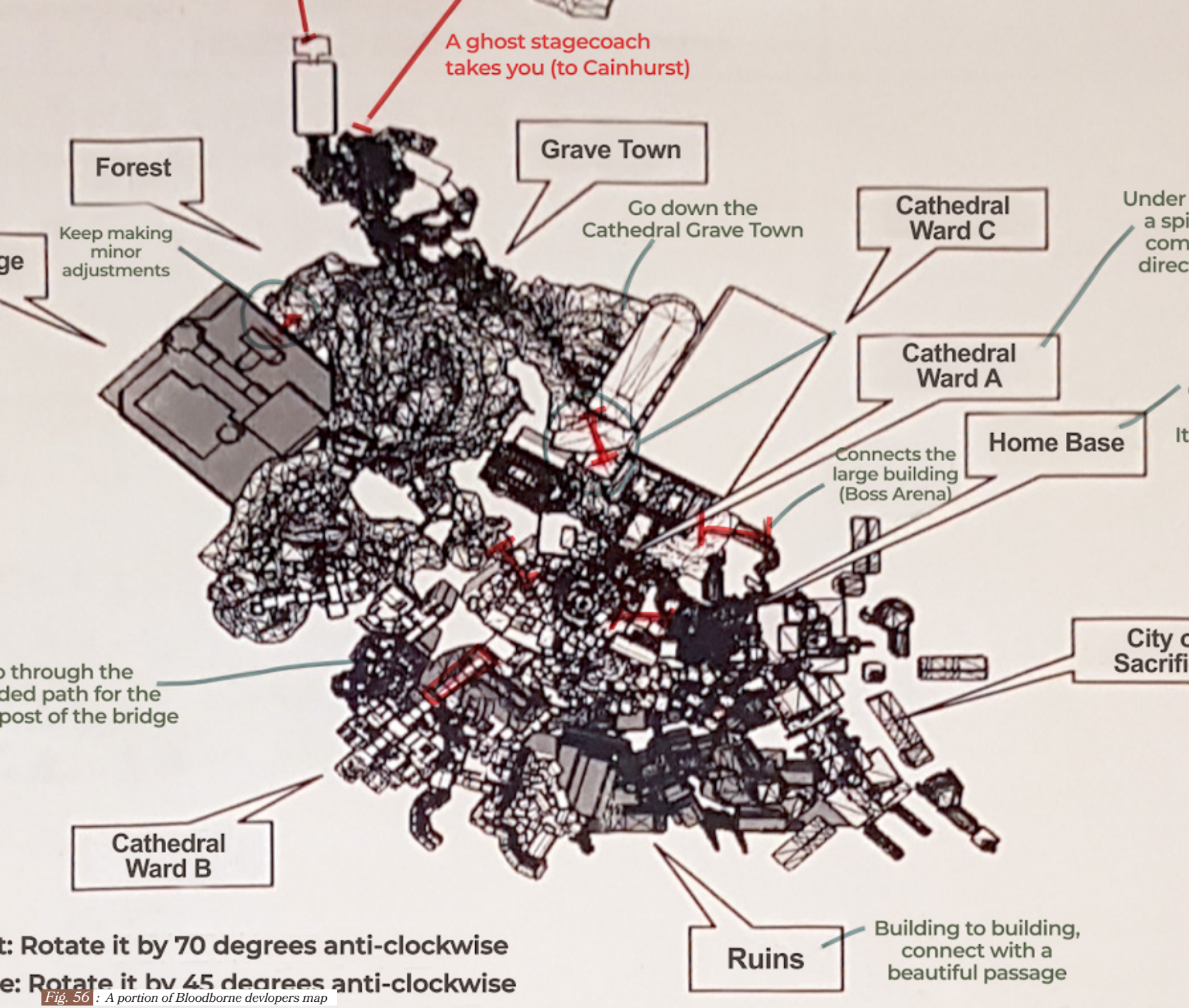


Fig. 56 : A portion of Bloodborne devlopers map

The lack of traditional fast-travel systems in many From Software games emphasizes the importance of understanding map layouts. With only a hub that allows you to travel to previously known locations, and only names to hint at what they are, players are encouraged to memorize routes, find shortcuts, and navigate their way back to specific locations to complete questlines. This encourages a deeper engagement with these games' surroundings; each step becomes part of an important learning process. The joy of finding an unexpected shortcut or a hidden "*bonfire*[14]" feels rewarding, not just in the context of the game, but also within the community. This sense of reward is an important aspect of metagaming's appeal. It is a reward both within the game and through peer approval.

The invasion, summoning[15], and cooperative mechanics require a solid knowledge of level and map design. Players who invade other worlds frequently use their knowledge of map layouts to ambush opponents or take advantage of the environment during combat. Other players in cooperative modes, rely on clear communication about map routes and objectives to help others progress through challenging environments.

Fast forward to February 2024: From Software, launched their highly anticipated new title, *Elden Ring.* With this new open world formula, From Software not only captivated long-time fans of the *Souls* series but also succeeded in attracting a whole new player base. A game that promised to be larger, deeper, and more immersive than anything they had produced before.

The scale of *Elden Ring*'s open world, combined with From Software's signature challenging gameplay and rich storytelling, drew in countless players. Moreover, the game truly opens itself with the work of millions of people on online maps. Discovering in a few days only, thousands of hidden details and objects that populate this virtual world.

This brings one of the most striking features of *Elden Ring* compared to other franchises made by the studio. Beyond being their first truly open-world game, it brings an ingenious integration of old-school map design into a modern open-world setting. Unlike many contemporary games that rely heavily on detailed mini-maps and constant guidance, *Elden Ring* encourages exploration and discovery through a more traditional hand-drawn approach reminiscent of classic maps.

The world map in *Elden Ring* is vast and filled with intricate details, yet it does not spoon-feed the player with explicit directions or markers. This design decision serves two purposes: it provides players with a strategic advantage by mastering the map, which can provide a clear advantage in navigation and resource management, but it also delivers a supplementary sensation of playful satisfaction, particularly once the game is completed.

The sense of wonder and mystery is tangible, as each discovery feels earned rather than given away. As players explore the diverse landscapes, from a completely hidden underworld area to icy cold mountains, they naturally learn to recognize and remember key locations in order to navigate the lands.

This approach to fictional maps is similar to classic Tolkien's Middle Earth map (1953). Both maps engage their users beyond practical navigation. Both are also acting as tools for in-depth exploration of the fictional spaces they represent, whether using writing or by action. They give a sense of scale and anchor these worlds into a tangible space. *Elden Ring*'s map invites players to discover metafictional layers of meaning in the game world.

Given these mechanics, these games encourage players to seek out external resources like community forums, detailed fan-made maps, YouTube walkthroughs, and storytelling by people like VaatiVidya and EpicNameBro. Some players even become their own cartographers in the hopes of understanding the vastness and complexities of these worlds while being rewarded both virtually and online for their findings.

These maps, which can be found on platforms like Reddit and *Bloodborne*-wiki, highlight key locations such as boss fights, treasure chests, hidden areas, and rare items. For example, *Bloodborne*-wiki offers detailed maps of each level, guiding players through precise navigation, which frequently leads to the discovery of hidden areas. On Reddit, players share interactive guides and communicate with one another to help them navigate the dangerous streets of *Yharnam* or the labyrinths of the *Nightmare of Mensis*.

Fextralife and MapGenie are also popular resources that provide detailed and interactive maps for FromSoftware games, allowing players to zoom in inside the maps, search for specific locations, track their exploration progress, and gain a sense of the scale that the game hides.

In this way, map knowledge is not just a personal accomplishment but also a key element in the competitive and cooperative aspects of the game. Knowledge of the maps brings both direct and indirect rewards. It is an important part of the gaming satisfaction. Knowing them is more than just defeating a boss, it is about overcoming the game's very concept, which is hiding an abundance of information from us. The incorporation of cartographic mechanics favours both a sense of strategic mastery and increased playful engagement, emphasizing the significance of maps as both tools and sources of wonder in *Elden Ring*'s precisely crafted universe.

Elden Ring's map made me realize that video game worlds and maps could be intricate with gameplay. The vibrant communities found on video game forums show a strong commitment to this gameplay style. They not only improve gaming experiences, but they also add to the history and appreciation of video game universes.

Players work together on forums and in discussions to build a more comprehensive, coherent understanding of the game's mythologies. This decentralized storytelling approach is another layer of metagaming, echoing Richard Garfield's observations. FromSoftware's legacy extends beyond its gameplay to how it creates a culture of discovery, collaboration, and creativity from their games. Every item, from weapons to telescopes, becomes a piece of the puzzle that connects the game and its players. Their games embody metagaming with their layered design and narrative opacity, transforming players into explorers, initiates, and storytellers.



Fig. 57 : *Yharnam prior to the scourge of the beasts (Bloodborne)*

13 «Bien souvent plus l'item est caché et plus il est rare, plus sa valeur est grande. La récompense, c'est ce sentiment incomparable de mettre la main sur un artefact dont peu ont trouvé le chemin...» -ALT236-

14 Bonefire are the save points of these games.

15 Summoning is a multiplayer feature where players use in-game objects to call others into their game for help with exploration or combat.

CONCLUSION



What I have learned and how I apply it today, as well as how to relate it more deeply later with my game design and interaction design practices.

Using Richard Garfield's definition of metagaming, I now see better how guide maps could be seen as artifacts that translate user experiences of virtual worlds into tangible outputs. They are more than just navigation tools; they capture and document how players interact with a game. To me, these maps represent personal choices, creativity, strategies, and participation within game worlds.

A recent survey (Chartier, 2022) reveals how maps designed to accompany now-classical works of fiction blur the lines between literature and reality. Here, maps serve dual roles: the first, called ekphrasis, is a vivid description of the fictional worlds they depict, complete with locations, characters, and objects. The second, known as supplement, guides readers toward new interpretations of the narratives and invites them to engage in play. If an artefact can represent the world of a story and inspire action beyond a book, it is unsurprising that it also has the power to enhance video games. Maps, therefore, emerge as a key medium for describing a game's world and amplifying its gameplay experience.

In conclusion, it is amazing to see the impact of the maps generated by these communities in the fields of game design and game studies. These objects detail the paths and experiences of players from around the world, making them accessible to a wider audience and illustrating how video games can enrich our creativity. These maps serve as effective tools for analysing the gaming experience, whether their creators are amateurs or experienced.

Some games, like FromSoftware's one, cannot be fully understood without player-generated content. These resources are essential for understanding certain aspects of the game worlds and experiences, as they often act as external tools that help players to navigate within them. This creative and playful approach is now used by many and is an integral part of the gaming pleasure of video games. In addition to their practicality, these maps attest to a deep desire to belong to the large community of players, where people act towards collective goals and in return have the joy of contributing to the whole.

I see these maps as similar to performance art scores. Just as a performance is recorded or crafted in a personal, hand-drawn language and then shared publicly, maps capture dynamic experiences in a static form. This connection to performance art, combined with McIver Lopes' insights on interactive elements in video games, highlights the full potential of certain maps, such as the one from Elden Ring, as computer art works. They blend interactive gameplay with the expressive use of digital assets, transforming hand-recorded gameplay into a lasting artistic medium.

Their value goes beyond practical use, offering a resource for preservation and study. Like curated art exhibitions, game maps could showcase the creativity of gaming communities. Preserving these maps could highlight their cultural and artistic significance, documenting the evolving relationship between games and players. With thoughtful curation, guide maps can spark discussions about their role in gaming history and their potential as a distinctive form of artistic expression.

Here, the narrative and interactive poles of video games converge through the creation of maps, which serve as both storytelling tools and interactive objects. They become part of the game's experience, blurring the line between static representations and active elements that shape how players explore and interpret video game worlds.

Personally, I would like to emphasize my amazement at the iceberg that I found myself in while browsing forums, facing the diversity of these maps and their constant production. Among the maps found during this research, only a tiny portion of them could be mentioned in this writing as well as in the catalogue.

Moreover, I never anticipated meeting individuals like Ashenfactory, with whom I could have such meaningful exchanges. Having the opportunity to become part of the SinClaire Lore Discord introduced me to a community that is compassionate and friendly. Being able to communicate with Demajen and Ashenfactory has been extremely enriching; I am happy to be able to continue these exchanges. Demajen's maps have a significant influence on most players, and I am eager to witness the rise in popularity and advancement of Ashenfactory's interactive maps. However, I wish I could have met additional mapmakers and interacted with Marie Foulston; maybe these will be possible as a continuity to this research.

As a designer, I aim to forge connections between the dynamic interplay of game design, player communities, and the tangible outputs they produce. These elements often appear at odds, one being highly structured and the other unpredictable and player driven. My work seeks to embrace this duality, using gaming artifacts to enrich and expand the boundaries of interactive design.

I am increasingly aware of how creative fields, especially within game design, can perpetuate systems focused on profit and efficiency, often at the expense of personal expression and player agency. My ambition, similar to Miyazaki, is to challenge this paradigm by creating projects where the fictive world acts as a medium for dialogue between designers and players.

As part of my master's program, I aim to refine my game design practice by incorporating metagaming into a possible narrative-driven video game project, where the map is not only a geographical tool but a core gameplay element. The game would revolve around navigating an expansive, mysterious sea, where players uncover hidden locations through the act of drawing and modifying their map using a computer mouse or drawing tablet. This mechanic blends metagaming with exploration, as players' creative actions directly influence the game's world and narrative, revealing a fragmented story.

What interests me about this approach is how the map itself could transform into a narrative device. As players chart their course, it becomes a dynamic, evolving artifact that holds discoveries, secrets, and personal reflections, engaging players in shaping the story. I would like to explore with this project how game design can merge geography, storytelling, and metagaming. This project would use low-poly aesthetics within Unity, providing an approachable visual style while emphasizing the meditative, reflective aspects of cartography and gameplay.

During my first year of the master's program, I had the opportunity to produce and exhibit a "drawing assistant" for Caran d'Ache. Named Suètone, this object is placed on the drawings created by visitors, generating a sound composition based on the colours used on paper. For my second project concept, I would love to create an interactive wooden game that interacts with a map, exploring the translation of a fictive world into sound. In other words, my goal would be to capture and represent the metagame experience through sound, translating the elements of the game world and the player's journey into an auditory experience.

Instead of focusing solely on the visual and geographic aspects of the map alone, this project would introduce the auditory dimension, where sounds are generated and evolve based on the map's interactions. These sounds would mirror the game's world and the player's choices, creating an immersive experience that goes beyond visual elements. The project aims to explore how sound can be a medium for communicating hidden narratives, adding a new layer of interaction and depth to the gameplay experience.



Fig. 58 : *Suètone*

Another avenue of exploration involves in creating an interactive object that connects the virtual and physical worlds, transforming movements into a collaborative, multiplayer experience. Inspired by lorama Studio & TERRA ai companion, this object, akin to games like Pokémon Go, would track players' movements in the real world, enabling them to collect digital creatures or spirits as they navigate their environment. These creatures would evolve based on the player's journey, with their movements and interactions influencing their growth and abilities.

The collected spirits could then be used as synthesizer, giving players the ability to mix, manipulate, and create music. These digital creatures would also be shareable among players through the game's interface, encouraging a community-driven exchange of creative content. Additionally, the maps generated during these explorations would produce unique illustrations that capture the players' journeys, potentially becoming covers for their songs, blending the worlds of music, art, and gameplay.

This concept of a map, tied to players' physical movements, would provide a dynamic, evolving experience where the game world is influenced by real-world interaction. By merging gameplay, sound synthesis, and artistic creation, this project seeks to foster collaboration among players while enabling them to express their creative journeys. The object would embody physical interaction within virtual worlds, producing an immersive, community-driven, and interactive experience.

These projects aim to unite my practices in sound, game design, and object design to translate the joy of video games into compelling outputs and offer diverse approaches by incorporating metagaming concepts.

As a master's student in Media Design, I believe this study will benefit my future practice. while I continue refining my approach to design, I am collaborating with two close friends on a narrative, horror-themed video game project. We are currently designing the maps and hope to use them not only as geographical tools, but also as narrative elements. Drawing from the insights gained in this research, I can now say that we design together, by embracing collective metagaming.

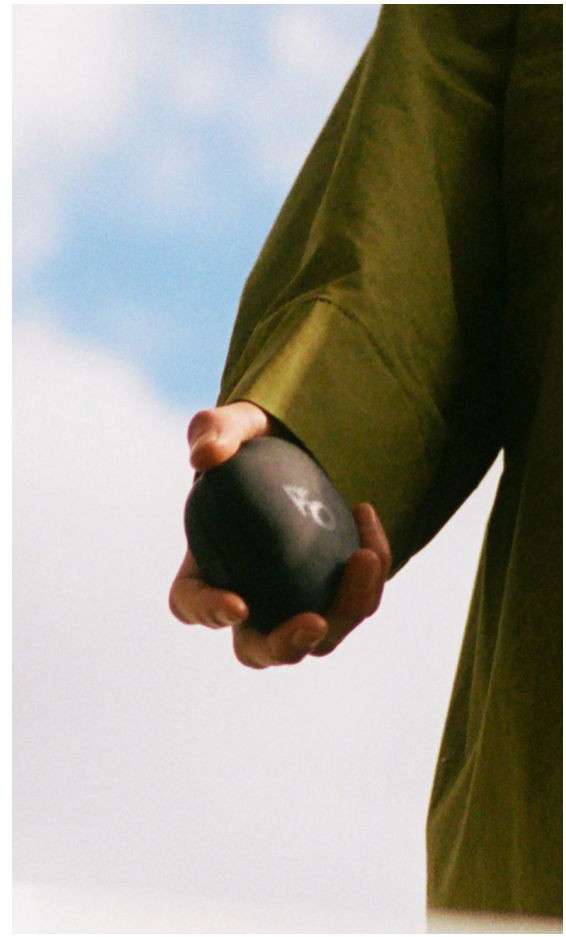


Fig. 59 : MODEM. Terra AI



Fig. 60 : *Elden Ring Map of Limgrave*

BIBLIOGRAPHY



Main References :

Books and papers :

BOLUK, Stephanie, LEMIEUX, Patrick. *Metagaming: Playing, Competing, Spectating, Cheating, Trading, Making, and Breaking Videogames*. Minneapolis: University of Minnesota Press, 2017.

CHARTIER, Roger. *Cartes et fictions (XVIe-XVIIIe siècle)*. Paris: Collège de France, 2022.

JUUL, Jesper. «The Game, the Player, the World: Looking for a Heart of Gameness», in *Level Up: Digital Games Research Conference Proceedings*, edited by Marinka Copier and Joost Raessens, Utrecht: Utrecht University, 2003.

MANOVICH, Lev. "*New Media from Borges to HTML*", in *The New Media Reader, Wardrip-Fruin. Noah and Nick Montfort (eds), Cambridge Massachusetts:* The MIT Press, 2003.

McIVER LOPES, Dominic. "*A Philosophy of Computer Art*". New York: Routledge, 2009.

CONSALVO, Mia. "*There is No Magic Circle*", in *Games and Culture*, 2009.

MINASSIAN, Hovig Ter. "*Drawing Video Game Mental Maps: From Emotional Games to Emotions of Play*", in *Cartographic Perspectives Nr.91*, 2018.

PEARSON, Luke Caspar, YOUKHANA, Sandra. *Videogame Atlas : Mapping Interactive Worlds.* New York : Thames and Hudson, 2022.

ZABBAN, Vinciane. "*Les pratiques d'un jeu en ligne et leurs médiations*", in : ATALLAH, Marc & alii. (eds), *Pouvoir des jeux vidéos, des pratiques aux discours.* Gollion : Infolio, 2014.

Online :

ALT236. *MYTHOLOGICS #2 / BLOODBORNE : L'enfant du Romantisme Noir,* Youtube [online]. https://www.youtube.com/watch?v=envtup0pZiY (accessed 15.11.2024).

BLOODBORNE-WIKI. Bloodborne Exhibition at Victoria and Albert Museum [online]. https://www.bloodborne-wiki.com/2018/12/bloodborne-exhibition-in-victoria-and.html (accessed 11.11.2024).

DEMAJEN PRODUCTIONS. Demajen's Metroidvania Maps [online]. https://www.demajen.co.uk/ (accessed 11.07.2024).

ELDEN RING WIKI. Elden Ring Map: Interactive [online]. https://eldenring.wiki.fextralife.com/Interactive+Map (accessed 11.11.2024).

SINCLAIRE LORE. *Early Map Comparison- Bloodborne -Lore and Story Explained - Soulsborne Podcast*, Youtube [online]. https://www.youtube.com/watch?v=5O0vXP3HYyI (accessed 29.05.2024).

SLIVA, Marty. *IGN : Inside the Mind of Bloodborne and Dark Souls' Creator* [online]. https://www.ign.com/articles/2015/02/05/inside-the-mind-of-bloodborne-and-dark-souls-creator-ign-first (accessed 11.11.2024).

SPECTRUM COMPUTING. ZX Spectrum Games, Software, and Hardware [online]. https://spectrumcomputing.co.uk/ (accessed 11.11.2024).

THORN, Ross. *How to Play with Maps,* MSc Thesis, University of Wisconsin-Madison, 2018. [online]. https://www.researchgate.net/publication/334555644_How_to_Play_with_Maps (accessed 11.11.2024).

WIKIPEDIA. Tolkien's maps. [online]. https://en.wikipedia.org/w/index.php?title=Tolkien%27s_maps&oldid=1257904784 (accessed 22.09.2024).

Further Resources:

Books & Papers :

Transcultures [En ligne], Hors série||2008, mis en ligne le 14 septembre 2009, consulté le 28 février

BORGES, Jorge Luis, *Le Jardin Aux Sentiers Qui Bifurquent*, in *Fictions*. Paris: Éditions Gallimard, 2014.

CASATI, Roberto. *The Cognitive Life of Maps. Cambridge Massachusetts:* The MIT Press, 2024.

DERFOUFI, Mehdi. *Racisme et jeu vidéo*. Paris : Éditions de la Maison des Sciences de l'Homme, 2021.

HORBIŃSKI, Tymoteusz and ZAGATA, Krzysztof. "View of Cartography in Video Games: Literature Review and Examples of Specific Solutions", in *KNzab - Journal of Cartography and Geographic Information*, Vol. 72, 2022.

TRICLOT, Mathieu. *Philosophie des jeux vidéo*. Paris : Zones, 2011.

BALASOPOULOS, Antonis. "*Utopiae Insulae Figura:* Utopian Insularity and the Politics of Form", in *Hors Série*, 2008.

Online ressources:

INTERNET ARCHIVE. *Crash Magazine : Issue 17* [online] http://archive.org/details/crash-magazine-17 (accessed 11.11. 2024).

INTERNET ARCHIVE. *Nintendo Power 1988 - 2004* [online] http://archive.org/details/NintendoPower1988-2004 (accessed 11.11.2024).

INTERNET ARCHIVE. *The Legend of Zelda Link's Awakening : Nintendo Player's Guide.* [online]. http://archive.org/details/zelda_guide_la_npg (accessed 11.11.2024).

INTERNET ARCHIVE. *Your Spectrum Magazine : Issue 14* [online]. https://archive.org/details/your-spectrum-magazine-14/page/n56/mode/1up?view=theater (accessed 11.11.2024).

RETROMASH. *Old Spectrum Mags: Your Spectrum Issue 14* [online]. https://retromash.com/2018/07/05/old-spectrum-mags-your-spectrum-issue-14-may-1985/ (accessed 11.11.2024).

Websites :

ANTONELLI, Paola, GALLOWAY, Paul. When Video Games Came to the Museum [online]. https://www.moma.org/magazine/articles/798 (accessed 11.11.2024).

BANDIT, Bit. The Importance of Video Game Preservation [online]. https://medium.com/@ryannealewallace/the-importance-of-video-game-preservation-ab5cf5cd965f (accessed 09.09.2024).

BARTHOLL, Aram. Dust 1:333 [online]. https://arambartholl.com/dust-1-333/ (accessed 2.07.2024).

BUCKWELL, Ashley. What is Metagaming and How Has it Impacted Video Games ? [online]. https://blog.acer.com/en/discussion/799/what-is-metagaming-and-how-has-it-impacted-video-games (accessed 11.11.2024).

DAZZ. The Spriters Resource [online]. https://www.spriters-resource.com/ (accessed 16.05.2024).

ADAMS, E. DiGRA Conference : The Construction of Ludic Space [online]. https://www.semanticscholar.org/paper/The-Construction-of-Ludic-Space-Adams/c89800458c6e1ec6f1ef308c6b34c3f0339dbd84 (accessed 29.05.2024).

ESQUIREFOX. *Imgur : Zelda Memories* [online]. https://imgur.com/a/zelda-memories-k2AUo (accessed 11.11.2024).

FOXDATA. Metagaming [online]. https://foxdata.com/fr/glossary/metagaming/ (accessed 7.10.2024).

GAME MAPS. Custom Maps and Mods for Games [online]. https://www.gamemaps.com/ (accessed 11.11.2024).

GAMEFAQS. Video Game Cheats, Reviews, FAQs, Message Boards, and More [online]. https://gamefaqs.gamespot.com/ (accessed 16.05.2024).

GIANT BOMB. Cartography [online]. https://www.giantbomb.com/cartography/3015-4197/games/ (accessed 29.05.2024).

HAYES, Nicolette, THORN, Ross. Cartographers Play Video Games - A Review of the Map in The Legend of Zelda: Breath of the Wild. [online]. https://stamen.com/cartographers-play-video-games-a-review-of-the-map-in-the-legend-of-zelda-breath-of-the-wild/ (accessed 29.05.2024).

KOWALSKY, Katie, THORN, Ross. Cartographers Play Video Games - A Review of the Map in Elden Ring [online]. https://stamen.com/cartographers-play-video-games-a-review-of-the-map-in-elden-ring/ (accessed 29.05.2024).

KUCHERA, Ben. Hand-drawn video game maps are physical memories, so let's see yours. [online]. https://www.polygon.com/2014/5/23/5745002/zelda-maps-gaming (accessed 24.09.2024).

MACDONALD, Keza. The game design secrets of Elden Ring's Hidetaka Miyazaki [online]. https://www.theguardian.com/games/article/2024/jun/26/pushing-buttons-meeting-hidetaka-miyazaki (accessed 11.11.2024).

MAHARDY, Mike. Back to the future: Preserving the history of video games [online]. https://www.polygon.com/features/2013/6/25/4452894/the-strong-preserving-the-history-of-video-games (accessed 9.09.2024).

MANIFOLD. *Introduction : Metagaming, Videogames and the practice of play* [online]. https://manifold.umn.edu/read/metagaming/section/ca0c7a57-96bf-41fc-910b-3652b6872404 (accessed 3.08.2024).

MAX (VGCartography). Dark Souls 3 is back underway [online]. https://x.com/vgcartography/status/1837468653719072840 (accessed 11.11.2024).

MEWMAPS. A collection of pokémon maps [online]. https://www.mewmaps.org/mewmaps-home-page (accessed 9.07.2024).

MILLS, Kiera. *Rock, Paper, Shotgun* : *All Elden Ring: Shadow Of The Erdtree Map Fragment Locations* [online]. https://www.rockpapershotgun.com/elden-ring-shadow-of-the-erdtree-map-fragment-locations (accessed 11.11.2024).

NONOWT EZINE. *The History of CRASH : Issue No.1* [online]. http://www.nonowt.com/magfold/crashfol/crash01.html (accessed 11.11.2024).

PARRA, Enrique, SAGA, Manuel. *ArchDaily : Cartography in the Metaverse: The Power of Mapping in Video Games* [online]. https://www.archdaily.com/782818/cartography-in-the-metaverse-the-power-of-mapping-in-video-games (accessed 29.05.2024).

PRINCETON. Utopia [online]. https://static-prod.lib.princeton.edu/visual_materials/maps/websites/thematic-maps/theme-maps/utopia.html (accessed 11.11.2024).

RETROMASH. The Beauty of Retro Video Game Maps [online]. https://retromash.com/2018/06/20/the-beauty-of-retro-video-game-maps/ (accessed 11.11.2024).

SKÖLD, Olle. Documenting Videogame Communities: A Study of Community Production of Information in Social-Media Environments and its Implications for Videogame Preservation [online]. https://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-336748 (accessed 9.09.2024).

SMITH, Adam. *Rock, Paper, Shotgun* : Fantastic Cartography: Why Videogame Maps Matter [online]. https://www.rockpapershotgun.com/videogame-maps (accessed 29.05.2024).

STAMEN. Cartographers Play Video Games – A Review of the Map in *The Legend of Zelda: Tears of the Kingdom*. *Online*. Available from: https://stamen.com/cartographers-play-video-games-a-review-of-the-map-in-the-legend-of-zelda-tears-of-the-kingdom/ (Accessed 29 May 2024).

STUART, Keith. The lost art of video game cartography [online]. https://www.theguardian.com/technology/gamesblog/2010/oct/19/mapping-video-games (accessed 29.05.2024).

THE VG CARTOGRAPHER. X [online]. https://x.com/cartographervg (accessed 29.05.2024).

UNDERDOGS. Star Wars Screen Entertainment [online]. https://homeoftheunderdogs.net/game.php?id=1059 (accessed 9.09.2024).

VAPOR CEPHALOPOD. #MetalGearSolid Shadow Moses Complete Map [online]. https://x.com/mcghee_nick/status/1429572996071665667 (accessed 29.05.2024).

WAGAR, Celia. *Celia Alexis Wagar's CritPoints: Good FPS Map Design* [online]. https://critpoints.net/2018/02/18/good-fps-map-design/ (accessed 11.11. 2024).

WINSLOW, Levi. An Alarming 87 Percent Of Retro Games Are Being Lost To Time [online]. https://kotaku.com/classic-games-history-foundation-preservation-yakuza-1850623857 (accessed 9.10.2024).

WIKIPEDIA. FromSoftware [online]. https://fr.wikipedia.org/w/index.php?title=FromSoftware&oldid=216908981 (accessed 15.09.2024).

WIKIPEDIA. Hidetaka Miyazaki [online]. https://en.wikipedia.org/w/index.php?title=Hidetaka_Miyazaki&oldid=1256595031 (accessed 11.11.2024).

WIKIPEDIA. List of video game magazines [online]. https://en.wikipedia.org/w/index.php?title=List_of_video_game_magazines&oldid=1251719895 (accessed 11.11.2024).

WIKIPEDIA. Metagame [online]. https://en.wikipedia.org/w/index.php?title=Metagame&oldid=1240882269 (accessed 11.11.2024).

WIKIPEDIA. Video game preservation [online]. https://en.wikipedia.org/w/index.php?title=Video_game_preservation&oldid=1238230413 (accessed 9.09.2024).

Forums :

ESQUIREFOX. *r/gaming: Found this hand-drawn Zelda map while sorting through my old strategy guides! Store Inside,* Reddit. [online]. https://www.reddit.com/r/gaming/comments/331d5d/found_this_handdrawn_zelda_map_while_sorting/ (accessed 11.11.2024).

EZIOLAMBO. *r/Eldenring : High quality Elden Ring map. All grace sites. [6509x6809] [JPG] [7MB* [online]. https://www.reddit.com/r/Eldenring/comments/tygn11/high_quality_elden_ring_map_all_grace_sites/ (accessed 11.11.2024).

G3FO. *r/HollowKnight : [Speedrun] any% route map based on Paerux's (former) WR 57:35* [online].https://www.reddit.com/r/HollowKnight/comments/5xwor2/speedrun_any_route_map_based_on_paeruxs_former_wr/ (accessed 11.11.2024).

HURRICANA26. *r/pathologic : Yet another amateur patho 2 map. See comment* [online]. https://www.reddit.com/r/pathologic/comments/10cgs1u/yet_another_amateur_patho_2_map_see_comment/ (accessed 18.09.2024).

HYPEDGYMBRO. *r/roblox* : *Map of Roblox I made* [online]. www.reddit.com/r/roblox/comments/x5x3r6/map_of_roblox_i_made/ (accessed 11.11.2024).

KINGMOB88. *r/gaming* : *Remember making hand-drawn maps to keep track of your games ?* [online]. www.reddit.com/r/gaming/comments/98uh7j/remember_making_handdrawn_maps_to_keep_track_of/ (accessed 11.11.2024).

LUCKYBLOCKREDDIT. *r/gamedesign* : *How do you design a map for your game ?*. [online]. www.reddit.com/r/gamedesign/comments/15lzyh7/how_do_you_design_a_map_for_your_game/ (accessed 18.09.2024).

NATURAL_STOP_3939. *r/gamingsuggestions : What video games expect pen-and-paper cartography ?* [online]. www.reddit.com/r/gamingsuggestions/comments/ra0dbm/what_video_games_expect_penandpaper_cartography/ (accessed 29.05.2024).

RAVENWOLF957. *r/gaming : What game has the worst map design?* [online]. www.reddit.com/r/gaming/comments/13yvjfn/what_game_has_the_worst_map_design/ (accessed 11.11.2024).

SKROOFLES. *r/Alldarksouls : World Design Across Fromsoft Games: What Approach Do You Prefer ?* [online] https://www.reddit.com/r/Alldarksouls/comments/xnajay/world_design_across_fromsoft_games_what_approach/ (accessed 11.11.2024).

THEERICELLIS. *r/gaming : Someone drew a detailed Resident Evil mansion map, from memory.* [online]. www.reddit.com/r/gaming/comments/1uyfxh/someone_drew_a_detailed_resident_evil_mansion_map/ (accessed 11 November 2024).

Videos :

ALT236. *ALT236 ∞ AU COEUR DES RUINES NUMERIQUES,* Youtube [online]. https://www.youtube.com/watch?v=PMB5aVD1UJg (accessed 11.11.2024).

ENVI172. *Video Game Cartography (Just Some Examples) -- Week 13, Friday (Fall 2022),* Youtube [online]. https://www.youtube.com/watch?v=MWybY_2TNho (accessed 29.05.2024).

LEVELSLIVES. *Gamesmaster Season 1 Episode 2,* Youtube [online]. https://www.youtube.com/watch?v=_3IGT8S-scQ&ab_channel=LevelsLives (accessed 11.11.2024).

MAXFREQUENCY. *My Journey to Becoming a Map Maker – A Video Essay,* Youtube [online]. https://www.youtube.com/watch?v=UY7wuxd5qT0&ab_channel=MaxFrequency (accessed 18.09.2024).

PSYCHGEIST. *A (brief) history of game studies,* Youtube [online]. https://www.youtube.com/watch?v=PAr0tiEHyYE&ab_channel=Psychgeist (accessed 11.11.2024).

SINCLAIRE LORE. *Maps and Development Bloodborne Dark Souls Demon's Souls Soulsborne Lore Podcast,* Youtube [online] https://www.youtube.com/watch?v=-ac-ad3TxVE (accessed 29.05.2024).

THE NOMADS OF FANTASY. *Video Game Maps: A Digital Cartography Discussion,* YouTube. [online]. https://www.youtube.com/watch?v=KiDV5HvXhUg&ab_channel=TheNomadsofFantasy (accessed 18.09.2024).

GOOFYDUDEGOOYA. *Mod vs Rom Hack - What's the Difference?,* YouTube. [online]. https://www.youtube.com/watch?v=R0P2opXAKTc&ab_channel=Goofydudeguya (Accessed 29.11.2024).

Iconography :

Fig.01. RETROGAME_MAN, *Link's Awakening*, screenshot, Retrogrameman, https://retrogameman.com/2017/04/06/game-boy-review-links-awakening/

Fig.02. RETROGAME_MAN, *Link's Awakening*, screenshot, Retrogrameman, https://retrogameman.com/2017/04/06/game-boy-review-links-awakening/

Fig.03. INTERNET ARCHIVE, *Zelda guide,* Nintendo Player Magazine, Internet archive. https://archive.org/details/zelda_guide_la_npg/zelda_guide_la_npg/page/n1/mode/2up

Fig.04. RETROGAME_MAN, *Link's Awakening*, screenshot, Retrogrameman, https://retrogameman.com/2017/04/06/game-boy-review-links-awakening/

Fig.05. OSREVAD. *The Legend Of Zelda: Link's Awakening DX Koholint Game Boy Carte,* Screenshot collage, VGMaps, https://vgmaps.de/maps/view.php?m=19301

Fig.06. ITIKA89. *Hey, Merumeru, do you know what this is?? I don't know,* Photography, X. https://twitter.com/itika89/status/1361660292208320512

Fig.07. STUWISUX. *Updated map*. Reddit *r/Eldenring*. www.reddit.com/r/Eldenring/comments/sxdf9w/updated_map/

Fig.08. SIR-TECH SOFTWARE.INC. *Wizardry Manuals (JP)*, Scan, Internet Archive, http://archive.org/details/WizardryManuals

Fig.09. JOINER, Justin. *25 ans après, le jeu de carte « Magic: l'Assemblée » continue de passionner les fan,* Photography, 20 minutes, https://www.20minutes.fr/arts-stars/culture/2262303-20180426-video-jeu-cartes-magic-the-gathering-fete-25-ans-retour-incroyable-succes

Fig.10. BLOODBORNE-WIKI. *Bloodborne Official Artworks*, Digital art, Bloodborne-wiki. https://www.bloodborne-wiki.com/2017/01/bloodborne-official-artworks.html

Fig.11. BARBARIANBUNNY & GEHTSIEGARNIXAN, *2019. Ashen Complete Item Map*. Reddit r/AshenTheGame. https://www.reddit.com/r/AshenTheGame/comments/atnpbk/ashen_complete_item_map/

Fig.12. G.E.R, *Mario&Luigi-Bowser'sInsideStory-MushroomKingdom PlackBeach*, VGMaps. https://www.vgmaps.com/Atlas/DS/Mario&Luigi-Bowser'sInsideStory-MushroomKingdom-PlackBeach.png

Fiig.13. _SLEEPLOST. *Just came across the hand drawn maps I made playing through Hollow Knight for the first time last year!*, photography, Reddit r/HollowKnight. https://www.reddit.com/r/HollowKnight/comments/vkaml7/just_came_across_the_hand_drawn_maps_i_made/#lightbox

Fig.14. G3FO. *Hollow Knight : Route Guide,* digital drawing, Reddit r/HollowKnight. www.reddit.com/r/HollowKnight/comments/5xwor2/speedrun_any_route_map_based_on_paeruxs_former_wr/

Fig.15. STARFIGHTERS76, *Silent Hill Nowhere Map Map for PlayStation*, Illustration, GameFAQs, https://gamefaqs.gamespot.com/ps/198641-silent-hill/map/950-nowhere-map

Fig.16. MAPGENIE, Dragon's Dogma II map, online interactive map, Mapgenie.io. https://mapgenie.io/dragons-dogma-2/maps/world

Fig.17. ARNOTT, Gary. KNIGHT LORE Game Map, Scan, X. https://x.com/GaryArnott/status/1520809327761760256

Fig.18. YOUR SPECTRUM, *Your Spectrum Issue no.14 May 95*, Scan, Internet Archive. https://archive.org/details/your-spectrum-magazine-14/mode/1up?view=theater

Fig.19. CRASH MAGAZINE, *P64 of Crash magazine issue 17, displaying a cartography competition, 1985,* Scan, Internet Archive. https://archive.org/details/crash-magazine-17/page/n64/mode/1up?view=theater

Fig.20. NINTENDO POWER, *Nintendo Power 1988 – 2004- issue n1,* Internet Archive. https://archive.org/details/NintendoPower1988-2004/Nintendo%20Power%20Issue%20001%20%28July-August%201988%29/mode/2up

Fig.21. TKRAII11, *Emplacements des classes de démarrage du module Convergence pour collecter des notes !,* Screenshot, Reddit r/EldenRingMods. https://www.reddit.com/r/EldenRingMods/comments/168u8sj/convergence_mod_starter_class_locations_for/?tl=fr

Fig.22. MAPGENIE, *Elden ring interactive map,* online interactive map, Mapgenie.io. https://mapgenie.io/elden-ring/maps/the-lands-between

Fig.23. ZEBES. *Metroid – map*, illustration, Retrounauts, http://retronauts.com/article/777/never-get-lost-again-with-two-hand-drawn-game-map-posters

Fig.24. TOSHIMA, TAKAKO. *Hand drawn Zelda Link's Awekening map*, Illustration, Newtype magazine. https://twitter.com/HistoryofHyrule/status/1510849239760486401

Fig.25. TENCHISAOTOME. *Original Zelda Game Map Drawn*, Illustration, DeviantArt, https://www.deviantart.com/tenchisaotome/art/Original-Zelda-Game-Map-Drawn-57346999

Fig.26. SNOE_GAMING. *Found my hand drawn map on RE1 from first time playing it years ago*. Reddit *r/residentevil*. https://www.reddit.com/r/residentevil/comments/wwzjek/found_my_hand_drawn_map_on_re1_from_first_time/

Fig.27. EVIL RESOURCE. *Resident Evil : Interactive Map,* online interactive map, Evil resource, https://www.evilresource.com/resident-evil-3-nemesis/maps/uptown-and-downtown

Fig.28. DONALD. *Maps - Highway 0*, Digital art, the Kentucky Route Zero wiki, https://consolidatedpower.co/~donald/zero/Route_Zero#Navigation

Fig.29.PLAYSTATION BLOG. *Demon's Souls remake* screenshot, Captured on PS5, Staticflickr. https://live.staticflickr.com/65535/50566767633_f3951b74ff_o.jpg

Fig.30. INTERFACEINGAME. *Photo Mode - Death Stranding*, Screenshot, Interfaceingame, https://interfaceingame.com/screenshots/death-stranding-photo-mode/

Fig.31. ALEX LEE, *Where to pre-order the PS5 30th-anniversary controller in the UK*, Photo, Independent.

Fig.32. FEXTRALIFE. *Bloodborn anotated screenshot*, screenshot, Fextralife. https://bloodborne.wiki.fextralife.com/file/Bloodborne/bb2_blackchurchset.jpg

Fig.33. DEMAJEN, *Screen capture of Hollow Knight Asset Collection*, Screenshot.

Fig.34.FANTASYANIME, *Ripped final fantasy 6 SealedCave map,* Game data, Fantasyanime. https://fantasyanime.com/finalfantasy/ff6/ff6maps.htm

Fig.35. DEMAJEN, *A part of Grime's ripped map given by Demajen's. There's about 50 of these*, Screenshot.

Fig.36. VGCARTOGRAPHY, *Shadow of the colossus*, digital art, DeviantArt. https://www.deviantart.com/vgcartography/art/Shadow-of-the-Colossus-Forbidden-Lands-World-Map-1046251268

Fig.37. JEKOLN. *Final Fantasy VII Great Glacier map*, Illustration, GameFAQs, https://www.almarsguides.com/AlmarsImages/Retro/Walkthroughs/PS1/FinalFantasyVII/FullPlaythrough/Disc2/GreatGlacier/Great%20Glacier.png

Fig.38. STARFIGHTERS76. *MediEvil- Level 02: Cemetary Hill Map*, Illustration, GameFAQS, https://gamefaqs.gamespot.com/ps/197892-medievil/map/3684-level-02-cemetary-hill-map

Fig.39. VGCARTOGRAPHY, *alone in the dark underground maze map,* Digital art, DeviantArt. https://www.deviantart.com/vgcartography/art/Alone-in-the-Dark-Underground-Maze-Map-927037669

Fig.40. ZAIDUSRECON. *Pokemon Yellow 100% Checklist Challenge*, Screenshot, scripterswar, https://scripterswar.com/pokemon/completion/Yellow?reddit

Fig.41. IGN, Sillent Hill 2 Remake Walktrough guide, screenshot, IGN. https://www.ign.com/wikis/silent-hill-2-remake/Walkthrough

Fig.42. ASHENFACTORY, *tool from Ashenfactory in order to map the game Fjords,* Screenshot, Discord.

Fig.43. ASHENFACTORY, *Last update to their dungeon mapping tool,* Screenshot, Discord.

Fig.44. ASHENFACTORY, *First version of their custom tools,* Screenshot, Discord.

Fig.45. DEMAJEN, *Ori and the blind forest full map*, digital art, Demajen.co.uk. https://demajen.co.uk/

Fig.46. 7RUST. *Elden Ring Map - Upscaled - Coloring Pack*. Nexusmods. https://www.nexusmods.com/eldenring/mods/500

Fig.47. REVNED. *The Legend of Zelda : Link's Awakening : Face Shrine,* digital collage, VGMaps, https://www.vgmaps.com/Atlas/GB-GBC/LegendOfZelda-Link'sAwakening-FaceShrine.png

Fig.48. VGCARTOGRAPHY. *Silent Hill 2 : Lake View Hotel,* data extraction, Deviant Art, https://www.deviantart.com/vgcartography/art/Silent-Hill-2-Lake-View-Hotel-Map-977719347

Fig.49. THEGORILLA0FDESTINY. *Skyrim : World,* hand drawn, Reddit, https://www.reddit.com/r/gaming/comments/ptf4n9/oc_a_hand_drawn_map_of_skyrim_ive_been_working_on/#lightbox

Fig.50. KEV MCG. *Silent Hill : World Map,* screenshots and annotation, Facebook, https://www.facebook.com/groups/2517571938361996/posts/8419230211529443/

ARAN : JAEGER. *Super Metroid : Sound Cue Optimisation Map,* vector drawing, Super Metroid Wiki, https://wiki.supermetroid.run/File:Super_Metroid_room_music_map.png

Fig.51. MULTI USERS. *Borderlands : Interactive Map,* web hosted, Mapgenie. https://mapgenie.io/borderlands/maps/world

Fig.52. ELI FESSLER, *Kentucky route zero – interactive road map,* online interactive map, Consolidatedpower. https://consolidatedpower.co/~eli/map/

Fig.53. INSILICO_, Bloodborne all bosses speedrun by Ahady, screenshot,YouTube. https://www.youtube.com/watch?app=desktop&v=C081NUzPt8E&t=226s&ab_channel=InSilico_

Fig.54.FANDOM, *Dark souls Blightown,* screenshot, Dark-Souls-wiki. https://darksouls.fandom.com/wiki/Blighttown

Fig.55. VZHIK-BOT, *Bloodborne Monocular*, Screenshot, Bloodborne fandom. https://bloodborne.fandom.com/wiki/Monocular

Fig.56. VICTORIA AND ALBERT MUSEUM, *Bloodborne Exhibition at Victoria and Albert Museum Videogames: Design/Play/Disrupt,* Photo, Bloodborne-wiki. https://www.bloodborne-wiki.com/2018/12/bloodborne-exhibition-in-victoria-and.html

Fig.57. D3VILDUK3. *Yharnam prior to the scourge of the beasts (Bloodborne*). Reddit r/incarnate. www.reddit.com/r/inkarnate/comments/qdixr0/yharnam_prior_to_the_scourge_of_the_beasts/

Fig.58. BASILE BRUN. Suètone, Photography, HEAD-Genève, https://www.hesge.ch/head/evenement/2024/drawing-futures-playful-creative-assistants

Fig.59. MODEM. Terra, Photography, Myterra.ai, https://myterra.ai

Fig.60. 7RUST. *Elden Ring Map - Limgrave - Upscaled - Coloring Pack*. Nexusmods. https://www.nexusmods.com/eldenring/mods/500

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