

Horror Ludens: Using Fear to Construct Meaning in Video Games

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Abstract. In this article, we discuss how fear can be a powerful element to construct meaning in some specific video games. Titles like *Phantaruk*, *Alan Wake*, *Here they lie*, and many others help us to find some answers in this scenario, but herein we intend to focus our attention on the game *Rapid Eye Movement* (PC, 2020-2021). Created by an independent Brazilian studio named Alysstrakt Games, and scheduled to be launched in late 2021, the game sets its action in a dreamlike ambient where the player has the role of a person inside a nightmare, looking for clues to set the time on different clocks, trying to wake up. As a methodological process to understand how it is possible to create meaning using fear in video games, we have employed a formal analysis of gameplay that “is based on studying a game independently of context, that is, without regarding which specific people are playing a specific instance of the game” [1]. We have observed a group of players of *Rapid Eye Movement* in order to study how moments of horror and terror create an atmosphere of fear and, consequently, the meaning of the gaming experience. In this work, we present these impressions as a qualitative research, with the objective of identifying the main points inside the fearful experience of playing *Rapid Eye Movement*, in order to comprehend how terror, horror, anxiety and despair could be used to support the game design process.

Keywords: Horror, Video Game, Indie Game.

1 Introduction

Fear is one of the most ancient feelings orbiting the human existence. The feeling of fear, historically, has been a fertile ground for different writers, filmmakers and many other storytellers to find inspiration to create their works. Video games, legitimated as “forms of media, human expression, and cultural importance” [2], were not left out of this list; the sophistication of the latest generations of consoles elevated some fearful ludic narratives to a new frightening level.

Fear, in this essay, is understood as a creative “fuel” to develop narrative, gameplay, experience and immersion. Spinoza, in his book *Ethics* [3], set out to analyze the origin and the nature of human affections, taking as its starting point desire, joy and sadness. Spinoza postulates that human beings, by nature, are passionate and affected

by external forces. The Dutch philosopher drew a deep observation about feelings/passions that underlie human existence, comprising aspects of fear; this reference is fundamental in the context studied herein.

The rhetoric of fear allows the creation of games with meaning based on horror and terror. About this, Ghita [4] says that, as a refined product of fear, terror constitutes a multifocal aesthetic emotion, whose main feature is the state of anxiety, brought about by a well-balanced series of artistic elements: plot, atmosphere and characters. As an intensification of fear, horror represents a unifocal aesthetic emotion, whose main feature is the state of revulsion, brought about by the paroxysmal development of the aforementioned artistic elements.

In the context of game design, Nielsen and Schønau-Fog [5] propose three key elements for using fear/terror/horror to create meaning: (1) a deep narrative that allows the player to invest emotions into the character; (2) a deep sense of freedom to establish a connection and a deep grade of immersion; and, finally, (3) the player should feel like a victim rather than a contender. Another point to highlight in this category of games is the use of “illogical architecture to turn houses, gardens and streets into great mazes which would make no sense in the real world” [5]. In *Rapid Eye Movement* — our empirical object for this essay — we were able to identify these three elements strategically hybridized with many different aspects of terror and horror. The narrative works alternating these aspects to create a stronger immersive experience for the players.

Tajerian [6] says that anxiety is a point to highlight in terror/horror games. This author also explains that, along with fear, anxiety is perhaps the most prominent feeling experienced in video games. Unlike fear, which is a response to an imminent threat, anxiety is a response to a potential threat.

Following these initial thoughts, we will discuss in the next topic the main features of the game *Rapid Eye Movement*. It is important to highlight two points: (1) at the time this article was being written, the game in question was in development and scheduled to be launched in late 2021; (2) the author of this article is one of the professionals involved in the design and development of the game herein analyzed.

2 Rapid Eye Movement: A Horror Indie Game

Rapid Eye Movement (Abyssstrakt Games, 2020-2021) — or *R.E.M.* — is an independent game created for PC, available on Steam and itch.io platforms. At the time this article was being written, the game was in the middle of its development process, so it is important to say that some images used here came from the prototype version (the release of the final version is scheduled for the end of 2021).

R.E.M. is a game about dreaming; specifically, about an agonizing nightmare. In a first-person view, the player has exactly three minutes to complete a series of puzzles structured with some clocks scattered in the scenario. Each clock has a unique color and a unique solution; the player must be fast and ingenious to decipher some hints provided by objects displayed in the rooms and then set the right time on the clocks. If the player fails to set the clocks in three minutes, they return to the initial gaming

scenario and must start all over again — like in an endless nightmare. Further on we will discuss with details one of the puzzles of the game.

All the action in *R.E.M.* takes place inside a strange and distorted house; each room has walls filled with images of old distressing memories. The game design goal that best defines *R.E.M.* is to cause a feeling of estrangement in the player. Below (Fig. 1) we present a screenshot from a scenario in the prototype version.



Fig. 1. Screenshot from a scenario in *Rapid Eye Movement* (prototype version).

The narrative is mysterious and subject to various interpretations. In the beginning of the game, a monotonic and depressive voice gives some hints about the gaming atmosphere and objective. Below we reproduce the full text that is the starting point for the dreamlike mood of *Rapid Eye Movement*:

I have a recurring dream.
 In fact, it's not a dream. It's a nightmare.
 I can say it's a nightmare because I want to wake up and I can't.
 Everything always starts like this:
 I'm in my childhood home.
 I know I'm not alone.
 However, it is not a human thing that keeps me company.
 It's some kind of shadow.
 In dreams (or in nightmares) we don't question the facts, we just accept them.
 I know there are clocks around the house.
 I know I have to adjust the clocks correctly.
 I know that time is short.
 I know that if I don't succeed, everything will repeat itself. I know. I just know.

With these initial hints, the game introduces the player to the ambience, the theme, and the main plot (to adjust the clocks correctly). The name of the game — *Rapid Eye Movement* — is another hint for the dreamlike narrative: R.E.M. is a unique phase of sleep characterized by random rapid movement of the eyes, accompanied by low muscle tone throughout the body, and the propensity of the sleeper to dream vividly. In the starting screen of the game, it is also possible to observe some neuronal connections in the background (Fig. 2).



Fig. 2. *Rapid Eye Movement* starting screen (prototype version).

Having presented the main idea of the game, we will discuss briefly, in the next topic, an important feature of game production using a popular game engine. And in topic number four we will dissert about how time pressure, anxiety, and the horror mood were created in the gaming interface.

3 A Word About Game Programming

It is not the objective of this article to discuss the coding process of the game *R.E.M.* However, we believe that talking briefly about the programming of the game may allow a deeper understanding of the game’s creative process.

Rapid Eye Movement was developed using the Unity game engine. This engine can be used to craft three-dimensional, two-dimensional, virtual reality, and augmented reality games, as well as simulations and other experiences [7]. The Brazilian independent studio behind the title — Aysstrakt Games — chose this engine due to the platform’s versatility, high performance rendering graphics in real time, and the online community support (it is important to highlight that Unity’s community in the

internet is very engaged in trying to help developers all around the world with hints, tips and ready-made codes).

After these brief technical details, we will delve into the most relevant topic in this work: how we can take advantage of components of fear and horror narratives to create an immersive experience within a game. We will also discuss how the puzzle mechanics — in this case — is a suitable choice to increase the gaming features.

4 Horror and Fear as Game Design Components

In *Rapid Eye Movement*, horror and fear are materialized in a twisted scenario filled with bizarre images, strange objects, and time pressure, accompanied by a dark ambience music theme. The involvement of the player is based on three fundamental ideas: the concept of a labyrinth, the concept of virtual presence and the concept of flow.

The idea of a labyrinth in games, as a metaphor, offers the player a chance to get lost inside the gaming world. But it's very important to present this as a challenge to be completed and not as a bad experience that leads nowhere. As Kerényi [8] wrote, the concept of a labyrinth is a cultural heritage of humanity whose origin dates back to the Stone Age, and possibly all the ludic activities result in some kind of maze.

Following this line of thought, it's important to study the concept of *presence* inside the game world. To offer the player a labyrinthine environment is easy, but the real challenge is to create the virtual presence of the player in the game (using narrative resources, coherent game mechanics, good graphics etc.) Nitsche [9] talks about forms of presence and argues that presence is understood as the mental state that causes a user to subjectively feel as if they were inside a video game space, as the result of an immersion into the content of the fictional world. It is a mental phenomenon based on a perceptual illusion. This author also says that a great number of researchers have concentrated on the idea that a state of presence should be connected to the illusion of a non-mediated experience. In this case, players do not see the interface anymore because they feel present in the world beyond the screen.

The third idea to be discussed, as proposed by Csikszentmihalyi [10], is the concept of *flow*, which should be understood as a state in which a person is fully immersed in an action and highly focused to the extent that they can experience, for example, a lack of self-consciousness and can lose track of time. A player who reaches this level of flow is clearly immersed in the game, but not necessarily *present* in the virtual space.

Besides these three ideas, we should also look into some ideas put forward by Salen and Zimmerman — both authors propose that between the player and the game there is *gameplay* [11], which is a formalized interaction that occurs when players follow the rules of a game and live the experience of the game system through the act of playing.

In order to strategically increase the feeling of fear and horror, our game project has been guided by the concept of “five planes” proposed by Nitsche [12]. This author theorizes that, in a video game, we have:

1. A rule-based plane defined by the mathematical rules that set, for example, physics, sounds, artificial intelligence, and game-level architecture. It is important to highlight that players do not have to understand the logic of the code to appreciate the experience in the game.

2. A mediated plane defined by the presentation, which is the space of the image plane and the use of imagery, including the cinematic form of presentation.

3. A fictional plane that lives in the player's imagination; in other words, it is the space imagined by players from their comprehension of the available images in the gaming interface.

4. A play plane (meaning space of play) which includes the player and the video game hardware.

5. A social plane defined by interaction with other people, meaning the game space of other engaged players (e.g., in a multiplayer title).

In *R.E.M.*, the rule-based plane consists of the code, the 3D modelling, and the scenario created using the Unity engine. The mediated plane is the interface filled with dark ambience; it is the interface displayed on the player's PC screen. The fictional plane is how the player understands and decrypts the mysterious narrative inside his mind (and *R.E.M.* purposefully has a very subjective narrative that invites the player to be a co-author of the story). The play plane consists of the player and their use of mouse and keyboard to solve the puzzles, move around the scenario etc. Finally, the social plane occurs through game-related interactions between players in social media platforms, or between players and their friends in person. Although the game does not have a multiplayer mode, its socialization happens as players talk about it in different platforms.

In the light of these ideas, the structure of *R.E.M.* is based on these main features: 1) time pressure created with a soundtrack that lasts three minutes and ends with a fade-out effect; this feature is used to arise the feeling of anxiety in the player, by conveying that there is no time to think too much in each room — it is necessary to explore and (sometimes) take notes of your discoveries in the gaming ambient; 2) a first-person view in a scenario filled with disturbing images, dissonant sound effects, visual distortions and strange items; these features are the most important to create estrangement in the gaming experience and subsequently arouse feelings of fear, uneasiness and horror in the players; 3) the puzzle-based mechanics [13] is the third feature to complete *R.E.M.*'s "ecosystem"; the main challenge of the game is to set the right time in five different clocks scattered around the rooms of the house. Each clock has a specific color and a hint provided by an object with the same color. Objects and clocks are in different rooms and players must be fast to decipher how the hints connect to the puzzle's resolutions.

Puzzle games, by definition, focus on logical and conceptual challenges, although occasionally the games include time pressure or other action elements. Fullerton [14] says that puzzles are also a key element in creating conflict in almost all single player games. There is an innate tension in solving the puzzle. They can contextualize the choices that players make by valuing them as moving toward or away from the solution. Next, we will present a puzzle idea and its resolution.

In this example (Fig. 3) we can see an old bible on the floor. As the player clicks on the object, he sees the bible page highlighted with the text “Corinthians 15:58. Therefore, my beloved brothers, be steadfast, immovable, always abounding in the work of the LORD, knowing that in the LORD your labor is not in vain.” The snippet “Corinthians 15:58” is in blue, giving a hint to the player.

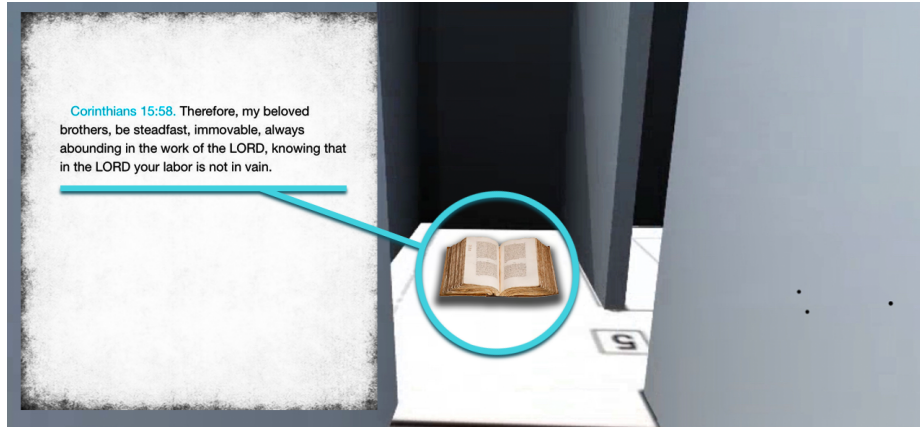


Fig. 3. Objects scattered in the gaming scenario offer a color hint (prototype version).

Walking around the scenario, the player will find a clock with numbers in the same color as the bible excerpt. By clicking on the clock, a panel will open, and the player can change (up and down) the numbers (Fig. 4).

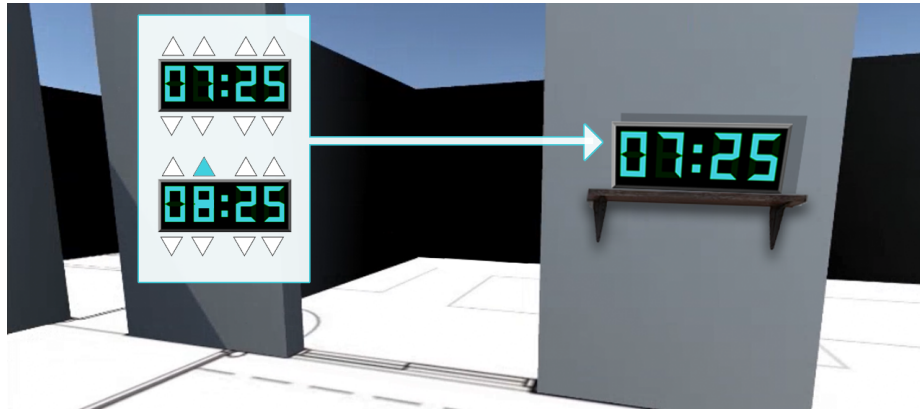


Fig. 4. Clock to be adjusted according to the previous hint from the bible (prototype version).

The right answer for this enigma is to set the digital clock to 15:58, according to the hint provided by the bible’s page.

The main goal in *Rapid Eye Movement* is to set the hour on five different types of clocks, according to different hints distributed around the scenario. Narrative blends with puzzle mechanics to create a mysterious gameplay in the nightmarish ambient. In this sense, we understand that story, scenario, puzzles, hints and other elements should all be created in a way that adds to the design of the gameplay [15] and to the horror mood of the game.

Having already discussed the creative aspects of the game's environment, the use of mechanics, and a little bit of programming/production, we advance to our final considerations.

5 Final Thoughts and Conclusions

In this article, we had the opportunity to discuss a complete game design project for the PC platform; it is the second digital game created by the Brazilian studio Alysstrakt Games, following the mysterious and horror mood of its first game launched, *Mind Alone* [16]. We discussed how unpleasant sensations like fear, anxiety, horror and terror can be a central point for the development of an entertainment product (in this case, the *R.E.M.* game). In this article, we had the opportunity to advance in our previous research line [17], by using horror games as empirical studying objects.

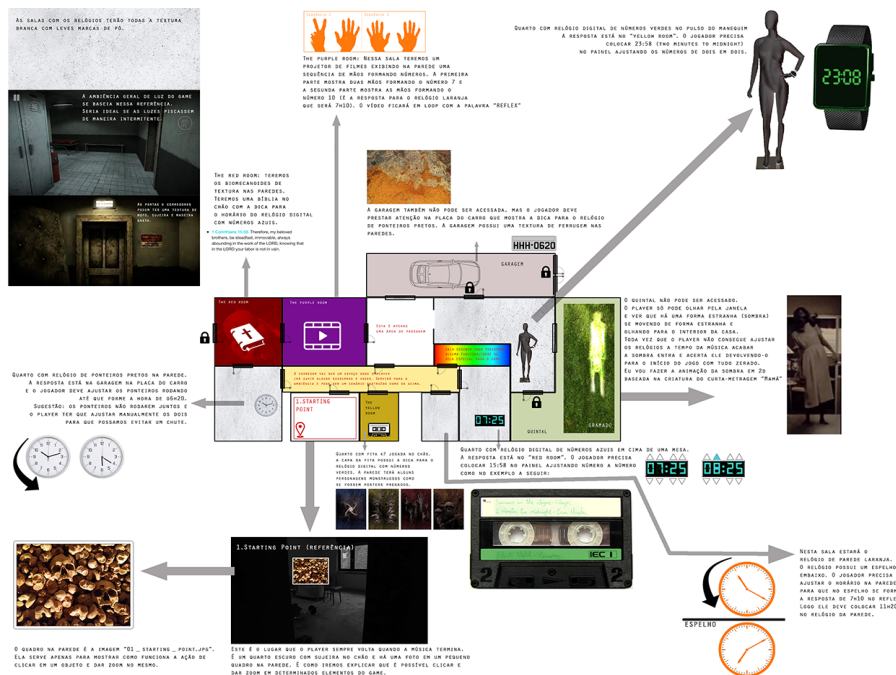


Fig. 5. Top overview of *Rapid Eye Movement*'s map and the resolution of the game's puzzles synthesized in a pre-prototype document.

Following the thoughts of Fullerton et al. [18], *R.E.M.* was created through a very synthetic game design process based on stages. The first step was the conceptual stage, when the narrative and the core gameplay were defined, based on intense research to check other similar games already published. The second step, as proposed by Fullerton, was the brainstorming stage, in which people involved in the project started the first essays about how the narrative would materialize on the gaming interface. When these ideas were established, there came a fundamental third step: the making of a prototype (or pre-prototype) of the game (Fig. 5). In this phase, it is very important to save time by creating a fast pre-visualization of the game using paper, pen and other analog components, or assembling a digital prototype for a fast beta-test play.

In *Rapid Eye Movement*, the beta-testing phase was an essential component of game development. At the time this article was being produced, the first tests with players were starting. The prototype version of the game was created with the Unity engine and was used in ten sessions with ten different players. We performed a formal analysis of gameplay by observing players' reactions during gameplay, giving them the opportunity to explore three minutes of the game as many times as they wanted. At the end of the game session, players were asked to complete a qualitative survey.

The qualitative method is one of many ways to assess the creation of meaning and relevance in the game's interface. To conduct a qualitative interview, you need a good script with clear objectives and precise questions. Cote and Raz [19] show a script guide adapted to the universe of games. 1) Create an introductory script to open the interview and recall the study goals. 2) Warm-up questions to put the participant at ease and build rapport. Some examples that the authors use are "For how long have you been playing video games?" and "What's one of your favorite gaming memories?" 3) Substantive questions to collect deeper data that answer the research questions. This part is nuclear in the interview, here you will ask for the player's feedbacks about gaming interface, mechanics and other aspects. 4) Demographic questions to gather data needed to describe participants in the final research report.

Based on these guidelines, we used the following script to assess the game sessions:

1. Today you are going to beta-test the game *Rapid Eye Movement*. In this first session, we want to investigate, as a primary objective, the gaming horror atmosphere; as a second objective, we want to evaluate mechanical issues (if the game is balanced, if the gameplay is flowing well). We ask you to give special attention to the game soundtrack, narration and sound effects.

2. Please answer: do you always play horror games? If the answer is "yes", what are your favorite horror games? If the answer is "no", please explain what you do not like about this kind of game.

- 3.1. Is the game frightening?

- 3.2. Did the game make you feel estrangement in any way?

- 3.3. Did you have fun with the game?

- 3.4. What is could be improved in mechanics, scenario or narrative?

4. Please provide us with your email address for future contact.

The careful observation of a group of ten different players yielded some interesting feedback concerning the use of fear as a meaning builder in a playful experience. Some players, at a first, felt bad about the ambience, the twisted scenario with bizarre images and the mood of the game; others felt pressure only in moments of unbridled escape. Others reported having a bad feeling about the narrator's voice in the beginning of the game [20]. Regardless of the kind of feeling, we realized that fear fueled the construction of the gaming experience from start to finish.

In the end, we were trying to answer one specific question: why do some players search for fear and other bad feelings in games? To solve this puzzle (using a suitable metaphor), we quote Suits [21], who says that playing a game "is the voluntary attempt to overcome unnecessary obstacles".

The subject addressed in this article is very broad and we hope to have enriched the discussion about game design process, narrative in games, and playful experiences.

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