

Horrifying Design

Development of a Systemization of Horror



Horrifying Design: Development of a Systemization of Horror

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1

Introduction

1.1 Preamble

If you want to write a speech, you can employ a variety of rhetorical devices. If you want to animate a character, you can follow the 12 principles of animation. If you want to write a story, you can use the hero's journey as a framework.

But if you want to create an especially scary horror game or an especially scary horror movie, you will have to depend on your intuition and on arduous investigation to the point that you almost have to turn into a psychologist. In that regard there is a need for an uncomplicated system that can be used as orientation and as a crutch for the design of horror experiences.

The goal of this paper is to find a system of frightening that is as uncomplicated as possible. For that purpose, the essential elements of scary scenes will be isolated and building blocks will be created that can be used to construct scary scenes. Additionally, methods for staging scary experiences are to be found.

The author suspects that fear and anxiety are very fundamental emotions and that fear is an universal feeling that doesn't depend on the cultural background. This thesis addresses both horror movies and games, however, the focus lies on video games because their interactivity opens up more possibilities and the author is mainly interested in using the new insights gained in this thesis for his own endeavors in the area of horror game development.

1.2 Hypothesis

The hypothesis of this paper is that behind the frightening effect of horror media, especially movies and video games, isolatable elements can be found that address universal mechanisms in humans - and that stylistic devices of horror can be developed from them.

1.3 Definition

The term fear is used in this paper to refer to the fear of a direct, immediate threat. Anxiety is used as a term for the fear of a potential future threat.

Whenever horror movies and horror video games are mentioned, this is intended to refer to such works where frightening the viewer and the generation of emotions like fear, anxiety and disgust are the primary intention of that work and the promise of offering such an experience is recognizable in the presentation and marketing of that work.

The term monster is used to refer to physically or morally frightening beings, such as they are used in horror movies and horror games and are usually employed as opponents of the main characters.

The term building block is used in this paper to refer to impressions that induce fear, anxiety or disgust, that can be isolated and used as building blocks for constructing scary situations.

1.4 Procedure

To start out, the functioning of horror movies and games will be figured out by reading literature that concerns itself with these media. Additionally, the author also intends to reflect on his own experiences with these media.

Literature on fear, anxiety and disgust will be used as foundation for isolating individual elements and for decoding their principles of operation. Finally, examples for the successful application of these elements will be found through the direct examination of horror movies and games.

Physical processes in the brain will be discussed only as far as it is necessary (especially as the current state of science in that area still hasn't gained a full understanding of those processes). The focus of this paper is to find out which impressions lead to the emotions fear, anxiety and disgust, as the goal of this paper is to find methods for creating experiences that should be as scary as possible, rather than gaining a better understanding of the brain and the mind. Only those impressions are to be used as building blocks, whose effects can be assumed to be culturally independent and effectively usable for the employment in horror movies and games.

There will be also a survey to gain a better picture of how frightening scenes are structured in movies and video games. The fundamental idea behind the functioning of the survey is that scary experiences are especially memorable (Dozier Jr., 2015, p.43). As a consequence, it can be assumed that a question about what the participant remembers first upon reflecting on scary experiences will be the memory of something that has caused especially intense negative emotions (of fear, anxiety or disgust).

The survey consists of 6 questions, consisting of 3 types of question, with each of those being used respectively once for experiences with horror movies and once for experiences with horror games. 4 of the questions are open questions. This is to ensure that the answer will not be influenced by the order or availability of selectable choices and to ensure that the participants will give answers that make it visible as authentically as possible what types of building blocks are inducing the most intense effects. This type of question is used to ask the participants about the effects of scenes and locations. To get a better picture on what monsters are the most frightening, however, a list of arbitrarily chosen popular monsters will be used, as monsters usually have a very distinct look and it can be assumed that in this case an influence of order and availability will be less likely.

For the evaluation, concepts/terms will be isolated in the open answers and the amount of participants in whose answers those concepts/terms can be found will be counted. For the question with a selectable answer, the characteristics of the monsters that are chosen most often will be isolated.

2

The Horror

2.1 Why do we fear

When attempting to investigate the topic fear, the author bumped into countless literature that promises to liberate the reader from that emotion. It seems that there is a strong interest in many people not to have to be afraid. Why this emotion exists despite this and why it is even of utmost importance, can be discovered quickly by taking a look at evolutionary psychology:

„Individuals, who have been fearful and anxious in a dangerous environment, survived more effectively and by that they have been also more efficient at propagating copies of their genes to the next generation compared to members of their species who didn't possess those emotions.“

(Sachser, Bodden & Lesch, p.130) [quote translated by the author]

Fear makes it possible to recognize dangers in advance and to avoid those dangers (Dozier Jr., 2015, p.79). In the case of humans there is also the issue that they are especially unspecialized and vulnerable compared to all the other animals - and that also means that humans have to be especially fearful to ensure their survival (Dozier Jr., 2015, p.6). Not to react to a dangerous situation can lead to death. To misunderstand a harmless situation and to view it as dangerous, however, only costs time and energy (Orians, 2015, p.58).

2.2 Why horror is enjoyable

“Humans have an adaptive disposition to find pleasure in make-believe that allows them to experience negative emotions at high levels of intensity within a safe context. And that is what horror offers.” (Clasen, 2017, S.4)

A novel experience of fear results in the feeling of genuinely living life rather than just existing (Dozier Jr., 2015, p.169). It leads to a sharpening of the senses, the memories of the experience will be remembered better (Dozier Jr., 2015, p.169) and the successful survival of a frightening situation leads to the release of opioid substances in the brain (Dozier Jr., 2015, p.159).

2.3 How fear works

According to Dozier Jr., the neural system responsible for feeling afraid consists of the interaction of the primitive fear system, the rational fear system and the consciousness (Dozier Jr., 2015, p.12). The primitive fear system needs only a tenth of a second to evaluate an impression. The rational fear system on the other hand only activates when the impression arrives at the consciousness (Dozier Jr., 2015, p.11). This lack of speed is compensated by its ability to evaluate an impression more precisely and be better capable at recognizing whether an actual threat is present (Dozier Jr., 2015, p.106-107).

The primitive fear system can be only controlled by the rational fear system with a lot of effort (Dozier Jr., 2015, p.11). It has evolved as an alarm system that is focused on high reaction speed (Dozier Jr., 2015, p.120). The rational system, on the other hand, is responsible for making plans for possible future scenarios, to repel immediate and future threats. The final decision is made by the consciousness (Dozier Jr., 2015, p.12).

Fear attempts to deactivate itself by making the person either fight against the threat or fleeing from the threat, eliminating the source of fear either way (Dozier Jr. 2015, p.132). If the reaction fight manages to push through, fear transforms into anger (Dozier Jr., 2015, p.62). Depending on the further development of the situation, repeated changes between fear and anger can come after another (Dozier Jr. 2015, p.63-64).

Individual humans have a different ground line of fear (in the sense that their threshold for feeling fear and anxiety can be either smaller or larger). This ground line can be influenced both by genetics as well as the environment and is capable of changing throughout life (Sachser, Bodden & Lesch, 2019, p.130). Humans whose mothers suffered under heavy stress during their pregnancies, as well as humans who suffered from a lack of affection, or were subjected to isolation or abuse during their childhood, are more susceptible to fear and anxiety (Sachser, Bodden & Lesch, 2019, p.130-131).

The amygdala stores rough, sketchy memories and impressions of threats, which can be recalled rapidly (Dozier Jr. 2015, p.132). Additionally it attempts to find connections between things that happened at the same time, even when they are not actually related to each other (Dozier Jr. 2015, p.122). This is useful for conditioning humans to become afraid of new impressions, even if those aren't threatening by themselves. The rough way of functioning of the primitive fear system can be used to overwhelm the viewer with a frightening impression before the rational fear system and the consciousness get the possibility to evaluate the impression more precisely.

2.4 Anxiety as fear of the future

Anxiety is described by Dozier Jr. as the fear of the future.

„Anxiety is the fear of the future.“
(Dozier Jr., 2015, p.139)

Anxiety comes into being when a person reflects on what things could potentially go wrong in the future. Everything that someone loves or views as valuable also creates the anxiety of being taken away (Dozier Jr., 2015, p.139). Anxiety can have an inhibiting effect that can prevent dangerous activities, a calibrating effect that makes people more careful, or even a motivating effect - when someone increases his efforts to avoid a negative outcome (Zwanzger, 2019, p.1).

2.5 Disgust as forerunner of anxiety

Disgust, first and foremost, serves the purpose of repelling illnesses. The feeling of disgust is intended to make sure that one avoids coming in contact with substances that have been contaminated by dangerous microorganisms (Buss, 2019, positions 2511-2512). The amount of parasites on this planet is much bigger than the amount of predators, both when it comes to the number of different species, as well as the total biomass (Curtis, 2013, p.19). Those, who avoided disgusting substances, ended up being healthier and were capable of producing more offspring (Curtis, 2013, p.5).

Disgust is always a warning against potential future illnesses. The concern about becoming infected with an illness can lead to anxiety:

„The anxiety of losing your health, of painful, prolonged and often ultimately lethal suffering or the frightening accompanying symptoms of complex disease patterns (for example seizure disorders like epilepsy or similar diseases) is a basic anxiety that has accompanied mankind since primeval times.“

(Grimm-Stadelmann, 2009, p. 12) [quote translated by the author]

In his book *The Philosophy of Horror*, Noel Carroll mentions the nauseating effect of monsters as an important theme in horror stories (Carroll, 2003, p.19-22).

„the character's affective reaction to the monstrous in horror stories is not merely a matter of fear, i.e., of being frightened by something that threatens danger. Rather threat is compounded with revulsion, nausea, and disgust.“

(Carroll, 2003, p.22)

Many popular types of monsters, for example zombies, werewolves and vampires, aren't just threatening through their ability to exert direct physical force - they are, additionally to that, evoking disgust as carriers of a contagious disease. The potential of becoming infected leads to an anxiety of becoming infected.

3

Staging The Horror

3.1 Fear conditioning

To create an effective frightening atmosphere it isn't necessary to settle for the fears the player already has - it is possible to create completely new fears within the context of the video game.

„In fear conditioning a neutral stimulus that appears at the same time as a threat gets connected with it: It becomes a danger signal that can trigger a fear reaction even when the actual threat is absent.“

(Lüken, 2019, p.143) [quote translated by the author]

This method gets used in video games especially in the context of especially threatening and frightening enemies, who announce themselves in advance in some way, most of the time through a sound associated with them.

If you let the chainsaw man in Resident Evil 4 get too close to you, you get to see a cut-scene where the head of the hero gets sawed off in an especially gruesome way. This results directly in his death and forces the player to restart the entire segment from the beginning. A situation, that the player will try to avoid as much as possible. At the same time it is possible to find out about the presence of this enemy long before you get to see him - through the sound of the chainsaw motor. This turns the sound of the chainsaw into a danger signal for the threat of a deadly decapitation by the chainsaw man. Merely hearing the chainsaw turns into trigger of fear, even when the chainsaw man can't reach the player.

3.2 Model learning

It isn't necessary for the viewer to experience something himself to react emotionally. Humans react to the reactions of other humans and can adopt those themselves. The effect is bigger when the model is of special importance to the viewer or especially similar to him (Feldker, Diemer, 2019, p.158).

Concerning this, it can be attempted to create an emotional bond between the player and specific characters. If these react frightened to a situation, their fear can encroach upon the player. The primitive fear system in humans is very effective at detecting fear and panic in other humans and automatically copying that reaction. It is also possible for the brain to get stuck in the feeling of panic, making a rational assessment of the situation impossible (Dozier Jr., 2015, p.56).

Model learning is especially important for horror movies, as the viewer isn't directly integrated into the events. In video games like Silent Hill, however, the player is directly afraid of being caught by a monster as his possibilities of action are identical to those of the player character and his main goal is keeping the character alive (Perron, 2012, p.109). The faces of player characters in Silent Hill stay emotionless and the player experiences their pain through vibrations of the controller (Perron, 2012, p.109). It has to be added that contrary to the earlier entries in the series in Silent Hill: Downpour the player character screams in some situations and shows emotions of fear (most clearly whenever being chased by the Void).

3.3 Sensitization

If a human gets repeatedly confronted with warnings that signal a potential danger, he becomes increasingly more susceptible to feeling afraid (Dozier Jr., 2015, p. 22). „You become jumpy, intensely alert to the danger, and vividly aware of your surroundings. Your reactions are on a hair trigger. Muscles tense, heart rate and blood pressure go up. Your rational fear system operates in high gear, analyzing the danger and suggesting courses of action. When you're sensitized you are easily frightened, even panicked.“ (Dozier Jr., 2015, p.22). By constantly nourishing the expectation of a threat without any appearance of a threat it is possible to create a feeling of anxiety and to amplify it progressively. Once a threat actually appears, a considerably stronger feeling of fear can be created.

In the video game series *Silent Hill* the player gets sensitized among other things through giving him a radio that, when it is switched on, emits static when monsters are nearby. According to Bernard Perron this gameplay mechanic increases anxiety because the player knows that a fight is approaching when hearing static (Perron, 2012, p.117). This gets increased by the radio not giving any information on what threat has to be expected, creating a frightening uncertainty about the outcome of the fight (Perron, 2012, p.117-118).

The video game series *Higurashi: When They Cry* relies almost exclusively on sensitization to instill fear. The presentation is minimal, there is no gameplay and the player doesn't have any possibility to influence the storyline. In the first game in the series the family of the main character moves to a village where at first everything seems to be normal. Piece by piece the player receives initially small, and later on increasingly larger hints that there is an evil power in that village. Again and again the player gets reasons to doubt that something is wrong, occasionally the protagonist is shown to be paranoid. Only near the end of the game it is revealed that his worries were entirely justified and the incidents start to follow in quick succession. Even at this point the game displays only minimal amounts of violence compared to conventional horror games. But through building up a feeling of unease over a long period of time and progressively providing more and more fuel for anxiety, the combination of text and minimal visuals and sounds is enough to incite lots of anxiety and fear.

Resident Evil 7 is another game that takes its time to bring the player into the action. At the beginning of the game, the protagonist receives a message from his missing wife, Mia Winters. This message makes the player have a presentiment that something bad is to be expected, but the nature of the threat isn't clear yet. When the protagonist arrives at the Baker family's mansion with his car, there are no monsters awaiting him. The gate to the main building is closed, so that he has to go through an overgrown path to a guest house. On his way, he repeatedly stumbles upon hints that a threat is awaiting him. When he enters the guest house, there are still no monsters waiting for him. Instead he stumbles upon more unpleasant objects like rotten food or a video recording, where the player himself gets to control a member of a group of reporters until he goes down into a basement and gets knocked out. Afterwards the player, again in control of the protagonist, has to go down into that basement where he just got knocked out in the video, but instead of finding any monsters the only being he finds is Mia Winters in a cell. She comes off a bit disturbed, but mostly normal. During their escape they stumble upon a table full of surgical instruments, Mia talks about scary things, but there are still no fights. Then they get separated and the player leaves the basement alone. Something knocks at the basement door. Once the player opens the door, he only gets to see the stairs in the dark and a strange panting can be heard. Once he tries to go down the stairs, after some time suddenly Mia crawls up the stairs on all fours before she appears directly in front of the screen and throws the protagonist with unexpected strength up the stairs. Only now the first fight happens. Throughout the game segments that contain fights alternate with segments without monsters.

3.4 Habituation

The constant confrontation with a specific stimulus, no matter how scary, leads to habituation (Dozier Jr., 2015, p.24). If you want to scare the viewer, the last thing that you want is that he gets used to the situation. This means that the design of a scary experience requires a certain degree of restraint when it comes to the employment of frightening situations and that there have to be a variety of different types of scary situations. If the only thing that happens is that blood splatters everywhere and body parts get hurtled through the air all the time, a horror movie can quickly turn into a comedy. Consequently, the avoidance of habituation is of great significance.

An important personal example is an experience I had when playing the video game Dead space. The scariest part of the game was for me the beginning when I had to fight against Necromorphs (corpses that have been resurrected by an alien life-form) for the first time. They could jump out of air ducts at any time and could be only stopped by shooting off one limb after another. But because this was repeated in the same way throughout the whole game and only change was that the amount and strength of the enemies was progressively increasing, I got used to it and approached any air duct with the expectation that there was a high probability that something is going to jump out of it. The mutilation of enemies turned into a routine after some time. In the further course I only perceived those parts as scary, where the game would break from the established formula, for example in one case when an enemy appeared who couldn't be killed through the use of weapons and could only be defeated by luring him in front of the engine of a space ship and igniting it. I also perceived some parts as scary, where a new type of enemy got introduced, though the scariness would get worn off once fights against that new type of enemy became a regular occurrence.

In horror games that use extreme situations and suddenly appearing enemies sparingly, however, habituation can be avoided. In the Silent Hill series it repeatedly comes to changes at specific points between the normal, foggy version of the eponymous city and the considerably darker and more dangerous „other world“. It is often possible to run past normal monsters, or sneak past them with a turned-off flashlight in the dark. Especially in the first Silent Hill game there are often rooms that are just empty. Suddenly appearing enemies are very rare, but the more surprising for that.

Resident Evil 7 constantly changes the situation and the type of the threat. Every member of the baker family is threatening in their own way. Jack Baker has lots of raw strength and repeatedly reappears after situations where it looks like he has been defeated. Marguerite Baker has the ability to control insects and she herself progressively changes into an insectoid appearance. By contrast Lucas Baker avoids direct confrontations and sets up traps instead. He appears as threatening mostly due to his sadistic personality. Additionally it comes at some point of the game to a change of the player controlled character and this character starts with an empty inventory so the player has to search for weapons and other equipment again in a new environment.

3.5 Loss of control

Fundamentally, when it comes to the perception of the degree of danger in a situation, for humans it is of utmost importance whether they have the capability to control the situation and affect it through their own actions, or are helplessly exposed to the danger without any ability to change the course of action. It's immaterial whether the situation where one would be in control would be much worse than the one where one doesn't have control (Dozier Jr., 2015, p. 20). This one of the reasons why many humans find flying with a plane to be scarier than driving a car. If an accident happens, only the pilot can control the fate of the plane, while the passenger is forced to witness the events unfold helplessly (Dozier Jr., 2015, p. 18).

Video games offer the possibility to take away the control that the player usually has, either partially or completely. According to Evan Kirkland a significant aspect of survival horror games is that the player can never really manage to get a feeling of being in control of the situation (Kirkland, 2009, positions 1145-1146). The player gets forced into a reactive position and doesn't have the possibility to go on the offense (Niedenthal, 2009, positions 2529-2530). Important objects can suffer malfunctions. The player might enter a room and end up being locked-in without any visible way out. Entire game mechanics could become temporarily restricted.

The loss of control can also happen in the shape of a confrontation with a monster which (at first) seems to be incomprehensible or undefeatable, or both. According to Noel Carroll, monsters often get depicted as unclassifiable, indescribable or unimaginable, something that is also visible in monster names like „It“ or „They“ (Carroll, 2003, p.32-33). In the movie Shin Godzilla, until the last moments, the monster Godzilla gets depicted as incomprehensible and undefeatable. Throughout the movie various characters puzzle over what Godzilla is and countless attempts to stop it by the application of brute force (through various military weapon systems) get fended off by the monster.

Likewise, the loss of control can be produced through poor visibility conditions. In video games restricted visibility increases the time the player needs to evaluate a situation and freezes him in a condition of uncertainty (Niedenthal, 2009, positions 2579-2580). In the Silent Hill series the player's sight is nearly constantly restricted either by fog or darkness. In Call of Cthulhu: Dark Corners of the Earth the screen gets blurry when the player character gets stressed or loses his mind.

3.6 Non-linear music

Hearing so-called non-linear music - music with large changes in volume, amplitudes and frequency that is dominated by disharmony (Schmidt, Fernholz, Mumm, Ströhle & Plag, 2009, p. 33) increases the interconnection of the parts of the brain that are responsible for feeling afraid with those responsible for visual perception and reflexive reactions (Schmidt et al., 2009, p. 33). The explanation for this effect is that this type of music possesses characteristics that resemble those of cries of mammals under stress in dangerous situations (Schmidt et al., 2009, p. 33).

The employment of such music lends itself well for giving scary situations an additional scary effect. Because this music has a frightening effect by itself, it can be also utilized in situations devoid of anything scary to give the viewer an unexplainable feeling of discomfort.

3.7 Landscape design

Whenever a human sets foot in a new landscape, he evaluate subconsciously whether it would serve well as living environment for him (Oriens, 2015, p.37). After a theory by Jay Appleton humans evaluate the environment first and foremost based on how good the visibility is, how many good safe havens exist and how many dangers can be expected (Oriens, 2015, p.38). In addition to those things Gordon H. Oriens also mentions the availability of water and food (2015, p.39). When humans see an unknown landscape on a picture, at first they draw unconscious conclusions and later more complex conscious conclusions while they examine the landscape (Oriens, 2015, p.40).

If one wants to attempt to create discomfort, it is important to make the landscape appear as much as possible as an unpleasant place. Visibility should be as bad as possibly, there should a lack of safe havens, a lack of healthy (potentially edible) flora and fauna, water that looks either undrinkable or too dangerous to get near it and there have to be as many dangers as possible. Ideally, the viewer should feel discomfort on first glance and even more discomfort after a more detailed examination. For achieving the latter, there is the possibility to sprinkle in hints that suggest that everything is much worse than it appears to be on first glance.

Beyond that the appearance of buildings also influences the emotions of the viewer. Buildings with round shapes activate the parts of the brain that are responsible for rewards and enjoyment, while jagged shapes activate the amygdala - the fear center (Ellard, 2015, p.134).

The city Silent Hill from the eponymous horror game series is a pretty good example for turning that into practice. Visibility is highly restricted because the city is constantly shrouded in heavy fog. The only safe havens are occasional rooms with safe points which - beyond the absence of monsters - look as dilapidated and uncomfortable as the rest of the environment. Dangers are omnipresent: many places are full of deep abysses because the streets are broken in and monsters lurk everywhere. As if this wouldn't have been enough, at certain points the city transforms (in the first game announced by an alarm siren) - it gets shrouded in darkness, making visibility even worse, and the landscape morphs into a labyrinth of strange constructs made of bloodstained, rusty metal, or to some other type of nightmarish, surreal horror landscape.

3.8 Making monsters

The core part of a monster - whether in a horror novel, movie or game - is being threatening (Carroll, 2003, p.43). Considering that fear, anxiety and disgust are emotions whose main purpose is the defense against threats, the necessity of that quality is obvious. Carroll views the deadliness of a monster - its ability to be physically threatening - as both a sufficient characteristic and as the basic characteristic required to be threatening. In addition to that it can also pose a psychological, moral or social threat, though those additional characteristics can replace the danger of physical threat in some occasions. (Carroll, 2003, p.43).

The perception of beauty and ugliness is determined by the usefulness or dangerousness of something. If something is perceived as ugly, it means that it had a harmful effect in some way (Orians, 2015, p.13). This makes it possible to design monsters that will be perceived as ugly independent of the cultural background of the viewer - as long as they clearly have characteristics that have a relation to fundamental threats that had impacted humans throughout most of their evolution, resulting in preprogrammed reactions established through natural selection.

A relatively simple way of creating monsters consists of taking real, unpleasant looking lifeforms and making them much bigger (Carroll, 2003, p.49). A bigger physical size implies more physical strength, and through this that the life-form poses a bigger physical threat. Another possibility is to drastically increase their quantity so that there is a vast swarm of monsters (Carroll, 2003, p.50), again boiling down to making them a bigger physical threat.

Another method for creating monsters is hybridization. By combining disjointed or contradictory characteristics in one single individual, a monster gets created that transgresses categorical distinctions (Carroll, 2003, p.43). „On the simplest physical level, this often entails the construction of creatures that transgress categorical distinctions such as inside/outside, living/dead, insect/ human, flesh/machine, and so on.“(Carroll, 2003, p.43). It is possible for those combinations to stay continuously in one shape, or that different characteristics belong to different identities that dominate the body at different points in time. Carroll mentions the werewolf as an exemplary representation of the latter variant (Carroll, 2003, p.45-46).

The Resident Evil series repeatedly features situations where human characters progressively transform into malformed monsters or where the player gets confronted by monsters that look humanoid at first, but end up being more and more deformed with every fight against them. Even besides that, most enemies, be it zombies or so-called bio-organic weapons, are nearly always at least simultaneously dead and alive and often contain additional types of hybridization.

There are also cases where the hero himself becomes the monster that way. In the movie *The Fly* a scientist transforms after a failed experiment with teleporters more and more into a gigantic fly while parts of his human body die off. In the movie *Tetsuo: The Iron Man*, more and more metallic parts grow out of the body of a typical Japanese salaryman until he becomes more machine than man and progressively loses control over himself.

When the monster itself isn't intended to look especially ugly or dangerous (for example when the monster is a normal human being or at least initially looks like one), the environment of the monster can be used to make it threatening through association. For this, the monster gets surrounded by objects that imply that the monster is more dangerous than its appearance suggests (Carroll, 2003, p.51). That way an attractive looking serial killer can be staged as a monster by showing the viewer that he has bloodstained murder instruments and corpses lying around in his home.

In Resident Evil 7, the Baker family is initially looking like normal humans, but absolutely everything about their house suggests that something is wrong with them. The game spends a lot of time with sensitizing the player that way before he gets to see the first monstrous creatures and before the members of the Baker family start to transform physically.

4

Building Blocks of Horror

4.0 Building blocks

Humans are equipped from the ground up both with fears that they possess by birth and with so-called prepared fears that aren't active by birth, but that can be learned especially quickly (Dozier Jr., 2015 p.82-83). This results in a range of building blocks that can be used to create frightening scenarios. Those building blocks can be traced back to evolutionary developed adjustments of humans and their use can be discovered in many horror movies and games.

Building blocks don't have to be used directly. Innate types of fear - including those that are merely prepared fears and still have to be activated through an appropriate experience - are evolutionary psychological mechanisms that identify threats based on a small amount of rough information (Buss, 2019, position 1792). As long as something is perceived that roughly resembles the trigger for the preprogrammed fear, the effect can be achieved - something that could be used especially for constructing hybrids as monsters.

4.1 Sudden sounds and movements

Sudden, loud sounds and the sudden intrusion of an object into the field of view results in an automatic fear reaction in all humans (Dozier Jr., 2015, p.81). Additionally, approaching sounds are perceived much more intensively by humans than departing sounds (Buss, 2019, positions 3047-3050). An excessive use of those is usually perceived negatively by viewers (Clasen, 2017, p.37). Nonetheless, this is a potent tool for scaring humans, as it can be expected with certainty that an effect is achieved. The art here is to use this tool skillfully, predominantly in such contexts where it fundamentally makes sense and ideally combined with other building blocks.

In the movie *Alien*, at some point a character feels unwell while eating, whereupon the other characters attempt to hold him down on the table. Then suddenly blood starts to squirt out of his chest and finally an alien larva comes out. One of the most well-known scenes in *Resident Evil 2* consists of a licker (one of the more dangerous enemies in that game) suddenly jumping through the one-way mirror in the interrogation room of the police station of Raccoon City.

4.2 Pointed shapes

The African Savannah has many plants with sharp thorns that can cause injuries. Dangerous predators have long, pointed teeth. Likewise various herbivores have large, pointed horns and antlers that they can use in fights against human hunters (Orians, 2015, p.49). Apart from that, since a long time humans have crafted pointed shapes out of stones to be used as weapons and tools. Because of this, pointed shapes are perceived both as dangerous and valuable (Orians, 2015, p.50). Pointed shapes can be part of monsters as well as part of the landscape. In his book *Horror Film Aesthetics: Creating the Visual Language of Fear*, Thmos M. Sipos describes sharp utensils and power tools as movie props that are inherently unnerving (Sipos, 2010, positions 1053-1054).

In the horror film series *Halloween* a big pointed kitchen knife is the main murder weapon of Michael Myers.

4.3 Heights

All humans have, by birth, a fear of falling down (Dozier Jr., 2015, p.81). Additionally, humans perceive heights as larger when looking downward than when looking upward, what leads to greater caution near abysses (Buss, 2019, positions 3086-3089). Even the fall from a small height can cause severe injuries, while at the same time the risk to fall was very big for the early humans when hunting or running away and even non-lethal injuries could fatally reduce the survivability of the injured individual (Orians, 2015, p.53).

Abysses in the form of collapsed streets appear regularly in the Silent Hill series and in the „other world“ there is often more abyss than ground. In Call of Cthulhu: Dark Corners of the Earth it often comes to situations where the player character has to move over narrow wooden planks (or similar things) at great heights and a blurring effect simulates the vertigo of the protagonist.

4.4 Darkness

The ability of human eyes to see in the dark is rather poor, while at the same time many animals dangerous for humans are nocturnal - something that turned nighttime into a very dangerous time for the early humans (Orians, 2015, p.55). The fear of the dark comes out especially in such situations where one feels alone and vulnerable (Dozier Jr., 2015, p.102). Darkness is something that gets regularly employed in both horror movies and games.

In the movie The Night of the Living Dead (1968), the word night is even part of the title. In The Blair witch Project most of the terrifying occurrences, including the finale, take place during night in deepest darkness. One of the distinctive properties of the „other world“ in Silent Hill is that it is shrouded in deep black darkness and the player character's flashlight is the only source of light. Likewise, in the Resident Evil series most of the game takes place at night, though darkness itself only became an integral part of the aesthetic and limited sight a genuine part of the gameplay in the newer games (Resident Evil 7 and the remake of Resident Evil 2 (in the earlier titles the environment was, despite visibly taking place at nighttime, illuminated by artificial light sources - something that only started to change with Resident Evil 4, though situations with limited visibility were still rarely used in this game)).

4.5 Being locked-in

Claustrophobia is an extremely common anxiety disorder. It consists of the fear of being locked-in in a confined space. Even for people who don't suffer from claustrophobia, being locked-in within a confined space is a situation where no escape is possible when a threat might appear (Dozier Jr., 2015, p.103). In that point the effect of a confined space can be increased by placing a threat in it, or at least by suggesting that something dangerous is waiting in there.

In Resident Evil 4 it happens multiple times that the player ends up in a room where the ceiling is slowly moving downwards, while the player has to shoot at multiple switches on the ceiling to make it stop before the hero gets squashed. In Silent Hill 2 it happens multiple times that the player enters a room and notices that the door is suddenly locked when trying to leave it.

4.6 Deep Water

Water can be volatile. Waterfalls, rapid streams, waves, floodings and tsunamis can result in a sudden death (Orians, 2015, p.54). Additionally, the ancestors of our species, monkeys and other primates, are terrible swimmers, making a genetic tendency to avoid deep water advantageous (Dozier Jr., 2015, p.102).

Water plays a central role in the Japanese horror movie Dark Water. The ghost of a girl who drowned in the water reservoir of a residential house repeatedly creates water damage in the building to call attention to herself. Initially water appears in small amounts, for example by dripping from the ceiling, while near the end in increasingly more intensive ways parts of the building get flooded by large volumes of water.

In the video game Resident Evil: Revelations the majority of the action takes place on a ship. Initially it comes to a few situations where the player has to traverse flooded parts of the ship. The player character is considerably more helpless in the water than on dry ground. Additionally, monsters are hiding in the water who can suddenly jump out and attack the player. Later the entire ship starts to sink. At the end the player has to dive into the sunken wreck of another ship that is lying on the ground of the sea and is populated by monsters.

4.7 Impurity

„Within the context of the horror narrative, the monsters are identified as impure and unclean. They are putrid or moldering things, or they hail from oozing places, or they are made of dead or rotting flesh, or chemical waste, or are associated with vermin, disease, or crawling things. They are not only quite dangerous but they also make one's skin creep.“

(Carroll, 2003, p.23)

Independently of the cultural background, in most parts of the world the same things are perceived as disgusting (Curtis, 2013, p.VIII). Disgust provoking stimuli can be divided in 6 categories: Atypical appearance (abnormal body shapes, visible sickness and sickness behavior), injuries (wounds, sores, scabs, pus), poor hygiene, risky types of sexual intercourse, potentially infected food and finally objects that came into contact with infectious agents (Curtis, 2013, p.8-9). Additionally, the sight of parasitical lifeforms evokes disgust (Curtis, 2013, p.9). Deformations of the face are emotionally perceived as if they were infectious illnesses by most humans (Buss, 2019, positions 2540-2541). When a monster is ugly and deformed, it evokes a feeling of disgust that leads to the anxiety of being contaminated by the monster in some way, as if it would be the carrier of an infectious disease.

The T-Virus and other types of fictional pathogenic agents are a central topic of the Resident Evil series. The monsters in that game are impure in the most direct way: They are carrying a virus in themselves and by infecting normal humans they can turn them into monsters as well. Other than that, the more dangerous monsters are usually severely deformed and it happens often, that they become even more deformed with every confrontation, becoming more and more impure.

While the monsters in the Silent Hill series don't carry any illnesses in themselves, they all look sick or deformed in some way. Likewise, the landscape itself in the „other world“ looks extremely impure: Often stains of blood are everywhere, everything looks dirty and in disrepair and large parts of the landscape look like organic material.

The sight of morally reprehensible actions can also create a feeling of disgust. According to Val Curtis the disgust of immoral behavior has evolved in humans out of the disgust of potentially pathogenic things (Curtis, 2013, p.74). This moral disgust creates the will to make oneself useful to the group at one's own expense and leads to a desire for punishment of those who don't do that (Curtis, 2013, p.71). Moral disgust became prevalent because cooperative groups have been better at survival than uncooperative groups and because they achieved a better degree of organization and productivity that also gave them the ability to be better at taking the territories and resources of uncooperative groups by force (Curtis, 2013, p.71). Unfair situations can trigger the same facial expression as disgusting substances (Curtis, 2013, p.75). Especially parasitic social behavior gets perceived in a similar way to unhygienic situations (Curtis, 2013, S.78). This means that a monster can evoke disgust by being morally impure, even when it looks like a normal, healthy human.

4.8 Unrecognizable faces

„Humans decipher other humans' inner states from reading their faces. [...] When we are blocked from reading a face, the result is unease or even dread. That's why many human or humanoid horror monsters besides clowns have highly distorted faces or wear masks.“

(Clasen, 2017, p.44).

The interpretation of faces is an essential means for evaluating the intentions of other humans (Orians, 2015, p.52). The impossibility of reading the emotions of the monster makes it appear scarier, as one can never be sure what to expect of the monster.

In horror movies and games all kinds of objects get used as masks. In slasher films it is common practice that the villain wears a mask. Michael Myers from the Halloween series wears an expressionless latex mask. Jason Vorhees from the Friday the 13th series wears an ice hockey mask. Leatherface from the Texas Chainsaw Massacre series wears a leather mask made from the skin of his victims. The infamous Pyramid Head from the Silent Hill series wears an unshapely pyramid made of rusty metal on his head. Nearly all monsters in the Silent Hill series don't have proper faces. Those are either completely disfigured by severe deformations, concealed in some way, or often just absent.

4.9 Separation from the group

The fear of separation is an essential human fear. The early humans were highly interdependent and the individual needed the help of affiliated humans to survive (Dozier Jr., 2015, p.234). Approval by the group can lead to the release of substances in the brain that decrease the feeling of fear (Dozier Jr., 2015, p.196). Among the early humans internal conflicts could be a question of life and death. A loss of social status could lead to reduced access to resources necessary for survival, reduced possibilities of sexual reproduction or even end in banishment or execution. These severe potential consequences are one of the main reasons for the existence of social phobias (Dozier Jr., 2015, p.234).

In most horror games, if the player character is part of a group, he gets separated from them already in the beginning. Resident Evil starts with a group of police special forces getting attacked by zombie dogs. A hectic flight ensues and only a part of the group manages to reach the mansion. Afterwards they split up to search the building and the player spends most of the game alone. At the beginning of the game Silent Hill the player character ends in a car crash when he tries to drive to Silent Hill for the purpose of going on vacation with his adoptive daughter. After the crash, he wakes up alone and spends the rest of the game searching for his daughter.

In the first season of the video game series The Walking Dead, the player character is a convicted murderer who is supposed to be brought to a prison in the beginning of the game - something that gets averted by the beginning of the zombie apocalypse. This backstory ensures that he has to see himself always exposed to the danger of being cast out by the group and initially attempts to keep his past secret. Constant quarrels repeatedly endanger the cohesion of the survivors and bring the threat of separation.

4.10 Strangers

By the time of their first birthday, children already start to be afraid of strangers and react anxiously to their advances. Foreign environments can also scare them (Dozier Jr., 2015, p.124-125). Throughout most of human history unrestricted travel was impossible. Villages or tribes were political units (Diamond, 2006, p.228). Relations between neighboring tribes were characterized by xenophobic conflicts, only irregularly relaxed for the purpose of exchanging mates or trading (Diamond, 2006, p.220). Rules of behavior that had to be considered when dealing with members of one's own tribe lost their validity when dealing with neighbors (Diamond, 2006, p.298). The tolerance of strangers was unthinkable (Diamond, 2006, p.228). Dozier Jr. finds it possible that this type of social environment resulted in a genetically prepared fear of strangers. For those with social phobias, the unfamiliarity of surrounding humans seems to be an important aspect of the fear of public speaking (Dozier Jr., 2015, p.104).

„As I walked between New Guinea valleys, people who themselves practiced cannibalism and were only a decade out of the Stone Age routinely warned me about the unspeakably primitive, vile, and cannibalistic habits of the people whom I would encounter in the next valley.“

(Diamond, 2006, p.298)

To maximize the effect, it has to be clearly recognizable that the protagonist and the strangers are undoubtedly members of different tribes and possess especially few similarities - that the mores and values of the strangers are as incompatible as possible with the mores and values of the protagonist.

This topic is used rather often in horror movies and games to create a hostile atmosphere. Groups of strangers are the main threat in the movie *The Road*. What is more, they get depicted as feral bandits and cannibals. In contrast to them the main characters - the father and the son - get depicted as still mostly civilized and human in their behavior.

In *Resident Evil 4* an American agent in search of the abducted daughter of the American president ends up in a remote village in Spain whose inhabitants (with the exception of a few important characters) only speak Spanish. Their words are not subtitled in contrast to the dialogues of the English speaking characters in the same game. Additionally, their lifestyle gets depicted as especially backward in development and uncivilized.

In *Call of Cthulhu: Dark Corners of the Earth* a detective takes himself to a remote city near the coast where the inhabitants look strange and behave throughout hostilely and uncooperatively. When attempting to talk to them, they always stress that the detective as someone from outside of the city is not welcome. As his stay continues it happens at some point that they try to kill him in his sleep while he spends the night in a hotel, with the result that he has to flee and gets hunted by them.

4.11 Predators

Already between the ages 3 and 4, children develop an understanding of the process of an attack by a predator, including the awareness that the prey dies permanently if it gets caught by the predator (Buss, 2019, positions 3067-3071). Children learn information about predators quicker and keep it in memory better than any other type of information. Additionally, adults are capable of recognizing dangerous animals quickly on pictures, even when they are surrounded by visual deceptions (Buss, 2019, positions 3075-3077).

Predators by themselves (without being combined with other elements) are rarely used as monsters in horror movies and mostly absent from horror games. However, it happens regularly that hybrids get used, both in the form of undead predators and in the form of monsters with predator-like characteristics.

Both in the Silent Hill series and the Resident Evil series repeatedly feature undead dogs as enemies. In the case of Silent Hill they're dog-like monsters while in Resident Evil they are zombie dogs infected with the T-Virus. Additionally specific enemies like the Licker in Resident Evil behave in a way that reminds of the behavior of predators, even when they look like disfigured humans.

4.12 Snakes

„Snakes evoke strong negative emotions in people who have never seen or been bitten by one. New Englanders, few of whom said that they had previous encounters with snakes, reported that snakes were the most prevalent objects of their intense fears.“

(Orians, 2015, S.43)

Most humans get startled at the sight of a snake or shed snakeskin, many humans perceive snakes as disgusting (Orians, 2015, p.42-43). As snakes are ambush predators, they are only dangerous when they aren't detected early enough (Orians, 2015, p.43), whereby the fear of snakes can be a big advantage in environments with many dangerous snakes. There is a complex system, that makes mammals including humans especially good at recognizing snakes early on. The visual system of mammals gets stimulated especially strongly by mosaic-like patterns that appear in nature mostly as patterns on snakes, being rare outside of that (Orians, 2015, pS.43-44).

Snakes repeatedly appear in the Resident Evil series. The first Resident Evil contains a confrontation with a gigantic snake in the attic of the mansion. Resident Evil 4 has regular snakes that can jump out of boxes whenever the player attempts to break them open. Resident Evil 6 contains a fight against a gigantic snake that is immune to bullets and has the capability of becoming invisible.

4.13 Insects and spiders

Insects and especially spiders are triggers for various common phobias. The fear of insects and spiders can be explained by the fact that early humans slept for a long time on the ground, where they have been an easy target for such animals. Poisonous spiders are among the most dangerous arthropods (Dozier Jr., 2015, p.102). Generally it can be a good idea to use insects and spiders not only directly, but also to use aspects of their appearance in the design of monsters.

Insects, spiders and insect-like monsters regularly appear in horror movies and games. Horror movies like *The fly* (1986), *Them!*, *Arachnid*, as well as countless others, monstrous insects or spiders play a prominent role. Nearly every entry in the *Resident evil* series contains some sort of insectoid monster, often in the form of human-insect hybrids.

5

Horrorgame- Prototype

5.1 Overview

The goal of the prototype is to use as many building blocks and staging methods as possible in one compact survival horror game, to unite as many scary elements of the horror genre in one single scenario that is still supposed to make some sense. This inevitably results in a somewhat cliché amassment of stereotypes as they can be found in horror games and horror movies.

Throughout the prototype game there will be no light other than the light of the flashlight. This is intended both to scare the player by the darkness and to limit his ability to perceive the environment.

There will be only one single scenario, consisting of three different environments. A forest full of dead trees, where the first monster (a mutated, sick looking dog) roves about between the trees and follows the player, until it suddenly attacks. Afterwards a sewer full of narrow tunnels and flooded parts, with countless snakes and spiders. Finally the player ends up in a chasm full of abysses where he gets chased by the second monster until he stumbles upon the first light other than the light of his flashlight - multiple searchlights - only to get shot once he approaches them.

There won't be any use of scenes with model learning, as this would necessitate detailed human faces - and that would involve disproportionately large amount of work. And that would require voice actors. For the same reason, the building blocks „Separation from the group“ and „Strangers“ won't be used. Everything else, however, is intended to be called into action for the prototype.

At the beginning of the game the player wakes up in a car wreck in a forest at night, whose trees all look dead (to show that this landscape is sick and uninhabitable). Already at this point the building block „darkness“ gets utilized and stays in use throughout the whole scenario (it always stays dark). The only light comes from flashlight lying on the ground, which is then picked up by the player. The limited visibility and the condition of being thrown into the setting are supposed to give the player the feeling that he only has limited control over his situation. Near the car wreck is a rock wall, over which the broken road safety barrier is barely visible. From the position of the player, there is a path leading to a sewer entrance with a door. Here the building block „Impurity“ comes to use for the first time: The sewer entrance will appear visibly unhygienic. From it an open sewer channel goes deeper into the forest. While the player follows the channel, he will be sensitized by sounds and a barely visible shape moving between the trees. After some time he arrives at a hut with a boarded up door.

From there a path leads back towards the rock wall. While on his way, the player gets further sensitized by sounds. At the end of the path he finds stairs along the rock wall that seem to lead back to the street. Some steps farther above however, it becomes evident that just before the street multiple tree logs block the way, again to give the player a feeling of helplessness (loss of control). A bloodstained axe is stuck in one of the logs (building blocks „Impurity“ and „Pointed shapes“). After the player has pulled out the axe, he can try to use it against the tree logs - but only to find out that he doesn't manage to get through, showing him again that he doesn't have control over his situation.

Now the player has no other choice but to return back to the forest hut in order to use the axe to break through the boarded up door. Inside, he finds a double-barreled shotgun, a few shotgun shells and a key. Once the player leaves the hut, the building blocks „Sudden sounds and movements“, „Predators“ and „Impurity“ get utilized: A dog-like monster jumps out of the thicket, its body showing clear signs of sickness. Now the player has to use the shotgun to defend himself. This fight has 3 potential outcomes: If the player hits the monster at least 2 times, it dies. If the player shoots the shotgun at least 4 times without killing the monster, the monster runs away. If the player gets bitten to death, he has to begin anew.

Once the player has survived this fight, he has to return to the sewer entrance and use the key from the hut to open the door.

Inside, the building blocks „Being locked-in“, „Deep water“, „Impurity“, „Snakes“ and „Insects and spiders“ get utilized: It's narrow inside, parts of the tunnel are so severely flooded that the water almost reaches up to the ceiling and here and there spiders and snakes are crawling around. Once the player has entered the sewer tunnel, the building block „Sudden sounds and movements“ gets utilized: The door closes suddenly. If the player attempts to return and reopen the door he finds out that it's stuck now - this is supposed to show him again that he doesn't have the situation under his control. Once the player has spent some time wandering through the tunnels (which have multiple junctions), he finds a rift in the wall, leading to the outside, finding himself in a chasm.

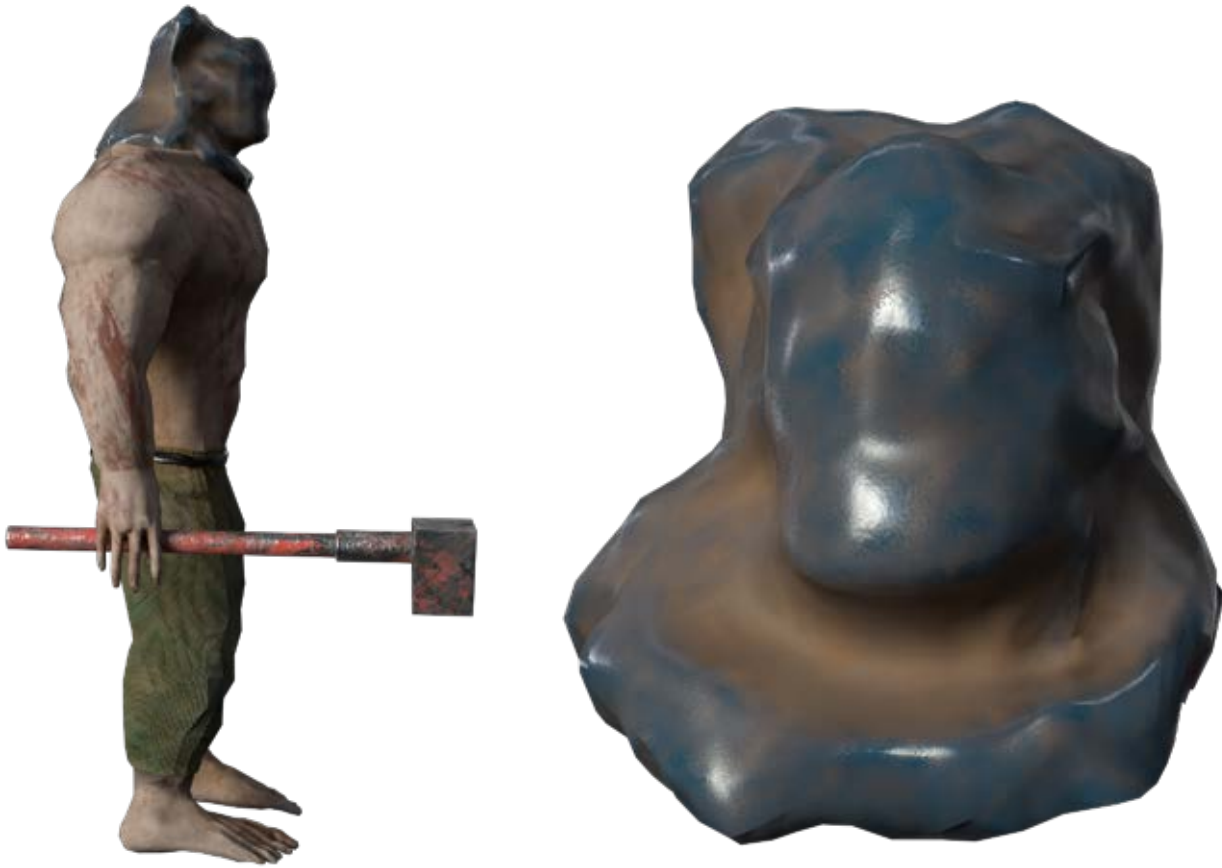
Here the building blocks „Pointed shapes“, „Height“, „Impurity“ and „Unrecognizable faces“ gets utilized: There are abysses everywhere; some time after the player has moved through the chasm, he runs into the second monster. This monster looks like a large man with a plastic bag over his head; its clothes consist of nothing but worn out trousers, its naked upper body is covered in injuries. In its hand the monster carries a massive splitting maul made of rusty metal. The monster repeatedly makes sickly, unpleasant sounds that can be heard from afar. Here the player is supposed to associate the sound with the monster by the use of fear conditioning. Now the player has to flee through the chasm while being chased by the monster. It doesn't react when getting shot with the shotgun. The monster chases the player in a jumbled way; occasionally it breaks off the chase, only to come out of a rock crevice or junction near the player a few moments later. The sound emitted by the monster is the only dependable way to find out whether it's nearby.

At the end of the chasm multiple searchlights can be seen from afar. Once the player has come close enough to them, it comes to the final use of the building block „Sudden sounds and movements“: Someone shoots a gun at the player, killing him. With this the prototype ends. Through the alternation of many different building blocks and techniques of staging and the sparing use of monsters, the habituation of the player gets avoided.

5.2.1 Large monster







The monster is physically large, more than 2 meters tall and has the physique of a weightlifter, clearly signaling that a physical confrontation would be a clear danger to life and limb. His weapon is a crude splitting maul, as much pointed as it is unshapely, both possessing pointed shapes and being impure. On its head, the monster wears a garbage bag that clearly looks like it comes from unhygienic conditions. At the same time it hides the monster's face, making it impossible for the player to see the monster's emotions. It constantly makes sounds of asphyxiation, but follows the player unwaveringly. It ignores the player's attacks as much as it ignores that it is constantly suffocating. This is supposed to feel like a loss of control for the player, as the monster simultaneously dies and lives, giving the player the feeling that it cannot be killed. Additionally the player is supposed to associate the sounds with the threat of the monster, making him be afraid of the sounds themselves (fear conditioning).



5.2.2 Small monster

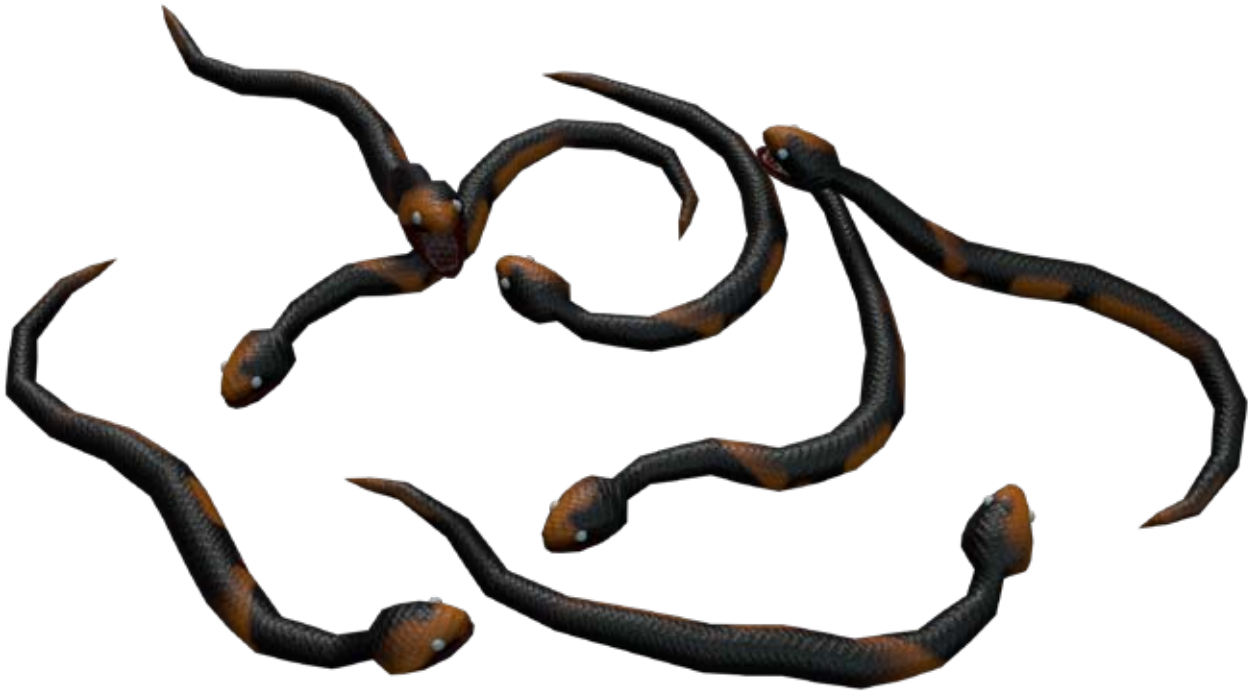


This monster looks like a dog whose body is so sick that it looks more like a cadaver rather than a living dog. Countless bones stand out of the body like thorns. The monster is as sick as it is deformed - this is supposed to cause an especially strong feeling of impurity. Being a dog, especially with a clearly visible mighty set of teeth, it is a predator, evoking the appropriate primal fears.

When encountering it for the first time, it can be seen only in a wraithlike way between the trees and it is hard to detect it with the flashlight. It follows the player, but bides its time when it comes to going for the attack. The condition of uncertainty persists for a long time, while the player gets constantly sensitized towards the potential of an attack, but for a long time without any attack happening.

Only once the player gets the key, the monster suddenly jumps out and immediately attacks. The monster hectically tries to bite the player again and again, until the player shoots it, or gets chased away by the loud noises of firing the gun. If it gets chased away, the player is unable to know whether it has been chased away permanently, or if it might return and attack again. But even if it gets shot, the situation stays ambiguous as due to its cadaver-like looks, it isn't clear whether it can be killed like a normal life-form by being injured. This is supposed to unsettle the player. If the player stays in the forest for too long, rather than going to the sewer entrance, the monster awakens again and attacks, until it gets killed again.

5.2.3 Snakes



When it comes to the snake, my choice fell upon the Fea's viper, as it clearly looks dangerous with its orange and black pattern. It doesn't come to a real fight with it, but if the player overlooks one of the snakes in the dark and comes too close, he can be bitten. In some parts of the sewer, large groups of them can be found, something that is likely scary for those who have the appropriate phobia and at least a little bit unsettling to those without such a phobia.



5.2.4 Spiders



When it comes to the spider, I went for a tarantula, as it looks clearly poisonous. Just like the snakes, the spiders appear in large numbers in some parts of the sewer, so that the player can step into a group of them suddenly at any time, and they suddenly become visible in the light of the flashlight.



5.2.5 Flashlight



At the beginning of the game, when waking up near a car wreck, the player gets shined at by the flashlight, sticking out of the earth in the forest. after the player picks it up, it stays the only source of light till the ending. It is supposed to be an old military flashlight, worn out and with barely enough luminance to fight off the darkness of the environment.

5.2.6 Bloodstained axe



The bloodstained axe is intended to be both off-putting and yet necessary to enter the forest hut. Because of that the player gets forced to come into contact with something impure, on the one side to be sensitized, and on the other side to make him feel forced to use whatever he can get his hands on. The blood stains are supposed to make it look more like a killing tool than like a forestry tool. On first glance the sight is supposed to be scary (especially as by that point there hasn't been any fight yet and the player expects that something happens in the near future). On the second glance, however, it becomes clear that it can be used to enter the hut.



5.2.7 Shotgun



The shotgun is supposed to look like a very old and not very functional hunting shotgun, that is almost falling apart. Additionally, it has to be reloaded after every two shots.

The discovery of the shotgun, in the context of a video game where the player expects confrontations and is already followed by a monster without having had to fight so far, announces an upcoming fight. Yet at the same time this shotgun doesn't look very reliable and the player doesn't know clearly how the fight will look, or when the fight is going to happen. The player finds the only shotgun shells in the same hut where he found the shotgun. Fundamentally, it only gets used in the fight against the dog, but that isn't something the player knows in advance. All of that is supposed to produce a feeling of not being in control.



5.3.1 Forest



All the vegetation in the forest is dead and the night is pitch-black. The only sign of life is the monster that moves between the trees, following the player. The only source of light is the flashlight. The forest is intended to create a fundamental feeling of discomfort, being as hostile to life as possible. Yet it only comes to a confrontation with the monster once the player has picked up the shotgun in the forest hut.



5.3.2 Sewer



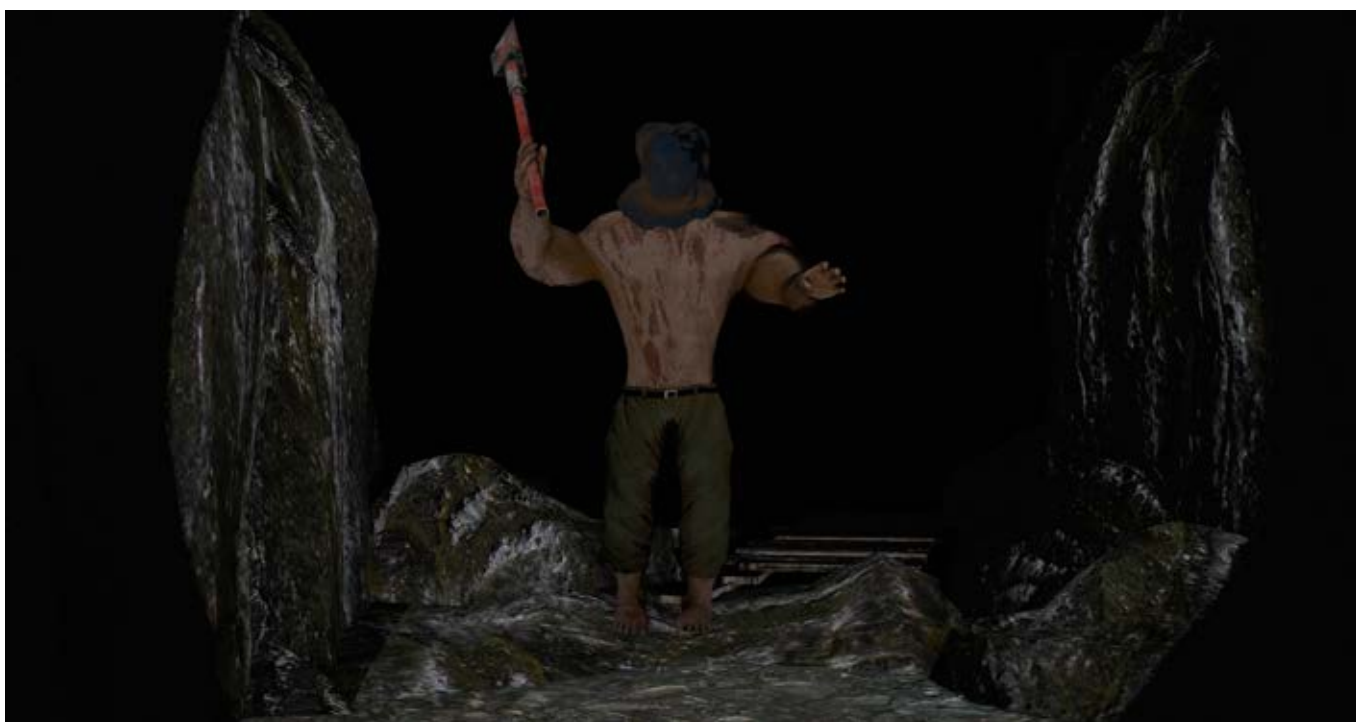
Even at first glance the inside of the sewer looks even darker than the forest. The deeper the player intrudes, the narrower and the more wet the tunnels become. At many points the water is so high and the ceiling so low that the player can barely keep his head above the water and the water surface is right below his field of vision.



5.3.3 Chasm



Just as the player manages to crawl outside through a hole in a tunnel wall, he almost stumbles into a dead black abyss right in front of him. The chasm confronts the player for the first time with heights, heights that can be only avoided with lots of effort because of the bad visibility and now the big invincible monster also has his first appearance. This monster now hunts the player through the chasm. AS he always has to watch where he treads, the player has to listen for the sounds of asphyxiation coming from the monster to get a rough understanding of the monsters position.



5.3.4 End of the game



As soon as the player escapes from the monster into the initially protective looking light of the searchlights (until this point the main problem in the game was darkness) it becomes apparent that it comes from watchtowers. Then a shot is fired, striking down the player. No questions get answered and the whole situation stays unclear, encouraging the player to contemplate on what exactly happened and what scary secrets this place might hide.

6

Conclusion

6.1 Survey findings

The size of the terms in the box depends on the percentage of answers which contained descriptions mentioning them (both directly and indirectly).

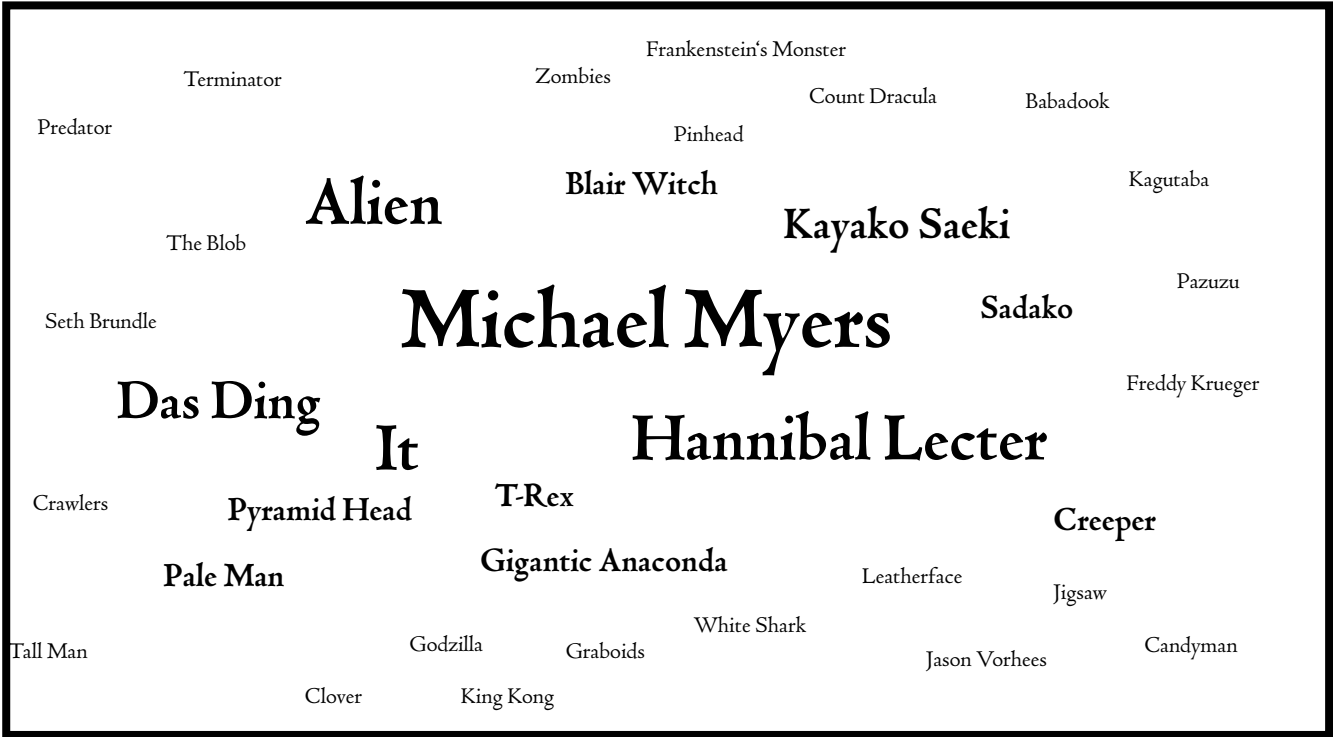
Situations and impressions that could be found in the answers



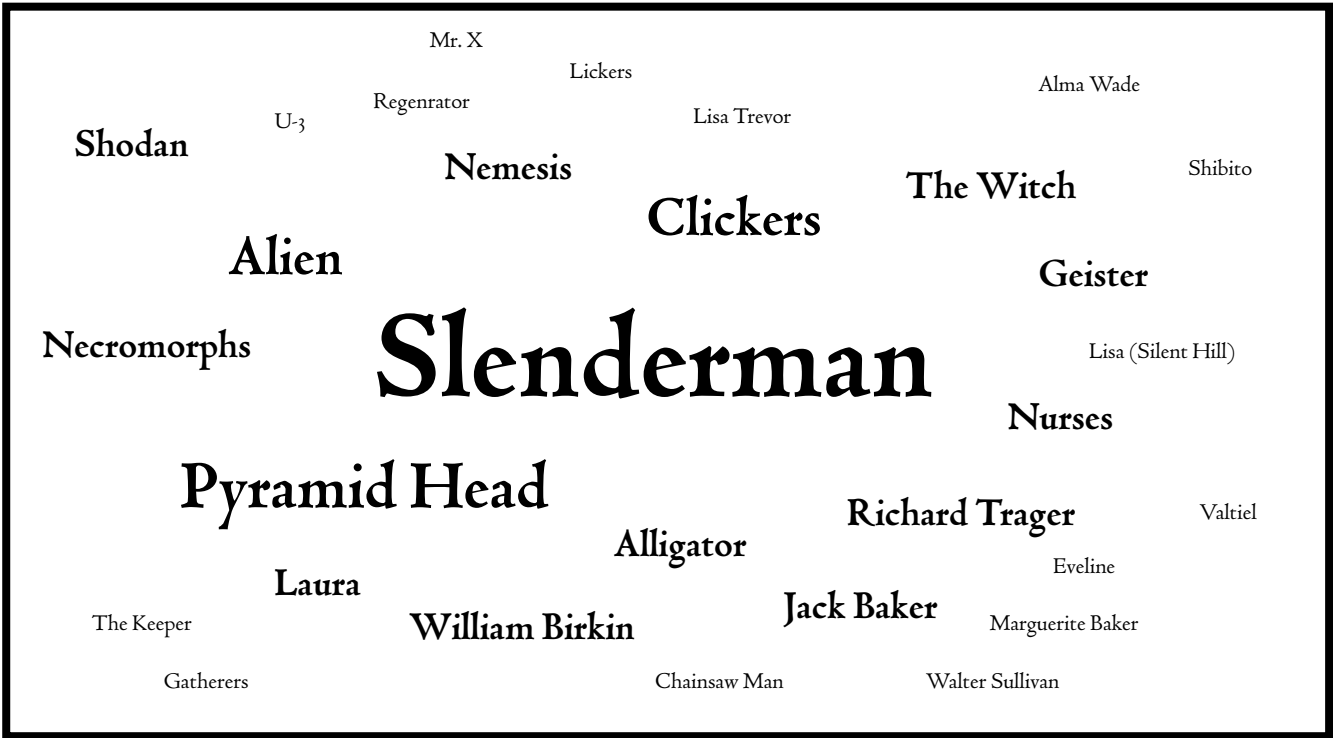
The explicit and implicit mentions of darkness are counted together in the chart (43.33% of votes), represented by the word „Darkness“. The expectation of a threat (40% of votes) is represented by the word „Tension“. The mention of sudden sounds or movements (36.66% of votes) is represented by the word „Jump Scares“. Abandoned places (23.33%) are depicted as „Abandoned Places“. Descriptions of the appearance of a monster (23.33% of votes) are depicted as „Monster appears“. Descriptions of situation where the player or characters in a movie lose control over their situation (16.66%) are depicted as „Loss of Control“. Descriptions of depictions that can be interpreted as impurity (Loss of humanity, blood coming out of mouth, disfigured humans, demonic possession of a child) are represented by the word „Impurity“. Claustrophobic situations (6.66% of votes) are depicted as „being locked-in“. Mentions of being caught by a monster in itself, without any peculiarities (6.66% of votes) are depicted as „caught by monsters“. Mentions of fog as especially scary occurrence (6.66% of votes) are depicted as „Fog“. The mention of the contradictoriness of a location as scary (6.66% of votes) is depicted as „Contradictoriness“. The mention of puppets as scary element of a situation (6.66% of votes) is depicted as „Puppets“.

On the next page monsters from movies and games are depicted in the same way, depending on the amount of survey participants that selected them as the most scary monster. Monsters that haven't been chosen by anyone get depicted in letters a very small, thin size.

Movie monsters, assessed by scaryness



Video game monsters, assessed by scaryness



6.2 Results

In principle, the sought-after stylistic devices of horror could be found. As expected, it was possible to establish that many possibilities exist to create horror movies and games that are capable of inflicting the same effect on the viewer independent of his cultural background. Fear, anxiety and disgust, as well as the triggers for these emotions, are deeply entrenched in our species and are still based on the living conditions of hunters and gatherers in the African Savannah. The insights, however, are limited.

The search for literature consumed most of the time. Initially the plan was to involve all types of literature about fears. But many books turned out to be useless and either focused on the overcoming and treatment of fear - often even when the title itself seemed to imply that the topic is fear in general - or could be hardly considered to be scientific literature. Psychoanalytical literature on the topic turned out to be useless for the purposes of this paper. Finally, literature about evolutionary psychology appeared to be the most promising for finding triggers for anxieties, fears and disgust that can be used independent of the cultural background of the viewer and that could be used to create building blocks.

It was possible to establish that the emotion fear is predominantly triggered automatically when specific parts of the brain assume that the body is threatened and that fear can be suppressed only to a limited extent (although the appearance of this emotion can be reduced through habituation), that disgust is also predominantly triggered through appropriate impressions, that anxiety is a type of fear from potential future threats and that while anxiety is subjected stronger control by the consciousness compared to fear or disgust, it can be still brought out of control.

Further examination brought the insight that context plays a big role. This meant that in addition to looking at building blocks there was the need to look at possibilities of staging the experience. It was also established that the correct staging is the most important tool for inducing strong emotions, especially when it comes to fear. When it comes to the tools for staging it was possible to find fear conditioning (as a possibility to condition the viewer to become afraid of impressions that were perceived neutrally before), model learning (which means in this context to use fictional depictions of humans that show specific emotions to make the viewer unconsciously adopt those emotions), sensitization (which means to use subtle suggestions of threats to set the viewer into an increasingly severe state of fear - to make the viewer involuntarily conceive potential horror scenarios in his head on the one hand and to make him react much more intensively to threats that actually emerge on the other hand), that the use of non-linear music can induce fear and that emotions of anxiety and fear can be intensified through scenarios where characters in movies and the player character in video games are subjected to being helpless in a situation where it cannot be assumed that the situation could be improved through their own actions. Additionally it was established it is important to avoid that the viewer gets used to the threats, else they will lose their effect.

Further, possibilities for designing landscapes and monsters were explored. When it comes to designing landscapes, it was established that they have to appear as hostile to life as possible to make sure the viewer feels threatened. When it comes to designing monsters, it has been established that, under consideration that emotions like fear, anxiety and disgust have evolved as mechanisms with the purpose to protect the body from threats, Noel Carroll can be assumed to be correct when he writes in his *Philosophy of Horror* that a monster has to be threatening first and foremost. It can also be assumed that a monster that looks threatening is going to achieve the desired effect independent of cultural background. Additionally Carroll is likely correct when writing that a bigger physical size and/or a bigger quantity of monsters is going to be viewed as a bigger threat, as that increased physical size and/or bigger quantity of monsters means that their potential for inflicting damage is also increased (and this threatens the integrity of the body more, resulting in more fear and anxiety).

The method of using hybridization in horror media as it has been described by Noel Carroll seems appropriate, as it makes possible to integrate more triggers of fears into one single monster and as it has the added beneficial effect of making the monsters more difficult to understand, creating a feeling of being not in control (due to being unable to assess the dangers posed by the monster accurately, making it more difficult to think up adequate countermeasures). Finally, Noel's method of using the environment to make the monster appear threatening through association also appears to be a potent tool for creating monsters.

In the attempt of isolating building blocks of horror, it was possible to find a total amount of 13 building blocks. They all have in common that they are connected to the living conditions as they have been experienced by humans living as hunters and gatherers in the African Savannah (or in some cases reach back even much farther into the past), that a reaction to the threats posed by those building blocks has been anchored in humans through natural selection (which however are in some cases prepared fears -fears that can be activated easily through negative experiences, but are typically inactive) and that it can be assumed that their effect will not depend on the cultural background of the viewer. The building blocks found that way are „sudden sounds and movements“, „pointed shapes“, „heights“, „darkness“, „being locked in“, „deep water“, „impurity“, „unrecognizable faces“, „separation from the group“, „strangers“, „predators“, „snakes“ and finally „insects and spiders“.

It was not possible to get a sufficiently large amount of participants for the survey to achieve a representative result. The final amount of participants were only 30 people. The nature of many of the responses suggests that most participants didn't take the survey seriously and attempted to give an answer as quickly as possible. The use of open answers has turned out to have been a mistake; many of the answers were hard to interpret unambiguously. Overall the survey didn't result in any new insights. At the same time interpreting the answers ended up wasting too much time.

When it comes to the open questions, the answers were often hard to interpret. Despite being explicitly asked to describe the impressions in the question about scary locations, most answers contained only a mention of the location itself, without stating what aspect of it was experienced as being scary.

The expectation of a threat was important for 12 participants (this can be viewed as a success of sensitization). Sudden sounds and movements appeared in the answers of 11 participants. Darkness was explicitly mentioned by 8 participants. 5 additional participants mentioned locations that were dark, without explicitly mentioning darkness itself. Abandoned places could be found in the answers of 7 participants. The appearance of a monster by itself was mentioned by 7 participants. Situations, in which a character suffers a loss of control, could be found in the answers of 5 participants. Various types of impurity were mentioned by 4 participants. Respectively 2 participants mentioned feeling locked-in, being caught by a monster, fog, the contradictoriness of the location and puppets.

The answers to the question about movie monsters were dominated by Michael Myers from the Halloween series with 20% of the votes. The second place was shared by aliens (from the Alien series), Hannibal Lecter (from Red Dragon, The Silence of the Lambs, Hannibal and Hannibal Rising) and It (from the eponymous movie based on the Stephen King novel) with respectively 13,33% of the votes. The Thing (from the eponymous movie) ended up getting 10% of the votes. The list of video game monsters was led by Slenderman with 33,33% of the votes. The next one was Pyramid Head (from the Silent Hill series) with 13,33% of the votes. The third place was occupied by the Aliens (from various movie based video games in the Alien franchise), the Clickers (from The Last of Us) and the Witch from Left 4 Dead). Everything considered humanoid monsters seemed to have been experienced as being more frightening; both Michael Myers and Slenderman have the bodies of regular humans, but no recognizable faces (in case of Michael Myers because of his mask and in case of Slenderman because he doesn't have a face).

In the case of Slenderman, however, there is the issue that he used to be mostly an internet-phenomenon before appearing in multiple video games and it is quite possible that he ended up getting most votes because of his popularity rather than his scariness. Additionally the answers to the open questions suggest that the choice of monsters might have been random. If, additionally, the low amount of participants is considered, it can be assumed that it isn't possible to draw any meaningful conclusions from the results.

The insights in this paper are based solely on literature and the self-reflections of the author on his own experiences with horror movies and horror video games. The survey roughly confirmed the findings, but the low amount of participants and the lack of seriousness of many answers mean that the results are neither representative nor reliable. To gain more precise and comprehensive knowledge of this topic, it would be necessary to conduct experiments that would require large amounts of resources and time, being impossible within the scope of this scientific thesis.

I

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