

The purpose of this work, is to verify whether the use of a point of view movie together with a panoramic screen can increase immersion in cinema compared to the current widescreen format and the common Hollywood visual storytelling. For this, we will first discover how screens have developed in order to understand the difference and relation between panoramic screens and widescreens. We will also understand the importance, meaning and different types of immersion. Then we look at what point of view is and when it appears as well as review some movies that have used it as their principal way of visual narrative. We will analyze the key characteristics of widescreens and panoramic screens in terms of immersion and we will see which advantages and disadvantages point of view has as a visual narrative. Finally, we will analyze how the combination of point of view and a panoramic screen can increase immersion and if one or both of them could be the future of the entertainment industry.



Valeria Garcí-Crespo López

# VIEWING ALL

Can a point of view movie together with a panoramic screen increase immersion in movies?





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Valeria Garci-Crespo Lopez

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*"Cinema should make you forget you are sitting in a theater."*

*Roman Polanski*



To my beloved parents and boyfriend



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## **1. Declaration of Independent Work**

I hereby declare that this thesis contains only my own independent work and that I have not received any help from other people. All citations, whether literal or by meaning, are clearly marked as such and their sources are listed in the bibliography. I also declare that I have read and understood the regulations for the bachelor thesis of the BTK-Hochschule für Gestaltung.

Berlin, 26.01.2017

*Valeria Garcí-Crespo López*  
..... (Signature)

## **2. Abstract**

The purpose of this work, is to verify whether the use of a point of view movie together with a panoramic screen can increase immersion in cinema compared to the current widescreen format and the common Hollywood visual storytelling.

For this, we will first discover how screens have developed in order to understand the difference and relation between panoramic screens and widescreens. We will also understand the importance, meaning and different types of immersion.

Then we look at what point of view is and when it appears as well as review some movies that have used it as their principal way of visual narrative.

We will analyze the key characteristics of widescreens and panoramic screens in terms of immersion and we will see which advantages and disadvantages point of view has as a visual narrative.

Finally, we will analyze how the combination of point of view and a panoramic screen can increase immersion and if one or both of them could be the future of the entertainment industry.

### 3. Introduction

As emotional, emphatic and sensitive beings, humans have an inherent interest in stories. "Anthropologists tell us that storytelling is central to human existence. That it's common to every known culture. That it involves a symbiotic exchange between teller and listener [...]. We use stories to make sense of our world and to share the understanding with others."<sup>1</sup>

This work deals with the topic of stories and the way they are expressed. More specifically we will cover the area of cinema, which like any other medium is under constant development. The basic cause for this development is the ongoing search to improve the experience for the audience. We will find that one of the fundamental keys for good storytelling is immersion, so filmmakers put great effort into increasing it in their works.

If we look at the oldest stories told, then we will find people telling about their experiences and quite naturally they will tell them from their own perspective, from their Point of view. If we now look at the latest development in cinema technology, we find big panoramic screens that expand the projection area way beyond what has been possible so far. We will analyze the possibility to combine

these two approaches and effectively try to project the oldest way to tell a story onto the most bleeding edge development of screen technology.

The title –Viewing All- already reflects this endeavor. Inspired by the Greek translation of *Panorama* (pan = all, orama = viewing) it does not only represent the topic of the panoramic-type screen but also reflects the viewing as if we were in the position of someone else and experience their story from their point of view.

In the following pages we will discuss many topics and discover the answers to questions like: What is the history of the panoramas? What is the latest development in screen technologies? What is the deeper meaning of immersion and what roll does it play in cinema? What is point of view and where is it used in cinema? And, the most important, *can a point of view movie together with a panoramic screen increase immersion in movies?*

<sup>1</sup> Rose, Frank (2012): *The art of immersion: How the digital generation is remaking Hollywood*, Madison Avenue, and the way we tell stories. New York: Norton, W. W. & Company. p.1

## 4. Screens and Immersion

### 4.1. The development of screens: from square screen to our widescreen

If we want to understand the development from the early almost square screens to our now so commonly used widescreens, we have to look back in history into the first appearance of the *moving image* and the *aspect ratio*. This will take us from the beginnings of screens all the way to recent creations.



Figure 1: 4x3 Aspect Ratio screen<sup>1</sup>



Figure 2: Kino Zoopalast Cinema Widescreen<sup>2</sup>

The emergence of cinema goes back to the 1890s and its appearance was possible because of the industrial revolution<sup>3</sup>, the will to create a new form of artistic expression and technological advances. It is thanks to William Kennedy Dickson – who worked at Edison's Lab - that we have the first *aspect ratio* and the possibility of showing moving images with the use of the Kinetoscope.<sup>4</sup> The first aspect ratio and the first movie format was a 35 mm film “on an image that was 4 perforations high – resulting in an image that was .95” by .735” – a 4:3 aspect ratio – or 1.33.”<sup>5</sup> There is no information about why Dickson decided on this aspect ratio<sup>6</sup> but it was the first of its kind and it gave birth to cinema.

In “[...] 1909 the Motion Picture Patent Company [...] declared that 35 mm film with Edison perforation, and 4:3 aspect ratio with an image 4 perforations high as the standard for all films that were to be made and shown in the US.”<sup>7</sup> With this declaration, the famous “square” image so well-known from old movies was created and a huge and successful entertainment industry was born.



Figure 3: Edison Kinetoscope (1895)<sup>8</sup>

It is interesting to know, that even though cinema developed in different and various ways all around the world, not only technologically but also creatively, it is Hollywood who has defined the movie industry starting from production and distribution down to its narrative form.<sup>9</sup>

The next development after the creation of the aspect ratio 4:3 came by the hand of sound: "*In 1932, the Academy of Motion Pictures Arts and Sciences voted on and declared that in order to make room for the soundtrack, the image should be masked off on the top and bottom for a 1.37 aspect ratio [...]. This image size would be called the Academy Ratio and it remained the standard in Hollywood for yet another generation of movie goers.*"<sup>10</sup>

It is due to the appearance of television that the film industry had to find new ways of getting the attention of their audience back. People were starting to prefer to stay at home because the entertainment was available on their TVs. Only in the 1950s the widescreen development began to get people back into the cinema theaters.

The first try to get people's attention back was in 1952 with *Cinerama* by the hand of Fred Waller and Paramount. The screen had an aspect ratio of 2.59 and was able to display a 147° field of view with the use of a curved screen and three

projectors that were in charge of projecting the image.<sup>11</sup> Even though Cinerama was a huge success, it was not the cheapest and new possibilities were knocking on Hollywood's door.

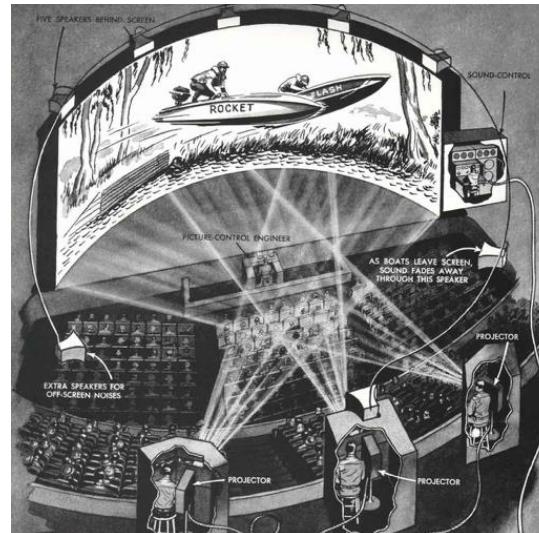


Figure 4: Cinerama (1952)<sup>12</sup>

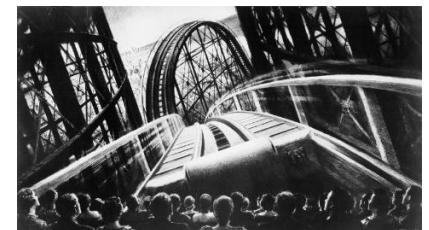


Figure 5: This is Cinerama – Publicity Drawing<sup>13</sup>



Figure 6: Cinerama Logo<sup>14</sup>

With the success of *Cinerama*, different companies started to think about what they could do to improve or compete with it. 20<sup>th</sup> Century Fox was one of these companies who didn't lose time. "After seeing the impact of *Cinerama*, executives at 20<sup>th</sup> Century Fox rushed over to France to meet with Professor Henri Chrétien, the inventor of a technique called 'Anamorphoscope' which he had invented in the 1920s. Anamorphoscope used a specialized lens that would distort an image in only one direction – in other words squished it. With the use of a 2 to 1 anamorphic lens *CineamaScope* was born having an aspect ratio of 2.35 keeping using the 4 perforation and 35 mm film."<sup>15</sup>

Thanks to the anamorphoscope it was now easier to show widescreen movies, which not only had better image quality, but also came with lower costs than the expensive *Cinerama*. With the appearance of *CinemaScope*, all big studios changed to it, except one – Paramount.

Paramount still wanted to improve *Cinerama* and because of this they preferred to stay with its aspect ratio of 1.66 (used in the movie *Shane*), which did give them problems with the film grain, but they didn't need long until they came up with a new solution: *VistaVision*. With the advance in cameras that would allow the capture of greater images the development and appearance of new screens, recording devices and projection techniques wouldn't stop with Paramount's solution, and companies kept coming up with new formats such as *Superscope*, *Technirama*, *Cinemiracle*, *Vistarama* and many others.<sup>16</sup>



Figure 7: Century-Fox president Spyros Skouras in Paris with Chrétien<sup>17</sup>

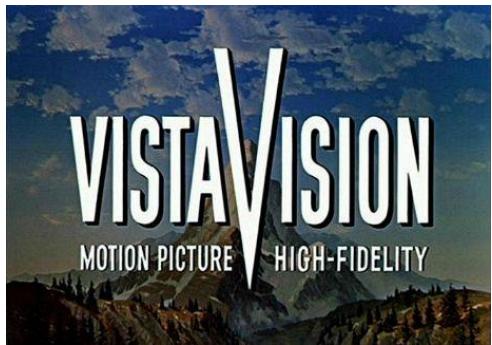


Figure 8: Logo VistaVision <sup>18</sup>



Figure 9: 'Fox Color' Camera Paramount <sup>19</sup>

Even though they kept on experimenting with new cameras, projectors and ways of deforming the image, they were always using a 35 mm film which limited their area of creation and development. This situation would change with the appearance of *Todd-AO*, which used an aspect ratio of about 2.20 and brought with it the change from the 35 mm film to the 70 mm film.<sup>20</sup> "In 1954, in the midst of this rush to widescreen, a small company named Panavision started manufacturing anamorphic lenses for cameras and projectionists to fill the shortage of lenses. Originally only working with CinemaScope [...] by the late 50s, Panavision began to replace CinemaScope itself. Using their success, they started developing and acquiring new camera systems and formats [...]."<sup>21</sup> With this new development, Panavision's *Super Panavision 70* was born with its aspect ratio of 2.20 and 70 mm film. Unfortunately it was too expensive for the time and had to wait for its reappearance in the 70s when it was finally used for IMAX.<sup>22</sup>

The last big change in aspect ratios was to the now very common 16:9 ratio or 1.77. This format is broadly used today in our widescreen TVs and many other video products.

We owe the appearance of this aspect ratio "[...] to Film's little brother Television. In the late 1980s, when the plans were being drawn up for the HDTV standard, Kerns H. Powers, an SMPTE engineer suggested this new aspect ratio as a compromise. 16x9 was the geometric mean between 4x3 and the 2.35 the two most common extremes in terms of aspect ratio. This means that an image of either aspect ratio would have relatively the same screen area when properly formatted in 16x9 with letter boxes."<sup>23</sup> With this, the aspect ratio that would define our film industry was born.

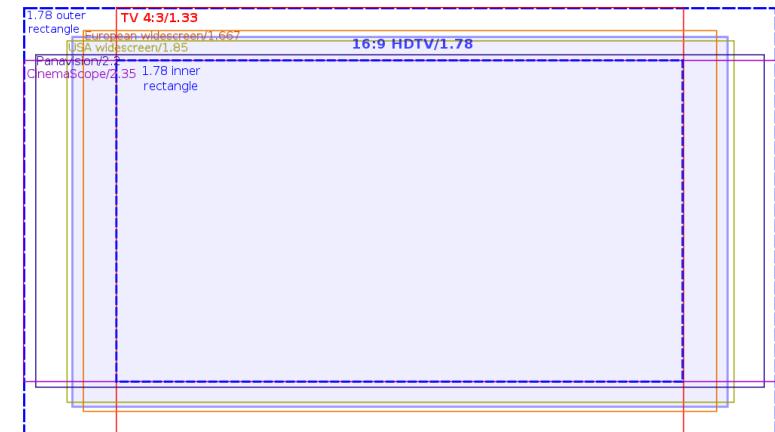


Figure 10: 16x9 Aspect Ratio (1989) Text <sup>24</sup>

#### 4.2. From Panorama to curved screens. The beginning of immersion.

Until now we saw how aspect ratios, new technologies and a good compromise contributed to the evolution of today's screen sizes and formats. Besides that, there is another thing in the development of the screen world that should be considered in order to understand our current position - the *panorama*.

The word *panorama* comes "*(f)rom the Greek pan, meaning 'all', and orama, meaning 'view'. [...] [P]anoramas were among the earliest and most commercially successful forms of mass visual entertainment.*"<sup>25</sup> We owe the invention of this medium to the military interest in seeing an entire field -in order to plan strategies- and Robert Barker back in 1787.<sup>26</sup> The first panorama was a "[...] 21-meter-long, 180° view of Edinburgh [...] presented to the public in the Archers Hall at Holyrood [...]"<sup>27</sup>, which on its arrival to London was a huge success, becoming a popular attraction for everyone.<sup>28</sup> This started the long story of the development and transformation of the *panorama* as a medium.

Panoramas had the function of placing the observer in the picture.<sup>29</sup> "*With nothing within which to locate the canvas, the spectator was more likely to accept the realism of the visual field than if the painting had been conventionally framed and exhibited.*"<sup>30</sup> These creations wanted to entrap people and make them feel like they were somewhere else.

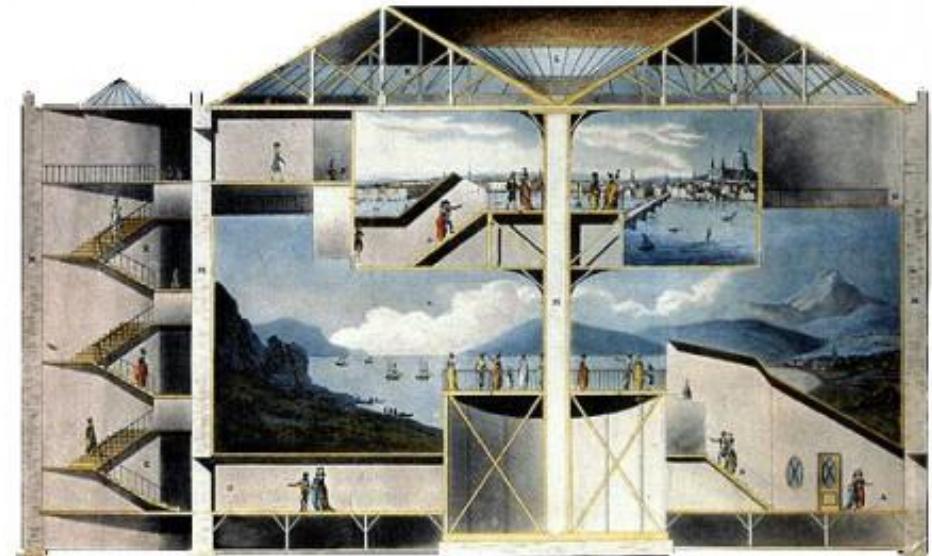


Figure 11: Robert Barker Edinburgh Panorama (1787)<sup>31</sup>

The appearance of panoramas didn't first start with Robert Baker. We can track their creation back into the late Roman Republic, in Pompeii, where *Villa dei Misteri* was created; a spectacular scene painted in a room with the visitor surrounded by a 360° painting.<sup>32</sup> Other examples can be seen in the renaissance or on renaissance ceilings and domes, which wanted to transport the viewer into Heaven, or the Byzantine mosaics and the work of painters like Claude Monet with his work *Nymphéas*.<sup>33</sup>



Figure 12: Villa dei Misteri Pompeii (2nd Century BC)<sup>34</sup>



Figure 13: Byzantine Mosaic. San Vitale Basilika in Ravenna (527-548 AD)<sup>35</sup>

All of these examples are different from one another and of course from the panorama, but they all share one thing in common: They want to capture the viewers vision and bring them to somewhere else. It doesn't matter if they want to represent a scene, show a landscape or create the closeness to God. All these works seek the creation of an illusion.



Figure 14: Renaissance ceiling. Sistine Chapel Ceiling (1508-1512)<sup>36</sup>



Figure 15: Claude Monet Nymphéas (1920-1926)<sup>37</sup>

If we look at the development of the panorama we go back to the first wrap-around images. We will find creations which are normally not so well known or even named. These creations are the *moving panoramas*, *dioramas* and the *dissolving views*, which are probably the earliest beginnings of cinema.

The *moving panoramas* were inspired by the circular panoramas of Baker, but there were some distinct difference between them. While the circular panoramas were permanent<sup>38</sup>, the moving panoramas were itinerant. "Although many were exhibited in cities [...] successful moving panoramas toured for years. Their titles could be changed, scenes added, and even their subject matter 'refreshed' [...]"<sup>39</sup>. The other difference lied in the way they showed their story. Circular panoramas were rotundas with wrap-around paintings of different landscapes. With moving panoramas however "(i)instead of being surrounded by a stationary wrap-around painting the spectator sat in an auditorium. A long roll of painting was moved across a 'window' (often with drawble curtains) by means of a mechanical cranking system. The presentation was accompanied by a lecture, music and occasionally sound and light effects. Other attractions, such as musical acts or feats of legerdemain, could also be added. The duration varied, but by the mid-century, a length of ninety minutes or more had become common."<sup>40</sup> Besides these differences, they shared topics and wanted to immerse the viewer in the spectacle.<sup>41</sup> "Circular panoramas emphasized immersion into a place or event, while moving panoramas relied more on narration and a combination of different means of expression."<sup>42</sup> If we look at this we can see that already in the 19<sup>th</sup> Century people were going to places to see images move in front of them, just like we do when we go to the cinema today.

Simultaneous to the moving panoramas came the Dioramas, which are historically very close one to another. "*The Diorama was invented by the French painters Charles-Marie Bouton [...] and Louise-Jacques-Mandé Daguerre [...]. Like Barker's Panorama, it was a building-vision-machine, and just like panorama, its name was neologism, a combination of the Greek roots dia (through) and horama (view).*"<sup>43</sup> The main factor that distinguished the moving panorama from the Diorama was that "(t)he audience was placed in a rotating amphitheater."<sup>44</sup> Nowadays we understand dioramas as collectible miniature models, which is a totally different meaning from the expensive moving scenarios that the people were using as a way of entertainment back in the days.<sup>45</sup>

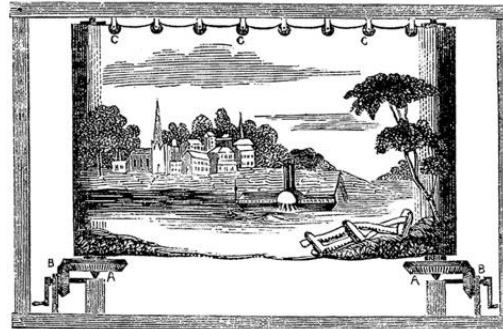
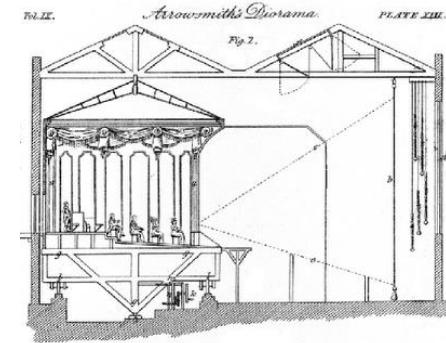


Figure 16: John Banvard, Illustration of a moving panorama<sup>46</sup> Figure 17: Diorama Theater<sup>47</sup>



As another creation of the 19<sup>th</sup> Century before the appearance of the Kinetoscope we find the *Dissolving views*, which are thought to be created in England in the 1820s-1830s by either Henry Langdon Childe or the magician Mr. Henry.<sup>48</sup> *Dissolving views* represented another change in the way the world of the panoramas was developing. They were, as their name suggests, images that appeared and disappear in front of a screen, which "[...] became a viable alternative to panoramas and dioramas by the mid-century. Initially they required a pair of identical magic lanterns with a shutter blade that blockaded one of the lenses while the other one was revealed. The most basic 'software' was lantern slides of identical scenes, but with minute differences. The day was made to turn into the night, and a calm sea into a stormy one. In principle any scene could be dissolved into the next one, creating a continuous projection. By revealing both lenses at the same time, slides could be superimposed, creating apparitions and dream sequences."<sup>49</sup>



Figure 18: Illustration of audience looking at *Dissolving Views*<sup>50</sup>

Moving panoramas, just like the circular panoramas, were images where a reality was represented. With the appearance of *Dissolving images*, a new way of storytelling was created where reality could be mixed with fantasy, bringing a new world of possibilities.<sup>51</sup>

After a few years, in 1889<sup>52</sup> the creation of the Kinetoscope would change the entertainment industry and the panoramas would slowly be forgotten.

Let's review what we just learned: We had *panoramas*, *moving panoramas* and *dioramas*. Thanks to the creation of the "magic lantern" the appearance of *dissolving views* was possible. Finally, the invention of the *Kinetoscope* would lead to the appearance of the first screen aspect ratio, which would allow the evolution of big screens such as *Cinerama*. From that point it became hard to combine panoramas with the new technology of the Kinetoscope as a form of mass media entertainment. But the development of panoramas would not stop even though they had vanished from the common entertainment world.

Eventually wraparound images returned in many different forms. These include: "'Magnascope', Abel Gance's three-projector system of surrounding spectators with the action, 'Vitarama' a 1938 horizontal projection system developed by Fred Waller to assist in fighter pilot training; [...] Walt Disney's 'Cyclorama', displayed at the 1958 World's Fair; and 'Carousel' and 'Panorama', 360-degree projections shown at the Expo 67 in Montreal. More recent versions of wraparound cinema include Circle-Vision 360 films; IMAX Solido, an immersive, domed 3D format also known as OMNIMAX (now IMAX Dome); and Cinedrome 360 [...]"<sup>53</sup>

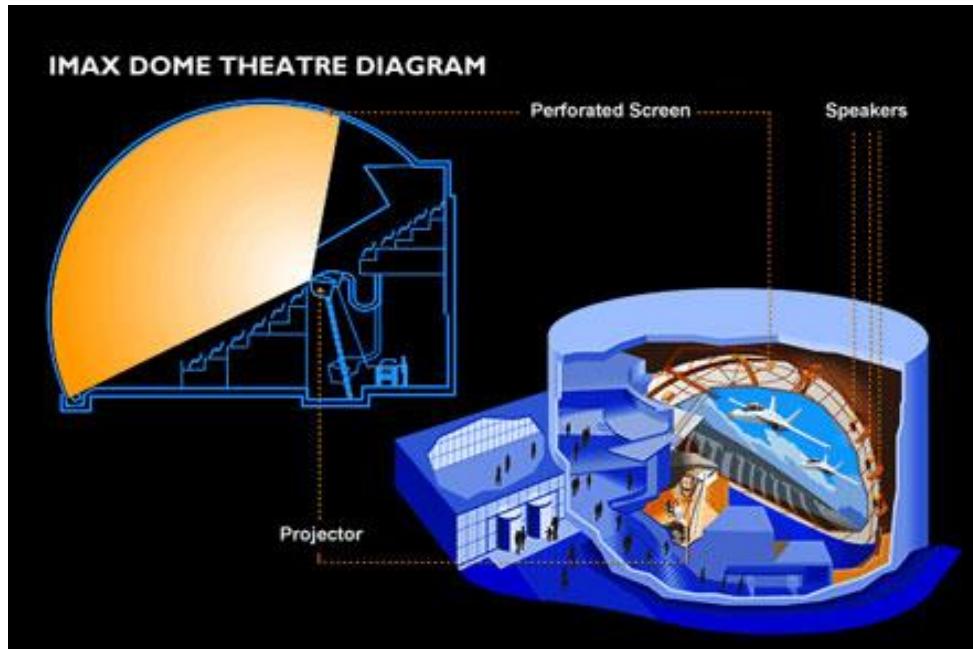


Figure 19: IMAX Dome Diagram<sup>54</sup>

We could also add IMAX 2D and 3D which "(d)espite lacking the scale of some of these 360-degree forerunners [...] have nevertheless borrowed heavily from the panorama [...]."<sup>55</sup> After seeing this, we can say that it was the compromise between TV and the film industry that kept panoramas from returning into our cinema theaters. Nevertheless, since the appearance of IMAX back in the 70s there have been more recent developments for the panoramic screen. These include the curved screen TVs in 2013 (also called OLED TVs)<sup>56</sup> and the Escape

Screen by Barco, presented in 2014 at the CinemaCon in Las Vegas. Escape is a multiscreen projection which can produce a 270° field of view experience.<sup>57</sup> It is interesting to see how companies such as LG or Samsung are trying to create devices where the viewer can feel more involved with what they see. Other companies, such as Barco, are trying to get back into the creation of wraparound images in cinema theaters. They are trying to create panoramic-type screens where the audience's view is completely covered. But why do they do this?

The answer is *immersion*.

Immersion is a concept that can also be described as captivation, concentration, engagement, engrossment, fascination, involvement...<sup>58</sup> It is "[...] 'the phenomenon of getting >lost<, >involved< or >drawn into< storyworlds created by literature, film and other media' [...]"<sup>59</sup>

It is "[...] undoubtedly key to any understanding of the development of the media. [...] Immersion can be an intellectually stimulating process; however, in the present as in the past, in most cases immersion is mentally absorbing and a process, a change, a passage from one mental state to another. It is characterized by diminishing critical distance to what is shown and in increasing emotional involvement in what is happening."<sup>60</sup> It is because of immersion and the desire of representing a different world that we have tried to expand our limits and created new and different ways of entertainment like for example the panoramas. As we named at the beginning of this chapter, one of the functions of the panoramas was the creation of an illusion, to take people into places where they have never been before.<sup>61</sup>

*"Several factors make the panorama extraordinarily well suited to the delivery of immersive spectacle: first, the mode of spectatorship invited by its scale (unlike looking into a panel painting or photograph, spectators gazed at huge canvases that literally surrounded them); second, its invocation of presence as constituent feature of the panoramic experience, the sense of 'being in a different time and space'; third, and linked to the idea of presence, its status as a mode of virtual transport; and last, the quasi-religious nature of the exhibition space, the fact that the sense of wonder felt by the spectators and the hushed tones in which they spoke, were reminiscent on behavior one might find in a church."*<sup>62</sup>

As Griffiths mentions in the paragraph above, immersion didn't suddenly start with the appearance of the circular panoramas. We can find it back in the creation of the *Villa di Misteri* where "*(t)he main illusionistic intention of the fresco, [was] to meld the observer spatially with the mythical scene [...]*"<sup>63</sup>. With the use of "[...]  
panoramic images, specific colors, and dramatic gestures. Aimed at emotionally arousing the observer to ecstatic participation: the psychological fusion of observer and image in the cult."<sup>64</sup> Other places we might find this experience often have a religious nature such as churches or cathedrals. Just think of the Sixteen's Chapel. What happens when we go inside and look up to the ceiling? We are immersed. We look up and we are amazed by the grandiosity of what we see. We are taken away and for a few instances we lose sense of our own reality, taking the virtual world presented on the ceiling as our own.

Immersion can also be included in the moving panoramas, dioramas and dissolving views. They differ in their construction from the circular panorama but they all present the same function: Creating an illusion and trying to make the viewer believe in it. Even the canvas of Monet does the same, when he wanted to create "*the illusion of a single continuous canvas*"<sup>65</sup> for his work *Nymphéas*.

But immersion does not need us to feel wrapped, it can also be found in cinema. Cinerama had big horizontal and vertical angles of vision to entrap the viewer<sup>66</sup> and IMAX screens are slightly curved, which creates a "[...] visual span of the world surrounding us [...]"<sup>67</sup>. Other examples can be the *Escape screen* with its 270° angles of view which wants to cover the entire field of view of the viewers and the *curved screen home devices* claim that widening the screen and curving it will give the spectator a more immersive experience.<sup>68</sup>

*"Cinema built hyperrealities, space-time constructs the are conjoined to the presence of the spectator in the darkened magical space of the movie theatre. From Cinerama, to 3D to the spherical OMNIMAX, the cinema has yearned to construe its fictions in a space of equivalence to the real. The goal is not the totalitarian spectacle that overwhelms and belittles the viewer, rather it is the sublime demonstration that affirms each viewer's unique position and critical relationship to the representation."*<sup>69</sup>

It doesn't matter what we have in front of us, whether it's a Diorama, moving panorama, dissolving view, cinema film, or merely a wrap-around image, they all want to entrap us and bring us to a different world.

#### 4.3. Types of immersion in movies

We can see that immersion is a key element in both art and film. So I want to go into some more detail on the meaning and different levels of immersion especially in movies. Immersion in movies relies on many factors ranging from the mood and the emotion of the film, to the empathy that we might feel with a character. Also the narrative style, timing, space and the embodiment-cognition play an important role.<sup>70</sup>

When we talk about mood and **emotional immersion**, it can be understood as the power that films have to trap our attention. They are capable to make us feel certain emotions and lead us through the action.<sup>71</sup> We also find emotional immersion through the empathy and involvement with a fictional character. Emotional empathy can also take place not only with one character but with many and it results from identification with them. "*If a viewer or a reader feels that they can identify with a character and the situations they are placed in – or a consequence of the situation in which they are placed – they should also want to see them achieve any goal they set out to achieve.*"<sup>72</sup> It is because of this relationship that we feel with a character that we engage with the movie. We are capable of putting ourselves in their position and therefore feel with them.

**Narrative immersion** refers to the story that is being told and the way it is told. Suspense for example, is a key in order to have narrative immersion. The more suspense there is, the more immersed we feel. This is because the difficulties that the character encounters during the story makes the viewer more engaged in

finding clues in order to understand the events.<sup>73</sup> We could also link the emotional with narrative immersion since actions create a certain emotional reaction.

**Temporal immersion** refers to the desire to "*[...] watch events pan out in a 'lived' or 'human' experience of time, rather than the progression of actual 'objective' or 'clock' time, and the temporal immersion results from a receiver's 'desire for the knowledge that awaits her at the end of narrative time.'*"<sup>74</sup> Apart from this, it refers to the desire of the viewers to see the outcome of the events. "*This requires the viewer to mentally sequence the recalled events as they would have taken place in the story rather than the order they are presented in the plot.*"<sup>75</sup> The information that is kept open as a "cliffhanger" will also encourage the viewer to keep watching and speculating on how the story will end.

**Embodiment-cognition** refers to how our body can receive information from the movie and make us react to it. Embodied immersion can be understood as the immersion through our body having a relationship with the movie. This can be achieved with "*[...] the camera as the eye, the lens as the retina, and the screen as the lived-in-world [...]*".<sup>76</sup> When we find ourselves leaning left and right, while watching an intense car chase scene: That's Embodiment-cognition. It can also refer to the way we perceive music or how a film's style can make us react towards it.<sup>77</sup> Through the way we perceive a movie we confront ourselves with the embodiment-cognition.

And finally, we find **spatial immersion**, which is separated into two types. One definition is the **virtual spatial immersion**, which refers to the space in which the action takes place. This type of immersion can happen due to "[...] an 'emotional attachment to a certain location,' furthering that this phenomenon is known to geographers and phenomenologists as 'sense of place' [...]"<sup>78</sup>

The second spatial immersion refers to the screen. This type of immersion can be seen as "**losing the frame**" and forgetting that the screen where the movie is shown ends at the borders. In these moments we only consciously perceive the screen and forget about the room of the cinema theater around us. This type of immersion appears because "[...] the viewer's engagement with [...] the screened space is encouraged by 'the brilliance of the screen against almost totally black surroundings' [...]"<sup>79</sup>.

Finally we should mention that even though a movie might fulfill all these prerequisites the **socio-cultural influences** around us also play a big role in the way we immerse ourselves in a movie.<sup>80</sup> Something that might immerse the audience in Europe and US film culture might, for example, not work in the Indian film culture where the narrative and the way of film perception and understanding is different to ours.<sup>81</sup>

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- <sup>4</sup> FilmmakerIQ (2016) *The changing shape of cinema: The history of aspect ratio*. Available at: <http://filmmakeriq.com/lessons/the-changing-shape-of-cinema-the-history-of-aspect-ratio/> (Accessed: 17 October 2016)
- <sup>5</sup> Ibid.
- <sup>6</sup> Ibid.
- <sup>7</sup> Ibid.
- <sup>8</sup> Figure 3: Edison Kinetoscope (1895) Available at: <https://en.wikipedia.org/wiki/Kinetoscope#/media/File:Kinetophonebis1.jpg> (Accessed: 23 November 2016).
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- <sup>10</sup> FilmmakerIQ (2016) *The changing shape of cinema: The history of aspect ratio*. Available at: <http://filmmakeriq.com/lessons/the-changing-shape-of-cinema-the-history-of-aspect-ratio/> (Accessed: 17 October)
- <sup>11</sup> Ibid.
- <sup>12</sup> Figure 4: Cinerama (1952) Available at: <http://www.chaconespuny.com/wp-content/uploads/2014/09/Cinerama-1.jpg> (Accessed: 24 November 2016).
- <sup>13</sup> Figure 5: *This Is Cinerama - Publicity Drawings* (1952) Available at: <http://www.widescreenmuseum.com/widescreen/ticgallery.htm> (Accessed: 24 November 2016).
- <sup>14</sup> Figure 6: Cinerama Logo (1952) Available at: <http://vignette2.wikia.nocookie.net/logopedia/images/0/03/Cinerama.jpg/revision/latest?cb=20130727001300> (Accessed: 24 November 2016).
- <sup>15</sup> FilmmakerIQ (2016) *The changing shape of cinema: The history of aspect ratio*. Available at: <http://filmmakeriq.com/lessons/the-changing-shape-of-cinema-the-history-of-aspect-ratio/> (Accessed: 17 October)
- <sup>16</sup> Widescreen Museum (2004) *The VistaVision wing* Available at: <http://www.widescreenmuseum.com/widescreen/wingvv1.htm> (Accessed: 17 October 2016).
- <sup>17</sup> Figure 7: 20th Century-Fox president Spyros Skouras in Paris with Chrétien. (1953) Available at: <http://www.widescreenmuseum.com/widescreen/wingcs1.htm> (Accessed: 24 November 2016).
- <sup>18</sup> Figure 8: Logo VistaVision (1954) Available at: <http://www.hollywood-elsewhere.com/2015/07/calling-1-85-vistavision-fascists/> (Accessed: 24 November 2016).
- <sup>19</sup> Figure 9: 'Fox Color' Camera Paramount (1954) Available at: <http://www.widescreenmuseum.com/widescreen/wingvv1.htm> (Accessed: 24 November 2016).
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- <sup>22</sup> Ibid.
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- <sup>24</sup> Figure 10: 16x9 Aspect Ratio (1980) Available at: [http://filmmakeriq.com/wp-content/uploads/2013/06/1000px-Dr.\\_Kerns\\_Powers\\_SMPTE\\_derivation\\_of\\_16-9\\_aspect\\_ratio.svg\\_.png](http://filmmakeriq.com/wp-content/uploads/2013/06/1000px-Dr._Kerns_Powers_SMPTE_derivation_of_16-9_aspect_ratio.svg_.png) (Accessed: 24 November 2016)
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- <sup>28</sup> Ibid.
- <sup>29</sup> Ibid.
- <sup>30</sup> Griffiths, Alison (2008): *Shivers down your spine: Cinema and the history of the immersive view*. New York: Columbia University Press. p.39
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- <sup>34</sup> Figure 12: Villa dei Misteri Pompeii (2th Century BC) Available at: [https://2.bp.blogspot.com/-of1dEzRAuNk/UFphVokpbCI/AAAAAAAEEjo/17Wby8bGzgU/s1600/DSC\\_0481B.jpg](https://2.bp.blogspot.com/-of1dEzRAuNk/UFphVokpbCI/AAAAAAAEEjo/17Wby8bGzgU/s1600/DSC_0481B.jpg) (Accessed: 24 November 2016).
- <sup>35</sup> Figure 13: Byzantine Mosaic. San Vitale Basilica in Ravenna (527-548 AD) Available at: <https://www.walksofitaly.com/blog/art-culture/byzantine-mosaic-art-in-ravenna-and-italy> (Accessed: 20 January 2017).<sup>37</sup> [17Wby8bGzgU/s1600/DSC\\_0481B.jpg](https://17Wby8bGzgU/s1600/DSC_0481B.jpg) (Accessed: 24 November 2016).
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- <sup>41</sup> Ibid.p.8
- <sup>42</sup> Ibid.
- <sup>43</sup> Ibid. p.140
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- <sup>54</sup> Figure 19: IMAX Dome Diagram (no date) Available at: <https://michaelscroggins.files.wordpress.com/2013/12/imax-dome-diagram.jpg> (Accessed: 14 December 2016)
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- <sup>62</sup> Ibid. p.40
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- <sup>64</sup> Ibid.p.25
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## 5. Point of View

In this chapter we will concentrate on the concept of point of view. We will learn about what it is and where it is used as a camera technique. We clarify what it means, when we refer to point of view as a visual narrative style or visual storytelling and finally we will analyze several examples.

### 5.1. What is point of view?

The use of point of view in cinema is not a new technique. Since cinema was created, there were many attempts made to recreate in movies the *first person* that we often find in novels. Maybe in that time they didn't think of naming it in any particular way<sup>1</sup>, but it comes down to the same thing. The first attempt can be found in *Napoleon* (1927). "When French director Abel Gance decided to wrap a camera in padding and fix it to the breastplate of Juler Kruger, and film a snowball fight [...], he inadvertently filmed the world's first notable POV scene."<sup>2</sup> It would be until the 1940s when the first movie appeared, that did not only include a single shot or a scene with this type of cinematic technique, but delivered the whole film in first-person perspective.<sup>3</sup> This movie was *Lady in the Lake* by Montgomery (1947) and we are going to cover it in more detail later in this chapter.



Figure 20: Napoleon (Gance, 1927)<sup>4</sup>

There are many ways of naming this type of cinematic technique: subjective camera, the "I camera", first-person perspective or first-person shot; point of view angle or point of view shot, point of view style or it can also be shortened with the acronym POV.<sup>5</sup>

All these different names can lead to some confusion, but there is a logic behind them that we can shortly explain in order to understand the concept and utilization of point of view in movies.

One of the ways of naming this camera technique is by referring to it as a shot. Either point of view shot or first-person shot.

To understand what point of view shot means, we have to first know that a "[...] motion picture is made up of many shots. Each shots requires placing the camera in the best position for viewing players, setting and action at that particular moment in the narrative."<sup>6</sup> A shot is defined as "[...] a continuous view filmed by one camera without interruption. Each shot is a take."<sup>7</sup> Shots take place within a scene which is "[...] the place or setting where the actions is laid. [...] A scene may consist of one shot or series of shots depicting a continuous event [...]."<sup>8</sup> When we talk about a point of view shot or first-person shot it means that we are going to watch or record a scene of a movie that is going to assume the perspective of one or more of the characters. We are going to see their point of view. This camera technique is typically not used for long periods of time. The "[...] procedure may be used occasionally in sections shorter than a sequence, sometimes no more than a single shot or short succession of shots."<sup>9</sup>

One common way of constructing this type of scene is the following:  
"A) Shot of character looking off screen. B) Shot of object or person character is looking at A) Shot of Character again."<sup>10</sup>



Figure 21: A/B/A Construction<sup>11</sup>

As we can see in this example, we understand the horse riding image as the scene that the man with the binoculars is looking at. We owe this understanding to our interpretation of continuity editing<sup>12</sup>, which is the construction of a clear and coherent event structure that helps viewers understand what they are watching. "The pattern could be inverted to be B/A/B and we would interpret the events in a similar way."<sup>13</sup> This type of technique is so called "off-screen" because we see that one of the characters is looking at something out of the screen that we cannot see and then this something is shown to us in the next shot.

Another way of showing a point of view shot apart from looking off-screen, is "[...] whenever it is desirable to involve the viewer more closely with the event. The audience steps into the picture, so to speak, and sees the players and the setting from the viewpoint of a particular player – by standing beside him. This creates a stronger

*identity with the screen player in the action, and provides the viewer with a more intimate glimpse of the event.*

*Point-of-view shots often follow over-the-shoulder shots, when a pair of players face each other and exchange dialogue. The over-the-shoulder shot sets up the relationship between the two players, and the p.o.v. shot moves the audience into the player's position. Each player may be seen from the opposing player's point-of-view.*<sup>14</sup> This over the shoulder shot can be understood as the third person and is typically used during dialogues between characters.

As a visual example of this we can use the dialogue between Nancy and Hartigan in *Sin City* (Miller, Rodriguez, and Tarantino, 2005). As we can see in the example, we have an over the shoulder shot from behind Nancy and a point of view shot from Hartigan's position. The closeness to the characters also helps the viewers to get closer in an emotional way.

Very similar to the *point of view shot* is the *point of view angle*. The main difference is that a shot is an actual take, a recording of a scene, while the angle is merely the camera configuration. If we first look at the definition of camera angle we find that a "[...] camera angle, is defined as the area and viewpoint recorded by the lens. Placement of the camera decides how much area will be included, and the viewpoint from which the audience will observe the event."<sup>15</sup> A *point of view shot* in a movie will use a *point of view camera angle* to "[...] record the scene from a particular player's viewpoint."<sup>16</sup>



Figure 22: *Sin City* (Miller, Rodriguez, Tarantino, 2005)  
- Dialogue between Nancy and Hartigan

Looking back at the long list of names, we find that point of view can also be called *subjective camera*. And since there is a subjective camera there is also an objective camera.

Objective camera is when the "[...] audience views the event through the eyes of an unseen observer [...]. Since they do not present the event from the viewpoint of anyone within the scene, objective camera angles are impersonal. [...] Most motion picture scenes are filmed from objective camera angles."<sup>17</sup> Some examples of objective camera angles are the following:

#### *Extreme Long Shot*



Figure 23: Extreme Long Shot. *The Hobbit: The desolation of Smaug* (Jackson, 2013)<sup>18</sup>

#### *Long Shot*



Figure 24: Long Shot: *Pirates of the Caribbean: The curse of the black pearl* (Verbinski, 2003)<sup>19</sup>

*Medium Shot*



Figure 25: Medium Shot: *Scott Pilgrim Against the World* (Wright, 2010)<sup>20</sup>

*Close-up*



Figure 26: Close-up: *The revenant* (Iñárritu, 2015)<sup>21</sup>

## Extreme Close-Up

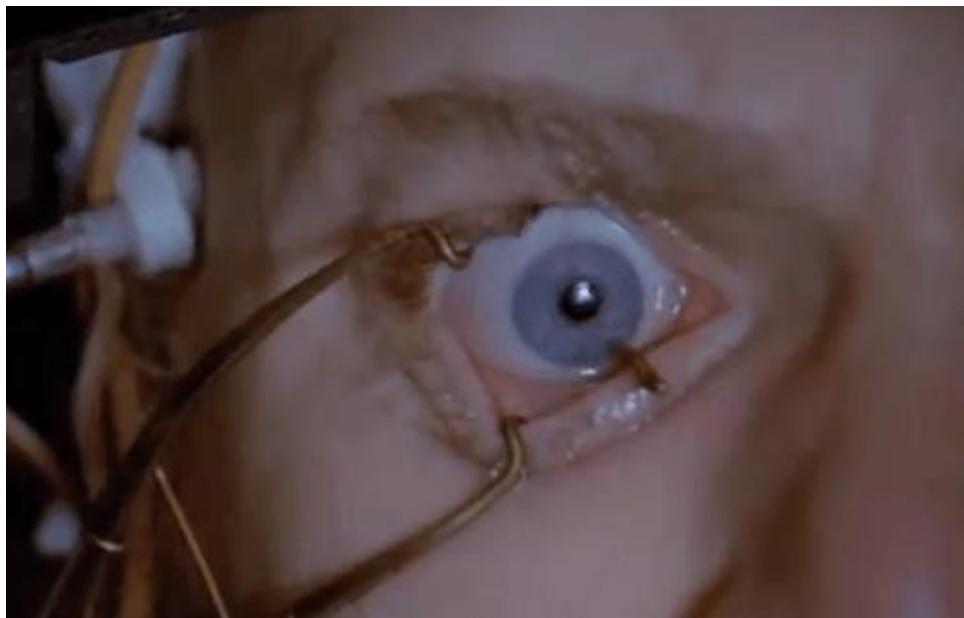


Figure 27: Extreme Close-Up: *A Clockwork Orange* (Kubrick, 1971)<sup>22</sup>

On the other hand, the "subjective camera films from a personal viewpoint. The audience participates in the screen action as a personal experience. The viewer is placed in the picture, either on his own as an active participant, or by trading places with a person in the picture and seeing the event through his eyes. The viewer is also involved in the picture when anyone in the scene looks directly into the camera lens

—this establishing a performer-viewer eye-to-eye relationship."<sup>23</sup> In general, when we see or record a scene or a shot in point of view it will be subjective because we see what the character sees. The camera assumes the position of the character<sup>24</sup>, which is the reason why it is also called the "I camera". There is no objectivity in what we are looking at because it comes from the eyes and perception of that person.

Even though we can define point of view as subjective, there is a difference between the *subjective camera* and the *subjective image*. This can lead to misunderstandings.

As we just saw, the subjective camera is when we assume the position of the character in the movie, so we see what they see. On the other hand, *subjective images* can be many things as Rosen (1986) points out in his book *Narrative, apparatus, ideology: A film theory reader*. He names four ways of understanding the *subjective image* which are:

- the **mental image**: We are inside the mind of the character, for example in a dream
- the **subjective or analytical image**: We look at something without the person looking
- the **semi-subjective or associated image**: This is the A/B/A construction that we named before: we see someone → we see what they are looking at → we see the character again

- the **memory image**: This can happen in the mind of the protagonist, for example as a flash-back and can come with a commentary that will help the viewer understand what is happening.<sup>25</sup>

Rosen also defines that in order for a scene or a shot to be understood as *point of view*, the camera should trade places with the character and the image has to be seen through the eyes of this character.<sup>26</sup>

If we are in a dream, memory or hallucination sequence and these scenes are not filmed with a point of view shot, they might technically not be considered point of view. But because the content which we are seeing comes from the mind of the character, it can still be considered as a point of view scene because of its subjectivity. We see what this character is thinking, dreaming or hallucinating.

### **Breaking the fourth wall**

A bit above I cited that the "*[...] viewer is also involved in the picture when anyone in the scene looks directly into the camera lens – this establishing a performer-viewer eye-to-eye relationship.*" This made me think whether a scene can be considered point of view, when the recorded character looks and speaks directly to the audience.

The term used to refer to the moment when an actor talks to the audience is called *breaking the fourth wall*. The *fourth wall* refers to the invisible wall that is between the audience and the set of the movie or theater play, "*[...] which separates the real world from the fictional world of the stage. So when a film (or television show,*

*book, play - basically any work of art) breaks the fourth wall, that means the line has been crossed, there is no longer a boundary between what is real and what is fiction. The spectator is now taken out of the film world - they are purposely being made aware that they are watching a movie.*"<sup>27</sup>

In *Ferris Bueller's day off* (Hughes, 1986), Ferris pretends to be sick so that he can stay home. After his parents come to say goodbye and believe that he is genuinely ill, he looks at us and says "They bought it". He talks to us. He knows that he is in a movie and that we are watching him and he informs us of his success.



Figure 28: Ferris Bueller's day off (Hughes, 1986)

A more recent example is *Deadpool* (Miller, 2016), which is also a movie full of moments where the fourth wall is broken. At the beginning of the movie, Deadpool looks at the camera and says "Oh! Hello!". This moment surprises us because we didn't expect him to know about our presence. But it happens. He looks at us and talks to us. Again he knows he is in a movie and that we are watching.



Figure 29: *Deadpool* (Miller, 2016)

Does the character's interaction with the audience make it a point of view shot? No.

For a few seconds we might feel confused, but then we understand that they are genuinely talking to us. Breaking the fourth wall is another cinematic technique that should not be confused as a point of view shot. First, there is no A/B/A construction that could make us understand, that what we are seeing is a point of view shot. Second, we did not switch positions with anyone in the scene and third the images shown are not subjective. The camera remains an uninvolved observer, except that now the character on the screen is aware of the camera and talks to the audience.

## 5.2. Point of view shot in movies

After seeing the meaning of the first person camera technique and understanding how it works, we will now learn when filmmakers use it and what it means when we refer to point of view as a visual narrative style.

As I already mentioned, point of view means being in the shoes of the protagonist. For this it does not matter if the character is real or not. The point of view-shot is typically just used occasionally "[...] when the action is shown from the viewpoint of one of the narrative's characters whose place is occupied by the camera in the course of one or more successive cuts. There may be varying purposes in the use of this technique. It is often used to translate the images of a dream, hallucination, or drunkenness. Even more frequent is its use as an adjunct of continuity, helping to string the narrative together."<sup>28</sup> It is thanks to our capacity to empathize, that we

are capable of putting ourselves in the position of the character.<sup>29</sup> Apart from dreams, hallucinations or drunkenness, there are other moments where it makes sense to use the point of view shot in order to express a specific propose.

## Waking up

In the movie *Avatar* (Cameron, 2009) we have a scene where Jake Sully wakes up in his new body, transformed as an Avatar. In this scene, we see how he wakes up and how the scientists are looking at him and even talking to him. This is an example of the eye to eye relationship that Mascelli (1988) was talking about.



Figure 30: *Avatar* (Cameron, 2009)



Another example can be found in *The Lego Movie* (Lord and Miller, 2014), where the protagonist Emmet wakes up without knowing where he is. Again, we wake up with him. The animators use this type of shot in order to bring us closer to Emmet in an emphatic way. We also find the eye to eye relationship again in this scene.



Figure 31: *The Lego Movie* (Lord and Miller, 2014)

## Hallucinations / Delirium / Drunkenness

Any state where the protagonist has consumed a toxic substance can be represented with a deformation of reality. One example of a hallucination scene can be found in *The Hunger Games* (Ross, 2012), when Katniss is stung by an insect which makes her hallucinate. This scene is built with an A/B/A structure, where we see what she is seeing and then see her clearly again. During the scene we are invited to see her hallucination from the inside and from the outside which helps us understand what she is experiencing. It brings us closer to her and her emotions.





Figure 32: *The Hunger Games* (Ross, 2013)

Another hallucination scene with the use of point of view is in *Fear and Loathing in Las Vegas* (Gilliam, 1998). In this movie, the two protagonists experiment with the consumption of various drugs throughout their trip to Las Vegas in search of the American dream. This movie is full of point of view images where the audience can see the world like the two protagonist perceive it. There are also plenty of "subjective images" without the use of a POV-shot. One example of point of view with drug consumption and therefore hallucinations is the scene when they enter Las Vegas.



Figure 33: *Fear and Loathing in Las Vegas* (Gilliam, 1998)

Other movie full of hallucinations is *Electricity* (Higgins, 2014). In this movie, the protagonist suffers from epilepsy. Through the use of the first person perspective and the subjective images, we are capable of seeing and maybe even understanding the world perspective of someone with this particular disorder.



Figure 34: *Electricity* (Higgins, 2014)

## Being a Superhero

Point of view can also bring us closer to our superheroes and make us feel what they experience. For example, in *The Amazing Spider Man* (Webb, 2012) we jump and swing through the city while seeing the world from Spider Man's perspective.



Figure 35: *The Amazing Spider Man* (Webb, 2012)

Another example for this can be found in the movie *Iron Man 2* (Favreau, 2010) when Tony Stark comes out of his conference and gives autographs and says "Hi" to his fans.

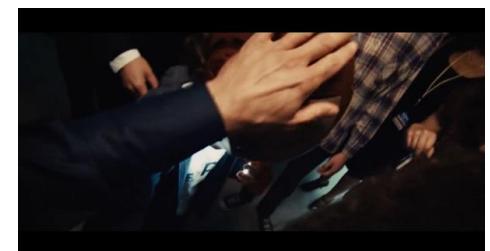


Figure 36: *Iron Man 2* (Favreau, 2010)

The same principle can also be applied to animated superheroes such as Flash from *The Incredibles* (Bird, 2004). During the scene below, we first see Flash looking at something and then we see what he is looking at. We have an A/B/A-construction and because of this we understand that the shown landscape is what Flash is seeing.



Figure 37: *The Incredibles* (Bird, 2004)

### Being a Cyborg or a Robot

Besides being a hero, we can also be in the shoes of a robot or a cyborg like in *Terminator 2: Judgment day* (Cameron, 1991) or in *Robocop* (Verhoeven, 1987). In both movies, there are many instances where not only the camera takes the position of Terminator or RoboCop, but also the visuals change. We see scanning information, data and also different colors. We see how they see the world.





Figure 38: RoboCop (Verhoeven, 1987)



Figure 39: Terminator 2: Judgment day (Cameron, 1991)

## Being a killer or a psychopath

Point of view can also bring us closer to a killer's world as in *The silence of the Lambs* (Demme, 1991), when the killer "Buffalo Bill" is about to attack Clarice Starling from the FBI. During the scene we see what the killer sees through his night vision glasses.



Figure 40: *The silence of the Lambs* (Demme, 1991)

And the killer doesn't necessarily have to be human as we can see in *Jaws* (Spielberg, 1975).



Figure 41: *Jaws* (Spielberg, 1975)

## Being punched or killed

Besides being the killer, we can also be the victim. POV-shots can bring us closer to a character that is being punching or killed, like for example in *Happy Gilmore* (Dugan, 1996), *The Village* (Shyamalan, 2004), *Psycho* (Hitchcock, 1960) or *Billy Elliot* (Daldry, 2000).

In all these moments we get to see and “feel” with the character. The use of these surprising moments enriches the story and also conveys a narrative value that helps the viewers to empathize with the character, feel the movement and keeps them immersed in the movie. It’s also because of these surprise moments that we feel entertained while watching a movie.



Figure 42: Happy Gilmore (Dugan, 1996)



Figure 43: The Village (Shyamalan, 2004)



Figure 44: Psycho (Hitchcock, 1960)



Figure 45: Billy Elliot (Daldry, 2000)

## Fears

Apart from being in someone’s shoes, point of view can also convey fear as in the example of *Vertigo* (Hitchcock, 1958) where a POV-shot is used whenever the protagonist has to face his fear of heights.



Figure 46: *Vertigo* (Hitchcock, 1958)

### Reflecting surfaces

Any reflecting surface is also a good way to make use of the POV-shot. It is notable that when we use these type of surfaces we typically don't show the character before showing the reflection. Yet still we instinctively understand that we are seeing the world through their eyes. Some visual examples from movies that use reflecting surfaces to show us the character are *Requiem for a Dream* (Aronofsky, 2000), *Harry Potter and the Half-Blood Prince* (Yates, 2009), *Mulan* (Bancroft and Cook, 1998), *Under the Skin* (Glazer, 2013), *Robocop* (Verhoeven, 1987) and *Blow Out* (De Palma, 1981).



Figure 47: *Requiem for a Dream* (Aronofsky, 2000)



Left column top  
*Figure 48: Under the Skin* (Glazer, 2013)

Left column middle  
*Figure 49: Mulan* (Bancroft and Cook, 1998)

Left column bottom  
*Figure 50: Harry Potter and the Half-Blood Prince* (Yates, 2009)

Right column top  
*Figure 51: Robocop* (Verhoeven, 1987)

Right column bottom  
*Figure 52: Blow Out* (De Palma, 1981)

## Being an inanimate object

The use of point of view is not only limited to real or animated characters. We can take the perspective of objects such as a toilet, a bullet, a ball, a bike... or anything you can imagine. Some examples of this are in the fight scene of *Kill Bill: Vol.2* (Tarantino, 2004) where we see a shot from the inside of a toilet.

There is as well the dream of Lebowski in the movie *The Big Lebowski* (Coen and Coen, 1998) where we roll with the bowling ball. We get to see what a ball sees when it is thrown.



Figure 53: *Kill Bill: Vol 2* (Tarantino, 2004)

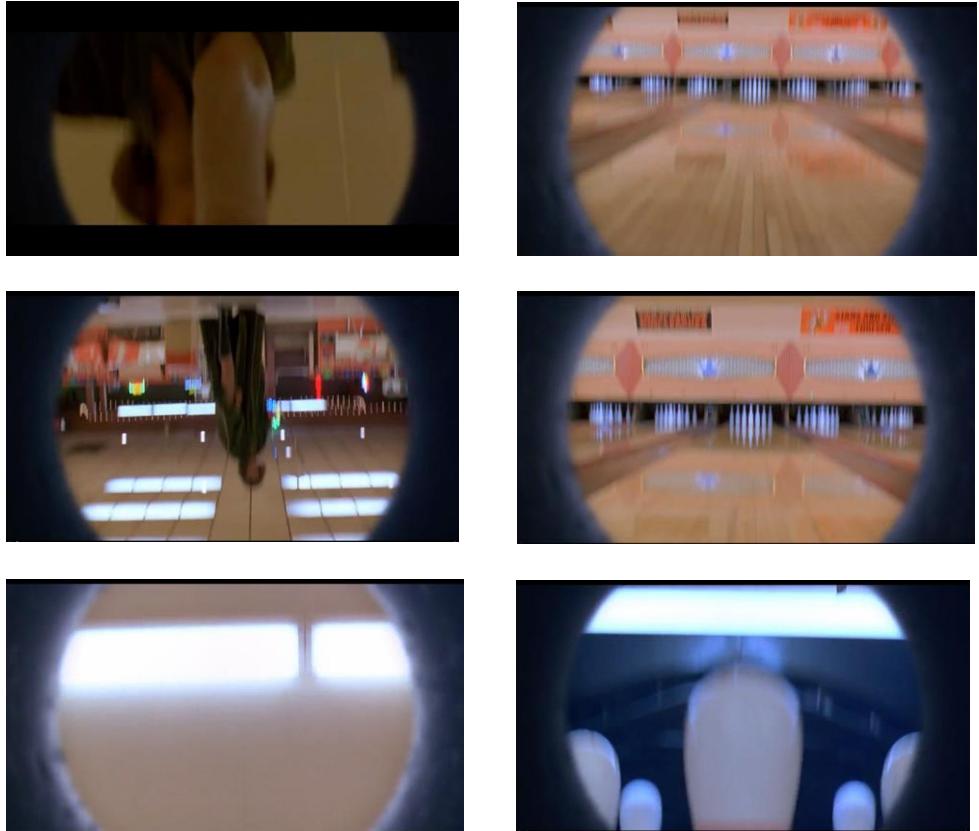
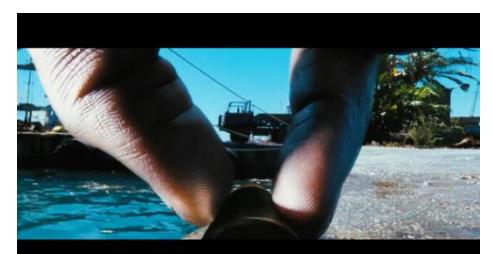
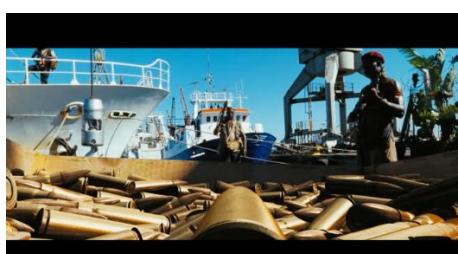
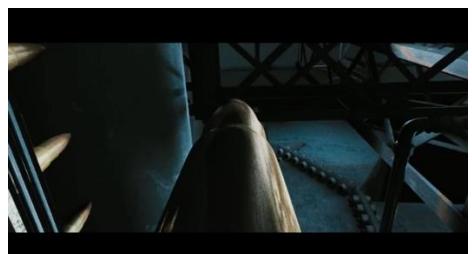
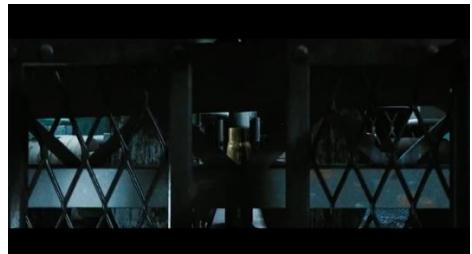


Figure 54: *The Big Lebowski* (Coen and Coen, 1998)

We can also experience what it means to be a bullet at the beginning of the movie *Lord of War* (Niccol, 2005).



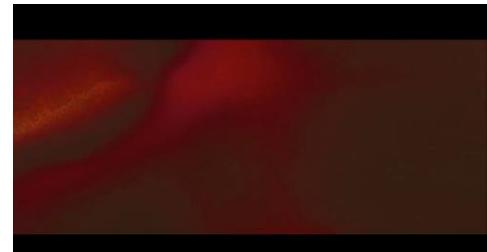
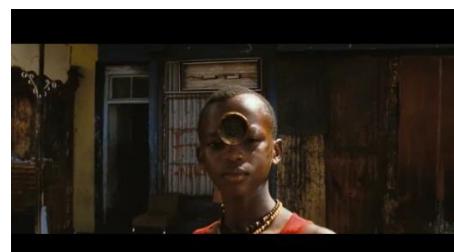


Figure 55: *Lord of War* (Niccol, 2005)



### Riding a vehicle or being inside one

We can also visualize actions such as riding a vehicle in POV-style, which makes us feel part of the action like in the movie *The life aquatic with Steve Zissou* (Wes Anderson, 2004). Or we can feel the rush of New York's streets while trying to deliver a letter as in *Premium Rush* (Koepp, 2012).



Figure 56: *The life aquatic with Steve Zissou* (Anderson, 2004)



Figure 57: Premium Rush (Koeppe, 2012)



Figure 59: Pulp Fiction (Tarantino, 1994)

Of course, you don't necessarily have to be riding the car. You can also be in the trunk, like in many movies by Quentin Tarantino such as *Reservoir Dogs* (1992), *Pulp Fiction* (1994), *Kill Bill: Vol. 1* (2003) or *Death Proof* (2007).



Figure 58: Reservoir Dogs (Tarantino, 1992)



Figure 60: Kill Bill. Vol 1 (Tarantino, 2003)



Figure 61: Death Proof (Tarantino, 2007)

As we can see, Tarantino is a big fan of using point of view-shots from the perspective of something or someone in the trunk. It can be a policeman (*Reservoir Dogs*), a gun (*Pulp Fiction*), a victim (*Kill Bill*) or even a car motor (*Death Proof*). This shot helps to surprise the audience with a new perspective and enriches the narration with more visual flexibility.

### 5.3. Point of view as a visual narrative style

The examples above referred to the use of point of view as a cinematic technique, but besides being used as an angle or shot, it can also be used as a visual narrative style, which is also called visual storytelling.

*"Visual story-telling is a phenomenon that every society is acquainted with. The term extensively used to refer to visual story-telling in recent times is 'Visual Narrative'. The label 'Visual Narrative' is applied in a generic sense to denote anything from an illustrated story-book to motion pictures."*<sup>30</sup>

By this description, visual narrative refers to things perceived with our eyes which tell us a story. The term "*[...] Visual signifies – something that can be seen using the human eye. Story signifies – a series of events linked by causality, temporality or sequence or the order of occurrence. Narrative signifies – the act of telling a story or the story itself or the order of presentation.*"<sup>31</sup>

In most movies the majority of shots are objective, which means we see the action through the camera as an unseen observer; also understood as the "third person". However, we also find some movies or genres which decide not to use objective

images to tell the story, but instead they mostly or only use subjective images. This means, that even though the image presented is not filmed in a first person camera angle it still shows the world as it is perceived by a character. We call this type of shot the mind image. Some examples of this can be seen in found-footage movies, action-cam videos, POV-porn or movies that have been entirely or mostly filmed in the first person perspective.

#### 5.3.1. Found-fotage movies

One of the most famous genres to use point of view are found-fotage movies, which use the first person perspective to show what characters see while holding the camera.<sup>32</sup> This type of movie uses an interesting cinematic technique called "*diegetic cinematography*". This term describes the acknowledgment of the camera by the actors. The actors look at the camera and talk or react to it. Normally, actors shouldn't acknowledge the camera, but in found-fotage movies this rule is neglected.<sup>33</sup> The difference between *breaking the fourth wall* and the *diegetic camera* is that when the actors break the fourth wall they are talking to us, the audience, whereas in found footage movies they talk to their own hand held camera.

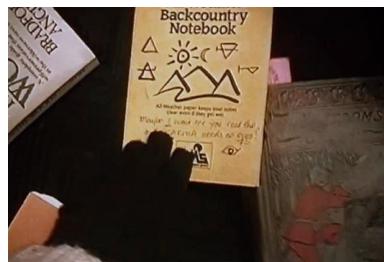
It is interesting to note that we do not really see the perspective of a certain character, but the perspective of the camera they carry. The audience is put in the position of someone watching footage that has been recorded by the characters, after the events have already happened, instead of witnessing something happening in front of their eyes as it is usual in other movies. It is also interesting to observe, that the shots are in point of view perspective, but they are still

objective images, because a camera does not judge or interpret. You can still show “memories” in the form of old camera footage but you cannot display dreams or hallucinations, because there is no way that a camera could have filmed those.

Some examples of found-footage movies are *The Blair Witch Project*, *Cloverfield* and the *Paranormal Activity* series.

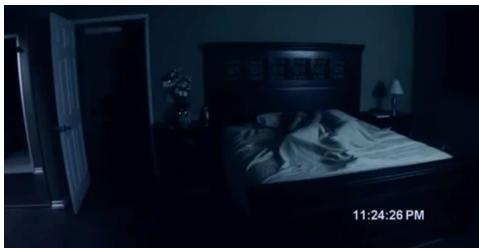
#### *The Blair Witch Project* (Myrick and Sánchez, 1999)

The Blair Witch Project is one of the first movies to use the diegetic camera and started the “boom” of the found footage movies.<sup>34</sup> We see the entire movie through the two cameras which the protagonists have with them. Because the screen switches between the two cameras we get to see what each of them is recording. At the time found-footage movies were a new way of experiencing horror movies because the camera is always in front of the protagonist. This was a new way of being horrified because you could not easily remove yourself from what is happening. You are with them, seeing what they are experiencing through the camera.



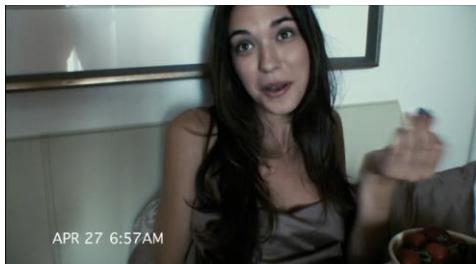
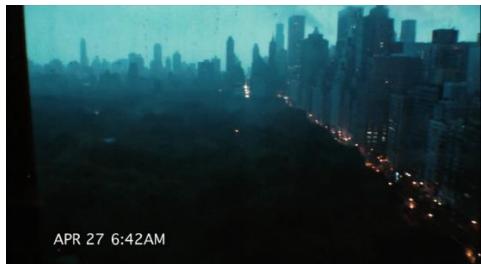
*Paranormal Activity* (Peli, 2007)

This movie uses a combination of diegetic cinematography and point of view shots and it complements them with night vision camera recordings, where we see what is happening in the bedroom while the protagonists are sleeping. The use of this additional technique gives the movie a more realistic feeling, as if we were watching a documentary. It makes it more believable and therefore scarier.



*Cloverfield* (Reeves, 2008)

This movie uses a lot of special effects and a shaky screen to make us aware that we are watching a video taken with a hand-held camera. We see what the characters see and we are aware that they know they are filming and being filmed.



### 5.3.2. Action-cam videos

Apart from movies for cinema and TV we can also find an abundance of videos on online-platforms like YouTube. One very popular genre are extreme-sport videos filmed with so called action-cams like for example the GoPro. In the examples we have images from Parkour, Surfing, Mountain biking, Snowboarding and Wingsuit flying. Attaching the camera to the body or the head gives these videos an almost perfect point of view angle, which helps imagining how it might feel to be part of the action.



Figure 64: Mountain Biking <sup>37</sup>



Figure 62: Parkour <sup>35</sup>

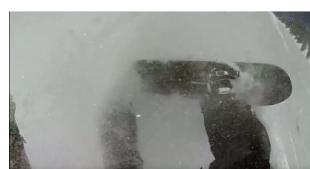


Figure 65: Snowboarding <sup>38</sup>



Figure 63: Surfing <sup>36</sup>

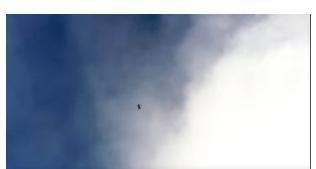
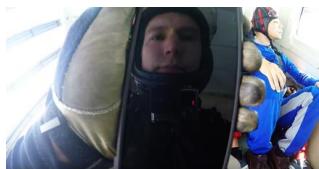


Figure 66: Wingsurfing <sup>39</sup>

### 5.3.3. POV Porn

Also the porn industry frequently uses the point of view camera angle as a visual narrative style. One of the most obvious reasons is the perceived proximity to the action. We see what the actor sees as if we were in their position, which makes it easier for the viewer to “feel” like they are the person that is sexually involved. Another factor to be considered is that the actor’s face is not shown, which allows the viewer to concentrate on what is done to the actor’s body instead of watching their face.



Figure 67: Masturbation POV Porn<sup>40</sup>



Figure 68: Fellation POV Porn<sup>41</sup>



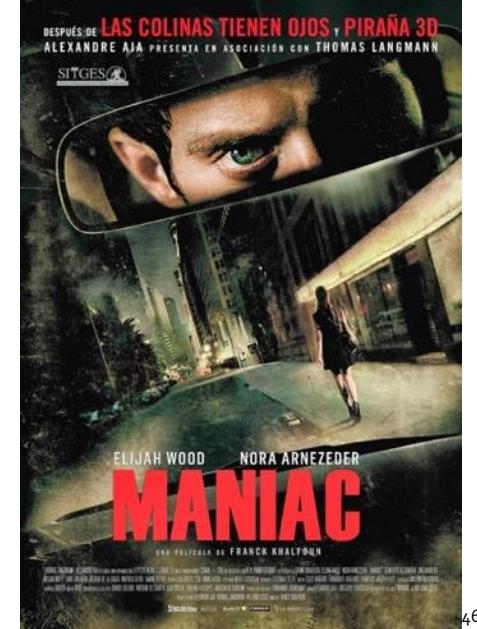
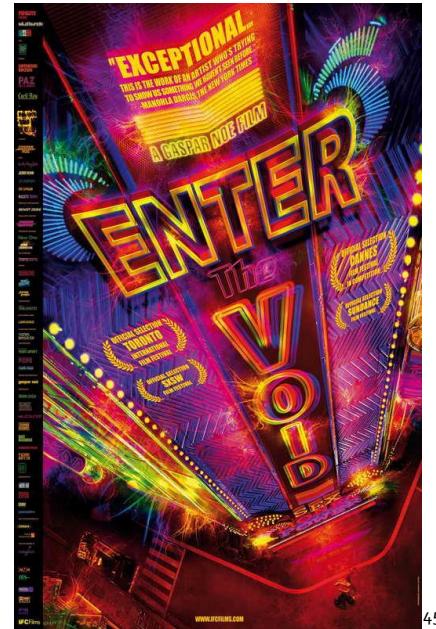
Figure 69: Sex POV Porn<sup>42</sup>



Figure 70: Lesbian POV Porn<sup>43</sup>

### 5.3.4. Cinema movies

In this section, we will take a closer look at some movies, which are mostly or entirely filmed using point of view as a visual narrative style. These movies are *Lady in the Lake* (Montgomery, 1947), *Enter the Void* (Noé, 2009), *Maniac* (Khalfoun, 2012) and *Hardcore Henry* (Naishuller, 2015).



## Lady in the Lake (Montgomery, 1947)

*Lady in the Lake* was the first movie that was filmed almost entirely in point of view perspective. The plot of this film-noir revolves around the private detective Marlowe who tries to solve the mystery of a missing woman. The movie puts us in the shoes of the detective, reproducing the first person view of the original novel by Raymond Chandler, which the movie is based on.<sup>48</sup> With this the audience is given the chance to put together the pieces of information for themselves and thus solve the mystery before the detective in the movie does.

*Lady in the Lake*, is not entirely shot in point of view. At the beginning of the movie, the fourth wall is broken and Marlowe starts to talk to us. He informs us that he is a detective, how much he earns and he tells us about a murder: "*The Case of the Lady in the Lake*". But the most important part of him talking to us, is this statement: "*You'll see it just as I saw it, you'll meet the people, you'll find the clues... and maybe you'll solve it quick and maybe you won't.*"

Like many movies which make use of the subjective camera, we find moments where the character is shown through reflections, is punched or his hands are shown so that we see their body. The movie critic Moreno (1953) found this irritating, because we "[...] are forced to look at those hands. They acquire an independent existence, while on the other hand, we rarely 'look at' the parts of our

*body within our visual field. Our hands function docilely.... There is no possible way to connect [those arms] to our shoulders.*"<sup>49</sup> The fact that the hands appear a bit misplaced might be due to the limited technology they had back then. They didn't have action cameras which can record a very wide angle, so this could be one of the reasons why Montgomery couldn't do this better.

Even though *Lady in the Lake* could be improved in some parts, it still represents an experiment which would lead to different movies trying to achieve the representation of the first person in movies.

*Movie start with breaking the fourth wall*



*Reflecting surfaces*



*Body parts*



## Enter the Void (Noé, 2009)

Enter the Void can be divided into two parts. The first part starts out by introducing the drug dealer Oscar and his sister, who works as a stripper. The second part begins when Oscar gets shot by the police in a bar called "The Void". From this moment on we start to see the action from the "eyes" of Oscar's spirit as he leaves his body and floats through the city, driven by the promise to never abandon his sister and thus unable or unwilling to leave the world of the living.

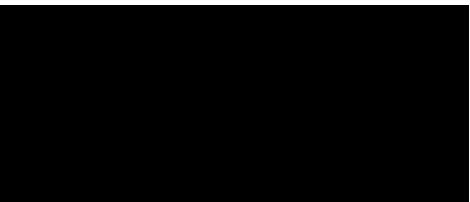
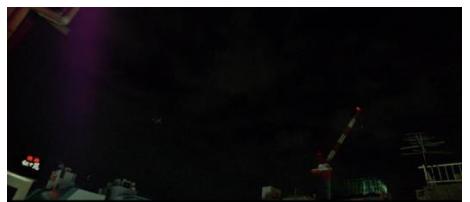
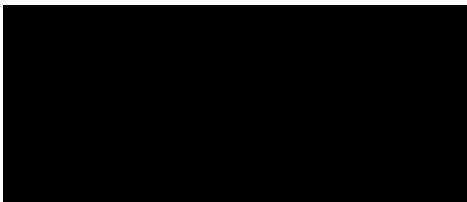
*"The POV-style changes as the film progresses. When Oscar is still alive, we see strictly what he sees, and the view is periodically impeded by his blinks – as the initial scenes continued, I found my own blink-rate coming into sync with Oscar's, and so this became invisible. His thinking mind is represented by a whispered [voice ...].."<sup>50</sup>*  
The fact that Oscar blinks during the first part, makes the film feel more real or at least more relatable to the character, because he seems human and not like a camera. But the movie is not entirely shot in point of view perspective. There are some moments, when we see images, which are subjective, but not filmed it the point of view angle, such as "over the shoulder shots" when we see flashbacks of Oscar's life. It is interesting to note that the first person perspective in this movie switches back and forth between the point of view of Oscar's body and his spirit in the beginning of the movie through his hallucinations. After his death the camera stays in the perspective of his spirit.

*"In 'Enter the Void' the camera soars above the world like a bird, like a kite, like a ghost. It moves with smooth, gentle motions and seemingly indecisive purpose, passing through walls, drifting over alleys and climbing high above the roofs of a nighttime city agleam in jeweled color."<sup>51</sup>*

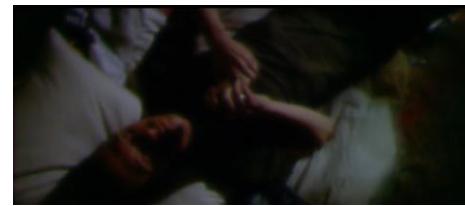
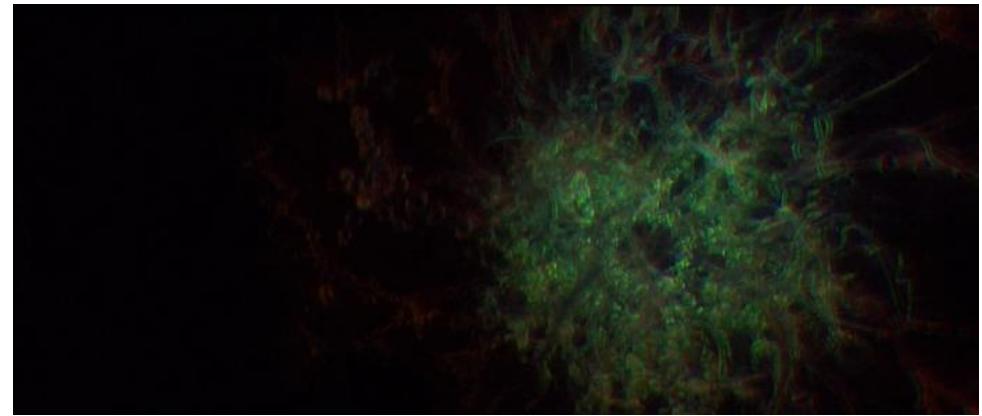
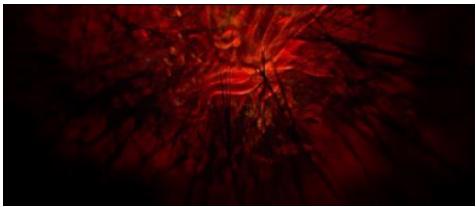
Finally, just like before in Lady in the Lake, we occasionally see parts of his body in the frame, including the scene where he gets shot and looks at the blood coming from his chest.

In some instances, Oscar's spirit enters the body of another character and then sees the world from their perspective for a while. In the end we see him coming back to the world of the living from the perspective of a newly born child.

*Movie start with blinking*



*Subjective images of drug consumption and death*

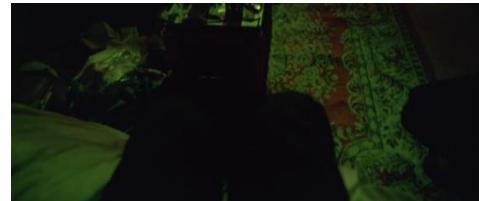




*Reflecting surfaces*



*Body parts*



*Subjective Images in the form of memories with an over the shoulder shot*



## **Maniac (Khalfoun, 2012)**

This movie shows us a part of the life of a mentally disturbed young man named Frank. He takes care of his family's mannequin business and has serious difficulties with getting into a normal relationship with women. Every attempt to get to know someone ends up in him killing the girl and taking her scalp.

Like the ones before, this movie is mostly filmed in point of view angle. Throughout the movie, we are in the shoes of this psychopath. We get to see what he sees and feel what it means to kill with him. The moments when the movie is not filmed in point of view are flashback sequences depicting his tormented childhood, dream sequences and some killing scenes such as the one in which Frank kills his own mother. But despite not being filmed in the point of view angle, these images come from his mind and are therefore subjective.

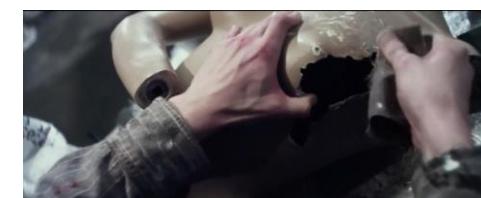
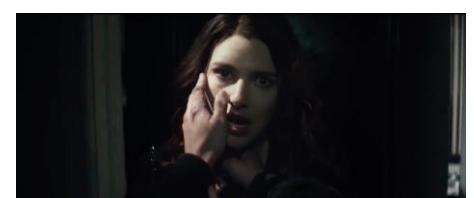
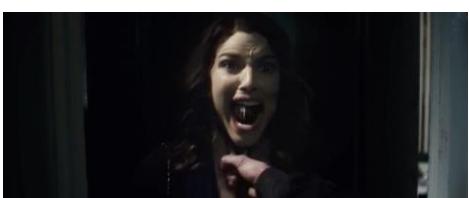
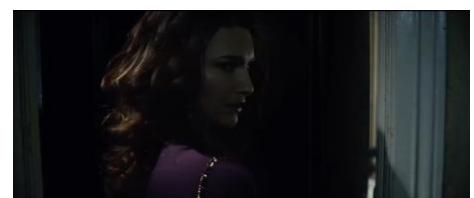
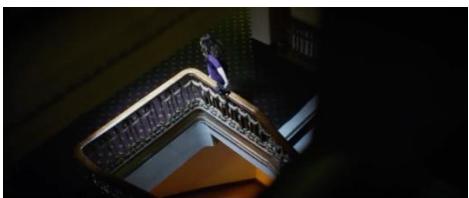
The movie itself starts out inside a car, when we hear the breath of the protagonist who is observing his next victim. After following her to her house we encounter the first killing moment.

In Lady in the Lake, the movie starts out by trying to prepare the viewer for what they are about to experience. In Enter the Void, the blinking makes it easier to relate to the character and feel more part of the movie. Now, in Maniac, we understand from the breathing that we are either in the car with someone else or that we are that someone. The interesting part happens when we kill this girl, and I say "we", because we don't see the act of killing from the outside, but instead

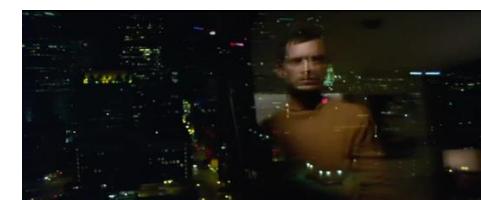
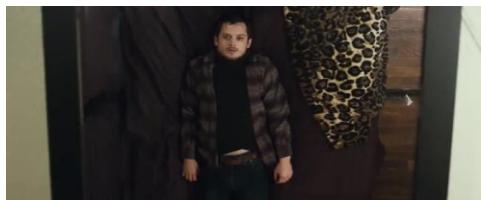
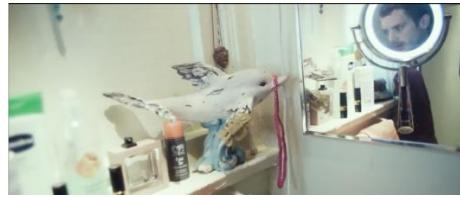
from the point of view of the character. This makes us feel "wrong", there is little chance of us empathizing with the character but it definitely triggers an emotional reaction.

The use of the point of view shot in this movie is an unusual perspective for the audience, and also helps showing the instability of the presented character. As in the other movies, there are moments when we see Frank in mirrors or even in pictures and we also sometimes see parts of his body in the frame.

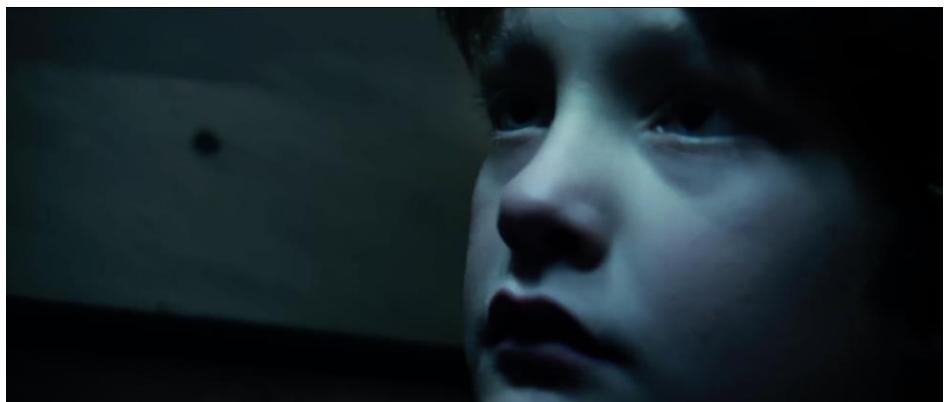
*Movie start*



*Reflecting surfaces*



*Subjective images coming from dream, memories or hallucinations*



## Hardcore Henry (Naishuller, 2015)

Hardcore Henry is an action movie about the Cyborg Henry who is manipulated into fighting for a villain, while thinking he is saving his missing wife. The movie starts with a flashback memory where Henry's father talks to him and calls him a "little pussy" which is followed a "waking up" scene. Here we immediately understand that we are looking through Henry's eyes. It is also made obvious, that our protagonist has no idea of who he is and has no other memories except the one of his dad talking to him. The scene with his dad appears again at the end of the movie to round off the narrative.

The camera movement and the general aesthetics are similar to the typical action-cam videos and first person shooter video games. This movie differentiates itself from the other examples by being entirely filmed in the point of view perspective. There is not a single moment when we see anything else except Henry's point of view.

To convey the significant amount of action the movie does not only show the hands or part of the arms, but also the legs or chest. This movie was probably inspired by the extreme sport videos which were made possible with the action-cam technology, in this case a GoPro<sup>52</sup>. The small size of the camera and the near perfect first person perspective makes it easier to re-create the feeling of being in the position of this new James Bond-like action hero.

*Movie start with memory sequence in POV*



*Body Parts*



- <sup>1</sup> Moreno, Julio L (1953): *Subjective cinema: And the problem of film in the First person*. In: The Quarterly of Film Radio and Television 7. p.342
- <sup>2</sup> Westmore, Garry (2016) *The history and future of the POV film*. Available at: <https://www.acmi.net.au/acmi-channel/2016/the-history-and-future-of-the-pov-film/> (Accessed: 21 November 2016).
- <sup>3</sup> Ibid.
- <sup>4</sup> Figure 20: Napoléon (1927) Directed by Abel Gance France: .
- <sup>5</sup> Moreno, Julio L (1953): *Subjective cinema: And the problem of film in the First person*. In: The Quarterly of Film Radio and Television 7. p.342
- <sup>6</sup> Mascelli, Joseph V. (1998): *The Five C's of cinematography; motion pictures filming techniques*. Los Angeles: 1st Silman-James Press Ed. p.11
- <sup>7</sup> Ibid.p.13
- <sup>8</sup> Ibid.
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## 6. Can a point of view movie together with a panoramic screen increase immersion in movies?

Until now, we looked at the development of screens and the panorama, we understood that immersion is one of the key elements in the development of media and we looked at the meaning of point of view as a camera technique and as a visual narrative style.

The next and final part of this work aims at answering the question if *a point of view movie together with a panoramic screen can increase immersion in movies?*

In order to answer this question, I first want to see if a panoramic screen can actually be more beneficial than a widescreen for creating spatial immersion in a cinema theater. We will also look at the advantages and disadvantages of using point of view as a visual narrative style. Finally, we will combine these two concepts and see which results can be achieved for the immersion in the movie.

### 6.1. Panoramic screen vs widescreen

At the beginning of this theses we went through the origin of panoramas. They were circular buildings displaying whole landscapes, which were first used for planning war strategies and later on as a way of entertainment. They filled a whole 360° circle around the viewer with their image. Nowadays, when we talk about panoramic screens we do not only mean these circular creations, but we also mean screens which allow the use of our *panoramic vision* - the one that permits the use of our peripheral view.<sup>1</sup> Opposed to the panoramic screen we find the regular widescreen, which is used in basically every screen application we

encounter in our everyday lives since there are almost no square screens anymore. Even vertical phone screens turned on their side are a wide screen again and also our common cinema or even IMAX screens fall in this category. Our goal is to identify the effects of different screens on the spatial immersion. For this we will start by explaining the basics of spatial immersion and the human vision and then cover the specifications of widescreens and different panoramas and their effects on the spatial immersion.



Figure 71: Cinema Screen <sup>2</sup>

## Spatial Immersion & Field of View

Back in chapter 4.3., we named two types of spatial immersion. One is an emotional attachment to a certain location, where the person can relate to the space that he or she is viewing in the screen. The other spatial immersion refers to the contrast with the dark room<sup>3</sup>, which is also called *losing the frame*<sup>4</sup>. The second of these two options, is what we want to focus on. So what does it mean to "lose the frame"?

When we watch a movie on a TV screen, there is a casing around it and in cinema there are black borders that outline the screen. The border goes all around the screen and separates the fictional image from the real space.<sup>5</sup>

What we are aiming for, in order to create a more immersive experience is "*(t)he opposing tendency [... which ...] wants to get rid of the frame so that there is no magic window, so that the created space is released as an immersive experience, which is somehow embedded in the real world.*"<sup>6</sup> It is with the goal of making people unaware of the screen, the "magic window", that we want to analyze different screens' capability to "get rid of the frame". To do this, we should first understand some facts about how our vision works.

Humans have *binocular vision*, which means that we have both eyes in the front of our head and we can focus them on one single image at a time. Our eyes are also spaced out a bit so they see two slightly different images. Our brain combines these two images into a three dimensional impression of our surroundings.<sup>7</sup>

Apart from the point where we focus our eyes, which is called our *center of gaze*, we also have something called *peripheral vision*. It can be described as follows:

*"While staring straight ahead and without moving your eyes or head, try to be aware of the objects to the left and right, above and below you. These objects lie outside your central field of vision, in what is called your peripheral vision. Peripheral vision is the part of our vision that is outside the center of our gaze, and it is the largest portion of our visual field. A normal visual field is approximately 170 degrees around, with 100 degrees comprising the peripheral vision."*<sup>8</sup>

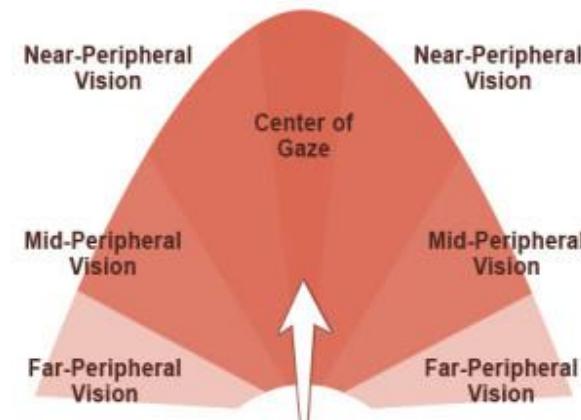


Figure 72: Peripheral Vision<sup>9</sup>

Knowing this, we can suggest that we only have a certain screen area that can be utilized to convey important information, namely the one in our center of gaze. Everything outside of that cannot be focused on by our eyes, so it cannot convey

story important information. What it can do however is set the mood for a scene and give context for what is happening in the center. Like when we sit in a train-like environment, whatever is rushing by outside the window will give us context to where we are without us having to consciously focus on it. Still it can put us in the air, in space, on the ocean, in a forest, a desert, a snow storm, etc.

Quite a bit of thought has been put into how our vision works in a cinema theater. So we have specifications that tell us the best viewing angle in commercial cinema in order to give the best viewing experience to the costumer.

For example to be able to resolve a 4K projection in regular cinema you need a viewing angle of  $50^\circ$  to create an immersive experience (figure 73)<sup>10</sup>. We also find specifications of this cinematic angle of  $35^\circ$  for the THX or  $45^\circ$ - $50^\circ$  degrees for SMPTE and 20<sup>TH</sup> Century Fox (figure 74).<sup>11</sup> These specifications are based on the fact that the width of our center of gaze ranges between  $40^\circ$  and  $60^\circ$  (figure 75).<sup>12</sup>

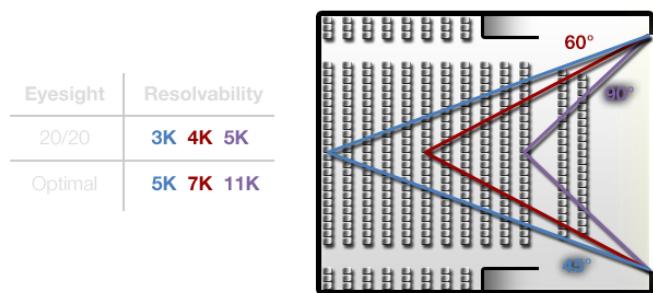


Figure 73: Angle of View Cinema 4K <sup>13</sup>

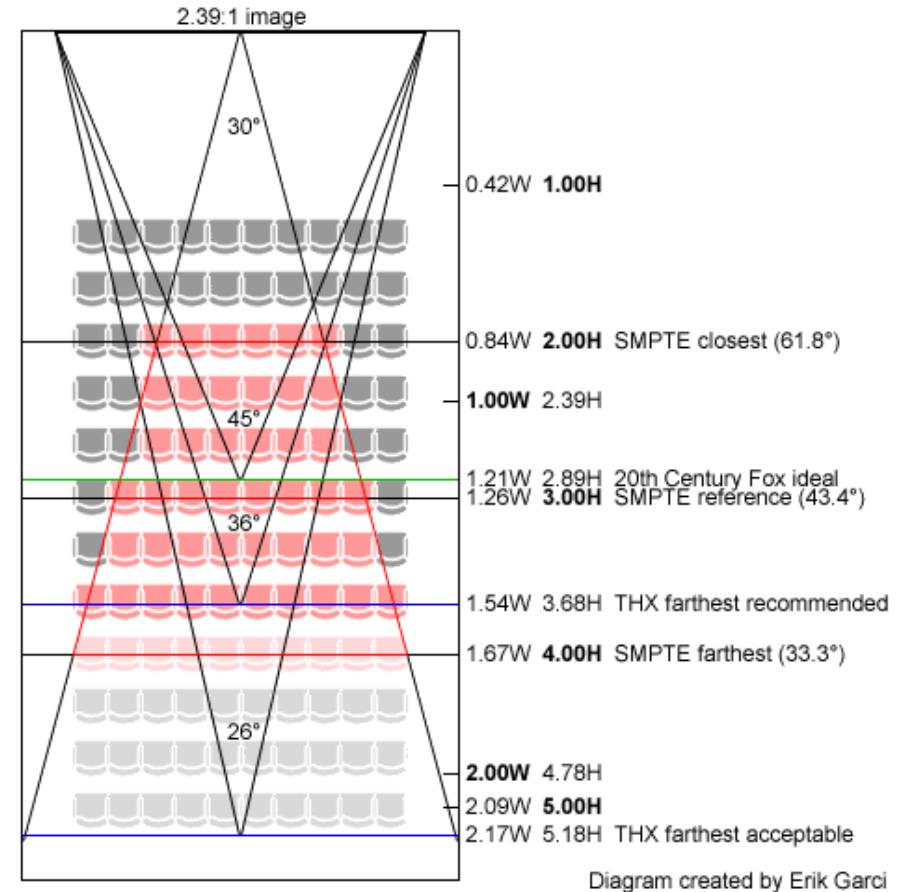


Figure 74: Best place to seat in cinema <sup>14</sup>

Diagram created by Erik Garcí

Another point to be considered when aiming at increasing spatial immersion is the position where we sit and therefore the distance from which we watch the movie.<sup>15</sup> If we see an image from too up close, we are not able to focus on it. So our screen needs to be placed at a distance from the viewer so they can focus their eyes on the image. The smaller the screen, the closer we need to get to it. The bigger the screen, the further away we have to be.<sup>16</sup> As we saw in figures 73 and 74, a seat "[...] near the middle to rear of most large-screen theatres creates a 45-60° angle of view, but seats near the front can result in 90° or higher."<sup>17</sup>



Figure 75: Central Angle of View<sup>18</sup>

Following this, we can say that to have a good spatial immersion it would be "more than enough" to have our center of gaze covered. Something that our cinema screens already do depending on where we decide to sit. Additionally, the

presence of other viewers that might be in front or next to us also plays a role in the way we position ourselves and perceive the screen.<sup>19</sup>

A final question to be looked at is if the size of the screen matters. Researchers at the Institute of Psychology of Johannes Gutenberg University Mainz (2014) wanted to find out whether the size of the screen plays a role in cinematic immersion or if the surroundings are more important than the size of the screen. During the experiment they displayed "[...] a ten minute excerpt from the film 'Gulliver's Travels' in various different environments. Some of the subjects watched the film sequence in a Mainz art house cinema. Another group viewed the excerpt on a computer screen alone, while a third group sat in front of a miniature movie theater, which had a 30 cm x 53 cm screen along with imitation rows of seats with small figurines made of modelling clay, carpets, and curtain props – all designed to create the illusion of being in a movie theater. The final group had to make do with a model movie theater in which the film was shown on an even smaller cell phone display."<sup>20</sup>

After observing 300 subjects, they found that among the "cinema-like" experiences, whether real cinema, medium-sized model or miniature, "[...] the larger the screen the greater the extent to which the viewers are drawn into a movie. [However,] [...] although the results were best for the movie theater screen, the miniature movie theater with the computer screen was not far behind, only just in front of the model with the cell phone display. 'We thus believe that the effect of screen size as a factor is overestimated. It is not significant in statistical terms' [...]. What was significant was the difference in effect between the miniature movie theater and the bare computer screen [...]'".<sup>21</sup> So the viewing environment is much more important than the size of the screen and the increase in immersion due to

a bigger screen while in a cinema environment is not as significant as one might expect. So we see, that in order to create a good spatially immersive experience, we should fill the center of gaze of the audience with screen and create an environment that makes it easy for them to ignore the surrounding and only focus on the screen. The actual size of the screen is not that important as long as the immersive environment is given and the distance from the screen is comfortable.

## Widescreens

As mentioned before, a widescreen is basically any screen that is wider than it is high. The most common aspect ratio used today for electronic devices is 16:9. The main possibilities to increase special immersion when using a widescreen is to provide a comfortable environment, and a bright screen against dark background, so our eyes only focus on the screen. The screen should cover the entire center of gaze and maybe a bit more, while still maintaining a comfortable distance, so the viewer's eyes can properly focus on the image. The addition of a slight curvature in the screen creates a stronger sense of depth, which is nowadays utilized in many modern TVs and in IMAX cinema screens.

"[...] (M)ost IMAX films eschew the pan's horizontality in favor of a perpendicular movement into the frame which evokes the sensation of penetrating space through heightened depth cues."<sup>22</sup>

We could say that the IMAX screen represents the best immersive experience you

could get out of the widescreen format. But it also depends on the cinema theater and how it is build. If the rows of the cinema are steep like in figure 76, the immersion is bigger than if the rows are more flat like in a classic cinema (figure 77).



Figure 76: IMAX Screen at the Science Museum of Minnesota <sup>23</sup>



Figure 77: IMAX Screen <sup>24</sup>

## Panoramic Screens

The next step after IMAX is the panoramic screen, which takes the field of view coverage one step further and also projects images into the peripheral vision or even beyond that.

Panoramic screens can be built in different ways, but their main job is to cover the complete or most of the field of view of the audience. Technically the screen does still have a visible edge at the top and bottom, but due to evolution and placement of our eyes our brains are generally more interested in watching a wide horizon and do typically not scan far up or down.

Some examples of panoramic type screens are the Circle-Vision 360°, which forms a 360° panorama (figure 78), the Escape screens by Barco Company, which represents a multiscreen projection (figure 79) and the TiME Lab screen located at the Fraunhofer HII in Berlin, which consist of a very large curved screen (figure 80).



Figure 78: Reflections of China - Circle-Vision 360°<sup>25</sup>



Figure 79: Escape Screen <sup>26</sup>



Figure 80: TiME Lab Screen <sup>27</sup>

The 360° full circle panorama takes a special spot in this list, because it is closest to the original circular panorama and allows the viewer to look in all direction of the circular construction. But even though this type of construction works fantastically when showing a landscape, it is hardly possible to build it inside a

cinema theater. Also since people are sitting in rows, there would be a lot of complications when showing the movie in a 360° theater. People will feel irritated because there is information displayed behind their backs. Even though we might find a larger spatial immersion compared to a commercial cinema screen, the audience would probably be constantly moving their heads, trying to not miss any of the action. Because of this reason, the immersion can be interrupted creating irritation in the viewers. Also as Stephan Oetermann suggest: "*The human eye is incapable of taking in a 360° range of images at one time, and unlike the still pictures of painted or photographic panorama, a film does not give the spectator time to walk around and absorb the whole.*"<sup>28</sup> As we saw before, our vision covers approximately 170°. This leaves 190° where the viewers cannot perceive the story which is happening around them. And since a movie is constantly moving they will never be able to see everything of the movie with only watching it once. 360° videos could be shown on a panorama-type installation or with Virtual Reality Glasses, but using a 360° panoramic screen in a cinema is unpractical and will not help the spatial immersion. It will rather leave behind high costs and an irritated audience.



Figure 81: ScreenX <sup>29</sup>

Besides the 360° panoramic screen we find curved screens or a multiscreen projections. Examples of the latter are the Escape Screen (figure 79) and ScreenX (figure 81). This type of screen is built with one screen in the front and two more screens left and right of the center. It is definitely more convenient than the 360° screen, because it can neatly fit in a cinema theater, as you can see in the examples of Escape and ScreenX. It allows for the use of three screens and the total coverage of the peripheral vision. The main action happens on the center screen and the two side screens are used when desired to add more immersion while keeping the attention focused in the middle. This has been done for example in the movie *Star Trek Beyond* in combination with the Escape screen.<sup>30</sup> One positive aspect of this screen is also that the viewers can feel calm that there is nothing happening behind them, which makes them more comfortable in comparison to a 360° screen.

In order to increase spatial immersion a multiscreen projection, the movie should be well crafted so that viewers will soon find themselves not even recognizing the extra screens as something to pay attention to and will simply perceive them as environment where the main action happens in. To make this happen there should be no new information introduced on those screens that could not be seen if only the center screen existed. If this rule is violated the viewers will find themselves anxiously scanning the side screens for hidden information, which will make them quite uncomfortable.

An impressive example of this can be found in the KIA advertisement presented on the ScreenX system, which can be watched under this link:

<https://www.youtube.com/watch?v=AJHrB3hyfB8>

Alternatively to three separate screen, there could also be rounded corners between the center and side screens to blend them together and hide the black frames separating them. I observed that if we decide on a multiscreen projection there is a high chance that the viewer will be aware of the beginning and ending of the screens, which might interfere with the spatial immersion. So maybe a curved screen could be a good option to maintain spatial immersion, due to the dissolution of the edges. It would be a wraparound image that envelopes the viewer's vision and leaves less distractions behind, but so far no company is doing this in a commercial cinema application. An article of *Immersa View* (2016), which was aimed at computer displays, confirms that having a curved screen helps with immersion. They also explain that this improvement of immersion relies on the edges of the screen coming closer to the viewer, allowing for bigger field of view coverage. But they also say that immersion can work with a multiscreen setup if the blending of the edges is correctly done.<sup>31</sup> This means that a cinema installation that uses a multiscreen should be properly constructed so that the edges are barely visible.

Besides the screen shape we also have to consider the positioning of our audience. Depending on where the people sit they will have different angles of view. The Escape screen for example, will almost always cover the entire field of view of the audience. But while the people in the back might experience a 180°

coverage, the people sitting in the front will have a 270° experience, where even if they do turn their heads to one side or the other, they will still not see the edges of the screen. Provided that they are still far enough away to properly focus their eyes on the image this could very well become the next big step to stronger immersion in cinema.

## 6.2. Advantages and disadvantages of point of view as visual narrative style for a movie

As we saw in chapter 5, point of view can be understood as a camera technique or as a visual narrative style. The camera technique means that the camera takes the place of our character, showing the world as they perceive it. Either with an A/B/A construction, an over the shoulder shot or sporadically used in order to help the narrative and bring us closer to a character and their perspective. Point of view as a visual narrative style refers to a movie's intention to put the audience into the position of one of the characters, not only through the use of the point of view camera angle, but also through the use of the *subjective image*. The images shown originate from the mind or perception of the character. These movies set out to show the character's perspective, mostly using the point of view angle, but also making use of some non-first person shots when displaying subjective images like dreams, hallucinations, thoughts and memories. While most of today's movies are mainly constructed with objective shots and only sporadically use some subjective images, the "I-perspective" is commonly used in video games or in books in order to increase the identification with the protagonist.<sup>32</sup> Moreno suggest: "*The search of the 'first-person visual' is based on the idea that there exists a complete parallel between the narrative techniques of the motion pictures and*

*those of the novel. It is thought that with the visual means of expression of the cinema it is possible to achieve the equivalent of a form of literary narration (narration in the first person), even though literature uses signs (words) and not images.*<sup>33</sup> With the first person style very successful in literature, cinema has all the reason to try to copy it. Yet still it remains an exception among all the other movies shot in third person view. Why is this? Let's take a look at the reasons that could keep a director from choosing this narrative style or might inspire them to use it.

#### **Disadvantages:**

One of the most obvious disadvantages is that we only see the story from one perspective, like in *Maniac*, *Lady in the Lake* and *Hardcore Henry*, which strongly limits the creative freedom. Of course, movies which are majorly shot in the point of view angle can decide to include moments where we are shown a scene from the outside. Examples of this are in *Maniac*, where find is memory, dream or hallucination scenes or in *Lady in the Lake* when detective Marlowe breaks the fourth wall and talks to the audience. But even though there can be some occasional exceptions, we can certainly say that deciding on point of view as a visual narrative style takes away some narrative possibilities compared to the freedom that objective visual storytelling offers.

The problem of only seeing the story from one character's perspective can be avoided in found-footage movies where the *diegetic camera* allows us to see the story from the perspective of whoever is holding the camera. Examples of this are *The Blair Witch Project* and *Cloverfield*. However, because we are limited to the use of camera footage, we are again restricted to one line of visual narrative style.

While we can still show "memories" in the form of old camera footage, it is impossible to display dreams or hallucinations, because there is no way that a camera could have filmed those.

Another problem that many authors point out is that there is no such thing as a "first person" in cinema.<sup>34</sup> "In literature, first-person narration is when the protagonist speaks as themselves. Thus, a subjective perspective in cinema isn't first-person at all. Instead, the POV film would be best defined as 'second-person cinema,' akin to the use of 'you' to convey subjective perspective in literature."<sup>35</sup> When we watch a point of view movie we are like a separate entity that resides inside the character and looks at everything through their eyes, but cannot make any decisions in the action. In videogames in contrast, we make decisions, we direct the flow of action and therefore identify with "our" character. In a movie however, we are presented with a new "me", which is not necessarily relatable. Like in *Enter the void*, we are first confronted with the blinking and after a few moments we see our new "self" in the mirror in the form of Oscar. Then we see him sell drugs, we see him get shot and die and so on, but we didn't take any action or decision in this. Instead we are kind of obligated to accept this character as our new "self" for the duration of the movie. That's why point of view in movies can be understood as "second person".

#### **Advantages:**

As mentioned before the point of view style allows us see the world like the protagonist and feel more strongly with them. It gives us the chance to understand this character that we are presented with and see similarities in our behavior. It makes the character more relatable, the experience more personal

and puts us closer to the development of the character.<sup>36</sup> It shows us what happens inside their mind or brings us to another reality when showing hallucinations or dreams. The subjective images in the movie are reality filtered through the perception of the character. Therefore, they represent a more accurate description of what the world is like to this character than if we were to just objectively show everything around them. Also it is more relatable because the character perceives their world in the same way we do: through their eyes. The more this frame reflects how we would actually perceive reality the more likely we are to accept what is shown on screen as our reality for the duration of the movie.

At the same time, by making us see the action from the "*I perspective*" our brain gets a certain sensory input and then processes it to give us an according emotional response. However, we then also realize that the protagonist does not react in the same way as we do. This can be used to create a burning awareness of the fact that we and the protagonist are inherently different. Either that he is much braver than we are, like in an action movie, or –like with *Maniac*- that this human being has some serious mental disorder and does not feel the same way as a "normal" person would.

Lastly, it can be advantageous for publicity and recognition, to produce a point of view movie. Because these movies are so rare, the few that exist will stay in people's memories exactly for the reason of providing such an out of the usual experience.

### 6.3. Conclusion

As we saw in chapter 4.2., immersion was defined as the capacity to captivate, fascinate, involve or entrap us. Immersion can be achieved through a book or movie, by listening to music, looking at art or even through our own thoughts. We lose the sensation of time, space and even our reality and we accept the presented images in front of us as our new reality for the duration of the event.

Immersion can already be found in our cinemas if the story is "good enough" to create tension and keep the attention and curiosity of the audience. It should make them forget the real world and keep them mesmerized by the bright screen in the darkness of the room. So if widescreen cinema and the "standard" narrative already create a good immersion, can the combination of panoramic screen and the point of view narrative style increase immersion even further?

First, we can argue that a panoramic screen which covers the peripheral vision of the audience could create and increase spatial immersion. This assumption relies on the fact that in our everyday life, our peripheral view is always filled with something, even if we don't pay attention to it. We see things to the left and right and we have our center of gaze in front of us. The same will occur in a panoramic screen where complementary information can be projected on the sides and the center conveys the main information. By having the horizontal view of the audience covered, the frames of the screen would vanish, leaving only the top and bottom borders, which are evolutionary way less interesting to us than the horizon and can therefore be neglected.

The viewer could still look to the sides and see the ends of the screen, but if the movie is well crafted there is no reason for anyone to turn their head at any point, effectively making them forget their surroundings. The broader implementation of panoramic screens can also make space for a new style of narrative to filmmakers and also a new way of entertainment which allows the increase of the immersion that we find in movies without the use of gadgets like 3D glasses.

Second, point of view gets us closer to the perspective of the character. Using point of view helps with the identification and improves the empathy between the viewer and character. This type of visual narrative style does indeed come with some restrictions, but apart from bringing us closer to a character it can also help bringing another way of storytelling, which of course, will depend on the preference of the moviemaker and the goal of the movie. The increase in immersion will of course not only depend on the choice of visual narrative style, but a whole range of factors, which in the end decide how "good" the movie is, or how well it is crafted. *Emotional, temporal and narrative* immersion will rely on the story as well as the *virtual spatial immersion*.

Finally, if we mix panoramic screens with point of view we find the advantage that it represents reality better. It provides more room in order to represent more accurate what the character sees or has around him/her. Point of view and panoramic screens do not depend on one another, but they can very well complement each other in order to create not only a visual but also a bodily experience with the environment. The embodiment-cognition can probably be increased with the use of a panoramic screen because of the provided space to the viewers in order to relate themselves with the screen and the movie. Since this

has not been done so far it still needs to be verified by a concrete study with the use of a point of view movie.

A short example of a mix of panoramic screen and point of view can be found in the KIA commercial<sup>37</sup> on a ScreenX installation. Point of view is used in different moments of the commercial. For example, in minute 1:02 when the dashboard of the car is shown as if we were inside of it (figure 82) and this moment keeps on going when "we jump" out of the first car and land in a second one (figure 83 and 84). Another example is when we sit in a type of flying vehicle in minute 1:30 (figure 85) until minute 1:47 (figure 86), or the point of view of the astronaut in minute 2:01 which puts us in his/her shoes and perspective (figure 87). Immersion is not only found in this commercial through the use of point of view but also due to the embodiment which we can feel thanks to the camera movement that is animated across the screen. All these aspects of the commercial bring us to another world and get our attention. We are immersed due to the space, the narrative and our curiosity to know what's next. It entraps us and does not only captivate us visually but also bodily and spatially thanks to the camera movement and the wrap-around screen.



Figure 82: Text



Figure 85: Text



Figure 83: Text



Figure 86: Text

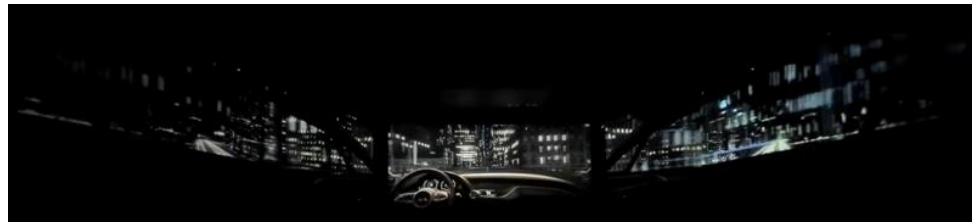


Figure 84: Text



Figure 87: Text

Panoramic screens and point of view combined offer us the opportunity to not only vividly imagine a story, but to actually accept it as our own reality due to the use of our peripheral view and the so familiar first person perspective. The increase of immersion is twofold, with the additional spatial immersion created by the screen and the more personal emotional immersion created by the point of view style narrative.

Thanks to the current development in Virtual Reality it is likely that first-person content in general will increase, but if point of view style movies will appear more in cinema theaters remains to be seen. I believe that they will in fact remain exceptions mainly due to the limitation of visual narrative freedom. The introduction of panoramic screens on the other hand is up for a better future. Barco already plans to have 100 theaters equipped with their Escape screens by the end of the year and as many as 3'000 in the next three to five years.<sup>38</sup> We will have to wait and see how the wide audience receives this new advancement and how the industry as a whole develops.

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- <sup>4</sup> Ibid.
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- <sup>13</sup> Figure 73: *Angle of view cinema 4K* (2016) Available at: <http://www.red.com/learn/red-101/eyesight-4k-resolution-viewing> (Accessed: 2 December 2016).
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- <sup>22</sup> Griffiths, Alison (2008): *Shivers down your spine: Cinema and the history of the immersive view*. New York: Columbia University Press. p.82
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- <sup>33</sup> Ibid. p. 354-355

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## 7. Summary

Stories, emotions and immersion are some of the key reasons that bring us to the cinema.

In this thesis we covered the question whether a point of view movie together with a panoramic screen can increase immersion in movies. To answer this, we first defined immersion as the ability of a movie to captivate the audience's attention and make them forget they are in a cinema. There are different types of immersion among which we named the emotional, narrative, temporal and spatial immersion, as well as the embodiment cognition. We should also not forget that there are socio-cultural influences that play a role in the way people get immersed in a movie.

Next we covered the development of screens and the emergence and history of the panorama. From panorama, to diorama and the dissolving views they all come from a common ancestor. A room in which humans want to create an illusion. This illusion has the capacity to take people with them to a different world, space and time. What we nowadays call immersion. In cinema, the medium to help convey this "entrapment" does not only come from the dark room in which we see the movie but also from the screen, which developed from almost square to a more wide-stretched form. We nowadays know it as a widescreen and it often comes in the omnipresent 16:9 aspect ratio. Widescreens cover our center of gaze and are therefore very well suited to convey information or a story. But we still perceive our surroundings with our peripheral view and therefore cannot forget where we are. Movie theaters counter this by darkening the room and having only the bright screen visible to the eye, thus making us lose the frame and ignore our

unfilled peripheral view. The next evolutionary jump for screens is the panoramic screen, which does the extra effort to project information in our peripheral vision. This can be achieved in many different shapes, including full circles, but the most efficient is a setup where we have a main screen in the middle and two on the sides to show complementary images. That way the audience does not have to turn their heads, but still have their full field of view covered. Other option would be to have a curved screen which will probably change or create a new visual narrative by being obligated to use the entire screen.

This way of showing footage makes it much more relatable, because that's how we normally see in the real world, which brings us to our second component: the point of view movie. We split this term up into two forms: First the plain point of view camera shot, which shows an image as seen from a first person perspective. Second we have the point of view narrative style, which is mostly shot from a POV angle, but also includes subjective images that can be filmed in a third person angle to show a character's perception of the world during dreams or hallucinations. While the camera technique is often found in movies, the narrative style is rare in cinema (examples are found-footage movies) and more frequently used on the internet in the form of action cam videos or POV porn.

In our analysis we found that point of view does not bring any significant advantage to create a more immersive experience. What it does do however, is create a first person experience to make the viewer feel and see as if they were that person or were in a certain place. The shot can surprise us, give us more information and bring a new perspective to the story.

The combination of a point of view style movie and a panoramic screen has the potential to bring to the audience an experience that can take them to a different reality. By covering the full field of view and projecting a point of view image the sensory input is basically the same as in everyday life, which should create high levels of immersion. It is basically the closest we can get to virtual reality with a cinema screen.

New technologies like VR have changed the way we create immersion for our entertainment, but cinema is also still in development. Companies like Barco have already planned on expanding their multiscreen projection to many more cinemas, but if Hollywood is ready to create content for this platform is still to be seen. Society, media and cinema changes constantly and so do the ways we create content. Immersion has always been the key when it came to attracting an audience and we are still exploring new ways to increase it.

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