

## WHERE DID YOU GO TODAY? A BRIEF HISTORY OF NARRATIVE SPACE. WHERE WILL YOU GO TOMORROW? THE FUTURE OF NARRATIVE SPACE

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**Abstract:** *Whilst location and setting, mise en scene, have always been key elements of moving image, since the advent of computing, space has become a more prominent feature. This paper will consider the spaces in which moving image narratives play, the fictional spaces they conjure and the effect of technologies on the construction, delivery and reception of narrative space. Manovich's characterization of the digital experience as, 'spatial wandering,' (2001, p49) echoed Murray's declaration that, 'Digital media are spatial.' (Murray quoted by Ryan, 2016, p100). Narrative has always been immersive. The transporting nature of narrative provides one of its key pleasures. 'Relax. Concentrate. Dispel every other thought. Let the world around you fade,' Calvino, (1979, p3) invites his readers to lose themselves in his novel, *If On A Winters Night A Traveler*, beginning a journey into a narrative that explores the very idea of immersion. Like the first establishing shot of a film, Calvino instructs his readers to imagine a train station, positioning them in a scene created in their minds eye. 'Arguably the best stories are those which you are lost in.' (Weedon, 2018, p50). Millennia ago, sitting around the campfire, storytellers would ignite the imaginations of their listeners, conveying them to fantasy spaces, historical landscapes, fabled events, carried there by their own visions. Successive technologies have separated storytellers from their audience, through the alphabet, print, photography, film, and computer screens. This paper will look to a future of narrative space, when stories spill out of the screen, providing embodied experiences, in headsets, projection mapped onto locations, in mixed and augmented reality scenarios, mediated by artificial intelligence. Are we moving into a new narrative age following Manovich's ages of the frame, proscenium arch, cinema and computer screen, one in which we leave the frame behind and step into the narrative space? This paper posits that the introduction of digital processes in the production and consumption of moving image afford new experiences of narrative space for both producers and consumers of moving image culture.*

**Keywords:** *narrative space; storytelling; virtual reality; virtual production*

### Introduction

Our journey to the future begins in the past, long ago, sat around the campfire. The audience close their eyes and, in their imagination, conjure the setting, a

battlefield, a hunt, a dwelling. The smell of woodsmoke, the sounds of the night around them might distract but they're able to overcome these and be transported on the words of the storyteller to the fiction described. They are moved to tears, a

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shiver runs down their spines, they empathize with the lonely, the lovesick, the bereft. They are immersed. This capacity to be transported into the space occupied by others has been identified by many as a key human attribute. Humans are, 'hard wired for narrative,' as, 'a survival tool' (Miller, 2014). Narrative presents opportunities to learn from the experiences of others. It is the 'capacity of the human mind to be emotionally affected by the contemplation of purely imaginary states of affairs (which is) an evolutionary asset,' (Ryan quoting Carroll, 2015, p113) that has led humans to develop by learning from stories. Immersion in a narrative provides an opportunity for vicarious experience, what Ryan calls, a 'playground of mental simulation, where emotions happen but do not count' (Ibid) This has allowed humans to build upon and learn from the mistakes of others. Not only through an oral storytelling tradition but, from cave paintings to Virtual Reality, narratives have transported audiences, creating memories of events that become part of the audience's stock of experience, through which they understand the world. It is beyond question then that storytelling is important and our propensity as a species to tell and listen to stories is fundamental. We want to be placed in the shoes of others, we seek vicarious experience, and successive generations of storytellers have sought to immerse their audience further and further into the story worlds they create. Rose asserts that, 'Every new medium that has been invented, from print to film to television, has increased the transporting power of narrative.' (Rose, 2011, p36). This paper presents a brief history of these developments to explore how successive technologies have affected the audience's relationship to narrative space and to consider what present and future developments might mean for moving image storytelling.

## Methodology

This paper utilises secondary research sources and references case studies of immersive media, *Racing the King Tide* (UK, Chadwick C, Esteban M, Jamero, L, Turner D . 2021), *Notes on Blindness* (France, Colinart, A., La Burthe., Middleton, P., & Spinney, J. 2017) and the *Now Building*, London to discuss, immersion in narrative space. The effects of Virtual production technologies on narrative space are presented in reference to the example of 1899, (Germany, Odar, B. & Friese, J. 2022).

## Result

Evidence of early societies communicating through narrative can be found in historical artefacts and sites around the globe. In the ancient world narratives existed in cave paintings that communicated stories in space. 'A cave-wall depiction of a pig and buffalo hunt is the world's oldest recorded story, claim archaeologists who discovered the work on the Indonesian island Sulawesi. The scientists say the scene is more than 44,000 years old', (Callaway, 2019). This remarkable example is claimed by the journal *Nature*, to be one of the earliest examples of narrative art because it depicts, 'smaller figures that look human but also have animal traits such as tails and snouts... these animal-human figures, known in mythology as therianthropes, suggests that early humans in Sulawesi had the ability to conceive of things that do not exist in the natural world,' (Ibid). Thus, suggesting that these representations were of fictional forms and that in Sulawesi, 44,000 years ago narrative existed in the space of everyday life, on the walls of caves.

Cave paintings have been found in many parts of the world as evidence of oral traditions, narratives enacted in rituals and performances, displayed on ceram-

ics and in the very architecture of cities. In what some (Jenkins 2006, Meadows 2002), have compared to current practices of transmedia storytelling, ancient civilizations embedded narrative in the everyday. 'The narrative on the Acropolis was power, freedom, and a sense of proximity to a god that watched over the city. The processional visit to the Acropolis delivered this inspiration and narrative form, this string of events and subsequent thoughts, to its visitors.' (Meadows, 2002). Not only did buildings tell stories in their architecture and the way in which they led citizens to engage with the city, but also in their decoration with frescoes and friezes, painted ceilings that depicted the order of the universe and placed the audience within the boundaries of the story. Tales passed on through religious ceremonies, songs and rituals were well known and audiences, or attendees immersed in the narratives, not necessarily to find out what happened in the story, but to be part of a familiar narrative landscape. In religious practices around the world devotees were engaged through narratives, participating in narrative rituals. 'V. Narayana Rao distinguishes between narrative "performances" that communicate (that is, tell the story for content) and those that create communion with the deity and / or the narrative community.' This form of engagement, immersion in narrative space created community.' (Burkhalter Flueckiger, 2015, p47). Through immersion in narrative experiences, communities found common ground and empathy with others, religious commitment, and civic pride, developing social cohesion.

Landscapes, invoked in myths and legends around the globe, made sense of geological features. From the Giants Causeway in Ireland to Malin Kundang in Indonesia. A story that explains a rock formation on the Air Manis Beach in Padang, West Sumatra. The stone is an ungrateful son who, cursed by his mother, was petrified. Not only was the natural

world explained through such narratives, but these stories preserved morality and served as cautionary tales. They were all the more powerful for being embedded in the real world, the spaces people existed within.

Similarly, religions delivered powerful messages visualized in real world spaces with ceilings and wall panels emblazoned with visions of heaven and hell in Christian churches to keep congregations in-line. As populations were illiterate these visualizations were necessary forms of communication, reinforced by religious singing and ritual. Narrative space in ancient worlds was enmeshed in the fabric of society, indistinguishable from reality. Visualizations on everyday objects and architectural features, performances, rituals, and oral storytelling surrounded the population in the space of daily life.

In Western art the development of perspective disrupted this all-encompassing narrative space and placed a frame, a boundary around the narrative world, separating the narrative space from the realm of the real. Friedberg identifies how, 'Alberti supplies us with a renaissance root for the concept of a windowed 'elsewhere' – not a realism of subject matter but a separate spatial and temporal view.' (Friedberg, 2006, p32). One of the earliest descriptions of the process of perspective was described by Alberti in 1435, 'First of all, on the surface on which I am going to paint, I draw a rectangle of whatever size I want, which I regard as an open window through which the subject to be painted is seen.' (Ibid, p27). He then goes on to describe the method he used to achieve a realistic perspective – from a fixed viewpoint – 'in this way both the viewers and the objects in the painting will seem to be on the same plane.' (Ibid) This notion of placing a rectangle around a subject, a frame, a border, of enclosing the subject from the rest of the surroundings and providing a fixed perspective

with which to view it, providing a point of view in relation to the subject, dominated western art for centuries.

Coupled with the alphabet, perspective, as a medium of communication, is identified by McLuhan as marking the dominance of the eye. An age in which linearity and rationality flourished in contrast to preliterate communities who, rather than being transported onto a 'cooler,' detached plane of thought, were embroiled in a multi-sensory 'hot' world of emotion. 'The eye is cool and detached,' (Ibid, p156) and allowed for an objective relationship with the text, whereas 'the viewer of renaissance art is systematically placed outside the frame of experience,' (McLuhan, 1967 p53) allowing for a detached viewpoint.

It is this development of the concept of another place defined by a frame, that Manovich (2001) defines as 'the classical screen,' 'another virtual space, another three-dimensional world enclosed by a frame and situated inside our normal space. The frame separates two absolutely different spaces that somehow coexist.' (Manovich, 2001, p95). This framing of representation, providing a fixed perspective of it, creates a boundary for that other space and a relationship to it. It is no longer part of the fabric of the everyday but separated from it. 'It exists in our normal space, the space of our body, and acts as a window into another space.' (Ibid) Alberti's use of the window as metaphor is significant as this begins our relationship with a windowed subject. The term window having a new meaning for us today in regard to the computer. Manovich traces this genealogy from Alberti's window, the 'classical screen,' to its next iteration the 'dynamic screen,' another window into another space which, 'can display an image changing over time,' (Ibid, p96). The screen of cinema and then television was, like renaissance painting, bordered by a frame, and like a perspective painting pro-

vided a fixed point of view, the position of the camera. Unlike the framed painting the 'dynamic screen' ushered in a new 'viewing regime' that required the complete attention of the audience. Unlike previous forms the mesmerizing 'dynamic screen' captures and holds the attention of the audience. 'The viewer is expected to concentrate completely on what she sees in the window, focusing her attention on the representation and disregarding the physical space outside.' (Ibid). Cinema audiences were allocated a seat in a dark space, the screen absorbing their attention.

This viewing regime of time-based moving image media delivered narrative immersion to spell bound audiences within the boundary of the television and cinema screen uninterrupted until the development of the computer. As we have moved from the mechanical production of analogue to media on digital platforms we have shifted from photographic sequences, sprockets dragging film through projectors at set rates of frames per second, and timecodes spooling to instances in videotape, to digital files stored in the RAM (random access memory) of computers. We have shifted from time-based media to media in a computational environment, a non-hierarchical space. This technological change from analogue media to digital media challenges the linear, temporal arrangement and distribution of content, replacing it with content stored and accessed in space. No longer dominated by television schedules, audiences in the digital age search for content across a range of platforms.

The notion of digital media as spatial has persisted since the early days of the Internet. William Gibson first used the word 'cyberspace' in his novel, *Neuromancer* in 1984, in which he described the digital realm as a place to go and the approach to the digital as of being 'somewhere.' Navigation became the established term for

moving around the internet and browser names conjured ideas of travel, Internet Explorer, Safari. The early adverts for internet providers asked, 'where will you go today?' Ryan (2016) suggests that, 'we have developed the habit of thinking of computers as machines that take us into a separate reality' (p101), and references Murray, who pronounced that, 'Digital media are spatial.' (Murray quoted by Ryan, 2016, p101).

The conceptualization of media organized on computers as spatial is, I would argue, not just confined to consideration of computer storage, but has ushered in a new age, in which the screen as a boundary is challenged. No longer a window through which to view one piece of content, the screen is a portal. The audience can reach through the interactive window of the computer space to find and interact with many different types of content.

Manovich characterizes the computer screen as displaying 'the coexistence of a number of overlapping windows.' (Manovich, 2001, p97). In this way computer screens present media to be interacted with in a spatial dimension. As computing has developed, further technologies have also provided not just interactive but embodied experiences, as Manovich notes, 'with VR, the screen disappears altogether... Or, more precisely, we can say that the two spaces-the real, physical space and the virtual, simulated space – coincide.' Are we seeing, with technologies that blur (or obliterate) the boundaries of the framed representation, a return to the embedding of narrative into the everyday?

As ubiquitous screens populate the landscape, from the mobiles in our pockets to projections on buildings in our cities, to VR experiences on headsets Ng (2021) notes, the 'disappearing boundaries and encroaching virtualization.' that is taking place in what she has dubbed 'the post screen' era (p26). Arguing that the

tradition of the frame, the demarcation of the other, narrative realm, is disappearing, referencing Samsung's development of the first ever frame-less television, as 'the industry's unambiguous ambition to blend the virtuality of the image ever more seamlessly with the actuality of its surroundings.' (Ibid).

This shift of viewing regime, from Manovich's 'dynamic screen,' the framed representation that audiences were pinned in front of, to the boundaryless representations embedded and ubiquitous in the landscape, disrupts the relationship between narrative space and audience, who no longer gaze from without but are surrounded. Ng provides concepts to apply to this shift in the viewing regime. 'As screens envelop their audiences in their omnipresence, Turner proposes the framework of thinking about screens to shift across various binaries, from "screen" to "surround"; "representation" to "attention"; "production" to "integration"; "reception" to "interaction."' (Ng citing Turner, 2021, p33).

## Discussion

In mapping this framework to VR experiences, we can consider the shift in the relationship of the audience to the narrative space.

In the 360 documentary, *Racing the King Tide*, (UK, Chadwick C, Esteban M, Jamero, L, Turner D . 2021) viewed in a VR headset, the screen disappears, and the viewer is 'surrounded' by the image. The scene represented, unlike a fixed frame which invites our gaze, fills our vision in the VR headset, demands our full 'attention' and combined with headphones takes over two senses, sight, and sound. The work is 'integrated' into a digital workflow that brings together edited sequences and sound into the oculus headset environment. The work offers

‘interaction’ presenting three degrees of movement, to either side, above and below. This creates the sense of being there. Standing in the sea, on the islands in the province of Bohol, in central Philippines, knee deep in water as the tide comes in to flood this island community once again. By standing in the water with this island community a deep sense of empathy is created corresponding with Milk’s description of immersive media, ‘you feel present in the world you’re inside and you feel present with the people you’re inside of it with’ (Milk, 05.47, 2015). The islanders are not represented to the audience, cut off in a separate framed reality, but seem to exist on the same plane as the viewer.

In *Racing the King Tide*, the evidence of past lives can be seen all around in the streets and homes that are flooded. The presence of the water is a constant reminder of the next high tide. It is this narrative arc that engages us. The ability to explore by moving our viewpoint does nothing to dilute this narrative thread, but in fact, by the presence of water wherever we look, this narrative trajectory is reinforced. There is no escaping the sea for us, nor the characters we meet there. With the camera capturing the scene at eye level there is an apparent but illusory interaction with children swimming in the scene, as they look curiously into the lens, and so into our eyes, through the headset. This positioning of our point of view at eye level cunningly embodies us in the scene, as someone standing in the water.

*Racing the King Tide* presents limited interaction, but like other VR documentaries it presents an active experience that feels like interaction. Unlike the viewing regime of the ‘dynamic screen’, the VR headset makes the viewer look and not just straight ahead but around the scene to take in the full 360 vision. Unlike previous screen technologies VR encourages an interactive relationship with narrative space. It provides a sense of having been

somewhere.

In the VR documentary, *Notes on Blindness*, the viewer is led through the experience of John Hull, who lost his sight and whose diaries are the foundation of this work. In his diaries John Hull explores his loss of vision and his changing perception of the world around him. The VR documentary uses his readings of the diary illustrated by the apparent visualisations of his responses to the sounds in his landscape. A vision of his interior world that provides the viewer with an experience of being blind. By making the viewer explore the space, with prompts such as look at the footsteps, follow the light, and audio clues, the viewer is engaged in active participation in the narrative space. Colinart, the producer of *Notes on Blindness*, noted, ‘The VR headset is also a mask cutting you from reality. It focuses your attention on John Hull’s stories and on the art direction, which is very demanding, because it is totally black, and just has filters of light.’

Colinart (2016) explained that the original intention was to create the experience of being blind with just sound and a black screen. But thinking that users would associate the black screen with a malfunction, a bug, they decided to include visuals. Having first produced a version for mobile the driver to create for a VR headset was to separate the viewer from their reality to have a truly immersive experience. Colinart described how the team ‘started drawing the scenes, like when you would draw a theatre set. We designed the scene,’ (Ibid) resulting in a series of environments that the viewer explores. Rather than scripting a sequence of shots this moving image work was developed as a space, its time duration dictated by the audio, with the audience able to look around the space in that time.

Similarly, to the previous example, *Racing the King Tide*, *Notes on Blind-*

ness, provides an experience of being other, a vicarious experience that adds to our knowledge of what it is to be human, by placing the viewer within the narrative space. Although the audience for these pieces are removed from their everyday environment by wearing the headset, they step into an embodied experience that passes for the real, rather than a windowed other that has the boundary of a frame.

In contrast to these solitary experiences in the seemingly frameless VR headset, the 'new virtuality' (Ng, 2021) presents us with experiences embedded into the fabric of our city centres. Projections on buildings, light shows, and immersive screens place citizens within the spectacle. Around the globe cityscape media attracts audiences, from light projections on The Bund in Shanghai to the immersive installations on London's The Now Building, which has displays on 'four storey 360 degree 8k screens with 4D and interactive capabilities.'

Screenless moving image events that use the city as a site for creating spectacle place the audience within the narrative space, creating shared experience and social cohesion, reminiscent of the ancient world with narrative embedded in the everyday. Spectacular events in cities around the globe engage audiences as they pass through. A feature of this immersive experience is the presence of the audience filming themselves and posting to their own social media stories. By sharing online, the audience creates further instances of the spectacle that they place alongside their other experiences shared on social media, placing the spectacle on the same plane as the real. The website for The Now Building, invites audiences, 'Visit us to discover experiences worth sharing,' (Ibid) pointing to this new cultural dimension of our immersive media landscape and the ways in which audiences collect experiences to add to their

personal narratives online. Cityscape experiences, such as the Now Building, provide two functions – one to create opportunities for interaction, personal creativity and meaning making in a shared narrative space. And, by providing a narrative space and spectacle, deliver visitors to city centres and eyeballs for advertising messages, creating social cohesion in a consumer society.

The absence of a boundary demarking the virtual and the real, narrative space and everyday life, affords a more participatory culture, allowing the audience to join in on the margins of story worlds and indeed extend them. Rose identifies that 'people want to be immersed. They want to get involved in a story, to carve out a role for themselves, to make it their own' (Rose, 2011, p8). Both Ng and Rose cite story worlds that were extended by fan media and by producers through canny marketing strategies to harness the power of the crowd online with seemingly real-world campaigns. Rose describes, both the fans appropriation of the space of the Lost Island, from the television show *Lost* (US, 2000) creating their own *Lostpedia*, and the posting of advertisements for the fictional organisation the Hanzo Foundation by the production company, to immerse viewers in the story world by extending it beyond the bounds of the television screen and placing it on the plane of the real. By doing so, producers extended the mystery and sowed the seeds of speculation by fans online. The adverts in real advertising space, alongside real companies and products also created an authenticity, a real worldness to the experience of the narrative space that the television series existed within. This early example of this practice illustrates what Rose calls, 'the lure and blur of the real' (Rose quoting Shields, 2011, p8) This concept identifies content both fantasy and existent that sit alongside each other online, allowing viewers to easily slip into narrative spaces that sit next to their actual lives online.

Content produced by fans exists alongside official content from television and film show producers. Fans follow each other as well as celebrities, and non-human agents.

This blur between the real and the virtual is nowhere more apparent than the virtual production space which brings together real-world people and objects with digitally created 3D scenes to film a seamless blended sequence of actual and virtual. As Michael McKenna, CEO, Final Pixel explains about the virtual production process, ‘you have to be able to create a believable practical foreground set that merge seamlessly with the 3D image, the 3D environment on the wall.’

The production of narrative space is becoming increasingly digital with, ‘Strategy consultancy firm Altman Solon Reporting in 2022 ... that 40% of (US and UK) productions are currently using virtual production tools.’ (Miller, 2022).

The creation of narrative space using virtual production techniques has obvious drivers, economic, environmental and the ability to create any setting, historical, fantasy from any geography and all within the convenient location of a soundstage. However, this approach to creating narrative space brings a new mindset to the production process. The iterative, spatial approach of computing as opposed to the time-based linear approach of film.

In virtual production a dynamic virtual set is produced for the action to take place in front of. This is a different process to filming locations, where the camera is placed to capture a particular viewpoint and banish from view unwanted details, framing the shot to exclude a streetlight in a period drama, a tell-tale iconic building that reveals a city’s true identity, a green leafed tree that would undermine the winter scene being filmed. The film camera works with the reality in front of it and through a process of inclusion and exclusion creates the illusion of the narra-

tive space. Virtual sets on the other hand are designed spaces that extend beyond the camera view, that can be rotated, enlarged, pulled back from. These spaces exist alongside the real and are called up to film in front of. As described by Monica Hinden, Executive Producer, Final Pixel, ‘you put your 3d model on screen in front of the camera and you can move around in that environment’. In this process the creation of the narrative space is a separate activity to the filming, with world construction happening beforehand and more extensively than the shots that finally appear on screen as the models are 3D spaces which can be navigated.

Speaking of the Netflix production 1899 (Netflix 2022), Nikolaus Summerer, Director of Photography remarked, ‘The team at FrameStore, they shaped all this in the beginning, so we had a lot of scouting’s in a virtual world of where we want to go. The earliest aspect of the production was the production of the story world, the work on which began before the script was finished.’

As a production that resorted to virtual production because of the COVID epidemic the reflections of the cast and crew of 1899 testify to the newness of this approach. With actors impressed with the fidelity of the imagery that created a realistic, living set to work on, so much so that one actor remarked that the scenes filmed on a boat in front of the projection of rough sea did make the cast seasick.

Baran Bo Odar, Creator and Director, described how, ‘you create worlds. And then you feel it’s not real enough, so you add stuff here and you add there and step by step you get closer, creating a reality that doesn’t feel like it was created but it actually exists.’ This iterative, additive process is more akin to computing and game design rather than the linear process of pre production, production and postproduction. Disrupting the produc-



tion regime that existed in time-based analogue film. Jantje Friese, Head writer and Creator, commented that ‘When you do work in a virtual production you have to create content beforehand. You’re kind of pulling post production upfront before shooting.’

Far from moving away from the concept of the frame that Alberti described to convey the visual illusion of perspective in painting, virtual production can be seen to have developed from the mathematical formulas that supported the development of perspective, with Cartesian coordinates (first developed in 1637) still used as reference points in 3D modelling software, enabling the navigation of models as narrative spaces. Chris McKenna, Director, Final Pixel, explains how the cameras are synchronized with the 3D models in virtual production. ‘When the camera moves in 3D space the image on the wall also moves in 3D and the perspective changes and that’s what creates an incredibly realistic illusion’.

This computer geometry, that builds upon the renaissance knowledge of perspective, allows for the development of navigable narrative space and brings to the production process not only a new mindset and process but new roles, as Michael McKenna, CEO, Final Pixel points out, ‘virtual production is bringing a whole new department to the film set. It’s the software developers, the programmers as well as the 3D modellers and the technical artists’

As we look to the future of the production process with a predicted increase in virtual production, we might consider what this means for the creation of narrative space. Certainly, a creative freedom not constrained by real world concerns. Jantje Friese, Head writer of 1899 commented that, ‘I can create any kind of space. It’s just a fabulous playground.’

Virtual Production makes multiple

locations, places geographically miles apart, and fantasy spaces all possible with changes of location navigated to through the computer.

Virtual production technology, that blurs the distinction between the real and the virtual, that takes the iterative process of 3D modelling to build story worlds, foregrounds narrative space, which becomes more than part of the production process, but integral to the plot. This can be seen in examples from film and television, such as 1899 (Netflix 2022), Inception (Warner Bros, 2010), Spider-Man: Far from Home (Sony 2019), a film in which ‘Only by mastering the discernment between illusion and reality could Spider-Man finally triumph.’ (Ng, 2022).

## Conclusion

Humans are predisposed to narrativize their own and the lives of others and engagement with narrative space is and has always been the method by which people orientate themselves in the world and understand it, from the myths of the ancient world, religion and today the stories told on social media and experiences shared in the metaverse. Key to the experience of immersion is narrative space, the space that we are invited into, the space that the narrative presents. Technologies from cave painting, to architecture, cinema screens to VR headsets, create a relationship between the audience and that narrative space. In the ancient world stories surrounded the population, in the architecture, ceramics, enacted rituals, songs and the oral traditions of the time, blurring the distinction between narrative and reality. Renaissance perspective developed a viewing regime that provided a fixed relationship between the audience and the narrative told in paintings. Confined within a frame, narrative became another world alongside reality that the

audience peered into. This frame persisted with the successive developments of the proscenium arch in theatre, the cinema and television screens. The computer started a fragmentation of these boundaries that had persisted in western narrative culture since the renaissance. Starting with the graphic user interface, that presented multiple screens within a non-hierarchical computer space, a contrast to the previous time-based technologies that presented information laid out in a linear chronology. The ubiquity of digital devices in the world around us from the mobile in our pockets to projections on buildings in our city centres, to VR experiences, place the audience once again within the narrative space.

Boundaryless narratives facilitating a freedom of movement, interaction, and manipulation. Narratives, no longer delineated by a distinct frame, blend with reality as fact sits alongside fiction online and AR provides an overlay on top of our vision of the real.

As we look to the future and the role of computing, a spatial medium designed to manage complexity, in moving image production, we will see changes to the production process that precedent space over time. With virtual production already established the regime of pre-production, production and postproduction is challenged and roles in the past consigned to the end of the process are integral from the start and occur during the production phase. As increasing automation, through the use of technologies like AI, guides the script process for maximum returns, populates films with long dead celebrities and repurpose locations synonymous with particular genres, to what extent will digital technologies dictate the narrative spaces on offer and the stories told within them? As technologies are used to build story worlds in digital space, as opposed to film cameras creating the comprehension of a space through a sequence of chosen

shots, will narrative culture be led by narratives that feature a spatial dimension, not just as a setting but as integral to the plot?

As the audience steps through Alberti's window into VR experiences or overlays a layer of content on the reality before their eyes will the future of narrative space see the creation of more immersive narrative spaces that make room for audience participation? Will this engagement create more empathetic narrative spaces that enable, through vicarious experience, a more empathetic society? Or are we heading towards a more salacious use of embodied virtuality akin to Aldous Huxley's 'feelies', (1932) sensationalist and synthetic. A return to McLuhan's pre-alphabet man, deprived of an objective perspective. As boundaries that once delineated the real from the virtual fall away how will we recognise fantasy, maintain a sense of history and recognise the fake from the truth?

## References

- Flueckiger, J., B. (2015). *Everyday Hinduism*. UK: John Wiley & Sons.
- Callaway, E. (2019). Is this cave painting humanity's oldest story? *Nature*. <https://www.nature.com/articles/d41586-019-03826-4>
- Calvino, I. (1983). *If On A Winter's Night A Traveller*. London: Vintage.
- Chadwick, C., Esteban, M., Jamero, L., Turner, D. (2021) *Racing the King Tide*.
- Colinart, A., La Burthe., Middleton, P., & Spinney, J. (2017). Notes on Blindness. Digital productions ARTE.
- Final Pixel: Virtual Production -Behind The Scenes. <https://www.youtube.com/watch?v=yW6nBXjwdek>, last accessed 17/09/23.

- Friedberg, A. (2006). *The Virtual Window: From Alberti to Microsoft*. US: MIT.
- Gaudenzi, S. (2016) Light into VR darkness – an in-depth interview with Arnaud Colinart. Retrieved from <http://i-docs.org/light-into-vrdarkness-an-in-depth-interview-with-arnaud-colinart/>, last accessed 17/09/23.
- Huxley, A. (1932). *Brave New World*. London: Vintage.
- Into the Volume: A Behind-the-Scenes Look into the Virtual Production of 1899. <https://www.youtube.com/watch?v=ZMynJCgJIQk>, Last accessed 17/09/23
- Manovich, L. (2001). *The Language of New Media*. US: MIT.
- Milk, C. (2015). How Virtual Reality can Create the Ultimate Empathy Machine. Retrieved from [https://www.ted.com/talks/chris\\_milk\\_how\\_virtual\\_reality\\_can\\_create\\_the\\_ultimate\\_empathy\\_machine](https://www.ted.com/talks/chris_milk_how_virtual_reality_can_create_the_ultimate_empathy_machine), Last accessed 17/09/23
- McLuhan M. (1964) *The Extensions of Man – Understanding Media*. US: McGraw-Hill.
- Miller, C. H. (2014). *Digital Storytelling: A creator's guide to interactive entertainment*. UK: Routledge.
- Miller, M. (2022). Report finds 40% of current projects using virtual production. Retrieved from <https://www.mediaproductionsnow.com/exhibitor-news/report-finds-40-current-projects-using-virtual-production>, Last accessed 17/09/23.
- Ng, J. (2021). *The Post-Screen Through Virtual Reality, Holograms and Light Projections*. Netherlands: Amsterdam University Press.
- Ng J. (2022). *Disappearing Boundaries*. Retrieved from <https://thenewvirtuality.com/>, Last accessed 17/09/23.
- Odar, B. & Friese, J. (2022). 1899, Netflix. Outernet. Retrieved from <https://www.chateaudenmark.com/outernet#:~:text=At%20the%20entrance%20to%20Tottenham,with%204D%20and%20interactive%20capabilities>, Last accessed 17/09/23.
- Rose, F. (2011). *The Art of Immersion: How the digital generation is remaking Hollywood, Madison Avenue and the way we tell stories*. US: Norton.
- Ryan, M., L. (2015). *Narrative as Virtual Reality 2*. US: John Hopkins University Press.
- Ryan M., L. (2016) *Narrating Space / Spatializing Narrative: Where Narrative Theory and Geography Meet*, US, Ohio State Press.
- Watts, J. (2019) *Spider-Man: Far from Home*, US, Sony.
- Weedon, A. (2018). Story, Storyteller, and Storytelling. *LOGOS*, 29/2–3, 46 – 53.