Cinematic darkness: dreaming across film and immersive digital media
by Martine Beugnet and Lily Hibberd

Cinema
Darkness
Spectatorship
Dream
Consciousness

AN-ICON Studies in Environmental Images
Issue No. 1 Year 2022
→ Altered states

Edited by Giancarlo Grossi and Andrea Pinotti
Cinematic darkness: dreaming across film and immersive digital media
by Martine Beugnet and Lily Hibberd

Abstract

As with films previously, claims are being made today about the capacity of immersive environments, including virtual reality, to offer viewers or experiencers effective simulations of altered states of consciousness. In this article, we look anew at the enduring question of time-based mechanical (lens based and digital) media’s ability not merely to take us outside of or besides ourselves, but to generate an imaginary realm of their own. Our analysis centres on the use of darkness. Often associated with the passage from one state of consciousness to another, darkness has become a prevalent aesthetic in cinematic immersive media. In some ways, as we will see, the latest technologies of audio-vision appear less apt than conventional cinema to induce us to “cross the bridge” and venture into the land of phantoms. In others, they emerge as privileged entries into the dreamlike worlds of our contemporary, technologized era. In spite of differences in viewing conditions, we find that between the older medium of 2D film and that of cinematic virtual reality, darkness, combined with the illusion of depth and visual replication of motion proves to be a particularly potent harbinger of altered states.

(...) spectators at the exit, brutally rejected by the black belly of the theater into the glaring and mischievous light of the lobby, sometimes have the bewildered expression (happy and unhappy) of people waking up. To leave the movies is a little like getting up: not always easy.¹

Introduction: cine-obscurity

Darkness is dream’s natural associate. It is no wonder audiovisual works that seek to transport us beyond the here and now of awakened reality continue to rely on the power of darkness to enfold us and to unravel our sense of place and time. Though there are structural differences between the aesthetics and spectatorship of cinema and that of virtual reality, darkness functions across many media forms as both a metaphor and as a corporeal device for immersion, encouraging spectators and participants to submit to imaginary realms.

The scope of this article is not to review the wider lineage of darkness across immersive forms of media, or indeed to revisit their origins going back to Plato’s cave. The media archaeology of moving images and obscurity has already been done by theorists such as Oliver Grau, and in groundwork of Siegfried Zielinski and Gloria Custance, who described the cinema as a dark “womb”.² Other media theorists have delineated the parameters of interactive or immersive 3D viewing, most notably Maria Engberg and Jay Bolter on virtual reality aesthetics, as well as William

Brown with the notion of “gaseous perception” in relation to stereoscopic cinema and darkness.³

In contrast with earlier theorizations, in what follows we focus on adaptations of cinematic immersive reality in the hands of artists and experimental filmmakers. To further account for the contemporary emergence of an aesthetic of darkness we firstly seek to establish a historical backdrop. We then turn our attention to the works and, where available, the words of the creators’ themselves, as we consider four recent immersive media works imbied in darkness: Anouk De Clercq’s Thing, Laurie Anderson and Hsin-Chien Huang’s La camera insabbiata/Chalkroom, Notes on Blindness: Into Darkness and Parragirls Past, Present: Unlocking Memories of Institutional “Care”. As immersion in darkness is closely related to dreamworlds and to dreams of outer space, these phenomena provide the underpinning rationale in the first half of this article and for our subsequent analysis of these four works.

Enfolding darkness, from awakened dreaming to altered states

Amongst the most memorable scenes of F.W. Murnau’s Sunrise (1927) is the imaginary screening in which a seductress from the city appears to lure a naïve country man into a fantasized vision of urban life. One evening, as they sit together on the shore of a lake, the woman launches into an eloquent description of nightlife in the city. To demonstrate the impression made by her tale, Murnau materializes it in the form of a projection that magically appears in front of the two characters. Thanks to an astute system of transparencies, the dream show of the modern city superimposes itself onto the nocturnal sky, under the halo of a fake moon that

glows like the lamp of a projector. Stylized cityscapes alternate with kaleidoscopic, blurry visions of frenzied revelry: there is no attempt at harnessing this fantastic vision to a specific or stable point of view. The fantasy may originate in the female character’s mind, but it feeds on a collective imaginary, and the projection allows her to share it with her companion, as well as beyond the diegesis, with the audience of Murnau’s film. The sequence is a celebration of the powers of the cinema not merely as a “factory of dreams”, but also as a sharing of the experience of dreaming itself.

Dreams and daydreams, hallucinations and memories, as the products of the human psyche, fascinate not only because they elude our self control (we can no more prevent or design our nightmares at will than we can consciously erase a memory), but also because they confound our capacity to communicate and share experiences. In every medium, from literature to the theatre, painting and photography, techniques have been developed to evoke altered states of consciousness. The gap, however, between the viewer or reader and the subjective creations of the psyche mediated by objective, external sources, is not easily bridged. Key to Sunrise’s mise en abyme of a screening is the choice of a nocturnal setting: in a film theatre the night on screen blends with the darkness that surrounds the cinema spectator like a connecting tissue.

Because the visibility of the projected film image initially relied on a beam of light, darkness – also the companion of sleep and dreams – has been associated with the cinema from the start. With the shift from analogue to digital, the glow of the LCD monitor has increasingly complemented the light beam of the projector, alongside other self-illuminating screens found in the domestic environment. Regardless of location, we still lower the lights while watching films whenever possible. More than a mere

condition of visibility, obscurity facilitates the slipping in and out of total awakened awareness.

Film was the first medium to offer the promise of more than the mere representation of our imaginings – to engender a form of awakened dreaming through spectacle and apparatus. The increasingly photorealistic quality of cinematic images and sounds set in motion guaranteed the “credibility of its fabulations”.\textsuperscript{5} A spectator could hope to become immersed in a film in a manner similar to the dreamer, who experiences even the most absurd world of mental images equally as “real” as daily life occurrences, or of a daydreamer who indulges in memories or fanciful imaginings to the point of forgetting their actual surroundings. The conditions of reception in the cinema auditorium came to reflect and strengthen the analogy: cut off from the outer world, plunged in darkness and silence, with limited physical activity, at the end of a screening the spectator often emerges as if they were awakening.

Yet in spite of the unequalled ability to blur the frontier between representation and perception,\textsuperscript{6} the fusion of image and reality never occurs fully.\textsuperscript{7} As Christian Metz reminds us, where in deep sleep the dreamer does not know that they are dreaming, film induces, at best, a semi-wakeful state: more than dream per se, the experience of watching a film (which can be emulated, though imperfectly, in individual situations of viewing) resembles that of reminiscing,

\begin{itemize}
  \item \textsuperscript{5} C. Metz, A. Guzzetti, “The fiction film and its spectator: A metapsychological study”, \textit{New Literary History} 8, no. 1 (1976): 75-105.
  \item \textsuperscript{7} In contrast, “dreaming is subjectively indistinguishable from waking experience”. See T.K. Metzigner, “Why is virtual reality interesting for philosophers?”, \textit{Frontiers in Robotics and AI}, no. 5 (2018).
\end{itemize}
fantasizing or slipping into reverie. For Raymond Bellour, it is better compared with a form of hypnosis.⁸

Nonetheless, fascination for the medium’s oneiric qualities has driven some of the most radical and creative practices and theorizing of the medium. The representation of dreams themselves has had little to do with this evolution: from Antonin Artaud and the surrealists to Jean Epstein, the earliest avant-gardes nurtured the belief that the medium’s aesthetic potential lay not in the representation of dreams or reminiscences, but in the possibility to dream or reminisce with images.⁹ In classic cinema however, as in avant-garde or experimental filmmaking, darkness and immobility remain the spectator-dreamer’s first allies.

In *The Absent Body*, Drew Leder observes that in normal situations of perception the awareness of our body diminishes: the reason we can focus on what we watch, or concentrate on what we touch, is that we do not pay attention to the actual process, nor to the eye or hand involved in it.¹⁰ A similar receding of bodily awareness occurs when we are absorbed in our own thoughts. Such “absenting” of the lived body is not however “equivalent to a mere void, a lack of being”.¹¹ Rather, it testifies to the extent in which a sentient subject might be beside itself, “ecstatically caught-up in the world”:

the very nature of the body is to project outwards from its place of standing. From the “here” arises a perceptual world of near and far distances. From the “now” we inhabit a meaningful past and a futural realm of projects and goals.¹²

---

¹¹ Ibid.: 22.
¹² Ibid.: 23.
Leder’s description of this phenomenon recalls James Gibson’s theory of “affordance”, according to which individuals are entwined with their surroundings, their prospective actions informed by the constant collecting of information from their environment. This capacity to feel or to picture our bodies outside or alongside themselves in time and space is an equally fundamental feature of dreaming, hallucination and reverie, as well as the fabrication of their similitude in movies. Indeed, it is often the altered sense in which our body appears to relate to its perceived environment (feeling one’s bodily affordance hindered, distorted or augmented in turns) that marks the difference between awakened and dreamlike states.

In the cinema, the body’s capacity for *ecstasis* is simultaneously enhanced and directed away from the immediate environment, towards the virtual world that appears on the screen. The film auditorium, as a space, has sometimes been compared to a womb. Darkness engulfs the barely moving spectators, allowing them to be together and alone at once, to ignore the borders of the screen as they recede in the obscurity. Within the secluded space of the theatre, the light originating from behind the audience trains spectators to project themselves on the screen, to situate themselves within the perspectival view of the spaces offered to the eye, and the anthropomorphic quality of the camera’s gaze that explores them. From the 1950s onwards, anamorphic lenses widened the frame, and shortened the optical depth of field, with a corresponding increase in visual blur effects. Strengthening the sense of immersion and bringing the cinematic closer to the human field of vision, the blurring of the margins of the visual frame also subtly blended the projected image into the surrounding

---

darkness, heightening the feeling of being suspended in a virtual dimension without physical limits.

In the cinema and at home, dimming the lights and turning up the volume amplifies the degree to which we forget about our own body so as to engage in watching and listening to a movie, sometimes even touching or tasting through the synesthetic or haptic powers of certain images. Accordingly, in classic narrative cinema’s subjective point of view, a character’s body partly or wholly disappears from the frame. Such strategies allow us, as the spectator, not only to half-dream our way through a film, but also to engage with the expression of altered states of consciousness where images and sounds are supposedly the product of mental processes. Paradoxically, both of these experiences can involve audiovisual representations of extreme physicality (fighting, crying, flying...). Whether awake or dreaming, characters in films move, fall or take off in the air, as we ourselves sometimes do in our sleep. In all such cases, however, it is the incapacity to act on the film’s progression that grants the experience its oniric quality: as the dreamer with dreams, the film spectator does not control the flow of images: once triggered, they cannot be easily altered or fully erased at will. Nor can we always choose to retain a memory, or the trace of a dream,


16 Whereas a dream or a memory is a subjective reality emanating from the psyche, a film is an external product constructed according to a common idiom. In conventional filmmaking, transitions mark out the passage from woken to altered states of consciousness (fades in and out, blurredness, distorted perspectives, spiralling images amongst others). Film dreaming is thus reclaimed and repurposed as the representation of dreaming in film.

any more that we can keep a precise recollection of all the images of a film whose course we can hardly change.\(^{18}\)

As with films previously, claims are being made today about the capacity of immersive environments, including virtual reality, to offer viewers or experiencers effective simulations of altered states of consciousness.\(^{19}\)

In what follows, we look anew at the enduring question of time-based mechanical (lens based and digital) media’s ability not merely to take us outside of or besides ourselves, but also to generate an imaginary realm of their own. In doing so we consider the issue of aesthetics alongside the conditions of spectatorship and reception. In some ways, as we will see, the new technologies of audio-vision appear less apt than conventional cinema to induce us to “cross the bridge” and venture into the land of phantoms. In others, they emerge as privileged entries into dream-like worlds of our contemporary, technologized era. What interests us most is not the lure of the “myth of total immersion” or the pursuit of the perfect conflation of perception and representation that would entail the erasure of the frontier between reality and fantasy.\(^{20}\) Rather, we concentrate on the way cinematic virtual reality (including built immersive environments and head-mounted displays) creates the illusion of presence while exploiting digital imaging to emulate...

---

18 Remote control usage destroys the experience of time as co-presence, or of time slipping away (also an essential dimension of memories and dreams). Accordingly, Laura Mulvey associates the remote control with the emergence of a possessive spectator in *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion Books, 2006).

19 From David Cronenberg’s *Videodrome* (1983) to Kathryn Bigelow’s *Strange Days* (1995) and Steven Spielberg’s *Ready Player One* (2018) amongst others, the association of immersive technology and altered states of consciousness is a favoured topic in mainstream cinema. For a VR example see *Dream* (2016) by Philippe Lambert, which is built on a custom audio-visual synthesizer coded by Édouard Lanctôt-Benoit. [https://www.nfb.ca/interactive/dream/](https://www.nfb.ca/interactive/dream/).

the dreamlike state of cinematic reception and conjure up a specific, distinctive kind of imagining.21

In the cinema, the obscurity afforded by the auditorium creates the condition for a unique experience: that of a shared space where a collective dreamlike or light hypnotic state prevails. Contrastingly, when viewing a work in a head-mounted display, there is no “joint watching”. The solitude is inescapable, only faintly or temporarily relieved in encounters with others, as characters or actors in the shape of avatars. Darkness creates a connection nonetheless, an evocation of an infinite space that, ultimately, we all have in common. Hence, in spite of differences in viewing conditions, we find that between the medium of 2D film and that of cinematic virtual reality, darkness combined with the visual replication of motion proves to be a potent harbinger of the dreamlike. It unsettles our grounded-ness in place and demands that we forge new connections with images, and with the world, ourselves and others. We further suggest that across VR and film, darkness inaugurates a shift from the collective experience of subjective states toward the individual experience of an unconscious shaped by the shared knowledge of our finitude. Though we are told we live in the age of the Anthropocene, we have an acute sense of the relativity of our existence, of being caught in perpetual movement, connected yet unanchored. Like the dot-size character who faces the starry vastness of the universe at the end of The Incredible Shrinking Man (Jack Arnold, 1957), the viewer who slides into the seemingly limitless night of contemporary films and immersive environments may experience a dreamlike state of radical groundlessness – a contemporary sense of solitary, yet shared, unmooring.

21 Virtual reality is assumed to be closely entwined with interactive gaming and simulated training. This article however focuses on the transmedial practices of narrative and immersion – across film, video art, and immersive installation art – where the spectator rarely drives the story or provokes events.
In “Of other spaces”, Michel Foucault notes how, from Galileo onwards, things could now only exist in their relative placement and movement:

a thing’s place was no longer anything but a point in its movement, just as the stability of a thing was only its movement indefinitely slowed down. In other words, starting with Galileo in the 17th century, extension was substituted for localization.\(^{22}\)

The site of an object, from then on came to be defined as “relations of proximity between points or elements”, like “the dots in a constellation”.\(^{23}\) Foucault builds on the pre-modern analogy between body and universe, arguing that traditionally, space had been constructed as “a space of radiation. Man is surrounded by it on every side; but, inversely, he transmits these resemblances back into the world from which he receives them”.\(^{24}\) In other words, the body is conceived as the medium through which the world is organized as it is perceived. Perspectival art, with its stable construction of space and anchoring of the gaze to a specific position in space, emphasizes such a sense of place-ness and orientation. Though conventional filmmaking adopted the continuity system in an effort to emulate this centralized condition, its mobile gaze and time-based structure always threatened to reveal the fragility of the model.\(^{25}\)

Alternative uses of cinematography thus sought to explore the relativity of movement and place, showing the anthropomorphic gaze, with its safely located source, to be an artifice. This approach was not exclusive to experimental cinema: in science fiction and documentary film

\(^{23}\) Ibid.: 23.
reconstitutions of outer space in particular have made us familiar with “impossible” viewpoints, where a virtual camera circles around planets and floats through constellations.\textsuperscript{26} Here again, darkness, like the sidereal night, is key – sucking the spectators into its awesome solitude even as they sit in a crowd.

As we will see, immersive technologies have in turn proven to be remarkably able to produce a radical sense of dis-anchoring. A 360-degree omnidirectional scape that moves independently from the viewer’s own movement implies a constant and uncontrollable fluctuation of one’s place within the image. With the dissolution of a stable single-point perspective the body of the observer ceases to be the sole reference and singular source of the gaze as an ordering principle of visible space. The most potent aspect however of these novel immersive environments is the means to enter into the boundlessness of 3D constructed worlds, endless spaces that find in darkness their most compelling expression. In the fathomless blackness of virtual spaces, furthermore, the solidity of represented things is prone to slip away. The liminal threshold of immersive worlds is arguably always teetering on the brink of dreams – an aspect that the fanfare of virtual reality and the clumsiness of head-mounted displays paradoxically diminishes. Even in 2D iterations construed from 3D renderings however, as is the case in the floating world of \textit{Thing}, such an evocation of the universe offers itself as powerfully oneiric experience.

\textbf{Sidereal night: Anouk De Clercq’s \textit{Thing}}

The first minute of Anouk De Clercq’s film \textit{Thing}\textsuperscript{27} is entirely black. The sound track is also initially

\textsuperscript{26} Famously in the “Blue Danube” sequence of Stanley Kubrick’s \textit{2001: A Space Odyssey} (1968).
\textsuperscript{27} Video, b/w, 16:9, stereo, BE/IT/FR, 2013, 18’.
completely silent, though after a few seconds the faint noise of a light wind or breathing is heard, followed by a voice. The sound of the voice is slightly echoey, as if heard in a large, empty space. Then a crashing noise, followed by the appearance of thin, veil-like formations white dots that move into view from the right of the frame. But whose view? For the voice remains disembodied throughout, and its musings do not refer to the images with any specificity. Nor can we safely establish its location, as its stereophonic transcription varies in spatial orientation, switching from our right to our left ear. Equally impossible to determine is the origin of the movement that alters what we are given to see. Suggested by the changing size of the shapes and their moving in and out of frame, such spatial proximity or distance could equally mirror the trajectory of an invisible observer floating in the dark space, or that of the cloud formations themselves as they enter the former’s field of vision. Occasionally, a fade or a cut to black or a glitch-like effect (with a crackling sound emitted as all vanishes) plunges the screen back into utter darkness.28

_Thing_ appears to be a journey through a virtual world, born out of the imagination of a fictional dreamer – given the nature of the images and the model-like apparitions of cities and buildings this dreamer could be the engineer of this world. De Clercq describes _Thing_ as a journey through an architect’s “virtual memory”, “a boundless, imaginary space” where fictional buildings and urban patterns emerge and disperse in the darkness, a series of ephemeral nebulas that manifest as a kind of “paradoxical materiality” precisely because they are “virtual”.29 The film was made using LiDAR imaging of urbanscapes (an acronym for Light Detection and Ranging), a remote sensor

technology that generates accurate 3D information about the shape of very large surfaces and their characteristics using pulsed laser emissions to measure ranges between the sensor and the surface. Developed for architectural, archaeological and engineering surveys, such visualizations provide a way of seeing spatial information, which is augmented when viewed in a 3D stereoscopic environment. Yet another digital program subsequently renders the LiDAR data as “point clouds”, the dots of light we see in Thing. Most of the shapes and forms conjured up in Thing are made of these unstable, constantly reshaping clouds of dots.

Although the initial light point formations resemble natural phenomena – cirrostratus, cirrocumulus or constellations – they later produce artificial patterns. An elongated, geometrical form floats in the dark like a spaceship, and the monumental entrance to a city materializes and dissolves. We then travel through the diaphanous outlines of a district with a mesh of buildings with terraces and hanging gardens. The cross-cutting of a workshop appears and slowly glides in and out of view, its furnishings (stairs, hanging lamps, an easel, the semi-circular shape of what looks like part of a bull’s eye window) sketched in brilliant white against the surrounding night.

Some of the point cloud renditions are reminiscent of white charcoal drawings on black paper, while the buildings and the room resemble X-rays: ghostly, silvery shapes in a process of disintegration. While X-rays and 3D scanners are already used to document vestiges, as well as to augment the existing data of artefacts and archaeological sites, film also holds a specific connection to ruins. Of the attraction exercised by ruins on the cinema, André Habib notes how they offer themselves as the poignant manifestation of the transience of all things human, including that of our own existence. The inexorability of the flow
of 24 images or frames per second – of the ephemerality of its linear course from beginning to end that may be repeated or looped but not halted – explains the “melancholy, quasi-ontological” relation that connects the medium to the temporality and spatiality of ruins. Drawing on techniques and visualizations that fuse the astrological and the architectural, De Clercq collapses human time and space (its material, located traces, its memories and dreams) in the infinity of the sidereal night.

To craft its boundless post-Galilean dream of space as a universe where the individual body and the individual consciousness are free floating or diffuse, Thing uses the tools of 20th and 21st century imaging. This drawing together of film, architecture, and infinite space gives De Clercq’s film an affinity with so-called immersive environments: a 2D film with a 3D sensibility, best seen in the obscurity of a cinema, it makes full use of the darkened film-theatre as its immediate, continuous extension.

“Dark, weird and shadowy”: Laurie Anderson and Hsin-Chien Huang’s La camera insabbiata/Chalkroom

Experimental multimedia artist Laurie Anderson has produced a series of virtual reality works that elucidate some of the aesthetic traits of De Clercq’s Thing in a fully 3D format, also harnessing some of VR’s aptitude to create dreamlike and out-of-body experiences. Created in collaboration with media artist Hsin-Chien Huang in 2017, Chalkroom is an installation and an interactive VR experience, permanently installed at the MoCA in Massachusetts, USA.31

Seated viewers don a head-mounted display and take up two handheld controllers to enter into the VR

---

31 Virtual reality 360 degree3D interactive video and installation, EN, 2017.
experience. In the first scene, a lone architectural structure sits on top of a mountain. Unlike the architecture in *Thing*, the building appears to be concrete. You are coaxed to fly over and enter it, navigating a series of narrow corridors toward a small portal at the end. The controller, which also acts as a torch, is the only source of light. The virtual walls are covered in chalk writing, like their physical counterpart outside the head-mounted display. Here, however, the torchlight illuminates a small orb, making the text all the more elusive—a curious and perverse effect given that the artists have designated us as “readers” instead of viewers. Words disintegrate into phenomes, and break apart again into letters, like swarms of flies. Yet, Laurie Anderson’s velvet intonations flow over this eerie place, making it homely.

Claustrophobic passages open out into an infinite black space that contains a constellation of text. You’re free to fly around and explore the space, hidden stories narrated by Anderson, which emerge as you approach certain zones. Objects, such as an illuminated, leafy tree, dissolve on closer inspection, and you see this too is made up of letters, as Anderson whispers to us: “You realise that things are made of words”. In interview, she explains being initially unsure about VR because it was too game-like, but that if she could make something “very homemade, dark, weird and shadowy, a different kind of space, a different kind of mental space” then she would be interested.32 Her aim, she adds, was to create an experience where you could fly “like in your dreams”.

On the face of it, since immersive environments such as 3D films in 360 degree cinema projection and virtual reality experiences on head-mounted display, or HMD, 33

33 It is important not to confuse VR with the HMD. In simplest terms, Virtual Reality is defined as being the coherence of technical means that enable a person to interact in real time with a virtual world.
effectively “environmentalize”\textsuperscript{34} the image, one could expect the “womb” effect to be perfected and even emulated, as with Anderson’s installation. However, in contrast with conventional spectatorship, absorbed viewing is undermined by the degree of physical activity involved in the experience.\textsuperscript{35}

In addition to the heaviness and discomfort of the hardware – the headset and headphones – and the optical strain of stereoscopic vision, the attention and effort involved in interacting with the virtual environment paradoxically induce a sense of heightened physical awareness. Rather than projecting itself, the sentient subject engages with the task of controlling the effects of its own motricity in the here and now: a “presenting”, rather than an absenting of the body. These effects might be the result of VR’s relative novelty. Nonetheless, it seems that in the narrative context of cinematic VR – beyond gaming and therapeutic applications – interaction and causative acts tend to undermine immersion, contradicting widespread theories of “presence” in VR.\textsuperscript{36} After all, it can be very unnerving to feel your body split in two: an HMD effectively separates our head from the rest of our body. Not only can we not see our (real) selves but unless we are offered some form of avatar we also lack a visible body in the virtual world. Once we get used to this literal mode of “absenting” however, new forms of ecstasis become possible. As we become familiar with the process of virtual seeing, touching and moving, our experiencer or avatar body may recede into the background of our awareness, just like our lived body


\textsuperscript{35} Interestingly, in Sunrise the virtual screen vanishes when the woman starts dancing.

does in a reverie, leaving us to be “ecstatically caught-up in the virtual world”.

Distinct from many other VR interactive experiences, Chalkroom’s freedom to roam inhabits this liminal zone for two reasons: one, choices don’t lead to deterministic or sequential narratives, and thus, similar to a dream or hallucination, we feel that we are driven by compulsions and desires. Two, and even more compelling, is the sense that you cannot put your feet on the ground, that you are floating free. Anderson describes this in terms of disembodiment, stating that “losing your body” is one of her chief interests in producing these works.

The inherent disembodiment felt when navigating a 3D world in VR immersion is all the more estranging when it is set in the dark. The chiaroscuro effect is theatrical and exaggerates the sense of volume and depth as in a Baroque painting. And lower levels of light are also less visually straining in VR. In Chalkroom the upshot of floating through the dark signals our descent into the night; a diurnal cycle that we are bound to as circadian creatures. Anderson aptly remarks: “What are nights for? To fall through time into another world”; a world where, as Huang points out, “the words become a nebula” – chalk dust, atomised, diffuse matter disintegrating upon touch, evading our grasp.

While not all HMD-supported VR relies on interactive interfaces, wearing a head-mounted display cuts us off from the surrounding reality more effectively than the dimness of our living room, or the darkness of the cinema auditorium (where exit signs, are by necessity always visible). Distinct from watching the audience at a film screening, to observe someone wearing an HMD feels

---

38 “Laurie Anderson Interview: A Virtual Reality of Stories”. In performance studies, such a transit state is called “liminoid performance”. See Alexandra G. Murphy, “Organizational politics of place and space: the perpetual liminoid performance of commercial flight”, *Text and Performance Quarterly* 22, no. 4 (2002): 297-316.
39 A. Pinotti, “Environmentalising the image. Towards an-iconology”.

a bit like trespassing. As when we look at someone who is sleeping, the experiencer is not aware of our gaze. At the same time, we have no access to what they are seeing. The duality of mind and eye as well as inner and outer worlds is a consistent theme in narrative VR experiences, one that is explicitly realised in works that manifest otherwise invisible or intangible traces, senses or information – or as in Notes on Blindness a lack of access thereof.

Notes on Blindness: Into Darkness.

The virtual reality film, Notes on Blindness: Into Darkness40 was created as a counterpart to the feature documentary Notes on Blindness produced by Peter Middleton and James Spinney in 2016. Both works arise from the first-person audio narration of John Hull, who describes in visceral and philosophical terms the process of losing his sight.41 Mired in darkness, as its title indicates, the VR version of the feature film has a wraith-like quality; of thin veils of light suspended in twilight. Its narrative is structured around six parts, each one being a memory, a moment, and a specific location recorded on John Hull’s tapes; each scene requiring a different level and form of interaction from the viewer in order to follow or progress through the narrative. Sound is central to the work, augmented through binaural audio (that spatializes sound as if it were bouncing around your ears), while the 3D rendering of objects and moving figures create a highly immersive experience. Similar to Thing, its most evocative aspect is the use of point

---

41 Based on John Hull’s memoir, On Sight and Insight: A Journey Into the World of Blindness (Oxford: Oneworld, 1997).
cloud to suspend firefly-like dots in a seemingly infinite deep indigo.\textsuperscript{42}

The first two scenes in \textit{Notes on Blindness} establish the parameters for acoustic seeing: in the obscure world evoked by John Hull we must learn anew how to look with our ears. Light signals how sound might feel and alerts us to the acoustic realm in three dimensions. It is, however, in the second and third scenes that we are subjected to something closer to liminal performance. As Hull begins to realise that he can no longer remember what things or loved ones look like, he descends into despair. His fear of being trapped alone in darkness culminates in a scene out in the snow, where he panics because he loses all sense of place. At the end of the narration however, the VR interaction invites us to dissolve his footprints in the snow by training our attention, with our head position tracked by the HMD, on their impression in the darkness. When the first set of footprints vanish another pair appear, leading us in Hull’s steps back to the safety of home.

In the episode that features rain, Hull’s house is an almost silent place except for his gentle voice and the reverberation of raindrops falling on ordinary objects in the room. We are again invited to interact with our gaze, this time to give shape to otherwise hidden forms that the rain defines acoustically: pots, pans, glasses, dishes. This is a pivotal moment in Hull’s own life and the VR film; we too understand what it is to create the virtual shape of things by listening to them. There is also a specific, oneiric quality to the space that the VR work creates whereby Hull’s experience becomes a shared one, rather than a voyeuristic observation of someone losing their sight.\textsuperscript{43} Everything we hear is echoed in its visual equivalent; renderings that

\textsuperscript{42} Point cloud started to appear in cinematic VR works at this time. See, for instance, “Coexistence” 2016, at the Venice Architecture Biennale: https://vimeo.com/183596023

\textsuperscript{43} For ethical issues related to the work, see D. Leblond, “Landscape Shaped by Blindness. Touching the Rock (1990) and Notes on Blindness (2016): Towards an ec(h)ology of vision”, \textit{Études britanniques contemporaines} no. 55 (2018).
appear as point clouds: luminescent, 3D shapes of objects and moving bodies that create elusive, lace-like silhouettes in the darkened space. In the process of becoming fully recognizable, and as they unravel and disperse into thinning clouds of bright specks, these forms resemble constellations. Hence, in *Notes on Blindness*, as in *Thing* and *Chalkroom*, the darkness acts as a connecting material: boundless, it enfolds all of us (seeing and non-seeing individuals) in a cosmic infinity that is simultaneously intimate and terrifying.

“Cold space, a dark place”: *Parragirls Past, Present: unlocking memories of institutional “care”*

The immersive VR film *Parragirls Past, Present* is set in the grounds and buildings of Parramatta Girls Home – a punitive welfare institution for teenage girls situated in Western Sydney, Australia, closed in 1974 and abandoned since the late 1990s. Its creation pivots on the memories of five former occupants, among the hundreds who have returned after many decades to confront this terrible place. As a labour of remembrance mired in trauma, the project required more than a year of collaboration with the aim of finding a form of testimony that might convey the survivors’ experiences to a wider public. In Parramatta Girls Home, children were not only deprived of freedom, but also cruelly disciplined and abused. Later, both Australian government inquiries and media reporting sensationalized and underscored their stigma and victimhood. The last thing Parragirls could abide was to provide viewers with prurient pleasures. Hence, a number of counter-visual strategies were developed, ruling out interactivity as a means.

---

44 360-degree 3D stereoscopic video, ambisonic spatial sound, EN, 2017, 23’.
for viewers to progress through the virtual environment and its narratives.

As with *Thing*, *Chalkroom* and *Notes on Blindness*, the point cloud photographic technique, materializing against the surrounding darkness, proved key. Among the varied ways that images can be “environmentalized” in 3D and 360 degrees, point cloud is distinct: it bears little resemblance to the synthetic imagery of game and CGI animation. Cartographic in origin, point cloud provides a means to project these as experienceable architectures - places we can fly through, as if in space. In addition to the sense of irrepressible movement, of being sucked into the institution’s spatio-temporal vortex, it is the transformation of photographs into points of light and colour that float in an abysmal 3D world that gives *Parragirls Past, Present* its wraithlike and enigmatic atmosphere.

Accompanying the journey is the sound of the Parragirls’ voices, captured in ambisonic recordings. Woven together, they offer a deeply personal yet collective account of their experience as inmates. There is one location in particular in the Girls Home that former occupants find difficult to revisit: a basement solitary confinement cell, colloquially known as the dungeon. In the film, Gypsie Hayes describes it thus:

> the only way you can survive in there is to curl up and go to sleep. That’s all you could do to survive that. It was nothingness. It was just a cold space, a dark place.

In contrast to the exterior point cloud scenes, the cell is represented as a stereoscopic spherical panorama in 360 degrees. Moving between the differently rendered and spatially located spaces, presented yet another dilemma however, which was resolved using the point cloud aesthetic as a form of transition in conjunction with moving
tracking shots, to dissolve the image across one space or dimension into another.

The most unusual impact of combining point cloud with mobile tracking shots in the 3D world of *Parragirls Past, Present* is the feeling of being pulled through the experience, almost against our will. The data points seem to transcend and even pierce our body, so that we become part of the ghost-like substance of the Girls Home. Distinct from its head-mounted display viewing, in the 3D 360-degree film screenings of *Parragirls Past, Present* at UNSW EPICentre. Standing alongside 10 to 15 spectators wearing 3D glasses, you can see the points appear to emerge in 3D from the circular screen and pass through the bodies of the viewers beside you. The imagery may appear spectral as it floats through space, but so are the audience, whose bodies are traversed as if they had no consistency or solidity.

Crucially, in conjunction with the nightmarish, endless darkness and the omnidirectional eye, point cloud effectively disassembles the centralized gaze of VR’s typically first-person perspective: enfolded in swarms of floating pixels, we start to feel what it must have been like to be under constant disciplinary surveillance – to be watched at all times by invisible omniscient eyes.

In the concluding shot, however, we fly out backwards, as if pulled up and out into the sky, discovering the vast emptiness that extends beyond the perimeter of the institution. On the one hand, what we are literally seeing are the limits of the photogrammetric images that could be recorded – black holes in both data and historical memory. On the other hand, as the sound of the multiple voices vanishes, we grasp a sense of the collective unconscious that Parragirls still share with the other former occupants of the Home: the internalisation of a state of incarceration, being severed from the rest of the world, unable to imagine what lays beyond the space of incarceration other than a void.
Conclusion

In moving image media, as in real life, darkness has always been a privileged channel towards alternate states of self or alterity. Black spaces encourage us to relinquish control of sensing bodies, simultaneously fostering a sense of placeless-ness: in the dark, we lose our sense of orientation and lack the necessary landmarks to evaluate distance and depth, and order the space according to the familiar rules of perspective and proprioception. In immersive environments, the feeling of being unmoored is heightened by the “environmentalizing” of the space: night enfolds us on all sides. Within this dis-anchored realm, the voices that appear to address us but remain devoid of a visible source seem to take possession of us, strengthening the sense of losing one’s grip. But darkness is not the only precondition to our slipping into an altered state of consciousness. The experience of the scene unfolding independently from our will is equally important, which also occurs when watching 2D films. While spectators can look around in every direction in both the HMD and in a 360-degree 3D cinema, if you cannot control your propulsion through a space or scene then the film acts on you.

Only at this price – in accepting that I cannot change the “order” of the images and sounds – can a form of “dreamwork” take place.45 In the works described here, the unravelling of the images is inseparable from the relentless, gliding movement that sucks us in, and, in the case of 360 degree 3D films, passes “through” us: to turn our head and look back is to experience the sense of memory disintegrating, and history as ruins, that Walter Benjamin so vividly

45 As Thierry Kuntzel points out, such is the specificity of time-based media and its special link to the dream-like and to the unconscious: “the film and the story unravel outside of me, I cannot possibly intervene”. T. Kuntzel, “Le travail du film”, Communications, no. 19 (1972): 27.
evoked with the allegory of the angel of history. Lighting up in darkness, point clouds appear like the ultimate expression of transience. Though they are a mere effect of a particular imaging technology, they often look like constellations, or like particles that float in space, such as dust, petals or snowflakes; points that redefine deep space as a conduit to the dreamlike. A figuration of matter propagating, taking form and then dissolving, point clouds perfectly capture the melancholy awareness of the impermanence of the material world, and the all-too human, shared sense of finitude, loss, and awe experienced in reminiscing and day-dreaming.
