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Mat Collishaw's *Thresholds*
A Multisensory Journey from Early Photography to Virtual Reality

Elisabetta Modena
Università IULM, Milano, Italy

Abstract In 2017, Mat Collishaw presented *Thresholds*, a cross-reality installation first exhibited at Somerset House, London. Wearing the VR headset, visitors are transported to William Henry Fox Talbot's 1839 exhibition in Birmingham, encountering his experimental 'photogenic drawings'. The artwork involves multiple thresholds: entering the installation, donning the VR headset, crossing spatiotemporal boundaries, and inhabiting the image itself as an unframed, immersive environment. This paper situates Collishaw's artistic research within a broader historical and theoretical framework, arguing that *Thresholds*, precisely in taking the form of a virtual reenactment of Talbot's exhibition, serves as a critical reflection on the evolving relationship between image-making and technology – from the birth of photography to the advent of virtual reality.

Keywords Image-making. Immersive art. Reenactment. William Henry Fox Talbot. An-icon.

1 From Paper Negatives to Virtual Realities

In 2017, British artist Mat Collishaw[1] created *Thresholds*, a cross-reality installation first presented at Somerset House in London. The work virtually reconstructs one of the earliest photography exhibitions in history: William Henry Fox Talbot's display at King Edward's School in Birmingham in the summer of 1839.

For Collishaw (Nottingham, 1966), this marked his first engagement with immersive technologies. After graduating from Goldsmiths' College in London, the artist became associated with the Young British Artists movement and developed a growing interest in the relationship between science and nature, investigating the contrasts between what is perceived as 'beauty' and 'ugliness', attraction and repulsion, and more generally between reality and artifice. Collishaw works across different media, including photography and video, and in recent years has shown a concrete interest in the artistic use of new technologies such as artificial intelligence and NFTs.

The work originated as an independent initiative by the artist; subsequently, he sought partners to host the installation. Somerset House proved to be a particularly suitable choice, as it had been the regular venue of Photo London, one of the leading international fairs dedicated to contemporary and historical photography. Presenting the work there allowed it to coincide with the fair's annual edition, thereby reaching a large audience of professionals and enthusiasts.

1 I would like to sincerely thank Mat Collishaw for his assistance and generous support in providing insights and materials that greatly contributed to the research and understanding of *Thresholds*.

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Moreover, the director Jonathan Reekie was highly supportive and open in facilitating the project. The work received partial financial support from the Arts Council UK, while the remaining costs were personally covered by the artist, enabling its realisation and presentation within an institutional context of significance. *Thresholds* is therefore the result of a collaborative effort involving a team of consultants and specialists.[2]

The artist began working on the piece in 2016, at a time when virtual reality – originally developed in American university laboratories in the late 1960s[3] – was experiencing a renewed season of popularity and attention. This recent wave followed an earlier phase of interest and dissemination that took place between the late 1980s and the early 1990s,[4] partially involving also the visual arts.[5]

The resurgence was driven both by significant technical improvements and, above all, by the introduction of affordable headsets on the consumer market. The widespread availability of these devices stimulated the production of content across a range of professional fields and the entertainment industry, while also encouraging artists to experiment with the medium. From the mid-2010s, VR has been widely employed as a creative tool, despite its technical complexity, high costs, and challenges for audience engagement.[6] Artists working with new technologies, such as Cao Fei, Jon Rafman, and Ian Cheng, as well as others less associated with new media art, like Dominique Gonzalez-Foerster, Laurie Anderson, Marina Abramović, and Ólafur Elíasson, have explored VR through works that take advantage of its immersive and narrative potential. Virtual reality has also been used in many cultural contexts as a tool for heritage enhancement and educational purposes.

In this respect, Collishaw's work represents a unique case: rather than producing a more conventional artwork, the artist creates a re-enactment of a historical exhibition from the 1830s, conceived as "a room-sized, multi-sensory and multi-user virtual reality"[7] that allows visitors to embark on a virtual journey through time and immerse themselves in a carefully reconstructed 3D environment. Participants are immersed in a physical environment precisely synchronised with its virtual counterpart, a conceptual choice that led the artist to describe the work as "Augmented Virtuality" (AV) to emphasize the aspect of a virtuality enhanced by the seamless combination of physical and virtual objects.[8] While this definition emphasizes the blending of real and digital elements, today the same approach is more commonly referred to as cross-reality (XR), a technology similar to virtual reality (VR) that does not merely create a self-contained, autonomous 360-degree digital environment separate from the material world, but rather aligns the virtual dimension with the physical one after precisely mapping its shapes, sizes, and objects. *Thresholds* is indeed made of two components, one physical and one virtual. The physical part consists of a completely white room furnished with two sets of display cases (also in white) that replicate, at full scale (1:1), the spatial configuration of the original display; the virtual part consists of a 3D digital reconstruction of the room in which Talbot displayed his 'incunabula' **[figs 1-2]**.

Indeed, once the VR headset is worn, the visitor is immersed in an environment completely different from the white set of the experience, which is revealed to be the virtual reconstruction of the exhibition that William Henry Fox Talbot presented in 1839 at King Edward's School in Birmingham during the 9th annual meeting of the British Association for the Advancement of Science. On that occasion, Talbot arranged in what is known as the 'Model Room', 93 'photogenic drawings', the first images recorded in negative on letter paper sensitized with sodium chloride and silver nitrate – a technique that would lead to the creation of the photographic negative, which, two years later, when perfected, gave rise to the 'calotypes', and later to the 'Talbotypes', named after their inventor.[9]

2 The project was developed in collaboration with Pete James, photography historian; Greg Hobson and Brian Liddy, formerly curators at the National Science and Media Museum; Larry Schaaf, Talbot scholar, and Hans Kraus, consultant; David Blissett, biographer of Charles Barry; Paul Tennent of the University of Nottingham, who oversaw the development of the virtual reality environment; Pete Gilbert, in charge of technical support; Nick Byrne and VMI, responsible for the digital reconstructions; and The White Wall Company, which managed installation and logistics.

3 Sutherland 1968.

4 Lanier, Biocca 1992; Maldonado 1992; Rheingold 1992.

5 Moser, McLeod 1996; Lagonigro 2021; Tribe, Jana 2006.

6 Catricalà, Spampinato 2021; Modena 2023.

7 Tennent et al. 2020, 4.

8 Collishaw 2018, 63.

9 Talbot's discovery had been made public on January 25, 1839, when twenty-five of his images were exhibited at the Royal Institution in London.

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Figure 1 Mat Collishaw, *Thresholds*, 2017. Installation view. Photo: Graham Carlow. Courtesy of the artist

Figure 2 Mat Collishaw, *Thresholds*, 2017. Screenshot from the VR experience. Courtesy of the artist

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When wearing the virtual reality headset – in this case, an HTC Vive – the user moves within the mapped set, tracked in real time by sensors that monitor their body, enabling interaction with a virtual environment that coincides with the physical one. This technique, also defined as 'passive haptics', enhances the realism of the virtual experience and the sense of immersion:[10] real objects correspond to digitally modelled counterparts, which the user can perceive tactilely (walls, display cases, etc.), generating an immersive illusion entirely consistent from a perceptual standpoint. In this instance, the effect is further amplified by multisensory elements, such as the scent of coal from a virtually lit fireplace and its warmth produced by a heater, placed in alignment with the virtual fire.

The architecture of the virtual room, whose volume extends much more in height than in the physical set, is characterised by squared stone walls and a high wooden trussed ceiling, illuminated by multiple candelabra chandeliers. It is one of the rooms of King Edward's School, inaugurated the previous year and designed in a Gothic style by the English architect Charles Barry, who later achieved national fame for his reconstruction of the Palace of Westminster in London. Along the central and peripheral axes of the room, dark wood and glass display cases are arranged in regular rows, replacing the white, bare cases of the physical space. They exhibit a wide range of scientific instruments of the period and Talbot's celebrated 'photogenic drawings'. The material rendering of polished wood and transparent glass is accompanied by meticulous attention to the details of the displayed objects. The lit fireplace, located on one of the main walls, introduces a luminous and thermal component that enriches the sensory experience, interacting with the diffuse light of the display apparatus. Several portraits, positioned on the walls, visually anchor the setting to its historical context, evoking the pictorial tradition and the collecting taste of the period.

The experience is shared and can be accessed in groups of six: in the virtual environment, other users are represented by semi-transparent halos while each participant can also see their own hands rendered in a non-photorealistic form, emphasising presence and interaction without attempting hyper-realistic reproduction.

The project aims to create a fully multisensory and historically accurate immersion that extends beyond the exhibition context: virtually transported to early nineteenth-century Birmingham, visitors can hear noises and agitated voices coming from the adjacent streets, which they can overlook through virtual windows thanks to an animation. This is not mere chatter: at the time the exhibition was held in Birmingham, political protests were taking place led by the Chartists, a British popular movement active from the late 1830s that promoted the People's Charter, a document calling for fundamental democratic reforms, including universal (male) suffrage, the secret ballot, and the abolition of property qualifications for Members of Parliament. These demands were advanced through mass petitions, one of which in 1839 was rejected by Parliament, provoking tensions and disturbances in Birmingham and Newport. Although the movement did not achieve the desired reforms, it laid the groundwork for subsequent democratic transformations in the United Kingdom.

According to the artist, no concrete information was available regarding the number or type of display cases, necessitating an inventive approach in their reconstruction. The design of the display cases was informed by historical sources: letters from Talbot to his friend John Herschel reveal that he was concerned the Chartists might break the glass during exhibitions, indicating that the objects were originally housed in glass display cases and that their reconstruction in the installation directly reflects both the historical context of social unrest and the archival evidence.[11]

Overall, the experience lasts six minutes, during which visitors are free to move about the space, observe the environment and objects, and manipulate the photographs on display. To allow closer examination of the high-resolution images despite the limited resolution of VR headsets, a 'summon' gesture was introduced:[12] visitors hold their hand palm down over a photograph, turn it palm up to lift the image into their hand, and can then move it around and use a pinch-to-zoom gesture to adjust its size. Returning the hand palm down places the photograph back in its original location **[fig. 3]**. The experience is occasionally punctuated by the sound of the furtive passage of virtual mice, an additional element that enhances the realism of the environment. After six minutes, a clock chimes, signalling the end of the visit.

This relatively brief duration was partly dictated by technical limitations, including battery life and the need to maximise visitor throughput. To ensure smooth circulation, the number of participants in the physical room was limited to six at any given

10 Hoffman 1998.

11 James 2018.

12 Tennent 2020, 11.

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Figure 3 Mat Collishaw, *Thresholds*, 2017. Screenshot from the VR experience showing a detail of a glass display case. Courtesy of the artist

time, with queues often ranging from thirty to fifty people. Consequently, maintaining a concise duration was essential to preserve the flow of the experience while allowing meaningful interaction with both the physical and virtual components of the installation.

The installation was designed from the outset to be transportable to different museum and exhibition contexts. For this reason, *Thresholds* also represents a project aimed at testing and enhancing the capacity of immersive technologies to serve as a meaningful tool for cultural and artistic purposes, while also demonstrating the sustainability of ambitious and costly projects such as this one,[13] in the face of a museum and exhibition context that still today proves reluctant or struggles to accommodate, collect, and preserve them.

After its first presentation at Somerset House in London (May 17-June 11, 2017), the work – described on the artist's website as "an ongoing touring exhibition"[14] – was shown at several venues in the United Kingdom and abroad: the Birmingham Museum & Art Gallery (June 24-August 6, 2017), Lacock Abbey in Wiltshire (September 16-October 29, 2017), the National Science and Media Museum in Bradford (March 2-May 7, 2018), and the Yapı Kredi Kültür Sanat cultural center in Istanbul (May 15-July 28, 2018). For the latter occasion, a bilingual English-Turkish catalogue was also published, featuring a rich iconographic apparatus.[15]

However, despite the catalogue's photographs and detailed descriptions, the documentation inevitably falls short of conveying the full experience. This is a challenge not only for *Thresholds* but for multimedia and immersive works more broadly: any attempt to record them – whether through still images, videos, or screen captures of VR – can only provide a partial and flattened representation, incapable of reproducing the interactive, multisensory, and spatial qualities that define these experiences.

Documentation of Collishaw's work itself is divided into different types of images, all insufficient to convey the exact nature of the experience and only useful to provide traces: images of the project related to the construction of the physical set or taken from the software used to model the virtual experience and its digital contents; images of visitors, equipped with headsets, moving through the white space of the environmental installation; and, finally, screenshots documenting the virtual version of the room and exhibition, showing the halos of visitors. Unlike a painting, sculpture, or

13 Tennent 2020.

14 *Mat Collishaw. Thresholds*, https://matcollishaw.com/exhibitions/thresholds/ (last access October 5, 2025).

15 Collishaw 2018.

installation, the work cannot be fully documented because the experience of moving through space within the image and interacting with objects and other people occurs within a 360-degree virtual environment. Any attempt at screen recording is likewise partial, reflecting the viewpoint of a single visitor and their personal choices of engagement.

2 The Liminal Edge of Space and Time

From its very title, Collishaw's work defines itself tautologically in relation to the idea of the 'threshold', deploying the concept in the plural.

The thresholds staged and offered to the user are numerous. Even before experiencing the virtual environment, the visitor encounters a first physical threshold: the work presents itself as a 'white box', a pristine space that evokes the 'white cube' typical of modernist exhibition spaces. In the case of *Thresholds*, the white box – viewable through a window that allows those waiting in line to take a peek inside – constitutes the set in which the work occurs, the space that invites the user to enter a place that becomes something else through cross-reality **[figs 4-5]**. The choice to create such a structure responds to several needs, the first of which is to provide an environment that faithfully reproduces Talbot's original exhibition, and also to accommodate the aforementioned transportability of an XR project designed to be itinerant, which the designers describe in this regard as a "box within a box".[16]

As the set of the experience, the white room also intends, according to Collishaw, to refer to the white and minimalist space that appears in the final scene of Stanley Kubrick's celebrated *2001: A Space Odyssey*.

> The physical room in which the exhibition takes place is entirely white; plain white table and cabinet structures are placed to correspond with the virtual furnishings participants will see in the simulation. To look at that white room conjures up the end of *2001: A Space Odyssey* – that very Kubrick bright white, and also the Georgian room (in the Arthur C Clarke book from which the film is adapted, the room is Victorian) into which the astronaut is placed by the extraterrestrials to simulate his 'home planet'.[17]

The futuristic and disorienting reference serves to emphasise the otherness of this space and its exceptional quality as a place that is at once anonymous yet potentially metamorphic. The space also functions as a blank canvas, whose appearance changes radically in the virtual dimension, characterised by warm tones, yellow light, ochre-coloured hues, and rich furnishings.

At this level, the threshold between interior and exterior is defined as a horizontal passage, much like a door threshold, which physically separates two adjacent yet clearly distinct dimensions. Crossing it requires instruction and adherence to rules. To access the interior of the space, visible from the outside through the small window providing a preview of the experience to those waiting their turn, the user must equip themselves with a VR headset and a backpack containing the hardware necessary to engage in the virtual experience. While essential for the functioning of the work, the technology to be worn assumes a particular function, as it modifies the visitor's body and outward appearance, enabling entry into the virtual dimension. 'Dressed' in this way, the spectator effectively becomes the interface for accessing another dimension and is admitted to the experience **[fig. 6]**.

The case is not isolated: VR – and likewise XR – can indeed be situated within the history of human body hybridisation through technology, a trajectory long characteristic of artists who have employed such means for creative purposes, from Stelarc to Orlan. In the case of immersive technologies, however, this augmentation does not concern the artist's body, but rather that of the visitor, who thus becomes a true 'medium' between the two dimensions.

The preparation of the user can take on more or less emphatic forms depending on the artist's intentions and on the significance that crossing the threshold between the real and the virtual holds within the project, sometimes taking the form of a kind of 'ritual' dressing.

In 1995, to experience a seminal work of VR art, *Osmose* by Char Davies, visitors were required to wear a suit equipped with sensors that measured their breathing and transmitted it into the virtual dimension: they were dressed on a backlit platform visible to other waiting participants and then entered the virtual world of the work – composed of multiple layers and levels of reality – to experience what Davies defined as a form of 'immersence',

16 Tennent et al. 2020, 1.

17 Baker 2017, n.p.

Figure 4 Mat Collishaw, *Thresholds*, 2017. Installation view. Photo: Graham Carlow. Courtesy of the artist

Figure 5 Mat Collishaw, *Thresholds*, 2017. Installation view with visitors during the presentation at Somerset House, London. Photo: Graham Carlow. Courtesy of the artist

Figure 6 Mat Collishaw, *Thresholds*, 2017. Installation view with visitors during the presentation at Somerset House, London. Photo: Graham Carlow. Courtesy of the artist

a neologism coined by the artist combining the concepts of immersion and presence, since their body could access a multisensory virtual dimension perceivable through their senses.

In an equally famous but more recent example, *Carne y Arena* (2017) – a VR installation by Mexican filmmaker Alejandro González Iñárritu – the experience began with a precise ceremonial process consistent with the virtual experience: the visitor had to remove all personal accessories and shoes, and wear, in addition to the VR headset, a backpack containing an integrated PC. This ritual served not only a technical function but also a narrative one, preparing the participant to immerse themselves in the story they were about to experience at the border between Mexico and the United States, embodying the role of an undocumented migrant travelling north.

A further and very recent case adds another nuance to the use of the visitor's body as a medium: the VR work *Little Room* by Jordan Wolfson, presented at the Fondation Beyeler in the summer of 2025. The experience involves an individual 3D photogrammetric scan of each participant's body, conducted one at a time. Subsequently, in pairs – either with a known person or a stranger – participants are invited to 'digitally wear' the body of the other, experiencing reality from the perspective of someone else's physicality.[18]

Despite their evident heterogeneity, all these experiences are designed with the user's body in mind, which constitutes the true instrument for crossing the threshold between real and virtual reality. In the case of *Thresholds*, the medial quality of visitors' bodies is enhanced by the multiuser nature of the work, as within the virtual dimension they perceive each other as luminous spots, ghostly entities corresponding to the real bodies of the users – with which they can thus avoid collisions – while simultaneously evoking symbolically the bodies of those who, almost 190 years earlier, visited Talbot's exhibition in the dim austerity of the King Edward's School, encountering images that must have appeared to them as astonishing and magical as virtual reality appears to us today **[fig. 7]**.

Thresholds functions, in fact, as a space-time journey and serves as both a means of transport and a time machine, creating the illusion of teleporting visitors into the Birmingham school and vertically traversing the line of time. Obviously, this is not true teleportation,[19] but rather 'bilocation':[20] visitors' bodies are physically present and interacting both in the physical space of the installation (London, Istanbul, etc.) and in the virtually situated space in Birmingham, which they perceive as a consistent and shared environment with other users. The sensation of time travel is heightened by the immersive environment meticulously crafted and by the ambient storytelling that contextualises the project of re-staging the photographic exhibition.

The narrative quality of the used technology[21] further intensifies the experience of reconstructing a past event, which can be understood as a form of 'reenactment'.[22] To realize the project, the artist worked for eighteen months with a team of experts who supported the faithful reconstruction of the King Edward's School room in Birmingham, demolished in 1936, where the exhibition was originally installed **[fig. 8]**. The intervention also included the reconstruction of its contents: the 93 'photographs' displayed by Talbot on that occasion, now housed in various institutions and sometimes difficult to access due to their fragile condition – or, when lost, replaced with similar copies – were digitally scanned, 3D-modeled, and placed in the virtual display cases.

Through this complex system of thresholds – physical, perceptual, and temporal – Thresholds articulates a reflection on the act of crossing itself: between bodies and technologies, between presence and mediation, between past and present.

3 Beyond the Frame

Thresholds allows visitors to engage with one of the earliest photography exhibitions, presented at a time when the medium was still emerging, highlighting the formative relationship between image-making and technological innovation, and offering a glimpse into the sense of wonder that visitors would likely have experienced, anticipating the profound transformations that photography would bring – not only to the production and perception of images, but to social practices and cultural life more broadly. This historical and technological context frames the immersive experience that Collishaw offers, linking the novelty of early photography with the groundbreaking potential of contemporary VR.

Particular attention should be paid to the seemingly minor detail aimed at increasing factual accuracy: the previously mentioned Chartist protest, rendered audible and visible via animation through a virtual window **[fig. 9]**. In Collishaw's work, it plays a more complex role, using the past to speak to the present and even to the future: in fact, some factions of the protesters were strongly opposed to the introduction of machines into the production system, which already then caused job losses and significant changes in the labour system.

18 Although renewed by the technology that allows the user to see their body transformed into a hyperrealistic avatar, Wolfson's project recalls the work of Japanese artist Kazuhiko Hachiya, *Inter Dis-Communication Machine* (1993), which, presented at the Ars Electronica Festival in 1996, enabled two users to exchange perspectives and see themselves through each other's eyes.

19 Minsky 1980.

20 Pinotti 2022.

21 Bucher 2018; Modena 2022.

22 Carlson 2014; Baldacci, Nicastro, Sforzini 2022.

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Figure 7 Mat Collishaw, *Thresholds*, 2017. Screenshot from the VR experience showing a participant represented as a semi-transparent halo within the virtual space. Courtesy of the artist

Figure 8 Mat Collishaw, *Thresholds*, 2017. Screenshot from VR. Courtesy of the artist

> During the early stages of the development of *Thresholds*, where the intention was simply to recreate the 1839 exhibition, a lot of research was undertaken to determine how the exhibition would have looked; from the Charles Barry-designed building to the images and apparatus on display. In the process of researching we started reading about the Chartist demonstrators who were rioting on the streets shortly before the exhibition took place. As I'd also been reading a fair bit about the potential negative effects of digital technology, it seemed an interesting idea to introduce the reverberations of these Chartist protests into the experience. The Chartists wanted the vote and proper representation in Parliament, but they were also concerned about factory automation taking employment away from them as skilled artisans.[23]

Considering this, the inclusion of the Chartist protest is not merely a realistic detail to create a historically consistent scene; it helps reconstruct a context that is significant when we reflect on the impact of new technologies at the time and compare it to the present. Photography itself, which would soon trigger an unprecedented revolution in the production, circulation, and reception of images in terms of both quality and quantity, along with the social consequences that this and other innovations were beginning to have in Western societies – particularly in England, at the forefront in this respect. All of this is evoked through digital technology, which has transformed twenty-first-century society, and through immersive virtual realities, which not only surpass traditional conceptions of images but also open up a range of professional applications that remain only partially explored.

The artist himself claims that in visiting *Threshold* "what you actually experience is this new media, VR, which is the latest development in the trajectory of image-making that photography initiated".[24]

In the history of images and image-making, one of the most important features highlighted with regard to VR is its realisation of the long-held dream of feeling at the centre of the image, immersed within it, rather than standing before it.[25] Thanks to this technology, the image is no longer confined by the presence of a support or a frame, but undergoes a process of 'environmentalisation' that renders it a navigable space.[26] When wearing a VR headset, the user feels enveloped in an image perceived as a 360-degree reality to inhabit and interact with. In this way, the experience connects the mechanical reproduction of photography to the experiential production of reality enabled by VR. In a sense, this continues a trajectory initiated by photography, with its capacity to mechanically reproduce reality, which VR transforms into a direct production of reality itself.[27] A reality made of images, yet one that appears tangible, as noted by one of the earliest inventors of this technology, Ivan Sutherland, who described it as the "ultimate display".[28]

VR thus presents itself as a tool capable of crossing the threshold between reality and representation, something previously achievable only through the faculty of imagination – at least until the development of VR and other immersive technologies such as Augmented Reality.[29]

As art historian Martin Gayford emphasises in the catalogue text, while VR is only one of the latest in a long line of technologies through which images have been created, it appears revolutionary in the way images have been produced over millennia:

> Mat Collishaw's astonishing new work *Thresholds* uses a revolutionary tool – virtual reality (VR) – that may bring about as big a change in the way we make representations of the world as any tool human beings have used in the last 30,000 years.[30]

According to Gayford – and, more broadly, to other scholars who traced a genealogy from illusion to immersion[31] – VR follows the trajectory of illusory space production that began with Filippo Brunelleschi's invention of perspective.

> The two have another crucial resemblance which is the shared basis of all pictures from the caves to VR, that they are – inherently – virtual.[32]

23 Collishaw 2018, 65.
24 Collishaw 2018, 63.
25 Pinotti 2021.
26 Pinotti 2017.
27 Lanier 2017.
28 Sutherland 1965.
29 Pirandello 2025a.
30 Gayford 2018, 13.
31 Grau 2003; Di Marino 2021.
32 Gayford 2018, 25.

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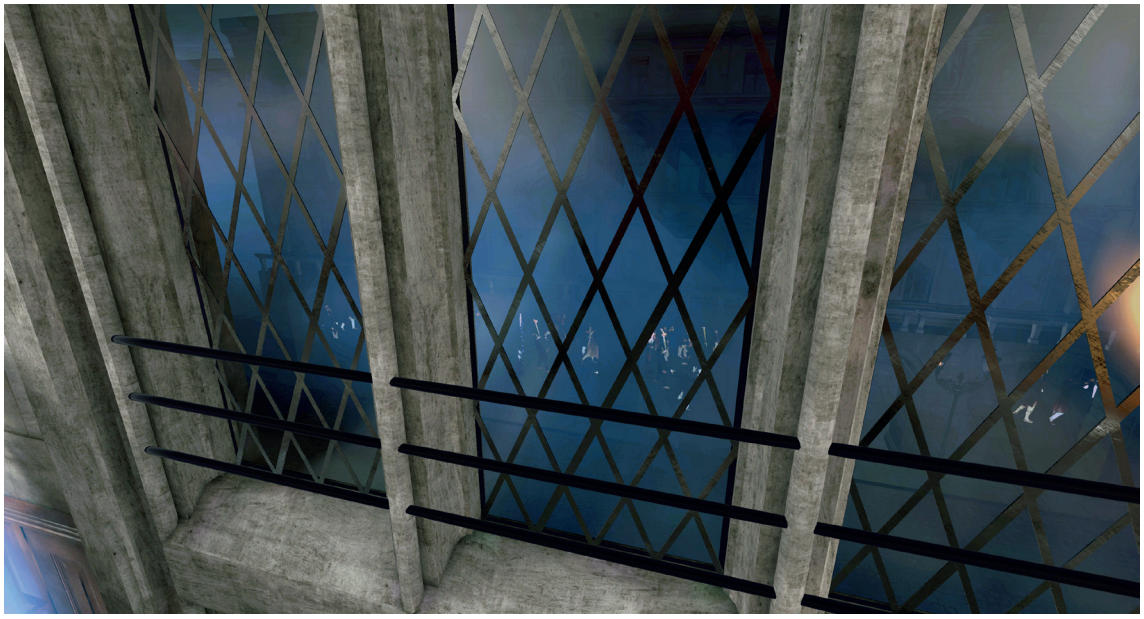

Figure 9 Mat Collishaw, *Thresholds*, 2017. Screenshot from the VR experience showing the virtual window with the Chartist protest animation. Courtesy of the artist

However, despite the continuity of intent, the difference between the two experiences lies in the fact that VR allows one to traverse the image and live it from within, making it a tool with unprecedented potential. What is generated is not an 'icon', but an 'an-icon', an image that denies itself by presenting itself as an environment that, as such, is difficult to associate with the presence of a support or frame that materially identifies and precisely delimits it.[33]

The physical presence of the user's body at the centre of the VR-generated environmental image also disrupts the distinction between observer and observed. Visitors themselves thus become part of the work and are inevitably exposed to the gaze of other visitors waiting outside for their turn. This interplay of gazes – between participants inside the VR environment and those observing externally -underscores the multidimensional thresholds central to Collishaw's project. The performative dimension of the experience makes the user an active participant, drawing them into the work and transforming them from passive observer to 'experiencer', and further into a 'performer', exposed to the audience of visitors and indeed the sole object of their inevitably external gaze.

From this perspective, it is crucial to underline the role that 'gaze' and the intersection of gazes play within the experience.

After putting on the virtual reality headset, visitors moving through the space are effectively blind to the real world, as the headset completely blocks their vision. Yet, they can still recognise one another within the virtual environment, where each person appears as a ghostly presence indicated by halos of light. While these ghostly avatars correspond physically to the actual visitors, in the virtual dimension they also seem to evoke the nineteenth-century visitors of the exhibition originally installed in this space and their astonished gazes upon the displayed objects.

Moreover, within the virtual environment, visitors are also 'observed' by the eyes of the characters portrayed in the collection of paintings displayed on the walls. Among these is the portrait of the school's patron, King Edward VI, which conceals an interesting detail: intrigued by the presence of a 3D-modelled spider moving hyperrealistically across the painted surface, the visitor is invited to pause and observe it closely. In the real world, however, this painting corresponds to an open window allowing visitors waiting in line

33 Pinotti 2017.

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outside to look into the installation while awaiting their turn. By standing in front of the virtual portrait of Edward VI, the users engaged in the experience, thus directing their blind gaze toward the audience waiting outside the environment.[34]

The lack of reciprocity in these gazes becomes an additional and unmistakable indication of the presence of multidimensional thresholds between different levels of reality: related, yet separate **[fig. 10]**.

4 Crossing Realities

Which and how many thresholds are present in Collishaw's work, and what function do they serve within the scope of his project? As we have seen, the theme is developed through a prismatic approach capable of multiplying thresholds and levels of reality, much like a Russian nesting doll. To the physical threshold at the entrance of the environmental installation is added, thanks to the immersive technology employed by the artist, the one that separates the real world from the virtual.

Considering the nature of the work, which aims to virtually reconstruct one of the first photographic exhibitions ever staged, the technology also functions as a time machine and a means of transport, allowing the user to virtually cross a spatio-temporal gateway that immerses them in Birmingham in 1839.

The immersive metaphor is, moreover, entirely functional to the description of an experience that engages the user from a multisensory perspective and alters the perception of the surrounding reality, creating a strong sense of otherness relative to what remains external to the experience: in this sense, the aquatic reference proves decisive in illustrating the effects of virtual realities on the user's body, which is completely enveloped and wrapped by a 360-degree image.

By using the body as a medium and interface to access this experiential dimension, the visitor is transformed into an avatar whose ghostly quality is perceived not only by themselves, due to their equally "ghostly hands",[35] but also by other visitors.

This element proves crucial in adding a final and decisive threshold traversed through this experience: that between the real world and the one ideally populated by the visitors of the past, as the designers themselves note:

> They also imply one's own ghostly presence as a time-traveler, with the ghosts serving to highlight the slightly unreal nature of the experience – you are 'there, but also not there'.[36]

Although Collishaw's work does not engage with dream-like or daydream experiences,[37] it nonetheless evokes a technological 'magic': the precise reconstruction of the historical exhibition allows the work to manifest the kind of metaphysical dimension often attributed to media technologies.[38] Their medial quality functions as a means of reconnecting different dimensions, a theme that today lies at the heart of intense debate, highlighting the contemporary relevance and significance of Collishaw's project. The artist has moreover emphasised that this aspect of the work arises from practical and logistical needs:

> To avoid collisions with other visitors, I introduced digital avatars in the form of glowing auras to indicate their presence. These ghost-like figures weren't exactly supernatural, but they seemed appropriate to the theme of travelling back in time – to 'haunt' a room from the past.[39]

Through these thresholds, visitors become temporal ghosts: avatars coexisting in both the present and the past, perceptible yet absent, on this side and the other. This dual state enhances the "magical" and "metaphysical" nature of the experience, articulating a dialogue between physical, virtual, and spatio-temporal dimensions and highlighting the complex relationship between reality, simulation, and perception.

Thresholds directly addresses some of the central issues affecting the cultural, economic, and political development of our society, particularly the complex relationship between humans and technology. The invention of photography, here

34 "Artistically, this unusual one-way window was intended to create a moment in which participants inside the virtual model are looking back in time several hundred years by inspecting an image from the 16th Century, while viewers outside are looking back at them, bedecked in modern technology in a 'futuristic' space" (Gayford 2018, 13).

35 Tennet et al. 2018, 10.

36 Tennet et al. 2018, 13.

37 Grossi 2021a; Grossi 2021b; Quaranta 2021.

38 Andriopoulos 2013; Conte 2023; Pirandello 2025b.

39 Collishaw 2018, 63.

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Figure 10 Mat Collishaw, *Thresholds*, 2017. Installation view with visitors during the presentation at Somerset House, London. Photo: Graham Carlow. Courtesy of the artist

evoked through reference to Talbot's scientific experiments, represents a decisive moment that altered the perception of reality. Collishaw chooses to illustrate the social impact of this technology by incorporating the Chartist protest into the experience, thereby creating a parallel that directly interrogates the contemporary relevance and consequences of the rapid technological developments currently transforming the image production system, and more broadly the labour system, due to digital technologies, robotics, and, most recently, artificial intelligence.

By taking on this task, the artist acknowledges a specific role for art and artists through history: that of understanding, utilising, and experimenting with new technologies in order to allow viewers to perceive reality with different eyes, while simultaneously questioning it with greater awareness:

> Cheaper and more widely available paper led Renaissance artists to experiment more with modeling and design; they could spend a lot more time working out how things actually appear and how to capture what they saw. The development of better mirrors and lenses enabled artists to see the world in much greater detail, 'the exact appearance of reality', which they could then transcribe to canvas with paint. However, they were not just idly copying, many believed these new tools allowed them to see God's universe more clearly than before; they felt these apparatus led them to glimpse divine revelations. Science drives technological change, which can provide artists with tools to look at the world in new ways, which in turn changes the way we see and interpret the world.[40]

From this perspective, *Thresholds* does not merely demonstrate the impact of emerging technologies but transforms them into conceptual and perceptual devices. The thresholds thus become the contexts in which the work articulates this complexity: not mere physical passages, but moments of transition between different layers of the experience, capable of relating horizontal, vertical, and

40 Collishaw 2018, 64.

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multidimensional dimensions. Collishaw's work indeed combines multiple simultaneous planes, and the thresholds are the points where the user traverses these levels: from the physical entry into the white box (horizontal), to the passage into the virtual world and temporal experience (vertical), and finally to the transformation of the experiencer into a ghost, simultaneously present and absent across different dimensions (multidimensional).

This movement is never linear or unidirectional: the experience suspends the visitor between various layers, placing them in a liminal condition between present and past, in the physical world and in the virtual. In this intermediate state, the threshold ceases to be a mere passage and is instead configured as a navigable space, in which perception is destabilised and reality reveals itself as an unstable and plural construction.

Bibliography

Andriopoulos, S. (2013). *Ghostly Apparitions: German Idealism, the Gothic Novel, and Optical Media*. New York.

Baker, M. (2017). "Crossing the Threshold: An Interview with Mat Collishaw – VMI Studio". *Medium*. July 10. https://msmichelebaker.medium.com/crossing-the-threshold-an-interview-with-mat-collishaw-vmi-studio-cd5b338599f9.

Baldacci, C.; Nicastro, C.; Sforzini A. (eds) (2022). *Over and Over and Over Again: Reenactment Strategies in Contemporary Arts and Theory*. Berlin.

Bucher, J. (2018). *Storytelling for Virtual Reality: Methods and Principles for Crafting Immersive Narratives*. New York; London.

Carlson, M. (2014). "Living History, Re-Enactment". Reynolds, B. (ed.), *Performance Studies: Key Words, Concepts and Theories*. London; New York, 84-90.

Catricalà, V.; Spampinato F. (2021). "Contemporary Art and Virtual Reality: New Conditions of Viewership". *Cinergie*, 19, 121-33. https://doi.org/10.6092/issn.2280-9481/12322.

Collishaw, M. (2018). *Mat Collishaw. Thresholds Eşikler = Exhibition Catalogue* (Istanbul, 16 May-29 July 2018). Istanbul.

Conte, P. (2020). *Unframing Aesthetics*. Milano; Udine.

Conte, P. (2023). "Revenants: On the Animation of Dead People's Portraits in Contemporary Technoculture". Abraham Geil, A.; Jirsa, T. (eds). *Reconfiguring the Portrait*. Edinburgh, 272-86.

Di Marino, B. (2021). *Nel centro del quadro. Per una teoria dell'arte immersiva dal mito della caverna alla VR*. Sesto San Giovanni.

Gayford, M. (2018). "Eşikler / Thresholds". *Mat Collishaw. Thresholds Eşikler = Exhibition Catalogue* (Istanbul, 16 May-29 July 2018). Istanbul, 13-25.

Grau, O. (2003). *Virtual Art. From Illusion to Immersion*. Cambridge; London.

Grossi, G. (2021a). *La notte dei simulacri. Sogno, cinema, realtà virtuale*. Milano.

Grossi, G. (2021b). "Dreamlike Environments: 'Story-living' in Virtual Reality Installations". *Cinergie*, 19, 147-55. https://doi.org/10.6092/issn.2280-9481/12321.

Hoffman, H.G. (1998). "Physically Touching Virtual Objects Using Tactile Augmentation Enhances the Realism of Virtual Environments". *Proceedings. IEEE 1998 Virtual Reality Annual International Symposium*, 59-63. https://doi.org/10.1109/VRAIS.1998.658423.

James, P. (2018). "The Chartist's Revolt". *Mat Collishaw. Thresholds Eşikler = Exhibition Catalogue* (Istanbul, 16 May-29 July 2018). Istanbul, 51-3.

Lagonigro, P. (2021). "La realtà virtuale nell'Italia dei primi anni Novanta". *Piano B. Arti e culture visive*, 6(1), 41-66.

Lanier, J. (2017). *Dawn of the New Everything. Encounters with Reality and Virtual Reality*. New York.

Lanier, J.; Biocca, F. (1992). "An Insider's View of the Future of Virtual Reality". *Journal of Communication*, xlii(4), 150-72.

Maldonado, T. (1992). *Reale e virtuale*. Milano.

Minsky, M. (1980). "Telepresence". *Omni*, 45-51.

Modena, E. (2022). *Nelle storie. Arte, cinema e media immersivi*. Roma.

Modena, E. (2023). *Immersioni. La realtà virtuale nelle mani degli artisti*. Milano.

Moser, M.A.; McLeod, D. (eds) (1996). *Immersed in Technology. Art and Virtual Environments*. Cambridge; London.

Pinotti, A. (2017). "Self-Negating Images: Towards An-Iconology". *Proceedings*, 1(856), 1-9.

Pinotti, A. [2021] (2025). *At the Threshold of the Image: From Narcissus to Virtual Reality*. New York.

Pinotti, A. (2022). "Staying Here, Being There. Bilocation, Empathy, and Self-empathy in Virtual Reality". *Bollettino filosofico*, 37, 142-62.

Pirandello, S. (2025a). *Emersioni. Realtà aumentata e poteri dell'immaginazione*. Milano.

Pirandello, S. (2025b). "Ghost in the Machine: Daily Interaction with Ephemeral Computing". *Cinergie*, 14(27), 37-46. https://doi.org/10.60923/issn.2280-9481/21429.

Quaranta, D. (2021). "Daydream. Esclusione del reale e flusso di coscienza nella realtà virtuale". *Piano b. Arti e culture visive*, 6(1), 155-177. https://doi.org/10.6092/issn.2531-9876/14306.

Rheingold, H. (1992). *Virtual Reality: The Revolutionary Technology of Computer-Generated Artificial Worlds – and How It Promises to Transform Society*. New York.

Sutherland, I.E. (1965). "The Ultimate Display". Kalenich, W.A. (ed.). *Proceedings of the IFIP Congress 65. Washington*, vol. I. London, 506-8.

Sutherland, I.E. (1968). "A Head-Mounted Three Dimensional Display". *afips Conference Proceedings San Francisco*, vol. xxxiii, 757-64.

Tennent, P. et al. (2020). "Thresholds: Embedding Virtual Reality in the Museum". *Journal on Computing and Cultural Heritage (JOCCH)*, 13(2), 1-35. https://doi.org/10.1145/3369394.

Tribe, M.; Jana, R. (2006). *New Media Art*. Köln.