



Jenna Ng

# The Post-Screen Through Virtual Reality, Holograms and Light Projections

Where Screen Boundaries Lie

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Holograms and Light Projections



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*Where Screen Boundaries Lie*

*Jenna Ng*

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“The true is what he can; the false is what he wants.”  
Madame de Duras



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*For Ackbar – teacher extraordinaire, and the true godfather*



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A few parts of this text have been previously published, but they have been re-contextualized and/or substantively extended here. Parts of Chapters 4 and 5 appear in “Surface, Display, Life: Re-thinking the Screen from Projection to Video Mapping,” *Archives of Design Research*, 27:1 (2014): 72-91; and parts of Chapter 2 appear in “She Crawls Out of the TV, or, On the Gendered Screen,” *Media Fields Journal: Critical Explorations in Media and Space*, No. 14 (July 2019), <http://mediafieldsjournal.org/she-crawls/>.





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# Introduction

## Abstract

This Introduction presents the context for the book's argument of the post-screen, namely, an argument for a state of critical attention to the delimitations of screen media and the ensuing problematizations of relations between image and object; an intensifying evolution of the virtual and its role in defining media consumers and their realities; and an era of screen media marked by the disappearances of boundaries of differentiation between subject and object; and a point in media history. The central query of the post-screen lies in the growing imperceptibility and instability of screen boundaries. Where these thresholds begin to disappear is also where the need arises to re-question the definitional states of the actual and the virtual, and the renewed contestations for dominance between them.

**Keywords:** post-screen; boundaries; *La Condition Humaine*; Bazin; Baudrillard; hunger

## Post-Screen Media: Meshing the Chain Mail

*Screens offer a seemingly endless supply of information, but the true value of the page is not what it allows us to know, but how it allows us to be known.*

~ Jonathan Safran Foer<sup>1</sup>

The frame descended at the end, capping a mysterious drama. Minutes earlier, a flash mob had appeared inside a shopping centre in Breda as an ensemble of characters in seventeenth century dress. They re-enacted various scenes: a thief clutching his spoils and fleeing with guards in hot pursuit; two military figures marching into the square at the head of a

<sup>1</sup> Jonathan Foer, "Technology is diminishing us," *The Guardian* online, December 3, 2016, <https://www.theguardian.com/books/2016/dec/03/jonathan-safran-foer-technology-diminishing-us>.



cavalry; a dwarf scurrying along while shooing the crowd; a girl picking up her skirts and running after a squawking chicken.

The performance turned out to be an ingenious publicity stunt for the 2013 re-opening of the Rijksmuseum in Amsterdam, which had closed for a decade-long renovation.<sup>2</sup> For the skit's denouement, the actors assembled in the central space of the shopping centre. They settled into approximate correspondences with the postures exhibited by the characters in Rembrandt's *De Nachtwacht*,<sup>3</sup> thus re-creating the museum's arguably most famous painting. Once everyone was in place, the concluding touch arrived: a rectangular construction, bearing the museum's opening and sponsorship notices, descended from the ceiling and came to rest around the actors.

*There lie boundaries.*

The dropping of the frame is not just a clever ending to an eye-catching publicity skit. It also demonstrates a fluidity, an almost casual instability to the visibility of boundaries as structures which control and organize the scene's meaning and content. As the frame falls, the actors are no longer a motley crew of performers. Instead, they visually echo a famous symbol of the museum. The frame further demarcates the mall's space, relatively homogeneous until that moment: it differentiates the *here* of the performers, and *there* of the shoppers; the *here* of the painting, and *there* of the mall. "Where boundaries lie" thus embroils dual meanings of the word "lie": the first as establishment in laying down positions of separations and differentiations; the second as slippage and trickery exposed in the whimsy of partitioning – one moment a perplexing public drama, the next a meaningful sign.

Snagged in these cross-hairs of demarcation and deception, the fluid fluctuations of boundaries agitate and muddy the site of the image against its surroundings, and renew contestations between reality and representation. As contemporary screen media today present increasingly immersive and ubiquitous image worlds amidst changing visibilities and perceptibility of

2 An online video of the stunt can be viewed at ING Nederland, "Onze helden zijn terug," April 1, 2013, YouTube video, 1:25, <https://www.youtube.com/watch?v=a6W2ZMpsxhg>. The publicity exercise was a big success: as of writing, the video has registered more than 7.9 million hits and created abundant media coverage. On the latter, see, as one instance, "Flashmob recreates Rembrandt painting in Dutch shopping centre – video," *The Guardian* online, April 5, 2013, <http://www.theguardian.com/world/video/2013/apr/05/flashmob-rembrandt-amsterdam-shopping-video>.

3 Rembrandt van Rijn, *De Nachtwacht (The Night Watch)*, 1642, oil on canvas, 363 cm x 437 cm, Rijksmuseum.

screen boundaries, these contestations intensify in complexity and with heightened stakes. As what is image becomes indistinguishable against the viewer's actual surroundings, its unsettling re-visits how we might think about truth and authenticity; actuality and virtuality; art and life. As screen boundaries shift and lie, we confront a new regime of relations between images and reality, images and viewers, viewers and screens. A new imagination for images arises, and a new space of definitions and understandings emerges – *the post-screen*.

\*\*\*

*You don't talk, you watch talk shows. You don't play games, you watch game shows. Travel, relationships, risk; every meaningful experience must be packaged and delivered to you to watch at a distance so that you can remain ever-sheltered, ever-passive, ever-ravenous consumers who can't free themselves to rise from their couches, break a sweat, and participate in life. ... Grab your snacks, watch your screens, and see what happens. You are no longer in control.*

~ Dialogue line from *Incredibles 2*<sup>4</sup>

The use of screens as the villain's weapon of choice in a film as mainstream and family-oriented as the 2018 Disney-produced computer-animated superhero film, *Incredibles 2*, is remarkable. In the film, the villain uses screens to hypnotize people into carrying out her nefarious bidding, which works well for her as screens are ubiquitous (appearing in shop windows, studio broadcasts and so on) and portable (where they can be placed over a person's eyes like goggles). What is remarkable is how the film, itself ironically a mega-blockbuster exhibited on multiple screens across the globe,<sup>5</sup> so effectively leverages the ominousness of screen displays against the all-encompassing reliance and wholly accepting relationship viewers have with screens today. Given the film's success, this ambivalence appears as an experience everyone from young children to adults *worldwide* may sense and understand.

The villainous ubiquity and mesmerism of screens in *Incredibles 2* are signs of current times. Screens are omnipresent today. They appear in

4 *Incredibles 2*, directed by Brad Bird (2018; Los Angeles, CA: Disney, 2018), DVD.

5 Worldwide, the film eventually generated more than US\$1.2 billion in ticket sales, with a little more than half of that coming from international markets: see the box office numbers for *Incredibles 2* at <https://www.boxofficemojo.com/release/rl2071758337/>.

manifold contexts. They are the main vehicles for defining contemporary relations between viewers and representations, commandeering their primary engagements with the “age of the image.”<sup>6</sup> The average home contains multiple screens by way of television sets, personal computers, laptops and, increasingly, smart displays. Screens pervade a myriad of public spaces such as banks, hospitals, schools, offices, train stations, bus stops, shopping malls and museums, as just a few examples.<sup>7</sup> Large screens rigged up outdoors magnify live events such as concerts and sporting matches; giant screens, up to ten metres wide, convert into outdoor cinema.<sup>8</sup> Small screens appear in public transport, including planes, trains and subways. With a genealogy reaching back to 1960s war-time equipment,<sup>9</sup> screens acquire increased, if controversial, relevance today in the context of drone warfare.<sup>10</sup> Personal devices, such as mobile phones, smartwatches, tablets and GPS finders, present mobile screens. In turn, these screens make the multiple connections which characterize twenty-first century living – to mobile webpages through the Internet; to users through activity tracking apps; to other users on social media; to objects via the Internet of Things; and, increasingly, to augmented and virtual realities through games and

6 This is becoming an oft-used phrase today, though I trace its first mainstream use to Amy E. Schwartz’s article, “The Age of the Image,” in *The Washington Post*, February 8, 1997, A21, where she discusses the phenomenon in relation to imaging women. More recently, the phrase has emerged to refer to the power of twentieth (and twenty-first) century images in commanding stories, advertising, news and understanding of the world: see, for instance, Stephen Apkon’s book, *The Age of the Image: Redefining Literacy in a World of Screens* (New York: Farrar, Straus and Giroux, 2013); and BBC4’s television programme, *Age of the Image*, episodes 1-4, featuring James Fox, aired March 6, 10, 17 and 24, 2020.

7 On deconstructing how screens divide public and private spaces, see Anna McCarthy, *Ambient Television: Visual Culture and Public Space* (Durham and London: Duke University Press, 2001).

8 Usually set up in unique locations, outdoor cinema in recent years has taken off as a phenomenon: see Rob Walker, “Jaws at a swimming pool, Gladiator at a castle: how outdoor cinema seduced Britain,” *The Guardian* online, April 22, 2018, <https://www.theguardian.com/film/2018/apr/22/outdoor-cinema-britain-boom>, which declared Britain “in the middle of a boom in outdoor cinema.” (np) More recently, due to social distancing rules in the wake of the Covid-19 pandemic, reports are that open-air cinema on large screens outdoors has become even more popular: see Sam Jones, Kate Connolly and Robert Tait, “Demand is huge: EU citizens flock to open-air cinemas as lockdown eases,” *The Guardian* online, May 29, 2020, <https://www.theguardian.com/world/2020/may/29/demand-is-huge-eu-citizens-flock-to-open-air-cinemas-as-lockdown-eases>.

9 See Charlie Gere, “Genealogy of Screens,” *Visual Communication* 5(2) (2006): 141-152.

10 See Grégoire Chamayou, *A Theory of the Ione* (New York: The New Press, 2015).



other applications.<sup>11</sup> Indeed, “[t]he world we encounter is increasingly a screened world.”<sup>12</sup>

As “material technologies,”<sup>13</sup> screens constitute critical hardware components of any media apparatus. But they are also *facilitating technologies* which host, mould and define relations between viewers and the worlds of text, images and representation. Giuliana Bruno writes of screens not only as surfaces, but surfaces which carry out significant work of such facilitation, where they “positively shape our culture, generating contact, connectivity, and communication.”<sup>14</sup> Dudley Andrew, too, in a different discussion, describes the screen as a containment of the imprints of reality not as a heedless storage, but as “the ultimate interface between human viewer and world viewed”<sup>15</sup> which hosts substantive terms of engagement between image and reality. Here Branden Hookway’s discussion of *the interface* “as a form of relation” also comes to mind, in particular how he describes the interface’s essence as “not in the qualities of an entity or in lineages of devices or technologies, but rather in the *qualities of relation between entities.*” (emphasis added)<sup>16</sup> In these terms, then, of relations and facilitation, the screen becomes *an exemplar of boundaries*, whose surface and edges establish, police and maintain critical differentiations between virtual and actual realities, art and life, image and viewing subject. It *cuts* between each of them, to use Anne Friedberg’s imagery of the “ontological cut,” a term she takes from Victor Stoichita who had used it to refer to the

11 There is increasing imbrication and interplay between physical and virtual worlds, where people navigate their physical world through screens: see, for instance, the phenomenal success of *Pokémon Go*, an augmented reality game played through one’s mobile phone or tablet, which at the height of its popularity in May 2018 had a reported 147 million monthly active users worldwide: Mansoor Iqbal, “Pokémon GO Revenue and Usage Statistics (2020),” *Business of Apps* online, March 24, 2020, <https://www.businessofapps.com/data/pokemon-go-statistics/>. Alternatively, they shut out the physical world in favour of the screen world, such as by wearing virtual reality (VR) headsets on public transport: see Brian Krassenstein, “Virtual Reality is Finally Here – Already Annoying People On Public Transportation,” *IR.net* online, April 6, 2016, <http://ir.net/news/virtual-reality-headsets/124116/virtual-reality-public-train/>.

12 L.D. Introna and F.M. Ilharco, “On the Meaning of Screens: Towards a Phenomenological Account of Screenness,” *Human Studies* 29 (2006): 57–76, 58.

13 Sean Cubitt, “Current Screens,” in *Imagery in the 21<sup>st</sup> Century*, eds. Oliver Grau and Thomas Veigl (Cambridge, MA: MIT Press, 2011): 21–36, 21. Note, though, that his argument is to leverage the material construction of screen technologies into a discussion of screens as “normative technologies,” in particular “to express the nature of public life... rearticulate it.” (21)

14 Giuliana Bruno, “Surface Encounters,” *e-flux journal* 65, May–August (2015), np.

15 Dudley Andrew, *What Cinema Is! Bazin’s Quest and its Charge* (Hoboken, NJ: Wiley-Blackwell, 2010), 69.

16 Branden Hookway, *Interface* (Cambridge, MA: MIT Press, 2014), 4.



demarcation between the portable panel painting and the wall. Friedberg writes:

Like the frame of the architectural window and the frame of the painting, the frame of the moving-image screen marks a separation – an ‘ontological cut’ – between the material surface of the wall and the view contained within [the frame’s] aperture.<sup>17</sup>

However, emerging media technologies today, such as virtual reality (VR), diminish the force of that cut by seeking to eliminate the presence of the screen and the visibility of its boundaries. Such contemporary screen media thus signals another era: the arrival of *post-screen media*. Like the frame dropped around the actors in Breda who re-created *De Nachtwacht*, the boundaries of post-screen media are similarly arbitrary and volatile in their appearance and disappearance. This fluidity reinvigorates questions about the screen, prompting re-examination about not only what the screen is, but also how it demarcates and what it stands for in relation to how we understand the actualities of our world in, outside and against images. In formulating the post-screen, the following questions form the central concerns in this book: *in the wake of imperceptible or unstable screen boundaries, how do their imperceptibility or instability change the relations between image and viewer? As those separations diminish, how do we, as viewers, understand our realities and our relations with those realities?*

These conditions of the screen as facilitation and interface thus inform this book’s mission, namely, to think of the screen not so much as an entity in itself, but in terms of its, as Hookway puts it, “qualities of relations between entities.”<sup>18</sup> Via a series of contemporary media technologies, the book examines this state of collapsing screen boundaries and their ramifications on the relations between image and reality as might be beckoned by the post-screen. As Janet Murray observes, “[p]art of the early work in any medium is the exploration of the border between the representational world and the actual world.”<sup>19</sup> My own exploration of the post-screen border through this book will take the form of four arguments. They are neither discrete nor chronological, but more akin to meshed interlinks like chain mail.

17 Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge, MA: MIT Press, 2009), 5 and repeated at 157.

18 Hookway, *Interface*, 4.

19 Janet H. Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (Cambridge, MA: MIT Press, 1997), 103.

The first and most straightforward argument is that the manifestations of screens in contemporary media seek to diminish, if not erase, the viewer's perceptual differentiations between the actual reality they live in and the virtual reality of the image that they experience. This argument focuses on how contemporary media technology is changing the visibility of screens and thereby the nature and perceptibility of their boundaries. This shift obscures the "ontological cut" which marks out difference, so that screens move *from being spaces of difference to spaces of indifference*.

I argue that this re-positioning gives rise to what I call post-screen media, whose fluid appearances and disappearances of screens are not only about their technological or aesthetic thinking, but also contain deeper implications for our understanding of the relations between images and reality. Elizabeth Grosz had noted similar issues of the diminishing boundary with respect to the computer screen:

Can the computer screen act as the clear-cut barrier separating cyberspace from real space, the space of mental inhabitation from the physical space of corporeality? What if the boundary is more permeable than the smooth glassy finality of the screen? What if it is no longer clear where matter converts into information and information is reconfigured as matter or representation?<sup>20</sup>

Eroding screen boundaries is thus not just about the blurring of differences, but, as Grosz's questions show, opens up substantive issues of the real and queries the changing natures of virtuality, actuality, corporeality, matter, information and representation.

In turn, the issue of these changing natures forms the basis of the second argument. As with other reality-shifting tenets of the contemporary mediascape, such as the viral circulation of social media, "post-truth" cycles of "fake news" and mis/disinformation, and hyperrealistic immersive simulations, within the changing nature of screens also lie changing equations between truth, lies, representation and illusion.<sup>21</sup> Such shifts have resonated throughout the history of visual media from perspective painting to photography to cinema. To that extent, the increasingly complex

20 Elizabeth Grosz, *Architecture from the Outside: Essays on Virtual and Real Space* (Cambridge, MA: MIT Press, 2001), 87.

21 These are also issues bound up with understanding complex processes of mediation between current and earlier media forms. See Maria Engberg and Jay Bolter, "The aesthetics of reality media," *Journal of Visual Culture* 19(1) (2020): 81-95.

relations and imbrications between the virtual and the actual are issues all media negotiate to varying degrees.

However, the ubiquity of screens today imposes a qualitatively different structure of realities, namely, *a mise-en-abîme virtualization of the virtual* – a piecemeal building of the virtual upon the virtual. Where nearly 20 years ago as images and spectacle disappeared into digital immateriality and computer code, and as Arthur Kroker wrote of how “ours is a culture signified by the triumph of virtuality,”<sup>22</sup> post-screen media today add to that victory in its slippage and trickery of screen boundaries. *Where screen boundaries lie* is thus not only about where the image’s borders and demarcations are established, but also about the screen boundary as the instrumentation of an intense virtualization that does not tell the truth. At the heart of the double entendre is thus a system of trickery entwined with omnipresent displays of images, made possible only out of the sheer ubiquity of screens. The second argument thus re-shapes these virtual realities of the post-screen, drawing from them a new imagination of relations with and definitions of the real.

To Grosz’s what ifs, I add a few more key concerns: what if an audience no longer cares about screen boundaries? What if they become inured to the erosion of boundaries between reality and simulacra, and indifferent to distinguishing between them? What if they desire representation to the extent of *wishing* for that erasure?<sup>23</sup> These questions prompt the third argument, which addresses how the changing nature of virtuality out of disappearing screens also points to *the changing nature of affect and subjectivity*. As media objects are consumed, so are their consuming subjects reconfigured and affected. This concern is thus also a critical attention to understanding ourselves as beings in increasingly intertwined actual and representational realities. With minds and bodies bombarded with and in constant absorption of burgeoning quantities of media through expanding bandwidths of information, screens change as do, and with, their viewers.

The fourth argument is effectively the hanging of the mail, which is to thread the first three arguments into a provocation of *imagining the post-screen*. Some problematics of this imagination will be elaborated in the final pages of this introduction, but, for now, imagining the post-screen

22 Arthur Kroker, “The Image Matrix,” *ctheory.net*, published 20 March, 2020, [http://ctheory.net/ctheory\\_wp/the-image-matrix/](http://ctheory.net/ctheory_wp/the-image-matrix/).

23 The character of Cipher from *The Matrix* (directed by The Wachowskis (1999; Burbank, CA: Warner Home Video, 1999), DVD), comes to mind here: in the film, Cipher chooses to live in his computer-generated matrix of reality, despite his awareness of its falseness.



may be articulated as the following concerns: *a state of critical attention to the delimitations of screen media and the ensuing problematization of relations between image and object; an intensifying evolution of the virtual and its role in defining media consumers and their realities; an era of screen media marked by the disappearances of boundaries of differentiation between subject and object; and a point in media history.* As with media in general historically, screen media today has become an inevitable interlocutor of life: what comes through on our laptops, PCs and mobile phones enables, facilitates, solicits, causes, results in, directs and shapes virtually every human action from wrangling wages to waging war, and virtually every emotion from anger to grief to compassion. With the constant interpolation of the screen in everyday life, the liminality of the screen boundary signifies an expanding and increasingly fluid space not just for watching, but for living itself. Imagining the post-screen, then, is wrapped up with this ubiquity of screens to the point of their invisibility or imperceptibility, yet with continued substantive impact not only on our relationships with images, but also on our lives, ways of living and understandings of ourselves.

In that respect, the post-screen marks a point in media history, which, *cf* media's history, is not about the history of media, but about history *and* screen media, or the correlation between media invention and significant cultural, social and political changes. Recall, for instance, the impact of the camera obscura in the eighteenth century with respect to perspective;<sup>24</sup> photography in the nineteenth century on the role of automatism; or cinema in the twentieth century on the meaning of documentation. These are just a few examples of media as “a discursive object – an object to think with,”<sup>25</sup> as is the screen today. The post-screen thus also points to a discourse in how the erosion of screen boundaries exposes the in-between-ness in the gap of the border – that area of the middle – as a different epistemological space. As John Durham Peters writes, “things in the middle, like spines and bowels, often get demeaned, but they too deserve their place in our

24 See Lee W. Bailey, “Skull’s Darkroom: The Camera Obscura and Subjectivity,” in *Philosophy of Technology: Practical, Historical and Other Dimensions*, ed. Paul T. Durbin (Dordrecht: Kluwer Academic Publishers, 1989): 63–79.

25 Martin Lister, Jon Dovey, Seth Giddings, Iain Grant and Kieran Kelly, *New Media: A Critical Introduction*, 2<sup>nd</sup> edition (London and New York: Routledge, 2009), 110. In their use of that phrase, the authors immediately reference Jonathan Crary’s discussion of the camera obscura (in *Techniques of the Observer* (Cambridge, MA: MIT Press, 1992), 25–66) as presumably an exemplar of thinking about media as such a discursive object.



analysis.”<sup>26</sup> They deserve their place because, per Grosz again, the middle are spaces for transformation, *because* they are in the middle:

The space of the in-between is the locus for social, cultural, and natural transformations: it is not simply a convenient space for movements and realignments but in fact is the only place—the place around identities, between identities—where becoming, openness to futurity, outstrips the conservational impetus to retain cohesion and unity.<sup>27</sup>

This fourth argument is thus about how that middle is becoming less noticeable, yet in its diminishment remains more potent than ever as a transformative space for shifts in attention regarding how we know, perceive and become aware of our lived realities. Hence, the question to ask need not always be “what is the truth”; as relevant a question is: “what truth do we care to know or perceive, and what does that say about how we live?” In a sense, that query is also a holistic one asked of all humanities work, which is yet another mission of in-between-ness: as David Theo Goldberg puts it, the humanities is really that “of translating ourselves...to ourselves.”<sup>28</sup> The key to imagining the post-screen is to articulate a critical attention that points squarely to re-visiting that query. Or to take Foer’s wording in the opening quotation of this introduction, trusting that value lies not in what the information allows us to know, but how it allows us to be known.

## Eroding Boundaries in the Contemporary Mediascape

This book will situate its discussion of the post-screen around three groupings of screen media, identified as key exemplars for their various intriguing subversions of screen boundaries particularly in contemporary instantiations: Virtual Reality (VR; chapter 3); holographic projection (chapter 4) and true holograms (chapter 4A); and light projections (chapter 5). Their examples, chosen for their substantive illustrations of the meanings of the post-screen, will traverse across a relatively wide range, drawing primarily out of the moving and still image (paintings; photography; films; television; video games; mobile apps), but also

26 John Durham Peters, *The Marvellous Clouds: Toward a Philosophy of Elemental Media* (Chicago, IL: The University of Chicago Press, 2015), 50.

27 Grosz, *Architecture from the Outside*, 90.

28 David Theo Goldberg, “Deprovincializing Digital Humanities,” in *Between Humanities and the Digital*, eds. Patrik Svensson and David Theo Goldberg (Cambridge, MA: MIT Press, 2015): 163–171, 165.



from screen media out of concerts; museum installations; advertising; fashion shows; architecture and political spheres (rallies, protests and expressions of activism). By no means, though, is this range exhaustive or meant to be so; notably, technical fields, such as military, scientific and medical applications of screens, have been omitted not because of their inapplicability to the post-screen, but their contextual referencing to the disappearance of screen boundaries is not as clear. The post-screen is not only a phenomenon across multiple screen applications, but also a substantive statement on media and its connections to contemporary changing conditions of truth and reality, expressions that are evidenced with greater clarity through screen works in some spheres as compared to others. Similarly, these groupings of exemplars do not imply the post-screen as a new phenomenon limited to “new” media. Numerous historical instantiations show such practices to be as old as on-screen display itself. Early cinema exhibitors, for example, projected images of historical figures on screens as part of multimedia entertainment experiences even as they concealed their boundaries through various engineering feats and optical trickery. These “older” media will likewise be threaded through the book alongside their “newer” counterparts.

At the same time, the impetus of the post-screen is undoubtedly the ceaseless screen innovations of image display and boundaries, each cropping up at trade shows to trumpet their status as the latest gadgets on the market. For instance, “3D hologram fans” advertised at trade shows in 2019 and 2020 create “screens” out of rapidly rotating LED fans. These images do not appear imprinted or projected on any sort of surface resembling a conventional screen. Rather, strips of LED pixels attached to (usually four) fan blades are lit by a control unit as the blades spin, tricking the observer’s brain into seeing the image as not only a whole, but also volumetric. These effects are due to the near-invisibility of the fast-spinning fan blades creating a see-through space for the image to take the illusion of a three-dimensional form.<sup>29</sup> At the 2020 Consumer Electronics Show (CES) in Las Vegas and one of the largest, if not the largest, trade shows in the industry, Samsung presented, among other products, “a new 8K bezel-less TV,”<sup>30</sup> or in more

29 Andrea James, “Watch These 3D Jellyfish Holograms Created With Fans,” *BoingBoing*, September 21, 2020, <https://boingboing.net/2020/09/21/watch-these-3d-jellyfish-holograms-created-with-fans.html>.

30 Ivan Mehta, “Samsung unveils a bezel-less 8K TV and a rotating TV at CES,” *TNW* online, January 6, 2020, <https://thenextweb.com/plugged/2020/01/06/samsung-unveils-a-bezel-less-8k-tv-and-a-rotating-tv-at-ces/>. Despite the headline, the report then states that the TV actually has “a barely-visible 2.3 mm thick bezel” (np), which contradicts its headline proclamation of the screen being “bezel-less.”

hyperbolic reportage, “the world’s first ever frame-less TV.”<sup>31</sup> Optical illusion is no longer the name of the game here – the categorical absence of visible boundaries around the screen in the clear light of day announces the industry’s unambiguous ambition to blend the virtuality of the image ever more seamlessly with the actuality of its surroundings. In this respect, a deliberate media archaeology<sup>32</sup> of screens’ long history of paradoxical revelation and concealment will also be one of this book’s key frameworks in discussing the post-screen’s subversion of screen boundaries.

Across the wider mediascape, the erosion or elimination of boundaries between art and its surroundings further resonates with the post-screen’s thesis of disappearing boundaries and encroaching virtualization. The location of art is not only everywhere but seamlessly so, augmenting and adding layers to multiple processes of constant virtualization. Take, for example, the general containment of paintings within their frames. Much of landscape painting, as one genre amongst many, is about the boundaries of the frame around the painting that, as Bernard Comment puts it, “give them shape.”<sup>33</sup> Comment quotes famous painters, such as Leon Battista Alberti and Pierre-Henri Valenciennes, to emphasize the role of the frame in how it “designate[s] the representation”<sup>34</sup> in their paintings as a specific view through a window. Alberti, in particular, famously asked for the painting to be seen as if out of “an open window through which the story can be viewed.”<sup>35</sup> Valenciennes described the canvas as “the aspect of nature that is circumscribed by the frame, always creating the effect of a window.”<sup>36</sup> As Comment concludes: “It is therefore the frame that denotes that a work of art is what it is.”<sup>37</sup>

Yet, eventually – perhaps even inevitably, if we take the viewpoint of a kind of post-screen determinism – even the frame is abolished. Instead, virtual reality floods the viewer’s eye. Arthur Danto, for instance, in his argument on “contemporary art” in the 1990s as marking an end to an era

31 James Pero, “Samsung is set to unveil the world’s first ever bezel-less TV next week at the Consumer Electronics Show in Las Vegas,” *Mail Online*, December 31, 2019, <https://www.dailymail.co.uk/sciencetech/article-7841467/Samsung-set-unveil-worlds-bezel-free-TV-week-CES-Las-Vegas.html>. Again, though, strictly speaking, the TV is not bezel-less (see footnote 30).

32 See Jussi Parikka’s instructive book on media archaeology as method, *What is Media Archaeology* (Malden, MA; Cambridge: Polity Press, 2012), explaining, among others, its “excavating the past in order to understand the present and the future.” (2)

33 Bernard Comment, *The Painted Panorama* (New York: Harry N. Abrams, Inc., 2000), 99.

34 Comment, *The Painted Panorama*, 99.

35 As quoted in Comment, *The Painted Panorama*, 99. The Albertian window in relation to the screen will also be discussed in greater detail in chapter one.

36 As quoted in Comment, *The Painted Panorama*, 99.

37 Comment, *The Painted Panorama*, 99.



of modern art, describes a “generation” of such art (“of which the Museum of Modern Art is the great exemplar”) as “defined in formalist terms”: “Nothing was to distract from the formal visual interest of the works themselves. *Even picture frames were eliminated as distractions...: paintings were no longer windows onto imagined scenes, but objects in their own right.....*” (emphasis added)<sup>38</sup> Other genres subvert the formal containment of art in more elaborate ways, such as land art from the 1960s and 1970s which sited art in remote locations by sculpting the land itself with its natural materials, bypassing the traditional confinement of art in a frame that sets it apart against its surroundings.<sup>39</sup> Arguably, Marcel Duchamp’s readymades in the 1910s, by presenting as art ordinary manufactured objects which he sometimes modified and sometimes not, already rubbed out the boundaries between art and the real world, if only by upending the definitions and parameters by which each became one or the other.

Shifting boundaries between artifice and life may also be seen in other, if more oblique, instantiations. There are many examples out of diverse contexts; a couple to illustrate our purposes here will suffice. For instance, in the 1960s, Richard Schechner, with the Performance Group, founded and performed what Schechner later termed “environmental theatre”<sup>40</sup> – a “non-frontal, spectator-incorporative theatre” that aimed to eliminate the distinction between conventional audience and stage territories.<sup>41</sup> On sets designed to deliberately encroach on the audience’s space, the actors have greater space and flexibility of interaction with the audience. They are subsequently able to “incorporate the spectator in some way within the performance and to diminish the sense of aesthetic distance.”<sup>42</sup> These experimentations with space, started by Schechner but since taken up and further developed by other performance groups, thus erase, even abandon,

38 Arthur Danto, *After the End of Art: Contemporary Art and the Pale of History* (Princeton, NJ: Princeton University Press, 1998), 16. Danto centres his arguments of this “post-historical museum” (16) around the subversion of the logic of the painting’s frame – “the architecture of the altarpiece, the installation in which a painting is set like a jewel.” (xii) Paintings are no longer situated within them, but take on multiple different frameworks, such as other media forms (e.g. sculpture, installations, film) or other prescriptions of space (e.g. fictive space).

39 See *Land, Art: A Cultural Ecology Handbook*, ed. Max Andrews (London: RSA, 2006); or Suzaan Boettger, *Earthworks: Art and the Landscape of the Sixties* (Berkeley, CA: University of California Press, 2002).

40 See Richard Schechner, “6 Axioms for Environmental Theatre,” *The Drama Review: TDR* 12, no. 3 (Spring, 1968): 41–64.

41 “Environmental theatre,” *The Oxford Companion to Theatre and Performance*, ed. Dennis Kennedy (Oxford: Oxford University Press, 2010), 190.

42 *Ibid.*

the theatre's conventional boundaries which separate art from life, or audience from performance (and performers), as usually signified via theatre architecture such as stage, proscenium and stage curtains.

A second example is the genres of twenty-first century interactive mobile narratives which integrate physical and narrative spaces, such as what has been called Locative Narratives or Locative Literature, whose stories are told through media assets attached to physical spaces.<sup>43</sup> An example is [*murmur*], a "documentary oral project" whose creators collected recordings of stories and memories about specific neighbourhoods in Toronto and made them accessible to the public through posted signs bearing a telephone number for people to call.<sup>44</sup> The result, as Jeremy Hight puts it, is that "stories are written in and read in motion in the physical world itself."<sup>45</sup> As with the examples described above, these mobile genres bypass their traditional frameworks – in this case the book, which normally defines the ontological borders for narrative, at least for the Western canon.<sup>46</sup> The boundaries within which a literary text exists, is authored and read thus become less certain, more fluid and more contingent on movement and the location of the body in public space. As Hight suggests, this shifting of boundaries disrupts "form and completion and the fetishistic notion of a work as a singular set artefact and architecture."<sup>47</sup> What signifies as textual literature is now spread across the landscape, a layer of fictional reality fused with its environment, its boundaries indistinguishable and no longer defined via any specific textual frame.

A newly virtualized virtual reality propagated by visual and narrative media today thus emerges out of this volatile interchanging between the

43 For a wide range of examples in diverse contexts demonstrating the practice of storytelling on mobile media, see *The Mobile Story: Narrative Practices with Locative Technologies*, ed. Jason Farman (New York; Abingdon: Routledge, 2014).

44 The [*murmur*] project website, at <http://murmurtoronto.ca/about.php/> (as of June 2020) is unfortunately defunct, but a detailed description of the project can be found at the Canadian Film Centre website, accessed June 11, 2020, <http://cfccreates.com/productions/76-murmur>.

45 Jeremy Hight, "Locative Narrative, Literature and Form," in *Beyond the Screen: Transformations of Literary Structures, Interfaces and Genres*, eds. Jörgen Schäfer and Peter Gendolla (Bielefeld: Transcript Verlag, 2010): 317–330, 319.

46 Narrative traditions are notably more entwined with place in non-Western cultures, such as Australian Aboriginal narrative systems: see generally, for instance, *Emplaced Myth: Space Narrative and Knowledge in Aboriginal Australia and Papua New Guinea*, eds. Alan Rumsey and James F. Weiner (Honolulu: University of Hawaii Press, 2001). For an extension of Aboriginal narrative systems to new media narratives, see James Barrett, "Virtual Worlds and Indigenous Narratives," in *The Immersive Internet: Reflections on the Entangling of the Virtual with Society, Politics and the Economy*, eds. Robin Teigland and Dominic Power (Basingstoke: Palgrave Macmillan, 2013): 77–91.

47 Hight, "Locative Narrative," 322.



establishment and scuppering of frames and borders, a fluidity that is also the central dual-edged challenge of *where boundaries lie*. In turn, this unsettled state changes the nature of the contestation between the virtual and the actual, where virtuality increasingly encroaches on the actual, revising not only the value of representation but also who we are in relation to representation. This leads us to the next point – why this matters.

## Why Boundaries Matter

In the first place, boundaries are difficult spaces – paradoxical, interstitial, liminal. As mentioned, they are a facilitating interface bound by the qualities of relations, defined by what is outside it as much as what is inside it. Jacques Derrida's definition of the *parergon*, appearing in the first section of *The Truth in Painting* and itself an explication of framing and the *passe-partout*, applies well to the boundary's competing contradictions: "neither work (*ergon*) nor outside the work [*hors d'oeuvre*] neither inside nor outside, neither above nor below, it disconcerts any opposition but does not remain indeterminate and it *gives rise* to the work." (emphasis in original)<sup>48</sup> The *parergon* is caught in simultaneous disavowal and affirmation – it exists by not being a part of the object (or *ergon*) as much as by uniting with the *ergon* so as not to be a part of it. In this, it echoes the koan of the doughnut's hole, which exists as an *absence* of edible doughnut ring as much as it does in relation to *being part of* the edible doughnut ring.<sup>49</sup> It is what it is as also

48 Jacques Derrida, *The Truth in Painting*, trans. Geoff Bennington and Ian McLeod (Chicago, IL: University of Chicago Press, 1987), 9. See also Gregory Minissale, *Framing Consciousness in Art: Transcultural Perspectives* (Amsterdam: Rodopi, 2009) for elaboration on Derrida's use of framing – "alongside texts and traditions in order to create a view of their lacunae" – as a discursive figure for revelation, 91.

49 This also brings to mind an oft-quoted verse from Lao Tsu's *Tao Te Ching*, which similarly emphasizes the paradox of what is there against what is not there, how they interrelate to each other, and, most importantly in relation to the *Tao*, understanding their worth against each other:

Thirty spokes share the wheel's hub;  
It is the center hole that makes it useful.  
Shape clay into a vessel;  
It is the space within that makes it useful.  
Cut doors and windows for a room;  
It is the holes which make it useful.  
Therefore profit comes from what is there;  
Usefulness from what is not there.

From Lao Tsu, *Tao Te Ching*, trans. Gia Fu Feng and Jane English (New York: Vintage Books, 1998), chapter 11, 7.



based on what it is not. Where such a complex space starts to shift in its nature and manifestations, the implications are also bound to be interesting.

On a functional level, boundaries are important because they are definitional. Not least due to their inherent ambiguity as being both included and excluded spaces, boundaries define – and are themselves – both beginnings and endings. A frame that surrounds an image marks where the image begins and ends, or the differentiation between what is reality and what is representation. To return to paintings, Rosalind Krauss describes the painting's frame as this "very boundary of the image"; the frame "crops or cuts the represented element out of reality-at-large." What is cropped or cut thus becomes "an example of nature-as-representation, nature-as-sign." Hence, "[t]he frame announces that between the part of reality that was cut away and this part *there is a difference.*" (emphasis added)<sup>50</sup>

By being definitional, boundaries also lay down other dictates. They become instructive, even imperative, as they direct what a viewer should look at and what they should ignore. As Dudley Andrew writes: "The frame is the physical embodiment of the bar between image/reality and it marks as well the case that this experience is presented to me by another. I must attend 'there' to the frame and not elsewhere."<sup>51</sup> By marking out objects for a viewer's attention, boundaries facilitate their being seen, and enable them to be seen: "To frame something is to re-present it... Re-presentation invites us to look again; it renders visible."<sup>52</sup> Through such prescription of attention and visibility, boundaries thus also command power in asserting what is and is not important, what deserves and does not deserve the viewer's gaze, what possesses and lacks meaning. Boundaries, as Malcolm McCullough writes, "privilege the contained."<sup>53</sup>

For these reasons, boundaries do intense work. They direct attention, provide meaning, include and exclude, allow and withhold access. To that end, media and media theory have also long been attentive to the ambiguity and the ensuing relational richness of boundaries which contain them. Paintings, photography, literature, television and cinema have all explored, interrogated and played with meanings portended within, without and across their respective frames; many of these discussions will feature

50 Rosalind Krauss, *The Originality of the Avant-garde and Other Modernist Myths* (Cambridge, MA: MIT Press, 1985), 115.

51 Dudley Andrew, *Concepts in Film Theory* (Oxford: Oxford University Press, 1984), 43.

52 Karsten Harries, *The Broken Frame: Three Lectures* (Washington, DC: The Catholic University of America Press, 1989), 85.

53 Malcolm McCullough, *Ambient Commons: Attention in the Age of Embodied Information* (Cambridge, MA: MIT Press, 2013), 156.

in the next two chapters. As Anne Friedberg writes, “how the world is framed may be as important as what is contained within that frame.”<sup>54</sup> As used in theory, boundaries explicate the nature of media, mapping how media evolves and changes. Jay Bolter and Richard Grusin’s argument of remediation, for instance, employs the visibilities and differentiations marked by media’s boundaries to underpin their historical account of media change.<sup>55</sup> Across a wide range of media forms, Bolter and Grusin argue how the twin logics of “hypermediacy” and “immediacy” power aesthetic and/or ontological connections between “older” and “newer” media. Respectively, these logics highlight or erase the visibility of those connections. Not unlike the flash mob of Breda, at the heart of Grusin and Bolter’s argument is a fluid and competing interplay between the presence and erasure of boundaries. In this sense, the logic of immediacy diminishes the perceptibility of media boundaries so that “the medium itself should disappear and leave us in the presence of the thing represented.”<sup>56</sup> Conversely, the logic of hypermediacy emphasizes media boundaries so as to highlight connections to or replacements of other media forms, and to remind viewers of the opacity of media.<sup>57</sup> The shifting of screen boundaries thus delineates the trajectory of media’s development, and draws the lines connecting past and present, old and new.

Media theory also rationalizes how screen boundaries form and operate as critical thresholds between image and object to host tensions and transgressions. For example, it is across the screen’s boundaries that the *onscreen* (a signified reality visible to the audience) functions as a yin-yang dialectic to the *offscreen* (not visible to the audience).<sup>58</sup> Moreover, like twisted cabling, their realities further entangle across their boundaries to influence and

54 Friedberg, *The Virtual Window*, 1.

55 Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 2000).

56 Bolter and Grusin, *Remediation*, 6. This binary division of media in terms of visibility and disappearance echoes Peter Lunenfeld’s dialectics of new media, where Lunenfeld identifies two key paradigms of the new computer media, namely, *immersion*, as associated with virtual reality, and *extraction*, as associated with hypertext: see Peter Lunenfeld, “Digital Dialectics: A Hybrid Theory of Computer Media,” *Afterimage* (November 1993): 5.

57 Bolter and Grusin, *Remediation*, 31-44.

58 See Noël Burch, *Theory of Film Practice*, trans. Helen R. Lane (Princeton, NJ: Princeton University Press, 1981), 17-31, and in particular how he identifies six “segments” of offscreen space around the film image: offscreen right; offscreen left; offscreen top; offscreen bottom; behind the set; and behind the camera. What is at stake here is how, across boundaries signifying on- and off-screen, the image world is constructed, contained and separated.



affect each other.<sup>59</sup> Tom Gunning's "cinema of attractions" argument,<sup>60</sup> for instance, describes early cinema as technological and visual excitement – or what he ascribes to "an aesthetic of astonishment"<sup>61</sup> – by drawing precisely on the intersections across screen boundaries. Where those boundaries differentiate between virtual and actual realities, they also mark where and how the early cinema spectator's astonishment arose in relation to the incredible (or incredibly mimetic) nature of the illusion they were seeing against their reality. Likewise, the cinematic mode of direct address, referred to here as "characters in movie fictions who appear to acknowledge our presence as spectators; they seem to look at us,"<sup>62</sup> achieves its status of anomalous use precisely due to the pressure of crossing the supposedly inviolable divider between the audience's and the character's world.<sup>63</sup> These are just a few examples of how screen boundaries underpin significant theorizations of evolving relations between mediated and physical realities, reliant on what is within and without the screen's boundaries, and trading off tensions and ambivalences that arise across them.

Moreover, thinking about screen boundaries also leads to a deeper understanding of the object itself – the screen. There may not seem to be much to understand about a screen beyond its technology and engineering<sup>64</sup> – is it not simply a surface filled with light that displays text and images? As Charles Acland puts it: "we just seem to know [a screen] reflexively: a thing that glows and attracts attention with changing images, sounds, and

59 For a more extensive analysis of the intertwining between onscreen and offscreen spaces, see Eyal Peretz, *The Off-Screen: An Investigation of the Cinematic Frame* (Stanford: Stanford University Press, 2017), especially Part 1, 15-60.

60 This refers to Tom Gunning's well-known argument of early cinema not as a storytelling medium, but as an exhibitionist cinema "that displays its visibility, willing to rupture a self-enclosed fictional world for a chance to solicit the attention of the spectator": see "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde," in *Early Cinema: Space, Frame, Narrative*, eds. Thomas Elsaesser and Adam Barker (London: BFI Publishing, 1990): 56-62, 57.

61 See Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," in *Film Theory: Critical Concepts in Media and Cultural Studies*, eds. Philip Simpson, Andrew Utterson and Karen J. Shepherdson (New York; Oxford: Routledge, 2003): 114-133.

62 Tom Brown, *Breaking the Fourth Wall: Direct Address in the Cinema* (Edinburgh: Edinburgh University Press, 2012), x.

63 Referring to Pascal Bonitzer's characterization of this counter-look as the "rupture of the cinematic fiction," Brown similarly notes that, as such "rupture," such address "can only ever be tentative": Brown, *Breaking the Fourth Wall*, 23.

64 There are similar sentiments in other work on this tension between the technical knowledge of a media form and the formation of knowledge out of it, such as that of the book, on which see, for instance, N. Katherine Hayles, *Writing Machines* (Cambridge, MA: MIT Press, 2002).

information.”<sup>65</sup> Yet, as Acland also points out, and to that extent echoing calls for the same as set out from the mid-2000s,<sup>66</sup> scholarship, particularly from history, media and critical theory, is needed precisely to forge new ways of understanding the screen beyond being an instrumental technology. As Acland writes, “the mechanical level [of technical specifications, such as screen size, aspect ratio, resolution etc] only gets us so far in our job of actually understanding the related senses, sensibilities, and practices that form as a consequence of media use.”<sup>67</sup> Much of such scholarship in recent years have concentrated on re-rationalizing the boundaries and lines of the surfaces to which we commonly designate as screens;<sup>68</sup> in turn, they re-visit our wider visual and media culture in relation to the nature and status of representation in our world. An example of such key thinking for me is Fred Turner’s lecture in 2014 on renewed conceptualizations of the screen in terms of its “ubiquity and integration” which mark similarly diminishing screen boundaries.<sup>69</sup> As screens envelop their audiences in their omnipresence, Turner proposes the framework of thinking about screens to shift across various binaries, from “screen” to “surround”; “representation” to “attention”; “production” to “integration”; “reception” to “interaction.” What emerges then, in wider terms, is a different screen history, or “the screen history we need.”<sup>70</sup> Vivian Sobchack, too, argues for

65 Charles R. Acland, “The Crack in the Electric Window,” *Cinema Journal*, 15:2 (2012): 167-171, 168.

66 See in particular Erkki Huhtamo, “Elements of Screenology: Toward an Archaeology of the Screen,” *Iconics: International Studies of the Modern Image*, 7 (2004): 31-82, in which he specifically calls for “the creation of a new field of research which would be called ‘screenology,’” which would focus not only on “screens as designed artefacts, but also on their uses, their intermedial relations with other cultural forms and on the discourses that have enveloped them in different times and places”: 32. He repeats this call in “Screen Tests: Why Do We Need an Archaeology of the Screen,” *Cinema Journal*, 51(2) (Winter 2012): 144-148.

67 Acland, “Crack in the Electric Window,” 168.

68 For instance, Acland discusses how “production screen” innovations, such as the “Simulcam” as used by James Cameron for the filming of *Avatar* (2009), has moved the screen “from the endpoint of spectatorship to the position previously occupied by the industry-standard motion picture camera,” so that “conventional definitions of monitor, computer, and camera are disrupted. The camera is a screen and the screen is a computer, and all are windows onto a live, virtual performance”: “Crack in the Electric Window,” 169-170. In other words, the definitional and ontological boundaries of the screen collapse; our understanding of the screen itself changes.

69 Fred Turner, “From Screens to Surrounds” (presentation, Genres of Scholarly Knowledge Production HUMlab conference, Umeå, December 10-12, 2014).

70 See Fred Turner, *The Democratic Surround: Multimedia and American Liberalism from World War II to the Psychedelic Sixties* (Chicago, IL: University of Chicago Press, 2013), which fleshes out the visual landscape that feeds into this screen history in terms of what he terms as the “surround.” I pick up again on this sense of the “surround” in chapter 3.



the reconstitution of “what was once a ‘screen-scape’ into the surround of a systemically-unified, if componentially diversified, ‘screen-sphere.’”<sup>71</sup> In this sense, screens, being part of “our lifeworld,” become a systemic structure, both enfolding life and affirming “being” within each other. Both arguments disentangle the shifting of screen boundaries to clarify the morphosis of the screen itself, in turn pushing for a larger understanding of it, revising trajectories and taxonomies of its changing forms, structures, functions and purposes. The impact of such work has been both a source of inspiration and an important starter premise for the main threads of enquiry running through this book.

However, by far the most significant importance for boundaries in relation to the thoughts in this book is how they signify relations which bound back *to us* as viewers, so that understanding boundaries becomes, as well, understanding ourselves. Demarcating between art and life, boundaries point to fundamental truths about both, and in the process to qualities of being human in navigating between the two. Of the many cultural expressions on frames and borders, one painting stands out for precisely its sheer pathos in this connection drawn between boundaries and being human: René Magritte’s (and in this case aptly titled) *La Condition Humaine*.<sup>72</sup> *La Condition Humaine* (and others featuring the same theme, for Magritte was fond of repeating his visual tropes across several paintings) depicts a segment of a landscape portrayed as a near-continuous view, with consistent positioning, as seen both through a window and on a painted canvas set in front of the window. Magritte describes the painting thus: “In front of a window seen from inside a room, I placed a painting representing exactly that portion of the landscape covered by the painting.”<sup>73</sup>

71 Vivian Sobchack, “From Screen-Scape to Screen-Sphere: A Meditation in *Medias Res*,” in *Screens: From Materiality to Spectatorship – A Historical and Theoretical Reassessment*, eds. Dominique Chateau and José Moure (Amsterdam: Amsterdam University Press, 2016): 157-175, 158.

72 René Magritte, *La Condition Humaine (The Human Condition)*, 1933, oil on canvas, 100 cm x 81 cm, National Gallery of Art, Washington DC. Magritte actually made two similar paintings of this title, *La Condition Humaine I*, 1933, and *La Condition Humaine II*, 1935, the latter of the same dimensions as the first version and currently located at the Simon Spierer Collection in Geneva, Switzerland. Moreover, Magritte repeated *La Condition Humaine*’s theme of artifice against landscape in various other paintings, such as *La Llama de la Cimas (The Call of the Peaks)*, 1943, oil on canvas, 65 cm x 54 cm, The Magritte Museum, Brussels.

73 As quoted in Malcolm Andrews, *Landscape and Western Art* (Oxford: Oxford University Press, 1999), 124.



The key lies in the nuances of the word “exactly.”<sup>74</sup> The canvas’s depictions of the landscape outside the window very nearly – but do not quite – “exactly” match the view from it. What clearly and deliberately disrupt the painting’s otherwise flawless alignment are subtle yet unmistakable indications of the canvas’s borders as it rests on its easel – the faint strokes of the canvas outline, its edges topped and tailed by clip and stand, and a clear white strip along its right edge studded with pinheads that fix the canvas in place. In his letters, Magritte explains the painting as an interrogation of how a person sees the world, with its multiple representations indicating a viewer’s internal and external representations.

However, art critics such as Renée Riese Hubert go further, reading the painting as a veritable expression of creative failure:

When Magritte makes his spectator see simultaneously the landscape as a segment of nature and a work of art, he does not primarily deal with the question of aesthetic transformation. He stresses the creating, makes painting unnecessary, turns it into failure.<sup>75</sup>

Read this way, the painting becomes a statement on how “man in relation to both nature and art imprisons himself,” where the artist overlooks perspective and “forget[s] that the ‘outer’ landscape is situated at a certain remoteness, if compared to the proximity of the scene imprinted on the window or the easel.”<sup>76</sup> It is a stark announcement of defeat in bridging representation and object, marked by the highlighting of the canvas’s edges in what would otherwise have been indeed an “exactly” seamless placing. In short, the boundaries are always there; *the gap always shows*. But the painting is not only about failure, it is also about the desire to seal that gap, control our environments, master artifice and the virtual to the apogee of the real. It is about the broader yearning at play in our mediation of our surroundings

74 I take much trouble in qualifying the consistency of the view across canvas and window in *La Condition Humaine* because, to me, how the boundaries of the canvas patently and deliberately break up that consistency are paramount to its meaning and, above all, are crystal clear. It puzzles me why scholars tend to treat the view painted on the canvas without such qualification, such as Andrews, *Landscape*, who declares that “the artificial looks just as real as the scene it represents,” and that “the landscape inside the room is indistinguishable from the landscape outside,” 124. It is not. Otherwise, elsewhere Andrews also declares these distinguishing features to be part of a Surrealist dream, an “intrusion of something alien,” 126, which is an interpretation from another direction altogether.

75 Renée Riese Hubert, “The Other Worldly Landscapes of E.A. Poe and René Magritte,” *SubStance*, 6/7(21), (Winter, 1978-1979): 68-78, 72.

76 *Ibid.*

and our realities. Boundaries thus take on this weight of reference in relation to media and the human condition: in revealing the unbridgeable, the chasms, in turn, expose what we really want and the truths of being human in the failures to attain them. The significance of the boundary in *La Condition Humaine* is thus its revelation of the human condition in the way only boundaries can – in paradox, in riddle, in ascribing to what is there as much as what is not there. The painting is a powerful statement about why boundaries matter and, for that reason, will be a frequent reference in the ensuing chapters of this book. It is not only an inspiration, but also a thoughtful reminder of how, just as the chink in the armour does with weakness, it is the gap in the boundary which exposes truth.

Boundaries are thus important because they are prescriptive in fundamental ways, defining *ergon* against *parergon*; giving rise to the object of attention against what is to be ignored; creating meaning through what they privilege and what they exclude. They underpin significant theory for our understanding of images and realities. They are prime articulations of how, as humans, we seek and fail to master our world, and hence are in themselves fundamental expressions of who we are and what we desire. They are lines drawn in the dust of elemental contestations – human versus nature; art versus life; artifice versus organic; representation versus reality; copy versus original; virtual versus actual. Disrupting boundaries means revising the nature of these battlefields, and waging its wars anew.

## Chapter Outlines

The book will proceed as follows. Chapters 1 and 2 first elaborate on specific articulations of screen boundaries via cinema, television, video games and mobile apps, chosen as the main exemplars of screen media in the last hundred years. Each chapter presents a different argument on thinking through the screen in terms of its boundaries, and in particular showcases the paradoxes in their operative frameworks of image against its surroundings: chapter 1 on how screen boundaries display yet conceal the virtual against the actual; chapter 2 on how they separate and partition the image, yet are undermined by various practices and in particular the emergence of interactive media which destabilize their delimitations of screen reality. With readings through theory and examples, particularly from cinema, the two chapters demonstrate the contradictory nature of screen boundaries and the brittleness of their space. These contradictions in turn set up the book's main arguments for the more complex thresholds across virtuality



and actuality of the post-screen's disappearing boundaries in contemporary media.

Chapters 3, 4 and 5 formally address the notion of the post-screen through three media technologies: virtual reality (VR); holographic projection; and projection mapping. In particular, they highlight how the erosion of screen boundaries in each media form gives rise to the post-screen, and how each instantiation of the post-screen shifts our understanding of specific concepts in relation to images and representation: the placements of virtual and actual reality (chapter 3); the understandings of bodies, death, life and the afterlife (chapter 4); and the convertibility between materiality, matter, light, energy and mass (chapter 5), each chosen as the most apposite and arresting ideas to emerge from the respective technologies. While these concepts are discussed discretely within the chapters, they combine to colour the shifting real of the post-screen, where the fusion of the virtual and the actual builds a new imagination of both representations and objects, and, in turn, a new kind of media history.

Chapter 3 first situates VR in the context of totalizing media environments, before detailing its erosion of screen boundaries in terms of what I call "the affective surround." In turn, the totalization of reality in VR can be realized via two approaches: immersion and inversion. In this process, the post-screen emerges as renewed imbrications between the actual and the virtual not in terms of the more conventional paradigm of replacement (one for the other), but a more nuanced *re-placement* (one shifted to another) across VR's screen boundaries. This re-placement of the real thus provides a new paradigm in which to consider how actual and virtual realities intertwine in inherent paradoxes across screen boundaries. In turn, this paradigm sheds light on our processes of virtual perception, on remembering and forgetting, and on the dimensional shifts from the physical to the virtual.

Chapter 4 next considers the subverted boundaries of holographic projections as presentations of ghosts and apparitions. It first considers media's long history with death, ghosts and reanimation, tracing four different moments in that entwined trajectory: resurrection; necrophilia; necromancy; and interactivity. The last paves the way for the post-screen of holographic projections to radically relocate our ideas of the afterlife in two ways: the first as ghosts *amongst* the living in a newly nuanced limbo between deadness and aliveness; and the second as ghosts *of* the living, located in a tetravalence of their being here/elsewhere against their actuality/virtuality. Both senses of ghosts thus re-emerge in the post-screen with paradoxical spectralities: one as more alive *when* dead; the other as what I call being *vivified*, or bodies

gaining the realness of being alive in their being elsewhere on tetravalent axes of space/time and actual/virtual reality.

Chapter 4 then segues into chapter 4A as what I call a “remix chapter” which contemplates the post-screen through the true hologram, commonly misconceived as or mixed up with the holographic projections of chapter 4. The true hologram is not a projection, but relies on unique technical recording processes and technologies. Nonetheless, pivoting from the argument on ghosts from chapter 4, chapter 4A argues that the hologram may yet be considered an instantiation of the post-screen in terms of the spectral; the argument, though, takes on a very different shade. Rather, the post-screen through the true hologram expresses a different kind of ghost from a different kind of screen: in relation to the latter, an aggregate of brains, nerves and thought; and in relation to the former, the ghosts which emerge are ultimately those from the viewer’s own psychology, drawn from as much a different ontology of the world as points or point elements as the viewer’s own dreams and hidden secrets. The ghosts of the post-screen through the true holograms thus also *re-place* the living: not ghosts as from the dead or from the living’s being of elsewhere-ness, but from the living as re-placed to different levels of introspection and terms of being. These are ghosts which ultimately bound back to ourselves.

Finally, chapter 5 discusses the third instantiation of the post-screen through light projections, specifically advancing its argument on light as giving rise to dynamic interrelations between materiality and immateriality; matter and energy; rigidity and fluidity. As such, light projections translate the boundaries of the image across a variety of surfaces – the urban (e.g. building façades); the amorphous (e.g. water droplets and ash); and the biological (e.g. bodies and faces) – into the post-screen by way of their convertibility between matter, solidity and energy. In this frenzy of disembodiment, the post-screen here thus also sets itself out as part of a culture of gluttony for media, and in particular for images which dissociate themselves completely from the physical realities of their object. The contestation of the actual and the virtual thus takes on a different note here, where it is not just about the totality of the consumption of the image, but a clarion marker of a different chapter of media history: one whose ease of convertibility in the post-screen has also become a signal fire for the politics of the twenty-first century of misinformation, post-truth and shit storms. These ideas, drawn also in a late parallel against the viral contagion of the Covid-19 pandemic which has indelibly marked the world for at least the years of 2020-21, will be summarized in the book’s conclusion.

## The Post-what?

*What was separated in the past is now everywhere merged; distance is abolished in all things: between the sexes, between opposite poles, between stage and auditorium, between the protagonists of action, between subject and object, between the real and its double. And this confusion of terms, this collision of poles means that nowhere – in art, morality or politics – is there now any possibility of a moral judgement.*

~ Jean Baudrillard<sup>77</sup>

“The post-what?” enquiry of this section addresses the elephant in the room, which is the exponentially worn groove of the “post” prefix in critical theory. Even criticality is not spared, as seen in Michael Polanyi’s coinage of *the post-critical* that designates the shift of critique itself to being “beyond” “critical” sensibility.<sup>78</sup> Across the “post-” lexicon, the *posthuman* – in terms of the enquiry which decentres the human – is perhaps its most deep-rooted term, and in prolific use today across multiple disciplines. Yet, despite (or perhaps because of) its proliferation, even the posthuman itself splinters into various facets of “post-” concepts, as Rosi Braidotti and Maria Hlavajova’s 2018 *Posthuman Glossary* demonstrates with their extensive list of “critical terms of posthumanity.”<sup>79</sup> This list includes posthuman sexuality and posthumanist performativity, as well as more tangential “post-” tenets in the posthuman scope, such as postdisciplinarity, postanimalism, postglacial, postimage and postmedieval. In recent years, yet more “post-” terms have appeared in a slew of variations across diverse areas, appearing as post-media, post-cinema, post-Internet, post-virtual, post-digital, post-anthropocene, post-feminism, postmaterialism, posthumanities, postracial, post-truth, post-theory and post-algorithmic, just to name a few.<sup>80</sup> There are probably many more in the pipeline; the post-screen clearly has to take a number!

77 Jean Baudrillard, “Screened Out,” in *Screened Out*, trans. Chris Turner (London; New York: Verso, 2002): 176–180, 176.

78 Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Chicago, IL: University of Chicago Press, 1958).

79 Rosi Braidotti and Maria Hlavajova, *Posthuman Glossary* (London; New York: Bloomsbury, 2018).

80 It is impractical and unnecessary to list all references featuring these terms; a sample here will hopefully suffice: Roger F. Cook, *Postcinematic Vision: The Coevolution of Moving-Image Media and the Spectator* (Minneapolis, MN: University of Minnesota Press, 2020); David Theo Goldberg, *Are We All Postracial Yet?* (Malden, MA; Cambridge: Polity Press, 2015); Piotr Woycicki, *Post-Cinematic Theatre and Performance* (London: Palgrave, 2014); Vincent Mosco, *Becoming Digital: Toward a Post-Internet Society* (Bingley: Emerald, 2017); Nicos Komninos, *Smart Cities*



In that sense, the “post-” is undoubtedly trendy. However, its popularity also ironically threatens its ontology of distance, and hence critical relevance. Writing a concluding chapter (itself labelled a “post-script”) for *Media After Kittler*, Jussi Parikka comments tellingly on the disappearing distance between the object and its “after”: “Just when you thought (new) media studies got started it seemed already over.”<sup>81</sup> Insert “(new) media studies” with any discipline of choice – including, for that matter, (new) screen studies – and chances are its “post-” is already on the horizon. Yet, proclaiming the closure of an era to justify its “post-” requires genuine consideration, an exercise which entails honest and sometimes agonizing self-reflection. Miriam De Rosa and Vinzenz Hediger’s introduction of their edited issue, “Thinking Moving Images Beyond the Post-medium/Post-cinema Condition” in the *Cinéma & Cie* journal, is one example which reflects with candid frankness the “twists, negotiations, or even jolts” of the provocations posed by their choice of issue title. De Rosa writes: “Yet, after all that has been said and written, I am still not quite sure what post-cinema is” – by that honest disclosure, the ensuing examination also doubles up as a contemplation on “what cinema is” (or more accurately, perhaps, what pre- post-cinema is.)<sup>82</sup> By reflecting on the “post-” in its acknowledgement of the ambiguities surrounding the cessation of the “pre-”, the discussion becomes a fruitful re-visiting of the latter, while not losing the critical insights of progress and change via the former.

The *post-screen* thus not only jostles for space in a crowded forum, but also needs to justify its terms of discontinuation and bear its share of honest contemplation about the “previous” era. When did *the screen* end, and what is it that the post-screen is “post-” of? At risk of presenting a red herring, this book pursues neither of those arguments. “Post-” here is thus not employed in the sense of the “after” or “later,” per its literal meaning; it is not intended to denote any sort of stage in chronology. Indeed, the media examples deployed to argue for the post-screen in the following chapters will range across different eras from the analogue to the electronic to the computational. The

*in the Post-Algorithmic Era: Integrating Technologies, Platforms and Governance* (Cheltenham: Edward Elgar Publishing, 2019); and a classic: David Bordwell, *Post-Theory: Reconstructing Film Studies* (Madison, WI: University of Wisconsin Press, 1996).

81 Jussi Parikka, “Postscript: Of Disappearances and the Ontology of Media (Studies),” in *Media After Kittler*, eds. Eleni Ikonidou and Scott Wilson (London, New York: Rowman & Littlefield, 2015): 177-190, 177.

82 Miriam De Rosa and Vinzenz Hediger, “Post-what? Post-when? A Conversation on the ‘Posts’ of Post-media and Post-cinema” of “Post-what? Post-when? Thinking Moving Images Beyond the Post-medium/Post-cinema Condition,” *Cinéma&Cie: International Film Studies Journal*, XCI:26/27 (Spring/Fall 2016): 9-20, 10.



screen was and is still here, at least for now. The intention is not to declare its disappearance and/or account for its putative futures.

Rather, “post-” in terms of *the post-screen* is leveraged in two ways. The first is to hark to the *critical* sense of the “post-”, specifically that of the *posthuman* (and its associated tenets, particularly post-anthropocentrism). The post- of the posthuman does not so much define an “after the human” as much as it points to a critique of an ideal in terms of larger politics of entanglement, assemblage, intertwining and networking which today colours our understanding of our world, such as between human and non/inhuman entities, objects and non-anthropomorphic elements, subjects and objects. In parallel thinking, the screen does not warrant a “post-” so much in terms of its demise, but revised thinking of screen-based relations in similar expressions of entanglement, entwinement and new visions arising from them. Just as posthumanism re-oriented the relations of humans and their world, the post-screen colours another imagination of reality across the entanglements that contemporary eroded screen boundaries present in replacing and re-placing virtual and actual realities, viewers and images.

Such entanglement and enfoldment of actual and virtual is also, of course, not new. In the advent of digital imaging technologies at the turn of the twenty-first century, for instance, Lev Manovich ascribes to digital images new powers of connecting across distance between virtual and actual realities. In his essay, “To Lie and to Act,” Manovich identifies two functions that representational technologies serve: to deceive, and to enable action. On deception, Manovich discusses the role of cinema, particularly stylistic techniques of film positioning, editing and montage, in what he calls “creating fake realities.”<sup>83</sup> More pertinently, on enabling action, he highlights images of “telepresence,” such as those in virtual environments, against images of “teleaction,” such as those which enable “real-time remote control” – to “drive a toy vehicle, repair a space station, do underwater excavation, operate on a patient or kill – all from a distance.”<sup>84</sup> Images of “teleaction” are thus not mere representations of objects (or even representations of fake objects), but *enablers* of a new relation between image and object across the screen’s boundaries, whereby objects are not only “*turned into signs, but also the reverse process – manipulation of objects through these signs.*”

83 Lev Manovich, “To Lie and to Act: Cinema and Telepresence,” in *Cinema Futures: Cain, Abel or Cable? The Screen Arts in the Digital Age*, eds. Thomas Elsaesser and Kay Hoffmann (Amsterdam: Amsterdam University Press, 1998): 189-99, 191.

84 Manovich, “To Lie and to Act,” 198.

(emphasis in original)<sup>85</sup> Harun Farocki, in a 2003 lecture, echoes this idea as applied in the military context of the 1991 allied war against Iraq, where he calls such images, such as those recorded by cameras fixed on a missile warhead, “operative images” – “images that do not represent an object, but instead are part of an operation [of war].”<sup>86</sup> In the context of drone warfare, the results of embroilment between image and object are actually lethal. As remote sensing technologies become more common, virtuality and actuality thus connect in increasingly intense ways between image and action or consequence. They are not distinct realities separated by their boundaries, but operate across them in complex imbrications and relations.

Other scholars observe similar overlaps between the virtual and actual, if in different contexts. Sherry Turkle, for instance, wrote in 1995 about “life on the screen” as fluid intersections between onscreen and offscreen lives, specifically in terms of identity construction in the context of “eroding boundaries between the real and the virtual, the animate and the inanimate, the unitary and the multiple self.”<sup>87</sup> She quotes from “Doug,” a player of multi-user dimension (MUD) games: “RL [real-life] is just one more window.”<sup>88</sup> If those intersections over MUDs were fluid in their multiple and multi-variegated natures, the smartphone, circa 2007 a decade later, arguably annexed those boundaries as it “brought the internet into everyday life.”<sup>89</sup> Previously, “‘the internet’ and ‘real life’ were still separate domains, people had to ‘get online’ to move from one to the other.... A decade later, smartphones in hands, the distinction had evaporated.”<sup>90</sup>

The most interesting arguments, though, are those which more than exemplify imbricated virtual and actual relations across screen boundaries. Rather, they *re-characterize* this actual/virtual entwinement by shifting it

85 Manovich, “To Lie and to Act,” 199. As elaborated via Farocki, this relationship becomes perhaps most intense in relation to military warfare, where violence-at-a-distance via images becomes almost routine as paradigm and tactic, from the use of aerial photography in the First World War identifying bombing targets to images from cameras on missile warheads to the employment of drones today. For more on aerial photography, including its use in warfare, see Paula Amad, “From God’s Eye to Camera-eye: Aerial Photography’s Post-humanist and Neo-humanist Visions of the World,” *History of Photography* 36:1 (2012): 66-86. The drone, in view of its centrality in recent US remote warfare policies, must also surely be one of the most prominent signature objects of the contemporary moment: see Chamayou, *Drone Theory*.

86 Harun Farocki, “Phantom Images,” *Public* 29 (2004): 13-22, 17.

87 Sherry Turkle, *Life On the Screen: Identity in the Age of the Internet* (New York: Simon & Schuster, 1995), 10.

88 Turkle, *Life on the Screen*, 13.

89 “Books and Arts: Histories of the Web: Paradise Lost,” *The Economist*, February 22, 2020.

90 *Ibid.*



into another critical space. One such argument is Jean Baudrillard's thesis on simulation and simulacra, which not only demonstrates how the virtual copies and encroaches on the actual across its boundaries, but escalates that replacement into a different relational reality: the hyperreal. Baudrillard proposes the idea of a simulation of the world so perfect that it becomes a defining component of lived reality: "what was projected psychologically and mentally, what used to be lived out on earth as metaphor, as mental or metaphorical scene, is henceforth projected into reality, without any metaphor at all, into an absolute space which is also that of simulation."<sup>91</sup> Baudrillard demonstrates the simulacra with diverse examples, referencing theme parks (particularly Disneyland),<sup>92</sup> video recorders, virtual cameras, television, talk shows and reality shows.

However, it is Baudrillard's references to screen media, and the exchanges across the screen's boundaries between audience and image, which most viscerally capture the dystopia of the hyperreal. In turn, across various essays, Baudrillard paints this dystopia as a hunger that is not only insatiable, but borne precisely out of an apotheosis of media. In the face of "the collapse of the real and its double" as instantiated by media products such as reality television, Baudrillard charges that "the mediatic class" "is starving on the other side of the screen."<sup>93</sup> His solution? Transfer the viewer "not in front of the screen where he is staying anyway, passively escaping his responsibility as citizen, but into the screen, on the other side of the screen."<sup>94</sup> Or, in other words, initiate "the last phase," "where everybody is invited to present himself as he is, key in hand, and to play his live show on the screen."<sup>95</sup> The virtual here is not so much entwined with as it gobbles up the actual – "we have swallowed our microphones and headsets...we have interiorized our own prosthetic image and become the professional showmen of our own

91 Jean Baudrillard, "The Ecstasy of Communication," in *The Anti-Aesthetic: Essays on Postmodern Culture*, ed. Hal Foster (New York: The New Press, 2002): 145-153, 148. Also see generally Jean Baudrillard, *Simulacra and Simulation* (Ann Arbor, MI: The University of Michigan Press, 1994).

92 See Baudrillard, *Simulacra and Simulation*, 12-14. Also see Baudrillard, "Disneyworld Company," in *Screened Out*, 150-154.

93 Jean Baudrillard, "The Virtual Illusion: Or the Automatic Writing of the World," *Theory, Culture & Society*, 12 (1995): 97-107, 100.

94 Baudrillard, "The Virtual Illusion," 100.

95 Baudrillard, "The Virtual Illusion," 99. *The Truman Show*, directed by Peter Weir (1998; Los Angeles, CA: Paramount Home Entertainment, 2019), DVD, is a prime fictional work which co-opts this premise, where its main character, Truman Burbank, literally – if unknowingly – lives and presents his life, as live, on the screen. Chapter 2 elaborates further on the connections between screens and the film's denouement.

lives.<sup>96</sup> To this greed, this eclipsing of the actual by the virtual, this all-consuming reality of the hyperreal, Baudrillard gives a name: “the ecstasy of communication.”<sup>97</sup> But there are consequences to this ecstasy, namely, the suspension of moral judgement, as per the opening quotation of this section. This suspension, then, is the final critique of the hyperreal. It is not simply an observation of how far the virtual encroaches onto the actual for “the mediatic class,” to the point of a strangulation where “[t]here is no ‘Other’ out there and no final destination.”<sup>98</sup> The critique is about re-cognizing and re-characterizing that space of engagement, and identifying its perils and seductions, with or without any solution in the offering.

Encountering the world is thus as much about enquiring the meaning of its content as it is about bumping up against its expressive relations, with their associated analyses of critique, caution and assessment. Marshall McLuhan nailed this idea sixty years ago with the unbeatably catchy phrase, “the medium is the message,” where the study of any media object lies not, or at least not only, with the contents or operations of the object itself: “it mattered not in the least whether [the machine] turned out cornflakes or Cadillacs.”<sup>99</sup> What also mattered was the medium’s relations to the world which, in turn, shape our understanding of the political, cultural and social consequences and meanings of our actions.<sup>100</sup> Baudrillard echoes this approach, not only explicitly connecting screen media to its relational values across its boundaries, but also underscoring the transfigurations of ourselves and our societies as the true message of media:

The ‘message’ of the railways is not the coal or the passengers it carries, but a vision of the world, the new status of urban areas, etc. The ‘message’ of TV is not in the images it transmits, but the new modes of relating and

96 Baudrillard, “The Virtual Illusion,” 97.

97 See Baudrillard’s essay as titled “The Ecstasy of Communication.” See also Baudrillard, *Screened Out*, where he repeats the phrase in relation to the virtuality of cyberspace: “Both coder and decoder — in fact your own terminal, your own correspondent. That is the ecstasy of communication.” (179)

98 Baudrillard, *Screened Out*, 179.

99 Marshall McLuhan, “The Medium is the Message,” in Marshall McLuhan, *Understanding Media: The Extensions of Man*, 3<sup>rd</sup> ed. (Berkeley, CA: Gingko Press, 2013), 7-8.

100 As with Foucault’s regard on discourse, it is not about an expression or representation, but about “ways of constituting knowledge, together with the social practices, forms of subjectivity and power relations which inhere in such knowledges and relations between them.” As cited in Chris Weedon, *Feminist Practice and Poststructuralist Theory* (Oxford: Blackwell, 1987), 108.

perceiving it imposes, the alterations to traditional family and group structures.<sup>101</sup>

This book thus treads (and threads) across these ideas in thinking about the contemporary screen to encompass these meanings of relations, complexity and entwinement in its first sense of the “post-”: to study the screened world in a framework of expressive relations *as situated across the screen boundary*; to understand the relational constellations of images, viewers and imagination which arise out of contemporary media; to characterize, carve out and name an alternative critical space which may accommodate them. This sense of the “post-” would also be one that re-understands its relational complexities and differences in a way which generates possibilities, rather than spiralling copies and replacements of the actual by the virtual which only sound ominous warnings and admonitions of lost reality.

The second way of leveraging the “post-” would be in terms of its basic sense of the “after” – not by way of heralding the next stage in a chronology, but instead in a spatial sense by reaching for the richness of a critical space that is in some way *beyond* the object. Hence, while the screen is indubitably present in contemporary media, this book’s examination of eroding screen boundaries arches towards defining an if still un-defined space of being *past* the screen as an object. Put another way, this is also a gesture towards *no more screen*, a phrase adapted, if freely, from André Bazin’s proclamation of “no more cinema” in his 1971 reading of Vittoria De Sica’s “perfect aesthetic illusion of reality” as shown in De Sica’s 1948 film, *Ladri di Bicicletta*.<sup>102</sup> Celebrating the eschewal of spectacle as part of the film’s defining neo-realist style, Bazin observes how *Bicicletta*’s “‘integral’ of reality” presents “pure cinema”: “no more actors, no more story, no more sets.”<sup>103</sup> Bazin’s declaration of the purity of medium is inspiring here in how he not only deconstructs a new aesthetic via that recognition, but also embeds a core of truth in the erasure of cinema, where his concern in going *beyond* spectacle, or *beyond* event, nevertheless always retains a steadfast affinity with the real. In thinking about the erasure of screen boundaries to that point or space of its beyond – and

101 Jean Baudrillard, *The Consumer Society: Myths and Structures* (London; Thousand Oaks, CA; New Delhi: Sage Publications, 1998), 142.

102 André Bazin, “*Bicycle Thief*,” trans. Hugh Gray, in André Bazin, *What Is Cinema*, Vol. 2, 2<sup>nd</sup> ed. (Berkeley, CA: University of California Press, [1971] 2005): 47-60, 60.

103 Bazin, “*Bicycle Thief*,” 60.



hence the sense of the “post-” – this book thus takes Bazin’s approach of purity and truth as an inspiration, namely, to see where we can get to on a *tabula rasa*: no more edges, no more perimeters, no more borders, no more screen.

Yet “no more screen” is not a point of finality. Rather, in the void it portends springs a deeper examination of its stakes and meanings. Baudrillard, in the opening quotation of this section, points out the merging of all that “was separated in the past” and, more importantly, the ensuing absence of moral judgement as its result. Attention thus also has to be paid to the moral meaning of separations, demarcations, ontological “cuts” and boundaries. This includes not only thinking about the value of the in-between, but also the losses from and thereby any possible redemptions for that world which now no longer *has difference*, or no longer contains any discernible differentiation between image and object. The message of media is thus also one that should contain space which safeguards the possibility of making moral judgement; losing that space – rather than the real – is the true peril.

The conceptualization, terminology and representation of the *post-screen* thus converge out of these two vectors of thought and against these motivational contexts for discerning meaning, relations and conceptual space. As with Bazin and cinematic realism, as with Magritte’s *La Condition Humaine*, as with Baudrillard’s dire warning in the opening quotation of this section, the critical argument of the post-screen ultimately rounds back to the human – specifically, what is gained and lost in our understanding of ourselves from the erosion of screen boundaries and the absence of differentiation. In the main, this book is an observation about the screen boundaries in the current screen-based era. Its armature for these observations is three media technologies – Virtual Reality; holograms and holographic projections; and light projections – chosen for their unique manifestations of screen boundaries, and the complications they present on separations and demarcations. However, like religion and art, media is ultimately about the fulfilment of inner human longings, even as it folds and enfolds complex assemblages of materialist concerns, ideological politicking, ethical responsibilities, aesthetic interest and so on. In media lie mysterious appeals by the soul out of which people acquire a more mystical happiness beyond the brute needs for food, water, shelter and so on. Here I bring up, again, John Durham Peters’s work in his book, *The Marvellous Clouds*, as another core inspiration. Explaining the premise of what he means by the meaning of media (which is that it does not “mean”; it “is”), Peters illustrates his point via a description



of a seemingly banal family call on the pay phone, long-distance from Jerusalem to Tel Aviv, fraught with danger and laden with emotion: “The import of the call was existential, not informational”; the “medium” is about “disclosure of being rather than clarity of signal.”<sup>104</sup> In terms of *what media is*,<sup>105</sup> the post-screen – namely, the thinking of screen boundaries in its “post-” space – also rests on its theorization in terms of the more abstract, existential aspects of our being and in how we are in it as humans.

Interestingly, though, while of a higher order, these longings incarnate to a corporeal level as a hunger, with media as the food to satiate it. Here, then, is where screens also become the interface *par excellence*, transforming into channels of nourishment and gratification. Baudrillard, as mentioned above, describes the “starving” “mediatic class” on the other side of the screen, who cross screen boundaries to devour the mediated versions of themselves, microphones and all. In 1984, Sherry Turkle wrote of another hunger – one for intimacy and emotional connection – which got fed by the computer and the mediated connections it provided:

Terrified of being alone, yet afraid of intimacy, we experience widespread feelings of emptiness, of disconnection, of the unreality of self. And here the computer, a companion without emotional demands, offers a compromise. You can be a loner, but never alone. You can interact, but need never feel vulnerable to another person.<sup>106</sup>

However, as contemporary users are discovering today, media not only feeds the hunger, but perpetuates a vicious circle around it. Media’s only dogma is its constant consumption so that users continue paying their account subscription fees to fill the coffers of media and technology companies and generating data and online footprints for them to monetize... so that they may create more media. From Candy Crush addictions to non-stop Google searches to Netflix binge-watching, contemporary media users ceaselessly offer up at that church. Take, for instance, the syndrome of FOMO, an acronym for “fear of missing out,” characterized as “the desire to stay continually connected with what others are doing,”

104 Peters, *The Marvellous Clouds*, 14.

105 A deliberate play of words here referencing André Bazin’s famous cinema book title, *What is Cinema*, as well as Dudley Andrew’s reply via his own book title, *What Cinema Is! Bazin’s Quest and its Charge* (Chichester: Wiley-Blackwell, 2010).

106 Sherry Turkle, *The Second Self* (New York: Simon and Schuster, 1984), 307.



particularly vis-à-vis social media,<sup>107</sup> and also often associated with elements of mental ill health such as anxiety and compulsion.<sup>108</sup> While there are many personal and social complexes which drive FOMO, at its heart is essentially a hunger to devour more media content. Its pushback, then, is to fast via a complete cessation from media consumption such as by “unplugging from technology,” per advice from the Sabbath Manifesto, which also advocates a “National Day of Unplugging” (1-2 March 2019), encouraging pledges to “unplug from technology regularly” and “carve a weekly timeout into our lives.”<sup>109</sup> This feast-and-famish cycle of FOMO accentuates the nature of media as a real yet chimerical fuel: it sates something deep within the human psyche, but also produces misery out of ever more profound kinds of hunger. Its nature is changeless, but takes various forms. As Turkle writes: “Today we suffer not less but differently.”<sup>110</sup>

This book, in its “post-screen” ethos of *no more screen*, thus also attempts to explain our human condition as a quest for *another kind of space to feed the hunger*. Its argument is not a social science ethnography of media consumers to identify their hunger or otherwise. Its argument is to assert and give a name to a mediascape of eroding or erased screen boundaries and to re-think the signified meanings of that world. But boundaries also relate to the existential conditions of humans’ inner lives, because they are powerful. Boundaries represent change. They usher in different states, spaces and places. They promise a new way of being. From mirrors to windows to door frames and, of course, to screens, humankind’s myths, fairy tales and classic stories contain multiple boundaries which are portals to transformation of selves, worlds and destinies: think Alice’s looking glass; Snow White’s mirror; Coraline’s secret door; the wardrobe door to Narnia; the role of Portunus as the ancient Roman god of keys, doors and ports, just to name a few examples. Even the most prosaic makeover shows on daytime television reveal the made over (and ostensibly better looking) participants through suitably dramatized opening doors.

107 A.K. Przybylski, K. Murayama, C.R. DeHaan and V. Gladwell, “Motivational, emotional, and behavioral correlates of Fear of Missing Out,” *Computers in Human Behavior* 29 (2013): 1841-1848, 1841.

108 See Michael Shea, “Living with FoMO,” *The Skinny* online, July 27, 2015, <https://www.theskinny.co.uk/students/lifestyle/living-with-fomo>.

109 As quoted from the cover page of <http://www.sabbathmanifesto.org/>.

110 Turkle, *The Second Self*, 307.



It is thus possible to read change and transformation across screen boundaries as solutions to the hunger, namely, as an escape. Escape across screens is a familiar connection, made most notably vis-à-vis video games and virtual worlds, whose virtual realities through the screen, allowing for freer expression of self, identity and so on, provide a welcome refuge from the more grounded world of the flesh.<sup>111</sup> This idea takes further root in relation to computers, as established by Apple's famous 1984 television commercial for its first Macintosh computer broadcast at the Super Bowl. A veritable classic today, if perhaps only in the histories of advertising and Silicon Valley lore, a young woman bursts into a large Orwellian screening room, complete with an audience who sits in rows like grey-clad worker automatons in Fritz Lang's 1927 film, *Metropolis*. She runs down the aisle, pursued by riot police, swings a sledgehammer in both hands and lets it fly towards the giant screen. The screen shatters, "and liberates the enslaved audience from the tyranny of command line interfaces and *c//*: prompts with the power of Mac's GUI (graphical user interface)."<sup>112</sup> On one level, the smashing of the screen heralds its literal visual transformation as an interface; on another level, it is also a nod to how the screen is the frontline to transformations of worlds, ideology and ways of being. It is an escape route, and its boundaries are its threshold.

However, the erosion of screen boundaries melds reality between the virtual and the actual, and seals this escape route. As the distinction between the two disappears, one can no longer become a getaway from the other. The familiar desperation of inescapable simulacra beckons. But we might thus also read this phenomenon as a different space – the post-screen not as a straightforward escape, but a *transcendence*. Or, evoking the sense of Mircea Eliade's oft-used term, a "hierophany," which refers to "something of a wholly different order," of "a reality that does not belong to our world, in objects that are an integral part of our natural 'profane' world."<sup>113</sup> In this reading, the actual and the virtual, still integral in themselves, combine in the post-screen space *beyond* for something *else*, for that "something of a wholly different order." Hunger – and as a theme which threads through

111 See, in particular, Sherry Turkle's work in *The Second Self*; also, Henry Jenkins, "Complete freedom of movement': Video Games as Gendered Play Spaces," in *From Barbie to Mortal Kombat: Gender and Computer Games*, eds. Justine Cassell and Henry Jenkins (Cambridge, MA: MIT Press, 1998): 262-297.

112 Peter Lunenfeld, "The Myths of Interactive Cinema," in *Narrative Across Media: The Languages of Storytelling*, ed. Marie-Laure Ryan (Lincoln; London: University of Nebraska Press, 2004): 377-390, 378.

113 Mircea Eliade, *The Sacred and the Profane* (New York: Harper, 1961), 11.



this book – is thus no longer a void gripped in an overwhelming need to be filled with illusory satiation. It becomes a statement for a different order of things and for what our media histories have become. The hope, then, is that it becomes something else in turn, returning to the higher order of what media has always meant to being human – a mode of spirituality. The fear is its failure to do so.

