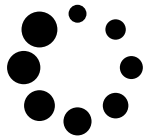


AN-ICON



# The Environmentality of Immersive Projection: The Nature of Scale

by **Giuliana Bruno**

Atmospheric thinking  
Ecology of immersivity  
Empathy and immersion  
Scale and magnification  
Jesper Just

## AN-ICON Studies in Environmental Images

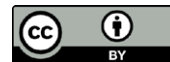
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# The Environmentality of Immersive Projection: The Nature of Scale



GIULIANA BRUNO, Harvard University – <https://doi.org/10.54103/ai/19827>

## Abstract

How does an artwork express an “environmentality?” Can we redefine immersion, in critical terms, as a form of environmental projection? In taking up such questions from my latest book, *Atmospheres of Projection: Environmentality in Art and Screen Media*, my text addresses the relation between projection and environmentality in the visual arts in order to question immersivity. Confronted with the phenomenon of environmentalization, we need to re-imagine the ecology of representation. Positing ecology as an environmental relation, I will consider its artistic imagination both historically and theoretically. I propose that we revisit the environmentality of media archaeology to understand how this impulse is furthered in current moving-image projections in the art gallery that call themselves immersive. I will especially address environmentality as it relates to movement and scale, questioning the relation between immersion and magnification. I will advance my argument by presenting the large-scale moving-image installations of the Danish-born, New York artist Jesper Just. Does magnification always, only imply spectatorial immersion? Other forms of experience arise when confronting an ecology of scale in art. What else happens when we scale? Can immersion be understood, more critically, as a form of environmental absorption? In recasting immersion in environmental terms, I propose that we consider absorption as empathic projection with space. In shifting from the human

subject's own immersive identification to this critically aware, enveloping *field* of empathic projection with the non-human, we can discard the prevalent human-centric position that pervades most immersive discourses. A different ecology of immersivity rises to the surface by relating the empathic “projective imagination” to “atmospheric thinking.”

Keywords [Atmospheric thinking](#) [Ecology of immersivity](#)  
[Empathy and immersion](#) [Scale and magnification](#)  
[Jesper Just](#)

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For some years now the activity of the artist in our society has been trending more toward the function of the ecologist: one who deals with environmental relationships. Ecology is the [...] pattern of relations between organisms and their environment.<sup>1</sup>

How does an installation artist construct an atmosphere? What are the “elements” of its architecture – the visuals and sound – that design the ambiance of an aesthetic environment? In other words, how does an artwork express an “environmentality?” These questions are central to my latest book, *Atmospheres of Projection: Environmentality in Art and Screen Media*, and will be reprised in this essay with regard to the topic of this publication.<sup>2</sup> I will address the relation between projection and environmentality in the visual arts with the aim of questioning the notion of immersivity and critiquing a strain of its dominant discourse. I am interested in exploring whether we can understand immersion as an atmospheric ambiance and redefine it, critically, as a form of environmental projection. We are indeed confronted today with various forms of environmentalization.<sup>3</sup> This phenomenon asks us to reimagine the very ecology of immersivity.

I understand ecology, as Gene Youngblood prefigured in envisioning an “expanded cinema,” to be a fundamental form of environmental relation and relatedness. Such a form of relationality needs to be considered in the realms of history and geography in order to discern how the phenomenon of environmentalization affects the space of the visual arts and its transformations in time. In this respect, I propose that we reconsider the early history

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1 G. Youngblood, “The Artist as Ecologist,” in *Expanded Cinema* (New York: E. P. Dutton, 1970): 346.

2 See G. Bruno, *Atmospheres of Projection: Environmentality in Art and Screen Media* (Chicago: University of Chicago Press, 2022), which considers the interrelations of projection, atmosphere, and environment, linking “the projective imagination” to forms of “atmospheric thinking.”

3 See A. Pinotti, “Towards An-Iconology: The Image as Environment,” *Screen* 61, no. 4 (Winter 2020): 594-603, <https://doi.org/10.1093/screen/hjaa060>.

of projection to account for the changes in its environment that are occurring in the arts and media of our time. I have long argued that an environmentality is rooted in the genealogy of the moving image in modernity.<sup>4</sup> It was particularly present in the panoramic visual culture that emerged at the birth of the art of projection. The extensive phenomenon that involved spectators flocking to experience the enveloping ambiance of a panorama might be considered an early experiential form of immersivity.<sup>5</sup> In an effort to recast immersion in this historic setting and understand it as a more panoramic and ambient situation, I will consider the environmentality of this form of media archaeology. I will do so in order to explore how a panoramic impulse is furthered in contemporary moving-image projections in the art gallery that call themselves immersive.

Such an exploration will redefine immersivity in spatiotemporal terms as an atmospheric envelopment, while analyzing the making of this ambient space in visual art. In linking up the early environmental impulse of pre-cinematic projection to the post-cinematic art installation of our times, I will especially address issues of movement and scale. I pursue this path of mobility and scaling to question the passivity, inactivity, and individuality that is usually attributed to immersivity, and to challenge a fixation on the subject's optical identification with the device that produces immersion. In contrast to these views that often color both the practice and discourse of immersion, I wish to establish a much less static and more haptic paradigm

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4 See G. Bruno, *Atlas of Emotion: Journeys in Art, Architecture, and Film* (London: Verso, 2002); and G. Bruno, "The Screen as Object: Art and the Atmospheres of Projection," in C. Iles, ed., *Dreamlands: Immersive Cinema and Art, 1905-2016* (New York: Whitney Museum of American Art, 2016, exhibition catalogue): 156-67.

5 On the subject of early immersive views, see, among others, A. Griffiths, *Shivers Down Your Spine: Cinema, Museum, and the Immersive View* (New York: Columbia University Press, 2008).

that emphasizes the relational activation of spectatorial mobilities and the mobilizing force of atmosphere.

To this end, I will especially rethink the relation between immersion and a specific architecture: the “magnification” of the image. This phenomenon, first defined by early film theorist and filmmaker Jean Epstein, has itself today become magnified.<sup>6</sup> In current popular and even theoretical discourses on virtual or augmented reality, there is a tendency to believe that a large projective image necessarily induces immersion. But do we really need to collapse these two notions? Does magnification always imply spectatorial immersion?

I am interested in pursuing other forms of experience that arise when confronting an *ecology* of scale. Scaling has long been practiced in art history, where magnification has gone hand in hand with miniaturization.<sup>7</sup> And large scale has not always manifested itself as an immersive condition. Nor has it necessarily implied an affirmation of the sublime, with its immersive vision of boundless infinity and arresting effects of awe. In my view, the most interesting way of understanding scale is in relation to other aesthetic histories and especially as an architectural practice. This is because in architecture scaling is an essential tool for building an environment. Hence a central question for me is: What happens to a projective environment when we scale? Can the effects of large forms of scaling imply a critical awareness, a participatory relationality? Finally, can immersion be redefined, more critically, as an active, transformative form of absorption in an environment?

In recasting immersion in these different, more dynamic environmental terms, I propose that we consider its perceptual affects as well as effects. For immersive

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6 See J. Epstein, “Magnification and Other Writings,” *October*, no. 3 (Spring 1977): 9-25, <https://doi.org/10.2307/778434>.

7 For a treatment of scale in art history, see J. Kee, E. Lugli, eds., *To Scale* (Oxford: Wiley Blackwell, 2015).

effects are indeed affects. To be aesthetically absorbed in space mobilizes a particular affect: a feeling of empathy and sympathy with the space itself – the atmosphere – in which one is immersed. As an aesthetic practice, absorption engages an empathic “projection” into an environment. It is a form of envelopment in an atmosphere. And thus, to move away from optical immersivity toward an awareness of this atmospheric environmentality, I suggest in my book turning to theories of empathy and sympathies with space, and advancing their discourse in contemporary ways.<sup>8</sup>

Let me simply mention here the writings of Theodor Lipps, who developed a vision of *Einfühlung*, or *in-feeling*, as a spatial empathy, and whose notion of empathic projection in ambiance possessed an atmospheric quality and tonality that aligns closely with the discourse on *Stimmung*.<sup>9</sup> This atmospheric, tonal interpretation of the transmission of affects in art has been inspirational to my work, and some aspects of empathy and sympathy appear to be returning, with different interpretations, in other new materialist, “sympathetic” forms of aesthetic philosophy.<sup>10</sup>

With the specific aim here of expanding the projective reach of absorption in aesthetic space, one might turn in particular to “the laying bare of empathic projection” as recently reconsidered by Michael Fried.<sup>11</sup> The art historian has long been interested in the “the invention of

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8 For further articulation of this subject, see G. Bruno, *Atmospheres of Projection*, especially: chapters 2-3.

9 See, among others, T. Lipps, “Empathy and Aesthetic Pleasure” (1905), in K. Aschenbrenner, A. Isenberg, eds, *Aesthetic Theories: Studies in the Philosophy of Art* (Englewood Cliffs NJ: Prentice-Hall, 1965): 403-12; H. F. Mallgrave, E. Ikonomou, eds., *Empathy, Form, and Space: Problems in German Aesthetics, 1873-1893* (Santa Monica: Getty Center for the History of Art and the Humanities, 1994).

10 See J. Bennett, “Of Material Sympathies, Paracelsus, and Whitman,” in S. Iovino, S. Oppermann, eds., *Material Ecocriticism* (Bloomington: Indiana University Press, 2014): 239-52; J. Bennett, *Influx & Efflux: Writing Up with Walt Whitman* (Durham NC: Duke University Press, 2020).

11 M. Fried, “The Laying Bare of Empathic Projection,” in *Four Honest Outlaws: Sala, Ray, Marioni, Gordon* (New Haven CT: Yale University Press, 2011): 205-15. For a different interpretation of empathy in art, grounded in the political force of trauma and sensitive to its cultural memory, see J. Bennett, *Empathic Vision: Affect, Trauma, and Contemporary Art* (Stanford CA: Stanford University Press, 2005).

absorption.”<sup>12</sup> what he calls “a powerful mode of emotional communication [that] can be actuated by absolutely minimal physiognomic and gestural means.”<sup>13</sup> Such a minimal, non-representational form of “empathic projection” communicates an *atmosphere* of inner absorption. It is interesting that Fried borrows the term “empathic projection” from the philosopher Stanley Cavell, for whom this is a path for overcoming the borders of separation and creating “a seam in human experience.”<sup>14</sup>

If understood as such a *projection*, an immersive process can create relational seams that are atmospheric joinings and affective joints. To perceive empathy with space is to sense the ecology of its atmospheric, situational existence in time. This experience of an atmospheric tonality has the connective capacity to bridge the divide between subjects and objects. An empathic absorption in an environment further connects the human and the nonhuman, creating an experiential seam between the animate and the inanimate. If we become attuned to sensing immersivity as such an active, interstitial space of relation, we can access an ecology of relationality that is not confined to anthropocentric modalities. Environmentality, then, offers a way not only to reclaim empathic projection in art but to project it into larger ecologies.

In the form of “empathic projection” practiced in the art of cine-projection, the work of technology extends to the surroundings, and this affects its atmosphere. The projective apparatus itself plays an important part in this process of absorption. A deeper absorptive modality surfaces in environmental artworks that do not hide their own

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12 M. Fried, “Four Honest Outlaws:” 208.

13 M. Fried, *The Moment of Caravaggio* (Princeton NJ: Princeton University Press, 2010): 76-7.

14 S. Cavell, *The Claim of Reason: Wittgenstein, Skepticism, Morality, and Tragedy* (New York: Oxford University Press, 1999): 425.



projective mechanism in their temporality and spatiality.<sup>15</sup> The energy of a diffused projective empathy is mobilized when a self-reflexive technology reveals its own mechanism at play, laying it bare and activating it in ambiance. If we recast immersivity with this sense of environmentality – that is, with awareness of the cultural techniques that make it possible – we can discard the prevalent human-centric, perspectival position that pervades most immersive discourses. We can overcome the fixation on the human subject’s visual identification and singular preoccupation with the projective apparatus, especially those of VR or AR, to focus instead on the inanimate, the environment, and the natural realm. It is time to stop putting individuality and opticality at the center of immersivity, and to pursue a more critically aware, haptic *field* of empathic projections. In this way, a different ecology of immersivity and relationality can rise to the surface in enveloping forms of environmental screening that link the “projective imagination” to an “atmospheric thinking.”

## **Environmentality and Empathic Projection in Art**

Having laid out my theoretical premises, let me now turn to an artistic practice that is in line with what I have proposed. I like to think closely, along and through the work of contemporary artists who perform analytical gestures of environmental projection. Hence, I will pursue my critical argumentation about immersion by navigating through the work of the Danish-born, New York-based artist Jesper Just, whose forms of empathic projection express an atmospheric thinking. I will specifically address the manifestation of

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15 On this subject, see K. Wilder, “Projective Art and the ‘Staging’ of Empathic Projection,” *Moving Image Review & Art Journal* 5, no. 1-2 (2016): 125-40, <https://doi.org/10.1386/miraj.5.1-2.124> 1. Wilder analyzes in particular the experimental landscape films of Chris Welsby.

scale and the magnification of the image in these works to challenge the notion that these are totalizing immersive conditions. His work will also enable us to rethink a crucial architectural component of immersivity: the design of an installation.

A projection that is “environ-mental” – that creates a psychic atmosphere of empathy with space, its size and motion – arises in the ambiance of Just’s moving-image installation *This Nameless Spectacle*, presented several times since 2011. This is due to the self-aware design and spatial construction of the installation. As viewers walk into the gallery space, they confront two very large screens that face each other. Each screen measures approximately twenty meters in length by five meters in height. As they are also placed more than twenty meters apart, it is hard to escape the sense of magnitude of this projection.<sup>16</sup> The massive scale of the installation provokes a physical reaction, demanding that the viewers become not simply immersed but rather “incorporated” into it. Indeed, one cannot help being absorbed into the space of this projection, empathetically enveloped in its atmosphere.

To understand what is going on in this magnified ambiance of projection, gallery viewers must position themselves in the midst of this moving work and negotiate a space between the large ambient screens. Moving along the course of the gallery, not only a physical displacement but also an imaginary motion takes hold of one’s body. A form of “empathic projection” is triggered here because the work lays bare its exhibitionary mechanism, showing off its magnificent projective scale in moving form.

Confronting this particularly large species of screen, and the distance that both isolates and unites the

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<sup>16</sup> *This Nameless Spectacle* was conceived and exhibited with these dimensions as part of the monographic exhibition *This Unknown Spectacle*, devoted to the work of Jesper Just, on view October 21, 2011-February 5, 2012, at MAC/VAL, Musée d’Art Contemporain du Val-de-Marne, France.

two screen entities, one's habitual relation to space, even the space of one's body, changes. Different types of scaling are confronted, haptically sensed, resulting in a sculptural experience of screen architecture. As the projective screen becomes a sculptural object, it impels the viewer to become more aware of volumes. One constantly has to measure the scale of one's body against the scale of this milieu of projection.

Corporeally absorbed in the space of this video work, rather than being optically, passively immersed, viewers physically experience a form of spatial, even atmospheric "perturbation." Nothing is static on these encompassing screens, including the landscape they present. At the beginning of the film, the camera tracks through the space of a park. An atmosphere blossoms into being here: as the light shimmers on the leaves of trees for a long while, the sound of movement can be heard. You follow the sound cue that propels you to continue through the space of the park, sensing its atmosphere, breathing its "air."<sup>17</sup> There is a breeze, and the tree branches tremble and quiver. The motion of leaves in the wind on one screen always finds corresponding atmospheric movement on the other. These screens, you discover, always move in unison, often giving the impression of a movement advancing through space. Different views and vistas are presented, and you feel as if you were actually "tracking" through the park, sympathetically absorbing its atmospheric scenery.

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17 As further developed in *Atmospheres of Projection*, an "air" is here understood to be the atmosphere of a site, and an affect that affects us. On the effects of air in painting, see G. Didi-Huberman, "The Imaginary Breeze: Remarks on the Air of the Quattrocento," *Journal of Visual Culture* 2, no. 3 (2003): 275-89, <https://doi.org/10.1177/1470412903002003001>; S. Connor, *The Matter of Air: Science and Art of the Ethereal* (London: Reaktion, 2010).

## Panorama of a Historical Movement, while Absorbed in the Atmosphere of a Park

A park [is] a process of ongoing relationships existing in a physical region [...] a “thing-for-us.”<sup>18</sup>

As you navigate the sea of images of this environment, you end up displaced back in time as well as destabilized by atmospheric perturbations. The scale of the installation space communicates a geology of stratified temporalities and nonlinear times. With *This Nameless Spectacle*, Just has created a post-cinematic ride that takes us inside the prehistory of large-scale visual display. As it transports us through the atmosphere of the park, it leads us to rediscover the environmental configuration of modern visual culture and the emergence of a form of immersive projection from its very atmosphere.

The point of entry that Just stages for *This Nameless Spectacle* is the Parc des Buttes Chaumont, a public garden, developed as part of the plan for remodeling the urban fabric of Paris directed by Georges-Eugène Haussmann. The manner in which Just films in this park, employing scale and movement in its depiction, reveals the cultural ambiance of environmentalization of which the park is a part. In the nineteenth century, an ambient movement arose across diverse cultural expressions, including landscape design. Moving along the path of modernity from view painting to garden views, from travel sketches to itinerant viewing boxes, from panoramas and other geographical “-oramas” to forms of interior/exterior mapping, from the mobile views of train travel to urban promenades, a transformative experience of spatial absorption was born. This

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18 R. Smithson, “Frederick Law Olmsted and the Dialectical Landscape,” in N. Holt, ed., *The Writings of Robert Smithson*, (New York: New York University Press, 1979): 119.

new geography was the product of a “panoramic vision” that dynamically reconfigured the environment.<sup>19</sup>

In this novel geovisuality, sites were set in moving perspectives, expanding both outward and inward as they were absorbed and consumed in movement by the spectator. This new ambient sensibility engaged the physicality of the observers, challenging their ability to take in a mobilized space. And from this moving panorama at the end of the nineteenth century a new observer emerged in the persona of the film spectator, a body empathically “projected” into an environment of moving images.<sup>20</sup>

With *This Nameless Spectacle*, Jesper Just impels us to travel back to this history of “site-seeing.” He employs a panoramic mode of spatio-visual construction, and does so to expand the potential of this precinematic history in our times. Absorbed in this projective space, one can experience in particular the sense of scale and the atmospheric touch of garden vistas. Garden views created the experience of embracing an environmental terrain, and of being enveloped in its ambiance. They combined a sensualist theory of the imagination with a touch of physicality. The garden designs of modernity engaged the corporeality of the body in the moving absorption of an environment. Automata, sculptures, and playful fluid mechanisms that included fountains and watery landscapes enhanced this natural atmospherics, as is the case with the Parisian park Just films. The vistas themselves incited viewers to move into the transformation of an ambiance. Ultimately, then,

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19 See W. Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (Berkeley: University of California Press, 1977).

20 For a more extensive treatment of the history of modern, mobilized space, see, among others, G. Bruno, *Atlas of Emotion*; A. Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge MA: MIT Press, 2006); F. Casetti, *Eye of the Century: Film, Experience, Modernity* (New York: Columbia University Press, 2008); L. Charney, V.R. Schwartz, eds., *Cinema and the Invention of Modern Life* (Los Angeles: University of California Press, 1995).

landscape offered the body an ever-changing experience of atmospheric spatio-visual display.

As one ponders the origin of this embracing space – a landscape of “atmospheric screening” – one realizes why Just chose this setting for *This Nameless Spectacle*. This is an installation that enhances the material apparatus of visual display to create an environmental projection. Landscape is not at all a simple background here but rather the moving core of a technology of projection that self-reflexively incorporates a historical setting in its very ambiance. Its design holds within itself the actual movement in space that led from garden views to the establishment of the filmic screen as a place for pictures to be “sensed” in projective, atmospheric motion.

*This Nameless Spectacle* reminds us that the garden, like the cinema, is not an optical but a haptical affair, inviting empathy with space. The picturesque garden, in particular, was the place that historically “enable[d] the imagination to form the habit of feeling through the eye.”<sup>21</sup> It was an affective “mode of processing the physical world for our consumption.”<sup>22</sup> This modern landscape initiated a form of immersivity that is a virtual form of touch, putting us “in touch” with inner space and engaging all senses synesthetically in shifting sensations of ambiance. Empathic projection would be felt as one’s interiority was mobilized in the process of relational connection with the natural site. A reciprocal, sympathetic relation with the nuances of ambiance was thus established in architecting the atmosphere of the garden.

In moving through the Parisian park in *This Nameless Spectacle*, Just retraces this ambient genealogy of modernity: the mobilization of atmosphere, understood

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21 C. Hussey, *The Picturesque: Studies in a Point of View* (London: G. P. Putnam’s Sons, 1927): 4.

22 J. Dixon Hunt, *Gardens and the Picturesque: Studies in the History of Landscape Architecture* (Cambridge MA: MIT Press, 1992): 4.

also as affective ambiance, in an environmental process that traveled from landscape design to cine-projection. In this ambient sense, as the shimmering light of the projection, the breath of air, and the motion of the wind come to be virtually sensed on one's skin, a real atmospheric "perturbation" can be felt in the installation. Even an effect of weather arises in this empathic projection. And so environmental phenomena that are present in a natural landscape come to join the very atmosphere of projection.

### **Environments of Projection: A Digital Mareorama**

Announcing an upheaval in the relation of art to technology, panoramas are at the same time an expression of a new attitude toward life.<sup>23</sup>

In the context of this environmental panorama, the technique of projective display of *This Nameless Spectacle* is also to be considered, especially as it regards absorption in scale. The spatial arrangement of the work, set on two large screens that appear to roll out moving images for a spectator in their midst, mediates a haptic, atmospheric communication that clearly reinvents modernity's panoramic forms of immersive exhibition. This contemporary mode of enveloping display exhibits a fluid technological history of environmentality, especially in its way of mobilizing scale. In its gigantic mobility, it specifically recalls the technique of the "moving panorama."

A product of nineteenth-century's exhibitionary culture, the panorama form is usually associated with enormous paintings exhibited in circular spaces, surrounding

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23 W. Benjamin, "Paris, the Capital of the Nineteenth Century (Exposé of 1935)," in *The Arcades Project*, trans. H. Eiland, K. McLaughlin (Cambridge, MA: Belknap Press-Harvard University Press, 1999), 6.

the observer with the weight of their scale.<sup>24</sup> One application of this giant form of display included movement. Inspired by the circular panorama, the moving panorama was particularly engaged with geography.<sup>25</sup> A popular form of entertainment across Europe and the United States, moving panoramas offered spectators the sensation that they themselves were being transported as images of space scrolled panoramically before their eyes, with sound and light effects that enhanced the overall sense of transport.

The apparatus of display played an important part in the construction of this absorbing geography, which was not merely representational. A framed fabric of drawable curtains, moved by a mechanical cranking system, could suffice to produce the effect of a moving screen, turning into an enveloping scrolling screen. But more complex mechanisms were also devised, and the most advanced were exhibited at the 1900 Exposition Universelle Internationale, in Paris. The Stereorama, for one, let spectators imagine they were taking a sea voyage, sailing along the Mediterranean coast, aboard a ship rocked by waves. This elaborate form of environmental display involved a feat of technological imagination and execution. The point of this technique of moving exhibition was the scale of motion. “Unlike the usual panoramas,” as a contemporary article tells us, “the background is painted on the outer mantle of a slowly revolving cylinder with a wide protruding edge carrying forty concentric sheet-metal screens four inches in height on which the waves have been painted.” As for the screens, they “are moved up and down by an electric

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24 See, among other works, R. Hyde, *Panoromania! The Art and Entertainment of the “All-Embracing” View*, (London: Trefoil-Barbican Art Gallery, 1988, exhibition catalogue); S. Bordini, *Storia del panorama. La visione totale nella pittura del XIX secolo* (Rome: Officina Edizioni, 1984); K. Trumpener, T. Barringer, eds., *On the Viewing Platform: The Panorama between Canvas and Screen* (New Haven CT: Yale University Press, 2020).

25 As media archaeologist Erkki Huhtamo shows in his comprehensive history of these panoramas, motion, both virtual and actual, was an essential sensory component of this particular precinematic form, which produced kinesthetic effects in the audience. See E. Huhtamo, *Illusions in Motion: Media Archaeology of the Moving Panorama and Related Spectacles* (Cambridge MA: MIT Press, 2013): 46-54.



motor through a linkage system including rods, hinges, and wheels.”<sup>26</sup>

Considering this history of exhibition, we can venture to propose that the invention of the projection of moving images on a screen, and the function of active immersivity that is reinvented today, arose from the *scale* of the enterprise of the moving panorama, which not only produced scrolling motion and waves of perturbation but was also an itinerant medium.<sup>27</sup> Spectators were offered the virtual sensation of being absorbed in a journey through the shifting atmospheres of a landscape.<sup>28</sup> With this public spectacle, open to the environment, a majestic, virtual form of imaging atmospheric change took hold of one’s body. The panoramic object of display, capable of offering the pleasure of scrolling through an ambiance, thus created the material condition of existence of the cinematic screen as itself a space of atmospheric projection.

The projective screen, then, did not come into being as a small, flat, frontal, windowed geometry, as is usually assumed in some media studies, but rather as a gigantic geographic and moving display.<sup>29</sup> In other words, the screen emerged as an *environmental medium*. It is important to acknowledge this lack of frontality, fixity, and flatness in early forms of screening, and to underscore an expansive milieu of volumetric plasticity and movement, if we wish to rewrite the genealogic course of the projective

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26 “Die neuesten Panoramen,” in *De Natuur* (1900): 257-58, as cited in S. Oettermann, *The Panorama: History of a Mass Medium* (1980), trans. D. L. Schneider (New York: Zone Books, 1997): 177.

27 This was an apparatus of haptic mobility, for it not only produced scrolling motion and waves of perturbation with its mechanism but was also an itinerant medium. It was often taken from place to place by itinerant showmen.

28 A particularly precinematic development of this traveling medium, also presented at the Exposition Universelle in Paris, was the exhibition *Trans-Siberian Railway Panorama*, which simulated a trip from Moscow to Beijing aboard the famous railway. A succession of images of the diverse environment viewers were imaginatively traversing appeared as if rolling past a framed window of the train car.

29 In arguing that the screen performs an environmental operation, and challenging a narrow interpretation of its geometry, I specifically respond to claims put forth in L. Manovich, “The Screen and the User,” in *The Language of New Media* (Cambridge MA: MIT Press, 2001): 94-115.

apparatus as a set of environmental operations. It is crucial as well to stress for my argument regarding the atmospheric ecology of visual display that, in the moving panorama, atmosphere was not only displayed but cultivated. The display constituted an environment in itself, and it was capable of registering change in the atmosphere of a site.

The changes in ambiance were at times enhanced by cutouts that depicted objects in the surrounding scenery, moving in zones that extended from the foreground to trees far out in the field. Rotating in endless loops around the scrolling canvas of the panorama, these cutouts “projected” a sense of depth to the transformation of the landscape. Multiple backdrops operated at different speeds to create a sense of rolling vistas, with the added effect that the differences in speed between each of them created variable combinations of scenes. In this display, which turned a means of transport into the emerging cinematic screen, endowing it with the ability to modify an ambiance, the scale of the display was as relevant as the rolling, diffracted, dispersed movement.

### **An Oceanic Voyage from Postcinema to Precinema**

As this form of “projective imagination” merged, at time of modernity, with an “atmospheric thinking,” a projective future was also envisaged, for inscribed here is also the kind of magnification that characterizes display in our digital age. As we ponder the elaborate construction of Just’s *This Nameless Spectacle*, it becomes evident that his giant installation has, built into it, a mechanism that reinvents the environmental history of projective display we have just outlined. In its digital configuration, it creates virtual traveling through atmospheres that reenact the

immersive ambiance and environmentality of the moving panorama.

The perambulating movement through the Parc des Buttes Chaumont recalls in particular the function of the early roll transparencies created by Louis Carrogis de Carmontelle, representing the moving vistas of the Parc Monceau, near Paris.<sup>30</sup> But it is not only the motion of the representation that creates the emotion and triggers the empathic projection with the garden space but also the moving mechanism of the projective *dispositif*, and especially its scale. The corresponding, diffracted motion that occurs in the space of the installation, not simply on but *between* the two large screens that face each other, is laid bare, and it is closely connected to the empathy with space created in a particularly absorptive form of moving panorama.

The configuration of Just's moving-image installation recalls especially the dynamic, atmospheric use of display that characterized the environment of the Mareorama.<sup>31</sup> This was a spectacular form of moving panorama that used two "screens" simultaneously, rolling out a set of moving scenes that simulated the atmosphere of a voyage at sea. Spectators were positioned in the middle of the display, aboard a ship, which rocked back and forth to enhance the sensation of motion and perturbation of being projected into the natural environment of a seascape. An article written at the time tells us that

the plan for the Mareorama presented [...] two screens, each 2,500 feet long and forty feet in height [...] to be unrolled," with "a double, swinging movement [that] was to be imparted to the spectator's platform which was shaped like a ship.

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30 See E. Huhtamo, *Illusions in Motion*: 40-6.

31 The topic of the moving panorama was discussed in an interview with the artist in New York on September 16, 2011. Just has generously shared his artistic process with me on several other occasions, for which I thank him.

The scale of the scrolling screens was grandiose, for “215,000 square feet of screen was to be unrolled before the visitor’s eye.” And the movement produced was impressive and destabilizing: “One of the screens moves on the port side, the other on the starboard.”<sup>32</sup> In addition to this mechanics of perturbation, elaborate effects reproduced atmospheric changes related to different times of day and rendered shifts in weather and actual perturbations.

Absorption in the Mareorama was an experience of unfolding events in a floating, situational ambiance – even in climatic perturbation – precisely as happens in Just’s installation. Viewers were sandwiched between two giant, moving screens that enhanced the sensation of taking in an atmosphere and experiencing its changing states. All the kinesthetic effects made the visitors to the space of the Mareorama not only feel the motions but empathize with them. In a similar manner, spectators of Just’s installation who negotiate their own movement between complex apparatuses of rolling projective display, do so kinesthetically, imaginatively, and virtually as well as with actual motion.

In *This Nameless Spectacle*, architectural magnitude contributes greatly to the empathic absorption in the shifting, fluid ambiance, that is, in the environment itself of the projection.<sup>33</sup> The Mareorama “ship” could accommodate seven hundred spectators. Just’s double-screen movement likewise relies on the scale of the gallery in which it is exhibited, and on a physically grandiose sense of space that underscores the environmental root of the emergence

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32 S. Oettermann, “Die neuesten Panoramen,” in *The Panorama*: 179.

33 Although conceived in the extremely large format discussed, the screens have been adapted to the architecture of the gallery site for subsequent exhibitions. A reduced scale, for instance, at J. Cohan in New York in 2012, created a more intimate feeling for the spectator, who was sandwiched between the still-large screens of the mareoramic display.

of projection in forms of giant, moving display.<sup>34</sup> The Mareorama ultimately magnified the sensory, sympathetic impact of exposure to an affecting atmosphere; following its currents, Just's own liquid mode of exhibition activates this ambient "sense" of display in installation form in its own empathic projection. Laying bare the projective *dispositif* that turns the gallery space into a moving vessel, it makes it into a vehicle of atmospheric perturbations. In this sense, the space of the art gallery constitutes a real part of the installation, and the persona of the gallery viewer becomes, quite poignantly, "installed."

On this screen interface, the turn of the last century thus joins the beginning of the new millennium in a reflection on the environment of projection and its cultural ecology. Just links together the energy of potentiality that characterized the space of visual display in early modernity with the potential expressed today when experimenting environmentally with digital technology. The artist not only shows us how central the environment of projection is in our time but argues that the desire for absorption in geographic display is truly enduring. Ultimately, *This Nameless Spectacle* demonstrates how the large-scale architecture of the screen has traveled across time in projection while exhibiting the screen itself as an environment, even an ambient architecture – the atmospheric form in which projection comes into being, and can even dissolve.

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34 Just's installation returns us to that historically dynamic, multiple form of ambient display without, however, reproducing the construction literally. He does not exhibit the actual machine or mechanism that is at the origin of the work but rather incorporates the scale of the Mareorama and its movement across screens in the physical spatiality of the installation, which encompasses the transit of viewers in gallery space. In this sense, the installation does not follow the trend of display that has been spreading since the arrival of the digital age, in which artists have taken to exhibiting outmoded forms of visual technology in the gallery. Just does not belabor the obsolescence of the cinematic apparatus or its panoramic predecessor or show any sense of nostalgia for older forms of display. *This Nameless Spectacle* rather works at historicizing from within, reinventing the possibilities of screening expressed by the moving, modern mode of ambient display that gave rise to the cinematic era of projection.

## Scaling an Environment

As screens become prominently incorporated into both our private and public lives, the work of scalar reinterpretation that Just pursues becomes particularly significant, for a reinvention of the act of screening in the environment is especially pressing today. Screens proliferate in widely different forms in our surroundings. They have decreased in size, becoming more portable: computers, smart phones, and iPads, which enable us to scroll haptically, now travel with us at all times as our personal panoramas. The rise of the miniature form goes hand in hand with magnification. In contrast to the shrinking size of our personal screens, we are witnessing an increasing use of the gigantic as screens have become especially magnified in the spectacle of three-dimensional exhibition.

Digital technology has enlarged the possibilities of projection in expanded cinematic forms of immersivity. Large-scale panoramic forms of projection, such as LED video walls, proliferate and have changed the very panorama of our environment, creating a veritable immersive screenscape.<sup>35</sup> The technique of 3-D projection mapping, in particular, can turn an entire building or landscape into a screen environment.<sup>36</sup> Heirs of the atmospheres of “*son et lumière*” shows, and of modernity’s dioramas and panoramic spectacles, these magnified projections can even design a performative environment. A haptic, immersive landscape is digitally fashioned as the façade of an edifice

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35 On the urban screen, see, among others, S. McQuire, M. Martin, S. Niederer, eds., *Urban Screens Reader* (Amsterdam: Institute of Network Cultures, 2009); N. Verhoeff, “Screens in the City,” in D. Chateau, J. Moure, eds., *Screens: From Materiality to Spectatorship* (Amsterdam: Amsterdam University Press, 2016): 125-39; C. Berry, J. Harbord, R. Moore, eds., *Public Space, Media Space* (London: Palgrave Macmillan, 2013).

36 S. Chakravorty, “Spaces of Spectatorship: Architectures of the Projected Image,” *Polished Panels* 1, no. 2, *Mediapolis: A Journal of Cities and Culture* (March 7, 2016), <http://www.mediapolisjournal.com/2016/03/spaces-of-spectatorship-architectures-of-the-projected-image/>, accessed August 30, 2023. In projection mapping, a two- or three-dimensional object is spatially mapped by using specialized software that mimics the real environment it is to be projected upon. This software can interact with a projector to fit any desired image onto any surface, small or large.

turns into a projective skin. Cities are punctuated by these seductive large-scale projective envelopes that create ambiance.

But in projection mapping, the idea of an environment of projection risks becoming literalized. If the ambiance of projection is remapped in a reductive way, the notion of ambient media itself shrinks. The effects of media façades created in literal ways are often questionable, as “ambient” begins to take on environmental connotations that are pacifying and not far removed from commerce.<sup>37</sup> After all, large-scale projection mapping is mostly used, contiguously with artistic and urban-branding pursuits, by publicity and advertising firms. Basking in the glow of giant projections can lead to opiate effects or the simple encouragement of consumption as opposed to the production of engagement and perturbation.

As the ambiance of projection is being transformed by digital technology, artists are increasingly responding creatively and critically to these issues of the sculptural and panoramic scale of immersive projection. Just, for instance, critically exposed how large-scale projection transforms the urban environment with the projection of his *Servitudes* (2015), a cinematic, architectural work consisting of eight sequences filmed in and around the World Trade Center in New York. Originally conceived for the subterranean gallery space of the Palais de Tokyo in Paris, this filmic work was scaled up in November 2015 and displayed on a series of large electronic billboards on the building façades of New York’s Times Square. In 2019, the same work was also projected onto layers of semitransparent fabric in yet another geographic location, in museum space – a fact that makes one question the function of scaling as well as further reflect on the nature

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<sup>37</sup> For a critical reading of the ambient, see P. Roquet, *Ambient Media: Japanese Atmospheres of Self* (Minneapolis: University of Minnesota Press, 2016); S. Kim-Cohen, *Against Ambience and Other Essays* (London: Bloomsbury, 2016).

and fabric of projection in relation to its specific geography and location.<sup>38</sup>

## Projecting a Global Urban Scale

These experiments on the vast projective potential of digital technology thus force us to rethink the issue of large-scale immersive projection in light of its own complex history. It is particularly urgent to ask ourselves questions about the nature and consequences of scaling. What changes in an environment of projection when subjected to different scales? How does scale change the nature of the screen itself as an object? What kinds of projection, understood as forms of cultural transmission, does magnification comport?

With this variability of scale, *Servitudes* reinforces the penchant for “empathic” projection that Just exhibited in his earlier works, for, as we have noted, this process is set in motion when works actively lay bare their own projective mechanism rather than keeping it static and invisible. *Intercourses*, which premiered at the 2013 Venice Biennale, took this up at a global scale.<sup>39</sup> This five-channel video and installation was set in a suburb of Hangzhou, China, that has been built as a replica of Paris, France. The

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38 When this work was commissioned by Paris’s Palais de Tokyo for their expansive subterranean gallery space, Just began to research the exhibition hall, which dates from Paris’s 1937 world’s fair. The 2015 projection of *Servitudes* in New York’s Times Square was part of Times Square Arts, the public art program of the Times Square Alliance. *Servitudes* was installed on semitransparent screen fabric in Kunsthal Charlottenborg in Copenhagen, Denmark, June 15 - August 11, 2019.

39 Reflecting on how a pavilion at the Biennale represents a country inside another country, Just engaged the architectural configuration of this conflated projection and intervened in the site of the Danish Pavilion, itself a composite structure. By walling in the grand entrance of the building’s neoclassic façade, he enticed viewers to walk around the colonnade and enter instead through a courtyard, which ushered them inside the modernist part of the pavilion. Here, the interior space had been transformed into a construction site. Walls built from concrete cinder blocks created another architectural path within the already hybrid space of the pavilion. The rough, impermanent fabrication of the concrete blocks lent a sense of eeriness to the site: though it appeared to be a place in the making, it felt as if it were already in ruins. In constructing an installation space that evoked the atmosphere of a ruin in progress, Just made material the layered process inherent in the imaginary fabrication of such sites, closely engaging their imaginative “projections.”



large scale of the projection inside the pavilion created a feeling of cultural displacement. In it, three Black men meander in a desolate ambiance of empty streets, uninhabited façades, and unfinished staircases that lead nowhere. This Paris imagined in China had a postapocalyptic feeling, even a quasi–science fiction dimension, despite actually being a real place. The projected images worked together with the architectural design of the pavilion to instill in us a concrete sense of how a global urban imaginary is made, and what scale this process has assumed. What is performed and projected here is a becoming of global scale – a state that contains processes of dislocation, hybridization, and entropy.

*Intercourses* is named after that which lies in between: relational things like processes of interstitial construction. It deals with the actual process of projection as a space of relation and intermediation. In this sense, it follows the course of Just’s investigation of environmentality as a magnified psychogeography. The very magnitude of the exhibition space drives a navigation of atmospheres, engaging viewers in the scale of the destabilizing projective ambiance in which they are themselves empathically projected.

*Intercourses* confronts even more directly than *This Nameless Spectacle* the effects and affects of the technology of scaling in contemporary digital culture. This is a work of actual scalar construction, for its five screens have different configurations that generate further geographic dislocation through their differing positions in space and angles of view. Moreover, this Paris-in-China suspended between states of ruin and construction offers projections that can vary radically in size, from one to fifteen meters, depending on the site of the installation.

In such a way, Just questions the different forms of screen scale that proliferate in our digital environment. In laying bare the architecture of the projective

mechanism, he triggers a critical response to the cultural phenomenon of variable screen size, making us reflect on how miniaturization relates to magnification in digital culture. By confronting what happens in the process of scaling up or down, from one size to the other, he creates cultural awareness of the state of screening today while exhibiting the process itself of flexible projection. This architectural scaling makes gallery viewers aware of the very architecture of screening, and especially attuned to how ambiance changes in scale.

Furthermore, for Just, large scale does not consist in simple magnification or simplistic immersivity. The magnitude of the largest screen in *Intercourses*, rather, challenges the conventional use of magnitude in film.<sup>40</sup> Less associated with figurative facial close-ups, as is traditionally most often the case in cinema, it is more attuned to the vastness and complexity of the geographic and cultural landscapes it renders. Scale is here also anything but monumental and does not constitute a direct correlate of the aesthetic of the sublime, so often evoked when speaking of immersion. Rather than monumentalizing its own object, the large scale of the projection takes the gallery viewer into an ambiguous affective and cognitive space that asks for attentive, even contemplative absorption – displaying a critical form of empathic projection.

This process of projective absorption in scale leads to deciphering the geographic hybridity of the site shown on screen while enveloped in the siting of the projection. After all, wandering through a look-alike Paris with French actors of African descent, one could easily believe that this is in fact Paris – and that would be an acceptable response. But if, galvanized by the scale of the large screen, the installation viewer scans the surface and “screens” the

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40 On magnification and the close-up in film, see M. A. Doane, *Bigger than Life: The Close-up and Scale in the Cinema* (Durham NC: Duke University Press, 2021).

space closely, she can sense that something is off: the urban scale here is quite different than that of Paris. As one tunes in to surface, scale, and atmosphere, scanning the big screen, and further notices the presence of Chinese inscriptions or too many air conditioners dotting the building façades, one can finally understand how, working with and against architecture, inhabitants of this replica of Paris in China, located in the district of Tianducheng, adapt the space to their own use.

In *Intercourses*, then, Just enhances scale as a geography, detecting defining nuances in ambient projection and working with dimension in culturally affecting ways that defy the simple effect of immersive viewing. Here, immersion is not understood, as conventionally assumed, to produce virtual illusion but, rather, spatial awareness. As was the case in *This Nameless Spectacle*, the artist also works specifically against the astonishing use of magnification one finds in digital hyperrealism, with its purely spectacular effects of immersivity.<sup>41</sup> For Just, scale rather functions as a real environmental modality. His installations invite close discernment of the surrounding space and engage contact with the larger environment. They resist using scale as a building block to create virtual monuments and, working with movement and active screening, also resist the arresting sense of awe associated with boundless immersive magnitude. In other words, Just is an artist who does not fall into the trap of large projection as mere manifestation of a technological sublime.

Jesper Just's critical investigation of this pressing subject of immersivity finds correspondence in the practices of other artists who are attentive to scale, reconfigure scalar paradigms, and also engage the panoramic form of exhibition as a projective environment. In a compelling way,

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41 This reminds us that, as Susan Stewart suggested long ago, "the gigantic" is a particularly enveloping notion. See S. Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Durham NC: Duke University Press, 1993).

Lisa Reihana also questioned the scale and atmosphere of immersive projection at the New Zealand Pavilion of the 2017 Venice Biennale with her large-scale installation *In Pursuit of Venus [infected]* (2015-17), for which she reinvented the giant form of the panoramic spectacle in scrolling digital fashion. Inspired by the French scenic wallpaper *Les Sauvages de la Mer Pacifique* (1804-1805), the installation created a large-scale panorama in which real and invented narratives of colonial encounter take place. This work took the very surface of a panoramic wallpaper and made it into an animated, moving surface of unfolding projection. Here, videographic and animation technologies contribute to a reimagination of the nineteenth-century shape of the moving panorama while probing its historical, ideological, and political dimensions. In Reihana's reinterpretation of this mode, history is not only displayed but scrolls out and drifts along panoramically, in a critical reading that questions the very form of its spectacular, colonial, scalar, immersive projections.

In the face of digitally magnified immersion, and the return of the spectacular phenomenon of large-scale panoramic projection, one can only welcome the kind of environmental research that motivates Jesper Just and Lisa Reihana, for this is an exploration that is aimed at critically excavating, and exhibiting, the complex history of large-scale, immersive visual display, its forms of mediality, and the culture that it transmits and circulates in the environment. Here, the present not only exposes but challenges the past, and finally, changes its course. Only if we are put in a position to experience critically the cultural atmosphere that links scale and motion to immersive screening, and consider this multifaceted, nonlinear historicity, can we hope to redefine the terms of, and give a new name to, the ecology of absorption in space – the environment itself of projection.

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