Everything is in motion, with a faster or slower speed, and everything is colored by intentionality.

Olafur Eliasson¹

From Cinematic Abstraction to Digital Compression: OLAFUR ELIASSON'S REALITY PROJECTOR

Gloria Sutton

Olafur Eliasson's 2018 *Reality projector* is a site-responsive artwork that uses the lateral motion of two projectors to illuminate a series of colored gels overlaid onto ceiling-mounted trusses, resulting in architecturally scaled, kaleidoscopic patterns that softly animate the Marciano Art Foundation's (MAF) expansive first floor Theater Gallery (fig. 1). Among the works myriad affinities with the artist's longstanding investigations into perceptual experience, *Reality projector* can also be read as a renegotiation of the logic of cinematic abstraction. Located in Hollywood, the epicenter of the American film industry, the MAF is situated among the former

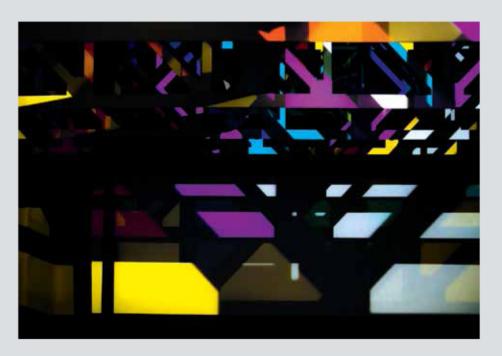




Fig. 1 Olafur Eliasson Test for *Reality* projector

Fig. 2 Renovation of the Theater Gallery, Marciano Art Foundation, 2017

cinema palaces dotting Wilshire Boulevard. And the work itself is housed in a literal temple, a sleek homage to the theatrical symbolism of the fraternal organization of builders and masons first designed for the Scottish Rite Freemasons in 1961 by artist Millard Sheets (fig. 2). Compellingly, Eliasson's *Reality projector* casts an unrelenting focus on the shifting nature of our rituals of seeing and, more urgently, our habits of picturing.

Metaphor and Methodology

Viewed through the prism of the building's recent reconceptualization into an expansive art foundation and its historically sensitive renovation by the architectural studio wHY, Reality projector foregrounds key aspects of Eliasson's processual thinking about the mutability of both space and media—showing us how images are shaped less by what they are (i.e. specific formats) and more by how they behave (e.g. social, stable, or conversely, static and deteriorating). Here within an architectural framework initially designed to enhance exclusionism and ennoble secrecy, Reality projector introduces a theoretical ballast of scalability and transparency, two longstanding metaphors within Eliasson's twenty-five-year career that offer pressing methodologies for the current political moment. Specifically, these methods have become increasingly critical in an era that has been irrevocably shaped by the Internet. This mass medium, comprised of both physical as well as social and political protocols and networks, grows exponentially in reach, power, and influence, reshaping the boundaries of not only public and private space but also patterns of speech and habits of interaction and exchange.² In particular, after 1989 as Tim Berners-Lee's information management system matured into the World Wide Web, notions of scale-specifically concepts such as dimension, size, and volume—have become variable with regard to images. Scale—the physically palpable sense of ratio or commensurability of the image to its own source or subject-has become so amorphous that any measurable relation to its contextual frame is not only rarely noted, but rendered irrelevant. Standards and conventions for scale are further eroded by browser-based interfaces that problematically level the specificity of an image's contextual frame, which provides a sense of ratio or proportion between images, sites, and bodies. Instead of being scaled, digital images are routinely optimized for compatibility—that is compressed so that the digital information of an image is reduced to take up less memory and less space in order to enhance networked experience.

Rather than rehearsing the debates about maintaining a distinction between analog and digital media, I want to suggest that Reality projector points to a coexistent model, one that dissolves the divide between interiority and externalization by actively modeling the conditional ways in which digital production may be considered experiential rather than simply rendered as a fixed, technical category. As a light projection that casts color rather than images, the work is constituent of Eliasson's ongoing projection projects such as I only see things when they move (2004) (fig. 3), a work constructed completely of analog components, which creates ambient spaces scaled in direct proportion to their architectural surroundings.³ Halogen lamps, tripod stands, colored filers, theatrical lighting gels, and controlled darkness are some recurrent examples of the analog materials Eliasson often employs. Here in Los Angeles and simultaneously not here but accessed through online documentation, Reality projector raises key questions about how the temporal qualities of mediation—the ways that digital images and sound recordings, or more precisely digital's capacity for storage and retrievaloften shape and form the viewer's expectations for contemporary art, complicating the linear sequencing of real and mediated experiences as primary and secondary.⁴ As Eliasson's projection projects often make clear, reality is always mediated. Moreover, by eschewing the "reality quotient" of digital images—the degree to which they accurately reproduce the optical and haptic conditions of the external world through technical image refinement—Reality projector's image-less cinema points to the underlying mechanisms that regulate the circulation of bodies and the oscillation of images between closed networks and open systems that are not only projected onto screens but occur in real time and in real space. And ultimately, I am suggesting that these methodologies of scale and transparency—made decidedly material within the analog processes of Reality projector—refract rather than represent the iterative impulse within digital culture to shift between processes of expansion and, in equal measure, those of compression.

The terms expansion and compression are often deployed in a reciprocal manner within theories of media and aesthetics, particularly in conjunction with discussions of image resolution, definition, and fidelity. And while these two terms may be tethered to more recent debates on digital culture, the mutual affinities and distinctions between processes of expansion and compression have been the focus of scholarship since the inception of the fields of media studies and art history. As media theorists Alexander R. Galloway and Jason R. LaRivière have noted in their recent exposition on Compression as Philosophy, "media



historians have long examined aesthetic artifacts along a continuum from expansion to compression, whether it be a question of minimalism and abstraction, codes and shorthand, redundancy and ornamentation, or any number of other qualities and techniques that either delete or proliferate aesthetic material."

Transparency and Scale

Within Eliasson's prolific body of work, expansion and compression are born out through the artist's investigations into concepts of growth and dissolution in science, nature, and technology. These accounts are often expressed using the vocabularies of ecology (including the theories of Bruno Latour, writings by Timothy Morton and others), phenomenology (especially the philosophy of Maurice Merleau-Ponty), and

discourses on embodiment and perceptual awareness, each of which has not only informed his practice as an artist but also the specific way his work is publically experienced by viewers through installations, commissions, and exhibitions.⁷ Furthermore, the concept of transparency has been integral from the start. In the words of one of Eliasson's longstanding curatorial interlocutors, "there is no concealment of how the effects are produced...there are no secrets..."⁸ Eliasson's (public) works always make visible the often ordinary props and techniques used to generate extraordinary ambient environments. In *Moving corner* (2004), for instance, the effect of a line scanning a wall is generated by a simple spotlight visible in the center of the room, which projects a narrow beam of white light into the corner. A slim, rectangular mirror (1.2 cm × 250 cm) is suspended from the ceiling at a height low enough for the viewer to glimpse a reflection and also expose the thin light as

Fig. 3
Olafur Eliasson
I only see things when
they move, 2004
Installation view,
Moderna Museet,
Stockholm, 2015



Fig. 4 Olafur Eliasson Moving corner, 2004 Installation view, Kunsthaus Zug, Switzerland, 2004

the shadow of the mirror's heft is cast into the corner itself (fig. 4). Within this context, the formal properties of the line are determined by the height of the built space animating a geometric abstraction, essentially cutting a hard line through amorphous space.

An earlier work made in 1996 used similar mechanisms to create a softer, more enveloping animated experience that highlights how scalular ambiguity makes it difficult to differentiate the installation from its architectural framework. In Die organische und kristalline Beschreibung (The organic and crystalline description) Eliasson placed a freestanding light projector in a decorated Baroque period room in the Neue Galerie am Landesmuseum Joanneum in Graz, Austria. Combined with a color filter and a large convex mirror, the work rendered the illusion of sunlight refracting through water by bathing the ornate details of the rooms' surfaces in a dappled yellow and blue using a wave effect machine, a readymade theatrical lightening device that generates the effect of light reflecting off of waves. The work was shown again in 2015 and scaled to fit the specific proportions of the Winter Palace of Prince Eugene of Savoy in Vienna. Architectural historian Sylvia Lavin has analyzed these types of theatrical lighting effects used to

simulate natural phenomena in Eliasson's oeuvre as "the production of artificial natures" and pointedly tied their development to the conflation between architecture and the rise of installation art itself-a category of visual art that often "design[s] experiences at an architectural scale in order to reassert forms of embodiment and placement," according to Lavin. In reference to Eliasson's work, Lavin noted "as installations grew more and more immersive and as conceptual architectural practices came to rely less and less on the withholding of the architectural object, the two types of production, predicated on entirely different points of departure, came to be more and more isomorphic with one another."10 In this manner, the yellow light in Die organische und kristalline Beschreibung, for example, is bounded and contained—that is to say, sized and scaled—in direct ratio to the material conditions of the architecture of the Winter Palace, whose own high Baroque ornamentation and reflective surfaces were initially built to perform this precise type of light amplification for its imperial inhabitants when it was first constructed in the eighteenth century. In both Die organische und kristalline Beschreibung and Moving corner the material conditions of the source of the technology (i.e. light, motion) is made transparent and becomes scaled in direct proportion to its contextual framework.

Cinematic Abstraction

Eliasson's insistence on making the material conditions of a work's own production visible within the work itself finds historical precedent in the debates and discussions that framed the emergence of experimental film as a visual art paradigm. First published in 1977, British filmmaker Malcolm Le Grice's signal book Abstract Film and Beyond made a trenchant case for an alternate, often oppositional and frequently overlooked cinema: the cinema of abstraction. Laying the theoretical groundwork for the type of anti-illusionism that he and many international experimental filmmakers and artists were invested in advancing, Le Grice recast the history of abstract film as less a chronicle of motion picture technology and film theory than an analysis of modernist visual art strategies. Starting with the Italian and Soviet Futurists' rejection of literary and theatrical models, Le Grice made convincing note of the rise of synesthesia, "visual music," and the 1920s cinema of Marcel Duchamp, Viking Eggeling, Oskar Fischinger, and others who transposed modernist music and painting's quest for purity of form and composition onto vivid-hued celluloid. Rather than nostalgic, this historical review served the book's

forward-looking aims by providing a cultural context for the diversity of cross-disciplinary visual art practices, including Expanded Cinema, which developed during the 1960s and 1970s and mined not only the materiality of film, analog video, broadcast television, computer generated animation, and digital media, but also interpolated the inherent durational and networked logics of these forms as well. To this end, Le Grice argued abstract film's structuralism—a materialist approach eschewing content so that form itself becomes content—marked a new mode of communication that rejected "fiction and passivity" and considered film as an inherently social practice where "aesthetics merges with politics." The argument was that by revealing the materials of its own production, abstract film does not distract or entertain but instead restores to the audience its power to reflect upon the real world rather than a representation of that world.

An Ethics of Communication

In fact, even before Eliasson's 2003 The weather project for London's Tate Modern established a new paradigm for conditional critically—introducing the concept that a work of art could be both popular (breaking attendance records) as well as establishing the museum as a privileged site from which to contend with the predominance of the dual "logics of advanced capital and spectacular culture," Eliasson has been invested in the behavior of media.¹³ In analog terms, this is a variable impulse that can cross from one qualitatively distinct medium to another electricity into sound waves, light waves into vision, to name two that predominant in Eliasson's works. And I would posit, the habits of digital media are equally present—how they correlate around masses and events rather than singular entities and objects. Despite the fact that these public encounters allow for what Eliasson has emphatically described as an "ethics of communication," there has been little sustained analysis of the ways that media theory encodes the reception of much of Eliasson's output. 14 In the 2008 publication Your Engagement Has Consequences, Eliasson wrote, "What interests me particularly in relation to the layout of institutions such as museums, and, of course, all the ideologies and power structures that are embedded in these institutions, are the ways in which the institution communicates with the visitor and the institution's potential for communication as such."15 Consonant with the artist's communicative aims is the way he frames "the complex network of elements that constitute the dynamic relationship between visitor, artwork, and institution" in sensory rather than optical

terms, as a "field of vibrations." ¹⁶ And what he examines is not limited to the encounter with the artwork itself, or the artwork and the institution at once, but also, as Eliasson stresses, "...the ways in which the visitors may experience themselves experiencing the artwork. The audience should, in other words be encouraged to see themselves both from a third person perspective, that is, from the outside, and from a first-person perspective." ¹⁷

And as art historian Caroline Jones has surmised, Eliasson's selfreflexive process—the ways that we experience ourselves experiencing the work—has formed "a body of aesthetic provocations that begin to have their own conceptual force in our collective understanding—Eliasson's contribution to an evolution in the common sense. We sense, we feel, we think, and eventually we act."18 In many ways, Eliasson has shifted the language of community into one of communicability, a shared sensibility Jones refers to as "common sense." In pragmatic terms, these artistic actions would be taken up in a series of collective undertakings first through Studio Olafur Eliasson, based in Berlin, which since 1995 has grown to about ninety people including architects, specialized technicians, archivists, designers, cooks, and editors who produce artworks as well as communal projects, including meals, publications, and digital platforms, and manage a robust presence online.¹⁹ And secondly, more recent pedagogical and civic initiatives have manifested a series of diffuse workshops focused on shared learning and other social experiments and interventions that can be scaled for small intimate experiences or expanded to address mass audiences. These include establishing the Institut für Raumexperimente at the Berlin University of the Arts (2009-14) and acting as an adjunct professor at the Alle School of Fine Arts and Design in Addis Ababa as well as operating Studio Other Spaces, which is focused on public and architectural projects.

Mediating Experience

In more conceptual terms, the artist's longstanding investigations into "...the ways in which the visitors may experience themselves experiencing the artwork" is suggestive of how mediation itself remains central to Eliasson's definition of artistic practice. In more prosaic terms, Eliasson's media platform, SOE TV, allows public access to Eliasson's artworks as well as videos of lectures, seminars, and public talks, including a recent discussion at the New York Public Library on artistic collaboration and countering climate change through both rhetorical strategies and public policy. Studio visits from a range of guests, including a Copenhagen-based choir and philosopher Timothy Morton are available as well. However, acting as both a type of international broadcast channel and an online repository of edited videos and time-stamped documentation, SOE TV does something more than an artist website or blog. In what can be conceived of in Eliasson's own terms of an "ethics of communication," the project aims to give voice and bandwidth to others. This ethos is reflective of a slightly earlier generation of visual artists who used film alongside experiments in broadcast television and video under the loose rubric of Expanded Cinema as a means to connect with audiences that resided outside the museum, both in a physical sense as well those that may not have typically fit the museum's audience profile, in an attempt to shift art into a more directly civic arena.²⁰ Moreover, the application of the term Expanded Cinema starting around 1965 registered the introduction and proliferation of computer and telecommunications technology within the complex milieu of the Civil Rights Movement, the Vietnam War, and the terse rhetoric of the Cold War. In addition, the aleatory and experimental nature of most Expanded Cinema projects solicited an altogether different type of audience model, which emerged in the spatial vacuum between the singular modernist viewing subject of avant-garde film and abstract painting in the 1950s and the atomized, mass audience associated with the growing reach of broadcast television during the 1960s, which presaged the types of digital, networked audiences to come.21

Launched in 2017, SOE TV exponentially increases the scale of audience in both volume and reach for Studio Olafur Eliasson while also making transparent the discursive aspects of Eliasson's practice as a cultural producer and, in a sense, what can be thought of as a reality projector. To this end, the web-based platform also allows us to watch Eliasson's filmworks, a subset of works that use time-based media to document durational experiments with moving images and



investigations in the mechanics of movement. In Movement microscope (2011) for example, over the course of sixteen minutes and forty-seven seconds we see bodies going about their daily routines in and around the studio, making food, preparing and cutting wood for architectural models, sitting at computers, etc. While a variety of quotidian actions are depicted, including both mechanical ones and human gestures such as sitting, making eyecontact—within this backdrop the movements of select dancers become slowed and accentuated, making any semblance of speed appear completely relative (fig. 5). In a reversal of time-lapse film in which the frame rate (the frequency at which the frames are captured) is much lower than that used to view the sequence of action, when Movement microscope is played (equally in the gallery, on a laptop screen, or mobile phone), instead of the dancers appearing

Fig. 5 Olafur Eliasson Movement microscope, 2011

to move faster, and thus lapsing, the movement instead becomes more attenuated. A wrist folds and unfolds back and forth, or walking becomes more akin to sliding in slow motion, for example. And while the special effects here are the trained motor skills and technical conditioning of the dancers' bodies and not film technology, Movement microscope does convey key principles of durational experience, both for the bodies pictured in the video and for those watching. As with the operation of microscopes, digital video also amplifies subtle traits not always visible to the naked eye. And compellingly, Movement microscope points to the ways in which human experiences are exteriorized onto digital media. Human movement then becomes indexed by the markers of media, its capacity to fast forward, pause, rewind, and freeze frame among other behaviors that exaggerate by extending or expanding its frame rate for example. And, in equal measure, the film points to digital media's ability to speed up comprehension by dropping out bits of information in order to fast forward. These digital techniques often give shape and form to our own perceptions of how time moves or stands still.

Projecting Reality

We can situate Eliasson's Reality projector along this trajectory between expansion and compression. Like many of the artist's earlier projection works, the materials communicate both the mechanics and the metaphors that become instantiated. Cyan, magenta, and yellow acrylic gel panes, typically used in theatrical stage productions and television to balance light, are cut to fit the proportions of the triangular pattern of openings that form the existing truss work, which wHY architects exposed in the Marciano Art Foundation renovation. The gels are placed inside thirteen of the triangular openings within four of the nine ceiling trusses that span the width of the foundation's Theater Gallery. A large screen hangs from the last truss onto which the resulting prismatic effect registers. The colored material is overlapped in certain spots so that when one of the two laterally moving light projectors shines through the layered gels, the room is cast with green, blue, and red hues produced by the alignment of the CMY gels. One way to read this effect is to compare it to the fourcolor separation process endemic to offset, analog print processes. Here, rather than on a page, the color separation process expands, filling the vast space with a meditative animation of slowly shifting layers of color, light, and shadow. The shift in scale made by Reality projector is not limited to its size, which is calibrated to fill the otherwise emptied, vast space, but scale also conditions the expectations of the viewer. In broader terms, this comparison between analog and digital processes is similar to the way we often oscillate between retinal scanning of the handheld, printed page or LCD screen on a mobile phone and the bodily sense of absorption through the continuous shower of light as viewers move through exhibitions.

Notably, *Reality projector* is Eliasson's first work that incorporates sound. The work's moody intensity is amplified through an integrated soundtrack of analog noises, including the reverberations of plinking steel wires, brisk scratches against a contact mic, and the rich bass echoes of clanging wood all mixed with other aleatory noises recorded by Eliasson as he assembled a grand piano from its component parts in his Berlin studio. These aural notations were then arranged and composed by the Icelandic musician Jónsi, instrumentalist and vocalist of the group Sigur Rós. And rather than synching up with the geometric light forms, the soundscape adds yet another abstracted and textured layer, which mitigates the unrelenting evenness of the vertical tracking of the projectors.

In this way, the work shows how distinctions between analog and digital forms are not necessarily ontological but scalular. Audience attention focuses on

Olafur Eliasson's Reality projector



Fig. 6
Olafur Eliasson
Map for unthought
thoughts, 2014
Installation view, Louis
Vuitton Foundation,
Paris, 2014

issues of duration, perspective, and asynchrony. In this way, the work shows how distinctions between analog and digital forms are not necessarily ontological but scalular. Audience attention focuses on issues of duration, perspective, and asynchrony. Ultimately, the act of projection itself becomes centralized and embodied as the movement of the light projectors passes through the truss support system, making visible to the audience the construction of the resulting image cast on the walls. And if this resulting image is devoid of humans on the screen, people do figure prominently in the space itself as the work is designed for an audience that can be scaled from one to 1,000. This emphasis on the bodies circumnavigating the space is similar to Eliasson's 2014 project, *Map for unthought thoughts*. In this earlier work, as visitors walk through or meander in the darkened space their own shapes

and outlines are cast among those made by other bodies in the room. These projected figurative outlines also intermingle with the geometric pattern generated by a centrally fixed arrangement of crisscrossing steel bands. When illuminated from a centralized light source, these abstract forms cast a fencelike pattern along a semicircular wall (fig. 6). This act of picturing oneself experiencing the work directs the viewers' awareness both internally and externally, heightening the broader social conditions of the space itself as the actions, both in *Map for unthought thoughts* and *Reality projector*, take place in the space in real time, not on the screen.

Describing the intentions for Reality projector, Eliasson, noted how the work's construction allows for the viewer to "see reality constructed both by the projector and by you."22 To this end, Reality projector enacts the dynamics of transparency and scale that focus not only on an "ethics of communication" or the well-traversed art historical discourse on Minimalism, Land Art, and Light and Space, but on contemporary digital culture as embodied experience. Reality projector takes on the scale of institutional architecture yet remains tethered to the limitations and materiality of the human body. More specifically, Reality projector points to the recombinant nature of digital mediation. The work sets up a compelling framework comparing the representation of experience (mediation) against the notion of representation as experience, which often predominates within large-scale, moving image projection in contemporary art. This latter phenomenon is exemplified by Doug Aitken's 2007 Sleepwalkers in which he projected images of Hollywood actors at a monumental scale on the exterior façade of the Museum of Modern Art in New York, making a scalular shift from movie theater screen to curtain wall as screen. Aitken's Song I (2012) took on the circular morphology of the Hirshhorn Museum and Sculpture Garden's 1966 Gordon Bunshaft-designed building. For this work, the artist projected a series of video loops, flips, and abstract images of people singing and working in factories, offering a purely representational expression of labor, not as a critique of the closed loop of late capitalism but as an exaggeration of it. The highly choreographed visuals of young factory workers-individual profiles set against a color-saturated backdrop that is more akin to a Hollywood blockbuster-alternated with images of people moving in cars and buses. In both its stylization and scale of production, Song 1 mimics the image flows of capital. Here labor is shown up close, then amplified, doubled, and mirrored into a hyperabstraction.

In contrast, Reality projector forms a more compelling picture of the unstable way that scale manifests in the digital realm. The work's insistence on making its own materiality not only visible but structurally constituent of the image

itself challenges the ways that digital images often lack or eschew the specificity of context while remaining preoccupied with automation, speed, spread, and coverage. In this manner, Eliasson's Reality projector remains distinct from that of artists whose durational works remain in dialogue with the grammar of lens-based images (namely photography and film). Rather, it takes on the behaviors we associate not with cameras, but with the algorithmic procedures of software. The impact of such a shift is not limited to recasting Eliasson's own art history, but also implicates the ways that digital culture conditions our understanding of contemporary art history writ large. Within this model compression-not abstraction-becomes the dominant process of encoding information using fewer bits. And we can see how Reality projector highlights some of the urgent questions concerning media and culture in correspondence with recent scholarship on the philosophical application of digital compression, which challenges the paradigm of representation within the Western philosophical tradition.²³ Specifically, this analogy between representation and compression can be viewed as similar to the ways that metaphysics recasts philosophy as a type of media theory in which ideas, forms, essences, nature, and mathematical concepts—all registers that Eliasson's practice operates within—may or may not be represented in phenomena, bodies, and environments (all forms that shape much of the artist's work). Using compression rather than representation as an analytical model, Reality projector eschews a focus on image enhancement, refinement, and, in the end, fidelity, and instead operates through a logic of digital compression that generatively builds on the deletion of material.²⁴

Thinking in terms of digital compression also serves to open up other pathways in and through Eliasson's body of work and activates what art historian Pamela Lee has keenly noted as the "repressed accounts of intermedia... that Eliasson's work tacitly courts." Rather than re-inscribing the narratives of modernist sculpture or developments in scopic vision through the proto-cinematic experiments of the 1920s Neue Optik, or "New Vision," and placing Eliasson directly adjacent to László Moholy-Nagy, this trajectory would then recognize a group of Eliasson's own contemporaries. Artists who have contended with the legacies of modernist forms of representation and its related regimes of vision through experiments with duration, temporality, and perception, include Rosa Barba, Ann Veronica Janssens, and Ann Lislegaard, among others. Their time-based works, like Eliasson's, often critique the interpretation of phenomenology's putative subject as timeless and universal—unmarked by the lived experiences of race, gender, class, and ability that not only shape and condition, but also regulate and legislate one's body.

If Reality projector shows us how abstraction has been slowly cleaved from the cubic parameters of sculpture and concretized instead around the material conditions of digital compression to harness new ratios between body, image, and space, it does so while underscoring the lessons of scale and transparency through its correlative installation. Mounted in the Marciano Art Foundation's marbled lobby entrance are two prismatic lamps suspended from the ceiling, one light and one dark to refract various dualities. Light, an iconographic reference to the progression towards knowledge and an enduring symbol of truth within Western philosophy, is positioned high above but made accessible from all sides. These colored lamps also point to another metaphor enacted as method. Countering the hierarchical tendencies in the field of contemporary art in which all forms of media (including painting and sculpture) are consistently scaled toward even greater magnitudes of monumentality, these lamps point to the inverse process. They suggest a reduction in scale and also offer an oblique reference to Eliasson's communitarian projects including The complete sphere lamp (2015), a series of works produced in Addis Ababa using handmade basket-weaving technology to produce geometric abstract lamps that metaphorically allude to the coexistent or isomorphic nature of how containers are shaped by their contents. Here within the lobby space of the MAF, making and meaning are brought into a closer ratio with one another, showing us how abstraction, compression, and digitality all selectively delete certain bits of material but in a manner that is, in the end, contingent on a collective, durational process.

- Olafur Eliasson, "Vibrations," in Olafur Eliasson, ed., Your Engagement Has Consequences: On the Relativity of Your Reality (Zurich: Lars Müller, 2006), 59.
- 2 Lauren Cornell and Ed Halter's edited anthology Mass Effect: Art and the Internet in the Twenty-First Century (Cambridge, MA: The MIT Press, and New York: New Museum, 2015) advances the argument for the Internet as a distinct mass medium and articulates various ways the Internet has altered the production, transmission, and reception of visual art since the 2000s.
- Color, of course, is also ambience. See Ina Blom's articulation of this phenomena and other theoretical considerations of the imagistic and chromatic effects in Eliasson's work in Ina Blom, "Beyond the Ambient," Parkett 64 (2002): 20–24.
- 4 As media scholar Kris Paulsen has rigorously argued, this notion of being here and not here refers to the philosophical complexities of the interface. For a detailed analysis of the art historical precedents for the ways that contemporary visual artists have experimented with communication technology to draw comparisons between real time interactions and mediated ones see her book, Here/There: Telepresence, Touch, and Art at the Interface (Cambridge, MA: The MIT Press, 2017).

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- 5 For an extended consideration of the historical, technical and philosophical interrelationship between analog and digital media see Meredith Hoy, From Point to Pixel: A Genealogy of Digital Aesthetics (Dartmouth, NH: Dartmouth College Press, 2017), and Carolyn Kane, Chromatic Algorithms, Synthetic Color, Computer Art, and Aesthetics after Code (Chicago: The University of Chicago Press, 2014).
- 6 Alexander R. Galloway and Jason R. LaRivière, Compression in Philosophy, boundary 2 44, no. 1 (February 2017): 126.
- 7 For a brief overview of how Eliasson's exhibitions have engaged with these discourses see the conversation between Daniel Birnbaum and Olafur Eliasson in *Reality Machines* (London: Koenig Books, and Stockholm: Moderna Museet, 2015).
- 8 Daniel Birnbaum quoted in Pamela Lee, "Your Light and Space," Take Your Time: Olafur Eliasson (New York: Thames and Hudson, and San Francisco Museum of Modern Art, 2007), 36. Daniel Birnbaum, review Artforum 36, no. 8 (April 1998): 106–7.
- 9 Sylvia Lavin, "Tenderness," Log, no. 24 (2012): 100.
- 10 Ibid., 96.
- Malcolm Le Grice, Abstract Film and Beyond (London: Studio Vista, 1977). The book was published in the United States by the MIT Press in 1982. See also Maxa Zoller's insights on the reception of Le Grice's work and writing in "Interview: Maxa Zoller with Malcolm Le Grice," in X-Screen: Film Installation and Actions of the '60s and '70s (Vienna: Museum Moderne Kunst Stiftung Ludwig and Walther König, 2003), 136-47.
- 12 These descriptors were highlighted by Dana Polan in the review of Abstract Film and Beyond published shortly after the book's release in The Journal of Aesthetics and Art Criticism, 37, no. 2 (winter, 1978): 240–41.
- 13 Among many insights in her essay for Eliasson's first major US retrospective exhibition at the San Francisco Museum of Modern Art in 2007, I am drawing on art historian Pamela Lee's assessment of how Eliasson's work navigates critique and complicities with what she calls "the twinned logics of advanced capital and spectacle culture." And more specifically, how "spectacular culture" is a specific reference to the ongoing debates around the interpretation of Guy Debord's formulation of the term for "theorizing the aestheticizing of everyday life and penetration of both the public and the private sphere by relations of advanced capital. See Lee, *Take Your Time*, 36 and 48, note 6.
- 14 Quoted from Olafur Eliasson, "Vibrations," Your Engagement Has Consequences, 73.
- 15 Ibid., 72.
- 16 Ibid.
- 17 Ibid.
- 18 Caroline A. Jones, "Event Horizon: Olafur Eliasson's Raumexperimente," in Olafur Eliasson: Contact, exh. cat. (Paris: Flammarion and Fondation Louis Vuitton, 2014), 132. See also the anthology on experience for which Eliasson contributed a heat-sensitive cover (Caroline A. Jones, David Mather, and Rebecca Uchill, eds., Experience [Cambridge, MA: The MIT Press, 2016]].
- 19 The recent publication TYT (Take Your Time), Vol. 7: Studio Olafur Eliasson; Open House (Berlin: Studio Olafur Eliasson, 2017) makes material the point about transparency through a publication that details the work and inner workings of Eliasson's prodigious studio providing documentation, interviews and the history of Studio Olafur Eliasson. The book functioned as a contribution to Viva arte viva, part of the 57th Venice Biennial, 2017. More than a documentary, the studio also employed an outside writer to critique the process of compiling the book and includes Eliasson's own "welcome" remarks that address issues of responsibility, "blinding elitism," questions of authorship, and access within the art world and in his rhetorical strategy of implicating "you" directs these questions to all of us who circumnavigate these fields of cultural production.

Olafur Eliasson's Reality projector

- 20 Expanded Cinema practices developing simultaneously in the United States and Europe did not converge into a single artistic movement, nor can it be limited to a narrow time period. References to the multidisciplinary formats that fit under its rubric, such as "film installations" and "multimedia shows" using film, video, and computer-generated imagery, provide a historical context and a theoretical framework that anchors much of the more recent use of film installation and projection in contemporary art. And subsequently, using this term points to its dual applications within art history and film theory as examined in Birgit Hein's groundbreaking book, Film im Underground: Von seinen Anfängen bis zum Unabhängigen Kino (Frankfurt: Ullstein, 1971), which foregrounded what Hein identified as Expanded Cinema's connections to a range of "new tendencies" in the United States and Europe, including narrative film (der erzählerische Film), Aktionsfilme, Politische Filme, computer, and video. These debates have been taken up in more contemporary art historical scholarship see Maeve Connolly, TV Museum: Contemporary Art and the Age of Television (Bristol and Chicago: Intellect Ltd., 2014).
- 21 For a historical reconsideration of Expanded Cinema in relation to the burgeoning field of digital media see my book, The Experience Machine: Stan VanDerBeek's Movie-Drome and Expanded Cinema (Cambridge, MA: The MIT Press, 2015).
- 22 Email with the author December 9, 2017.
- 23 For a precise understanding of compression and how these concepts lead to a reconsideration of representation in comparative literature, media theory and visual art, see Alexander R. Galloway and Jason R. LaRivière, Compression in Philosophy, boundary 2 1 (February 2017); 44 (1): 125–47. See also Tim Griffin, "Compression" October 135 (winter 2011): 3–20. I want to thank Eva Respini for organizing a convening of scholars at the ICA Boston on December 16, 2017, which among others included myself, Galloway, Griffin, and Caroline Jones and provided the opportunity to discuss these issues in relationship to her exhibition, Art in the Age of the Internet, 1989 to Today at the ICA Boston, February 7–May 20, 2018.
- 24 As Galloway and LaRivière emphasize, the aims are not to simply replace the paradigm of representation with one of compression but to make generative use of these differences by drawing out the distinctions between abstract compression and generic compression.
- 25 Lee, Take Your Time, 38.
- 26 Here I am referring to the discourse on the dominance of the scopic regime, Cartesian perspectivism within Western art. See Martin Jay and Sumathi Ramaswamy, eds., Empires of Vision: A Reader (Durham NC: Duke University Press, 2014). For a close reading of the ways that Eliasson's work makes use of the types of multiplicity and magnification allowed by microscopes, kaleidoscopes and other lens-based works in relationship to the history of modernism and technological developments in photography see Klaus Biesenbach and Roxana Marcoci, "Toward the Sun: Olafur Eliasson's Protocinematic Vision," in Take Your Time, 183–95.

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Essay Illustrations

Fig. 1

Olafur Eliasson
Test for *Reality projector*

Fig. 2 Renovation of the Theater Gallery, Marciano Art Foundation, 2017 Fig. 3 Olafur Eliasson I only see things when they move, 2004 Installation view, Moderna Museet, Stockholm, 2015

Fig. 4
Olafur Eliasson
Moving corner, 2004
Installation view, Kunsthaus Zug,
Switzerland, 2004

Fig. 5 Olafur Eliasson Movement microscope, 2011 HDV 16:9 Duration: 14:15 min.

Fig. 6
Olafur Eliasson
Map for unthought
thoughts, 2014
Installation view, Louis Vuitton
Foundation, Paris, 2014