

the life cycle of an analog
medium: tacita dean's *film*

e l e v e n

j e n n i f e r l y n n p e t e r s o n

Today, hardly anything happens in the world [...] that is not swiftly captured on film and shown to a cinema audience in the whole world.

(Emilie Altenloh, 1914)¹

Although it is a work of silent film made using analog processes, Tacita Dean's *FILM* (2011) is a resonant intervention into contemporary digital media culture. A celebration of 35mm on the eve of its apparent demise, *FILM* is a wondrous feast for the senses, displaying a masterful deployment of film's most basic formal elements such as composition, color, montage, and movement. A large-scale vertical projection running in an eleven-minute loop, *FILM* was commissioned as part of the high-profile Unilever Series for the Turbine Hall at the Tate Modern in London, where it was installed for five months in 2011 and 2012 (figure 11.1). *FILM* is entirely non-narrative, devoid of characters and the trappings of fiction that define the cinema for the majority of its spectators and fans. But the work offers a rich series of visual attractions that render it accessible to a



Figure 11.1 Tacita Dean's *Film* in the Turbine Hall at the Tate Modern (2011–2012).

generalist audience as well as a specialist audience of seasoned avant-garde filmgoers. It is hardly an exaggeration to call it a smash hit: the piece received largely rave reviews and was widely covered in the art media and the general press (receiving coverage in major British newspapers such as the *Guardian* and the *Telegraph*, along with a feature story in the *New Yorker*).² Hugely popular, the piece was dubbed a “stunning success” by no less than Rosalind Krauss.³

FILM was conceived and designed specifically for the Turbine Hall, a vast space that runs the entire length and height of the Tate Modern building. During the course of its eleven-minute loop, *FILM* presents a series of seemingly unrelated images: waterfalls, an escalator, tomatoes, a watch, an eye. *FILM* uses a widescreen format that has been turned on its side, so that it appears tall and thin, like a monolith. Some images emphasize verticality while at other moments *FILM* breaks the vertical frame into smaller units to create a split-screen effect.⁴ One of *FILM*'s major visual motifs is the exterior wall of the Tate Modern itself, whose narrow vertical windows form a prominent design feature of the historic building. (The building was originally the Bankside Power Station which opened in 1952; it was redesigned by architecture firm Herzog & de Meuron in 2000.) Within the space of the Turbine Hall, these windows are located directly behind where the large thirteen-meter screen was placed for the *FILM* projection (on the east wall of the hall), creating a doubling effect in which spectators frequently saw a film image of what literally existed behind the screen. This architectural image of a wall with vertical windows gestures toward the historical and industrial significance of the original building. At one point, a large bubble floats down in front of this wall-window image. Later, a large egg is superimposed in front of it. At another point, the wall-window image is divided into eight different geometrical shapes that pulse with different colors, giving the heavy industrial wall a dynamic stained glass effect. *FILM* also features a repeated image of a mountain—yet another reference to verticality, as well as a signifier of the natural or analog world. The mountain image is inspired by *Mount Analogue*, an allegorical novel by René Daumal about climbing a difficult-to-perceive mountain. The mountain appears superimposed in front of the wall-window image; then a second image of the mountain appears, upside down and underneath the first; then a third mountain. At some point, the mountain appears enshrouded in fog at its base. This mountain image—also a wry reference to the Paramount Pictures logo—lends *FILM* an allegorical dimension that separates it from Dean's other work.

In the press coverage of *FILM*, along with its companion exhibition book, the piece is understood to be about Dean's anachronistic use of 35mm in the twenty-first century and her defense of photochemical film as a medium that should continue to exist in the digital era. However, *FILM* is not simply a plea for an analog medium in the digital age, as it has been characterized. For despite its deeply materialist exploration of the filmic medium, and despite its polemical plea for the continued manufacturing of analog film stock, the digital nonetheless has emerged as a significant side effect of *FILM* as it continues to live online in the form of spectator videos posted on YouTube, Vimeo, and other sites. While the piece does indeed demonstrate the persistence and even resilience of the analog, *FILM* is also a meditation on historicity that revives the seemingly obsolescent technology of cinema

even while it helps us imagine a new multimedia future in which the digital is one of many technologies. This is a work about the death and renewal of a medium. Perhaps counter-intuitively, the life cycle of *FILM* actually makes a case for the co-existence of the analog and the digital.

FILM's five-month run at the Tate, from 11 October 2011 to 11 March 2012, coincided with a crucial period in the history of photochemical film.⁵ 2012 was the year that a majority of movie theaters worldwide converted from 35mm to digital projection. Just a few years later, 35mm has been almost completely phased out of commercial theaters worldwide.⁶ This change, which has major implications for exhibition, access, and preservation, was marked by many stories in the popular press, with one writer proclaiming that, "The year 2011 is the most important one for cinema since 1927" (the year of the transition to sync sound).⁷ In February 2012, a few weeks before *FILM*'s Tate exhibition closed, a large "Celebration of Film" event was held at the Turbine Hall with 800 invited guests from the British film industry. This event was staged in part to support a campaign (still underway) asking UNESCO to recognize photochemical film as a significant world cultural heritage artifact.⁸ *FILM* is thus a portrait of a medium at a particular moment in time: an endangered species facing possible extinction. For Dean, who has become an outspoken defender of photochemical film, the issue is one of "grieving the potential loss of my medium."⁹

I would like to suggest that while *FILM* fits into the category of the experimental or artist's film (and its concomitant exploration of cinematic medium), it can actually be better understood in the context of its singular invocation of historicity. More precisely, *FILM*'s resonance with early cinema (as image, technology, and experience) allows us to view the medium of film *in the present moment* against the backdrop of its long history as a complex intermedia technology. *FILM* contains images that seem to have time-traveled from early cinema such as giant mushrooms, waterfalls, industrial smokestacks, and waves lapping at the seashore. Moreover, many of *FILM*'s analog production processes can be traced back to the techniques of Georges Méliès and Norman Dawn, including extensive use of multiple exposures and glass matte painting. A favorite early cinema technique—in-camera masking—is used throughout *FILM* to create the image of sprocket holes running down the left and right of the frame. One section was colored using the silent-era process of color tinting. Finally, as a museum installation, *FILM*'s simulation of a "cinematic" mode of address recreates the space of film in its historical dimension, emphasizing cinema as a public experience in which a large moving image is projected before a group of strangers gathered in a darkened room. But *FILM* adds something new to this experience of "cinema," and this is a mark of its timeliness: *FILM*'s monumentality, its looming vertical frame resembling a monolith or a gravestone, transforms cinema spectatorship into an experience

of reverence and mourning. *FILM* is, in sum, a grand experience of plentitude and loss, pitched with an understated yet fundamental sensitivity to historical time.

FILM asks us to consider nothing less than the materiality of film as a historical subject: its photochemical base, the camera, special effects, editing, the projector, and how these technologies have different meanings in different eras. The cinematic *dispositif* or apparatus that once seemed so iron-clad to film theorists of yore (projector/light/screen) has been vanquished, and is put on display not for its ideological effects (à la Jean-Louis Baudry) but for its historical resonance. In fact, despite its evocation of early cinema and the long history of photochemical film, the piece is entirely contemporary; not only has it been shaped by concerns about the materiality of analog media, but these very concerns are a product of the digital age. While it uses only analog material and processes—and indeed, it would not have the same visual quality or power if it had been made using digital techniques—*FILM* is resolutely a work of the digital era.

As a kind of requiem for film, *FILM* explores what it might mean to mourn the passing of a medium. But what is surprising and perhaps unexpected is *FILM*'s digital afterlife. For *FILM* has, ironically enough, found a robust online presence in spectators' videos posted online. These videos have been shot on smart phone cameras and feature the familiar poor technical qualities associated with amateur video. And yet these digital forms of *FILM* provide access to a work that is no longer viewable, and which, as a site-specific installation, was never accessible to everyone in the first place. *FILM* is thus a work that is both *about* history and a work that already *has* a history of its own. *FILM* provides us with a singular opportunity to think through shifting perspectives on film history, as well as the significance of the analog, at this transitional moment in the so-called digital age.

analog work/digital circulation

Here I must fess up: I myself have only experienced *FILM* online. I have watched the many digital copies of *FILM* that have been posted on YouTube, Vimeo, and other sites, and I have looked at numerous ancillary and related images and texts in art magazines, blogs, and other sources. But I was unable to travel to London during the five months it was installed at the Tate. I am familiar with the Turbine Hall from other visits before and after *FILM*'s exhibition, and I have discussed the piece with friends and colleagues who saw it when it was installed there. I have seen a number of Dean's other films in person, including two works that immediately followed *FILM*: *JG* (2013) and *Buon Fresco* (2014). I have also been fortunate to interview Dean in person and I shall quote from that interview here. But I have not experienced *FILM* in its analog form, as an installation with a material presence in a specific time and place. Rather, I have looked at

digital versions of the piece on small two-dimensional screens, rather like sketches or documentary fragments. I have experienced *FILM* as a collection of mostly digital traces.

The issue of writing about an artwork one has not experienced in person has been a topic of discussion in performance studies. Amelia Jones argues that, “while the experience of viewing a photograph and reading a text is clearly different from that of sitting in a small room watching an artist perform, neither has a privileged relationship to the historical ‘truth’ of the performance.”¹⁰ Jones’s larger point is that “there is no possibility of an unmediated relationship to any cultural product,” including even live performance.¹¹ The problematic of writing about analog films that one has viewed digitally is somewhat different. Since the dawn of the video era in the 1980s, film scholars have regularly analyzed films they have not seen in the theater. Nobody remarks at this, and in fact scholars almost never make note of the exhibition contexts in which they viewed the films they write about. This is because film’s relationship to concepts of presence and originality is always already fraught: as a mechanically reproduced art form, analog film’s status as auratic has always been questionable in the first place. But analog film’s position has changed with the shift to digital; since digital media lack the materiality of analog film, photochemical film prints have come to take on the character of originals. Theatrical distribution prints of films are not originals, of course, but copies. A work made for museum exhibition such as *FILM*, however, contains an element of site-specificity and “liveness” that theatrical films do not have. *FILM* is not live in the way that performance art is live, but neither is it reproducible in the way a theatrical film print is reproducible. What is lost when one views *FILM* online is not only the materiality of analog film—its quality of light, color, grain—but also the large-scale presence of the work in a particular space.

Changing the reception context of *FILM* quite obviously changes the experience of *FILM*. But nobody would claim that watching *FILM* on YouTube is equivalent to having seen the piece in the Turbine Hall. These digital copies are documents of the original installation, and they function like other traces—photographs, reviews, descriptions—to provide an account of a work that can no longer be seen in its original form. More importantly, these digital copies call attention to the mediated nature of film as an aesthetic experience in the first place. When one stands (or sits) before a projected film print, what is there to verify that one is experiencing the true “essence” of the work anyway? All of these issues circle around the well-trodden Benjaminian concept of aura, of course, and I will not rehearse a discussion of that concept here.¹² This much is clear, however: the digital copies of *FILM* facilitate new ways of experiencing the work that are less about authenticity and more about circulation, hybridity, and even (potentially) futurity. As any historian knows, historical traces are always

fragmentary; what is interesting here is to observe the fragments at the moment of their emergence. While I share Dean's sense of loss about the phasing out of photochemical film, I am grateful for the digital media that have enabled me to see some version of *FILM* when I could not otherwise do so, and I am grateful for *FILM*'s continued digital presence now that it no longer exists as an installation. Even Dean herself told me that she doesn't mind the YouTube versions of *FILM* because now, "that's the only way I can see it."¹³ Ironically, it is the digital that has enabled the circulation of this analog piece, and digital media that have amplified the cause for saving analog film through various petitions and campaigns making the rounds on social media.

As film grain has been transformed into digital pixel, the debate about the ontology of cinema has been revisited by a number of scholars and artists who have been exploring questions of indexicality and materiality in analog and digital media. From one perspective, media convergence across digital platforms threatens to dissolve not only the specificity of cinema as a medium but to render the very experience of cinema itself a historical relic. From another perspective, however, the shift to digital is just another transition—albeit a radical one—in an ongoing history of screen practice. As recent scholarship in new media and archival studies has argued, moving image media have always been transitional in nature. David Thorburn and Henry Jenkins write, "to focus exclusively on competition or tension between media systems may impair our recognition of significant hybrid or collaborative forms that often emerge during times of media transition."¹⁴ Rather than a one-sided story in which digital cinema marches to its inexorable triumph over photochemical film, which lies vanquished and abandoned in the scrap heap with other so-called dead media, *FILM* and its digital afterlife can help us to see the transition to digital as a complex and unpredictable example of different media coexisting and overlapping. If we adopt the long view of film history from a media archaeology perspective, 35mm film is but one iteration in an ongoing history of screen practice. As film archivist Giovanna Fossatti has observed, "Old media never disappear completely."¹⁵

I argue that *FILM*, for all its celebration of the rich sensorial pleasures of photochemical film, actually demonstrates the compatibility of the analog and the digital. *FILM*'s digital afterlife facilitates new kinds of experience that may be diminished from the perspective of medium specificity, but these experiences are valuable in their own right. Viewing *FILM* online, one experiences a different sense of plenitude and loss. What has been lost is not only the aesthetic density of 35mm, but also the presence of the original installation. However, *FILM*'s digital afterlife enables one to transcend the limitations of geographical, physical, and temporal embodiment. The abundance of digital copies currently available feels like a kind of plenitude—but this digital plenitude is not without its own set

of problems. Digital media are notoriously ephemeral. Users can delete their videos at any time. YouTube (owned by Google) and Vimeo (owned by IAC/InteractiveCorp) are both corporate-owned commercial entities, and could change their policies, reorganize, or even vanish, which would put an end to *FILM*'s online afterlife. Ultimately, the dance of the analog and the digital enabled by *FILM* calls attention to the fact that the kinds of reciprocity and engagement spectators have with film has been caught up in a paradoxical dynamic of absence-presence since film's inception. As this essay's epigram by Emilie Altenloh attests, even in the 1910s filmic documentations of events were already "swiftly captured on film" and circulated around the world. And as film historians are well aware, photochemical film prints from the silent era also proved largely ephemeral. What has changed is the nature of this absence-presence in the digital age. A larger consideration of these stakes is beyond the scope of the present essay. For now, I turn to a close examination of *FILM* for what it can reveal about film history, mourning, and renewal.

an historical interest in sinking ships

Dean is a British artist, based in Berlin. She has been working with film since the early 1990s, producing over forty films on 16mm. Her work also encompasses drawing, collage, photography, and sound recordings. Dean's reputation has been well established in Europe for some time (she was nominated for the Turner Prize in 1998), and she has been the focus of increasing attention in North America in the past several years, although to date she has not had a major retrospective in the U.S., and there has been only limited scholarship published on *FILM*. Dean is known for her steadfast commitment to analog modes of visual representation.¹⁶ Indeed, her solo retrospective in 2006 at the Schaulager in Basel, Switzerland was called "Analogue." Dean's work might best be described as portraiture, although that term sounds too conventional to encapsulate what her work achieves. Her films are characterized by a patient observational style manifested in long takes and a stationary camera. She has made a number of portrait films of artists; her 2012 show at the New Museum in New York, "Five Americans," included works about Merce Cunningham, Cy Twombly, Claes Oldenburg, Julie Mehretu, and art historian Leo Steinberg, for example.¹⁷ Her most recent film, *Buon Fresco* (2014), closely depicts the frescoes of Renaissance painter Giotto di Bondone in the Upper Basilica of St. Francis in Assisi. Dean also makes portraits of places, architecture, and industrial processes. *Fernsehturm* (2001) depicts the interior of the rotating restaurant inside the Fernsehturm television tower in Berlin, and *Darmstädter Werkblock* (2007) was filmed in the seven rooms of Joseph Beuys' installation "Block Beuys" as it was being refurbished at the Hessian State Museum in Darmstadt, Germany. *Kodak* (2006), which functions as an

important precursor to *FILM*, documents the last days of 16mm film production at the now-defunct Kodak manufacturing plant in Chalon-sur-Saône, France.

As almost every commentator has noted, Dean returns to themes of anachronism, obsolescence, and loss throughout her work.¹⁸ In a chapter from her recent book *Exhibiting Cinema in Contemporary Art*, Erica Balsom analyzes Dean's work (produced before *FILM*) as a form of "cinematic ruins."¹⁹ As Dean herself has jokingly remarked, "I [have] had a historical interest in sinking ships."²⁰

I would like to suggest that we might think of Dean's work not only in terms of its focus on obsolescence—the interest in sinking ships—but also in terms of its historicity: this interest is specifically (if obliquely) historical. (The word "historical" in Dean's phrase doubly refers to her own history and to history in general.) The historicity in Dean's film work can be found most simply as a series of references, but also appears as a deep engagement with concrete actuality in specific times and places. Some of the references are obvious: Dean's film *The Green Ray* (2001) recalls Eric Rohmer's film *The Green Ray* (1986); the music playing in the restaurant at one point in *Fernsehturm* is Strauss' "Blue Danube Waltz," which is famously heard in Stanley Kubrick's *2001* (1968). A number of Dean's film works also resonate with early film subjects (nature, landscape, industrial production), a reference point that is not likely to be noticed by the majority of viewers who are unfamiliar with early cinema. *Pie* (2003) depicts the magpies outside Dean's Berlin studio; *Baobab* (2002) depicts the fantastically shaped trees of Madagascar; and *Banewl* (1999) depicts a Cornwall farm landscape with cows during an eclipse of the sun. All three of these films echo early cinema's abundant nature study subjects such as birds, trees, and farming. While these shared interests with early cinema may not be deliberate, the resonance gains relevance when one considers that Dean's films confront the world as a landscape of endlessly fascinating material details, just as early cinema discovered in the world an endless list of phenomena to document. The historicity in Dean's work is in keeping with what has been dubbed the "temporal turn" in contemporary art. As art historian Christine Ross argues, much contemporary art works to free "the three categories of time (past, present, and future) [...] activating the past in the present and allowing it to condition the future in that very process [...] [in order] to remove the future from its modern role—the role of initiator of change—and make room for the reimagining of the future."²¹ *FILM* looks back to early cinema as a way of arguing for a different future for art.

As an artist working in the realm of "white cube" exhibition in galleries and museums, Dean's work can be difficult to see. Her work eschews the many distribution platforms available in the digital age. Unlike the theatrical circuit that exists for experimental film (including film festivals and a small number of cinematheque theaters), Dean's films are unavailable for

theatrical screenings and unreleased on DVD. As with many artists working in film, Dean's films are printed in limited editions, which are then sold to museums or art collectors. As Balsom puts it, "It becomes a privileged experience to be present before a Tacita Dean film, to share a room with it for a particular duration of time, and an even more privileged experience to purchase one of four editions in existence at a cost of €80,000."²² The closely guarded scarcity of the prints is what gives them their economic value as art objects. If a regular viewer misses the gallery run of a Dean exhibition, that viewer is basically out of luck if she wants to view it elsewhere. Dean's films are almost entirely unavailable online, and only accessible to the public when installed (temporarily) in gallery and museum settings. (One exception is *The Green Ray*, which is available on Vimeo in an official video produced by Tate Media. *The Green Ray* is a silent film, however, and this digital version appears with a related but separately recorded voice-over narration read by Dean, much to her chagrin.)²³ These gallery installations, moreover, produce a specific spectator experience that is different from a theatrical experience. According to Dean, only a few of her films such as *The Uncles* (2004), *Craneway Event* (2009), and *Edwin Parker* (2011) are allowed to be shown in a cinema. She has said, "Generally I don't show my films in cinemas because I cannot control the way they are shown, the scale of the screen, the light, the height, and to some extent the audience. My works are installed as one installs a sculpture or painting."²⁴

Exhibition and circulation constitute a hugely important dimension of contemporary avant-garde film practice, and it is crucial to understand the distinction between works exhibited in the "black box" of the theater versus works shown in the "white cube" of the gallery or museum space. In a useful article, Jonathan Walley has elaborated upon this distinction to trace what can be thought of as two distinct modes of avant-garde film practice: experimental film versus the artists' film. According to Walley, experimental film tends to be personal and artisanal and relies on the distribution network of film rentals (through distribution organizations such as Canyon Cinema and the Filmmaker's Cooperative). The artists' film, in contrast, is often collaborative, and eschews theatrical distribution in favor of the art gallery or museum.²⁵ Walley's article however does not consider how experimental filmmakers variously utilize the internet as a distribution platform. Many (though by no means all) experimental filmmakers who show their films in cinematheques (whether the works originate on analog or digital) maintain pages on Vimeo or other sites, for example, where their works can be accessed for free, often in their entirety. Many artists exhibiting film works on the white cube circuit, in contrast, do not make their work available online; when such artists' films occasionally do crop up they are quickly taken down, presumably by the galleries who work to police the boundaries of the artists they represent. This is clearly an effect of the different economies of black box and white cube exhibition:

experimental filmmakers do not generally make a profit from showing their films in theaters, while artists who sell limited editions of their film prints via the gallery system are able to make significant sums of money. Controlling online circulation is one way of ensuring the “scarcity” of film prints that are sold in limited editions. Again, there are exceptions to this rule—Sharon Lockhart, for example, is one artist who both sells her work via the gallery system and allows her work to be shown online. But Dean is an artist whose work has not circulated in this way—until now, with the phenomenon of *FILM*.

FILM uses 35mm, unlike Dean’s other films, which are shot, edited, and projected on 16mm. In fact, *FILM* is quite unlike any other film Dean has made. Its pace of editing is quite fast, compared with her usual contemplative long takes. It marks the first time Dean used her patented aperture gate masking system (to be described below), which she subsequently used in *JG*. And its vertical portrait format is unlike the landscape format that characterizes a number of her other films (*Banewl*, *JG*). Moreover, its spectacular nature, while still contemplative, is quite unlike the sensibility of Dean’s other films, which are marked by a tone of quiet observation. As Dean states in *FILM*’s exhibition book, “The artist Matt Mullican [...] described the Turbine Hall to me as a space with a big ego, and he was right.”²⁶ This was a big public artwork that reached a wider audience than Dean’s previous films, and it was designed for that purpose. As such, it was an excellent platform for engaging in public discourse, and Dean seized the opportunity for activism in support of photochemical film. Understood in the context of the accompanying exhibition book, which sounds a battle cry for photochemical film stock, *FILM* is argumentative in a way that Dean’s other works are not.

Dean makes carefully crafted analog representations, but her work is not only about obsolescence. Dean’s work explores the meaning of the analog with a resolutely contemporary sensibility. Several months before *FILM*’s debut, Dean published a widely read manifesto in the *Guardian* newspaper, “Save Celluloid, for Art’s Sake,” in which she explained,

Many of us are exhausted from grieving over the dismantling of analogue technologies. Digital is not better than analogue, but different. What we are asking for is co-existence: that analogue film might be allowed to remain an option for those who want it, and for the ascendancy of one not to have to mean the extinguishing of the other.²⁷

This statement is crucial, for some have misinterpreted Dean’s activism for photochemical film—and *FILM*’s elegy for the medium—to mean that she and this work are opposed to the coexistence of film and digital media. In

fact, Dean has steadfastly and consistently asserted that she is not opposed to all things digital. As she said in an interview at the time of the original exhibition, “It’s not that I’m a Luddite—I’m not. My sound is digital [. . .]. For some reason if you love film people think you hate digital. The point is digital is a separate medium it’s also a fantastic medium. It’s got massive potential. I’m in no way anti-digital, I’d like to make that clear.”²⁸ And as Dean said more recently when I asked her directly what she thinks of the videos of *FILM* posted on YouTube and Vimeo:

I don’t mind about that, because it’s always in context. You know, [*FILM*] defies your normal telecine. I mean, I can’t make a telecine of that. So I’ve only got those [videos] . . . I don’t mind at all, because as I say it’s alive. People are walking in front of it. And actually when the Tate documented it, they did it without anybody in it, which was a shame.²⁹

So how does *FILM* activate the past in such a way that it looks forward to envision a future for film? Upon close analysis, *FILM* reveals itself as a work that is not only about materiality and historicity, but also death and renewal.

film and early cinema

Dean has explicitly referred to early cinema as a source of inspiration for *FILM*, not only for its technology, but for its sense of excitement about the new medium. “I wanted to go back to the time of invention of early cinema,” she has said.³⁰ In fact, although *FILM* could never be mistaken for a work of early cinema, its strong resonance with early cinema renders it a kind of requiem for film. *FILM* is filled with nature imagery, common in the world of early cinema, such as insects, plants, and bodies of water. Its images of waves at the seashore resemble early “rough seas” films such as *Rough Sea at Dover* (Acres, 1896) and *Rocks and Waves* (Gaumont, 1911). *FILM*’s giant image of mushrooms, tinted green at one point, bears an uncanny resemblance to a 1911 Pathé film called *Mushroom Growing*. Water flows over a waterfall and water spouts from a fountain in *FILM*, just as countless early scenic and travelog films depicted waterfalls, water fountains, and other images of moving water, from *Waterfall in the Catskills* (Edison, 1897) to *Picturesque Waterfalls of France* (Eclipse, circa 1910–1915). Architectural shapes and structures also predominate. A tall factory smokestack belches steam, in an image reminiscent of early industrial films such as *The Concrete Industry* (Kalem, 1913). These similarities are not necessarily a direct reference to specific early films, which are largely unknown and reside mostly in film archives (though more are being made available online).³¹ And certainly,

early nonfiction films are not a reference point that many spectators would recognize. But early cinema was a medium of discovery, and *FILM* has recaptured early cinema's sense of discovering the world through a new medium. Bracketing all of this is the piece's signature graphic element: sprocket holes.

In a work that revels in cinematic tricks, *FILM*'s sprocket holes are perhaps the most magnificent trick of all. They function as a major graphic element running down the left and right side of the frame for the duration of the piece. At first glance they seem to be the actual sprocket holes of the film revealed. To anyone with even rudimentary knowledge of analog film and projectors, however, this appears as a bit of a puzzle, for sprocket holes fall outside the area that is projected onto the screen, and are not visible in this way. In fact, these "sprocket holes" are graphic visual elements printed inside the regular area of the frame. *FILM*'s functioning sprocket holes are not visible during projection, and when one looks at a piece of celluloid from the work (an actual piece of *FILM* was included in the exhibition book), one sees two strips of sprocket holes running down the left and right: real perforations next to their graphic representation.³²

Sprocket holes—otherwise known as perforations—are the mechanism by which film is advanced through the projector. Perforations were an essential component of the flexible film base, or celluloid, that was developed in the late 1880s, onto which projectable moving pictures were first printed. Perforations are an emblematic development of the machine age: they were also an important component of Morse telegraph tape, ticker tape, and the printing of postage stamps. In the very earliest years of cinema, when film gauge was not standardized, several different kinds of perforations existed. Lumière films used one round perforation per frame, for example. Rival companies used other film gauges (and thus rival projector systems), but Edison's 35mm gauge (with four perforations per frame), which had been in use since the 1890s, became standard in 1909 with the formation of the Motion Picture Patents Company.

Square sprocket holes eventually became one of the major signifiers of analog film. The graphic image of a few frames of 35mm celluloid with sprocket holes—let's call it the sprocket hole image—has been used in countless film studio and film festival logos over the years. (Perhaps the most famous example is MGM's classic logo with strips of celluloid spooling out around Leo the Lion.) In fact, one can find this generic sprocket hole image used to signify "film" in an endless array of cinema-related paraphernalia, from small-film-business logos to movie souvenirs and t-shirts. And significantly, the sprocket hole image is still used to signify "moving image media" in many digital contexts: it serves as the graphic icon for "movies" in iTunes, for example. Certainly, the sprocket hole image is

visually striking, but it is also a radically materialistic signifier of what cinema is. This graphic representation of film's material base was once powerfully iconic, signifying a technology, an industry, and a form of media in all its glimmering commercial success. Today that iconic meaning has changed: sprocket holes signify analog media, or rather, old media. But as the iTunes example indicates, in the digital world the sprocket hole image still has the ability to signify any form of moving image media. In this case, the digital has repurposed an analog signifier.

There is a small, prior tradition of experimental filmmakers using sprocket holes as graphic elements, as seen in the work of Owen Land, Paul Sharits, or Peter Tscherkassky. The history of still photography also features sprocket holes revealed starting in the late 1960s; one famous example is the cover of *The Yes Album* from 1970. And today's lo-fi still photography movement is all about exposing the edges of the celluloid so that the sprocket holes become part of the image. But *FILM* seems to be working with the tradition of the sprocket hole image in its generic sense, not so much as an artistic gesture revealing artifice, but rather as a historical gesture invoking the essence of film's material base. *FILM*, then, is a radically materialistic portrait of a medium; it is not about narrative or stars or genres or industry. Rather, *FILM* works almost animistically to inject 35mm photochemical film with a kind of vitality or consciousness, as if it were the lifeblood of an art form. *FILM* reaches to portray film's very spirit, and it locates that spirit in the realm of its material base.

However, the medium of film has always been hybrid in nature, drawing from different media and reliant on the history of technology, and *FILM* exemplifies this hybridity. Although Dean used only analog processes to make the piece, not all of these processes date back to early cinema. The anamorphic lenses used in the piece were developed in the 1950s. An Arri 435 camera (designed in the 1990s) was used to shoot the film. Moreover, while *FILM*'s use of masking hearkens back to early cinema, the actual masks used for this analog production process were made with digital tools. The *concept* dates back to early cinema. As Dean puts it, "Many a keyhole or binocular effect through which we spied in early cinema were made this way, but the edges were never very crisp and the imagery cumbersome."³³ But the *technique* Dean used combines analog camera technology with contemporary digital fabrication. The new masks Dean created for *FILM* were designed by Berlin architect Michael Bölling, working on a computer; the masks themselves were fabricated out of plastic on a 3D printer. The masks, each a different shape, were placed inside the camera's aperture gate, blocking out a section of the film.³⁴ These masks do indeed produce much crisper edges than those found in early cinema, and the effect is stunning. This aperture gate masking system was used to produce many of *FILM*'s key visual effects,

including the sprocket holes as well as the triangular and circular shaped cut-outs.

The anamorphic lens creates a widescreen aspect ratio of 1:1.73, which Dean exploits to its fullest by composing the vertical image carefully in every corner, especially in parts of the work in which the frame has been divided into many different sections. To achieve this carefully sculpted effect, the film had to be exposed and rewound up to twelve times. As Dean explains it, “I make masks that fit into the aperture gate, which means it’s like a stencil. So I . . . rewind the film and then stencil the negative space, and so build up an image on the frame, by putting the film through the camera many times.”³⁵ This process of rewinding and re-exposing different parts of the film is reminiscent of the procedure used by Kurt Kren in his film *31/75: Asyl* (1975), except that Kren used a mask placed in front of the lens, not inside the camera, and Kren’s film has the fuzzy edge effect that Dean wanted to avoid.

For the color-blocked sections of *FILM*, color was added to each corner of the frame using the rewinding/masking technique just described, in combination with color filters; the flash frames that were created in this process became colored, and Dean chose to leave them in, creating an unpredictable pulsating color effect. As Dean has said numerous times, part of the value of analog film for her is the mystery of the process; she and her crew did not know what exactly the result would be when they were crafting the piece. Through all these various devices, the work becomes a delightful multisensory spectacle, thanks to the impact of flickering colors and shapes projected on such a large scale. The effect of all these in-camera tricks is magical; *FILM* looks like a wondrous monolith. The Kubrick resonance has been noted by many viewers and by Dean herself, who has said that “we always call it the monolith because it’s very like the monolith in Stanley Kubrick’s *2001: A Space Odyssey*, which was a cinema screen on its side apparently.”³⁶

FILM appears to be an elegy for a dying medium; the piece revels in the technology of its creation, and seems to ask its viewers to mourn the passing of this technology. Projected silent, the piece took on the hushed echoes of the Turbine Hall, allowing the sounds of the spectators to become the accompanying soundtrack and giving the piece an interactive, embodied dimension. Dean has stated that the lack of a soundtrack in *FILM* was not intended to be a reference to silent cinema, but this was a connection to film history that many commentators made anyway. In the Turbine Hall, the most prominent sounds (as evidenced in video after video) were those of children squealing, running, and delightedly spinning in front of the screen. At the risk of trivialization, one might dispense with the traditional funerary allegory and instead describe the piece as a celebration of life. This celebratory quality takes on new meaning when one considers *FILM*’s digital afterlife online.

mourning and renewal

In early cinema studies, “cinema” is sometimes defined as moving pictures projected before a public audience, as a way of distinguishing cinema from pre-cinematic peepshow devices such as the Kinetoscope and the Mutoscope (which were not projected and only addressed one spectator at a time). Yet this “cinematic” historical mode of viewing dominated from the 1890s until the dispersal of audiences into home viewing contexts in the 1980s, so it is not specific to early cinema. This is the mode of exhibition that *FILM* recreates in the space of the museum. And it is in the realm of circulation that *FILM*'s digital afterlife takes on significance.

The embodied, site-specific experience of a museum film such as *FILM* is available to a finite number of people who happen to be in the right place at the right time. After *FILM*'s debut run at the Tate Modern, it appeared subsequently at art museums in Melbourne and Seoul.³⁷ These are all widely accessible venues in major cities, and thus the piece has been seen by a great number of people. As of this writing, however, there are no plans for it to travel further. Theoretically at least (it is impossible to measure for sure), many more people have been able to access Dean's works through online video. There is a great deal of amateur footage of *FILM* online, as well as seemingly endless still images of the piece uploaded to Flickr. There was also a flurry of online media coverage containing clips from the piece. When watching the amateur online footage of *FILM*, one has to contend with the spectators' various framing and camera decisions: some videos are handheld though many are surprisingly stationary, some videos zoom in and out at odd moments, people walk in front of the camera, many of the videos are incomplete, and so forth. The spectators who have posted these videos are mostly anonymous (although one of the Vimeo videos is by filmmaker Phil Solomon).³⁸ What these videos capture is the experience of standing before the piece, registering both awe and a sense of enjoyment, and also functioning rather like home movies: I was here, I saw this.³⁹

While the quality and scale of these online videos are radically different from those of the original piece, these videos nonetheless enable viewers to have an experience of the work, even if that experience is different. The spectator videos of *FILM* at the Tate Modern transform the piece from an imposing installation experienced communally in a landmark public space into a small digital video experienced privately. The online videos evoke a different sense of loss than the installation piece, which asks the viewer to think about the demise of 35mm. Instead, the online videos generate a sense of loss for the embodied experience; the viewer is acutely aware that she is not seeing the piece in person and that the installation has ended.

Photography and film have long been associated with death, from Maxim Gorky's famous account of film at an early Lumière screening as a “kingdom of shadows” to Roland Barthes' account of death as the “*eidōs*”

of portrait photography in *Camera Lucida*.⁴⁰ Tom Gunning has written of how each recording technology “delivers an uncanny foretaste of death, as a peculiarly modern *Memento Mori*.”⁴¹ Indeed, Barthes’s account of portrait photography reminds us that in most portraits the sitter is acutely aware of the photo being taken (this self-consciousness has taken on heightened intensity in the age of the selfie). Cinema’s “death” has been widely trumpeted and anxiously mourned since the 1990s. And yet the latest phase in the shift to digital—the phasing out of 35mm projection—does indeed signal a new era for motion pictures. Now that photochemical film is an endangered species, its obsolescence entails a narrative of loss. Today, a few years after *FILM*’s run at the Tate Modern, and film’s fate seems both more imperiled and possibly more hopeful. Although most filmmakers working in the commercial film industry have embraced digital technology (while remaining silent about or unaware of the larger meaning of this shift), a small but influential few (such as Christopher Nolan, J.J. Abrams, Judd Apatow, and Quentin Tarantino) have rallied to support 35mm film production and exhibition.⁴²

FILM can help us think through the contradictions of medium specificity now that the vast majority of media have shifted from analog to digital. *FILM* reminds us that there is an analog culture that persists alongside the digital, and it reminds viewers that they should care about cultivating diverse media environments. Although it uses techniques from early cinema to capture the viewer’s attention and to make its point about the importance of photochemical film’s persistence in the digital age, it is ironic that the piece is only accessible now via its digital afterlife. In this instance, the digital has enabled the persistence of the analog, at least as a digital trace if not as physical material. Indeed, perhaps one of the only ways the analog can survive at present is when nurtured by the digital habitat that currently dominates. In its larger context as an artwork circulating in the world, *FILM*, a work about the specificity of 35mm as an analog medium, actually makes a case for the continuities and synergies of old and new media. Rather than a model in which digital media destroy analog media, we have in this instance an example of overlap, hybridity, and coexistence.

notes

1. Emilie Altenloh, *On the Sociology of the Cinema: The Cinema Business and the Social Strata of Its Audience* (1914), trans. Lance W. Garmer; excerpted in *German Essays on Film*, eds. Richard W. McCormick and Alison Guenther-Pal (New York: Continuum, 2004), 40.
2. See Nicholas Cullinan, “Exhibition in Focus: The Unilever Series, Tacita Dean at Tate Modern,” *Telegraph* (21 October 2011): <http://www.telegraph.co.uk/travel/destinations/europe/uk/london/8841556/Exhibition-in-focus-The-Unilever-Series-Tacita-Dean-at-Tate-Modern.html>. Accessed 27 February 2015; Adrian Searle, “Tacita Dean: Film—Review,” *Guardian* (10

- October 2011): <http://www.theguardian.com/artanddesign/2011/oct/10/tacita-dean-film-review>. Accessed 27 February 2015; Emily Eakin, "Celluloid Hero," *New Yorker* (31 October 2011): 54–61.
3. Rosalind Krauss, "Frame by Frame: Rosalind E. Krauss on Tacita Dean's *FILM*, 2011," *Artforum* (September 2012): 419. Accessed 29 April 2015.
 4. There has been a groundswell of interest in vertical cinema lately, with a well-received "Vertical Cinema" project emerging out of Rotterdam and touring a small number of venues in Europe in 2014, often with exhibitions in churches. Most of these works were created digitally and transferred to 35mm for projection. *FILM* is not a part of this project, but it certainly anticipated the interest in the vertical exhibition format.
 5. "Celluloid" is a misnomer—cellulose nitrate and cellulose acetate have not been used as a film base for years; polyester has been the base for release prints since the 1990s—and yet "celluloid" is still used colloquially as a term that refers to analog film with a flexible film base. The term "photochemical film" is more accurate.
 6. On 31 December 2013 the MPA Theatrical Market Statistics reported that "Over 80% of the world's nearly 135,000 cinema screens are now digital": http://www.mpa.org/wp-content/uploads/2014/03/MPAA-Theatrical-Market-Statistics-2013_032514-v2.pdf. Accessed 27 February 2015. In 2015, 35mm will be projected in only seventeen percent of global cinemas, according to HIS Screen Digest Cinema Intelligence Service. See <http://www.isuppli.com/Media-Research/News/Pages/The-End-of-an-Era-Arrives-as-Digital-Technology-Displaces-35-mm-Film-in-Cinema-Projection.aspx>. Accessed 27 February 2015.
 7. Ivan Radford, "Don't Keep it Reel: Why There's Life After 35mm," *Guardian* (29 November 2011): <http://www.guardian.co.uk/film/2011/nov/29/life-after-35mm-digital-film>. Accessed 29 April 2015.
 8. <http://www.imago.org/index.php?new=604>. Accessed 27 February 2015. To learn about the campaign (and sign the petition), go to <http://www.save-film.org/>. Accessed 29 April 2015.
 9. Tacita Dean, *FILM* (London: Tate Publishing, 2011), 16.
 10. Amelia Jones, "'Presence' in *Absentia*: Experiencing Performance as Documentation," *Art Journal* Vol. 56 No. 4 (Winter 1997): 11.
 11. *Ibid.*, 12.
 12. Erika Balsom discusses Dean's work in relation to Walter Benjamin's concept of "aura" in "Filmic Ruins," in *Exhibiting Cinema in Contemporary Art* (Amsterdam: Amsterdam University Press, 2013), 65–106.
 13. Tacita Dean, interview by Jennifer Lynn Peterson, 5 December 2014, Getty Research Institute, Los Angeles, CA, 6.
 14. David Thorburn and Henry Jenkins, "Toward an Aesthetics of Transition," in *Rethinking Media Change: The Aesthetics of Transition*, eds. David Thorburn and Henry Jenkins (Cambridge, MA: MIT Press, 2003), 3.
 15. Giovanna Fossati, *From Grain to Pixel: The Archival Life of Film in Transition* (Amsterdam: Amsterdam University Press, 2009), 19.
 16. On *FILM* see Caylin Smith, "The Last Rays of the Dying Sun: Tacita Dean's Commitment to Analogue Media as Demonstrated by *FLOH* and *FILM*," *NECSUS 2* (Autumn 2012): <http://www.necsus-ejms.org/the-last-ray-of-the-dying-sun-tacita-deans-commitment-to-analogue-media-as-demonstrated-through-floh-and-film/>. Accessed 27 February 2015.
 17. These films are *Craneway Event* (2009), depicting Merce Cunningham; *Edwin Parker* (2011), depicting Cy Twombly; *Manhattan Mouse Museum* (2011),

- depicting Claes Oldenberg, and *GDGDA* (2011), depicting Julie Mehretu. The photo series *Line of Fate* (2011), also included in the New Museum Show, depicts art historian Leo Steinberg.
18. For a sampling of scholarship on Dean's film work (not including *FILM*), see Erika Balsom, "A Cinema in the Gallery, A Cinema in Ruins," *Screen* Vol. 50, No.4 (Winter 2009): 411–427; Beatrice von Bismarck, "Studio, Storage, Legend: The Work of Hiding in Tacita Dean's *Section Cinema* (*Homage to Marcel Broodthaers*)," in *Hiding Making Showing Creation: The Studio from Turner to Tacita Dean*, eds. Rachel Esner, Sandra Kisters, and Anne Sophie-Lehman (Amsterdam: Amsterdam University Press, 2013), 176–187; Tamara Trodd, "Lack of Fit: Tacita Dean, Modernism, and the Sculptural Film," *Art History* Vol. 31, No. 3 (June 2008): 368–386.
 19. Balsom, "Filmic Ruins," 65–106.
 20. Hans Ulrich Obrist, *Tacita Dean: The Conversation Series* (Cologne: Verlag der Buchhandlung Walther König, 2012), 55.
 21. Christine Ross, *The Past is Present, It's the Future Too: The Temporal Turn in Contemporary Art* (New York: Continuum, 2012), 6.
 22. Balsom, "A Cinema in the Gallery," 425.
 23. To watch this version of *The Green Ray* (with the added voice-over) see <https://vimeo.com/37303919>. Accessed 29 April 2015.
 24. Andreas Reiter Raabe, interview with Tacita Dean, "Film as Painting," *Spike Art Quarterly* 29 (Autumn 2011): http://www.spikeart.at/en/a/back/back/Portrait_Tacita_Dean. Accessed 27 February 2015. Also discussed in Tacita Dean, interview by Jennifer Lynn Peterson, 1.
 25. Jonathan Walley, "Modes of Film Practice in the Avant-Garde," in *Art and the Moving Image: A Critical Reader*, ed. Tanya Leighton (London: Tate Publishing, 2008), 182–199.
 26. Dean, *FILM*, 16.
 27. Tacita Dean, "Save Celluloid, for Art's Sake," *Guardian* (22 February 2011): <http://www.theguardian.com/artanddesign/2011/feb/22/tacita-dean-16mm-film>. Accessed 27 February 2015.
 28. "Tacita Dean Talks about *FILM* at the Turbine Hall," <http://www.phaidon.com/agenda/art/events/2011/october/11/tacita-dean-talks-about-film-at-the-turbine-hall/>. Accessed 27 February 2015. Run-on punctuation in original.
 29. Tacita Dean, interview by Jennifer Lynn Peterson, 5.
 30. Tacita Dean, artist's talk at the Hammer Museum, Los Angeles, 22 January 2014.
 31. For a more thorough discussion of these early film genres see Jennifer Lynn Peterson, *Education in the School of Dreams: Travelogues and Early Nonfiction Film* (Durham, NC: Duke University Press, 2013).
 32. *FILM*'s exhibition book contains many images from the piece, but these have been somewhat misleadingly cropped to omit the actual sprocket holes from the reproductions, so that only the graphic "sprocket holes" are pictured. It is only when one examines the actual piece of film that comes with the book that the two strips of sprocket holes—real and graphic—are clearly revealed. There is also one reproduction in the book that preserves the edges of the filmstrip so that both strips of sprocket holes are visible; see Dean, *FILM*, 9.
 33. Dean, *FILM*, 29.
 34. For an image of one of these masks mounted in the camera, see <http://www.berlinartlink.com/2011/11/03/tacita-deans-film/>. Accessed 29 April 2015.

35. *Art Wednesday*, Interview with Tacita Dean: <http://artwednesday.com/2013/02/04/an-interview-with-tacita-dean/>. This can be found on the Internet Archive's Wayback Machine (saved 23 April 2014) but it is no longer a live link.
36. Connie Millard, "The Magic of Mistakes': Tacita Dean on Why Her New Turbine Hall 'Film' Installation is a Plea to Save Cinema," in *ARTINFO UK* (11 October 2011): <http://fr.blouinartinfo.com/news/story/749297/the-magic-of-mistakes-tacita-dean-on-why-her-new-turbine-hall>. Accessed 6 March 2015.
37. *FILM* was installed at the Australian Centre for Contemporary Art in Melbourne from 10 October to 24 November 2013, and at the Seoul branch of the National Museum of Modern and Contemporary Art in Korea from 12 November 2013 to 28 February 2014.
38. Phil Solomon's video of *FILM* is at <https://vimeo.com/30999616>. Accessed 29 April 2015. Incidentally, when you hear Solomon saying that the footage is from a science film (at 2:07), he is one of the rare viewers who demonstrates an awareness of early cinema, but in fact he is incorrect: this is not found footage but was shot by Dean and her crew.
39. Incidentally, while *FILM*'s Turbine Hall installation predated the video sharing app Vine (and thus it does not appear there), there are several Vine videos of *JG* as it was installed at the Hammer Museum in Los Angeles from December 2012 to January 2013.
40. Maxim Gorky, "The Lumière Cinematographe," in *The Film Factory: Russian and Soviet Cinema in Documents, 1896–1939*, eds. Richard Taylor and Ian Christie (New York: Routledge, 1988), 25–26; Roland Barthes, *Camera Lucida*, trans. Richard Howard (New York: Hill and Wang, 1980), 10–15.
41. Tom Gunning, "Re-Newing Old Technologies: Astonishment, Second Nature, and the Uncanny in Technology from the Previous Turn-of-the-Century," in *Rethinking Media Change: The Aesthetics of Transition*, eds. David Thorburn and Henry Jenkins (Cambridge, MA: MIT Press, 2003), 48.
42. On July 29, 2014, it was announced that, thanks to lobbying by these four filmmakers, Kodak was about to finalize a deal to continue manufacturing a number of 35mm and 16mm photochemical film stocks. See Saba Hamedy, "Kodak to Keep Making Movie Film, with Hollywood's Support," *Los Angeles Times* (31 July 2014): <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-kodak-hollywood-studios-20140731-story.html>. Accessed 27 February 2015.