

2. Author interview, Oct. 6, 2005.
3. U.S. Constitution, art. I, sec. 8.
4. *House of Representatives Report* No. 105-551, part. 2, page 35 (1998).
5. See *United States Code*, title 17, section 107; *United States Code*, title 17, section 110(1); TEACH Act, *United States Code*, title 17, sections 110(2) and 112(f).
6. *House of Representatives Report* No. 94-1476, pages 66-67 (1976), reprinted in 1976 *United States Code Congressional and Administrative News*, page 5680.
7. *Universal City Studios, Inc. v. Reimerdes*, 111 Federal Supplement (Second Series), page 322 (Southern District of New York, 2000), subsequently affirmed under the name *Universal City Studios, Inc. v. Corley*, 273 Federal Reporter (Third Series), pages 452-53 (Second Circuit, 2001).
8. *United States Code*, title 17, section 1201(a)(1)(A) (2000).
9. *Universal City Studios, Inc. v. Reimerdes*, 111 Federal Supplement (Second Series), pages 317-18 (Southern District of New York, 2000).
10. *Universal City Studios, Inc. v. Reimerdes*, 82 Federal Supplement (Second Series), pages 211, 219 (Southern District of New York, 2000). While the legislative history of the DMCA speaks to the importance of fair use, see *Congressional Record*, volume 144, pages H7093-94, the statute itself makes no mention of a fair use defense to actions under the DMCA, and the courts have refused to read such a defense into the text of the statute.
11. *Universal City Studios, Inc. v. Corley*, 273 Federal Reporter (Third Series), pages 452-53 (Second Circuit, 2001).
12. *Universal City Studios, Inc. v. Corley*, 273 Federal Reporter (Third Series), page 459 (Second Circuit, 2001).
13. *Universal City Studios, Inc. v. Reimerdes*, 111 Federal Supplement (Second Series), page 324 (Southern District of New York, 2000).

16mm: Reports of Its Death Are Greatly Exaggerated

Scott MacDonald



During recent decades, successive waves of new moving-image technologies have changed the film exhibition terrain, and it has seemed increasingly logical to assume that, before long, certain of the older production/exhibition film gauges will inevitably give way to newer, more convenient technologies. During the 1970s and early 1980s, it seemed to some that as video improved, it would replace 16mm (and 8mm/Super-8mm); and of course, it did, at least as a home-movie exhibition format. In more recent decades the development of DVD technology has increasingly replaced home video, and threatens to entirely replace 16mm exhibition in classrooms at every level. Almost no one maintains a capability of showing 16mm prints at home; and I have learned that when I am invited to a college or university to present films, my first questions need to be, "Can we show 16mm films?" and "Can we show them in a

room designed for film exhibition?" Most of the time, the answer is still yes (often a somewhat puzzled and/or grudging yes), but it is now normal to learn that this college or that university "hasn't shown a 16mm print in years." One does get the sense that, in the minds of many academics and those who provide their technical support, the moment of 16mm exhibition is virtually at an end, and that good sense and practicality dictate that we adjust to the changing times.

There are, of course, any number of obvious reasons why adjusting to the disappearance of 16mm seems to make perfect sense. As universities struggle through a difficult economic period, buying a DVD of a classic film seems far more cost effective than continuing to rent a 16mm print of that film, year after year. In most cases, a single rental of a 16mm print is more expensive, and sometimes considerably more expensive, than purchasing a new DVD (which may come with a variety of useful extras). Further, since most 16mm distributors have been struggling to stay afloat financially, fewer new 16mm prints are struck, and especially in the case of important classic films released originally in 35mm, a new DVD often provides a better viewing experience than is offered by a fading, scratched 16mm print. Arguing that 16mm is *film* and DVD is not seems increasingly pointless since DVD projection of classic 35mm films is often the visual equal of most 16mm projection of the same films and is usually far superior in terms of sound. Who would rent a silent, 16mm print of Vertov's *Man with a Movie Camera* [1929], when the new DVD, produced by David Shepard, with a soundtrack by the Alloy Orchestra, is easily available?—only someone unfamiliar with this and other DVD versions.

On the other hand, as many are finding out, there are problematic financial issues with DVD presentation. For one thing, while most academic institutions and many museums still have decent 16mm projection available at relatively low cost—basically the cost of maintaining projectors—good digital projection remains quite expensive. Admittedly, many of those who show moving-image media in academic contexts don't care about quality exhibition, but for those who do, 16mm remains a reasonable option in terms of quality. Further, when public exhibition is an issue, public exhibition rights, even for DVDs an institution owns, can be as expensive as renting a 16mm print.

Despite the arrival of DVD and the seeming precariousness of 16mm exhibition in most of academe, I continue to believe that 16mm will not disappear as an exhibition format anytime soon. In fact, I feel sure that before too long 16mm projection will undergo something of a revival. Sixteen millimeter cannot disappear simply because its long history as the primary film gauge for avant-garde and experimental filmmaking (I'm using these terms in the standard way, not because I particularly like the terms, but because they denote a particular dimension of film history). Avant-garde and experimental filmmakers have produced, and continue to produce, a considerable body of films made specifically for exhibition as 16mm prints. Because this history includes many major contributions to modern cinema, those who are committed to the full range of film accomplishment will continue to be forced to see that 16mm exhibition of these films remains available—if not everywhere, at least in the major film archives and museums and in those colleges and universities that take the formal study of film history seriously.

Of course, there have been instances where important 16mm avant-garde films have been made available on DVD—the “By Brakhage” DVD put out by Criterion in 2003 with the help of Fred Camper is perhaps the best-known instance, but even in this case, where great care went into the production of the DVD (and where the DVD includes Brakhage’s own vocal commentary on the films, something not available anywhere else), this DVD cannot replace 16mm projection of the Brakhage films. Brakhage himself, before he died, and Marilyn Brakhage, who oversees the Brakhage legacy, have made it quite clear that the DVD is for home viewing and for study purposes only, and *not* for public projection; and in fact, projecting this DVD reveals the limits of current DVD technology. Seeing *The Act of Seeing with One’s Own Eyes* (1971) projected from the DVD, even on a decent digital projector, is clearly inferior to seeing the projection of a good 16mm print. In other words, even if there were suddenly enough money to pay for the first-rate transfer to DVD of all the important avant-garde films currently distributed in the United States by Canyon Cinema, the Filmmakers’ Cooperative, MoMA, and other distributors, these transfers could not replace the projection of the films in 16mm for anyone who takes this work seriously and is committed to its longevity as a cultural force. Certainly, the DVDs would be useful study and research copies of the real film experiences, the way reproductions of famous paintings are useful, but there is no point in pretending that seeing reproductions is the same as seeing original works.

In any case, the money necessary for first-rate transfers of hundreds of films from 16mm to DVD is not available at present and is not likely to become available any time soon. Indeed, I would conjecture that by the time a wholesale transfer of the masterworks of avant-garde cinema to DVD could be completed, a new projection technology would be available, necessitating still another transfer process, one that could be expected to move another step away from the original experience. Since the better 16mm distributors—Canyon Cinema is the premiere instance—can always strike brand new 16mm prints, it continues to make sense not to abandon 16mm for the maelstrom of new digital technologies, at least for the exhibition of work made in 16mm for 16mm projection.

An important factor in the recent marginalization of 16mm has been the tendency of many academics to see the teaching of cinema as a cultural studies issue, rather than a film historical issue. This has led some to feel that a concern with film *as* film is at best a reactionary cultural fetish. But as time passes, and the remarkable accomplishments of alternative filmmakers and the inestimable value of so many of their films as forms of in-theater cultural critique become more and more widely recognized, film studies scholars and teachers will want to offer their students, their colleagues, and the public opportunities to experience these films in their original and intended format. In much the same way that those committed to the history of literature are involved in an ongoing project of producing ever-better editions of important literary works, film historians’ desire for intellectual precision should prompt the making of these films available, insofar as possible, as they were meant to be seen.

For those whose interest is in the ongoing discourse *of* cinema, as well as the ongoing discourse *about* it, the maintenance of the widest range of exhibition formats has always been, and will continue to be, of the essence. To some degree, 16mm

avant-garde and experimental film has consistently been a form of aesthetic and political resistance to the hegemony of the film industry and “standard gauge,” just as 8mm and Super-8mm have often been forms of resistance to both the conventional commercial uses of 35mm *and* to 16mm, which has seemed to many Super-8mm filmmakers the gauge of established institutions. A mature understanding of the history of cinema requires an awareness of how the conversation within cinema about itself has evolved. Morgan Fisher’s *Standard Gauge* (1984) and John Porter’s *Cinefuge* films (in five versions: 1974, 1977 [2], 1981 [2]) can serve as examples.

Fisher’s filmmaking career has been a sustained resistance both to the capacity of the commercial industry to dominate our thinking about film and culture *and* to the tendency of some 16mm filmmakers identified with the New American Cinema and what P. Adams Sitney named “Structural Film” to pretend that their work is entirely disconnected from commercial filmmaking. As Fisher is well aware, the existence of the industry has made possible not just commercial 35mm cinema, but the trickle-down technologies of 16mm and 8mm/Super-8mm. Without the industrial superstructure necessary for keeping Hollywood afloat, it is unlikely that smaller-gauge forms of film production could ever have come into being. At the same time, as *Standard Gauge* demonstrates, each gauge has capacities that other gauges don’t. For those unfamiliar with the Fisher film, *Standard Gauge* is a single, continuous thirty-five-minute shot—a shot longer than is possible for 35mm shooting, without considerable modifications—during which Fisher presents and discusses a particular set of artifacts from his collection of 35mm filmstrips within which one can read a variety of forms of resistance to the commercial industry. That is, *Standard Gauge* is a 16mm meditation on the politics of standard-gauge filmmaking that simultaneously reveals Fisher’s sympathy with those who resist commercial cinema from within the belly of the beast *and* demonstrates the capacity of smaller-gauge filmmaking to provide a form of critique that standard gauge itself is incapable of.

Porter’s *Cinefuge* films were made with simple Super-8mm cameras that are so light that Porter was able to design a way to make them fly around him, filming him as they move—the cameras have wings and are controlled by a string that Porter holds as he films. The resulting films are amusing and astonishing portraits of a filmmaker holding his own within a spinning world. For Porter—he sometimes calls himself “Super-8 Porter”—Super-8mm filmmaking is a commitment to an unpretentious, home-spun aesthetic and to the capacity of the artist to transform the everyday into the miraculous. Porter (and he is hardly alone) sees Super-8mm filmmaking as a political act, a way of demonstrating the capacity of cinema to function democratically within society, and implicitly, as an argument for the capacity of democracy itself to transcend the more imperial tendencies of culture, tendencies represented by industrial cinema.

These and so many other avant-garde films demonstrate that were 16mm and/or Super-8mm to disappear, the discourse of modern film history would be impoverished. And since the job of academe is, at least in part, to maintain the most sophisticated discourse of and about important cultural developments, I believe that, in the long run, academics will reverse the current trend, and will make a place within academe for the most intellectually and aesthetically accomplished work

produced with each of the film gauges and for the discourse that has developed, and continues to develop, between the various gauges.

The fundamental issue here, in other words, is not which projection technology is theoretically "better," either in practical or aesthetic terms, but rather, the compelling nature of the films that have been made in 16mm for 16mm exhibition (or in 8mm or Super-8mm for 8mm or Super-8mm exhibition). If we were talking simply about the transfer of information, then medium wouldn't really matter: whichever projection system allowed for the accurate transfer of information to the largest number of people who need the information would be the "best" one. But the many major contributions to avant-garde film history available only in 16mm are *theatrical film experiences* that are so crucial for a full understanding of film history and so valuable for an understanding of modern cultural history in general that those committed to the full range of cinematic accomplishment have little option but to see that 16mm exhibition continues to be available.

It is also good to remember that other important cultural forces will, in due time, become more and more fully engaged with the maintenance and revival of 16mm technology. Increasingly, 16mm prints and original negatives even of the most remarkable and accomplished films are becoming rare, and soon they will be rare enough to be recognized as valuable artistic artifacts. So long as 16mm technology, and 16mm prints of films of all kinds, were ubiquitous in the culture, no particular print or negative could be considered of particular value; but as the traditional infrastructure for making and maintaining 16mm prints continues to become more precarious, the remaining prints and negatives of important films will become increasingly precious, and this preciousness will instigate a new set of developments. Nearly any cultural artifact that has endured for a generation seems to become valuable to someone; and those artifacts that are recognized as aesthetically pivotal often become astonishingly valuable.

There are already premonitions of this development, premonitions that are transforming the way many filmmakers think about their work. Increasingly, avant-garde filmmakers have become aware that those who make films as an extension of their artistic practice in other media have often been more successful in getting their films taken seriously, at least within the art world, than those filmmakers who have consistently identified themselves with avant-garde film history. It is no longer unusual to see a 16mm print available in a limited edition from an established art gallery, offered at a price commensurate with the prices of paintings or sculptures. In our current moment, this situation can seem ironic, to say the least. Sharon Lockhart is a useful case in point. In 2004 a limited number of prints of her lovely film *No* (2004) were available from the Barbara Gladstone Gallery in New York City at \$30,000, a price comparable to the prices of the still photographs that were included in the same show. But *No*, and Lockhart's films in general, are often evocative of the films of James Benning, Morgan Fisher, and other filmmakers whom Lockhart herself considers her mentors. It is only a matter of time before the work of these mentors is accorded a similar level of financial respect that Lockhart's films receive.

While some galleries and some art collectors do seem to be taking film, and 16mm film in particular, seriously, it remains all too true that, at the moment, most

of the major art museums continue to act as if the art of cinema is less culturally significant than the arts of painting, sculpture, even video installation. A museum with as distinguished a history of supporting a wide range of cinema as the Museum of Modern Art in New York continues to deal with film artists on a completely different financial level than it deals with painters or sculptors. At the moment, the Circulating Film Department at MoMA, the source of a wide variety of important avant-garde films, seems financially endangered—there are periodic rumors that this crucial distribution organization could go out of business. This situation seems increasingly astonishing to me, since the sale of a single masterwork painting could yield enough funding to maintain the Circulating Film Program, and the hundreds of remarkable works of film art in the Museum's collection, for decades. Of course, I understand that the financial realities and politics of the fine arts are quite complicated and that I am simplifying the situation. Nevertheless, it is difficult not to look at the current situation with wonder.

When Stan Brakhage died, P. Adams Sitney was quoted in A. O. Scott's *New York Times* obituary to the effect that "He [Brakhage] was a painter or poet in cinema, not a novelist like everybody else . . . when all the pop-culture interests have faded, a hundred years from now, he will be considered the preeminent artist of the 20th century" (March 12, 2003). Even those of us who are aware of Brakhage's remarkable career may have been, at least at first, surprised at the sweep of Sitney's prediction, but in fact, one can make a good case for Brakhage's considerable importance, even perhaps, for his preeminence. And if Brakhage is the most significant film artist of the last century, or even one of them, his films will become not only increasingly valuable, but increasingly available as the decades pass. And what is true of Brakhage will also be true—perhaps to a somewhat lesser degree—of the dozens of accomplished filmmakers whose best work is sometimes the equal of Brakhage's best work.

Ironically, it is precisely because 16mm has ceased to be the gauge of choice in educational institutions and public libraries and because the infrastructure for 16mm has been downsizing for a generation, that 16mm prints and negatives, as *objets d'art*, will, increasingly, accrue value. By the end of another generation, it is likely that a rare, good print or a good negative of one of the great Brakhage or Kenneth Anger or Maya Deren or Su Friedrich or James Benning films will have become as historically important and valuable as one of Church's or Whistler's or Monet's or Picasso's paintings was at a comparable moment in the history of painting. When this finally happens, it will be in the interests of the private citizens, gallery owners, and museums that are investing in these *objets d'art* to be sure that the films are seen and recognized across the cultural landscape; and it will be in the interest of those who teach film history to be sure their students are aware of what the larger culture considers of particular aesthetic importance and value. This will require a revival of 16mm technology (and perhaps, new versions of 16mm projection technology that would surprise us), just as the major collections of other *objets d'art* have required an ongoing evolution of ways to preserve valuable artifacts of the past and make them available to new, public audiences, generation after generation.

Since this development seems sure to occur, any institution with the sense to maintain its capacity for good 16mm exhibition during the coming years will

increasingly be recognized as prescient and far-sighted, ahead of its time, and all those institutions in such a hurry to believe that each new exhibition technology must replace the previous technology will, in retrospect, look foolish. The history of music offers a useful analogy. The invention of the electric violin and guitar did, of course, make new forms of music possible, but they did not render the acoustic violin and guitar out-of-date. Precisely because the long, glorious history of music has created innumerable musical compositions for acoustic violin and guitar, these instruments continue to be inevitable elements of the cultural scene, and distinguished cultural institutions continue to make sure that these compositions remain available to a substantial public and that they are presented, as fully as possible, in the manner their composers expected. The 16mm movie projector is basically an instrument for playing the many remarkable cinematic compositions designed specifically for it. It will not, it cannot, be allowed to disappear.

Of Ghosts and Machines: An Interview with Zoe Beloff



HEATHER HENDERSHOT: When did you first realize that you loved 16mm?

ZOE BELOFF: Well, I think it really began when I was a teenager, in Scotland. I didn't know the word "16mm" then. I didn't grow up in a filmmaking environment. I didn't know anybody who made home movies. So I had to make a leap from going to movies to the idea of making movies. I was in art school, and there were no filmmaking classes in those days. But I loved film, and I used to spend my summers working for the Edinburgh Film Festival. And that's when I first saw independent films and filmmakers. I think it was partly that and partly seeing some Godard films from the sixties. I was inspired. I got three friends, one light and one camera, and we just started making 16mm films.

HH: How did you know Godard even existed?

ZB: I'd read about Godard films, I really wanted to see one, but nobody showed them. I discovered that at the art school there was a defunct club called the Sketch Club. There was money allocated to this club, but nobody went sketching, so I took the money and I rented *Vivre Sa Vie* and *Alphaville* on 16mm. And I was in heaven! They were both so simple, and the actors didn't seem like real, professional actors, and the films were full of ideas. And I thought, OK, this is what I want to do; this is for me. I managed to find one professor who owned his own Bolex camera. And I said, "I want to make a film. Let's go." And that's what we did; we just started. And, you know, if money was no object, I would be shooting on 35mm, no doubt about it. 16 is the poor man's 35. It was really the only way of working professionally with film if you didn't have a big budget. It was *almost* Godard. [laughs]

HH: And as video developed you never considered switching?

ZB: No. The two things about film that are really important to me are, first, that there's much more information on a film frame, even a 16mm frame, than on, say, a mini-DV frame. Secondly, the quality of light transforming a chemical emulsion is unique. Film has a kind of luminous quality, a sensitivity to light and color that makes even high quality video seem flat and harsh.

HH: Video-editing software now has built-in features so you can make your work look more like film. There's a discourse that video's much better than film, and so much more accessible and cheaper and just as good as film, and yet you have buttons to add graininess or simulate scratches to make your video look "archival."

ZB: That's a very bizarre, modern phenomenon. And it happens with audio as well. Sometimes they'll add scratches to digitized renderings of old records. But us filmmakers, we hate scratches! We don't want to add scratches! It's like buying "distressed" jeans with holes and rips put in by the manufacturer to add ersatz authenticity.

HH: On the other hand, you use found footage and you often work with scratched images, imperfect old images that you got from eBay or a garage sale.

ZB: But I don't fetishize scratches or print imperfections. There is something morbid about that. I would rather find old 16mm footage that looks beautiful, just the way people first saw it.

HH: Could you talk about how you use 16mm, what other forms you use, and why you gravitate to those forms?

ZB: Since the mid-nineties I haven't made a straight 16mm film. All my work is not only about telling stories but also about how the apparatus itself creates meaning. I attempt to create other forms of cinematic experience, cinemas that might have been, and may yet come into existence. Film in terms of a projector in a projection booth, people in a dark space, large screen—that's really been around for only about a hundred years. Before that there were all kinds of economies of the moving image. There were little viewers for one person, there were phantasmagorias with moving magic lanterns projecting images onto smoke, eerie sounds and a whole kind of multimedia show that seemed to exist in the same space as the audience rather than on the other side of the screen as in classical cinema. You had ghost shows in Victorian England where figures projected by lanterns appeared to interact with live actors on stage. So the "film show" is just one way of thinking about the moving image. In the mid-nineties, with the coming of digital media, I was teaching on the Avid, and I was thinking, well this is all very well, but it's just mimicking what you can do in film. What else can you do, what other ways can we think about media? I realized that digital media was in its infancy, so I wondered what we could learn from the early media of the mechanical era. I went to a screening at the American Museum of the Moving Image where collectors were showing off their projectors from the 1890s, and they were showing the same kind of Edison films that we've seen a million times, but the projectors made them look really different. Light was