

The Fragile Emulsion

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Source: *The Moving Image: The Journal of the Association of Moving Image Archivists*, Vol. 2, No. 2 (FALL 2002), pp. 142-153

Published by: [University of Minnesota Press](#)

Stable URL: <http://www.jstor.org/stable/41167089>

Accessed: 31/07/2014 15:46

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The Fragile Emulsion

JON GARTENBERG

One of the most vital and richly textured art forms threatened with extinction centers around the history of avant-garde filmmaking.¹ Experimental filmmakers work in relative isolation, creating their films with the hand of an artist, rather than as products for consumption by a mass audience. The style of the films frequently confronts the conventions of the linear narrative. These filmmakers recognize not only the ephemeral nature of the film stock, but also the perilous state of human life in the modern world. They begin with their direct experiences of everyday reality and often move through their films to a process of abstraction. Even though their films may be abstract, they respond deeply to the human condition, to the fragility of human life, to the precious nature of love, health, and the environment, as elegantly as John Ford or Jean Renoir might express similar themes in a more narrative fashion.

These filmmakers treat the film emulsion as a living organism. It is an organic substance, a shimmering silver onto which they directly imprint the delicacy of their emotions. They filter found objects from the world around them, and through a wide array of filmmaking techniques, including use of outdated film stock, over- and underexposure, scratching directly on the film emulsion, rephotography, and optical printing—articulate distinct, individually defined processes of creation. They evoke spiritual visions of the world in which their own livelihood is inextricably linked to the life of the film emulsion. Such contemporary filmmakers as Lewis Klahr, Barbara Hammer, Lawrence Brose, and Bill Morrison elegantly reflect this rich tradition.²

Lacking the economic incentive created by the profit potential of the commercial filmmaking universe, these films (most frequently shown in such venues as museums and specialized film festivals) are in an endangered state. The filmmakers have rarely had funds to create protection masters from their camera originals. What remains on deposit in most institutions are used prints and, with the filmmakers or their estates, uncataloged originals. Coupled with the complex problems of estate

disposition for those experimental filmmakers afflicted with AIDS, their cinematic legacies are the most endangered. Given the ever-shrinking venues supporting the showing of these works, the decrease in exhibition demand has created a tendency toward neglect.

The title of this article, "The Fragile Emulsion," aptly underscores the status of American experimental films and their makers both in the cinematographic culture as well as in film archives. An entire thread of film history is threatened with extinction, even though many of these films have been created only over the past four decades. The objective of this article is both to articulate the nature of the crisis and to suggest a methodological approach for safeguarding these delicate works.

These observations are based on my accumulated experiences over the past several decades. I have engaged in the study, preservation, distribution, and exhibition of experimental films in a wide variety of contexts. These experiences bear repeating here because they have critically informed my thinking about all the myriad and complex issues surrounding experimental film and the approach set down in this article.

My exposure to experimental film began in formal fashion as a student in P. Adams Sitney's experimental film course at New York University in the 1970s. It continued in practical fashion when I was a curator in the archive of the Museum of Modern Art (MoMA) from 1975 to 1991, where I acquired for the permanent collection experimental films of Ernie Gehr, Hollis Frampton, Storm de Hirsch, Abigail Child, Barbara Hammer, and a myriad of other such artists. It continued in the late 1980s when I worked on the preservation of the films of Andy Warhol.³

Following my departure from MoMA, I worked at Broadway Video Entertainment, a commercial production and distribution company, where I restored, for international video distribution, American commercial classic films and television programs such as *Underdog*, *Lassie*, *The Lone Ranger*, and a collection of classic and B films, including those by Anthony Mann and Allan Dwan. Since the late 1990s, I have served in a consulting capacity as the program director for the Film Preservation Program of the Estate Project for Artists with AIDS,



Figure 1. Warren Sonbert filming in the 1960s. Courtesy Ascension Serrano, the estate of Warren Sonbert.

where I have been involved with the preservation and exhibition of films by Jack Waters, Warren Sonbert, David Wojnarowicz, and Curt McDowell. Recently, I have also consulted with the Solomon R. Guggenheim Museum on their Variable Media Initiative as it relates to experimental film.⁴ I also currently distribute high quality video editions of classic films by experimental filmmakers, including Robert Breer, Len Lye, Martin Arnold, Ken Jacobs, Stan Brakhage, and Jonas Mekas.⁵

FIVE GUIDING PRINCIPLES

Having labored on numerous experimental film initiatives from a variety of perspectives, over time I developed some guiding principles for the myriad technical decisions that must be made when preserving these films. I emphasize case studies surrounding the films of Jack Waters, but also illustrate salient preservation issues for works by other experimental film artists.

Know the History of the Genre

As curators, we have a responsibility to fully understand the history of experimental film, especially the study of this genre in relationship to the dominant mode of commercial narrative cinema. Knowing this history well enables a

greater appreciation of the kinds of decisions that need to be made when handling the preservation of the actual physical elements.

First and foremost is the fact that these films resemble the work of fine artists, paintings, for example. It is important to inscribe into the preservation of the actual work the revelation of the hand of the artist in its original creation. Thus, filmmakers such as Stan Brakhage who etch scratches directly onto the film emulsion should not automatically have these particular scratches removed in the preservation process. In contrast, the presence of such scratches would be considered a technical flaw in the restoration of a commercial film.

In the commercial cinema, motion pictures are photographed on 35mm negative film from which various intermediates are struck in order to make many multiples of prints for simultaneous large-scale exhibition in commercial theaters. Historically, most experimental films have been shot on 8mm or 16mm reversal film. The filmmakers can ill-afford to strike internegatives; thus, the edited camera originals are frequently projected, and occasionally individual reversal prints are made for distribution in nonprofit cooperatives. Barely able

to afford paying for the storage costs for their films, the filmmakers often leave their camera originals in the printing laboratory of their choice. With the slew of lab consolidations and closures that have occurred since the 1970s, a substantial number of these camera originals are now lost.

Establish a Working Collaboration

It is of utmost importance to develop a working dialogue between the filmmaker, archivist, and laboratory personnel throughout the preservation process. The Estate Project for Artists with AIDS selected Jack Waters as one artist whose work needed the support of a preservation initiative. As an African-American, a gay man, and someone living with this disease, he often works in film, video, and dance to address issues of identity, gender, and sexuality.⁶

As a curator, my primary challenge in the preservation of Waters's first film, *Berlin/New York* (1986, super 8mm), was selecting a laboratory whose track record and experience would be sensitive to the particular needs of an artist working on the margins of the culture. The selection of BB Optics as the preservation laboratory of record for his film proved to be a good marriage.

BB Optics had already made super 8mm to 16mm optical preservations of work for a variety of experimental filmmakers as well as for museums and other cultural institutions, and was already experienced in the challenges of this process. Moreover, the operator of the laboratory, Bill Brand, is an experimental filmmaker in his own right and thus is acutely aware of the subtle sensitivities required to approach the preservation of every frame of each experimental film.

The first time we met together, Waters, Brand, and I engaged in a lengthy discussion that lasted several hours. We shared our respective backgrounds, reestablished connections in our histories, and arrived at a consensus for our approach to the preservation of Waters's work. Our mutual understanding was important, even before we handled any of the physical elements.

Two central concerns arose from these discussions, which were woven into the fabric of the preservation of Waters's films. His life

and career is an embodiment of New York's Lower East Side culture, one that is defined by interdisciplinary work, the collaborative process, and social action.⁷ Waters is an engaged artist who creates in a variety of media—a dancer and choreographer, a film and video maker, as well as a writer, curator, and community activist. A number of his artistic endeavors have been produced in collaboration with his life partner, Peter Cramer.

The other major factor to consider was an understanding of, in his own words, his "availavist" aesthetic. That is to say, Waters maximizes the use of the low-tech tools at hand in creating his moving images, whatever format he might be working in at the given moment (e.g., super 8mm reversal, 16mm reversal, 16mm negative, high 8 video), and with whatever equipment is in the offing (cameras, film rewinds and splicers, and homemade video editing systems). The resultant images and sound reflect the imprint of this aesthetic through such artifacts as rephotographed images, serrated splices, and double system projection (the image and sound track are on separate physical elements).

Focus on the Artist's Creative Process

In approaching the preservation of experimental works, decisions must be tailored in harmony with the artist's creative process and intent, not just with the product (the "finished" film). *Berlin/New York* was preserved from a super 8mm reversal original with a sound track on cassette tape. The original super 8mm film was extensively scratched (from repeated projections), and sections of the film were rephotographed from yet other source footage projected onto a wall. *Berlin/New York* also contains shots filmed through fences and other physical barriers.

Our objective in the preservation of this film was to convey the sense of layering inherent in the work. In the preservation, we minimally reduced the surface scratches but allowed the rough-hewn quality of the major splices and scratches to be reproduced in the 16mm version. As Brand noted, "The object was to simulate not only the look of the super 8 original with its characteristic density and color saturation, but also the quality of a super 8

projection allowing for its somewhat unstable registration at splices.”⁸

Another film of Waters, *The Male Gayze* (1990), was preserved by BB Optics from a 16mm original reversal, also with a separate tape track. The original film was spliced with serrated tape splices, which we decided to leave in rather than to replace them with more invisible splices. Even though these splices interrupt the smooth flow from one shot to another, their visual presence in the preservation materials make manifest Waters’s underlying “availavist” aesthetic, that of his working with a particular kind of splicer at the moment of originally creating this work.

Document the Version of the Work Preserved

As curators, we are working not only to preserve the physical materiality of experimental film, but also to inscribe the circumstances surrounding its exhibition. In the commercial cinema, the film is set in a fixed form that allows the object to be massively distributed in order to generate maximum profits for its producers. In contrast, experimental films are created without regard for any earning potential. Because of this economic reality, the form in which these films are presented can readily be changed from venue to venue, as they are repeatedly exhibited by the artist.

Ken Jacobs’s exhibition of *Bitemporal Vision: The Sea* (1994) from his *Nervous System* series, personifies this performative dimension of the experimental filmmaking enterprise. In Jacobs’s own words,

The *Nervous System* brings a pair of stop-motion film projectors into a kind of congress, what the machines do with each other and what issues forth determined moment-to-moment by (mostly tiny hairline-precise) shifts of alignment introduced by the projectionist-performer. We observe the fluttering relationship of *stills* . . . as frames are held, arrested in their respective paths of light sometimes for minutes at a time, with a spinning exterior shutter in front of the projectors alternating and melding their cast images.

Along with the jitters, the combined light-outputs can produce figures in scenes of uncanny movement (“eternalisms”) and depth. A 2½-D ripe for impossible changes, both subtle and violent, becomes available to sight (including the one-eyed) without visual aids.”⁹

What becomes readily apparent from experiencing one of these wonderful live performances is that no two projections of this film work will be exactly the same. Each movement on the screen is an external reflection of the subtle moment-to-moment shifts in Ken’s



Figure 2. *The Male Gayze*.
Courtesy of Jack Waters.

own nervous system sensibilities as he “performs” the projections in person. Just as Hollis Frampton has articulated the fragility of film in its physical materiality, so also has Jacobs underscored the fundamentally ephemeral nature of the filmgoing experience.¹⁰

From another dimension, artist Anthony McCall dramatically exploits the physicality of the space in which the projection of his film *Line Describing a Cone* (1973) takes place. According to one critic,

If the image is seen on the screen, it is nothing more than a white dot on a black background, gradually describing a circular path, and leaving a white circular line in its trace. The total circle is built up in thirty minutes, the length of the piece. . . . It should be shown in a space where the audience can walk about. So what is seen is not a dot forming a circle but a line, running outwards in a space from the projector lens, like a sharp searchlight, very very slowly forming a conical curved plane, which finally forms a complete cone with its apex at the lens. . . . The image is formed on the dust particles in the air. . . . which somehow seem [*sic*] substantial but resists touch.”¹¹

Andy Warhol also altered his films through the exhibition process. Warhol’s filmmaking efforts were at once serial and prolific, yet shifting and elusive. Beginning early in 1965, he regularly shot thirty-three-minute reels (1,200 feet) of 16mm sound film on an Auricon camera. Each individual reel was unedited. These complete reels were then assembled in different arrangements for public exhibition. They were changed from showing to showing of a film or incorporated into other films. During some exhibitions images were superimposed from multiple projectors or projected simultaneously and shown side by side. A deliberate sense of play and experimentation was at work. *The Chelsea Girls* (1966) is paradigmatic of this interplay between the regular production of reels and the changing order of their exhibition before the film was fixed in a form for more commercial nationwide distribution.¹²

The experimental filmmaker Jack Smith even reedited physical reels of film during

their projection, turning these screenings into performances. According to Jerry Tartaglia,

Oftentimes, while the film was screening, he would remove the take-up reel and begin re-splicing the material into a new arrangement. Obviously, this had to be accomplished quickly, before the remaining material had run through the projector. Jack developed an ingenious way of re-editing during a performance. He used tape splices. . . . The bits of tape were just large enough to hold the film strips together, and small enough to pass through the projector gate. The visual result of this method was astonishing. The splices were visible, of course, but the material was re-woven into a new tapestry of visual excess with each screening. One hour of film material, in this way, could be transformed into a three-hour film experience.¹³

Within this context, the preservation of Waters’s films also serves as a case in point. In retracing the history of the creation of *Berlin/New York*, we soon realized that its form had been significantly altered for different exhibition venues. Given Waters’s and Cramer’s histories as dancers before becoming filmmakers, it became important to define the precise status of the version we had in hand and that we were now preserving. According to Waters, *Berlin/New York*

was originally created as a backdrop to a dance/performance work I did as a member of the collective POOL in 1986. The piece was about the arbitrary nature of political borders. . . .

After the dance/performance of “A Free Ride,” we were asked by Area, a nightclub in TriBeCa, to perform a piece on the theme of war. We did a routine about urban guerrilla warfare—dressed in army fatigues—and expanded the film to incorporate more footage.

When I looked at the film again in this context, I realized that the footage of torched buildings on the Lower East Side looked a lot like the images of bombed-out Berlin. I then added a soundtrack. The

completed film is the documentation of two devastated world capitals, one ruined because of real estate speculation and the other because of war.¹⁴

Shadow the Economic Models of the Commercial Film Industry

From an economic point of view, these creations of experimental filmmakers are lost between the profit potential of the commercial film industry and the museum-gallery-collector fine art industry. To a great degree, experimental films have fallen into an abyss of financial neglect. Only through aggressive and comprehensive plans to simultaneously collect, preserve, distribute, and exhibit individual works can these films be elevated on any scale to compete with the circulation of works in these other marketplaces.

When I was approached by the Estate Project for Artists with AIDS to create a program for the preservation of experimental filmmakers, I was influenced by models I had experienced in restoring films for distribution in the commercial marketplace. For the Estate Project for Artists with AIDS, I developed strategies to properly address in comprehensive fashion the reintegration of these films into the broader culture.

These methods encompassed *legal* issues (resolving copyright and access issues related to the filmmakers' estates); *storage* concerns (moving the original elements from the filmmakers' personal possession and film laboratories and storage warehouses into qualified archives); *cataloging* processes (assembling definitive filmographies of the filmmakers' oeuvre, both through previously assembled lists and through newly researched discoveries); *preservation* programs (creating protection master internegatives and interpositives for each film); *distribution* outlets (making extra prints to be circulated on a worldwide basis via film co-ops, boutique distributors, or other agencies; and *exhibition* venues (curating screenings so as to establish a system of research and study to further nurture these other objectives).¹⁵

Patrick Moore, former director of the Estate Project for Artists with AIDS, was enor-

mously successful in generating financial support for our initiatives. The infusion of significant sums of money for the preservation of these filmmakers' works provided incentives for public institutions to collaborate in proactive and timely fashion on the conservation and dissemination of these works. Instead of the source materials laying fallow in archives for years, these artists' works have now been preserved and are being actively disseminated.¹⁶

METHODOLOGY

Here then follows a schema for the technical restoration of experimental films, based on the guiding principles just described.

1. Assemble and study detailed documentation about the artist's career and related individual works. In the case of *Berlin/New York*, we documented three iterations of this film. This procedure also led me to discover, when restoring Warren Sonbert's oeuvre, the existence of three different versions of his magnum opus, *Carriage Trade* (1968–1972).¹⁷

2. Track down all camera originals, prints, and related production elements (from filmmakers, laboratories, and archives, as well as film cooperatives and libraries). We located the only extant copy of Sonbert's *The Tuxedo Theatre* (the first, short version of *Carriage Trade*) in the London Film Makers Co-op, where it had remained unrented for many years.

3. Perform detailed physical inspections of each individual film element. For the David Wojnarowicz project, before we began preserving any film, we created a detailed cataloging sheet in which we recorded myriad technical details about each of the more than 150 physical elements in the collection, documenting such aspects as length and frame rate, surface abrasions, splices, and sprocket condition; film stocks and exposure; and audio format and sound quality. Table 1 is the detailed inspection report compiled by BB Optics for the super 8mm print of *Where Evil Dwells* (1986, Tommy Turner and David Wojnarowicz).

4. Perform detailed comparisons for all elements of a given film. When we restored the "epic trailer" for *Where Evil Dwells*, we found forty-five seconds of missing footage in the super 8mm camera original that was not present

Table 1. David Wojnarowicz films

JAG #208	Inspected by Bill Brand	8/06/00	Inspection Report
Jag #	001		
Title	Where Evil Dwells		
Goko film to tape transfer	Not transferred		
Notes	This is a print of the original footage. The print is missing some sections of the original. This print has a magnetic stripe with the most authentic version of the sound track as of August 12, 1999.		
Gauge	super 8		
Frame rate	24 fps (video transferred at 24.21 fps)		
Length	43,153 frames from first picture to last picture 600 super 8 feet 29 minutes 58 seconds 1332 feet blown up to 16mm		
Container information	800 ft <i>Bonum</i> case (broken and taped) Where Evil Dwells 33 min. Tommy Turner and David Wojnarowicz 45,330 (on 1" wide red tape)		
Reel information	800 ft <i>Bonum</i> reel Where Evil Dwells 2 (on orange tape)		
Leader information	None on white leader Head-printed leader: Tom Turner 6211 Tail-printed leader: turner #7926		
Filmstock	b/w a-wind print (probably 7361) with magnetic stripe on emulsion		
Audio	On magnetic stripe (none on balance stripe). Track is recorded with high levels of overmodulation.		
Condition: scratches	Scratched throughout on base and emulsion		
Condition: shrinkage	Okay (72 frames per foot)		
Condition: vinegar syndrome	None		
Condition: sprockets	Good		
Condition: tears and creases	Okay		
Splices	About twelve tape & cement splices. Cement splices are well made. Most tape splices are Kodak Presstapes that cover magnetic stripe. Some tape splices are Würker. One splice has a Würker splice over a Presstape. One tape splice has a square hole punched in the middle of the frame, which is what happens when a guillotine splicer is used backward. The master print was made from the original already spliced with tape splices and the image of these splices appear in the print. Some of the original splices had stretched so a white line is visible.		
Burned frames	None		
Exposure and color	Generally high contrast both because of lighting in original and because of increase of contrast in printing master		
Hairs and dirt in camera gate	Occasional, usually very close to frame line		
Titles or credits	Head title: "Where Evil Dwells" spray painted on glass 53 seconds into film Tail credits: Animated tongue emerging from mask		
Box ID	Tommy Turner "Where Evil Dwells" 10½" x 15½" x 2½" museum box In folder labeled: 1. Turner Coll. Where Evil Dwells Trailer		
Fales Library Inventory	1. Turner Coll. Where Evil Dwells Trailer 33 min. ca. 600 ft.		

in the super 8mm print. By working from the camera original rather than the reversal print, we were able to produce more subtleties in the flesh tones and detail than were apparent in the existing 8mm print version and video copies. For the additional picture material, which lacked the corresponding sound track, we restored the missing audio using the track from the super 8mm print as a guide. Cofilmmaker Tommy Turner supervised the reconstruction of the missing audio with Bill Sery at Mercer Sound.

When we cataloged the elements for Curt McDowell's *A Visit to Indiana* (1970, Ted Davis and Curt McDowell), we discovered the existence of slightly different 8mm and 16mm versions of the film. The filmmakers had shot the film in single 8mm and had made an 8mm reversal projection print. At some later point, McDowell projected this 8mm version and rephotographed it onto 16mm reversal, consequently introducing increased flicker into the image texture of the film. He then slightly reedited the 16mm film. This version was then put in distribution in Canyon Cinema. In order to fully trace McDowell's career from a university student making 8mm films to a 16mm filmmaker of some commercial success, both versions need to be considered for preservation.

Table 2 is a section of the detailed inspection prepared by BB Optics, which compares frame by frame the single 8mm print with the 16mm reversal print, both found in the collection of filmmaker Curt McDowell's estate.

5. Make preservation and access decisions consistent with the guiding principles. For *Berlin/New York*, from the detailed physical inspection of the source film element, we were able to carefully evaluate critical issues including how to treat the exposure and color variations from shot to shot, the type and condition of splices, damaged frames, hairs in the gate, upside-down shots, and flaring at the end of the film.¹⁸

Until the involvement of the Estate Project in their preservation, Waters's films were only available for showing in film format on double system (the picture on a separate element from the track). The filmmaker had made a low-cost transfer from these elements together onto video, but this resulted in a severe loss in the quality of the picture and audio. In order to

make these films more accessible to a wider audience, one of our overarching objectives, we created composite prints from the preserved film and audio elements. In the case of *Berlin/New York*, which was originally shot and projected at 18 fps in super 8mm, this necessitated step-printing the film (doubling every third frame) in order to allow the film to be projected at 24 frames per second in 16mm. (The camera original was of course kept intact.)

The original sound track was taken from the cassette tape and then sweetened at Mercer Street Sound in the presence of the filmmaker in order to approximate the quality of the original wild sound as closely as possible. The track was synchronized to the picture, using the video transfer as a guide as well as supervision by the filmmaker. The resultant audio track was then mastered to DAT. An optical negative was made at Du Art Film and Video, from which the optical track on the composite print was generated.

Throughout the project, BB Optics created detailed technical matrices that governed the frame-by-frame optical printing of the films, all decisions being made in accord with the intent of the filmmaker. Table 3 is a section of BB Optic's "shooting score" for the preservation of *Berlin/New York*, showing instructions for exposure, step-printing to duplicate every third frame, and maneuvers to replace ripped frames with surrounding ones.

6. Document in written form the preservation history of the work and the preservation decisions made. In this way, we are able not only to produce a historical record about the creation of each individual film, but also to notate the concurrent decisions that were made in the preservation process consistent with the intent of the artist.

HISTORY OF PRESERVATION FOR *BERLIN/NEW YORK* BY JACK WATERS

Between June 1999 and November 2000, BB Optics was hired by Gartenberg Media Enterprises to help preserve three films by Jack Waters: *Berlin/NY*, *The Male Gayze*, and *Diotima*. Jack Waters was consulted at each stage of the project, and we depended on him to make final judgments about the general approach for each film as well as for judgments about exposure,

Table 2

8mm print "Visit to Indiana"			16mm "Visit to Indiana"		
shot	frames	Description/Notes	shot	feet/frames	Description/Notes
1	0- 40	photograph	1	0 - 2.16	photograph
2	41- 187	beginning titles	2	2.17- 8.37	beginning titles
3	188- 746	Black leader/342-351: face CU	3	8.38- 16.21	Black leader/face CU not on 16mm
4	747- 753	road: begins on a half frame	4	16.22- 16.25	First road image
5	754- 788	road: ends on a half frame	5	16.26- 17.34	road sign
6	789- 822	Black leader	6	17.35- 20.14	Black leader
7	823- 849	road: begins on a half frame	7	20.15- 21.00	road sign
8	850- 875	road	8	21.01- 21.38	road
9	876- 900	road	9	21.39- 22.36	road
10	901- 937	exposure change	10	22.37- 24.10	exposure change
11	938- 960	road: ends on half frame	11	24.11- 25.02	road
12	961-1093	Black leader	12	25.03- 32.02	Black leader
13	1094-1141	road: begins on half frame	13	32.03- 33.24	road
14	1142-1158	road: lighter	14	33.25- 34.09	road: lighter
15	1159-1177	road: light	15	34.10- 34.37	road: light
16	1178-1192	road: darker	16	34.38- 35.19	road: darker
17	1193-1206	road: ends on half frame	17	35.20- 35.38	road (35.39-36.00: flash frame)
18	1207-1250	Black leader	18	36.01- 39.25	Black leader
19	1251-1283	road: begins on half frame	19	39.26- 40.23	road
20	1284-1317	road clock	20	40.24- 41.33	road clock CU with zoom in
21	1318-1326	road: darker	21	41.34- 42.06	road: exposure change: much darker
22	1327-1340	road: light changes on 1334 and again on 1338	22	42.07- 42.30	road: light change within the shot
23	1341-1355	white house and road	23	42.31- 43.12	
24	1356-1365	woods and road: ends on half frame	24	43.13- 43.25	
25	1366-1409	Black leader	25	43.26- 48.33	Black leader
26	1410-1438	road: begins on half frame	26	48.34- 49.20	road
27	1439-1452	road	27	49.21- 50.00	road: lighter
28	1453-1468	road	28	50.01- 50.24	road
29	1469-1540	roadside doll	29	50.25- 53.10	pan and zoom on big roadside doll
30	1541-1591	food sign and quick pans	30	53.11- 55.06	food sign/quick pan
31	1592-1606	road	31	55.07- 55.28	highway
32	1607-1621	road	32	55.29- 56.10	highway
33	1622-1638	road and trees: ends on half frame	33	56.11- 56.34	small roll in woods
34	1639-1848	Black leader	34	56.35- 61.11	Black leader
35	1849-1964	man CU w/zoom out: begins and ends on half frame	35	61.12- 65.14	man in medium shot with zoom in
36	1965-2000	Black leader	36	65.15- 70.15	Black leader: begins on flash-half frame
37	2001-2279	BW people indoors: begins on half frame	37	70.16- 80.16	BW people
38	2280-2564	BW child CU: ends on half frame	38	80.17- 89.31	BW child CU: approx. @ 90.31 fades to black
39	2565-2622	Black leader	39	89.32- 91.07	Black leader
40	2623-3019	BW woman and child outdoors: begins on half frame	40	91.08-105.15	BW woman and child
41	3020-3286	BW woman CU with zoom ins and outs	41	105.16-115.07	Bw woman CU with zooms
42	3287-3485	BW child CU with zoom ins and outs: darker	42	115.08-120.26	BW child CU: color camera roll flares out
43	3486-3926	BW children: flares out up to 3926	43	120.27-121.18	end of previous shot with new camera roll
44	3927-4164	BW woman and child inside: flares in from 3927	44	121.19-138.11	BW children in yard: flares out/light changes
45	4165-4275	woman CU silhouette: ends on half frame	45	138.12-148.05	BW roll in: woman and child indoors
46	4276-4366	Black leader	46	148.06-152.25	

Table 2 (continued)

8mm print "Visit to Indiana"			16mm "Visit to Indiana"		
shot	frames	Description/Notes	shot	feet/frames	Description/Notes
47	4367-4573	BW woman holding binoculars with zoom ins and outs	47	152.26-157.30	Black leader
48	4574-4892	woman sitting medium shot: flares out	48	157.31-166.17	BW woman with binoculars/ 157.37: flash fr.
49	4893-5145	Color roll in: woman in hood with zoom in	49	166.18-172.36	flares out/splice on the original
50	5146-5287	hand CU	50	172.37-181.39	Rolls in on orig: couple in yard, zooms in to woman in hood
51	5288-5516	old woman in garden	51	182.00-184.33	hand CU
52	5517-5639	Black leader	52	184.34-191.21	old woman in garden (very blue on 16mm)
53	5640-5732	BW man driving over the shoulder	53	191.22	black frame: orig has black leader (8mm #52)
54	5733-5803	BW CU man on wheel profile	54	191.23-192.22	BW man driving over the shoulder: shorter than 8mm
55	5804-5835	Black leader	55	192.23-192.39	BW CU man on wheel profile: shorter than 8mm
56	5836-6045	BW amusement park	56	193.00-195.38	BW man driving w/red tint (end of 16mm #54)

color, and sound. The preservation history for *Berlin/New York* follows.

Berlin/NY is originally a super 8 color reversal and b/w film projected at 18 fps with a sound track on cassette tape. After inspecting the original and doing exposure and scratch-reduction tests, the film was optically printed to 16mm 7272 internegative and step-printed, doubling every third frame to allow the film to be projected at 24 fps in 16mm. The optical printing was done by BB Optics with developing and workprints by Du Art Film and Video. Since the original super 8mm is extensively scratched, and the image itself is made from rephotographed projections of other, already scratched super 8mm material, we determined that the best way to preserve the artist's intent was to minimally reduce the surface scratches but allow the roughness of the major scratches and splices to be reproduced in the 16mm version. The object was to simulate not only the look of the super 8mm original, but also the quality of a super 8mm projection. New titles were created in 16mm color negative by Gary Becker at F-Stop studio including a head title card, five tail film credit cards, and two preservation credit cards.

The workprint was transferred to BetaSP with timecode for the audio mix. The original sound track was transferred to DAT from the cassette tape, remixed and synchronized to the picture, and mastered to DAT by Bill Seery at Mercer Street Sound. A "b-wind" optical negative was made at Du Art Film and Video. The answer print, corrected print, and release prints were made by Du Art Film and Video.¹⁹

CONCLUSION

Only through a more aggressive, systematic approach on the part of curators and archivists to the preservation of experimental films will this body of work be recognized for its critical position in the evolution of film history. We will succeed not only in recapturing the full history of the avant-garde cinema, but also in more readily tracing the stylistic influences of the avant-garde cinema on more mainstream moving image products, including narrative cinema, television advertising, and MTV. Through this enterprise, we strive to do justice to the distinct visions of each individual experimental filmmaker. Only in understanding the evolution of his or her process can we more fully pay respect to their marvelous creations in the act of preservation.

Table 3

BB OPTICS 108 FRANKLIN STREET NEW YORK, NEW YORK 10013-2952 (212) 966-6253
 JOB NAME BERLIN/ NY DATE: 6/29/99
 CONTACT JACK WATERS, JON GARTENBERG
 JOB DESCRIPTION COPY TO 16MM
 ORIGINAL FILMSTOCK KODACHROME & B/W TO CAMERA STOCK 7272-296
 VOLTAGE: 120 F-STOP: 8 ND 2 CC: C:20 M:40 DIFFUSER: #3010 UV FILTER: YES

FT:FR	PROJECTOR	PRESET	MODE	RATIO	FADE	F-STOP	N.D.	CC-C:M	CAMERA
	0	200	CO		CLOSED				200
5.00	0	187	ST	2.3	OPEN	5.6	2		449
11.09	187	180					1		689
17.09	367	163				8			907
22.27	530	258					0		1251
22.27	788	275				5.6	1		1617
40.17	1063	107					2		1760
44.00	1170	1085				8	0		3207
80.07	2255	1	AL	2					3208
80.08	2256	2	PO			RIPPED	FILM	FRAMES	3208
80.08	2258	1	AL	2					3210
80.10	2259	100	ST	2.3					3343
83.23	2359	1	PO						3343
83.23	2360	1	AL	2					3345
83.25	2361	8	ST	2.3					3356
83.36	2369	1	PO						3356
83.36	2370	1	AL	2					3358
83.38	2371	28	ST	2.3					3395
84.35	2399	853					1		4532
113.12	3252	99				5.6	2		4664

NOTES

For help in shaping my thoughts for this article and in facilitating its publication, I would like to thank Bill Brand of BB Optics; filmmaker Jack Waters; Patrick Moore, former director of the Estate Project for Artists with AIDS; John Hanhardt, senior curator of Film and Media Arts at the Guggenheim Museum; Jon Ippolito, developer of the Variable Media Initiative at the Guggenheim; Toni Treadway of Brodsky and Treadway; Karan Sheldon of Northeast Historic Film; Mona Nagai, curator at the Pacific Film Archive; and Chris Horak, editor of *The Moving Image*.

1. I gave a presentation about the role of film archives in preserving experimental works at the 1991 annual congress of the International Federation of Film Archives in Athens, Greece (an apt site, given ample evidence in that city of the preservation of antiquity). The organizers happened to mistranslate the title as "The Fragile Emotion," which perfectly fit the aim of my presentation to directly link the experimental artist's interior emotional world to the delicacy of the imagery he or she fixes on the emulsion.

This article is also an expansion on some of the core ideas I presented then, seen from the added experiences I have accumulated over the last decade since that presentation. This article is also a re-fashioning of the panel I chaired with Bill Brand and Jack Waters at the 2001 AMIA conference in Portland, Ore-

gon, entitled, "Curatorial Challenges: Restoration of Small Gauge Films."

2. Witness such films as *Her Fragrant Emulsion* (1987, Lewis Klahr), *Nitrate Kisses* (1992, Barbara Hammer), *De Profundis* (1997, Lawrence Brose), and *The Film of Her* (1999, Bill Morrison). For a detailed discussion about Morrison's film and the restoration of the Library of Congress paper prints as a dramatized metaphor for the ephemeral nature of the filmed image, see Gabriel M. Paletz, "Archives and Archivists Remade: The Paper Print Collection and *The Film of Her*," *The Moving Image* 1, no. 1 (spring 2001): 69-93.

3. The project to preserve and exhibit the Andy Warhol film collection and to produce a catalog raisonné was spearheaded by John Hanhardt, then curator at the Whitney Museum of American Art. The preservation of Warhol's films was undertaken by the Museum of Modern Art. See my essay, "The Films of Andy Warhol: Preservation and Documentation," in *The Films of Andy Warhol* (New York: Whitney Museum of American Art, 1988), 15-17. Callie Angell is currently working on the catalog raisonné of Warhol's film oeuvre.

4. John Ippolito, a curator at the Guggenheim Museum, has developed the Variable Media Initiative. For more information, see www.guggenheim.org/variablemedia.

5. The Re:VoiR collection was started by Pip Chodorov,

an experimental filmmaker and founder of the Frameworks listserve. I have partnered with him in the production and release of this video line in NTSC format. For more information about these video editions, see www.re-voir.com/usa.

6. For more information about Jack Waters, his life, work, and the preservation of his films, see my on-line interview with Jack Waters and Peter Cramer, "Escaping 'Mediocrity's Vast Columbarium'" at www.artistswithaids.org/artery/artist/artist.html. Also see the citation of *The Male Gayze* (1990) in Bill Stanford Pincheon, "Black and Queer Visual Culture: An Annotated Filmography and Reference Guide," *The Moving Image* 1, no. 1 (Spring 2001): 176–77. Note, however, that even though this work was distributed by Frameline on video, it was originally shot on 16mm reversal film.

7. Waters's films are preserved in the Fales Library at New York University. Marvin J. Taylor, the Fales Librarian, has made a significant effort to collect, document, preserve, and exhibit works created by Lower East Side artists. For more information about the Downtown Collection at Fales Library, see www.nyu.edu/library/bobst/research/fales/.

8. Bill Brand, "History of Preservation for Films by Jack Waters," unpublished document in the Estate Project files, revised June 14, 2001.

9. Ken Jacobs, undated flyer, "Description of the Nervous System," for *Nervous System* performance of *Bitemporal Vision: The Sea* on February 12, 2000, during the exhibition *The American Century: Art & Culture 1900–2000, Part II: 1950–2000*.

10. At an exhibition and conference organized by John Hanhardt, "Researches and Investigations into Film: Its Origins and the Avant-Garde," at the Whitney Museum of American Art in November 1979, experimental filmmaker and photographer Hollis Frampton gave a fascinating talk entitled "The Invention without a Future," about how the film stock itself is constructed from organic substances—i.e., the gelatin layer is manufactured from animal bones, skins, and hooves—which will eventually disintegrate over time.

11. *Malcolm LeGrice*, Studio International (London, 1974).

12. Jon Gartenberg, "Notes on the Restoration of *The Chelsea Girls*" for a screening at the Museum of Modern Art in 1989.

13. Jerry Tartaglia, "Restoration and Slavery," in *Jack Smith and His Secret Flix* (New York: Museum of the Moving Image, 1997), 69.

14. Jack Waters in "Escaping 'Mediocrity's Vast Columbarium'" at www.artistswithaids.org/artery/artist/artist.html.

15. Press release dated February 6, 1997, "Restoring and Preserving the Work of Experimental Filmmakers during the AIDS Crisis" (New York: Estate Project for Artists with AIDS).

16. For example, all the films of Warren Sonbert, which have been preserved by the Academy of Motion Picture Arts and Sciences, are available for distribution through Canyon Cinema. Also, the touring retrospective exhibition, *Friendly Witnesses: The Worlds of*

Warren Sonbert, which I guest curated as part of the Film and Media Arts Program under the direction of John Hanhardt at the Solomon R. Guggenheim Museum in 1999, has since traveled to the San Francisco Museum of Modern Art (2000) and the Beaubourg Museum in Paris (2002). See Jon Gartenberg, *Friendly Witnesses: The Worlds of Warren Sonbert*, exh. cat. (New York: Solomon R. Guggenheim Museum, 1999).

17. *The Tuxedo Theatre* is Sonbert's twenty-one-minute montage film, a precursor to the more widely distributed, sixty-one-minute-long *Carriage Trade*. Both these versions are preserved at the Academy of Motion Picture Arts and Sciences in Los Angeles. A longer version of *Carriage Trade*, edited and exhibited by Sonbert after he made *The Tuxedo Theatre* and before he settled on this sixty-one-minute version, is now preserved at Anthology Film Archives.

18. Unpublished e-mails between Bill Brand and the author, June 24 and 29, 1999.

19. Bill Brand, BB Optics, 108 Franklin Street #4W, New York, NY 10013, March 23, 2001. Mercer Street Sound is now Mercer Media.

The Research Value of Amateur Films

Integrating the Use of Amateur and Found Footage into a Film Production Course

LAURA KISSEL

In this article, based on a talk I gave at the Portland AMIA conference on small gauge issues, I will discuss the design of a university-level course on amateur film that combines critical study with production. This course teaches the use of amateur footage in film and video production through critical readings, film screenings, and production exercises, including lectures by a visiting artist who uses amateur film. The course gives students an intellectual grounding for film productions that incorporate amateur films or use them as the primary visual source. The main goal of the course is to teach students to become "visual archaeologists" and to be able to recontextualize found and amateur footage for new and unique purposes. While describing this model for a course in appropriated, amateur film, I will give a background history of how I arrived at an intellectual and pedagogical crossroads