Many filmmakers who came to film in the late 1960s and early 1970s seem to have been interested in a return to basics. Like most of us who remember that period, they had experienced the ever-increasing tendency of both the commercial media and the developing independent cinema toward sensory overload. Television ads were condensing more and more information into shorter periods of time; commercial narrative films were becoming increasingly visceral; and many experimental and avant-garde filmmakers were producing heavy-montage "psychedelic" forms of cinema. Larry Gottheim is one of a number of filmmakers who provided filmic reactions against this tendency. Gottheim's extensive academic training had been in comparative literature (he earned a Ph.D. from Yale). He was drawn to filmmaking without knowing anything practical about it, and not surprisingly, in the earliest films he distributes, we can see him learning the elements of cinema in a carefully controlled sequence. If Frampton's work seems indebted to Muybridge's pioneering motion photography, Gottheim's first films-Blues (1969), Fog Line (1970), Corn (1970), Doorway (1971), Thought (1970, under the title Swing). and Harmonica (1971)-are reminiscent of the Lumières' early single-shot movies. Though Gottheim's films are much longer than the less-than-a-minute Lumière films (Blues is eight and a half minutes; Fog Line, Corn, and Harmonica are approximately eleven minutes), like the Lumière films, they are exactly one shot long and are photographed from a single, unchanging camera position. Unlike the Lumière films, however, which are simple documentations, Gottheim's exquisite one-shot films dramatize his step-by-step exploration of filmic options (in Blues, Corn, and Fog Line the camera is entirely stationary; in Doorway and Thought the camera slowly pans; in Harmonica the camera is mounted inside a moving car and the footage recorded in sync sound), and they offer the viewer intellectual and aesthetic meditations of considerable beauty and subtlety.

The focus of the early films, and of most of Gottheim's later films as well, is the interplay between natural process and human rationality—particularly the use of the technological apparatus of cinema to "capture" the physical world. The "still-lifes" and landscapes that at first seem to be Gottheim's central subject matter are dense with subtle indices and metaphors of the mechanisms used to produce the imagery we are looking at. The same approach is evident in his first longer film, *Barn Rushes* (1971, thirty-four minutes); *rushes* refers not only to the weeds we see in the foreground as Gottheim moves by the same upstate New York barn eight times on different days and different times of day but also to the camera's "rushing" movement past the barn and to the completed film's being merely unedited footage (or rushes) spliced together in the order in which it was shot,

This same interplay between technology and nature is evident in Horizons (1973) which remains, in my view, Gottheim's most significant achievement. Horizons is reminiscent of Vivaldi's The Four Seasons; it provides a visual journey through the upstate New York landscape, beginning in summer and proceeding through the seasonal cycle until spring. The seasons are distinguished from one another in Gottheim's overall editing strategy. The summer section presents pairs of shots divided from one another by one-second intervals of green leader; the fall shots are organized into groups of four separated by one-second intervals of red leader; the winter shots are also presented in groups of four, but they are separated by one-second intervals of blue leader; and the spring section presents triads of shots separated by yellow leader. Another structuring device is reminiscent of Gottheim's literary background. Each grouping of shots in the film is arranged so that the individual shots "rhyme" with each other. In the summer section the rhyme is simple—a a(that is, each shot contains a visual element that rhymes with a visual element in the other shot); in the fall section, the shots rhyme a b b a; in the winter, a b a b (a fitting rhyme: upstate winters seem to mark time); in the spring the thyme scheme is terza rima: a b a, b c b, and so on. Since Gottheim's complex rhyme scheme does not announce itself, viewers can experience the film without ever becoming aware of it: the progression of the imagery is itself very lovely. But once we recognize the rhyme scheme, we can see that, like the seasonal structure itself, it extends Gottheim's thinking about human rationality and natural process. A horizon, after all, is a line where-as human Perception and thought would have it-sky meets land; and Horizon is full of horizon lines. But even while we use the concept of the horizon, we know that there is no such line in reality, except in our conceptualization of it. Similarly, We divide the year into seasons, and yet we know that one season does not stop so another can begin: one season gradually develops into the next. Gottheim's decision to structure footage into rhyming sections is itself a metaphor for the way in which the human mind imposes its logic onto the spaces and processes of nature in order to control and use them.

Horizons was followed by three long films that, with Horizons, make up the longer work Elective Affinities. In Mouches Volantes (1976) Gottheim worked extensively with sound for the first time, making it a central element in another highly structured work. Mouches Volantes presents seven lovely passages of visual imagery, photographed around what was then Gottheim's Binghamton, New York, home and during a family vacation in Florida. These passages are separated from one another by passages of dark leader and arranged 1, 2, 3, 4, 5, 6, 7, 7, 6, 5, 4, 3, 2, 1. The sound track is four and a half minutes of reminiscences about blues singer Blind Willie Johnson by his widow, Angelina Johnson, edited from a Folkways record. Gottheim arranges the imagery and sound so that the film alternates between silence and sound: we hear the reminiscences for the first time, juxtaposed with visual passage 2, then with passages 4, 6, 7 (the second presentation), 5, 3, 1. While we repeatedly hear and see the same sounds and visuals, Gottheim carefully arranged them so that a variety of subtle relationships between particular sounds and visual events would become evident. The result allows the viewer-listener to examine a wide range of ways in which formal and representational elements or recorded imagery can interact with formal and representational aspects of sound and with silence. Because the visuals and sounds are so different from one another-especially when compared with the images and sounds in conventional film-many of these interactions are quite subtle; one barely senses a connection before it disappears. (Mouches Volantes refers to the "flying gnats" described by H. Von Helmholtz in Physiological Optics [1866], which exist in the human eye, just at the edge of perception.)

Four Shadows (1978), the third section of Elective Affinities, works with image and sound in a manner reminiscent of Mouches Volantes but in a somewhat more complex-and in some senses more literary-manner. Four fourminute passages of imagery-surveyors working in the field across from Gottheim's home, pages of a book about Cézanne filmed in close-up, a series of winter cityscapes, and a family of siamang gibbons filmed at the National Zoo in Washington-are juxtaposed with four four-minute passages of soundoutdoor country sounds, four readings of a passage from Wordsworth's Prelude (each by four different voices in succession, including those of filmmakers Vincent Grenier, Heinz Emigholz, Jonas Mekas, Peter Kubelka, Taka limura, Alfons Schilling, Babette Mangolte, and Klaus Wyborny), a portion of Debussy's Pélleas et Mélisande, and the shrieks and hootings of the siamang gibbons. The eight passages of visuals and sounds are arranged so that each passage of visuals is, in a single instance, seen in juxtaposition with each passage of sounds. Because of the number and diversity of the sights and sounds juxtaposed in Four Shadows, the conceptual experience it offers-the primary focus again being the interaction of human logic in its various extensions with natural forces—is remarkably complex. At the same time, *Four Shadows* maintains a tendency in Gottheim's work to move away from the sensual pleasure of looking at beautiful imagery, a tendency which, in my view, weakens the two films that follow *Four Shadows*. In both *Tree of Knowledge* (1980), the final section of *Elective Affinities*, and the more recent *Natural Selection* (1983), the conventional kinds of beauty that made the conceptual dimensions of the early films comparatively accessible have been largely eliminated, and the result is forms of film experience too dryly academic for my taste.

Gottheim's contributions as an administrator, especially during the early 1970s, deserve mention here. He established the film department at SUNY-Binghamton, brought Ken Jacobs to Binghamton to teach, and during the mid-1970s hosted visiting filmmakers (including Peter Kubelka, Ernie Gehr, Taka Iimura, and Nicholas Ray) who made Binghamton for a time one of the nation's more exciting film venues. The influence of the SUNY-Binghamton film department continues to be felt in a variety of ways, most notably, perhaps, at the Collective for Living Cinema in New York, where Gottheim, Jacobs, and a variety of former Binghamton students have played a crucial role.

This interview was recorded during the summer of 1977 at Gottheim's home in Binghamton.

MacDonald: You had considerable academic training at Oberlin and Yale, which led to your earning a doctorate in comparative literature. When you first came to SUNY–Binghamton, in fact, you taught literature. Could you describe how you became involved in film?

Gottheim: It's funny: I was thinking the other day that I'm the sort of person who labors decisions a lot. Even in my films I devise elaborate procedures to slow things down so that I can consider as many factors as possible. I remember reading Kafka's diaries and feeling this great sympathy with Kafka. He was always thinking about marrying somebody and for years wrote these elaborate lists of reasons for and against getting married. Of course, he could never make up his mind about very much. Anyway, although I'm that sort of person, the things that I've done in my life that have made a major difference have been done with almost no thought or preparation or even awareness that a big decision was being made.

The first art that I was involved in was music; I played the clarinet as a child and went to a high school for music and art. I was seriously involved with music and have returned to that a lot. I spend more time listening to mu-

sic and thinking about music than I do reading or being involved in other arts. In any case, when I was in college, I became interested in other subjects and kind of dropped music. I started writing poetry and fiction; I was writing a novel at one time. During the period when I was deciding whether to go on to graduate school, or what to do with my life, I came to feel that to be a secret poet—you know, somebody who does graduate work in literature but is secretly writing poetry—was to be in an awkward and embarrassing position. I felt that I should make some kind of decision and either get out of the whole school situation and just keep writing or commit myself to the academic thing, which offered real satisfaction, at least when I was in graduate school. So I stopped trying to be a poet or a novelist in the middle of graduate school.

When I got away from graduate school and into the world of teaching and faced the prospect of writing about literature, the more empty that sort of thing became. The people in the literature department saw me as this bright young faculty member who was going to write these articles and this book and do this and do that, and my whole life seemed spread out before me. I had this tremendous revulsion against that, and I guess all of this creative necessity that had earlier come out in music and in poetry just welled up very suddenly and surprisingly, and I have no idea why it had to do with film. I didn't know anybody who was a filmmaker. I was only dimly aware that there was such a thing as independent filmmaking. But for a year or two I found myself longing for some opportunity to learn how to make films, and I realized at some point that that opportunity was never going to arise, that I had to do it myself. I remember going to somebody I knew who had been associated with making newsreels in the fifties. I told him I wanted to get a camera, and he said, "Are you interested in getting 8mm or 16mm?" and I had no clear idea even of what the difference was.

In any case, around that time I went to Willoughby's in New York and for \$300 got an old Bolex camera with a single lens, not even a very good lens. It all happened very quickly, and there I was with this camera and two rolls of film, and the only instructions I had were the instructions that had come with the Bolex, and 1 felt tremendously lightened, tremendously committed to what I was doing. It took a long time to decide what I was going to do with those first two rolls of film, but the transition happened almost overnight. The next year I started wanting to teach courses in film and my every waking moment was involved with film. When people would say, "Oh, I understand that you're interested in film now; are you still teaching literature?" I would realize that only a year had passed. It seemed like forever.

MacDonald: About your first five films: Blues, Fog Line, Corn, Doorway, and Harmonica. When I describe them to people, they often think I'm kidding: "You like a film about blueberries being eaten?" But when I show them to audiences—particularly when I've suggested that you are quite serious and that the viewer has to concentrate to see what's offered—I have extremely good luck with audience response. What sorts of experiences have you had with audiences seeing the films?

Gottheim: To some extent I think these films have aged the way wine ages. They seem to be clearer and to have more weight now on first viewing than they did when I first made them. This is true even with Barn Rushes. When you saw Barn Rushes when it was still fairly recent, you could hardly see the film: there was so much talking; the audience had so many problems. In the last few years when I've shown those early films, I haven't had that sort of problem. It seems that somehow, even though each audience may be seeing the films for the first time, something has happened in the world to make the relationship between the audience and the films a little clearer.

There is a problem, especially with those films, because they raise a question about what "to see a film" means. To see *Blues* as a film about blueberries, let's say, is not really to be experiencing the film in the way that I mean the film to be experienced. In fact, it may be that the most fruitful way of thinking of that whole group of single-shot films is to see that they have something to do with what it means to experience something. What the films are about more than anything is the experience of perceiving.

MacDonald: All the early films seem to combine examinations of simple natural things and very subtle explorations of properties of film. Much of their interest, in fact, is a function of that combination. But on another level several of the films—I'm thinking particularly of *Blues, Corn,* and *Doorway*—seem metaphoric. In *Doorway,* for example, you could say that a combination of a bleak winterscape and of the pan, which makes that landscape slide from darkness to darkness, seems to take on a fairly obvious metaphoric dimension. It that a by-product of other concerns, or is it something you were conscious of when you were making the films?

Gottheim: I wasn't very concerned, or even conscious, of more literal kinds of metaphors. One thing that I've been involved with for a long time, though, is the way that things in art seem to take on a reverberance. I don't know what the proportion is, but if I were keeping a tape recording of my consciousness, it might be that one out of every million filmic ideas comes to be embodied in a film. Now, why does this one detail or this one procedure or this one constellation of ideas and procedures get to be carried out? As I work, I have a feeling of it being promising; it seems to be holding out the possibility of having these reverberations, even if I don't know exactly what they are. There just seems to be this pressure that leads me on.

For me Fog Line has the most reverberations that keep coming. I expect that five years from now, or twenty years from now, 1 will be looking at Fog Line and for the first time will be conscious of some kind of verbalizable significance. I feel that that film, especially, has a capacity of not being exhaustible. This element also has to do with why the early films have been such rich influences on the later films, although that hasn't been conscious either. When



The landscape in Gottheim's Fog Line (1970).

I was making *Horizons*, for example, I began to think about lines and horizons and so on and realized that there were a lot of implications in *Fog Line* that I had been only partly conscious of when I made it. In some cases, I don't think about even the most obvious things until much later.

MacDonald: The early films seem largely concerned with an almost meditative concentration. While the goal of the meditation seems largely materialistic, at least in the sense that it develops the viewer's sensitivity to perceptual realities both in film and in nature, at times I wondered—particularly in the cases of *Blues* and *Doorway*—whether there's a kind of mystic tendency in them. This was suggested to me in both cases by the way that the flicker created by the sixteen-frames-per-second speed (particularly at the end of *Blues* and at the point when the big tree comes across the image in *Doorway*) seems to hint at something beyond material perception. Do you have any feelings about this?

Gottheim: Yes. This is another area that is very, very important to me, but it's also true that a lot of my involvement with this sort of question is not very verbal. I mean some people—filmmakers or other artists—become very involved with a certain specific theory. They might be studying Buddhism or studying this or studying that, and their work comes to be an embodiment of their studies. I don't work that way. For me, making a film is like opening up a veil. I'm seeing something or experiencing something, and I'm not quite sure what it is. Actually, in the period when I was making *Blues* and *Fog Line*, I think that I was very happy to talk about mysticism or mystical things, or at least I had these vague feelings about Eastern religions. These days I tend to talk much more about energy, and I feel that the same thing that I was talking about then is something that's not mystical but is very real, although it's very difficult to talk about. Certainly energy is a very real element in life, not just the electricity that powers light bulbs but the life energy in people that has to do with their relationships to each other and their relationships to nature. In those early years, though, I was much more interested in using films as a way of teaching people how to see. That was an end in itself.

The viewing process that I feel is appropriate for the early films is a creative one. You can't, as you can in some kinds of story film where you know that the film is going to keep providing you with fresh surprises, remain entirely passive. In all the early films there's a sense of having to find a new stance as a viewer. The films are trying to have enough richness and complexity that if you do try a new stance, they begin to reward you, but, at the same time, the films are not saying that everyone in the audience at this particular moment must now start paying attention to a particular detail.

There are moments when you may be more likely to look at one thing than another, but I wanted all those films not to manipulate you or force you or push your attention in a specific direction.

MacDonald: During *Barn Rushes* you shoot from inside a moving car, tracking past the same barn over and over in different lights, and you create a wide variety of views of basically the same scene. Was the imagery collected over a long period of time? Also, did you make many passes by the barn and select specific ones, or did you just decide to use the ones you shot?

Gottheim: Barn Rushes was made in maybe a two-month period. The barn is right near my house; I pass it all the time. I was originally drawn to it because of those movements of light through its slats that you see in the film. The first few rolls were shot as experiments. I made a few hundred-foot rolls just to see what it would be like, not knowing they were sketches for what would become a film. There is this problem of being outside New York City and not being able to take stuff to the lab all the time. So I did three and went to New York, took them to the lab, and brought them back. When I saw the three of them strung out together, as they are when you get back three separate rolls, I started to have this idea of using that as a form. The rolls were very exciting to me, and it began to seem that the difference from one light to another, and from one situation to another, was very strong. I couldn't affordand it didn't seem necessary-to film the barn hundreds and hundreds of times. Mostly what I did during the next six weeks or so was to go there every time there seemed to be an interesting light situation. There was a very strong selective process going on without my having to film everything, though I did

film a lot of material that was finally rejected. Then there was this process of deciding what to include. The order of the film is predominantly the order in which the rolls were shot. The first three rolls are, in fact, the three on that original roll. Deciding that there would be eight was a delicate process; I had to question what contribution each roll would make.

MacDonald: Barn Rushes seems to be a filmic attempt to do a Monet haystack series. What connections and distinctions do you see between your work, particularly Barn Rushes, and the Impressionists?

Gottheim: I think the Impressionists had a strong formative influence on my seeing. It goes back to childhood experiences. I have many memories of going to the Museum of Modern Art when I was thirteen or fourteen and seeing Van Gogh, Monet, and others. Their attempts to deal with light and natural scenes at the same time that they consciously dealt with the problems of painting, of art, drew me to them most strongly. Of course, we're using the word Impressionist in a very loose way. More recently-in my film, Four Shadows-I'm confronting this issue more consciously. In some strange way it has to do with living in Binghamton, where there are elements of naturenot of nature in its grandeur but of nature transformed, at a point between industrial, more modern civilization and earlier, more rural civilization. Artists in the nineteenth century were also responding to this.

MacDonald: Horizons was a much longer undertaking than any of your earlier films. Both in length and complexity it seems to be a much more demanding work. Could you review in detail the steps involved in creating the

Gottheim: My first idea was of something much simpler and more abstract. finished film?

As a matter of fact, I remember that I happened to be standing on a hill with Ernie Gehr. He was recording some sheep for a film, which I think never got made. The hill was very green, and it was a very clear day, and there was a clear, cloudless blue sky, and I had this idea of making a film that would somehow involve shots in which the horizon would divide the frame into very clear areas of color. I thought that the form of the film would have to do with these different perceptions of texture and color and so on. It was a very vague idea, but on the basis of that idea I went out to film some horizons. Also, I decided there would have to be some very subtle movement within the shotssay, clouds moving or grass blowing in the wind. There would be a presence of movement, but of a very minimal kind. Though I drove around looking for situations like that, I hardly filmed any. I found myself being very, very selective. I would drive around for hours and not find anything, or I would find something that was somewhat close to what I had originally intended but that also had some element that was a departure. At first I was only using the car as a vehicle for getting around to try to find these places; when I found a place, I would get out of the car and film. Also, although I thought that all of the shots were going to be still-that is, not shot from a moving car-l intentionally

did not take a tripod, but held the camera while shooting these fairly static shots because I wanted to be sure the shots would have at least the movement imparted by my own different ways of holding the camera. I also decided right from the beginning that I wouldn't do a lot of recording of any given image but that when I came to something that seemed right in terms of what I was thinking of then that I would take only one shot of it. That way each image I recorded would exist in one place only for a certain moment, and my tremblings, whatever, would reflect my relationship to it at that moment.

I found that I got drawn into this process of driving around and became very preoccupied with going on these long drives by myself or walking around looking for situations worth recording. I found myself being drawn to certain kinds of situations that weren't part of the original premise at all, and at first I rejected them and didn't record them. Then I started to cheat a little bit. I might decide to use most of a roll for filming horizons, but if I happened to find something that interested me, that wasn't part of my original intention, I'd record it anyway. There's a shot in the summer section of the film-it was the first shot that I made from the moving car-where there's a stone wall behind which you can see a cross, which is inside a cemetery behind the wall. I shot that thinking that it wouldn't go into the film, but I was finding myself more and more drawn into a process that was happening on its own. I decided not to stick to a rigorous rule about what constituted the kind of shot I wanted for the film, but if I found myself drawn to something, to trust that, to let myself film it, whether it was a moving shot or a still shot. As a result, the finished film includes shots like the ones that I first set out to get-in which a very clear line of horizon separates a very clear field from a very clear skyand shots in which there is only the most minimal horizon, in which the whole frame is filled with the landscape and other human material, except for the presence somewhere of a horizon.

Originally my idea involved greens and blues, and I assumed that my shooting would be completed in a fairly short time. But the process was extending into late summer, into autumn. I found that I was drawn into the material in such a way that I hardly understood what was happening. And I was increasingly drawn into the process of going out on these journeys. Mostly I went by myself at the beginning. Later I went with my wife, and still later, other people-friends, students, whoever-would go, and then there would be a kind of interaction that would color that particular day's shooting. But most of the time I was by myself; the sense was of private, lonely journeys out into places that became very meaningful to me personally.

While I had been drawn to Horizons as an idea that would be very formal, Very pure, I found myself being drawn to things that were colored with certain kinds of emotional and symbolic overtones. I found that I very much liked times like dawn or evening that are more flavored, more resonant emotionally and symbolically. I found also that I wasn't willing to give up this process of

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going out and recording this material, even though I was then on unsure ground. I no longer had a form in mind. I kept making these images. At times I found myself going back to certain places, certain motifs, but in a different season or a different light. At other times I would deliberately get lost. I would try to find little dirt roads that I'd never been on before and go off on these paths never knowing where I would end up. I didn't know where it was all leading, and even when it was already winter, I wasn't even sure what I was doing. It seemed almost that I had been wasting a lot of time. I began to think, oh, now I've really got to go through the whole year although I didn't know why. It was a way of continuing this activity that was engrossing me, and it also kept me from having to decide what to do with the material. Also, I realized that winter would give me a possibility of getting purer images.

About a third of the way through the winter the whole emotional weight of this experience came crashing down on me, and I realized that I was generating so much material, and such loaded material, that there was no simple form for bringing it together. I finally felt I had to confront this problem of having a large collection of shots. Many people deal with having a lot of material by just editing it in some kind of intuitive way. That was very alien to me. Even when I was recording a still image with just a trembling of the camera, I was still aware that it would be a certain length and that it had a rightness of being that length. Also, when I started doing the moving shots, I was trying to think, where should this shot begin, where should it end? Anyway, I think that at some point, miraculously, the idea of a line, of a line of poetry, began to interest me as an analog to the shot. I began playing around with the possibility. This was partly because the content of my imagery had begun to seem in some ways like poetry. I was reading a lot of things that I thought might help me to find a way of structuring this material. I read Virgil's Georgics (I use a motto from the Georgics in the film), but it was reading Dante, and the poetic form of the terza rima, that pushed me toward the idea of organizing the shots into some kind of rhyme scheme. As a matter of fact, the terza rima rhyme scheme was the first one I thought of. There was also an idea of shaping the content of the material in some kind of epic way. Of course, the more thought about it, the more I realized that while the rhyme scheme in Dante is not secondary, not just a decorative element, yet, if you read Dante in an English translation in which the rhyme is not carried over, you're still getting some of the essential elements of The Divine Comedy. In working with something like a rhyme scheme in film, on the other hand, the rhyme scheme itself becomes more essential, so that it's only for lack of a better word that I've used the term.

I finally decided to structure the film into four sections, each section using material from one of the seasons and each section having a different rhyme scheme. I decided that the first section would be two shots that in some sense rhyme with each other; the second and third sections would still use this two-

shot pattern, but would use two, two-shot groups in groups of four; the last section, which is the most complex, would use the *terza rima*.

Having decided that the film would consist of this scheme of rhyming shots, I then had this problem of how to separate them. I thought of various possibilities, but I finally decided to separate them, first of all, by a unit of time—namely, one second. Because these shots had different durations some are rather short, some are longer—it seemed to me that a fixed unit of time every once in a while would function as a reference, a pulse for the time organization of the shots themselves. I also decided to work with colored leader and made various experiments, finally coming up with a different color—one that related to the specific section—for each of the sections.

By the middle of winter I had worked out a formal scheme for the film, and I already had at least half the material shot. Having this formal pattern allowed me to go on through the spring. I also decided not to allow this choice of a general form or procedure to color my shooting. In other words, I completed this process of going out and filming horizons according to the principles that I had been using. It was not until the following summer, a year after I had started filming, that I said, OK now, I have all this material, and I have this concept of rhyme schemes; I'm going to see what happens in working this material into this form.

First, I grouped the material into seasons, in most cases a very straightforward process, though always at the transition from one season to another there was material that could go either way. I made four reels of all the material, essentially just as it had come from the camera, all strung together. Then, I went through a period of excising from those reels shots that I didn't want to look at anymore or that I didn't feel held up as shots. Some things came out just as I had planned them, but seemed weak. I reduced the reel to the material that I felt was the strongest. Also, in some cases when I looked at the material over and over again, I could see that some shots weakened at the end and that by cutting off the end of a shot or by starting it a little later, I could strengthen it. At any rate, there was this period of getting to know the material and tidying it up.

Then I went through a process that sounds very mechanical, but it was very important to me and far from mechanical in its function. I drew cards for all the shots in the order that they occurred on each of the four rolls. For each shot there was a picture, or in some cases several pictures, of the composition and different kinds of notations about what I noticed in the shot. As I drew these cards, I attempted to memorize the material. I was able to work with an analytic projector, so I could project a shot slowly and stop it. What I would do, for example, is look at the card for a shot and try to recreate in my mind what that shot looked like and felt like. I tried to improve my sense of each shot until I felt that I could comfortably look at the card and know everything that happened in the shot, including such things as the shaking of the camera and

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the different velocities of the car (did it move uniformly or did it pick up speed or slow down?).

Once I had this collection of cards, I went to another stage in which I used a looseleaf notebook. I took a page in the notebook and drew a schema of the first card on that page. Then I went through the whole stack of cards noting on this page any relationship of any sort between that first shot and any of the other shots. Sometimes, a relationship would be very obvious. It might be a shot of the same place. Sometimes, a certain color appeared in a certain place in the frame, sometimes a shape, sometimes a certain movement, sometimes a certain association. On the page with a given card, I might have many relationships; in some cases, very few. Finally, I had this book that noted all of the relationships between all the shots.

Then I went through a process of trying to select out of the many possible relationships the one that I would use. In one case there might be only one relationship that I felt was interesting, so I would choose that one. In other instances, I had to choose the most interesting relationship from among several. Once I had found a suitable relationship, I removed two cards from consideration. Each choice I made reduced the field of available shots to be paired with other shots. I kept paring down and paring down until finally I had made a kind of tentative selection of all of the shots.

Next, I took all the cards and began working to find a possible order for them. I had these regions on the floor and divided the cards according to whether they seemed to belong towards the beginning, towards the end, or at some other point. Within the two-shot groupings it made a big difference which shot came first and which came second. In some cases, the element that constitutes the relationship between the shots is present everywhere in both shots. In some cases, it is only apparent at the beginning or at the end, so that perceiving the relationship depends on the order of the shots.

So I worked out a lot of the editing on the floor with these cards. Then there was this great time, finally, when I was satisfied with the arrangement of things. Only then did I actually put the film together and, of course, I found that certain things worked and certain things didn't work. It was a very, very complicated process to make changes at this point because all the material had been accounted for and paired up. If something didn't work in some region of this first version, it wasn't just a matter of reworking that section. I had to rethink it all. Each of the sections went through several torturous processes of being tried out, taken apart, and reassembled in very different ways. There's more, but I think that gives you some idea of the process.

MacDonald: As a viewer goes through Horizons, he or she starts to pick up some of those motifs that you mention finding when you were shooting the film. Some of them seem to have specific sorts of metaphoric intent and, in particular, to suggest the process of making the film. There's a motif, for instance, where you shoot through a window-its individual panes of glass are



divided by wooden strips. That motif reminds me of the film's organization: shots divided by strips of leader. Was this conscious? Did it come into play during your organization of the units?

Gottheim: No, that particular thing wasn't conscious at that time, although those shots did have a very strong resonance. I hadn't come upon that window and that view during the first summer. The first shot that I had made of the window was in the autumn, and it registered in a very strong way to me. Later, I felt that I wanted it to be a kind of privileged area of material in the film, so I went back the second summer and filmed that material so that it

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would be present in all the seasons. In other instances, I found myself being drawn to images of cemeteries, of people working the land, and of other kinds of material that were obviously metaphysically resonant. At the same time, I wanted this sort of resonance to be only part of the experience. I wanted the viewer to be aware of shape, color, patterning, and other features. I think all of the material has to do with a lot of issues, and that all of it, in some sense, has to do with making the film. There are many other issues, all of which are vaguely suggested by the title *Horizons*. I'm happy that certain shots have that quality you said, but it wasn't really an intentional thing to use the shots in

that way. *MacDonald:* Apparently, *Horizons* has been through revisions since you showed it first. Can you explain what you changed and why? Are you satisfied showed it first.

with the film now? Gottheim: The changes have only been in relation to laboratory work. I haven't made any changes in the actual editing or in the order of things. All my films are problematic in this respect; but Horizons in particular involved an enormous process of working with the laboratory to get the kind of print that I wanted. All the material had been shot on the same film stock, mostly with my Bolex. There were a few different lenses, but basically there was a continuity in filming. In all of my work, when I have film developed, if I'm able, I make a work print. I try to have this work print be just a straight. simple print without any filtering by the laboratory, without any changing of the light. If something is overexposed on the original-according to the laboratory-I want it to be just that way on the print I'm using. In this case, I had the entire work print made on the same Ektachrome print stock that I wanted to use finally for the prints of the film. It seemed clear that if a laboratory had made this initial print, they could make a duplicate later if they used the same original material. I felt very comfortable in working with the exact nuances of color and density that were present in this work print.

Well, it turns out that labs are not set up to do that. The most common situation that a lab confronts involves having to match skin tones. If they have shots of a character who appears in the kitchen, they try to even the shots out so that even if different shots were shot in the kitchen on different days, they all look as though they were shot at the same time. The lab times and color-corrects in order to make the film have an illusionary evenness. When a lab is faced with a situation like *Horizons*, it's not willing or able to just match the original. There was this horrible nightmare of getting back the first trial print. I'd given very, very explicit instructions, including a chart that listed every shot and just what I wanted, which in most cases was a print just like the original. Instead, I got back this grotesque distortion; it was incredible. There wants a film to be, the more physical damage and extraneous problems creep in and threaten to destroy the images entirely.

In any case, I went through this very prolonged process of going back to the lab and saying, "No, this shot is too much this way, and this shot is too much that way," and then we would make another version, and another version until finally it began to approach something that I could accept. In some cases it was what my original intention was, and in some cases it wasn't exactly what I wanted, but I could work with it. Finally, I was able to get prints that were fairly satisfactory in terms of color.

This last section was the most problematic because certain things involving color that were being developed all through the film were coming to fruition. There's a kind of tone feeling at the end of the film to which the colors contribute a lot. First, there's an anticipation of an opening up of the color that is deliberately built into the beginning of the spring section; then, there's a kind of retard where it goes back, to some extent, into color areas similar to those in the winter section. In all of the prints, it went too far back; it became too dark. The last change that I made—this is now some time ago—was for the Paris Museum of Modern Art. I made some prints from the internegative in which the last section had this very scintillating quality. I was really very happy with it.

It's only in this way that *Horizons* has been changing. Much the same process has been true of all the films, by the way.

MacDonald: Mouches Volantes is like Horizons in its complexity. How did it develop?

Gottheim: Well, Horizons was a tremendous thing to live through. There was a big problem of what to do next. I fell into making Mouches Volantes in a different way. When I was finishing the editing of Horizons—this was in February of 1973—we went to some island off the coast of Florida for a month. I hadn't been filming for a while. I had gone through this whole period of filming for Horizons, and then I had been into this process of working with cards, working with projectors, getting to know the material—editing but not filming—and I wanted to begin filming again. I did have one roll of high contrast positive film that I had made before shooting Horizons. The silhouettes at the window with the snow in Mouches Volantes come from this. I had always thought of going back and experimenting with that film stock some more. I liked the idea of the dense blacks of the silhouettes and also of a character the snow has in that section of totally whiting out the image. I brought a lot of that film stock (it's actually a printing stock) with me, as well as other film, to Florida.

There, I filmed things in a very experimental way. I set myself compositional and light problems. I would take the camera outside and film, changing the focus and darkening the image. I remember filming a lot of material about the surf, thinking it might be helpful, but not having any clear idea how. As a matter of fact, I didn't get any of it developed until I came back. I also brought two rolls of very outdated film in rusty cans; I was interested in using it to see



Wife and child in window, from Gottheim's Mouches Volantes (1976).

what it would be like. The other window material in *Mouches Volantes* was shot with that. I never thought that it would be combined with the other things. When I came back, I had quite a lot of the black-and-white highcontrast positive material. I put it all on this big reel, which I looked at a lot, trying to think what I could learn from it or what I could do with it.

Then, there were some other directions, other things I was thinking about. I went fairly far with certain thoughts and ideas that never amounted to anything. I had this idea for a film involving postcards I had bought in Vienna. Also, I had always been interested, in a fairly minor way, in blues. I had this Folkways record of Blind Willie Johnson, and on the other side of the record was this interview with Angelina Johnson. I found myself liking that very much, being sort of haunted by it in a way that I couldn't clearly understand. I played it a lot during this period, and I started to feel that I would like to use it in some way, though at this time I didn't think of it at all in connection with this other material. Also, I had come across this idea of "mouches volantes" in Von Helmholtz's *Physiological Optics*; that was kind of hanging around as

a title without a film. It seems very miraculous to me that all these elements began to lodge together in my mind. It began to seem conceivable to actually make a film called *Mouches Volantes* that would somehow include this sound track material and this high-contrast positive material. I began to think of how they could coincide in the same film, and the obvious way was to see if the sound or some edited version of it could be made to go with any of this visual material.

I began to think in a more focused way about something that had interested me for a long time-namely, sound-image relationships in film. It was something that I had never worked with very much, though I had been very interested in films by Peter Kubelka and others who worked with sound-image relationships in formal ways. (Incidentally, I do feel that my interest in this area resulted in Horizons having a sound component, even though it has no sound track. It's not in terms of the rhyme scheme so much as in terms of how one is relating to the images as they flow by. There are certain events in Horizons that reverberate with a certain sound that changes because of the order of the shots or because of the realization of a kind of rhyme pattern. I could give many examples of it; there's even a playful reference to it in the section in which Peter Kubelka appears playing the flute.) At any rate, when I thought about how I might relate this sound track to those images, I realized that something more complex was going to happen, that the process of doing the film would have to be very intricate and that the film would have to lay out the material so that this intricacy could be experienced.

First of all, the idea of making a fixed soundtrack—selecting a portion of the interview with Angelina Johnson that would function as the sound for the whole film—became appealing. I loved that sound and wanted to work with it. But also I wanted to display the visual sections both silently and with sound. The form of the finished film—namely, that it involves seven visual sections, each seen with and without sound—was not decided in the beginning; it's just that the material that I had lent itself to being in these sections. The arranging of the material so that it would go 1, 2, 3, 4, 5, 6, 7, 7, 6, 5, 4, 3, 2, 1 came out of just trying out the different possibilities in my mind. That one seemed to present itself as a wonderful whole form for the film.

The more I listened to the Angelina Johnson part of the record, the more I realized that three sections were the essence of what I loved. I recorded these three sections in essentially chronological order, though not in the order they were in, in the original interview. I put her story of Willie Johnson's childhood first, the narration of their meeting and marriage second, and the story of his death third. The only sound that I introduced was the sound of my tape recorder going on and off. All the other sounds, like the fading out at the end, all of the other clicks and noises, occur on the record.

MacDonald: Are some of them on your record rather than on the original? *Gottheim:* No, they're on the original also.

MacDonald: I'm thinking of that tapping that you match at the end.

Gottheim: Samuel B. Charters, a folklorist, who wrote a very good book about the blues, recorded a lot of this material. I think that during the original

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time when he was with Angelina Johnson, he must have had a wire recorder; I assume those clicks go back to that time. There are also some sounds that I think come about at a later stage, when he edited his original wire recording, or whatever, in order to make the record. I suppose the fade-out occurred then, and some other things.

OK. I had this sound track and all of this visual material, and I had this idea that there were going to be sections in the film, all of the sections made to go with this sound track. I then had different ideas about what would constitute a section, and for a long time I played with the idea of different formal things. There might be a section in which a lot of the rapid changes in lightfrom light to darkness, say-would be included and another section in which all of the swinging movements would be included. Different things suggested themselves to me as possible bases for sections. It happened that on this big roll that I was looking at all the time the material was arranged just as it came back from the lab, that is, according to the days on which it was shot. The footage from the day when the kids were climbing on the trees was all together; it began to assume a kind of narrative sense. Other days that were recorded on the film also seemed almost storylike at times. I finally decided to allow that to determine what would be in a section; that is, all of the bees material would go in one section, all of the tree material would go in another section, and so on. Also, by this time I had incorporated the original snow material on high-contrast positive, some other snow material, and the window stuff.

When I had grouped the material that would be used in one section, I pared it down, took out things that I didn't want. Then I made a precise record of what was left. Whereas during the making of Horizons I recorded what happened in general without needing to know the particulars except in a kind of intuitive way, in getting to know the material for Mouches Volantes I had to be very precise. I had to say exactly at frame such and such this occurs, that it occurs for this many frames, then this occurs. Essentially, I made a frame record of those things that seemed significant or obvious or noticeable. At the same time. I transferred the sound track from quarter-inch tape onto sprocketed 16mm magnetic tape, which has frames on it, so that I could make a frame record of its sound events. I made a frame record for every sound and every syllable. I had evolved a procedure that was incredibly tedious, though in some ways I liked it because it was very homemade and simple. I used strips of graph paper in which each square in the paper was a frame. Finally, I had these long strips on which I had recorded every visual event and every sound event in the film.

Next, holding in my hands a strip of graph paper that represented a grouping of images, I would walk towards the place on the floor where I had the sound track, and I would bring them together. I could line them up very exactly so that a specific sound fell on a specific image event. Then I could look to the right and left of that, and I could see that maybe nothing very interesting would happen through a specific conjunction, or I would see that by lining up a particular word or sound with a particular image. I had created an unexpected conjunction of sound and image, later or earlier, that was really fantastic. I played around with these different possibilities. I soon got to a point that I could see as soon as I put the graph papers next to each other whether something seemed very promising or very weak.

Of course, it was very important that I knew that the material also had to be seen without the sound. A little bit of footage that would work well with a certain sound would be impossible in a visual sense. I wanted people to be able to appreciate what that flow of images looked like visually *and* what it looked like with the sound.

The finished film consists of relationships of all sorts. When I talk about it, the film sounds so complex that I don't know why I ever did it, but I don't think it's a film that immediately strikes one as having resulted from procedures involving graph paper. My process allowed me to develop these systems of formal, emotional, symbolic relationships. In that way I think *Mouches Volantes* is similar to *Horizons* or at least it follows in a similar direction. It presents the viewer with a new kind of experience that's not quite like the experience of other films. I think that's what the importance and the excitement of the film is to me.