CHAPTER NINE

The Cutting Room:

Alone at Last

For many years, the cliché about editing was: “Pictures are made in the cutting room.” That’s nonsense. No movie editor ever put anything up on the screen that hadn’t been shot.

However, there are reasons why this cliché arose. In the thirties and forties, directors rarely cut their own movies. The studio system was totally compartmentalized. There was an editing department. It had its chief editor, to whom all the editors reported. The chief editor saw the cut movie even before the director did. In fact, the director might not see his movie until it had been completely finished. He was probably off doing another movie. In those days, directors under contract to a studio did four or five, sometimes six, movies a year. Like everyone else at the studio, they were simply assigned to a new job as soon as they had finished their last one. Sometimes the director would go onto a movie only a week before shooting began. The art department had done the sets and picked the locations, if there were any. The casting department had drawn the cast from the pool of actors under contract to the studio. The camera department had assigned the cameraman, the costume department assigned the designer, etc. The director stepped into a completely preselected operation and picked it up from there. Joan Blondell once told me that when she and Glenda Farrell were under contract to Warner Bros., they often shot two movies simultaneously. They would be on one movie in the morning, then another in the afternoon—all the logistics of scheduling, etc., worked out by the production department.

The editor would cut the movie as it was being shot. When the first cut (the rough cut) was ready, he would show it to the chief editor, who would suggest changes. Then the picture was shown to the producer. After his changes had been incorporated, they would show it to the vice president in charge of production. Finally, all of them trooped into the screening room to show the rough cut to the head of the studio. Then the picture would be previewed (taken to a movie theater out of town, shown to an audience) and, depending on the reaction, recut and put into final postproduction, supervised by the postproduction department. If the director was a studio favorite, he’d
usually come to the preview. The writer? Forget it. When I think about it, it’s quite amazing that so many good pictures were made.

Out of this system, certain rules, not only of editing but of shooting the picture, were established by the editing department. For example, every scene had to be “covered.”

This meant it was mandatory for a scene to be shot as follows: a wide “master shot,” usually with the camera static, of the entire scene; a medium shot of the same scene; over his shoulder to her (the whole scene); over her shoulder to him (the whole scene); a loose single shot of her; a loose single shot of him; a close-up of her; a close-up of him. In this way, any line of dialogue or any reaction could be eliminated. Ergo, “pictures are made in the cutting room.” Obviously, the more successful directors had a little more freedom, but not an awful lot. The chief editor attended all rushes, and if he thought that a scene had not been adequately covered, he often appealed to the vice president in charge of production, or even to the head of the studio, who would then order the additional material to be shot. And the director would shoot it.

In addition to destroying any originality in the shooting of a picture, this system also put actors through hell, because of the endless repetition of the same scene and the seeming importance of taking a puff on the cigarette on the same line in each of the eight camera angles. And each of those angles would, of course, have numerous takes. If an actor “mismatched”—that is, puffed the cigarette on the wrong line—the script girl would write it in her script notes, which were subsequently sent to the cutting room. The editor would often ignore a superior acting take because his job was much easier if he used a take where the cigarette action “matched.”

I always tell the script girl to check with me if the actor has mismatched. I have a pretty good idea of how I’m going to edit a scene while I’m shooting it. The mismatch might not matter. If I get into trouble later, I can almost always get around it with a little hard work, going frame by frame between the outgoing shot and the incoming shot until I find the frame that will make the cut work.

The same limitations applied to the audio side. One of the rules that developed was “No overlaps.” This meant, for example, that in a scene
where two people were yelling at each other, one actor wouldn’t speak, or “overlap,” while the other actor was still speaking. In fact, on close-ups, the actors had to leave a tiny pause between each other’s lines, so that the editor could cut the sound track. Of course, this made it very difficult to get life into a scene that required a fast tempo. This rule was created to make life easier for the editors.

Nowadays we usually cut the track any way we want to. It just takes more work. We have to find the cut not only on the frame but often on the sprocket hole. There are four sprocket holes per frame, so we have to go up and back many times to find the right place to cut. But it can be done. A good place to make an audio cut is on a plosive, a p or a b. And works well. Most consonants will work as the point where you can splice two different audio tracks together. Vowels are harder because they are rarely at the same vocal pitch and you might hear the difference at the splice or cut. Finally, as much as I resist it, I can always have the actor come in and redo the line in an audio studio. We call this “dubbing” or “looping,” for reasons I’ll explain later.

When I said earlier that the chief editor could go directly to the head of the studio, I wasn’t exaggerating. In the thirties and forties, MGM alone was turning out over two hundred movies a year. That meant that Margaret Booth, the chief editor, saw Irving Thalberg and Louis B. Mayer much more often than any producer or director did. Margaret Booth was a remarkable person. She was bright and tireless, and she loved movies. I don’t know if she had any other life. She was made chief editor when Irving Thalberg was running the studio.

Thalberg was considered a genius, though I have no idea whether he was or wasn’t. He and Booth would screen the picture endlessly. When they were satisfied with the rough cut, they would preview the picture. Thalberg would then decide what had to be redone. But reshooting was absolutely no problem. All of the sets were stored on the lot, not taken apart until the OK was given. If rewrites were necessary, the writer was under contract and on the lot, as was the director. If for any reason they were unavailable, others could be substituted. The actors were all under contract and therefore available. If they were working on another picture, no problem. Remember Joan Blondell and Glenda Farrell? I was told that over 60 percent of Captains Courageous, a good movie with Spencer Tracy and Freddie Bartholomew,
was reshot. Even if that wasn’t true, it doesn’t matter. It could have been reshot. All of it. I think Mr. Thalberg had a very good setup. Shoot it, show it, reshoot it if necessary. I wish we could do it today.

I have a warm spot in my heart for Margaret Booth. When I was shooting The Hill in England in 1964, she was still chief editor for MGM. By then she was in her late sixties or even older. MGM was being raided constantly by takeover groups and was, if my memory is correct, in its third change of ownership in two years. Margaret was the only person who ever knew what pictures Metro was shooting and what condition they were in. The studio sent her over to England to see the three Metro pictures being shot there. The Hill was in rough-cut form, and the other two were still shooting. She ordered whatever cut copy existed of all three pictures to be screened for her, starting at eight the following morning. Mind you, she had just arrived from California.

She was an old woman, and eight in the morning was twelve midnight California time. She didn’t ask me or Thelma Connell, the editor of The Hill, to her screening but said she’d see us at one o’clock that afternoon.

At one sharp, she marched into the cutting room. She said, “You’re running 2:02”—the running time of the movie. “I want the picture under two hours.” I didn’t have final cut in those days. I asked her, nicely, did she feel it was long in any particular place? “No!” she said. “It’s a fine picture and a good tight cut. But get two minutes out, or I will.” And with that, she marched out.

I was panicked. Once the studio puts its hands on a picture, there’s no way of knowing what will finally emerge. It may start with “two minutes” but wind up unrecognizable. Thelma and I sat at the Moviola (a cutting and viewing machine) and ran through the movie again. We found one thirty-five-second cut, and that was all. The next morning at ten-thirty, Margaret was back in the cutting room. I told her what we’d cut, adding that I thought any further cuts would hurt the picture. “What about...?” and she mentioned a shot. I gave her my counterargument. “What about on the shot where...,” and she mentioned another shot. Her film memory was phenomenal. She named seven or eight moments, always perfect on where the shot occurred, what took place in the shot, how its beginning or end might be trimmed—and she’d seen the picture only once. At each suggestion, I gave my reasons for
keeping the shot as it was. Finally, she said, “Run it for me.”

We ran the picture on the Moviola. You have to sit on a high stool because of the height of the screen, which is only eight inches wide. She sat there on the hard, high stool, watching with complete concentration. When it was over, she said, “You’re right. Keep it. It’s a good picture.” We all left the cutting room together, going in opposite directions. Thelma and I headed for the commissary. We were ecstatic, knowing the studio would now leave the picture alone. Arms around each other’s waists, we talked animatedly about what a phenomenal film person Margaret Booth was.

That night, around ten-thirty, Thelma called. In a shaky voice, she reported that Miss Booth had called and wanted to see the picture again at eight in the morning. My heart sank. Movies are full of battles you think you’ve won, only to have to fight them over and over again.

She saw the picture again. Grumpily, she said, “Leave it,” and asked me to walk her to her car.

We went into the hall. I asked her why she’d run the movie again. She said, “Yesterday, when you and Thelma were walking down the hall, I thought you were laughing at me.” I stopped. I couldn’t believe what I’d just heard. I said, “Margaret, I’ll argue with you. But there’s no way I’d try to con you.”

She started to cry. “I know,” she said. “You’re not one of them. I’m so tired. All those people”—she may have said “bastards”—“fighting over the bones of this studio. None of them know anything or care about pictures. And I’m the only one who knows what’s being shot and what will be ready for release at Easter or Christmas. And everybody lies to me while dumping more and more decisions on me. And I have no help. And I’ve got to go on to India now. We’ve got a picture there and it’s in trouble and I’m the one who may have to pull the plug on them. Last night I felt so tired. And I thought you and Thelma were conning me also.”

I opened her car door. I kissed her cheek. She told the driver, “Heathrow Airport.” It’s the last time I saw her.

Like everything else in movies, editing is a technical job with important artistic ramifications. While it’s absurd to believe that pictures are “made” in
the cutting room, they sure as hell can be ruined there. So many misconceptions exist about editing, particularly among critics. I’ve read that a certain picture was “beautifully edited.” There’s no way they could know how well or poorly it was edited. It might look badly edited, but because of how poorly it was shot, it may in fact be a miracle of editing that the story even makes sense. Conversely, the movie may look well edited, but who knows what was left on the cutting room floor. In my view, only three people know how good or bad the editing was: the editor, the director, and the cameraman. They’re the only ones who know everything that was shot in the first place. As good as The Fugitive looks (and it looks terrific), I don’t know who did what in the editing. One can assume a basic professionalism in the shooting of the movie, and that movie was beautifully shot. But melodramas and chase pictures are not hard to edit if the basic material has been provided. Our old definition of melodrama still stands: making the unbelievable believable. Therefore, as in everything else in the picture, story is the first priority. Edit it for story, but as part of the form of melodrama, edit it as surprisingly, as unexpectedly, as you can. Try to keep the audience off balance, though not to a point where story gets lost. Most editors go about this by editing the picture in a very staccato rhythm, using cuts of four, five, or six feet (a little over two to four seconds). But I have seen great suspense created by maintaining a long, slow tracking shot that ends with the leading lady in close-up and a hand suddenly coming in to cover her mouth. If the director hadn’t made the long, slow tracking shot, it couldn’t have been created in the cutting room.

In a review of a movie that Dede Allen had edited, the critic went on about what a brilliant editor she was and how recognizable her style was. If she ever read that review, Dede would’ve been distressed beyond measure. She is a brilliant editor. But she prides herself in doing whatever the picture and director ask of her. She’s proud that the movies she edited for George Roy Hill are totally different from the ones she did for Warren Beatty or that she and I have done together (Serpico, Dog Day Afternoon, and The Wiz). She wants the picture, not Dede Allen, to stand out. She is selfless. She’s “making the same movie.” When we began to shoot Serpico, right after the July Fourth holiday, the opening date for the movie had already been set: December 6. This is an incredibly short time to shoot, edit, and do all the postproduction (sound, music, answer print). Six months of postproduction is
a tight schedule. Three months is insane. But we had no choice. We would shoot in July and August and finish everything else in September, October, and November. For the first time in my career, the editor was “cutting behind me.” As I finished a sequence, Dede would start editing it as soon as she had the last shot. Up until then, I had always asked the editor to wait until I’d finished shooting and was in the cutting room, but that way we never would have made the release date. After rushes, Dede and I would sit and talk for an hour. I would explain my choice of takes, and Dede would make her notes. “This scene is about his first moment of fear, Dede. The emphasis should be on...” Then she would go to work. As shooting continued, the footage started to accumulate more rapidly than Dede could cut it. She began to assign sequences to her wonderful assistant, Richie Marks, so in essence, two editors were now working behind me.

When I finally finished shooting, I went directly to the cutting room. Many of the sequences Dede had cut realized my intentions better than I could have. Others, particularly those about the women Serpico was involved with, required extensive revisions in the editing. Possibly this was because those scenes weren’t the best written and didn’t have the melodramatic drive of the police scenes. Whatever the reason, we reedited the sequences as best we could, and we made the schedule. But at all times, under terrific pressure, Dede’s devotion to the work was what came first. And that’s the “Dede Allen style.”

The first thing I notice when I walk into the cutting room is how quiet it is. Making movies is always so noisy. In the studio, as you’re shooting on one set, they’re building another. A door opens and you hear that ear-splitting screech of the buzz saws in the carpentry shops; hammers going constantly; the thuds of sandbags being dropped; the hum of conversation among the extras; the squeak of nails being pulled; the shouts of electricians as they focus their lamps. Out on location, of course, the sounds are the normal street pandemonium.

But now, in the cutting room, blessed silence. There’s even a rug on the floor. The apprentice is going through the tedious job of recording edge numbers. She usually has a small portable radio, tuned quietly to a classical or jazz station. In the past, I might’ve heard the comforting clatter of the Moviola as the editor reviewed a shot or a sequence. But now, with
electronic editing, even that sound has disappeared.

As I take my coat off, I start to smile. I’m so happy to be here. And if the picture involved a lot of tough location work, I’m tired and therefore deeply appreciative of the calm of the place. No more questions. Peace. Quiet. A time to reflect, to reconsider, to reexamine, to discover, and to enter a whole new technical world that can fulfill and enhance the original reason for making the movie.

To me, there are two main elements to juxtapositioning editing: images and creating tempo.

Sometimes an image is so meaningful or beautiful that it can capture or illuminate our original question: What is this movie about? In Murder on the Orient Express, the shot of the train leaving Istanbul had that quality. It had all the mystery, glamour, nostalgia, action I wanted the entire movie to have.

But in a movie, every shot is preceded or followed by another shot. That’s why the juxtaposition of shots is such a great tool. In the agonizing, soul-baring fights in Long Day’s Journey Into Night, the shots kept getting wider and wider as father and son found themselves telling each other the cruel, ugly truths about each other. At the culmination of the fight, two extreme close-ups ended the scene; the frames were so tight that foreheads and chins were lost. The impact of the close-ups was doubled because of the wide shots that had preceded them. In Prince of the City, when Ciello was considering suicide, the presence of the sky mattered so much because the sky had never appeared before in the movie. In The Verdict, the most important transition in the movie was illuminated by the close-ups of Paul Newman examining a Polaroid photograph. He had taken the picture of the victim, and he watched it develop. As the photograph took on life, he did too. I could feel the present breaking through for a man who, up until then, had been trapped in the detritus of his past life. It was the intercutting between the developing Polaroid and the close-ups of Newman that made the transition palpable.

Nowhere was the impact of juxtaposed images more apparent than in The Pawnbroker. Sol Nazerman, the leading character, is going through a profound crisis as he approaches the anniversary of his family’s deaths in a concentration camp. Ordinary images in his everyday life remind him more and more of his concentration camp experiences, no matter how hard he tries
to block them out. In telling the story of his predicament, we were dealing with two problems. One was to arrive at an answer to the central question: How does memory work? Furthermore, how does memory work when we are denying it, fighting its rush forward into our consciousness? I found the answer by analyzing my own mental process when something I didn’t want to deal with came bursting through to overwhelm the present. After a lot of thought, I realized that the suppressed feeling kept recurring in longer and longer bursts of time, until it finally emerged fully, dominating, taking over all other conscious thought.

Now the second problem was how to show this in film terms. I knew that when these feelings were first stimulated, they arrived in tiny bursts of time. But how tiny? A second? Less? The reigning wisdom at that time was that the brain could not retain or comprehend an image that lasted less than three frames, one eighth of a second. I had no idea how this figure had been arrived at, but Ralph Rosenbloom, the editor, and I decided to play around with it. I don’t know this for certain, but I don’t think three frame cuts had ever been used before. I’d tried, in other pictures, cuts as short as sixteen frames (two-thirds of a second) and eight frames (one-third of a second).

In one sequence, as he leaves his store one night, Nazerman passes a chain-link fence, behind which some boys are beating up another kid. Images of a relative caught by dogs against a concentration camp chain-link fence start to crowd in on him. I adopted the three-frame recognition rule and made the first cut into the concentration camp four frames (for safety), one-sixth of a second. Originally, I had intended to make the second cut a different image, lasting longer, perhaps six or eight frames (one-fourth to one-third of a second). But I found that this produced too clear a memory breakthrough too soon. I reasoned that if I used the same image during the breakthrough time, I could reduce the cut to two frames (one twelfth of a second). Even if people didn’t quite understand the image the first time, they would after it had been repeated two or three times. I now had the technical solution for the subconscious memories forcing themselves into Nazerman’s conscious mind. If the oncoming image was more complex, I felt free to repeat it in two-frame cuts as often as necessary until it became clear. As the scene continued, I could lengthen the images to four frames, eight frames, sixteen frames, and so on in a mathematical progression until they took over and the flashback could now be played out in full.
The technique reached ultimate fruition in the climactic scene, when Nazerman is riding in a subway car. Slowly the subway car becomes the railway car that carried his family to the extermination camp. The entire transition stretched over a period of a minute. Starting with two frame cuts, I gradually replaced one car with the other. In other words, as I cut in two frames of railway car, it replaced two frames of the shot in the subway car. When I used a four-frame cut of the railway car, it replaced four frames of the subway car, and so on until the subway car became the railway car. As the intensity kept mounting, Nazerman rushed to another subway car to escape the memory. He wildly pulled open the connecting door, and we cut to the filled railway car, proceeding from there to play out the flashback scene in its entirety. There was no escape for him. What made the sequence even more visually exciting was that I shot both the subway car and the railway car in a 360-degree pan. With the camera in the center of each car, we rotated a full circle. So when we cut the two different shots together, we could match the same arc of the circle. The picture was always in motion, both in the past and in the present.

By now, we were so confident of the technique that we marked the subway/railway transition on a piece of paper and let the assistant do the physical labor. And it took a lot of physical labor. In those days, splicing two frame cuts together meant that transparent tape would be placed over each frame, connecting the outgoing and the incoming film. But when we looked at the sequence for the first time on a large screen, we knew we had it. We never changed it from the first time we cut it together.

Within a year after the picture opened, every commercial on television seemed to be using the technique. They called it “subliminal” cutting. My apologies to everyone.

The second but equally critical element in editing is tempo. Every splice in a film changes the point of view, because every cut uses a different camera angle. Sometimes it may simply bounce in from a wide shot to a medium shot or close-up on the same angle. Still, the point of view has changed. Think of each cut as the beat of a visual metronome. In fact, quite often entire sequences are cut in a rhythm that will accommodate the musical scoring that will be added later. The more cuts, the faster the tempo will seem. That’s why melodramas and chase sequences use so many cuts. Just as
in music, fast tempo usually means energy and excitement. However, an interesting thing happens. In music, everything from a sonata to a symphony uses changes in tempo as a basic part of its form. Typically, a four-movement sonata will change not only its musical themes in each movement, but also its tempo in each movement and sometimes even within each movement. Similarly, if a picture is edited in the same tempo for its entire length, it will feel much longer. It doesn’t matter if five cuts per minute or five cuts every ten minutes are being used. If the same pace is maintained throughout, it will start to feel slower and slower. In other words, it’s the change in tempo that we feel, not the tempo itself.

For some reason, I still remember that I made 387 setups in 12 Angry Men. Over half of those setups were to be used in the last half hour of the movie. The cutting tempo was accelerating steadily during the movie but would break into a gallop in the last thirty-five minutes or so. This increasing tempo helped enormously both in making the story more exciting and in raising the audience’s awareness that the picture was compressing further in space and time.

On Long Day’s Journey Into Night, I found that I could use editing tempos to reinforce character. I always shot Katharine Hepburn in long, sustained takes, so that in the editing, the legato feel of her scenes would help us drift into her narcotized world. We would move with her, into her past and into her own journey into night. Jason Robards’s character was edited in exactly the opposite way. As the picture went on, I tried to cut his scenes in a staccato rhythm. I wanted him to feel erratic, disjointed, uncoordinated. Richardson’s and Stockwell’s characters were handled for the picture’s sense of tempo rather than their characters.

In movies where I’m not using tempo for characterization, I am very careful to continually change the pace of the movie in the editing. The use of sustained shots, with no intercuts, is laid out very carefully at the beginning, before shooting begins. If it’s going to wind up a long uncut take in the final movie, chances are that I’ll want camera movement. That means I’ll want a floor that I can dolly on so that I can move freely. In my original conference with the art director, at least sixteen weeks before my entry into the cutting room, I’m already thinking of the tempos of my final cut. I may not use the sustained take in its entirety. I may chop it up. But if I haven’t shot it, I can’t
create it now in the cutting room.

Having used a sustained take in Scene A and/or B, I’ll start looking to change tempo in Scene C. It isn’t hard to justify this. When I placed the camera in its position originally, I asked myself the question: What do I want to see at this moment in the script and why? Now, in the cutting room, I ask myself the same question. It’s easy to find a reason to cut from him to her. In fact, with good performances, sometimes it’s painful not to see both of them together, full face, at a particular moment. So depending on what tempo the scene needs in relation to the picture as a whole, I can cut back and forth as much or as little as I want to.

As well as a sense of tempo change between scenes, I think of the tempo change over the arc of the whole picture. Melodramas usually accelerate in their tempo because the stories demand an increasing sense of excitement and tension. But in many pictures, toward the end, I’ve wanted to slow things down, to give the audience, as well as the movie, time to breathe. This is by no means unusual. The classic last shot in romantic melodrama, a slow pull back and an upward movement of the camera, is by now a cliché. Think of Casablanca. Bogart looks at Rains: “Louie, I think this is the beginning of a beautiful friendship.” As they move away, their backs to us, the camera rises and dollies back. Our two cynics, now on their way to join the Free French, get smaller and smaller in the frame. Fade out. I remember a series of 20th Century —Fox movies that used that shot, adding the same music to it. There was always the “lonely saxophone” or “lonely trumpet” feel about it as the detective trudged home, having solved the case but lost the girl, while the rest of the city slept. I can sing the musical theme for you even now.

There can be other reasons for slowing a movie down. In Dog Day Afternoon, the entire point of the picture was summed up when Pacino made out his will about three-quarters of the way through.

Here the theme came rushing out at us: “Freaks” are not the strange creatures we make them out to be. We have much more in common with the most outrageous behavior than we ever admit. It was essential that his dictating of the will be quiet, gentle, moving.

Over the course of the editing, we’d slowly been tightening the picture, making cuts shorter, eliminating anything extraneous. In the first half of the
movie, on what we thought was the final cut, we shortened it by about four and a half minutes. That’s quite a bit of time at a late stage in editing. We hadn’t shortened anything in the second half at all.

We ran the picture. Dede Allen and Marty Bregman were happy and wanted to “lock” the picture: freeze the cut and turn it over to the sound department for the final steps of postproduction. But I wasn’t happy. We stood outside the screening room at 1600 Broadway, next to a porno movie house, arguing. I felt that the first half had been accelerated too much. Not that we’d cut into character or compromised the strength of the picture. But the first half was heavily melodramatic. A bank robbery is, by its nature, an exciting event. By cutting four and a half minutes, I worried that we’d set a melodramatic tempo for the picture, which might make the second half seem slower by contrast. And if that happened, the dictating of the will, the slowest part of the movie, might seem interminable. These things are always in relation to one another, never alone.

We talked for about a half hour, standing there on the street as cabs, hustlers, porno customers, and passersby moved past us. The next day, I went back to the cutting room and restored two and a half minutes of the four and a half we had cut. I’ll never know if what I had feared about the will scene would’ve happened. But I do know that slowing the picture down a bit didn’t hurt it.

From everything I’ve mentioned so far, it’s apparent that preplanning extends to the editing phase as well. However, one of the joys of the cutting room is that sometimes the editing can help turn a scene that isn’t working into one that does. This often involves shortening it. Other times, a shift in emphasis can make a scene more interesting. Because movies are physically larger than life-size, they tend to make the point of a scene or character clearer sooner. In Daniel, Daniel is searching for some sane explanation of the cataclysms that have overtaken his life: his parents’ executions in Sing Sing and the mental collapse of his sister. There were two scenes where Daniel visits his sister in a psychiatric hospital. The second scene, where he carries his now catatonic sister around the room, wasn’t as moving as I’d hoped. I eventually realized that nothing was wrong with the scene. The problem lay in the way the first scene between them had been edited: the scene had emphasized him. As a result, the second scene provided no new
revelation about him. It seemed redundant. After the first scene was recut to emphasize the sister’s pain, both scenes played much better. She was very moving in the first scene, and we still had something new to discover about Daniel in the second.

This brings up an important point. I said earlier that there are no small decisions in moviemaking. Nowhere does this apply more than in editing. One of the miracles of film cutting is how a change in reel 2 affects something in reel 10. (A one-hour-fifty-minute movie will be composed of eleven reels: ten minutes per reel.) One can never lose sight of the relationship of cut to cut, and reel to reel.

Generally, during cutting, I screen three reels at a time, as soon as I finish cutting them. Seeing how they play on a large screen, I’ll make my notes. If they’re extensive, I’ll go back and rework the reels immediately. If the changes are minor or technical, I’ll wait for my second go-round. I try to keep my screenings of each three-reel batch equal, so I’m not looking at any three reels more than any other three reels, unless there’s trouble in a particular three-reel section. Only the editor and I attend these screenings. At this point, I don’t want any outside opinions. It’s too early.

Knowing that most movies don’t deserve to run more than two hours, I rarely go more than fifteen reels (two and a half hours) in my first cut. The scenes are not cut loosely. I try to make each scene as tight as I can. If it’s not up to tempo, I can’t tell if the scene is playing as it should be.

In the old days, they used to make a “long” first cut. This, again, was done for peace and harmony. One of the most repeated clichés in movies is: “It’ll be much better when you get ten [or twenty or thirty] minutes out.” Knowing that this comment was inevitable, the editors would leave the tightening up of the movie until after the chief of the department, the producer, and the head of production had all seen it. That way, each person could feel he’d made a real contribution by asking to get ten minutes cut. Eight minutes would go as each person saw it on the way up the corporate ladder. That still left six minutes to be cut when the head of the studio saw it. Guess what he’d say? That’s right. The editor would remove the last six minutes, and the picture would now be down to a previewable length, and each person felt that he’d saved the movie.
I’ve never understood why directors bring in a three-hour first cut. Almost always it means that they’ll have to cut at least one foot in every three, since most studios demand a running time of less than two hours. The main reason for this is economic, since the studios and the exhibitors want a certain number of screenings per day. And in most cases, I must say I agree with them. Movies are very powerful. You’d better have a lot to say if you want to run over two hours. I didn’t feel that Schindler’s List was one moment too long. But Fried Green Tomatoes?

A first cut that runs over three hours can really damage a picture. In the desperation to get rid of time, the actors’ pauses go, tracking shots are cut in half, everything that isn’t bare-bones plot goes flying out the window. Overlength is one of the things that most often results in the destruction of the movie in the cutting room.

We’ve done the first cut. Now, before screening the entire picture for the first time, we go through it once again. I make my corrections from notes of the three-reel screenings. I want to include every scene, every line of dialogue, and every shot on the first cut, even though I can already get a sense of what lines or even scenes may eventually go. I want to give everything its fair shot. But I want every scene running the shortest possible length I feel it can be at the moment.

One day I look up. We’ve finished the rough cut. Now comes the first critical, nerve-racking test: screening the entire picture. No matter what enthusiasm or despair we feel, we’re going to find out whether either is justified. All the self-deception, good or bad, is going to lead us to another potential self-deception, also good or bad. Will the middle of the picture sag, seem slow? Is the picture as moving as I hoped, or as tough? Does the opening work? The ending? The questions, and therefore the fears, are endless.

Before screening the picture, I want at least twenty-four hours away from it. I don’t want to be tired or out of my normal rhythm; and since I normally see movies in the evening, I set the screening for eight or eight-thirty. I don’t eat or drink anything before. If the writer is available, I ask him to come. The producer. The composer. My wife. And a small, devoted brain trust: five or six friends who know me and my work and wish us both well. There will be
plenty of time for objective opinions, not to mention hostile ones, later. Also, it’s important that people in the brain trust know the techniques of filmmaking. General opinions are helpful to a point. But it’s better to hear someone say, “You know that whole section about forty minutes in, where he’s wandering around trying to make up his mind? It’s unnecessary. If you can get the time lapse you need in another way, you can drop it.” And of course you can get the time lapse another way. You don’t even have to do a shot of hands spinning on a clock or dissolve from an empty to a full ashtray. You can find an original way of doing it and drop whatever section is redundant.

I like to sit alone during that first screening. Again, in the front row. Because the sound track is in rough shape, the editor usually sits in the back, “riding the pot” (using a volume control to increase low dialogue sections or lower loud ones). Sometimes, if there are long, silent sections, we put in a temporary music track taken off a commercial recording.

As usual, I’m there early. Members of the brain trust are never late. They have changed over the years. Faith and John Hubley used to come. And Bob Fosse. And Robert Alan Arthur. Phyllis Newman comes. And Herb Gardner. Betty Comden and Adolph Green come. Nora Ephron. Ann Roth. Tony and Gen Walton. And Piedy, my wife. That’s about it. I owe them many thanks for good and true help over the years. They’ve sat through some bad times. I once did a picture for David Merrick, Child’s Play. Among other problems, we were undecided about how to end it, so I had shot two different endings. I ran both on the first screening. As the lights came up, Merrick derisively called from the back, “Is that it?” I called back, “Ask me in that tone of voice again and I’ll smack you, you shitheel.” Like all bullies, he hurried out of the room.

But they’ve sat through good times too. Sometimes one or two have said the magic words “Don’t touch a frame.” You have to listen carefully. They don’t want to be destructive, but you want the truth from them. Often we go out to supper afterward. Good pasta, good wine. And I ask all sorts of questions, large and small. “How did this feel?” “Is that clear?” “Were you bored?” “Were you moved?” This goes on for a long time. The truth is I can almost always “feel” what they thought of the picture as our eyes meet once the
lights come up immediately after the screening.

But fundamentally, that screening was for me. Did I like it? Have I spent six months, nine months, a year, pursuing something that means something to me? And have I been good enough at my work to put it up there on the screen?
CHAPTER TEN

The Sound of Music:

The Sound of Sound

If the cliché about pictures being made in the cutting room is false, that other cliché, “It’ll play better when we add the music,” is true. Almost every picture is improved by a good musical score. To start with, music is a quick way to reach people emotionally. Over the years, movie music has developed so many clichés of its own that the audience immediately absorbs the intention of the moment: the music tells them, sometimes even in advance. Generally, that would be the sign of a bad score, but even bad scores work.

When the score is predictable, when it duplicates in melody and arrangement the action up there on the screen, we call it “mickey-mousing.” The reference is obviously to cartoon music, which duplicates everything down to Jerry kicking Tom’s teeth in. Pictures with scores like that are probably not injured by them.

Chances are, the music is not the only cliché in the movie. It’s probably loaded with them.

Often it’s not even the composer’s fault. After the screenwriter, I think movie composers are violated more often than anyone. Everybody thinks he knows something about music and wants to get his two cents in about the score. If the composer comes up with something too original—that is, something the producers or the studio people haven’t heard before—the score can get thrown out. I’ve seen producers make a music editor cut cues, rearrange them, eliminate sections of arrangements, and otherwise tear a score apart until it’s unrecognizable. Today, when practically every instrument in the orchestra is recorded separately, it’s possible to almost reorchestrate by going back to the original thirty-two- or sixty-four-track recording.

Working in movies is the fatal compromise composers make. In return for very good pay, they go to work writing for a form that can never belong to them. Music, clearly one of our greatest art forms, must be subjugated to the needs of the picture. That’s the nature of moviemaking. Even though it may take over completely at certain points, its function is primarily supportive.
The only movie score I’ve heard that can stand on its own as a piece of music is Prokofiev’s “Battle on the Ice” from Alexander Nevsky. I’m told that Eisenstein and Prokofiev talked about it well before shooting began and that some of the composing was started before shooting. Supposedly, Eisenstein even edited some of the sequence to accommodate the score. I have no idea whether these stories are true. Even when I hear the music on a record today, I start remembering the sequence visually. The two, music and picture, are indelibly linked: a great sequence, a great score.

I think that that may be one of the indications of good movie music: the immediate recurrence of the visual elements in the picture that the music supports. But some of the best scores I’ve heard cannot be remembered at all. I’m thinking of Howard Shore’s superb scoring for The Silence of the Lambs. When seeing the movie, I never heard it. But I always felt it. It’s the kind of score I try to achieve in most of my movies. With all the Oscar nominations my pictures have gotten in various categories, only Richard Rodney Bennett’s score for Murder on the Orient Express received a music nomination. But it was the only picture I’ve done where I wanted the score to shine. As must be clear by now, I feel that the less an audience is aware of how we’re achieving an effect, the better the picture will be.

I’ve sat with my brain trust at Patsy’s restaurant, asking them about their feelings after viewing the first cut. Now I will go back into the cutting room and start to reedit. Some of those dialogue lines I didn’t like get cut out. Sometimes a whole scene gets removed. Sometimes four, five scenes, a whole reel, get deleted. (It got clear sooner.) Something was dragging in reels 4, 5, 6, 7. Forty minutes of dragging. That’s serious. Maybe if we can rearrange some elements, reconstruct a bit. Let this character’s story start a little sooner. That helps revive interest. This performance is so good it doesn’t need that much time. That performance is so bad it mustn’t have that much time.

In other words, we are editing in the true sense of the word. We are, hopefully, making it better. As I finish the second time around and the third, I screen again. Some of the brain trust may be there, but I widen the audience a little, maybe ten or twelve people. But I pick them carefully, because looking at a picture in this shape isn’t easy. The film is scratched, even torn in places. No opticals (dissolves, fade-outs, special effects) have been made.
And the audio track particularly is difficult. Dialogue hasn’t been equalized, and in some shots you just can’t understand what is being said. Since dialogue on exterior locations hasn’t been rerecorded (called “looping”), those scenes are especially hard to hear. Sound effects are missing. And of course, the music remains to be scored and placed.

Once we’re happy with the cut, I set up two important meetings, one with the composer, the second with the sound-effects editor. The composer was invited to the first screening. The sound effects editor came to the second, and the entire sound effects department (anywhere from six to twenty people, depending on how complicated the job is) came to the third. They’re usually a terrible audience. They are listening for sounds only a dog can hear, and they’re dreading the amount of work ahead of them.

If the composer was hired before shooting began, perhaps he’s attended rushes. He’s always invited. But either before shooting or after we have looked at the first cut, we sit and talk in order to decide the critical question: What function should the score serve? How can it contribute to the basic question of “What is the picture about?”

We then adjourn to the cutting room for what we call a “spotting session.” We look at the movie reel by reel. I give the composer my feelings about where I think music is necessary, and he does the same. This provides us with a preliminary sketch. Now we review it carefully. Does he have enough room to state the musical ideas clearly? If a musical transition has to take place, have we allowed enough room for it? Very often in melodramas, composers and directors settle for what we call “stings.” These are the short, sharp orchestral bursts that accompany the shot of the villain breaking through the door. They last a few seconds. They’re supposed to scare the audience. They are such a cliché by now that I don’t think they scare anyone. Sometimes music is put in to tide us over a “dissolve,” the fading in of a new scene over an old one to show us a change in location or a passage of time. Again, the music will last about twenty seconds. I hate these kinds of cues. I like to make sure that every music cue has enough time to say and do what it’s supposed to say and do. We have decided on what we want the music to contribute to the movie. Within the cue itself, there must be enough time to make the idea of the cue work. Short melodramatic bursts or segues from one scene to another simply fill the air with useless sound and therefore reduce
the effectiveness of the music when it’s really needed.

After the preliminary sketch, we go back over the movie. Now we get very specific about where the music comes in and where it goes out. We time it to the frame. The entry point is particularly critical. The shift of a few frames, or a few feet, can make the difference between whether the cue works or doesn’t work. This process takes two or three days. Sometimes if the composer’s a really good pianist, as Cy Coleman is, we may bring a small piano into the cutting room and improvise melodies, entrance cues, and general support for the scene.

As I said earlier, I don’t want to “mickey-mouse.” I want the score to say something that nothing else in the picture is saying.

For instance, in The Verdict, nothing much was ever revealed about Paul Newman’s background. At one point there’s an indication that he went through a rough divorce and was the fall guy for his father-in-law’s shady law firm. But we dealt with nothing in his youth or childhood. I told Johnny Mandel that I wanted the deep, buried sound of a religious childhood: parochial school, children’s church choir. He was possibly an acolyte. Since the picture was about this man’s resurrection, he had to have been brought up religiously, so he would have somewhere to fall from. The picture could then be about his return to faith. The score’s function was to provide the state of grace from which to fall.

The Pawnbroker had as complex a score as I’ve ever worked on. In the opening scene, Sol Nazerman, a Jewish refugee from Germany, is sitting in a suburban backyard, soaking up the sun. His sister asks for a loan so she and her family can take a vacation in Europe that summer. To Nazerman, everything about Europe is a cesspool. He says, “Europe? It’s rather like a stink, as I remember.” The next sequence shows him driving into New York City, to his pawnshop in Harlem. Those two scenes set up the conception of the score. Earlier, I said that The Pawnbroker was about how and why we establish our own prisons. At the beginning of the movie, Nazerman is encased in his own coldness. He has tried desperately to feel no emotion, and he has succeeded. The story of the movie is how his life in Harlem breaks down the wall of ice with which he has surrounded himself.

The concept of the score was “Harlem triumphant!”—that the life, pain, and
energy of his life there forced him to feel again. I decided I wanted two musical themes: one representing Europe, the other Harlem. The European theme was to be classical in its nature, precise but rather soft, a feeling of something old. The Harlem theme, by contrast, would be percussive, with lots of brass, wild in feeling—containing the most modern jazz sound that could be created.

I started looking for a composer. I first approached John Cage. He had a record out at the time called Third Stream, classical music handled with jazz instrumentation and rhythms. He wasn’t interested in doing a movie score. Then I met with Gil Evans, the great modern jazz composer and arranger, but found it tough to get through. Next, I approached John Lewis of the Modern Jazz Quartet, but I felt he didn’t really like the movie when I showed it to him.

Then someone suggested Quincy Jones. I knew some of his jazz work from records he’d made on a big-band tour of Norway. We met. It was love at first sight. His intelligence and enthusiasm were inspiring. I found out that he’d studied with Nadia Boulanger in Paris, which meant that his classical background was firm. He gave me other records of his, many on obscure labels. He’d never done a movie score, but that made him even more interesting to me. Very often, because of the nature of the work, composers develop their own set of musical clichés when they’ve done too many pictures. I thought his lack of movie experience would be a plus.

I showed him the movie. He loved it. We went to work. Talking about music is like talking about colors: the same color can mean different things to different people. But Quincy and I found that we were literally talking the same language in music. We laid out a musical plot that was almost mathematical in its precision. Just like the subway-to-railway-car transition, we moved in steps from the European theme to the final total dominance of the Harlem theme. At midpoint in the picture, they were equally balanced.

It was a magnificent score, and the recording sessions were the most exciting I’ve ever been to. Because it was Quincy’s first movie score, the band that turned out for him rivaled Esquire’s All-Star Jazz Band. Dizzy Gillespie, John Faddis (a mere child at the time) on trumpet, Elvin Jones on drums, Jerome Richardson on lead sax, George Duvivier on bass... the names kept
pouring into the recording studio. Dizzy had just come back from Brazil, and for one music cue he suggested a rhythm that none of us, including Quincy, had ever heard before. He had to sing it with clucks, gurgles, and glottal stops until the rhythm section could learn it. Quincy looked as happy as any man I’d ever seen.

Usually, when we finish recording a music cue, we stop and play it back against the picture. But the level of inspired playing from this band was so high that I told Quincy not to interrupt it. We’d play it back at the end of the day. Nobody even asked for the obligatory ten-minute break every hour. We played right through. At the end of five three-hour sessions spread over two days, we played it against the picture. It was immediately apparent: Quincy had made a major contribution to the movie.

As so often happens when you find a kindred spirit, we went on to do three more movies together. Quincy’s score for The Deadly Affair was another musical triumph. Based on a John le Carre novella, the movie tells the story of a sad, solitary counterintelligence operator in the British Foreign Office. His wife is constantly betraying him. During the movie, his protege, whom he trained in espionage during World War II, turns out to betray him both professionally and personally, entering into an affair with his wife.

The two worlds portrayed in the movie, the world of espionage and the almost masochistic love this man feels for his wife, formed the basic concept for the score. But this time, instead of two themes, Quincy created only one: a painfully beautiful love song, sung by Astrud Gilberto. However, as the picture progressed, it slowly turned into one of the most exciting melodramatic scores I’d ever heard. It proved the power and importance of musical arrangements. The theme stayed the same, but its entire dramatic meaning changed as the arrangements changed. Most composers farm out the arrangements. But Quincy did these himself. Again, it was a major contribution.

I’ve talked about Richard Rodney Bennett’s score for Murder on the Orient Express. At our first meeting, Richard asked me what sound I heard in my mind for the picture. I said I was thinking of thirties-style Carmen Cavallaro or Eddie Duchin: a really good version of thé dansant, heavy on piano and strings. He not only provided a piano score but also played it himself during
the recording session. Richard’s a wonderful pianist. He had that Cavallaro style down to perfection. And when I heard the first rehearsal and realized that the train’s theme was in waltz tempo, I knew we were on our way to a perfect score.

At one point, Richard suggested underscoring a scene that I felt should have no music. At the recording session, he played it for me. We recorded it and played it back against picture. He was right.

When I haven’t been able to find a musical concept that adds to the movie, I haven’t used a score. Studios hate the idea of a picture without music. It scares them. But if the first obligation of Dog Day Afternoon was to tell the audience that this event really happened, how could you justify music weaving in and out? The Hill was also done in a naturalistic style, so no score was used. In Network, I was afraid that music might interfere with the jokes. As the picture went on, the speeches got longer and longer. It was clear at the first screening that any music would be fighting the enormous amount of dialogue. Again, no score.

Serpico shouldn’t have had a score, but I put in fourteen minutes’ worth to protect the picture and myself. The producer was Dino De Laurentiis. Dino is a terrific producer of the old school, wheeling and dealing and somehow always getting pictures financed no matter how wild the idea. His taste, however, tends to be a little operatic, even for me. We argued back and forth. Dino threatened to take the picture to Italy, where I was sure a score would be laid in like wall-to-wall carpeting. I didn’t have final cut in those days, and Dino could’ve done exactly as he wanted.

Fortunately, I’d read in the paper that Mikis Theodorakis, the wonderful Greek composer, had just been released from prison. He had been jailed for left-wing political activities by the ultra-right-wing Greek government. When I reached him in Paris, he’d been out of jail less than twenty-four hours. I explained the situation, telling him about my disagreement with Dino. I said if there was any score, I’d prefer that he do it. Happily, he was flying to New York the next day, to see his manager about a concert tour. I told him we’d have a screening room set up so he could come see the picture as soon as he arrived. He drove right from Kennedy to the screening room. His plane was late, and the screening began at one-twenty in the morning.
When the picture ended, he looked at me and said he loved it but it shouldn’t have music. I reiterated my problem. I pointed out that Dino would be thrilled to have a composer of Mikis’s prestige doing the score, so that we could get away with a minimum amount of music, perhaps only ten minutes. With opening and closing titles consuming about five minutes of music, that would leave very little in the body of the picture. I also pointed out that he could pick up a healthy piece of change. I knew he had to be broke after such a long time in prison. I thought I was being very clever.

Mikis was cleverer still. He pulled from his pocket an audiocassette. He said, “I wrote this little song many years ago. It’s a charming folk tune that could work for the movie. Do you think I could get seventy-five thousand dollars for it?” I said I was sure he could. His Never on Sunday score was still being played, by Muzak anyway. He said there was another problem. He would be touring with his orchestra and wouldn’t be able to see the picture again or be back for spotting, arrangements, and recording sessions. I told him that I knew a marvelous young arranger named Bob James who would be happy to join him on the road when necessary. I could do the spotting sessions with Bob, who could then arrange the music and conduct the recording sessions. Everybody wound up happy. Dino had his prestigious composer, I wound up with only fourteen minutes of music (including the five minutes of credit music), Bob James got his first movie job, and Mikis took off for his tour a little more solvent than when he had arrived.

Prince of the City was meant to achieve a sense of tragedy in this story of a man who thought he could control forces that would eventually control him. Again, I chose a composer who hadn’t done a movie score before, Paul Chihara. Conceptually, Danny Ciello was to be treated always as one instrument: saxophone. Over the body of the picture, his sound was to become more and more isolated, until finally three notes of the original theme, played on sax, was all that remained of the music.

American musicians were on strike, so I was forced to go to Paris to record the music. I bore up as best I could. But poor Paul wasn’t even allowed to step into the recording studio. If word got back to New York, he would’ve been thrown out of the union immediately. They were watching the recording studios in London and Paris particularly. Paul was terrified. He had had a long struggle. Tony Walton had recommended him, and I’d admired his
score for The Tempest, written for the San Francisco Ballet. Here he was on his first movie, riding with me to the recording studio but not coming in. During lunch, I’d see him across the street, gazing at us like a starving man in front of a bakery window. Every night I brought him a cassette of the day’s work. Fortunately, Georges Delerue was conducting. He knew and loved Paul’s classical work. No composer ever had a more devoted interpreter.

What makes my work so endlessly interesting is that every picture requires its own specific approach. Prince of the City had close to fifty minutes of music. For a picture of mine, that’s a lot of scoring. Long Day’s Journey Into Night was also a picture that I hope achieved tragic dimensions. The musical approach was exactly the opposite. André Previn wrote a simple, slightly discordant piano score, which was used very sparingly. At the end of the movie, Mary Tyrone, thoroughly drugged out, wanders into the parlor, opens an ancient upright, and painfully, with arthritic fingers, stumbles through a piano piece. At first it sounds like a typical piano étude. Then we recognize it as the bare, sparse piano piece that Previn had written and been playing intermittently through the movie. I don’t think there was more than ten minutes of music in a picture that ran over three hours.

Two other scores are worth mentioning. Like everything about Daniel, the score was easy to conceive and hard to execute. For the only time in one of my pictures, I used music that already existed. I knew from the beginning that I wanted to use Paul Robeson recordings. He was perfect for the period. He was right politically, since it is at a Robeson concert in Peekskill, New York, that one of the leading characters has a traumatic experience. But which songs, and where to spot them? Through trial and error, the score shaped itself. The first song, “This Little Light of Mine,” didn’t occur until halfway through the picture. It was reprised at the end, when Daniel, restored to life, attends an enormous antiwar rally in Central Park. Only this time around, it was played and sung in a more modern, Joan Baez arrangement. For his sister’s funeral, “There’s a Man Going Round, Taking Names” worked wonderfully. Editing had to be changed to accommodate the already finished recordings, since the changes we were allowed to make in them were very limited. We could cut a chorus, but that was about it. Two other Robeson recordings were used, including his magnificent “Jacob’s Ladder.”
For Q & A, which took place largely in Spanish Harlem, with the climax in Puerto Rico, I asked Rubén Blades to do the score. He had made a recording of a song he wrote called “The Hit.” It fit perfectly into the spirit and the meaning of the picture. Here was a movie about the racism, conscious and subconscious, that governs so much of our behavior. Ruben recorded the song anew, matching the performance to the intensity of the movie. Then he built a full-fledged score based on the song’s melody.

The other vital component in the audio power of a movie is sound effects. I’m not talking about the car crashes and explosions of a Stallone or Schwarzenegger epic. I’m talking about the brilliant use of sound in, for example, Apocalypse Now, which has the most imaginative and dramatic use of sound effects of any movie I’ve seen. A close second is Schindler’s List. I’ve never done a movie that required such elaborate sound effects. This is partly because many of my pictures have a great deal of dialogue, which forces you to keep sound effects to a minimum.

Immediately after the spotting session with the composer, I have my second meeting, a session with the sound editor and his entire department. If possible, we try to come up with a concept for the sound effects. I don’t know what was discussed on Apocalypse Now, but a concept was clearly at work: to create an unearthly experience in sound, emerging from the realism of the sounds of battle. On Prince of the City, we simply started with as much sound as possible, then kept reducing it as the picture went on. On location interiors, there is always an exterior ambience that comes into the set. We added exterior sounds to interior locations (pile drivers, buses, auto horns) at the beginning of the movie. Then we slowly kept reducing those sounds until we played the final interiors, with the least exterior sound possible.

Sometimes a sound can carry a subtle dramatic effect. In Serpico, as Pacino tiptoed onto the landing near the door of a drug dealer he was about to arrest, a dog in a nearby apartment barked. If the dog heard him there, could the dealer hear him also?

We again go through the picture, reel by reel, foot by foot. Much of the work is sheerly technical. Because so much work, both interior and exterior, is done on location, we use highly directional microphones. Their spread is...
about seven to fifteen degrees. The reason is that we want to pick up
dialogue with as little background sound as possible. When we go into the
studio, we stay with the same mikes, because the quality of the sound would
change too drastically if we switched to normal studio mikes. That would
create a lot of extra work later on, because we’d have to equalize the two
different types of microphones. So a great deal of the discussion is about
adding footsteps, or the sound of someone sitting down on a couch, or the
scrape of a chair as someone gets up, and so forth—sounds that are lost
because of the highly directional mikes. All of this added sound has to be
done anyway, in preparation for the foreign versions of the movie. Dialogue
will be dubbed by the various foreign distributors, but we are obligated to
provide all background sound effects and music.

The sound editor splits the reels among the people in the sound department.
This group takes reels 1 to 3, that group reels 4 to 6, and so on. Each group
usually consists of an editor, an assistant editor, and an apprentice. But the
sound editor is responsible for the overall supervision. A normal sound job
takes six to eight weeks. Obviously, bigger pictures need more personnel and
time.

Even if no overall concept has been articulated, I like effects that enhance the
dramatic value of a scene. In The Pawnbroker, Sol visits a woman he has
consistently rejected. It is the actual anniversary of the day he and his family
were loaded into cattle cars to be taken away to the camps. She lives in a
modern complex of buildings that overlook a railroad yard in the distance.
On location one could see the railroad yards. We put in the sounds of a
railway switching yard, the sounds of engines, of cars being shunted and
bumping into one another. Sound loses its distinctiveness when it continues
for any length of time. Used behind the whole scene and played at a very low
level, it is barely distinguishable. But it’s there. And I think it adds to the
scene.

On The Hill, I asked the sound editor to play one scene in complete silence.
When he played it back for me, I heard the buzz of a fly. “I thought we’d
agreed that this scene was silent,” I said. He replied, “Sidney, if you can hear
a fly, then the place is really quiet.” A good lesson.

The sound editor on Murder on the Orient Express hired the “world’s
greatest authority” on train sounds. He brought me the authentic sounds of not only the Orient Express but the Flying Scotsman, the Twentieth Century Limited, every train that had ever achieved any reputation. He worked for six weeks on train sounds only. His greatest moment occurred when, at the beginning of the picture, the train left the station at Istanbul. We had the steam, the bell, the wheels, and he even included an almost inaudible click when the train’s headlight went on. He swore that all the effects were authentic. When we got to the mix (the point at which we put all the sound tracks together), he was bursting with anticipation. For the first time, I heard what an incredible job he’d done. But I had also heard Richard Rodney Bennett’s magnificent music score for the same scene. I knew one would have to go. They couldn’t work together. I turned to Simon. He knew. I said, “Simon, it’s a great job. But, finally, we’ve heard a train leave the station. We’ve never heard a train leave the station in three-quarter time.” He walked out, and we never saw him again. I bring this up to show how delicate the balance is between effects and music. Generally, I like one or the other to do the job. Sometimes one augments the other. Sometimes, as here, not.

Sound effects have also developed their own clichés over the years. Can there be a country night scene without crickets? A dog barking in the distance? How about a pile driver in a tense urban scene? Slowly, progress is taking some of the clichés away. Phones in an office no longer ring, they purr. Computers have replaced typewriters, fax machines for teletypes. Everything grows quieter and colorless. Car alarms are a great help, but they’re just as annoying on-screen as they are off.

Everything becomes creative if the person doing the job is. It’s true as well for something that seems as mechanical as sound effects.
The Mix:
The Only Dull Part of Moviemaking

Life has a cruel way of balancing pleasure with pain. To make up for the joy of seeing Sophia Loren every morning, God punishes the director with the mix.

The mix is where we put all the sound tracks together to make the final sound track of the movie. It’s a job that can be left to sound technicians, but that has its dangers. For example, I’ve seen mixers raise the audio level of a quiet scene or moment and lower the audio level of a loud scene or moment. The result is that the shadings in a performance have been evened out to the point of dullness. As I’ve repeatedly said, a technician can help or hurt.

The mixing room is usually quite large. It has a big screen, cushioned seats, maybe a pinball machine to while away the hours when sound tracks have to be changed. Some directors like darts, others pitch pennies against the wall. The room is dominated by a console that looks and feels like something out at SAC headquarters in Omaha. The console contains sixty-four channels. Each channel has its own sound track placed on it. Each channel also has many equalizers. Equalizers are tiny dials that can vary the tonal output of each channel. The equalizers can reduce or emphasize the high frequencies, midrange frequencies, or low frequencies in each track. With some additional equipment, they can even eliminate frequencies. The tracks are broken down into three sections: dialogue, sound effects, music. We don’t usually put up the music tracks until everything else on the reel has been mixed. We start with the dialogue.

Depending on how well the original dialogue was recorded, we can have anywhere from four to a dozen or more dialogue tracks. If there are two characters in a scene that was shot on an interior location, their tracks might be quite different. For example, the character standing near the window might have a lot more traffic and general exterior sound on his track than the character in the center of the room. The exterior sound has to be reduced on that track and sometimes added to on the other actor’s track. We call this “balancing” the two tracks. On exteriors, these problems are more severe. His side of the scene was shot at a different time of day than her side of the
scene. So he’ll have buses, jackhammers, and noon whistles on his track. Her track will have none of those sounds. But it will have pigeons, trucks, and subway rumblings. These two tracks have to be equalized and balanced.

Even in the studio, tracks come out with very different sound qualities. Her side was shot in a part of the set that had a ceiling; his had none. The two tracks will be markedly different and now have to be equalized in tonal quality, not in extraneous noise. This is done with those tiny little dials, which subtly add or subtract frequencies, from the very low to the very high.

When tracks are beyond rescue or a word is unclear, we “loop” it. The actor comes into a recording studio. The scene or line is placed on a repeating film loop. The original sound is fed into an earphone. The actor then says the line in the quiet of the studio, trying to get exact lip synchronization. There is an editor in charge of looping called the ADR editor.

Generally, I try to avoid looping. Many actors can never recapture their performance, because the process is so mechanical. But some actors are brilliant at looping and can actually improve their performances. European actors are particularly good at it. In France and Italy, they usually shoot without synchronous sound and loop the whole performance in a sound studio later. I’m constantly amazed at how superbly actors can adjust to technical demands.

Let’s say we have six dialogue tracks. Track A: his. Track B: hers. Track C: his looping. Track D: her looping. Track E: an off-camera maid’s voice. Track F: a voice on the telephone. I sit there with the dialogue editor, going up and back on the same sentence, sometimes the same word, removing noise, equalizing tone, balancing. It’s a four-minute scene. That’s 360 feet. We will spend perhaps two hours equalizing it, sometimes more. During the two hours, we will have gone over the same 360 feet anywhere from seven to twenty times and more, getting it clearer, sharper, brighter.

Then we move on to sound effects. The highly directional microphones we use are excellent for dialogue, but now every clothing rustle has to be reinforced, every footstep. Sometimes we put in new footsteps because the original ones have too much background noise and therefore, in balancing, we will be forced to add background sound to the other tracks, making the whole scene noisier. These added natural sounds are called Foleys, and the
editor in charge is called the Foley editor.

Scenes of violence, whether car crashes or battles or fires, can use all sixty-four tracks on the board or even more. A simple car crash can easily have twelve sound-effects tracks: glass breaking, metal tearing, metal folding, tires on macadam, tires blowing (two tracks), impact (three tracks, one of them timed a frame late so that it can have “echo” added to it), car doors popping open (two tracks), one overall crash effect to provide body for the basic sound. The last would be played at a very low volume, allowing the specific sounds to dominate.

Each one of these effects will have to be equalized, the volume levels set and recorded. Today many of the effects are prerecorded on digital CDs, which supposedly saves time. But you’d better have a wonderful effects editor, because once placed on the CD, the effects are pretty well locked in. You can easily change where they occur, but it’s harder to change the effect itself. I’ve noticed that with every technical advance, mixes take longer and longer. When I first began, an entire reel had to be mixed in one take. If a mistake was made at 880 feet, we had to go back to the beginning and start all over again. We’d rehearse all day and usually go for a take at the end of the day. But we finished a movie in twelve to fourteen days. Now four weeks of mixing is quite normal.

Every technical advance has brought added problems. Since Dolby came in, the Dolby technician had better line up the Dolby equipment correctly, or the whole reel will have to be redone. Dolby came in because of music recording. In order to have more control, music engineers began using more and more microphones at the recording session. I’ve been at sessions where each instrument has its own microphone! In a way, this almost eliminates the need for a conductor, because the dynamics of the recording can be adjusted in the mix-down (reducing the existing thirty-two tracks to four or six for the final mix). The engineer can raise the volume of the strings here, a piccolo there, brighten the piano so its sound cuts through more.

The only problem with each microphone recording on its own tape was that we ended up with sixteen, thirty-two, or sixty-four separate tapes! As a result, one could hear a high-pitched sound (called tape hiss). The hiss was caused by the magnetic heads of all the recorders touching the tapes. When
Koussevitzky was recording with the Boston Symphony, there were four or five microphones, placed over general sections of the orchestra, with another mike to capture the entire orchestra. All the microphones were fed onto one tape. No tape hiss there. But now, with anywhere from sixteen to sixty-four mikes, there sure was. The Dolby process simply took all the tapes and suppressed them so that the tape hiss was lost in the upper frequencies. Soon, in movies, because of the equalization problems between Dolby-recorded music and non-Dolby sound recordings, we had to start using Dolby on dialogue, even though only one or two tracks were being used. Then we had to add Dolby to sound-effects recordings. Talk about the tail wagging the dog!

When stereo was added, all tracks were automatically doubled. The stereo process divided 10 percent of the sound between the left and right speaker channels and directed 90 percent to the center speaker. Those proportions were for a simple interior dialogue scene. We could spread the sound to 33 percent in each speaker or dominate with the left speaker, move to the center, then to the right on bigger, more complex sound scenes (the stagecoach moving from left to right; though there’s nothing wrong with the sound in the 1939 Stagecoach, when all sound came from one speaker placed behind the center of the screen). In Dog Day Afternoon, we kept careful directional fidelity, with one crowd gathered on the left side of the block and another crowd on the right side. Each crowd’s sound always came from the same speaker.

By now, of course, Dolby was in the driver’s seat. “Surround Sound” was added. Now we had three speakers behind the screen, two more on the left side of the theater, and two on the right. A closely guarded secret about all this is that you hear the correct balance only if you’re sitting in the center of the theater. On the left or right side, those speakers tend to dominate. On a badly mixed picture, a door slamming shut can sound, for those people seated close to the side of the theater, like a cannon going off. In a badly maintained theater, I’ve heard 60-cycle hum in speakers when no other sound was coming through them. The basic 110-volt AC power line moves the electrons at 60 cycles. If a transformer is close to the power source (and all speakers have transformers), the 60 cycles produce an audible hum. Crackling, caused by dirt on the sound head, can also be heard. I’ve been in theaters where the coding that directs the sound to various speakers has been
malfion, so a madness of voices is calling to me from every place except where the mouth is. Ah, progress. What used to cost about 5 percent of the below-the-line cost of a movie is now at least 10 percent. And rising all the time. We’ll see what happens to costs now that digital mixes are being used.

A lot of this came about because the studios, in their endless pursuit of the youth market, were trying to match the quality of recorded music that the kids were buying—a useless pursuit, in my opinion. They’re either going to a movie for that experience or listening to a record for that experience.

The one pleasure in a mix comes when the music is added. Suddenly, the tedious effort seems worth it. Mind you, sitting in that mixing room, we have run the movie, foot by foot, at least seventy-five times, often more. Everything about the movie has become incredibly boring. My favorite scene now looks like something starring Chester Morris as Boston Blackie. Paul Newman has become Tom Mix (no pun intended), and Jane Fonda might as well be ZaSu Pitts. If the names are unfamiliar, go to your favorite video store and ask for their oldest talkies.

But the music starts to pump life back into the picture. Our original sixty-four tracks have been mixed down to six: strings; woodwind; brass; rhythm (without percussion); percussion; and piano, celeste, harp. But hold it! I can’t hear that word “Guilty!” when the jury foreman said it. We worked hard getting the word clear, equalizing it. The oboe, which has many frequencies in the same range as the human voice, is the culprit. We try raising the volume of the word. That sounds forced. It should be the gentle whisper it was. We dip the woodwinds, but then we hear the orchestra falling off. If only we could lower the oboe for that one word. And of course, we can. We go back to the original thirty-two-track recording. At exactly 121 feet, 6 frames into the cue, we dip the oboe by 2 DBs (decibels—a unit of sound volume). We put the new mix-down up. We hear “Guilty!” perfectly. And it only took about four hours, or seventy-two pinball games.
TWELVE

The Answer Print:

Here Comes the Baby

Again, a darkened room. How many hours, how many days, have I spent in dark rooms, looking at this movie? Sitting next to me is the timer. He works for Technicolor. His job is to “grade” the final printing of the movie. I’ll explain the process a little later.

Timers are very busy people.

This one has flown in on the red-eye, arriving at Kennedy at six-thirty in the morning. We meet in the screening room at eight-thirty. He’ll be taking the four o’clock back to Los Angeles.

He has his coffee and a blueberry muffin in front of him. No bagels for these guys. They’re all George Gentile. On the console is a notepad. Under the screen sits a footage counter. He will make his notes, reel by reel, using the counter: this shot is too dark, that too light, this too yellow, that too red, too blue, too green, there’s too much contrast, too little contrast, it’s too muddy (a combination of wrong color and wrong density and/or contrast), and so on. Every scene, every shot, every foot of film is analyzed, reviewed. I’m always amazed at the film memory these timers have. Days and weeks later, in a phone call between us, I’ll mention that Dustin’s close-up in front of the Korean grocery store is still too blue, and he’ll remember the shot and exactly where it is in the reel. His eye is extraordinary. He’ll see a subtle overall yellow that’s taking the photographic bite out of an entire scene. It’ll be the first time I’ve noticed it. But now that he’s pointed it out to me, I can’t see anything else. Everything starts looking yellow.

The process of color printing is complicated. I’ll try to explain it as best I can. Basically, the color negative contains the three primary colors: red (called magenta in the lab), blue (called cyan), and yellow. Except for a process called “preflashing,” which is rarely used (we mentioned it earlier speaking of The Deadly Affair), most of the time nothing is done to the negative delivered by the cameraman. The lab develops it to a standard set of formulas.
It’s in the printing of the positive that variations become possible.

Once he’s returned to California, the timer sits in front of a computerized color analyzer called the “Hazeltine.” He feeds the negative into the machine and sees a positive image of the picture on a TV screen. Since electronic color is quite different from chemical color, his judgment is crucial. By adding or subtracting yellow, blue, or red, he can vary the color balance almost infinitely. He can also lighten or darken the image (we call it “density”). He’s been instructed by me and/or the cameraman on what we want to achieve visually. When he feels he’s achieved what we talked about on the Hazeltine, he enters it into the computer tape that will control the timing of the printing lights. For example, he might wind up with Yellow: 32; Magenta (red): 41; Cyan (blue): 37. The tape is transferred to the timing machine. On a roll of unexposed positive film stock, the tape instructs a white light to go through three prisms of yellow, magenta, and cyan in exactly the time proportions and to the density that the timer entered on the tape: 32, 41, 37. And that’s why he’s called the timer. The positive stock then moves directly into the chemical bath, just as it would in still photography, and the positive print emerges—what we call the answer print.

Once the color balance is correct, an interpositive is made from the answer print. Then an internegative is made from the interpositive. All release printing going into theaters is made from the internegative. The original negative goes into a vault. It is extremely valuable. In fact, sometimes the original negative is the actual collateral for the bank loan that financed the picture.

The color printing can undo or augment a great deal of what was done in the original photography. For example, I’ve described what we wanted to do with color in Daniel. Everything in Daniel’s past was done with filters, turning his childhood life with his parents into golden shades, warm and protective. Everything in his present life was blue, since in essence he’d buried himself with his parents. As the picture continued and Daniel came slowly back to life, his present existence took on more warmth, more life, and therefore a more natural photographic quality. His past became less amber as he acquired distance and resolved the pain and conflict that the past evoked in him. By the end, the colors of the picture were completely natural. Daniel’s past and present were now one. He had returned to life.
It was critical that the final timing of the print follow the concept of the original photography. Much of what is done in the camera can be undone in the lab. If a “blue” scene (Daniel’s present) had yellow and red added to it in the printing, it could wind up too “normal.” The same could happen to the “golden” or “amber” scenes (representing Daniel’s past) if blue was added to them. This wasn’t only a question of mood. The flashbacks to his early life appeared throughout the picture. The strong color identification was also letting the audience know where we were in time. The timer had to know clearly what our intention was, otherwise he could have defeated the entire style of the picture.

Everything that the cameraman, the production designer, and I have done to create a visual style is affected by the timing. As has happened all through the making of the picture, once again a technician is central to its success or failure. Phil Downey, at Technicolor in California, was a pleasure to work with. After two minutes of conversation, he could translate the intention into the timing of the movie. I don’t think I ever went through more than three attempts with Phil in getting the print correct. On the other hand, John Schlesinger once told me he had to go through thirteen prints on Midnight Cowboy before the lab got it right.

There’s a great danger in this. The answer print must be made off the original negative. Every time the negative is handled, there is a risk of dirt and damage. Damage is almost impossible to repair. My heart is in my mouth whenever the negative is touched. John must have been going batty.

As Phil finishes each print in California, he sends it to me. I call him with my notes. By the third print, I know that the next one will be it!

How can I describe the feeling of watching the answer print for the first time—the beauty of it, the cleanness? It’s amazing how dirty the work print has become over the months, but now it’s fresh and new. Dissolves are in the movie now, night scenes look like night: the reds, the blues, and, when the density is correct, the blacks! One of the signs of a good print is the richness of the blacks. Every movie looks like a masterpiece when the answer print is viewed for the first time.

One last test remains. When we finished the mix, the sound track existed on a strip of magnetic track just like the track in your audiocassette, only much
wider. We call it, naturally enough, the magnetic track. Now it must be transferred to film, to what we call the optical track, so that it, too, can be married to the answer print. The magnetic track is run through an electric “eye” that transforms the magnetic impulses of the tape to visual patterns on a piece of film negative. We now combine the optical negative with the visual internegative, so the sound track will be printed out on the answer print. If its density is off, sound can be affected. I take the answer print back to the sound studio. We put the final mixed magnetic track on one channel and the answer print, with its optical track, on another. We run them both together, switching up and back between them to make sure no audio quality has been lost going from magnetic to optical. A tiny bit is always lost, but they should be just about identical.

There’s nothing left to do now. The movie is finished. It’s time to turn the picture over to the studio.