

balance here, a missed sound dissolve there, a shot or two that needs clipping, or a sequence that belongs earlier. These imbalances and rhythmic ineptitudes massively downgrade a film's impact. The glossy finish you have yet to apply will greatly improve the film's reception.

### THE USES OF PROCRASTINATION

Whether you are pleased or depressed by your film, it is always good to stop working on it for a few weeks and do something else. If this degree of anxiety and depression is new to you, take comfort; you are deep in the throes of the artistic experience. It is the long and painful labor before birth. When you pick up the film again after a lapse, its problems and their solutions will no longer seem overwhelming.

### TRY, TRY AGAIN

A film of any substance usually demands a long evolution in the editing room, so expect to make several rounds of alterations and to try the film on several new audiences. You may want to show the last cut to the original trial audience to see what changes they report. Sometimes you can get a real sense of progress made during editing and sometimes not.

As a director with a lot of editing in my background, I know that a film truly emerges in the editing process. Magic and miracles appear from the footage, yet even film crews seldom have much idea about what really happens. It is a process unknown to those who have not lived through it, and for the beginner it will seem extremely slow. Putting a year of part-time work into a 30-minute film is not unusual for a new director who wants to make the work live up to its potential. To abridge this work is like pulling a car chassis off the assembly line and driving it away because the engine is already connected to the wheels.

### KNOWING WHEN TO STOP

Never set a deadline for the end of editing. Instead, be aware of when the learning curve begins to flatten. Some directors will go on fidgeting and fiddling with the cut ad infinitum. This is the fear of letting go. Ending editing is like giving up being the shepherd to your children. There comes a point where they are as grown up as they are going to be, and you must let them go forward alone, to win friends as they may.

## CHAPTER 42

# WORKING WITH A COMPOSER

Composers are the last in the creative chain to be hired, and in film they generally have to work under pressured circumstances. The more time you can give them, the better. For most of what follows I am indebted to my son Paul Rabiger, who lives and works in Cologne, Germany, where he makes music for television and film. Like many involved in producing music these days, he works largely with synthesizers, using live instruments as and when the budget allows. Software favored by composers includes Steinberg Cubase and Emagic Logic Audio. Programs like these permit many tracks, integrate Musical Instrument Digital Interface (MIDI) with live recording, and support video in QuickTime format so the composer can build music to an accurate video version of the film.

### COPYRIGHT

Never assume that recorded music you would like to use will be available when you get around to inquiring. The worst time to negotiate with composers, performers, publishers, and performing rights societies is when your film has come to depend on a particular recording. You are now in the weakest position, and lawyers with a nose for such things will capitalize on this. Commissioning original music obviates the difficulty of getting (and paying for) copyright clearance on music already recorded.

### WHEN THE COMPOSER COMES ON BOARD

If the composer comes on board early, he or she will probably read the screenplay and see the first available version of the edited film. An experienced composer will probably avoid coming in with preconceived ideas and will inquire what the director wants the music to contribute. The composer can then mull

over the characters, the settings, and overall content of a film, taking time to develop basic melodic themes and deciding within the budget what instrumental texture works best. Particular characters or situations often evoke their own musical treatment or leitmotif (recurring theme), and this is always best worked out with some time on hand, especially if research is necessary because music must reflect a particular era or ethnicity.

## WHEN THERE'S A GUIDE TRACK

Sometimes while editing, the editor may drop in sample music that nobody expects to keep but which helps assess the movie's potential. At the screening the composer may be confronted with a Beatles song or a stirring passage from Shostakovich's Leningrad Symphony. This certainly shows what a certain kind of music does for the scene and indicates a texture or tempo that editor and director think works, but it also raises a barrier because the composer must extract whatever the makers find valuable (say in rhythm, orchestration, texture, or mood) and then try to reach beyond the examples with his or her own musical solutions.

## DEVELOPING A MUSIC CUE LIST

Once the content of the film is more or less locked down, it is screened in video form with composer, director, editor, and producer. The tape version has timecode burned into the lower part of the screen, which displays a cumulative timing for the whole film. The group will break the film down into acts and note where these occur on the film's timeline. They will discuss where music seems desirable and what kind seems most appropriate. Typical questions will center on how time is supposed to pass and whether music is meant to shore up a weak scene. The composer finds out (or suggests) where each music section starts and stops and aims to depart with a music cue list in hand and full notes as to function, with beginnings and endings defined as timecode. Start points may begin with visual clues (car door slams, car drives away) or dialogue clues ("If you think I'm happy about this, you've got another think coming.").

If the editor generates the music cues, sections should be logged in minutes and seconds down to the nearest half second. Figure 42-1 shows what a composer's cue sheet looks like. Like other addictive substances, music is easy to start but difficult to finish. You'll have no difficulty starting a music segment, but ending one so the audience does not feel deprived will take careful planning. A rule of thumb is to conclude or fade out music under cover of something more commanding. You might take music out during the first seconds of a noisy street scene or just before the dialogue in a new scene. The best study of practice is to view films that successfully integrate music with the kind of action you have in your film.

The computer-savvy composer then gets a tape copy to compose to. He or she will either first create a traditional score to be performed and recorded or will work with computers and MIDI-controlled synthesizers to make music sections directly. In the course of hands-on composing, music cues are occasionally

"THE WATER-PEOPLE" MUSIC SECTION 4	
00:00.0	Music segment begins as Robert jumps in car
00:03.5	Engine starts
00:05.0	Car lurches forward
00:10.5	Cut to Robert checking fuel gauge
00:14.5	Looks in rearview mirror
00:19.0	Frowns, realizing that a motorcycle is behind
00:27.5	Cut to Carl gunning his Harley-Davidson
00:38.0	Cut to Robert staring in mirror, car going off track
00:46.0	Shriek of tyres for 3 seconds as Robert drags car back on to road
00:58.5	Cut to Carl lying forward on motorcycle tank
01:06.5	Cut to BCU Robert's face realizing it's Carl behind
01:08.5	Begin Robert's line: "So you want trouble. I can give you trouble"
01:12.0	End of line.
01:14.5	Cut to BCU hand opens glove pocket, takes out revolver
01:16.0	Revolver visible
01:17.5	Cut to flashing ambulance light, zoom back and siren drowns out music fades to silence end...
01:29.0	music ends here.

FIGURE 42-1

Typical scene measurements for a music cue segment.

added, dropped, or renegotiated when initial ideas meet actuality. Poorly placed or unjustified music may be worse than no music at all.

Sometimes a courageous composer will work backward from a musical destination. In Joseph Losey's *The Go-Between* (1971) Michel Legrand's superb score starts in the main character's boyhood with a simple, though slightly ominous theme taken from Mozart. As the boy's trauma over conflicting loyalties unfolds and more of the older man's present-day inquiry intrudes, the theme is developed into a fuller and more tragic voice for its elderly subject—whose outward life, ironically enough, is utterly atrophied.

## WHEN TO USE MUSIC, AND WHEN NOT

Though music is most commonly used as a transitional device, filler, or to set a mood, there are other ways to use it. Try never to use it to enhance what can already be seen on the screen. Better is to use it to suggest what cannot be seen, such as a character's expectations, interior mood, or feelings he withholds. The classic example is Bernard Herrmann's unforgettable all-violin score for Hitchcock's *Pyscho* (1960), with its jabbing violin screams as the pressure within Norman Bates becomes intolerable. Music, so natural an element to melodrama, is perhaps hardest to conceive for comedy.

Music is often used to foreshadow events and build tension, but it should never give the story away. Nor should it ever "picture point" the story by commenting too closely. Walt Disney was infamous for *Mickey Mousing* his films—an industry term for fitting scores like aural straitjackets around the minutia of action. The first of his true-life adventures, *The Living Desert* (1953), was full of extraordinary documentary footage but marred by scorpions made to

square dance and music that supplied a different note, trill, or percussion roll for everything that dared move. Used like this, music becomes controlling and smothering.

A related mistake is to use too much music, burdening the film with a musical interpretation that disallows making your own emotional judgments. Hitchcock's *Suspicion* (1941) and many a film of its vintage is marred this way. Far from heightening a film, the score flattens it by maintaining an exhausting aura of perpetual melodrama. The ubiquitous TV westerns of the 1950s and 1960s served up unending music punctuated by gunshots, horse whinnies, and snatches of snarling dialogue. Luckily, fashions change, and today less is considered more. A rhythm alone, without melody or harmony, can often supply the uncluttered accompaniment a sequence needs.

When its job is to set a mood, the music should do its work and then get out of the way to return and comment later. Sometimes a composer will point out during the screening just how effective, even loaded, a silence is at a particular point. The rhythms of action, camera movement, montage, and dialogue are themselves a kind of music, and you need not paint the lily.

Better than using music to illustrate (which merely duplicates the visual message) is to counterpoint the visible with music that provides an unexpected emotional shading. An indifferently acted and shot sequence may suddenly come to life because music gives it a subtext that boosts the forward movement of the story. In a story with fine shading, a good score can supply the sense of integrity or melancholy in one character and the interior impulse directing the actions of another. Music can also enhance not just the givens of a character, but it can indicate the interior development leading to an action and imply motives not otherwise visible. Music can supply needed phrasing to a scene or help create structural demarcations by bracketing transitions in scenes or between acts. Short stings or fragments of melody are good if they belong to a larger musical picture.

Given that an intelligent film is a weave of scenes whose longitudinal relationships can often stand strengthening, a composer may color-code his cues to group scenes, characters, situations, and the like longitudinally into musically related families. In a 40-minute film there may be 30 music cues, from a *sting*, or short punctuation, to a passage that is extended and more elaborate. He (or she, of course) may want to develop music for a main plot, but have musical identities for two subplots. Keeping these separate and not clashing during cross cutting can be problematic, so their relationship is important, particularly in key. Using a coding system keeps the composer aware of the logical connections and continuity the music must underpin.

Because there are many factors involved in producing an integrated score, it is important that music cues, once decided, should not be changed later without compelling reason.

## KEYS, AND DIEGETIC AND NON-DIEGETIC MUSIC

An initial planning stage for the composer is deciding what progression of keys to use through the film, based on the emotional logic of the story itself.

Especially when one kind of music takes over as a commentary upon another, the key of the latter must be related so the transition is not jarring. This is true for all adjacent music sections, not just original scoring. A film may contain popular songs the characters listen to in their car, and related scored music must be appropriate in key.

Any sound that is a part of the characters' world is called *diegetic* sound. Following it may be a very different kind of music, perhaps a score of massed cellos. Of course the characters do not hear or react to this, for it is part of the film's authorial commentary and is addressed to the audience. This is called *non-diegetic* sound.

## CONFLICTS AND COMPOSING TO SYNC POINTS

An experienced musician composing for a recording session will write to very precise timings, paying attention to track features such as the tire screech and dialogue lines. The choice of instrumentation must not fight dialogue, nor can the arrangement be too busy at points where music might compete with dialogue or effects. Music can, however, take over the function of a diegetic sound track that otherwise would be too loaded. Musical punctuation, rather than a welter of naturalistic sound effects, saves time and labor and can produce something more impressionistic and effective. It's worth noting that an overloaded, over-detailed sound track takes energy on the part of the audience to interpret and is not well reproduced by the television speakers through which many people may hear your work.

If the composer is to work around dialogue and spot effects, he or she should have an advanced version of the sound track rather than the simple dialogue one used during editing. This is particularly true in any track that will be heard in a cinema setting. The sound system is likely to be powerful and sophisticated, and the film's track will come under greater artistic scrutiny.

When a written score is recorded to picture, it is marked with the cumulative timing so that as the music is recorded (normally to picture as a safeguard), the conductor can make a running check that the sync points line up. The composer might put a dramatic sting on the first appearance of the pursuing motorcycle at 27.5 seconds and on the appearance of the revolver at 01:16, for instance.

Low-budget film scores aren't usually live recordings but instead make use of MIDI computerized composing techniques. The composer builds the music to a QuickTime scratch version of the film, digitized from a cassette, so music fitting is done at the source.

## HOW LONG DOES IT TAKE?

An experienced composer likes to take more than 6 weeks to compose about 15 minutes of music for a 90-minute feature film, but she may have to do it in 3, with a flurry of music copyist work at the end, to be ready for the recording session.

## THE LIVE MUSIC SESSION

The editor makes the preparations to record music and attends the recording session because only the editor can say whether a particular shot can be lengthened or shortened to accommodate the slight timing inaccuracies that always appear during recording. Adjusting the film is easier and more economical than paying musicians to pursue perfect musical synchronicity.

## FITTING MUSIC

After the recording session, the editor fits each music section and makes the necessary shot adjustments. If the music is appropriate, the film takes a quantum leap forward in effectiveness. Some editors specialize in cutting and fitting music. Their expertise is important to a musical, in which much of the film is shot to playback on the set.

## THE MIX

The composer will want to be present at all mix sessions affecting the functionality of the music he or she has composed. When music has been composed on MIDI, it is only a matter of a small delay to return to the musical elements and produce a new version with changes incorporated.

## CHAPTER 43

# EDITING FROM FINE CUT TO SOUND MIX

Sound is an incomparable stimulant to the audience's imagination and only rarely gets its due. Ideally everyone is alert to sound-composition possibilities from the moment the script begins to be written and keeps building on these concepts until postproduction ends. Opportunities and special moments arise in addition to those programmed in from the beginning, and this is part of a work asserting its identity. It's important to keep track of every idea for sound that anyone has along the way, and not leave it all to an *audio-sweetening* session. That, by the way, is an expression I detest. It suggests that sound is sour and needs sugaring. *Sound design*, *sound editing*, and *sound mix* are more direct and respectful terms. Especially if you have monitored and directed the sound treatment throughout, the sound mix will be a special and even exhilarating occasion.

What happens when sound is left to fend for itself? Poor handling of dialogue tracks alone will disrupt the dreamlike quality that a good film attains, so it's worth learning a lot about the handling of sound. Sound specialists will be the first to say they work most creatively with good groundwork from the director and script.

Finalizing sound is another computer operation, usually using ProTools and a first-rate amplifier and speaker system to replicate a hypothetical cinema's sound environment. I say *hypothetical* because few cinemas approach the state of the art. Yet good sound, as Dolby cinemas have discovered, is good business, so sound may yet get its day.

## THE FINE CUT

With typical caution, filmmakers call the result of the evolutionary editing process the *fine*, not final, cut for there may still be minor changes and accommodations. Some of these arise from laying further sound tracks in preparation to produce a master mixed track.

## MAKE A FINAL CHECK OF ALL SOURCE MATERIAL

As mentioned previously, the editor must, as a last act, view all shot material to make sure nothing useful has been overlooked. At this point in editing, and especially if there is a lot of coverage, this demand is skull-crackingly tedious and time-consuming, but almost invariably there will be some “Eureka!” discoveries in compensation. If there aren't, you can rest easy that night.

## SOUND

### SOUND DESIGN DISCUSSIONS

How and why music gets used needs careful discussion, as described in the previous chapter: Working with a Composer. Although sound is made of different elements—music, dialogue, atmospheres, effects—it is a mistake to put them in a hierarchy and think of them separately at this, the ultimate compositional stage.

Before the sound editor goes to work splitting dialogue tracks and laying sound effects, there should be a detailed discussion with the director about the sound identity of the whole film and how each sequence should be treated within this identity from the sound point of view. You should agree on the known sound problems and on a strategy to handle them. This should be a priority because dialogue reconstruction—if it's needed—is an expensive, specialized, and time-consuming business, and no film of any worth can survive the impact of having it done poorly.

Walter Murch, the doyen of editors and sound designers, makes a practice of watching a film he is editing without the sound turned on, so he imagines what the sound might properly be. Among the less-usual functions of sound, among many listed in Randy Thom's “Designing a Movie for Sound” ([www.filmsound.org/articles/designing\\_for\\_sound.htm](http://www.filmsound.org/articles/designing_for_sound.htm)), are to:

- Indicate a historical period
- Indicate changes in time or geographical locale
- Connect otherwise unconnected ideas, characters, places, images, or moments
- Heighten ambiguity or diminish it
- Startle or soothe

That Web site, [www.filmsound.org](http://www.filmsound.org), is an excellent source of information for all aspects of sound in film, by the way.

Any good sound editor will tell you it's not quantities of sound or complexity that make a good sound track, but rather the psychological journey sound leads you on while you watch. This is the art of *psychoacoustics*, and usually sound is most effective when it is simple rather than complex, and highly specific and special rather than generic.

### POST-SYNCHRONIZING DIALOGUE

Post-synchronizing dialogue means each actor creating new speech tracks in lip sync with an existing picture, and the laborious operation is variously called *dubbing*, *looping*, or *automatic dialogue replacement* (ADR). This is done in a studio with the actor or actors watching a screen or monitor and rehearsing with the picture before they get the OK to record. A long dialogue exchange will be done perhaps 30 seconds at a time.

The process is ardently to be avoided because newly recorded tracks invariably sound flat and dead in contrast to live location recordings. This is not because they lack background presence, which can always be added, or even because sound perspective and location acoustics are missing. What kills ADR is the artificial situation. The actor finds himself flying blind to reconstitute every few seconds of dialogue and completely in the hands of whomever is directing each few sentences. However good the whole, it invariably drags down the impression of their performances, and actors hate ADR with excellent reason.

### THE FOLEY STAGE AND RECREATING SYNC SOUND EFFECTS

Many sound effects shot wild, on location, or in a Foley studio can be fitted afterward and will work just fine. The Foley studio was named after its intrepid inventor, Jack Foley, who realized back in the 1940s that you could mime all the right sounds to picture if you had a sound studio with different surfaces, materials, and props. As everyone now knows, it takes invention to create a sound that is right for the picture. Baking powder under compression in a sturdy plastic bag, for instance, makes the right scrunching sound of footsteps in snow, and a punched cabbage can sound most like someone being struck over the head.

A Foley studio has a variety of surfaces (concrete, heavy wood, light wood, carpet, linoleum, gravel, and so on). The Foley artists may add sand or paper to modify the sound of footsteps to suit what's on the screen. In the most forgettable Jayne Mansfield comedy, *The Sheriff of Fractured Jaw* (1959), directed by Raoul Walsh, my job was to make horse footsteps with coconuts and steam engine noises with a modified motorcycle engine. It was fun.

Repetitive sounds that must fit an action (knocking on a door, shoveling snow, or footsteps) can usually be recreated by recording the actions a little slower and then cutting out the requisite frames before each impact's attack. This is easy with a computer. More complex sync effects (two people walking through a quadrangle) will have to be post-synced just like dialogue, paying attention to the different surfaces the feet pass over (grass, gravel, concrete, etc.). Surviving a grueling series of post-sync sessions makes you truly understand two things: one, that it is vital for the location recordist to procure good original recordings if at all possible, and two, how good top-notch location film sound and editing crews really are at their jobs.

On a complex production with a big budget, the cost is economically justified. For the low-budget filmmaker, some improvisation can cut costs enormously. What matters is that sound effects are appropriate (always difficult to arrange) and that they are in sync with the action onscreen. Where and how you record them is not important provided they work well. Sometimes you can find

appropriate sound effects in sound libraries, but *never* assume a sound effect listed in a library will work with your particular sequence until you have tried it against picture. By entering *sound effects library* in a search engine, you will turn up many sources of sound libraries. Some let you listen or even download effects. Try Sound Ideas at [www.sound-ideas.com/bbc.html](http://www.sound-ideas.com/bbc.html).

A caution: Most sound libraries are top heavy with garbage shot eons ago. Many effects tracks are not clean, that is, they come with a heavy ambient background or ineradicable system hiss. The exotic sounds such as helicopters, Bofors guns, and elephants rampaging through a Malaysian jungle are easy to use. It's the nitty-gritty sounds such as footsteps, door slams, dog growling, and so on that are so hard to find. At one time there were only six different gunshots used throughout the industry. I heard attempts at recording new ones. They were awful and sounded nothing like you would expect. Expectation is the key to getting it right. Authentic sounds are nowhere next to those you imagine and accept as the Real Thing.

### SOUND CLICHÉS

Providing sounds for what is on the screen can easily be overdone. Because a cat walks across a kitchen is not an excuse for a cat meow, unless the cat is seen to be demanding its breakfast in a coming shot. Do look up this Web site for a hilarious list of sound clichés: [www.filmsound.org/clichel](http://www.filmsound.org/clichel). In it all bicycles have bells; car tires must always squeal when the car turns, pulls away, or stops; storms start instantaneously; whistling types of wind are always used; doors always squeak; and much, much more.

### WHAT THE SOUND MIX CAN DO

After the film has reached a fine cut, the culmination of the editing process is to prepare and mix the component sound tracks. A whole book could be written on this preeminent subject alone. What follows is a list of essentials along with some tips.

You are ready to mix tracks into one master track when you have:

- Finalized content of your film
- Fitted music
- Split dialogue tracks, grouping them by their equalization (EQ) needs and level commonality:
  - A separate track for each mike position in dialogue tracks
  - Sometimes a different track for each speaker, depending on how much EQ is necessary for each mike position on each character
- Filled-in backgrounds (missing sections of background ambience, so there are no dead spaces or abrupt background changes)
- Recorded and laid narration (if there is any)
- Recorded and laid sound effects and mood-setting atmospheres
- Finalized ProTools timeline contents

The mix procedure determines the following:

- Sound levels (such as between a dialogue foreground voice track and a background of a noisy factory scene if, and only if, they are on separate tracks)
- Equalization (the filtering and profiling of individual tracks either to match others or to create maximum intelligibility, listener appeal, or ear comfort; a voice track with a rumbly traffic background can, for instance, be much improved by *rolling off* the lower frequencies, leaving the voice range intact)
- Consistent quality (for example, two tracks from two angles on the same speaker will need careful equalization and level adjustments if they are not to sound dissimilar)
- Level changes (fade up, fade down, sound dissolves, and level adjustments to accommodate sound perspective and such new track elements as narration, music, or interior monologue)
- Sound processing (adding echo, reverberation, telephone effect, etc.)
- Dynamic range (a compressor squeezes the broad dynamic range of a movie into the narrow range favored in TV transmission; a limiter leaves the main range alone but limits peaks to a preset level)
- Perspective (to some degree, equalization and level manipulation can mimic perspective changes, thus helping create a sense of space and dimensionality through sound)
- Multi-channel sound distribution (if a stereo track or surround sound treatment is being developed, different elements go to each sound channel to create a sense of horizontal spread and sound space)
- Noise reduction (Dolby and other noise-reduction systems help minimize the system hiss that would intrude on quiet passages)

Be aware that when old technology must be used, changes on a manually operated mixing board cannot be done instantaneously on a cut from one sequence to the next. Tracks must be *checkerboarded* (meaning they alternate from track to track) so that a channel's equalization and level adjustments can be set up in the section of silent sound spacing prior to the track's arrival. This is most critical when balancing dialogue tracks, as explained in the following section.

### SOUND MIX PREPARATION

Track elements are presented here in the conventional hierarchy of importance, although the order may vary; music, for instance, might be faded up to the foreground and dialogue played almost inaudibly low. When cutting and laying sound tracks, be careful not to cut off the barely audible tail of a decaying sound or to clip the attack. Sound editing should be done at high volume so you hear everything that is there or isn't there when it should be.

Laying nonlinear digital tracks is much easier than in the old manual days because you follow a logic that is visible to the eye and can hear your work immediately. Fine control is quick and easy with a sound-editing program such as

ProTools because you can edit with surgical precision, even within a syllable. The equivalent operation in manual film is not difficult but you cannot properly hear the results until mix time. Traditional mix theaters are nowadays about as common as steam trains, and there is not much weeping over their loss. Getting dozens of tracks laid for a mix was a monumental task, and watching them churn to and fro in 30 dubbing players slaved to a film projector was stressful (my first job was cement splicing in a feature film studio). Twelve people worked a day or more to mix 10 minutes of film track. For battle sequences or other complex situations, you could multiply that period several times. Some battles did not stay on the screen, either.

### NARRATION OR VOICE-OVER

Getting actors to make a written narration sound spontaneous is next to impossible, so consider using the improv method in which actors, given a list of particular points to be made, improvise dialogue in character. By judicious side coaching, or even interviewing, the actor produces a quantity of entirely spontaneous material in a number of passes that can be edited down. Though labor-intensive, the result will be more spontaneous and natural than anything read from a script.

If you lay narration or interior monologue you will need to fill gaps between narration sections with room tone so the track remains live, particularly during a quiet sequence.

### IALOGUE TRACKS AND THE PROBLEM OF INCONSISTENCIES

You will have to split dialogue tracks in preparation for the mix. Because different camera positions occasion different mike positioning, a sequence's dialogue tracks played *as is* will change in level and room acoustics from shot to shot. The result is ragged and distracting when you need quite the contrary effect—the seamless continuity familiar from feature films. This result is achieved by painstaking and labor-intensive sound editing work in the following order:

1. Split dialogue tracks (lay them by grouping on separate tracks) according to the needs imposed by the coverage's mike positioning.
  - a. In a scene shot from two angles and having two mike positions, all the close-shot sound goes on one track, and all the medium-shot sound goes on the other. With four or five mike positions, you would need to lay at least four or five tracks.
  - b. Sometimes tracks must additionally be split by character, especially if one of them is under- or over-modulated in the recording.
2. Equalization (EQ) settings can be roughly determined during track laying, but final settings must be determined in the mix. The aim is to bring all tracks into acceptable compatibility, given that the viewer can expect a different sound perspective to match the different camera distances. These settings may now apply to multiple sound sections as they have been grouped according to EQ needs.
3. Give special attention to cleaning up background tracks of extraneous noises, creaks, mike handling sounds—anything that doesn't overlap dialogue and

can therefore be removed. Any gaps will sound like drop out unless filled with the correct room tone.

4. If you have to join dissimilar room tones, do it as a quick dissolve behind a commanding foreground sound so the audience's attention is distracted from the change. The worst place to make an illogical sound change is in the clear.

Although manual and nonlinear sound mixing can handle many tracks, it is usual to premix groups of tracks and leave final control of the most important to the last stage.

**Inconsistent Backgrounds:** The ragged, truncated background is the badge of the poorly edited film in which inadequate technique steals attention from the film's content. Frequently, when you cut between two speakers in the same location, the background of each is different either in level or quality because the mike was angled differently or background traffic or other activities had changed over time. Now is the time to use those presence tracks you shot on location so you can add to and augment the lighter track to match its heavier counterpart. If an intrusive background sound, such as a high-pitched band saw, occupies a narrow band of frequency, you can sometimes effectively lower it using a graphic equalizer. This lets you tune out the offending frequency. But with it goes all sounds in that band, including that part of your character's voices.

**Inconsistent Voice Qualities:** A variety of location acoustical environments, different mikes, and different mike working distances all play havoc with the consistency of location voice recordings. Intelligent adjusting with sound equalization (EQ) at the mix stage can massively decrease the sense of strain and irritation arising from having to make constant adjustment to unmotivated and therefore irrational changes.

### LAYING MUSIC TRACKS

It is not difficult to lay music, but remember to cut in just before the first sound attack so its arrival isn't heralded by studio atmosphere or record surface hiss prior to the first chords. Arrow A in Figure 43-1 represents the ideal cut-in point; to its left is unwanted presence or hiss. To the right of A are three attacks in succession leading to a decay to silence at arrow B. A similar attack-sustain-decay profile is found for many sound effects (footsteps, for instance) so you can often use the same editing strategy. By removing sound between x and y, we could reduce three footfalls here to two.

### SPOT SOUND EFFECTS

These sync to something onscreen, like a door closing, a coin placed on a table, or a phone being picked up. They need to be appropriate, in the right perspective, and carefully synchronized. Sound effects, especially tape library or disk effects, often bring problematic backgrounds of their own. You can reduce this by cutting into the effect immediately before a sound's *attack* (see Figure 43-1, arrow A) and immediately after its decay (arrow B), thus minimizing the





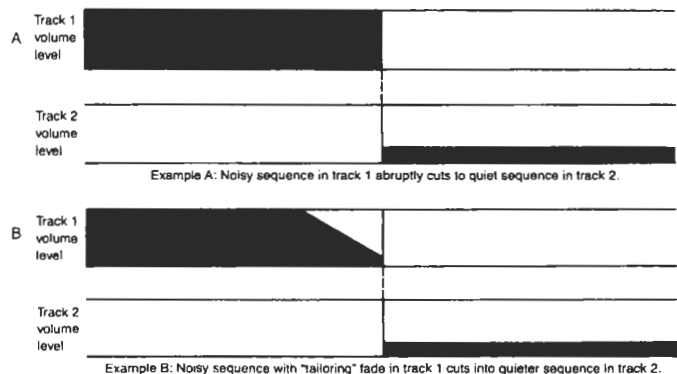


FIGURE 43-4

Abrupt sound cut tailored by quick fade of outgoing track so it matches level of the incoming track.

### COMPARATIVE LEVELS: ERR ON THE SIDE OF CAUTION

Mix studios sport excellent and expensive speakers. Especially for video work, the results can be misleading because low-budget filmmakers must expect their work to be seen on domestic TV sets, which have miserably small, cheap speakers. Not only do luckless consumers lose frequency and dynamic ranges, they lose the dynamic separation between loud and soft, so foregrounds nicely separated in the mix studio become swamped by backgrounds. If you are mixing a dialogue scene with a traffic background atmosphere, err on the conservative side and make a deliberately high separation, keeping traffic low and voices high. A mix suite will obligingly play your track through a TV set so you can be reassured of what the home viewer will actually hear.

### REHEARSE, THEN RECORD

If you mix in a studio, you, as the director, approve each stage of the mix. This does not mean you have to know how to do things, only that you and your editor have ideas about how each sequence should sound. To your requests, and according to what the editor has laid in the sound tracks, the mix engineer will offer alternatives from which to choose. Mixing is best accomplished by familiarizing yourself with the problems of one short section at a time and building sequence by sequence from convenient stopping points. At the end, it is very important to listen to the whole mix without stopping, as the audience will do. Usually your time will be rewarded by finding an anomaly or two.

### FILM MIXES AND TV TRANSMISSION

The film medium is *sprocketed* (has sprocket holes to ensure synchronization) so tracks or a premix are easily synced up to a start mark in the picture reel leader. The final mix, whether it is made traditionally or digitally, will be transferred by a film laboratory to a sprocketed optical (that is, photographic) track and then photographically combined with the picture to produce a composite projection print. Television used to transmit films from double-system; that is, picture and the magnetic mix were loaded on a telcine machine with separate but interlocked sound. The track was taken from the high-quality magnetic original instead of from the much lower-quality photographic track. Today television transmission is from the highest quality digital tape cassettes, which are simpler, easier, and more reliable in use.

### MAKE SAFETY COPIES AND STORE THEM IN DIFFERENT LOCATIONS

Because a sound mix requires a long and painstaking process, it is professional practice to immediately make safety or backup copies. These are stored safely in multiple buildings in case of loss or theft. Copies are usually made from the master mix so that should its damage or loss occur, there are backups.

The same principle should be followed for film picture or video original cassettes; keep masters, safety copies, negatives, and internegatives (copy negatives) in different places so you don't lose everything should fire, flood, revolution, or act of God destroy what you might otherwise keep under your bed.

### MUSIC AND EFFECTS TRACKS

If there is the remotest chance that your film will make international sales, you will need to make a music and effects mix, often referred to as an *M & E track*. This is so a foreign language crew can dub the speakers and mix the new voices in with the atmosphere, effects, and music tracks.

- Put the film aside for a week or two, and see it again before deciding the fine cut is final.

#### Evoking a Trial Audience Response:

- You can't please everyone.
- Tell your audience the film's title and warn them of what is missing (music, sound effects, atmospheres, etc.).
- In a trial showing, exert maximum control over sound.
- Direct audience attention to issues for which you need information, but ask nondirective questions and listen carefully for what is really being said.
- Do not abandon any central intention without long, hard thought.
- Do not rush into changes of any kind.
- Expect to feel depressed about the film: that it's failing, etc.

#### Sound Effects and Music:

- Choice of music should give access to the interior of character or subject.
- Music can signal the emotional level at which audience should approach the scene.
- You cannot know that music works until you try it against the picture.
- Decide what, if anything, needs post-synchronizing.
- Start looking for sound effects early; they are part of your orchestra.
- Plan featured sound effects to go in dialogue gaps (or vice versa).

#### Working with a Composer:

- Develop music cue list.
- Show film to composer.
- Discuss why music is desirable and what sort of music you'd like.
- Be open to suggestions from the composer.
- Leave open framework for music to work; don't tighten the film around dialogue so there's no space for the score.
- Be ready after music is fitted to move cuts and extend or shorten to fit music.
- When cuts must appear to happen on the beat, they must come three frames *before* the beat to look right on the screen.

#### Sound Mix:

- Premix and retain control over balance of important elements until last.
- Soften ragged sound cuts by tailoring the louder to the quieter.
- When mixing foreground speech with background (music, sound effect (FX), atmosphere, etc.), err on the side of caution and separate foreground widely from background.
- Check completed mix against picture at end without stopping.
- Make at least one sound mix safety copy and store it separately.

#### Titles:

- Keep credits short and few.
- Each title card should be on the screen long enough to be read aloud one and a half times.
- Choose a legible, clean typeface that goes with the period and style of your film.
- Double-check all spelling, especially people's names.
- Don't straddle subtitles across cuts.
- Use legible, yellow print with black edging for subtitles.
- Contract text when you subtitle or you'll exhaust your audience.
- Include acknowledgments, funding sources, dedications, etc. exactly according to contractual obligations.
- Copyright your film with the Library of Congress or appropriate national authority and put © sign and year at end.

- A film's structure should create forward momentum by posing questions and appropriately delaying their resolution.
- Plot structure should never be needlessly complicated unless the film's form is deliberately a maze.
- Clarity of Who/What/When/Where helps the audience concentrate on the thematic issues and the Why, which usually centers on the characters and their situations.
- How time is handled is a major organizing principle for any story.
- Departing from chronological time usually signals that the film is routed through someone's subjectivity, either that of a character or of the Storyteller.
- Flashbacks generally slow and weaken the forward momentum of a story.
- Heavy use of flashbacks (past tense) usually goes with a heavily determinist or even Freudian outlook (she does this *now* because of what happened to her *then*).
- Have you graphed the intended rise and fall of pressures in your film?
- Have you faced the faults this reveals?

#### Thematic Purpose:

- The thematic purpose is your Storyteller's motive for telling the tale.
- The Storyteller is not necessarily you; more likely he or she is a dramatized intelligence who has particular needs to fulfill through telling the tale. Make sure you elucidate what they are because this is the persona you are going to serve (play) when you direct, and it is the aura of this intelligence that gives the film an identity all its own.
- You won't be in control of your movie's thematic purpose unless you maintain an up-to-date premise or concept.
- Examine your outline and screenplay for how well the movie serves the thematic purpose.
- Thematic purpose is often best discovered by searching for appropriate metaphors.
- These metaphors will almost certainly suggest sound and visual motifs and even leitmotifs.
- A well-developed theme unifies and justifies your movie.
- It's important to your energy and focus that your movie serves a thematic purpose in which you deeply believe.
- Strong things are usually simple; don't feel your theme must be complex and all embracing.

#### Space, Stylized Environments, and Performances:

- Decide what kind of spaces your characters inhabit and what impressions these should give.

- Depending on the film's system of POVs, you may want to show most, or very little, of the detail in each location.
- Characters can notice very little of their surroundings through familiarity, confusion, or preoccupation.
- Characters can notice very much about their surroundings because they have time on their hands, are in new surroundings, or have special reasons to take stock.
- Space may go noticed or unnoticed simply because that's the habit or temperament of the POV character.
- Stylization generally means departing from the unremarkable.
- In a movie a whole world or only aspects of it may be stylized.
- Stylization signals subjectivity on the part of the characters, the genre, or their Storyteller.

#### Music:

- Music can be misused as a dramatic crutch.
- It can legitimately suggest the interior state of the POV character.
- It can also signal the Storyteller's feelings about the story, impelling the audience to investigate what they're watching in particular ways.
- For the audience, music is like a drug habit; pleasant in the beginning and painful when perceived to be withdrawn.
- Music can illustrate or it can counterpoint.
- Music can accompany and enhance whatever is inherently strong in emotion.
- Avoid music that duplicates what we can see or hear (for instance, lush pastoral music over shots of cows in a wide meadow).
- Music can provide historical, social, or emotional context.
- Most music sold in music libraries is so bad, it isn't worthy of the name.
- Better to have no music than bad music.
- Too often bad music survives because it came free from a friend.

#### Form and Style:

- Form follows function.
- Less is more.
- Simple is strong.
- Kill your darlings. That is, remove anything you love that is not functional.
- Listen to your characters for what they need.
- Know where the movie belongs and where it departs from its genre.
- Don't neglect visual style; your cinematographer should be your ally here.
- Don't confuse visual style with directing; it's only part of the job and can lead you to neglect content and character.

- Design the sound track like a sound play, don't just leave it to trail after a picture.
- Remember that rhythms underlie everything in screen language, *everything*.
- Decide whom or what you want your audience to identify with.
- If you want to counter identification, you will first have to create it and subvert it.
- Only use long takes if your movie needs them; there are many other rewarding ways to challenge yourself.
- Short films are harder to make than long films; poetry is more demanding than prose.
- Short films get shown much more easily than longer ones.
- Let your film tell you its style, not vice versa.
- As far as your own style is concerned, you can only strive to become authentic to yourself. Personal style will take care of itself. In filmmaking you dress to impress at your peril.

## PART 5

# PREPRODUCTION

Part 5 (Chapters 17 through 27) covers the vast amount of work that goes into a movie after a script has been accepted and up to the moment when shooting must begin. It covers digging deeply into the script to find all the life below the surface—all the structures and meanings without which the movie would be just a hollow facade. There is the process of casting, which alone can cause a film to succeed or fail definitively, and how to work with actors, whose performances are the key to your audience's accepting the world the film depicts.

The relationship between actors and their director will likewise make or break your film. Actors, being all too human, have human problems, and the director must deal with these constructively. If that fails, the director must risk unpopularity and deal with them with the best interests of the project in mind.

To help the novice director learn from doing, there are many improvisation exercises. Any director afraid to improvise will be badly handicapped at directing actors who are using improvisation. The improvisation exercises for student directors will free you and empower you to use your cast's powers of improvisation, so often a lifesaver when you face an impasse. There are also exercises with a text. Whether you happen, at any given moment, to be directing or acting, these exercises will reveal the world the actor lives in and make acting both familiar and fascinating.

Then comes the vital process of rehearsal and development so often omitted by professionals and novices alike. It is strongly recommended that you videotape all rehearsals that are "off book" (the actors have learned their lines). A methodology is given to make this an exciting prospect. There are guidelines for actor and director preparing a scene and then guidance on planning coverage. The last roundup comes in the all-important preproduction meeting.

If you are in preproduction, do remember to use the checklist at the end of Part 5: Preproduction. It will remind you of many things, not least that a little time taken to survey your work can sometimes reveal embarrassing oversights.