

SOUND AND THE MODERN FILM

Sound plays an increasingly important role in the modern film because its here-and-now reality relies heavily on the three elements that make up the soundtrack: sound effects, dialogue, and the musical score (see Chapter 9 for a discussion of this third part). These elements add levels of meaning and provide sensual and emotional stimuli that increase the range, depth, and intensity of our experience far beyond what can be achieved through visual means alone.

Because we are more *consciously* aware of what we see than of what we hear, we generally accept the soundtrack without much thought, responding intuitively to the information it provides while ignoring the complex techniques employed to create those responses. The intricacy of a finished soundtrack is illustrated by composer-conductor Leonard Bernstein's description of the sound mixer's difficult task in a single scene from *On the Waterfront*:

For instance, he may be told to keep the audience unconsciously aware of the traffic noises of a great city, yet they must also be aware of the sounds of wind and waves coming into a large, almost empty church over those traffic noises. And meantime, the pedaling of a child's bicycle going around the church must punctuate the dialogue of two stray characters who have wandered in. Not a word of that dialogue, of course, can be lost, and the voices, at the same time, must arouse the dim echoes they would have in so cavernous a setting. And at this particular point no one (except the composer) has even begun to think how the musical background can fit in.¹

Five different layers of sound are at work simultaneously in the brief scene that Bernstein describes, and each one contributes significantly to the total mix. But compared to many scenes in the modern film, the sounds in *On the Waterfront* are simple and traditional. They are not nearly as complex as the soundtrack for *Raging Bull*, considered a landmark in film sound.

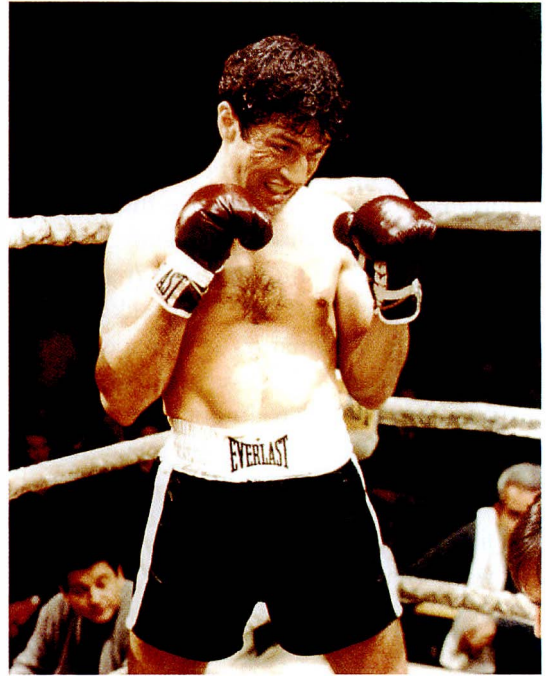
The fight scenes in *Raging Bull* were extremely powerful, requiring the layering of as many as fifty sounds to create the final effect. As sound man Frank Warner (working in part as a **Foley artist**—i.e., one who adds sound effects during post-production) tells it:

It was done in combining sounds. A very basic part of the punch is hitting a side of beef—that's always been used from Day One. That could be your basic beat, but then you can go from there. When a guy is hit and you see it just ripping, tearing the flesh, you can take a knife and stab and you get a real sharp, cutting sound. As the flesh gave away, water would have been added to the punch. The splatter was all done separately.²

Unrecognizable animal sounds and abstract bits and pieces of music were also part of the mix. For the high-velocity delivery of punches, Warner blended jet airplane sounds and the “wwwwhhhooossh” of arrows slowed down (Figure 8.1).

FIGURE 8.1 Mixing His Punches

Sound man Frank Warner combined as many as fifty different sounds to create the effects of Jake La Motta (Robert De Niro) delivering, landing, and receiving punches in *Raging Bull*.



Filmmakers can also take advantage of digital recording technology to combine and process sounds, creating aural environments that heighten the viewer's emotional response to a scene. For example, sound editor Cecilia Hall combined as many as fifteen different layers of sound—including animal screams and trumpets—to create the fighter jet sounds in *Top Gun*. The Oscar-winning mixers and editors who helped to create Peter Jackson's *King Kong* (2005) continued to expand the complex outer limits of “layering” sound in reproduction technology.

The modern soundtrack demands so much of our conscious attention that if we want fully to appreciate a modern film, we should perhaps be prepared as much to hear the film as to see it.

DIALOGUE

A major part of our attention to sound in the modern film is naturally directed toward understanding the dialogue, for in most films dialogue gives us a great deal of important information. Film dialogue is different from stage dialogue, and we need to be aware of the unique characteristics of film dialogue.

Dialogue in a typical stage play is an extremely important element, and it is essential that the audience hear almost every word. Thus stage actors use a certain measured rhythm, carefully speaking their lines in turn and incorporating brief pauses in the question–response pattern so that the person occupying the

worst seat in the house can hear each line clearly. Because film dialogue can be heard distinctly in every theater seat, this limitation does not apply to film, and dialogue can be treated much more realistically in the movies than onstage.

In *Citizen Kane*, for example, Orson Welles employed the overlapping dialogue, fragmented sentences, and interruptions common to everyday conversation without loss of essential information or dramatic power. This was achieved, as it is now in most films, through careful microphone positioning and recording, skillful editing and mixing of the recorded sound, and subtle variations in sound quality (volume, clarity, reverberation, and tonal qualities). Through such means, the modern filmmaker creates the impression of a highly selective ear tuned to what it wants or needs to hear. The most important sounds are singled out, emphasized, and made clear; those of less importance are blurred or muted. In such works as *Gosford Park* and *A Prairie Home Companion*, Robert Altman orchestrates this process brilliantly—while still insisting that audiences watch his movies repeatedly so they can see and hear more of the multiple elements he carefully places in each film frame.

Film dialogue can also be delivered at a much more rapid pace than can stage dialogue. Director Frank Capra put this capability to good use in *Mr. Smith Goes to Washington* and *Mr. Deeds Goes to Town*. He utilized compressed, machine-gun-paced dialogue in phone conversations that get necessary but nondramatic exposition out of the way so he could get down to the serious business of telling his stories.

The old adage that a picture is worth a thousand words is especially true in film. Filmmakers must, first of all, use dialogue with great restraint to avoid repeating what has already been made clear visually. Furthermore, film's dramatic power and cinematic qualities are both diminished if dialogue is used to communicate what could be expressed more powerfully through visual means. In some cases, the most dramatically effective results are achieved through sparse or monosyllabic dialogue, and in a few modern films, dialogue is dispensed with entirely. This is not to say that dialogue should never dominate the screen. But it should do so only when the dramatic situation demands it. As a general rule, dialogue in film should be subordinate to the visual image and should seldom assume the dominant role of dialogue on the stage.

THREE-DIMENSIONALITY IN SOUND

In *Citizen Kane* (1941), which is generally conceded to be the first modern sound film, Orson Welles created a strong impression of three-dimensional sound without the benefit of the multiple soundtracks and speakers required for true stereo. Perhaps more conscious of the importance of sound and its potential for subtleties because of his radio experience, Welles achieved this effect by varying the sound quality (volume, clarity, reverberation, and tonal qualities) of voices and sound effects to reflect their relative distance from the camera. A

sense of aural three-dimensionality was achieved to match the three-dimensional image of Gregg Toland's deep-focus cinematography. This three-dimensionality was achieved on one track (monaural sound) by making voices and sounds sound close up or far away—without the left and right separation of stereo (which is achieved by recording on two separate tracks and then using two or more speakers to play back what was recorded).

In 1952, true three-dimensionality of sound was achieved by combining the techniques pioneered by Welles with a six-track stereophonic system in the triple wide-screen *This Is Cinerama*. A four-track system was introduced to match the Cinemascope image of *The Robe* in 1953. But as the number of wide-screen films being produced declined and the studios and independent producers returned to the standard screen format, the interest in stereophonic sound declined also.

In the mid-1970s, a different attempt was made to achieve spectacular sound effects in theaters with Sensurround. The Sensurround system derived its sound from two closet-size speaker cabinets located at the rear corners of the theater. These powerful speakers were designed to literally shake the entire theater, but the system was used for relatively few films, such as *Earthquake* (1974) and *Midway* (1976). In *Midway*, the rear speakers effectively provided a realistic 360-degree sound environment by using techniques such as the following: The camera, positioned on one side of an aircraft carrier, looks up toward a kamikaze plane diving toward the carrier. The soundtrack in front grows louder until the plane roars right overhead. Then the huge speaker boxes in the rear take over to complete the roar and give us the sounds and shock waves of the explosion on the deck behind us.

At about the same period (1974), the Dolby system was introduced. An audio recording system that reduces background noise and increases frequency range, it was combined with a system called “surround sound” from Tate Audio Ltd. to produce a multitrack stereophonic system for theaters. **Dolby-Surround Sound** employs an encoding process that achieves a 360-degree sound field and creates the effect of a greater number of separate speakers than are actually required. It has been used with great power and effectiveness, achieving the effect of hissing snakes all around us in *Raiders of the Lost Ark* and the cheering fight crowd, managers, and trainers in *Raging Bull* and in more recent films, such as *Gladiator* (2000) and *Cinderella Man* (2005).

In Wolfgang Petersen's *Das Boot*, an incredible sense of a 360-degree sound environment is created both inside the confined quarters of the German U-boat and in the sea around and above it. The quality of each sound is unique: a strumming guitar, a radio, a phonograph, men talking and laughing, clanging horns, engine noises—all seem to come from different sources and give us a sense of being there. *Das Boot* is a film full of listening. The crew first strains to hear the creaking of collapsing bulkheads on a ship they sink; then later, with the sub nestled on the bottom in hiding from a destroyer on the surface, the crew grows



FIGURE 8.2 Three-Dimensional Sound

Thanks to the three-dimensional sound effects in Dolby stereo, destroyers rumble menacingly overhead as we are “trapped” in the submarine of *Das Boot*, and even newer, more advanced sound technology enables us to feel, not just hear, the flying dragons over the ruins of London in *Reign of Fire*.



deathly quiet so as not to give away the sub’s position. Their silence emphasizes every noise, which the Dolby stereo locates with pinpoint accuracy. We hear the destroyer’s pinging sonar and every turn of its screw as it passes overhead, growing louder and then softer. As the sub sits on the bottom, at a great depth, we hear the rivets straining, then popping, and the sound of water spraying in as parts of the boat fail to withstand the tremendous pressure (Figure 8.2).

Ironically, despite the care lavished on crafting soundtracks these days, many filmgoers never fully experience them. Too many of the theaters in the United States (most of which are older and small suburban ones) simply do not have the capability to reproduce the quality or the dimensions of the sound recorded in the films they show. Still, according to *Newsweek*, this situation has been steadily “improving”:

Six years ago, only a few hundred theaters were equipped to play ear-blasting digital sound. Then “Jurassic Park” was offered to theaters on condition that they

upgrade their sound equipment. Today [most multiplex theaters] . . . can handle state-of-the-art digital. The result has been a kind of free market of noise, with filmmakers competing for sounds grabby enough to match their eye-popping visuals. . . . If we shiver with pleasure when remembering movie sounds from long ago—the newspapers rustling during the breakfast montage in “Citizen Kane,” or the recalled waltz music in “Shadow of a Doubt”—it isn’t because they were loud, it’s because they were pregnant with atmosphere and character.³

VISIBLE AND INVISIBLE SOUND

In the early days of the sound film, the emphasis was placed on recorded sound that was synchronized with the visual image. As the popular term *talking pictures* indicates, the audience of that time was fascinated by the reproduction of the human voice. Although sound effects were employed, they were generally limited to sounds that would naturally and realistically emanate from the images on the screen—that is, to **visible sounds**.

Although the dramatic power of the human voice and the sense of reality conveyed through sound effects certainly contributed new dimensions to the film art, the tight link between sound and image proved very confining, and filmmakers began to experiment with other uses of sound. They soon discovered that **invisible sound**, or sound emanating from sources *not* on the screen, could be used to extend the dimensions of film beyond what is seen and to achieve more powerful dramatic effects as well. Once they realized the unique and dynamic potential of invisible sound, they were able to free sound from its restricted role of simply accompanying the image. Invisible sounds now function in a highly expressive or even symbolic way as independent images, sometimes carrying as much significance as the visual image, and occasionally even more.

This creative use of invisible sound is important to the modern film for a variety of reasons. To begin with, many of the sounds around us in real life are invisible, simply because we find it unnecessary or impossible to look at their sources. Realizing this, filmmakers now employ sound as a separate storytelling element capable of providing information by itself. Sound used in this way complements the image instead of merely duplicating its effects. For example, if we hear the sound of a closing door, we can tell that someone has left the room even if we do not see an accompanying image. Thus, the camera is freed from what might be considered routine chores and can focus on the subject of the greatest significance. This is especially important when the emphasis is on reaction instead of action, when the camera leaves the face of the speaker to focus on the face of the listener.

In some cases invisible sound can have a more powerful effect alone than would be possible with an accompanying image. The human mind is equipped with an eye much more powerful than that of the camera. An effective sound



FIGURE 8.3 Off-Screen (Invisible) Sound In *M*, an early sound film, an inventive use of off-screen sound builds mystery and suspense as the child killer (Peter Lorre) announces his presence by whistling bits of a classical theme before he appears on the screen.

image can trigger a response in our imagination much stronger than any visual image. In the horror film, for example, invisible sounds can create a total, terror-charged atmosphere. Story elements that heighten and intensify our emotional response—the clank of chains, muffled footsteps on a creaking stair, a stifled scream, the opening of a creaking door, the howl of a wolf, or even unidentifiable sounds—are much more effective when the sources are *not* seen (Figure 8.3).

As demonstrated by the description of the scene from *On the Waterfront* given at the beginning of this chapter, invisible sounds (such as the sounds of city traffic, wind and waves, and the child's bicycle) are routinely used to intensify the filmgoer's sense of really being there. And by encircling the viewer with the natural sounds of the scene's immediate environment, the soundtrack suggests a reality beyond the limits of the visual frame. In some films, however, realistic sounds that naturally occur in the story's environment may be distracting for the audience and must be eliminated to maintain the film's focus. Sound editor Skip Lievsay has used this approach in his work on several films for director Spike Lee:

Quite often with Spike's movies we don't really have nominal city sounds. We don't have a lot of traffic, we do not have any sirens—unless you see police cars—no crying babies, no screaming, no shouting matches, because as much as they are a part of ordinary life in the city, they're too dramatic, and it's too distracting to have to sort out whether or not dramatically we want to hear those reminders of where we are. The relationship in Spike's movies is more between the people than between the people and their environment. All of his films have very specific scenes that are about the relationship between the people and the environment. In those scenes we use those sounds, but for the rest of the time we try not to use them at all.⁴

In comedy, sound can effectively substitute for the visual image and is usually used to depict comic catastrophes set up and made completely predictable through visual means. For example, in a scene picturing a crazy inventor trying out a homemade flying machine, the picture may show the launching and then let the soundtrack illustrate the predictable crash. A dual purpose is achieved here: Our imaginations intensify the humorous effect of the crash by forming their own picture of it, while the camera focuses on the reactions registered on the faces of the onlookers, which become the focal point of comic interest. Such use of sound also has clear practical benefits, considering the danger to the stuntman and the destruction of expensive properties that go along with showing the crash visually. If sound is used for the crash, the would-be pilot needs only to stagger on-screen, battered and dirty, draped in a few recognizable fragments of the plane.

Thus, sound effects achieve their most original and effective results not through simultaneous use with the visual image but as independent images, enhancing and enriching the picture rather than merely duplicating it.

POINTS OF VIEW IN SOUND

In a film shot from the **objective point of view** the characters and the action of a scene are perceived as if by a somewhat remote observer who looks calmly on the events without becoming emotionally or physically involved. Camera and microphone perceive the characters externally, from the sidelines, without stepping in to assume the role of participants. The **subjective point of view**, in contrast, is that of one who is intensely involved, either emotionally or physically, in the happenings on the screen. In the completely subjective view, camera and microphone become the eyes and ears of a character in the film; they see and hear exactly what that character sees and hears.

Because maintaining the subjective point of view consistently is difficult if not impossible in film, most directors choose to alternate between the two viewpoints, first establishing each situation clearly from an objective viewpoint, then cutting to a relatively brief subjective shot, and then repeating the same pattern. In each shot, the camera and the microphone *together* create the unified impression of a single viewpoint, so the volume and quality of the sound

vary in direct relationship to camera positioning. For example, sounds audible in a subjective close-up may not be audible in an objective long shot, and vice versa. This alternation between the objective and subjective viewpoints, and the tight link between camera and microphone, is further illustrated by the workman-with-air-hammer scene described in Chapter 5:

Establishing shot: Objective camera view from street corner, focusing on a workman using an air hammer in center of street (apparent distance: 50 to 75 feet). *Sound:* Loud chatter of air hammer, mingled with other street noises.

Cut to subjective view: Close-ups of air hammer and violently shaking lower arms and hands of workman, from workman's point of view. *Sound:* Hammer is almost deafening—no other sounds heard.

Cut back to objective camera: Heavy truck turns corner beyond workman, bears down on him at top speed. *Sound:* Loud clatter of air hammer, other street noises, rising sound of approaching truck.

Cut to subjective view: Close-up of air hammer and workman's hands as seen from his viewpoint. *Sound:* First only deafening sounds of air hammer, then a rising squeal of brakes mixed with hammer noise.

Quick cut to new subjective view: Front of truck closing quickly on camera from 10 feet away. *Sound:* Squeal of brakes louder, hammer stops, woman's voice screaming, cut short by sickening thud, followed by darkness and momentary silence.

Cut back to objective viewpoint (from street corner): Unconscious figure of workman in front of stopped truck. Curious crowd gathering into circle. *Sound:* Mixed jumble of panicked voices, street noises, ambulance siren in distance.

Sometimes the soundtrack is used to communicate what goes on in a character's mind. When that is the case, the link between camera and microphone is slightly different. The camera usually only suggests the subjective view by picturing the character's face in tight close-up and relies on the soundtrack to make the subjectivity of the viewpoint clear. Just as the image is in close-up, the sound is in close-up, too. In most cases the sound quality is distorted slightly to signal that the sounds being heard are not part of the natural scene but come from inside the character's mind. The camera also makes this distinction clear by focusing tightly on the character's eyes. The eyes loom large enough to fill the entire screen and thus become a window of the mind through which we read the character's inner state. The camera in such a sequence can remain in tight close-up while the soundtrack communicates the character's thoughts or sounds and voices from his or her memory. Or the sequence may merely act as a transition to a *visual* flashback. These sequences are frequently filmed in **soft focus** (a slight blurring of focus for effect), another clue to their subjective



FIGURE 8.4 The Eyes As a Window of the Mind In *The Dying Gaul*, writer/director Craig Lucas scrutinizes a suspense-filled love/hate triangle involving a wealthy, influential Hollywood couple (Campbell Scott and Patricia Clarkson) and an aspiring screenwriter (Peter Sarsgaard). At a crucial point in the narrative, while the wife is sitting at her laptop communicating electronically with her new friend, the writer, she experiences a shocking epiphany about her husband. Repeatedly, Lucas's camera snakes up and over the top of the computer, zooming in close on her revealing eyes. Silence intensifies the moment. Simultaneously, as the writer himself experiences a moving series of flashbacks including his recently deceased lover, his eyes are also explored in extreme close-up.

nature (Figure 8.4). These techniques are especially useful to filmmakers in presenting dreams. In *The Conversation*, when Francis Ford Coppola needs to indicate that the uptight Harry Caul (Gene Hackman) is having a feverish nightmare, the director begins with a tight shot of the character's sleeping face and then returns repeatedly to it as the dream progresses.

Unusual inner emotional states are also represented by the soundtrack through use of variations in volume, reverberation, or other distortions in the voices or natural sounds that the character hears. Physical reactions such as extreme shock, excitement, or even illness are sometimes suggested by drumbeats, which supposedly represent a high pulse rate or a pounding heart. Extreme amplification and distortion of natural sounds are also used to suggest a hysterical state of mind.

SPECIAL USES OF SOUND EFFECTS AND DIALOGUE

The sound formulas described above have been used over and over again. Innovative filmmakers have used sound effects and dialogue creatively for a variety of specialized purposes.