CHAPTER FLAF Shots and Shot Plans

Telling a story visually is the essence of cinematic art. Although the audience gets much of its information from dialogue, the experience of film and video captivates our brains with imagery, much as dreams do.

Ideally, pictures—not dialogue—should carry your story. In fact, at some film schools firstyear students have to do all their projects as silent movies, which forces them to think visually. Videomakers who fail to learn this lesson generally make movies and presentations that are little more than radio with pictures.

SHOT PLAN: Diagram showing camera setups and positions of actors required to capture all shots needed for a scene. *Shot plans* and storyboards are twin techniques that help you visualize how you're going to tell your story with a sequence of images. A storyboard shows how each shot will look on the screen. A shot plan lets you diagram individual shots to show camera setups and other technical choices you intend to make to get those shots.

Planning Your Shots

Planning your shots is only one part of a larger story development process that begins with your script or presentation outline, and carries through to the decisions you make in the editing room. We surveyed the basics of writing a script in Chapter 2. Continuing at that overview level, this chapter follows through on translating your story into a logical sequence of pictures. This is a creative process built upon practices in film and television craft that have evolved over the last century.



We treat the subject of shots and shot design in the video Ten Ways to Shoot a Chair (**Figure 5.1**).



Figure 5.1 Our survey of cinematography is set in a fictional classroom where Professor Hightower instructs Holly, a young student, on the techniques of shot size, lens selection, camera angle, and camera movement.

Turning Theory into Pictures

Shot design involves several disciplines:

- **Art.** Different types of shots affect the artistic, perceptual, and emotional impression you make on an audience.
- **Technique.** Your knowledge of the optical characteristics of various lenses and the ways camcorders capture images will affect how you design your story.
- **Organization.** Your shot plan affects how you tackle the production job and who you select for your crew, as well as how you develop your shooting schedule, stage your setups, and direct camera operations.

The principles of shot design and the techniques of drawing shot plans apply to all types of shooting, whether news-style or film-style. Granted, in news-style shooting you'll probably have little or no time to make formal plans, but you'll get better results if you know how to design film-style shots and setups well in advance of the first shooting day.

From Storyboard to Shot List

Accomplished videomakers develop distinctive styles, not only in terms of aesthetics (how shots look and how stories are told) but also in how they apply technical aspects of cinematography and directing to their work.

One important way videomakers differ from each other in their approaches to shot planning is the extent to which they rely on storyboards (**Figure 5.2**). As discussed in Chapter 2, a storyboard is a preproduction planning tool that arranges sequences of shots as thumbnail sketches on a page. (See **Figure 2.5** in Chapter 2.)



Figure 5.2 (Top) Here's a storyboard frame created with Storyboard Quick. You can manipulate pre-drawn characters and position them on drawn backgrounds or, as shown here, against imported location photos. (Bottom) Compare with the corresponding scene from *When Harried Met Sally*.

Drawing Stick Figures? Try Storyboard Quick

Director Tim Burton would probably rather draw a storyboard than write a script, since he was trained originally as an animator. But for those of us who aren't skilled at thinking with a pencil this way, there's PowerProduction Software's Storyboard Quick. This program is essentially a clip-art manipulation tool designed specifically for generating and printing finished-looking storyboards. Storyboard Quick is available for both Macs and PCs. (For more information on this product, surf to

www.storyboardartist.com.)

The purpose of a storyboard is to give you a sense of whether your shots work for visual storytelling. Continuity, conflict, and character ideas should come across at a glance, without having to read the dialogue (which is usually written with key actions summarized underneath each storyboard frame).

SHOT LIST: List of individual shots, including settings, subjects, and key actions.

One type of *shot list* is simply a written summary of the frames in your storyboard, recapping types of shots, settings, subjects, and key actions for each scene (**Figure 5.3**).

Shot List for "When Harried Met Sally" Scene 3							
Shot	Туре	Description					
1	Wide Master favoring Josh	Josh talks to Atwater, types, makes phone call, then talks to Phil. Phil enters cubicle					
2	Med Josh	Same as above. When Phil enters, reframe for two shot					
3	CU Josh	Clean single on Josh for entire scene					
4	CU Atwater (reverse of shot 3)	Atwater enters and exits cubicle (let him into and out of frame)					
5	CU Phil (reverse of shot 3)	Phil stands at door of cubicle, then enters (let him into and out of frame)					
6	Insert of keyboard	Tight CU of keyboard as Josh types					
7	Insert of monitor	Tight CU of screen as error messages appear					

Figure 5.3 Developing a shot list is an essential planning step, whether you storyboard your scenes or not. Eventually you'll group your shots by setup and in the order you intend to get them—not in story sequence.

If you don't want to go to the time and effort of developing a storyboard, you should at least make simple shot-plan diagrams, which is another way to develop shot lists. Some directors—so green they don't know better or so experienced they can do without them—don't use storyboards or shot plans at all, but work directly from a script and visualize it in their heads. That's like building a house without a set of blueprints. Such an approach might work for a one-person runner-and-gunner. But when you need to communicate your vision to some other member of your crew, you'll wish you had it all on paper.

This chapter follows a logical progression: script to storyboard, to shot plan, to shot list. However, you don't necessarily need a storyboard *and* a shot plan. For example, if you're shooting an action movie, you'd be wise to use a storyboard to help you visualize your shots before you think about sets or locations. But if your video involves people talking in a room, and it relies heavily on dialogue, first seeing the physical space and its props can be more important than storyboarding ahead of time. In these situations, you might first draw up a shot plan—concentrating on placement of actors and camera in the space—then use that shot plan to produce your shot list.

Structured vs. Improvisational Approaches

The extent to which you can plan your shots depends on how much experimentation you intend to encourage on the set. Sticking closely to a preconceived shot plan is a *structured approach*, the way Alfred Hitchcock worked, for example, or how Steven Spielberg directs. Permitting variations on the plan, or starting a shoot with no plan at all, is an *improvisational approach*; Francis Ford Coppola and Robert Altman often work this way.

STRUCTURED APPROACH: Adhering strictly to a storyboard or shot plan.

IMPROVISATIONAL APPROACH: Permitting experimentation on the set in terms of actors' performances and/or shot design.

Steven Spielberg is renowned in the industry for his highly structured approach. Once a script is approved, he has a storyboard created for every shot of every scene in the script. And when he's shooting, he goes for the shots in the storyboard—frame for frame, if possible.

Robert Altman works at the other extreme. He's famous for encouraging improvisation and experimentation on the set. In consultation with his DP, he chooses a camera setup that will capture the desired action. But the framing of shots, the movement of actors, the exact lines they will say, the number and variety of takes—these are all subject to change, depending on the chemistry of the moment. If you're a relatively inexperienced moviemaker, you'll find the discipline and paperwork of the structured approach can help keep you on budget and on schedule. If you're a longtime director who knows how to cope with the unpredictability of the production process, you stand a better chance of getting away with an improvisational shooting style.

In any case, for more information on the practical impacts of these antithetical approaches in preproduction planning, see "Casting and Improvisation for DV" in Chapter 8.

TELLING STORIES WITH PICTURES

Before you get involved with designing individual shots, there are some overall principles of visual storytelling you need to think about.

Don't Forget Establishing Shots

Planning your shots will succeed if you think about how they'll flow together in the edit. Transitions between scenes are particularly important.

ESTABLISHING SHOT: Image that introduces the audience to a new setting in which the next action takes place.

For example, when you begin a new scene, the audience must recognize and understand the new setting. You need to provide a shot to establish the new location, usually called an *establishing shot*. It might simply be a shot of the building a character is about to enter.

So when you're planning your shots, be sure to include transitions. When you're editing, you may find that a transitional shot isn't necessary—it may be possible to cut directly from one situation to another without confusing the audience. But it's good to have the option.

REALITY CHECK: It's the mark of a polished screenwriter to anticipate transitions in the script, even if the director or editor eventually might choose some other technique to bridge scenes. The idea is to carry the eye—and the interest—of the audience from one scene to the next. A really slick transition permits an actor to step from one time and place into another, as if stepping into the next room. For example, in one scene, we see an arrested suspect being ushered into the rear door of a squad car. As the officer closes the door, we cut to the barred door of a jail cell slamming shut behind the prisoner.

Pay Attention to Continuity

Continuity is visual common sense, and it refers to how shots match up with one another when they are assembled. An assembled sequence should give a unified, convincing impression of uninterrupted time, space, and action. For example, showing an actor as left-handed in one scene and right-handed in another is a break in continuity. If she wears a purple dress in one shot and yellow pants in the next shot (of the same scene), that's another break. Ultimately, continuity is an editing issue, but you can't get it right unless you plan your shots with the concept in mind.

NOTE: As with other aesthetic aspects of shot design, moviemakers have been known to disagree on the importance of maintaining continuity. To paraphrase director Oliver Stone (who used stronger language): "Continuity is for people with no guts."

On a fully crewed movie set, a person called a *script supervisor* watches each take, makes notes on problematic details (such as non-matching clothing), and advises the director of possible breaks in continuity. If your production can't afford a full-time script supervisor, continuity should be the concern of the director or camera operator.

There are three key principles of continuity to keep in mind when designing your shots.

Don't Cross the Stage Line

SCRIPT SUPERVISOR: Production staff member who observes shooting to assure compliance with the script and avoid breaks in continuity; also provides the editor with shot-by-shot script notes and the director's preferred takes.

STAGE LINE: Imaginary line between two actors on a set; setups should not cross the stage line.

The stage line is an imaginary line drawn between two actors on the set (**Figure 5.4**). To assure visual continuity, make sure all your camera setups are on the same side of the line, often called "the axis" in filmmaking. If you fail to follow this rule (also known as "the 180 degree rule"), characters may seem to swap positions on screen during the same scene, which can be disorienting to your audience. If you stay on the same side of the stage line, Adam will always be on the left side of the screen and Amanda will always be on the right, no matter how you frame them. This is a little hard to visualize if you're new to the concept, but experienced moviemakers know how important it is.

Figuring out the stage-line rule can become complex if the scene includes three or more actors. In this situation, there are effectively multiple stage lines, one between each pair of actors. One simplified approach is to find a central element—a table, for example—and shoot the scene from just two setups, one on either side of the table, respecting a single stage line drawn through the table's center.

But ultimately, there aren't any hard and fast rules for handling the stage line in multiplecharacter scenes. Your best guideline is your own intuitive sense of continuity, gained from watching movies all your life. Here's our best advice, which is more of a guideline than a strict rule: Actors should always appear to be looking toward the person they're talking to, even if that person isn't in the frame. If the listener is offscreen, decide where he is in relation to the speaker and maintain that imaginary stage line. If the actors' eye contact doesn't seem logical, find an alternate setup. This is where a detailed storyboard helps, especially as you discuss the problem with the actors and the DP.



Figure 5.4 The stage line connects two actors in a scene and divides the playing area in half. Plan to make all your camera setups on one side of the line or the other. Directors with experience in live theater can think of the stage line as marking the edge of a proscenium stage. The audience can't go behind the footlights. (The symbol that looks like the top view of a parrot is the filmmaker's convention for the subject: The "wings" are arms and the "beak" is the nose, indicating the direction the subject is facing.)

REALITY CHECK: If you've ever wondered why people in movies or on television only sit around three sides of a table, it's to make working with the stage line easier. If you use all four sides, at least one of the actors will always have his back to the audience. And you'd have to shoot the scene from more angles, further complicating the stage-line problem.

Some moviemakers—disciples of Oliver Stone, perhaps—deliberately experiment with crossing the stage line. But be prepared for a challenge in the editing room if you decide to try it.

Respect Screen Direction

Screen direction refers to how subjects move within the two-dimensional space of the frame. Stated as a basic rule, respecting continuity of screen direction requires maintaining a

RULE OF SCREEN DIRECTION: Motion of actors within the frame must preserve continuity from one shot to the next. consistent point of view and frame of reference for the audience. For example, if a character is walking from left to right in the first shot of a sequence, and you cut away for the second shot, when you return to the character in shot three, he should still be walking left to right and not right to left.

Another illustration: Think of an actor walking down the sidewalk. Her goal is the front door of an apartment building, but that door isn't shown in the first shot. In the first shot, we see her walking from right to left. In the next shot, we see her friend waiting expectantly for her at the building entrance. To preserve continuity of screen direction, the friend must be looking to screen right, expecting her approach. For best effect, the build-ing entrance should be on the *left* side of the frame, to establish it as the ultimate goal of

AIR: Cinematographer's term for empty space within the composition of a shot.

the walker's journey from right to left. Also, compose the shot so that most of the *air*, or empty space in the frame, is in front of the expectant friend. The audience will get the idea that the walker will enter the frame there.

If you want to show the actor approaching the building entrance in a series of shots, you must always show her moving from right to left. The only way to change screen direction without confusing the audience is to interpose a neutral shot—one with the actor coming right at the camera (or moving directly away from it). Then you can show her walking left to right in the next shot. However, if you now cut back to the friend waiting at the entrance, he must be looking to screen left.

Some aspects of screen direction are rooted more in moviemaking convention than in reality. For example, if you're cutting back and forth between two sides of a telephone conversation, it will look more natural if one character holds the phone to her left ear, and the other to his right.

As with other principles of continuity, some filmmakers deliberately violate screen direction. Don't risk confusing your audience this way—at least, not on your *first* project.

Avoid Time-Dependent Elements (The Problem of the Burning Cigarette)

Sometimes the best way to fix continuity problems is to avoid them in the first place. A perfect example is the so-called burning cigarette problem, which refers to the difficulty of preserving continuity when you're shooting any time-dependent process that you can't control—a burning cigarette, ice cream melting, or a slow leak in a tire that's going flat. For instance, if the actor's cigarette is burned down to the butt in the first shot, it will be a break in continuity to see him holding a freshly lit one in the next, unless you interpose a shot of him lighting up a new smoke.

Naturally, there are ways of dealing with these problems. A production assistant can start several cigarettes burning at various times, and hand one of appropriate length to the actor just before a take. You can use multiple dishes of ice cream, kept cold offscreen at various stages of thawing. You can repeatedly inflate the sagging tire to match previous takes.

However, unless the effect is essential to your story, a much better fix is to simply eliminate problem elements from the scene before they become a problem! When you're planning your shots, look out for elements that might create continuity problems and try to replace them with less complicated alternatives.

DIRECT AUDIENCE ATTENTION

When you're designing your shots, you can employ various techniques to help direct the audience's attention.

Color

All things being equal, viewers will focus on the brightest (or most unusual) color in the shot. For instance, you could put your main character in a pink top and dress everyone else in beige. Similarly, in a sea of white hats the audience will watch the black one. Or you could make the clue on a cluttered coffee table big, shiny, and orange.

Videographers find that color is a particularly good way to draw attention, especially since the contrast range of video is relatively narrow, and simply increasing the illumination on your subject to draw attention isn't always an option. (For more information on using color in coordination with your lighting plan, see "Use Color to Direct the Eye" in Chapter 6.)

Faces and Eyes

From birth, human beings are conditioned to look into and study other people's faces. It's

EYE LINE: Imaginary line connecting two actors' eyes as they look at one another.

no different in the movies. Actors' faces are the most interesting objects in any shot, the eyes most of all. (For information on matching *eye lines* in closeups, see "Over-the-Shoulder Shot" later in this chapter.)

Focus

An effective way to draw audience attention is by camera focus, particularly if the camera changes focus (or *racks focus*) during the shot. This is a common technique in film, but selective focus is more difficult to achieve in video because of video's greater depth of field. (For more information, see the "Making Video Look Like Film" sidebar in Chapter 3.)

RACK FOCUS: Named for the flat gear called a "rack" (half of the rack-and-pinion focusing mechanism on old-style movie cameras), to change focus during a shot.

TIP: To optimize the effect of selective focus in video, try using a telephoto lens with a wide aperture in dim light. You can also use a camera adapter such as the P+S Technik Pro35Digital Image Converter, which increases the effective target size of the CCD to about the size of a 35mm frame, permitting use of motion-picture lenses. For more information, surf to www.pstechnik.de.

Moving Actor or Object

The audience will follow whomever or whatever happens to be moving in a shot. If several objects are moving in a frame, the audience will be drawn to the one moving the fastest. And as we've mentioned earlier in this chapter, some of your best editing choices join two disparate actions that seem to blend into one continuous movement across the cut. In effect, by following the action, the viewer's interest is being pulled into the new scene.

Exceptional Object

Unique physical characteristics of objects—size, shape, or texture—can make them stand out. The audience will quickly spot a vintage car in the midst of a traffic jam, even if it isn't in the center of the frame.

TEN WAYS TO SHOOT A CHAIR

From a creative viewpoint there are countless ways to shoot a chair—or any other subject but from a technical viewpoint we'll concentrate on just ten (**Table 5.1**).

The ten basic ways to design a shot derive from varying framing, lens selection, camera angle, and camera movement. The creativity of cinematography and the impact of visual storytelling come into play when you apply these factors in different combinations to manipulate audience perception and emotions.

You can use any combination of framing, lens selection, camera angle, and camera movement to design a shot. Each of these variables has a different effect on the way the audience perceives the subject or action.

Framing (Size of Subject)	Lens Selection (Focal Length)	Camera Angle
Closeup	Wide angle	Low angle
Medium shot	Normal	Neutral
Long shot	Telephoto	High angle
Camera movement	Camera movement	Camera movement

Table 5.1	Variable	Factors in	Shot	Composition
	vanuoic	ructors n	1 51100	composition

TYPES OF SHOTS

Shots can be classified in many ways, depending on their function in the visual storytelling process. For instance, a given shot might be a *two-shot*, a dolly shot, and an establishing shot—all at the same time.

Size of Subject

The first variable in classifying shots is the apparent size of the subject of the shot.

Closeup

The *closeup* (*CU*) generally frames an actor's head and shoulders, emphasizing her facial expressions and emotions (**Figure 5.5**). Variations include a *medium closeup* (*MCU*), which is a bit wider, and an *extreme closeup* (*ECU*), which shows only a portion of the face, cutting off either the chin or the forehead.

The traditional way to frame a closeup is to leave some space above the actor's head. But in a variation named for the studio that specialized in promoting star quality, the *Warner's closeup* is so tight, the frame line intersects the top of the actor's head.

Medium Shot

A *medium shot (MS)* shows the actor from the waist up (**Figure 5.6**). A medium shot is the perfect choice for showing upper-body movement, such as gestures in dialogue scenes, or for showing two or more actors having a conversation.

The closeup and the medium shot are most frequently used to frame a scene in visual storytelling.

Long Shot

A *long shot (LS)* shows the actor's entire body along with a good deal of her environment (**Figure 5.7**). Use long shots to emphasize action (running or combat, for example), to frame groups of people, and to orient the audience to the physical space of a set or location. A variation called the *extreme long shot (ELS)* looks at the subject from very far away, as if the viewer were spying unobserved from a great distance.



Figure 5.5 The closeup is a mainstay of moviemaking since it emphasizes emotion in the face. If the scene includes vigorous body movement, you'll either have to move the camera to follow the action or go to a wider shot.



Figure 5.6 The medium shot is appropriate for showing dialogue, gestures, and body language, provided that there isn't a lot of action in the scene.

Focal Length

Another way of classifying shots is by focal length, which is determined by which lens you select. No matter how you frame your shot or how big your subjects appear in it, you have a variety of choices for focal length.

Wide Angle

A wide-angle lens captures a wider field of view than the human eye (**Figure 5.8**). It offers great depth of field—almost everything in the shot, near and far, will be in focus. And it exaggerates distances so objects appear farther away than they really are.

You can use a wide-angle lens to distort the facial features of your subject by shooting her in closeup (**Figure 5.9**). Some comedy directors think wide-angle shots of dialogue scenes heighten the sense of fun.

Telephoto

Shots made with a telephoto lens magnify the subject, bringing it closer and flattening the image. Telephoto shots have shallow depth of field, which usually means that if the subject is in focus, the background will be soft, or blurred. A telephoto lens minimizes facial contours and can flatter an actor's face in closeup (**Figure 5.10**).



Figure 5.7 The long shot is commonly used for establishing shots and opening shots of scenes. It shows body-length views of the actors and gives the audience a chance to see a location. You might start a speech in a long shot, but these shots aren't very good for filming dialogue; you'll want to cut to a tighter shot for most of the actor's speech.



Figure 5.8 A shot done with a wide-angle lens is sometimes called a wide shot (WS).



Figure 5.9 A wide-angle closeup is seldom flattering to the face and forces you to place the camera so close the actors may feel uncomfortable. Unless you are going for this odd effect, use a longer lens and move the camera back.



Figure 5.10 If you're going for a closeup of a star and want to make her look as good as possible, use a long lens. A telephoto lens compresses the contours of the face in a pleasing way. Add a diffusion filter to eliminate freckles and small blemishes.

Normal

A normal lens approximates how a scene would actually look to the viewer's unaided eye.

Varying the Camera Angle

A third set of shot descriptions refers to the angle of the camera in relation to the subject. You can use one of these camera angles in combination with any subject size and any lens choice. Camera angle adds an emotional charge to a shot and can make even a dull medium shot taken with a normal lens seem unusual and striking. Here are your options.

Low Angle

Looking up at the subject from a camera position near the floor, a low camera angle makes the subject loom over the viewer (**Figure 5.11**). The effect can be one of power and domination.

Neutral Angle

A shot at eye level is a neutral angle and gives no particular emotional perspective to our view of the subject.

High Angle

A high camera angle looks down on the subject from above (**Figure 5.12**). The effect exalts the audience over the subject, diminishing the actor's power or importance. You'll often see a high-angle long shot used at the conclusion of a movie as a kind of God's-eye-view, implying a larger perspective on the human events we've just witnessed.



Figure 5.11 The effect of a low-angle shot is to make a person look powerful or domineering.



Figure 5.12 A high-angle shot can make a person seem weak or powerless.

Moving the Camera

You can add camera movements to any shot we've discussed so far. Camera movements can be complex, involving many different motions, changes of speed, and changes of direction in the same shot. High-budget productions sometimes use computer controlled camera mounts for special-effects work so that complicated movements will be smooth, repeatable, and error free.

Pan

In this move, the camera is mounted on a tripod and rotates from side to side—left to right, or right to left—on the same level. You could use panning to survey the landscape in a long shot or to follow the action in a tennis game (**Figure 5.13**).

Tilt

Again, the camera is mounted on a tripod, but this time it tilts up or down. You might tilt to follow the flight of a rocket, capture the descent of a monkey from a tree, or progressively reveal the height of a building (**Figure 5.14**).



Figure 5.13 In a panning shot, the camera swivels from side to side on the tripod head, staying in the same horizontal plane.



Figure 5.14 Tilting the camera swivels it upward or downward on the head, staying in the same vertical plane.

Zoom

In a zoom, the camera doesn't actually move, it just seems to move. A zoom is a lens adjust-

ment that changes the optics from a wide-angle to a narrow-angle configuration, or vice versa, during the shot, thereby increasing or decreasing the magnification of the subject. The view with increased magnification is a *telephoto shot*.

TELEPHOTO SHOT: Done with a long lens, a narrow-angle closeup taken from a great distance.

PUSH IN: Zoom in.

PULL OUT: Zoom out.

Another term for zooming in is *pushing in*. The opposite move is called *pulling out* (**Figure 5.15**).

REALITY CHECK: You can push in on the lens between takes to quickly set up a closeup without changing camera positions. This is a time-honored low-budget technique, especially in episodic television, where tight shooting schedules are the norm. Perhaps because of its extensive use on TV, movie directors and DPs tend to disapprove of the practice. Yes, it's a quick and dirty alternative to doing a new setup, but at the end of a long shooting day when light is fading fast, we wouldn't hesitate to use it to get one more precious shot.



Figure 5.15 In a zoom shot, the camera position doesn't change. The operator adjusts the lens continuously from wide (W) to telephoto (T) when zooming in, and from T to W when zooming out.

Dolly

Named for a camera mount that rolls on tires or tracks, a dolly shot wheels the camera in toward the subject (a *dolly in*) or away from the subject (a *dolly out*). Dollying in on an actor has the same effect as walking up to the person: it increases the sense of intimacy. Dollying out produces a sense of withdrawal, even alienation (**Figure 5.16**).

Truck

Moving the camera parallel to a moving subject while keeping a constant distance is called *trucking*. A common use of trucking is to keep up with an actor as she walks or runs (**Figure 5.17**).

Crane

Named for the piece of equipment that raises or lowers the camera, a *crane* shot may also require panning, tilting, or zooming to keep the subject framed as the camera goes up,

CRANE: Counterweighted lever for raising or lowering a camera.

down, forward, or back. An upward-moving crane shot gives the audience a sense of soaring, downward movement of swooping or invasion.



Figure 5.16 The camera rolls toward the subject when dollying in, away when dollying out.



Figure 5.17 In a trucking shot, the camera rolls parallel to the actor.

Some camera dollies have a mechanical *boom arm* that can be used to create a small-scale version of a crane shot. (In general, a crane can extend upward to about 15 feet, a boom arm about six.) Using the boom arm of the dolly is referred to as *booming up* or *booming down* (**Figure 5.18**).

BOOM ARM: Dolly-mounted crane.

BOOMING: Raising (booming up) or lowering (booming down) the camera on a boom arm; crane shot.



Figure 5.18 In a crane shot, the camera is raised or lowered. Other adjustments, such as tilting, will probably be needed to keep the subject in the frame.

Dolly Counter-Zoom

The complex camera move called a *dolly counter-zoom* (best known from Alfred Hitchcock's *Vertigo*) is a favorite of student filmmakers because its effect can be thrilling, and it's fun to do. But it's not easy to do well!

DOLLY COUNTER-ZOOM: Zooming out while dollying in, or zooming in while dollying out.

You can execute the dolly counter-zoom in one of two ways:

- Dolly in on the subject while zooming out.
- Dolly out while zooming in.

Both methods use a zoom lens to change focal length while shooting—and while moving the camera.

The first method changes from a telephoto closeup to a wide-angle closeup. The effect is to signal a character having a frightening revelation. It's a staple of horror movies (accompanied by the all-too-familiar *reek-reek effect* on the soundtrack).

The second method—moving out while zooming in—changes from a wide-angle closeup to a telephoto closeup. The effect is to give the sense that the world is closing in on a character—a criminal cowering on hearing the jury's verdict, for example.

Executing a smooth dolly counter-zoom can be challenging because the shot won't be convincing or effective unless the dolly and zoom movements occur at exactly the same time, at exactly the same rate, in perfect coordination.

The dolly counter-zoom has an intoxicating effect on aspiring DPs and camera operators, but if it doesn't work, you'll be smart to cut it in the editing room. As you might imagine, the sure sign of a rookie is a dolly counter-zoom that has no reason for being there other than the moviemaker's urge to try it.

Hollywood movies make extensive use of camera movement, including crane and dolly shots. These kinds of setups can be expensive, considering the cost of hiring and operating a crane, or the time and labor involved in laying a track for a dolly. Camera movement is another hallmark of that film-look quality audiences expect—along with artistic lighting, selective focus, rich audio, and lots of other high-priced effects.

REALITY CHECK: You can do camera moves even if you don't have the budget to rent a dolly or crane. Go handheld, use hand-carried mounts, or improvise with a shopping cart, child's wagon, skateboard, or even sit the camera operator on a blanket and pull him along a slick floor. For more information on doing these shots successfully, see "Moving the Camera During a Shot" in Chapter 9.

USING SHOTS AS STORYTELLING ELEMENTS

So far in this chapter, we've discussed the technical categorization of shots, touching only briefly on how you might use them to tell stories. Now let's look at shots from a functional point of view.

Certain kinds of shots and combinations of shots have become filmmaking traditions (or clichés): the flattering closeup shot with a telephoto lens at neutral angle, for example, or the scene-opening combo of long-shot, medium-shot, closeup. But you don't have to be constrained by those choices just because they are mainstays of both talented directors and studio hacks.

In fact, you can apply any set of technical choices we've discussed to any of the following storytelling functions.

Establishing Shot

An establishing shot introduces the audience to a new setting. Traditionally, it would be an LS or ELS of the geographic location where the scene will take place. But if the scene is taking place in a diner, the establishing shot could just as easily be an ECU of a waiter's hand pouring a cup of coffee.

Master Shot

In the traditional approach to scene *coverage*, a *master shot* is an MS or LS of an entire scene, from beginning to end. If the editor uses it to open the scene, it can establish the actors in the setting. Inserted elsewhere in a sequence, it gives the editor a reliable alternative to closeup dialogue shots.

COVERAGE: A complete enough set of shots for a scene so the editor has every angle she needs to make the edited scene work.

MASTER SHOT: Continuous take of an entire scene, showing all the actors.

Two-Shot

A two-shot simply means that two actors are included in the frame; two-shots are generally framed as MS. If the scene involves only the two characters, a two-shot could be a master. Or, a two-shot could be a tighter shot of a wider master, to draw the audience into the emotional conflict between two characters in a scene involving many people.

Over-the-Shoulder Shot

This shot centers one actor in the frame as viewed *over the shoulder (OTS)* of another. In a traditional approach, it's a closeup of the speaker's upper torso, including the listener's shoulder and the side of her head. This framing lets you show some of the listener's body

OVER-THE-SHOULDER: Close up of one character, shot from behind another character in the scene; OTS.

movements as she reacts to what's being said—nodding her head, for example. But it's just as valid for the person facing the camera to be the listener. His silent reactions to the speaker can be much more interesting to the audience.

TIP: An over-the-shoulder shot can use a stand-in, or double, for a subject who's unavailable. When you shoot over the double's shoulder, only a portion of the back of his head will appear in the frame—eliminating the need for close physical resemblance with the original subject. You can dub in the subject's dialogue later without having to sync it because viewers can't see the double's lips move. However, if the shot is done badly—if the angle is wrong or if the double's motions appear unmotivated—the audience will become aware that the double is just standing there bobbing her head rather than speaking lines.

Reverse Angle

In a pair of shots, if the second shot appears to view the scene from a direction more or less opposite to the first shot, it's a reverse angle. In most cases, the reverse shouldn't be *exactly* reverse—a 180-degree reverse would cross the stage line between the actors. Instead, a reverse is any complementary shot from a nearly opposite direction that doesn't cross the stage line. So, if the first shot were a CU on Amanda shooting over Adam's right shoulder, the matching reverse would be a CU on Adam, looking over Amanda's *left* shoulder. (Shooting over her right shoulder would commit the error of crossing the stage line.)

INTERCUT: Insert one shot into another; also, cutting back and forth repeatedly from one shot to another. In choosing camera angles for reverse angles—as well as for *intercut* closeups in general—be guided by the eye line between the actors. If you shoot Amanda, a tall actor, looking down at Adam in one shot, the camera in the reverse angle should be lower near Adam's eye level—so he's looking up at Amanda. The cam-

era should also be just to one side of the eye line, so the actors appear to be looking into each other's eyes, not into the camera lens. (An exception to this rule: a matching pair of ECU shots with the actors looking directly into the lens, as if at each other, is a technique directors like Steven Soderbergh have used to heighten the emotional intensity of a confrontation scene.) **REALITY CHECK:** The correct focus of attention in an OTS shot is just a few inches to one side of the camera lens. Rookie actors sometimes make the mistake of looking directly into the camera, but the director or anyone watching the monitor will catch it. A subtler problem all but the most experienced actors can have is breaking attention and glancing away, however briefly, or blinking during a take. (Blinking is particularly hard to see on the set.) The effect on the audience is a jarring break in concentration, making the actor come across as weak or indecisive. For more information on the subject of actors' sight lines, see Michael Caine's book and companion video, Acting in Film.

SINGLE: Shot that frames one actor; or "clean single."

A reverse that follows a CU on one character and shows the CU of the other, is a matching closeup, or matching single.

Single

A single shows just one actor in the frame, usually (but not necessarily) in closeup.

In a variation on the single—the so-called *dirty single*—a small portion of the listener's body can appear. This might be a hand, or the side of the face, but not quite as much as you'd see in a conventional over-the-shoulder shot. The dirty single has become common in the small-screen television era because it lets you take a closer look, to see some physical interaction between actors. You might use a dirty single if the listener's hand motion is significant to the story—picking up a knife, say, as the other actor threatens her.

To distinguish it from the dirty variation, a single is sometimes called a *clean single*.



REALITY CHECK: From a practical standpoint, it can be tempting to shoot a clean single without the other actor being present at all-which might conserve the offscreen actor's labor hours but leaves the on-camera actor delivering lines to a stand-in, crew member, or empty space—none of which are likely to motivate an interesting performance.

Insert

The *insert* is a shot that's briefly intercut with a longer scene to show an object or some

INSERT: Shot briefly intercut with a longer scene, usually showing some meaningful detail.

other meaningful detail. Traditionally it's a CU or ECU. An example would be a CU of a newspaper headline inserted into a dialogue scene in which two characters are discussing the news.



REALITY CHECK: Tight inserts don't show surroundings of a particular location or set. Wise production managers take advantage of this and often schedule all inserts at the end of a production or at some other convenient time, usually done by a separate, less senior crew called the second unit. Studios sometimes shoot all their inserts on separate, smaller sound stages called insert stages.

Cutaway

A *cutaway* is any shot that takes the audience out of a scene, usually to add information. For example, we see a man hurry offscreen and then cut away to his wife in another location glancing anxiously at her watch. Or during a shot of two characters walking on the beach you might cut away to a shot of a seagull floating over the waves. Although using a cutaway is ultimately an editing decision, you won't have the clips to work with if you don't plan the shots in advance.

SECOND UNIT: Often used on large-scale movie productions; auxiliary director and location crew that may shoot concurrently with the main production to save time and expense by capturing establishing shots, backgrounds, inserts, and so on.

INSERT STAGE: Small sound stage on a movie lot used primarily to shoot inserts, or tight closeups of props or gestures; small stage in television studio used for remote interviews and field reporting, typically with the local cityscape added electronically in the background.

CUTAWAY: Any shot that interrupts or follows a scene, relieves its tension, or comments on it.

REALITY CHECK: Stock footage, or clips from a film or video archive, can be an economical source of cutaways, particularly if the duration of the shot is so short the audience doesn't have a chance to study it for details that might not match.

POV

A point-of-view (POV) shot shows us what one character sees and helps the audience identify with him. In most other types of shots, the actors must stay focused on each other, not at the camera. But in the matching reverse of a POV, the other actor must look straight into

POV (POINT OF VIEW): Shot showing what one character is seeing.

the lens. One use of the POV is a horror-movie stereotype-to show the concealed monster's view of the unwitting victim. (At screenings, cinema buffs have been known to yell, "Watch out! There's a camera operator in the bushes!")

Reaction

A reaction shot shows an actor's response to something he's just heard or seen. Like the cutaway, the juxtaposition of a reaction shot is an editing choice, but if your coverage only includes talking heads, you won't have the option.

REACTION SHOT: A shot that shows an actor's facial expression or body language in response to some speech or action.

REALITY CHECK: When shooting closeups for an emotional dialogue scene, directors should pay particular attention to the performance the actor is giving in the spaces between the lines—when listening to the offscreen actor. These reactions are often more important to the emotional truth of a character than the lines of dialogue, and these reaction shots can be used in the edit to heighten the scene's impact. For more information on getting good reaction shots, see "Working with Actors" in Chapter 9.

BLOCKING THE ACTION

Blocking is a term inherited from live theater to describe an actor's movements on stage. Your ideas about blocking a scene will have a big impact on camera placement and other elements of your shot plan.

BLOCKING: An actor's movements within a scene.

Naturally, you want to limit the actors' movements so they won't stray beyond the boundaries of the set or move into areas that would be out of focus or poorly lit. At the same time, effective blocking is every bit as important—sometimes more so—than dialogue in conveying information and emotion to the audience.

REALITY CHECK: Screenwriting instructors talk about the notion of "character" as the totality of a person's actions. In a theatrical sense, blocking defines action within a playing area, or set. Yes, dialogue contributes to character. However, as in life, audiences are convinced more by what people actually do than by what they say they're going to do.

Blocking should be repeatable from one take to another, or your shots may fail to maintain continuity when you cut them together. Also, if there's too much variation in blocking, you will never know if you have captured the scene the way you visualized it in your storyboard and shot plan. Improvisational directors who permit spontaneous variations in actors' blocking must be prepared to spend more time in the edit finding ways to preserve continuity in the assembled takes.



Input from the Rehearsal Process

Filmmakers who favor improvisational methods often criticize structured shootists for a lack of spontaneity due to blocking that's worked out in advance.

Improvisational directors trust their actors to figure out where their bodies want to go in the heat of the moment. The resulting action may well be more realistic, more inventive, and more interesting to watch than the preconceived idea in a script or storyboard.

But waiting until you get on the set to figure out the blocking is risky. Some directors get away with it, but it takes a fair amount of experience (and luck) to set camera and lights if you don't know exactly where the actors are going to be.

A good compromise is to allow plenty of time for rehearsals. Hold preproduction sessions to read through the scene with actors. Let them play it out, and watch how they naturally want to move. Then, after rehearsal (but well before shoot day), you can design your shots and draw up your shot plan with its blocking informed by the rehearsal process.

DRAWING SHOT PLANS

All the elements we've discussed in this chapter culminate in a shot plan—a document that diagrams your camera setups, blocking of actors, and shots for every scene (Figure 5.19).

One important reason to draw up a shot plan for every scene is to make sure you will actually get the coverage you need. And the purpose of coverage, as noted earlier, is to assure that you have enough material to assemble the scene in the editing room without gaps in the action or breaks in the continuity. Remember, when you're working film style, you'll be shooting out of sequence. In the frenzy of production, you'll be concerned with getting all the shots on your list before the light is gone or your location becomes unavailable. So-unless you have a really sharp script supervisor-if a shot isn't on your list, it won't make it into the can.

As shown in Figure 5.19, the traditional approach to covering a scene assumes dialogue between two actors. The scene in the example is a sequence of two conversations: First Josh talks to his boss, Atwater, who exits; then coworker Phil enters, crosses to speak with Josh, and exits.

The Josh-Atwater-Phil scene is Scene 3 from the short When Harried Met Sally. You'll find both the finished video and the script on the disc.



Figure 5.19 Here's a shot plan for Scene 3 of *When Harried Met Sally*. Do one shot plan for each short scene. For longer scenes, draw a plan for every two or three setups on the same set. Your plan won't include lighting at this point: Concern yourself with translating your shot designs into the physical reality of actors talking and moving in the physical space.

Among the numbered camera setups, the first one captures the entire scene in a master shot. Arrows indicate the actors' blocking, and text written below the diagram describes the action.

The second setup doesn't require moving the camera. Instead, it calls for reframing from MS on Josh to a two-shot when Phil enters. (Reframing might also involve pushing in or pulling out.)

The third setup calls for getting a clean single on Josh for the duration of the entire scene. Since Josh is the main character of the story, the audience will presumably be interested in his reactions. The editor will have the option of cutting back to this CU at any point rather than going to the wide-shot master.

The fourth and fifth camera setups capture reverse CUs of Atwater and Phil, in turn. As with the master shot, you have the option of pushing in from these positions to get ECUs. Depending on the length of the actors' speeches, you might not need to shoot the whole scene each time. However, remember that reaction shots can be extremely useful in the editing room for telling a story, so it's a bad plan to shoot an actor only when she's talking.

Setups six and seven get in very close on Josh's keyboard and monitor to show his hands typing and the document he's editing on the screen.

When developing your shot plans, think about how the scene will cut together. In a master-scene approach like this one, the editor will probably intercut the CUs and ECUs to come progressively closer to the subjects as the scene unfolds—pulling viewers into the scene. Cutting back to the master shot would have the opposite effect—relieving tension and giving the audience a chance to reflect.

It's possible that you won't use the master shot at all when you do your edit. You may cut from the previous scene directly to a CU, or even an ECU of the speaker to tell the story with more impact. You might not need to use the master to orient the audience to the setting, especially if they were expecting to return there or if the emotional content of the speech is more important. But think of the master shot as protection in case your closeups won't cut together for some reason.

TIP: Cutting back to the master can cover breaks in continuity between closeups. For example, if cutting from one closeup to another crosses the stage line, the effect will be less jarring if you cut to the master first, then to the second closeup on the "wrong" side of the line.

A good shot plan follows through on the visual concepts in the script and storyboard, and it anchors your shot designs within the real constraints of a particular set.

EXTRACTING THE SHOT LIST

Now, working from your shot plan, make a list of the shots you intend to get, in the order you intend to get them. (Refer again to **Figure 5.3**.) If you're working from a storyboard and didn't do a shot plan to accompany it, you'll have to give some thought to the order of setups and shooting.

Start by listing the shots in story sequence, then sort them by master shot, and finally by increasing degrees of closeup. For example:

- 1. Master two shot: Josh and Phil at the desk
- 2. All Josh's CUs
- 3. All Josh's ECUs
- 4. All Phil's CUs
- 5. All Phil's ECUs
- 6. All inserts
- 7. Next master shot: reverses on Atwater and Phil at door

As your production planning evolves, you'll probably re-sort the list several times, grouping shots by location, interior or exterior, day or night, scene, setup, and shooting day. For example, it's wise to shoot exteriors before interiors, regardless of their sequence in the story. That way, if it rains and you can't shoot the exteriors, you'll still have shots you can get indoors.

You can then use the shot plan and shot list to open discussions with the DP and crew about the details of camera setups and lighting. (For more information on lighting your setups for DV, see "Three-Point Lighting" in Chapter 6.)

MAKING IT VISUAL

Shot design is where good screenwriting and visualization intersect. The inspiration for a compelling image may come from the writer in her shot description or from the director as he develops a storyboard. But the visual concept has to be in the design of the shot or the editor will be short of usable material.

A classic example of expert visualization is a scene in *The Merry Widow*, a romantic comedy directed by Ernst Lubitsch in 1934. The plot requires that the King find out the Queen has taken a lover. If this were a television soap opera—a notorious instance of radio-with-pictures—a trusted servant might tell the King the disturbing news. That's the obvious choice, and it's not a particularly interesting one.

But here's how Lubitsch, a consummate master of subtle screen sexuality, and his screenwriter, Samson Raphaelson, get the idea across—with no dialogue at all:

On leaving his marriage bed in the morning, the King dresses hastily, takes leave of the Queen, and hurries down the long circular stairway of the castle. Halfway down he pats his middle and realizes he's forgotten something. He returns to the bedroom, grabs a sword belt from the bedpost, makes another fond farewell, and takes leave of his wife once more. On his way down the stairs he tries to buckle the belt around his ample belly—only to find it's too small for him.

Now, *that's* telling a story with pictures.