I am greatly indebted to a large group of marvelous people who generously contributed with their expertise and their time: Richmond ("Aggie") Aguilar; John Alonzo, ASC; Bruce Berman; Bill Butler, ASC; James Crabe, ASC; Jordan Cronenweth, ASC; Nancy Cushing-Jones; Allen Daviau, ASC; Thomas Denove; Caleb Deschanel, ASC; Robert Hahn; Conrad Hall, ASC; Richard Hart; Adam Holender, ASC; Gary Holt; the late James Wong Howe, ASC; Philip Lathrop, ASC; Frank Leonetti; Richard Kline, ASC; Alexander Mackendrick; Michael D. Margulies, ASC; Sven Nykvist, ASC; James Plannette; Howard Prouty; Owen Roizman, ASC; Dr. Roderick T. Ryan; Douglas Slocombe, BSC; Haskell Wexler, ASC; Robert Wise; Harry Wolf, ASC; Ralph Woolsey, ASC; Vilmos Zsigmond, ASC.

There are others, too numerous to mention by name, who over the years shared with me their knowledge, either directly or as the authors of books and articles. Seminars at the American Film Institute, chaired by Howard Schwartz, ASC, and American Cinematographer magazine were particularly rich and inspiring sources of information.
<table>
<thead>
<tr>
<th><strong>Contents</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PREFACE</strong></td>
</tr>
<tr>
<td><strong>CHAPTER ONE</strong></td>
</tr>
<tr>
<td>The Cinematographer as Collaborator</td>
</tr>
<tr>
<td>Working with the Director</td>
</tr>
<tr>
<td>Working with the Art Director</td>
</tr>
<tr>
<td>Working with the Designers</td>
</tr>
<tr>
<td>Rehearsals</td>
</tr>
<tr>
<td>Composition</td>
</tr>
<tr>
<td>Working with the Crew</td>
</tr>
<tr>
<td><strong>CHAPTER TWO</strong></td>
</tr>
<tr>
<td>Lighting Equipment</td>
</tr>
<tr>
<td>Fresnel Lights</td>
</tr>
<tr>
<td>Open-ended Lights</td>
</tr>
<tr>
<td>Sealed Beam Lamps</td>
</tr>
<tr>
<td>Arcs</td>
</tr>
<tr>
<td>Compact Lights</td>
</tr>
<tr>
<td>Accessories to Luminaires</td>
</tr>
<tr>
<td>Power Supply</td>
</tr>
<tr>
<td><strong>CHAPTER THREE</strong></td>
</tr>
<tr>
<td>Image Manipulation</td>
</tr>
<tr>
<td>Film Stock</td>
</tr>
<tr>
<td>Brightness Range Manipulation</td>
</tr>
<tr>
<td>Measuring and Evaluating Light</td>
</tr>
<tr>
<td>Color Gelatins</td>
</tr>
<tr>
<td>Chapter Four</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter Five</th>
<th>Lighting a Scene</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Day Interior</td>
</tr>
<tr>
<td></td>
<td>Night Interior</td>
</tr>
<tr>
<td></td>
<td>Controlling Hard Light</td>
</tr>
<tr>
<td></td>
<td>Controlling Soft Light</td>
</tr>
<tr>
<td></td>
<td>Treatment of Walls</td>
</tr>
<tr>
<td></td>
<td>Combining Hard and Soft Lighting</td>
</tr>
<tr>
<td></td>
<td>Using Practical Lamps</td>
</tr>
<tr>
<td></td>
<td>Mirrors</td>
</tr>
<tr>
<td></td>
<td>Process Shots</td>
</tr>
<tr>
<td></td>
<td>Lighting Faces</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter Six</th>
<th>Lighting on Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Location Exterior</td>
</tr>
<tr>
<td></td>
<td>Location Interior</td>
</tr>
<tr>
<td></td>
<td>Vehicles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter Seven</th>
<th>Learning to Light</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NOTES ON THE CONTRIBUTORS</td>
</tr>
<tr>
<td></td>
<td>GLOSSARY</td>
</tr>
<tr>
<td></td>
<td>INDEX</td>
</tr>
</tbody>
</table>
Film lighting is a living, changing art. Ever more sensitive film emulsions influence the choice of lighting equipment; advanced lamp design dictates new ways of lighting. To capture the essence of these new methods, I approached several cinematographers and gaffers to discuss their work and concepts. This led to many hours of interviews and many days on film sets in the studio and on location. It was a very rewarding experience. These innovative professionals proved to be very generous in sharing their techniques and ideas. I found the legendary closely guarded boxes of personal filters to be memories from the past. Today, there is a camaraderie of camera people freely exchanging their inventions with each other.

After transcribing the interviews I realized that preserving the voices of these people in the form of extensive quotations would bring the reader closer to this wealth of experience and advice. As a result, the same lighting problem is often discussed by four or five experts. In this way the state of the art film lighting emerges.

I feel most fortunate in securing the editorial help of Barbara Gryboski and in having the line drawings done by Leonard Konopelski. On the publisher's side of this venture I was greatly helped by senior editor Susan Gies.

Last but not least I am grateful to Alexis Krasilovsky for her creative typing of the manuscript.
"Films are light." This statement by Federico Fellini brings us to the essence of the cinematographer's art and function. One of the most important abilities of a cinematographer is to see light and to remember it. The "light memory" for the lighting cameraman is similar to the musical memory necessary for a musician.

Light is the most changing element in our daily life. We move among solid objects and among people who do not change drastically during a day or a week. But visually the appearance of our environment and of people around us may change from one hour to the next due to the time of day, the weather, or the particular source of the light. The best cinematographers are very aware of these changes and store in their memory the impact different types of light have on our emotions and our subconscious. Most people see the change in the quality of light as the day goes by, but a cinematographer must be as observant as the French impressionist painter Claude Monet, who painted the cathedral at Rouen from the same angle at various times of the day. When Sven Nykvist (ASC) and Ingmar Bergman prepared to shoot Winter Light, they spent an entire day observing the changes in light in a country church in Northern Sweden in order to be able to reproduce that winter light on a sound stage.

For a cinematographer, watching the light becomes second nature. Whether in a city hall, a restaurant, a night club, or in the woods, the cinematographer will file it away in his memory to be recalled when lighting a similar situation on a movie set. This will help in the final task of a cinematographer, which is to contribute to the visual character of the film.

Light will enhance or diminish the efforts of all the people who create the sets, the costumes and the makeup.

Filmmaking is a collaborative art. It would
be misleading to insist that the cinematographer is totally responsible for the visual character of the picture. Even in terms of the camera moves and framing, the creative process involves the director, the cinematographer and the camera operator, and it depends very much on their individual talents and personalities as to whose ideas are decisive in the final outcome. Yet lighting is the sole domain of the cinematographer. This is his most obvious contribution. Light can fall on the scene in a variety of ways. It can create a great many moods, but the task of the cinematographer is to choose the type of lighting that will best help to tell the story. The angle of light, its intensity, its quality (hard or soft), its color, these are some of the paints on the cinematographer’s palette. The dark areas and shadows are of equal value. It was said by more than one cinematographer: “What you do not see is equally important as what you do see.” The light is there to direct the viewer’s attention, the darkness to stimulate his imagination.

As in all arts there are styles in lighting which characterize certain periods or certain film studios. For example the glossy Hollywood pictures of the thirties were followed by the stylized low-key lighting of film noir in the forties, and the Italian stark neorealism of the late forties and fifties.

Styles are also influenced by the personalities of the cinematographers and the technical progress in film stocks, lenses and the lighting equipment. Very sensitive emulsions and faster lenses require less light intensity. This allows for much greater use of soft, bounced or diffused light and of practical light sources that constitute part of the set. It also facilitates greater use of the available light, especially in backgrounds, such as in the streets at night. Collaboration between the cinematographer and the set designer who provides some of the lighting becomes essential.

In this chapter we will look at the various aspects of the collaboration between the cinematographer and the other vital members of the filmmaking team. Working with the director is one of the most exciting artistic relationships in this medium.

WORKING WITH THE DIRECTOR

Ideally the cinematographer’s relationship with the director is a symbiotic one. The cinematographer embraces the director’s vision and uses his visual talent and technical knowledge to capture the director’s inner thoughts and put them on the screen. Needless to say, the process of choosing a cinematographer is of no small importance to the director.

THE HIRING PROCESS

Many directors choose a cinematographer much as they would cast an actor. They look at his body of work to evaluate his style and experience.

Alexander Mackendrick

It is my impression that most of the cameramen I know have developed a highly personal style. They have an individual character that becomes their stock in trade. During the planning for Sweet Smell of Success, the producer, Harold Hecht, suggested James Wong Howe. I remembered Jimmy as extremely good with strong, melodramatic material and
felt his hard-edged approach would be ideal for this particular subject, so I was delighted.

Often a director will screen several films shot by a prospective cinematographer.

Alexander Mackendrick

In effect, I believe you have to trust the taste and temperament of the cameraman as you see it in his previous work. Obviously, you should take care to see a number of his films to see how he handles different genres; to see what range he has. Wong Howe had considerable range: I looked at both Body and Soul and Picnic which was in color and much more sentimental. But what I asked Jimmy for was the black-and-white harshness I’d seen in his melodramatic movies.

Once the director finds a cinematographer who interests him, he sends him a script.

Robert Wise

When you start to zero in on somebody that you think might be the candidate, you want his reaction to the script. So I usually have him read it and then, without guiding him too much, I get his input in a chat about how he sees it, what kind of texture and quality he feels the picture should have. Sometimes we may run other films, or I might refer to some films of his that I have seen, and certain sequences that I liked. Depending on the kind of story, I may refer to some painters. I did that in pictures that were period pieces. When working on Mademoiselle Fifi we turned to Daumier and his caricatures, not only for the cameraman but also for the clothes and the props. In current films you might look at photographs of contemporary things, of something with a striking look to it.

In paintings I look for lighting and composition. Very often for lighting. There is much to be gained from the examples of lighting and effects.

TAKING ON THE PROJECT

The process of selection is not one-sided. Cinematographers pick and choose among the scripts which are offered to them to find the stories which, for whatever reason, they would like to shoot. Cinematographers who are in great demand can, naturally, be more selective. As we all know, truly great scripts surface not too often and sometimes wonderful scripts can turn out to be mediocre movies.

British cinematographer Douglas Slocombe (BSC), who photographed some 100 feature films, admits to reading close to 1000 scripts. Out of this volume of work he feels that the truly memorable films could be counted on the fingers of one, perhaps two hands.

The script is certainly a useful blueprint the cinematographer can use to judge the worth of the project.

Allen Daviau, ASC

The first time I see the script I try to read it strictly as a film viewer. Not as a cinematographer. I really just sit there and say: Tell me a story. I try to be as open as possible. And you read some scripts that are good, good movies; you would enjoy seeing them, but would you enjoy shooting the movie, and would it really be fulfilling to you? What is it that you like to do? Sometimes it is the subject that just strikes you, that you would like to say something about. So I look on the basis of an overall thing: How would I enjoy seeing this film? Would I enjoy having my name connected
with it? Would I be proud being part of this film? The second time through, reading as a cinematographer, I ask myself: What are the problems here? What are the challenges? What are the things that I would really enjoy working on in this picture? Does it offer me a unique challenge? Someone said, The day you go to work and you are not slightly scared, is the day you better get out of this business, because there is no challenge left for you. If you really know all the answers going in, then I do not think that you will do very good work on the picture. Because you should never stop having that fear of the unknown.

And I think that is one of the things in the script: Does it offer me something I haven’t done before? Maybe it offers me something I have done before and I know I can do better than I did last time, and that is intriguing to me. But perhaps it is truly the unknown. Maybe it is something that I don’t really like to do, and maybe I can get past that. I know that I do not like to shoot dialogue scenes in cars. And I read a script that was an excellent, very funny script, and 25 percent of the movie is four guys running around in a car on real location. When you think that for that much time the camera is basically rigged on the car when you can never really see what is going on and you are lighting people in the back seat as well as in the front seat, and you are balancing all different times of a day. Well, it is a real challenge if you like to do that sort of thing. But I don’t know anybody who likes to shoot dialogue scenes inside cars.

In this case Daviau turned down the job although he liked the script. Since one fourth of the film took place inside a car there was no chance that the car scenes could be eliminated. In situations that are not so extreme it is better to hold off final judgment on a project until you meet with the director.

**STYLE**

Once a cameraman has committed himself to a project, he and the director have to agree on the style of the film. Describing a visual style with words is no small task. Directors and cinematographers have developed many ways to reach an understanding with each other. A creative cinematographer will analyze the structure of the script and will try to see it from the audience’s point of view. At this early stage much time will be devoted to discussions concerning the concept.

The right atmosphere, style and visual interpretation will evolve from this process. The cameraman and director will discuss the philosophical premise of the movie; how it should look, what structure it should have, what style of framing, lighting and color.

Caleb Deschanel, ASC

Style starts to emerge when reading the script. I always read the script three or four or five times. Generally, along the way, I discuss it with the director, and then start to come up with an overall visual concept that I seek for the film. It does not mean that this concept is ironclad. Just the way an actor comes up with his character, I think, the cameraman comes up with his way of seeing a movie. Then hopefully you are in sync with the director. It is important to develop an idea about the story early enough, so that at least you will find out whether you think the same way as the director. Otherwise you get yourself in a situation where you are at odds with each other all the time. You use whatever method you can. With Hal Ashby we started out on Being There by looking at a lot of movies together and discussing the script, and then I would also take a lot of still photographs of locations and look at them with Mike Haller who was an art director and with Hal.
Viewing movies together is the most immediate way of having some common points of reference when discussing style. Good knowledge of a wide range of painters and photographers is the next important step in facilitating the communication between the director and the cinematographer. Being able to describe a certain style as one resembling a given painter, or knowing where to look for examples of a palette of desired colors helps immensely in arriving at the mutually understandable visual look of the film.

John Alonzo, ASC

Every situation is different. For pictures like Sounder or Conrack or for a picture like Norma Rae I did look at some paintings and some books and drawings of the South to get an idea of a kind of look. I would show them to the director and I would say, “What do you think of this Andrew Wyeth or these Shrimpton paintings, does this give you any thoughts, is this the kind of look that you are thinking about?” He says yes or no. So I use those. In pictures like Blue Thunder or Black Sunday there is really no artistic or aesthetic design to those pictures. It is a matter of recording what actually happens.

There is a wide spectrum of directors with diverse background and experience. Therefore the collaboration with the cameraman will take various forms. Some directors will need more help in developing the visual sense of a scene.

Conrad Hall, ASC

So many directors don’t know anything about film. They are wonderful writers, they know a lot about life and the human equation and people have given them the opportunity to translate that into a film. And they don’t know what to do. They are so insecure. They wander around the set and a lot of them don’t pretend, and then some of them pretend. It depends on the director you get. Others are people who are knowledgeable visual artists as well as artists in every other sense. You work with them differently. They know exactly what they want. They need you less.

The directors who require the most from cinematographers are the first-time directors.

Adam Holender (ASC), who often works with first-time directors, puts them in two basic categories. The literary ones who write their own scripts and often do not quite know how to translate their ideas into a visual form and the new directors who come from other technical positions such as assistant directors, producers or editors. People in this second group are usually more experienced technicians.

Adam Holender, ASC

Like every other collaboration, working with first-time directors depends a lot on the personalities involved. But one typical problem to be aware of is the degree to which the cameraman assists the director in matters other than cinematography. At a certain point in the production the invitation to offer suggestions may not exist anymore, but the cameraman may not know when to stop. The director grows weary of advice and such help may start to annoy him.

Another potential problem lies in the director not understanding that certain visual concepts require certain disciplines, bring certain limitations. The first-time director may see these limitations as shackles. He may also have to be convinced that certain risks should be shared. If the director does not take advantage of the cinematographer’s knowledge and judgment, the result may be a mediocre product. This is sometimes referred to as...
“television mentality”, where the range of artistic possibilities on the scale of one to ten, becomes, say, four to six.

Most cinematographers are very much aware of the creative discipline necessary to maintain the established style and to serve the story in the best possible way.

SERVING THE STORY

Serving the story usually comes down to serving the director’s concept. Though the cinematographer has an important role in the production, the principal storyteller at this stage is the director.

John Alonzo, ASC

I make it a rule of thumb that I am to interpret the director’s concept. It is a very strict rule with me that I do not allow myself to get in love with the frame and the lighting, that it subordinates what the director is trying to do. And if I spend six hours lighting a set that looks beautiful to another cameraman but does not mean anything to the story, then I am not doing my job for the director.

The power of cinematography lies in the immense possibilities of interpreting reality even within a given concept. The cinematographer’s function is to transform an artificial environment into film reality. Lighting, optical image manipulation, choice of film emulsion, film manipulation in the laboratory, color manipulation at various stages are all tools the cameraman uses to create the photographed reality.

Caleb Deschanel, ASC

You need a certain sense of reality, but in fact you are doing a movie and you are making a statement with the light and with the composition and camera movements and all those things at your disposal as a cameraman. Your first impression should be that it is real for the story. But you can get away with an awful lot. What Vittorio Storaro did in One from the Heart with colored light was incredible. To an extent, it was a reality but it really was hyperreality. It carried beyond conventional reality, but you accept it because of the nature of the story. There is no reason why you cannot carry that sort of thinking to even more realistic settings. Obviously as an audience you do not want to be taken out of a scene by some extreme photographic element, but you certainly want it to carry you along. There are things you can do, where you exaggerate reality and create a sense of life which, if you would truly study it, you would realize that it is not real and yet your mind accepts it as being real. I think that is really what you are going for. You are going for a way of taking the greatest advantage of all the tools that you have at your disposal to create the drama, to amplify the drama. Sometimes it means exaggerating things enormously and getting away with it because the audience is carried away by the scene. You can switch key lights and you can change the level of lights and you can dial one light off and one light on when someone moves and you can do things that if you were to analyze them you would realize they don’t make sense at all. But if you are telling a story and you are in sync with the story, then you can get away with an awful lot. I think that the best camerawork does that. It will make these judgments, it will stretch its ‘reality’ for the sake of telling the story.

Often the sets or the location will dictate the visual approach to the story. Or it may even come from the cinematographer’s aesthetic taste at the given time.

Haskell Wexler, ASC

What happens photographically springs a lot from what is demanded of the photographer:
What kind of films are being made, how much time it takes to make them, what the sets look like, what the subject matter is.

Style comes from where you are personally. Right now as I am talking to you I would love to shoot a scene where there is a real bright hard sunlight just cutting through on the furniture and on the clothes. The faces are almost dark. If you are in this kind of mood when you read a script, you may actually talk yourself into believing that this particular script would look best this way. It may or may not coincide. You have to bear in mind that you are not the total maker of the film. You will have to talk to the director and the art director, and anyone else who has invested in it.

Cinematographer Conrad Hall dealt with two very different visual concepts when photographing Fat City directed by John Huston and The Day of the Locust directed by John Schlesinger.

Conrad Hall, ASC

In Fat City the idea of extraordinary tonal variations was like a style for a picture. The interiors, bars and places like that were very, very dark, so you have a sense of blackness. And then when you come outside I made the exteriors all very bright and glaring, like a lizard who comes from underneath a rock, a salamander that is blond because it has been hiding underneath a rock, it has not seen the light of day. I wanted it to be harsh and strong and abusive. And so, you go for the range, you go for the contrast. You go for the soft, dark, muted effect inside and then when you come outside you go for the bright, brilliant harsh tones. And when those things are cut together they create a kind of emotional sense which is productive for the storytelling.

You approach every project from the spirit of the film. Once you get the spirit of the film, then that determines everything for me.

On The Day of the Locust the decision to have it all shot in a warm, golden tone was made right away. Those are the broad strokes. You decide whether you are going to make this a gritty, documentary kind of look for the film about ninety percent of failed people in Hollywood, which is what The Day of the Locust is about: people who approach the flame and never get anything to do but get burned by it occasionally. Just ten percent are working and doing good and thriving in the heat of the flame. So that is a hard story. You could do it gritty. Black and white would be wonderful, because it is a period piece. Sometimes I think that is what we should have done, now that I look at it. That is not what we decided to do. The decision to make it golden was to create not their reality but their dream. In other words I wanted to posture [sic] their dream upon their reality. So you saw them living in their little apartments and they were happy living in their golden dream of maybe making it one day.

John Alonzo describes another example of lighting in opposition to the subject matter, for stronger impact.

John Alonzo, ASC

We are going to try to do Scarface in soft light because Brian (De Palma) wants it this way. It is a drama, a melodrama. It is violent and very dramatic, but he does not want to light it that way. He wants to light it soft and pretty. As he said to me, I don't want to telegraph that I am going to do something violent. I want the frame to look pretty, and the people to look pretty. And then we see that they are violent people.
Another extremely important aspect which Alonzo brings up is the consistency of a visual look.

**John Alonzo, ASC**

You have an overall picture, an overall script and then you go from A to Z. Very few pictures are shot in chronological order. The hardest thing is for you to keep a certain style going, so that when you put the picture in chronological order it has a nice even flow, in lighting, in composition and in the camera moves. This is my realm, my jurisdiction. If you do not pay attention to that, if you are just lighting each scene as if you are lighting a Rembrandt each time, you are going to have a checkerboard effect. You will not have a consistently smooth picture. It may be totally acceptable but it definitely influences the audiences. The audience will think that something is not quite right. This is a brightly lit shot, this a soft light and this is harsh light, this is flat light and so on. Every scene should be approached as to what part it plays overall. Simple things—you are inside a room and the sunlight is coming from a certain side, over this man’s shoulder. If you take him outside, three, four days later and the sun happens to be on the other side and it is a direct cut, then you say, wait a minute, what do I do? Now you have to work with the director and the operator, try to angle him so that the sun comes from the correct side, or you duplicate the sunlight from another direction. Put a silk over the scene and shove in an arc to make the sun come from the side that will match the previous shot. These are the things that sometimes people do not think about and you have an amateurish way of handling it.

**BLACK-AND-WHITE AND COLOR**

A cinematographer cannot separate the problem of light from the problem of color. Through the film stock he is using, through the filters on lights and lenses, and through the printing in the lab, he cooperates with the art director in the orchestration of colors or in the modulation of the gray scale in the black-and-white films.

**Alexander Mackendrick**

I’ve always felt that melodrama and satire have characteristics in common. Ideally, I would prefer to shoot both of these genres in black and white. Distributors nowadays declare that black-and-white movies are unsalable. A compromise may be the kind of cinematography where there is a very emphatic range of tonal values, black to white, at the expense of hue values; strong directional lighting of chiaroscuro which underlines the architectural structures at the expense of the local colors of the surfaces.

When the first Japanese color features arrived in Britain, I remember well their impact on British filmmakers. Accustomed to the brilliance of Californian light, the bright hues and crisp shadows, we marvelled at the subtleties of shade and tone produced by the mists of the Japanese scenery. With the coming of color and more sensitive film stocks the sunlight which was the original incentive for a migration to the Californian West Coast is no longer quite such an essential.

There are personal idiosyncrasies when it comes to particular colors, for both aesthetic and practical reasons.

**Conrad Hall, ASC**

I used to hate blue on the screen, but I am changing my mind a little about that. There is a new wave of colors that you see on television, that sort of thirties blue like those real strong colors used on the orange crate labels.
The vibrant blues and pinks and oranges together which is the new thing that I begin to see happening a lot nowadays.

In certain kinds of stories these colors can be effective, although it is not a realistic look on life by any means. I basically hated blue because I shot so many exterior pictures in which the sky must match from scene to scene and I hated it because it became almost like an enemy to me, confusing my attempts to match the scenes. And to cut from one blue to another blue is terribly distracting. That is why by overexposure I eliminated the blue to make it easier for the cutter to match shots. And the fact that I appreciated how white or gray reveals color. Color is so exquisite against a neutral background. Whereas color against another color creates an emotional equation. Colors are terribly emotional kinds of elements.

The emotional meaning of colors became an object of in-depth study by the Italian cinematographer, Vittorio Storaro. Earlier in this chapter Caleb Deschanel discussed Storaro’s use of color in One from the Heart. When beginning work on a film, Storaro writes a treatment on the psychological meaning of the color scheme. In such a conceptual statement prepared for One from the Heart (American Cinematographer, January 1982), he approaches this film as a conflict of colors representing certain states of the human nervous system and metabolism during the day and night. In his concept the green and blue are the colors of dusk and night. They represent the regenerative need for rest. Yet this natural rhythm is violated by the aggressive reds, oranges and yellows of the Las Vegas night. These colors stimulate the nervous system and raise the heartbeat. Storaro’s conceptual conclusion is that through the desire for love, the opposites in the human nature, the distinction between man and woman, like the complementary colors and like the opposites of light and shadow, all unite in one energy of light “... that comprises them all.”

It is not often that the cameraman would prepare such a highly conceptual approach to his visual understanding of the script. But it certainly points toward the potential depth of the intellectual penetration of the material. And the consistently high quality of Vittorio Storaro’s work tells us that this method serves him well.

WORKING WITH THE ART DIRECTOR

Ideally all the major contributing people should be brought in early on the project. Those fortunate enough to work on Ingmar Bergman’s films have the luxury of a two-month intensive dialogue with the director, actors and other members of the crew. As well as watching rehearsals, Bergman’s cameraman Sven Nykvist (ASC) has the opportunity to shoot extensive tests and discuss the sets and costumes with the art director. This relationship with the art director cannot be stressed too much. He is an invaluable partner because he supervises the designers of sets and costumes.

The positioning and intensity of the practicals on the set is something the cinematographer should establish with the art director. These visible light sources of various kinds serve to visually enrich the scene, to justify the directions of studio lighting and to con-
tribute to the level of illumination on the set. They may even serve as the major modelling lights for the scene.

The shape of the set and certain architectural components such as beams or moldings help the cinematographer to hide his lamps, stands and cables. The shape, texture and color of the walls and furniture have understandable impact on the visual organization of the frame. The way in which the set is positioned on the studio floor, for example, how much space there is outside the windows, will also influence the lighting directions and angles. For these reasons the production designer, art director and all the people involved in shaping and dressing the sets, or in choosing locations should work hand-in-hand with the cinematographer. He, in turn, can either enhance their efforts or diminish them with his lighting.

Haskell Wexler, ASC

Any work which the cameraman can do with an art director is money in the bank, because basically an art director is giving you what you photograph. You will be asking for practicals, you two will be deciding where the windows are, whether certain walls are wild, whether ceilings are wild, how high the walls are, and what color they are painted.

Today's sets, particularly in the special effects films, have very intricate lighting built into the set, like lighting through the frosted glass floors or illuminated table tops. Sometimes the instrument panels will practically light the set for you. On occasions the lighting that comes with the set or with an event which is part of the scene may have tricky exposure values.

It is evident that a wise producer should bring the cinematographer and the art director together as early as possible. However, some producers do not see it this way.

Conrad Hall, ASC

Hopefully you work a lot with the art director. There are very many producers who try to keep the two of you separated; for financial reasons, they say. What a mistake! We should be the closest of collaborators. After we hear what the director has to say, the two of us should collaborate very strongly to provide what he wants.

This unfortunately is not always the case.

Robert Wise

I found that some cinematographers are not too inclined to be overly receptive to designers' set sketches that might indicate certain kind of lighting, sources of lighting. I had one cinematographer on a major film, and the designer would come up and show the sketch of the set coming down the line and the cameraman would look at it and go his own way. He would never really turn to the designer for any thoughts that he had in his head about how it might look. And a few years later I had just the opposite experience with Ted McCord on Sound of Music.

Much depends upon the personalities involved and also on how much the cinematographer is in tune with the aesthetics of the art director. Avoiding personality clashes saves both the producer's and director's sanity.

Alexander Mackendrick

If the casting of key talents has not been done wisely, there can be misunderstandings between the production designer and the director of photography. An assertive designer may hanker after lighting that is diffused, general and unobtrusive, so that tone and color values in the settings and costumes retain their pic-
torial values. An equally assertive cinematographer may prefer the set, costumes and furniture to be neutral in color and tone so that the scene is left for him to “paint with light.” If there is discord between the production designer and director of photography, the director and producer should resolve the disagreement at the earliest stage of production planning.

Filmmaking is not only teamwork but the team is composed of people with strong creative egos. This makes it doubly difficult to keep on an even keel.

Conrad Hall, ASC

You have to get the right chemistry of the people involved. One important ingredient to the filming chemistry by which it will succeed or fail is the handling of ego. When ego gets involved it destroys. Now, that does not mean that you do not have an ego. And it does not mean that your ego is not manifesting your artistic decisions, but like being in the army there is definitely a law of involvement that should be respected. When it is maligned by the ego it destroys the chemistry by which the film can be made. The director should direct, the cameraman should shoot, the art director should art direct. As soon as we start introducing our egos to take over our jobs from one another, we malign the chemistry by which the films are made. The ego out of line is a bad ingredient, but a strong ego is a wonderful thing for an artist to have.

Richard Brooks once said to me, “Would you ever like to direct, Conrad?” I was just a brand new cinematographer at the time and I said, “Well, I think so, but I am not sure yet, I will see,” and he said, “Everybody should direct a film. You probably want to direct one, but, direct your own damn film, don’t direct mine!” And I respect that attitude and I want it respected when I am directing. I am an aide to that man. I am not anybody who is trying to take anything away from him.

WORKING WITH THE DESIGNERS

The costume designer and the makeup artist should also consult closely with the cinematographer. It is particularly essential in black-and-white film where two colors, like certain hues of red and green, may look exactly the same on the screen, or where a light blue shirt may be preferable to a white one that could create too much contrast. For the same reason light blue or green bedsheet will be more suitable than white.

In color film production, white fabrics may still need to be “teched” down. This is often accomplished by rinsing them in weak tea. Certain dark velvets may be avoided because in a low-key lighting situation they will look black. Makeup artists will consult the cinematographer about the red sensitivity of a given black-and-white emulsion. With color stock they may be more interested in skin textures.

At the preproduction stage many of these elements will be examined in a series of tests. John Alonzo describes them as helping him to establish the visual character of the picture.

John Alonzo, ASC

I do a lot of tests in different kinds of lighting. Makeup and hair tests, wardrobe tests, and so
In those tests I have them moving around in five or six different types of lighting, so that the director can look at it and say, I like that, I don't like that. We try different lenses, different sizes for close-ups; a 50mm or a 150mm, to see how the perspective changes. We don't just stand an actor and say, turn three different ways and that's it. We choreograph moves for all these tests.

For more elaborate productions these tests will also include sets.

**REHEARSALS**

Once the production starts the relationship between the director and his cinematographer becomes almost symbiotic. There are many variations of this relationship. On one end of the spectrum you will have veteran directors who know exactly what type of staging and what camera moves they want. On the other end there will be newcomers, perhaps from the theater or from screenwriting, who will depend on the cinematographer in these areas. Even the most experienced directors are usually open to suggestions. They recognize that staging and camera movements are inherently connected with lighting and that all these elements create the picture.

The first days of shooting are crucial. You almost have to read the director's mind. You have to be physically close to him during the rehearsals, especially if he is not too good at expressing his ideas. Production time on the set is so expensive that you do not want to spend too much time on theoretical discussions. You try to discuss the scene early in the morning or after watching the dailies the night before.

**Robert Wise**

If you get into any kind of special shows, you make endless tests. You test the sets for color, you test your costumes and you test the labs. You get a difference in the values of your colors from the different labs. You have to test all the way around. And sometimes if you have a big set and you are going to have some prelighting, try to have it done while you are shooting something else. You will test the lighting of the set and you will see how it is coming off. On anything other than a subject that is simple and straightforward, it is very advisable to test to the extent that you can.

A storyboard provides a good frame of reference and indicates the coverage needed for the given scene. It can be an important time-saving device. The cameraman should treat the storyboard for what it is: a guide to the scenes, only a guide useful in prerigging the lights.

**Robert Wise**

I storyboard most of the time. The storyboard usually starts before the cameraman is on. Of course you discuss it with him when he is around. Before we start to shoot he is involved in the storyboard. I like to have a storyboard so that when you walk on the set you know where you are going to start, where you want to start, where you will put the camera, and where the actors are going to make an entrance. You discuss it with your cameraman in advance. I think that you must know where you are going. But, in developing the scene with the actors, in getting the scene on its feet, if it wants to move away from the storyboard, if the actors find additional things
that you cannot anticipate sitting in your office, if you find new values, new dimensions, and if that means moving away from the storyboard, you make the adjustments.

On the set, staying close to the director and watching rehearsals allows the cinematographer to understand what the director is trying to do with the scene in terms of the dramatic rhythm of punches and pauses. Only then does it become apparent how the composition, the camera movements, and the lighting can visually emphasize the dramatic structure. At this point a cinematographer’s instinct comes into play. He will be influenced by his own background, consciousness and subconscious. Films and paintings he’s seen, music he’s heard, books he’s read will all have an effect on his visual interpretation of the scene.

This is how several cameramen see what is happening on the set at this stage.

Caleb Deschanel, ASC

An ideal situation is one where the camera angle or movement never becomes a matter of discussion, when you and the director are very much in sync and he suggests something and you concur, or you suggest something and he says, “Yes, of course,” or you both say, “What if we did this?” At its best it is a process that evolves. Hopefully no one’s ego becomes involved and you say, “Gee, that was my idea and that was someone else’s idea.”

I believe in waiting for a scene to develop. When you start to see a scene evolve, when actors are rehearsing, there is a point early on when it seems very chaotic and it seems almost impossible to put on film. But eventually the scene starts to have a certain continuity to it, you eventually start discovering that there is a way to put it on film. And the way I really like to work is that you resolve the whole scene from beginning to end before you start shooting. Some directors don’t like to work that way and inevitably you will get into a situation where you carry the scene halfway through and you are in a position where you have to make certain compromises because you have not figured the whole thing out. Compromises in lighting, in camera moves, in positions where you will put the camera, etc. I like to figure out how the scene should play all by itself, which usually means that you have to make a judgment about what the rhythm of a scene is, while you are filming it. And where the camera should be. And then usually everything will fall into place.

Planning scene coverage in advance is the most essential element in an effective lighting design.

Allen Daviau, ASC

A big thing for a cinematographer is to get into the habit of asking, “How are you going to cover the situation?” Work with your director on the coverage because we all can fall into the trap of making a beautiful master scene that is absolutely horrible for the coverage. Particularly when you are working on a TV movie, where you are really moving fast, you better be able to get in there, get your master shot and know exactly how you are going to proceed with your coverage.

All too often we fall in love with our master and then we find that in editing the scene plays mostly in the close-ups. It will happen that way and it is terrible if you have sloughed off the detail in your close-up.

You get to know how a director likes to work. Many times you get the basic gist of it and you start lighting before the rehearsal is even completed. The official procedure is to have the rehearsal, mark the positions without
the camera, then start lighting the scene. The operator starts working with the camera and we have full rehearsal before shooting. What happens more and more is that if I wait till the director stops staging a complicated master I will be out of time. So often I have to start lighting when he is blocking. If suddenly he says, "This does not work, let's go over here and change it all"—well I have to tear it out and it is gone. But more often than not I will be well ahead of the game by starting to light during the blocking of the scene.

Sometimes the scene is so sensitive that only essential people are present. But most of the time it is desirable for the whole crew to watch the rehearsal.

Conrad Hall, ASC

I try to get the director to rehearse the whole scene. I like to have everybody connected with the scene: props, wardrobe, everybody, watching at that time. Camera, lighting, grips, the whole lot just sitting around, watching the director work with the actors, and the cinematographer kind of tagging along behind.

And sometimes directors like to have the editor on the scene at that point. Schlesinger is a man like that. He loves to have his editor down there, because eventually the editor is going to have to put it together. So he likes to have the whole team down there. And you rehearse the whole scene, ten pages, five pages, three pages, whatever. It might be several days' or weeks' work, depending on the schedule you have. That way everybody knows what is to be expected and can contribute more effectively.

When working with the director on a scene you digest like a cow. You chew all day long, you go out and graze in the fields and you get your belly full. And then you pick a nice tree to sit under and you burp the grass up again. It is like that when you are working. You digest the scene with the director, imbuing yourself with every possible rhythm and every piece of information that you possibly can, to be ready for the moment. Filming is the moment of many factors coming together in that special way which at another moment would be different.

Other cinematographers prefer to have only the essential people present during the rehearsals.

Richard Kline, ASC

The way I like to work on the set is to have it cleared at the beginning of all but just a few necessary people. And I have a complete rehearsal of the scene, to see where we are. Prior to that I have a rough idea of how the scene might look, and I might prerig some lights just to set a mood. After rehearsing the entire scene we may find that the mood is not right and might be totally changed.

When the director works with actors I hover and observe and I walk various positions and see what the sets are. It will probably take only 15 minutes but it is well worth it. It also gives the actors a chance to develop in the scene and to discuss it. Then after that rehearsal the director and I decide how we are going to attack it.

There is no rule with which shot we will start first. We may start with a close-up first. It is possible. And work your way back to a long shot. It is a rarity when someone will go for that, but there could be an emotional impact which you will lose going from a long shot and a medium shot to a close-up. You might drain the actor of the key moment which you would need in a close-up. So there
would be this rare case when you may want to start with a close-up and work your way back. I compare filming setups to tennis. You have a serve which could be a long shot that gets you into play. Usually you start with a long shot and in a serve you have maybe an ace, which is an equivalent to staying on long shot. But the idea in tennis is to work your way to the net basically. You have better control if you work your way to the net.

Rehearsals add another dynamic to the evolution of a scene from the script and storyboard stage. The action has become three dimensional and this quality must be captured now on film.

**COMPOSITION**

The basic need to represent a three dimensional reality on a two dimensional surface is certainly not new in the visual arts. What separates film from the other visual arts is that it is kinetic. The filmmaker is composing motion.

Composition of movement in time can be broken down into several dynamics. Movement of the camera and/or of subjects in front of the camera is called *intraframe* movement. Screen sizes and angles of view can be manipulated in this way. *Interframe* movement is created by editing, cutting from one angle to another or from long shot to closeup. The combination of camera movements and editing becomes a truly powerful system for manipulating the film reality. Whether static or moving, the frame represents spatial depth, or three dimensions, on a two dimensional screen.

**Alexander Mackendrick**

We're told by those who have studied the psychology of perception that shadows are one of the clues by which the brain recognizes spatial depth. The fact that the projected image is always seen as a window into a threedimensional world is one reason for the filmmaker's use of these dark and light areas for "designing in depth."

The figurative painters and engravers of graphic illustrations in the nineteenth century are worth study by filmmakers. Gustav Doré's work is an example. He used a formula enormously effective in emphasizing design in depth. In the foreground a subject might be lit strongly, with an emphatic key light and strong modelling. But behind this would be figures more or less in silhouette, in shadow and two-dimensional. These, in turn, would be outlined against a brighter area in middle distance, a part of light illuminating features of architecture or figures in an area of light. These were again silhouetted, light against dark, against a further background of shadow, gray but still dark. Each recessive plane contrasts with the one beyond it or in front.

The Spanish painter Francisco Goya wrote some 200 years ago, "I see (in nature) only forms that advance, forms that recede, masses in light and shadow."

**Conrad Hall, ASC**

In soft lighting you build depth by contrast. In other words you put the person in light and
you take the light off the background. Or you put the light on the background and you take the light off the person. Or you do it with color like for example, putting a person against a blue wall. Creating the reality requires a sense of everything—of movement, of color, of value in terms of contrast, of drama, of cutting. To be good you better know everything.

It becomes obvious that a thorough knowledge of composition is an absolutely essential skill for a cinematographer. He needs it not only to create meaningful visuals on the screen but also to communicate with the director.

Alexander Mackendrick

Composing in depth isn't simply a matter of pictorial richness. It has value in the narrative of the action, the pacing of the scene. Within the same frame, the director can organize the action so that preparation for what will happen next is seen in the background of what is happening now. While our attention is concentrated on what we see nearest to us, we are simultaneously aware of secondary activities that lie beyond, and sometimes even of a third plane of distant activity: the dramatic density of the scene is much greater.

Design the blocking of the actors, the framing of the shot, with this sort of thing in mind and the cinematographer with a grain of sense will instantly realize your intention. He will use light to assist the eye path of the audience and to give dramatic depth to the scene. Most cameramen I've worked with have been very intelligent, quick to pick up on the director's intentions without the need for explanation.

Composition, both in framing and lighting, directs the viewer's eye to the appropriate part of the scene.

Jordan Cronenweth, ASC

First of all, the composition has to tell the story and create the mood. If there are a lot of elements in the composition besides the subject, you may need to lead the eye to the subject. You can do that with light. You can create certain selectivity within the composition with lighting or as an element of the composition. A lot of composition is just plain feel—how you feel.

The criterion is really the story. If you have somebody coming out of a dark building through the doorway you can have the camera way back and show the whole building and a little bit of the sky, you can have that camera closer to the door and show nothing but black and then a sliver of sky, and you can have the camera move with the guy from the door back, or you can have a close-up of him. I mean, you can interpret it in a thousand ways. But if you are just going for the composition, you are abandoning the story.

Lighting composition not only directs the audience's attention to the particular subject, but it also brings certain emotional responses to a scene.

Haskell Wexler, ASC

I do not think that the director and the cameraman should be at odds as far as framing is concerned. They are two creative people looking at the scene. And part of the framing is where the light is in the frame. If, for example, a person seated at a table has a little bright window sharply behind the right ear it would tell a different story than if that bright window were more over his right shoulder, out a little bit. It has a different emotional response, and so where this little window in the background appears in the frame, is part of
the framing. So the lighting and the framing are the same thing and they have to be joint.

There are basically four popular screen ratios: Academy (1.33:1), Wide Screen (1.85:1 and 1.65:1), and Anamorphic (2.35:1). With such a variety of screen ratios, in the words of Robert Wise, “You cast your screen size to the subject matter.”

Robert Wise

When I did The Hindenberg a few years ago, it was perfect for the anamorphic format. But one thing that I deplore about the anamorphic is its lack of depth. I love to be able to rake the foreground and to carry somebody back in the distance and keep that in focus. Split diopters help in these situations.

Among the visual artists the filmmaker has a rather unenviable position of not being in full control when his work is being presented to the audience. For people who rely heavily on composition to tell their stories this can be very frustrating.

Alexander Mackendrick

In the 1950s a real problem cropped up when the framing of the image became ambiguous, unpredictable. Were we working just for the cinema screen or for television? When the framing has to be a compromise the result is often disastrous.

When any of my films were reframed—the film image rephotographed for television broadcast—I could not help feeling a sense of outrage. If I remember rightly, Augustus John, a well-known British portrait painter, discovered that after he had sold a portrait, the new owner cut nine inches off the bottom of the painting so that it would fit a space on his wall. John sued for damages, even though the painting was no longer his, and, as I recall, won his case. I feel the same way about screen images. And it’s not just aesthetics; it affects the narrative. In A High Wind in Jamaica one of the key shots was a wide screen shot of seven children sitting in a row as they are interrogated by the lawyer; the point of the scene was the silent reaction of two children who happened to be on each end; neither of them appeared in the television version.

It is the unfortunate lot of filmmakers that they are not in charge when their work is being projected. A visit to a local theater can at times be a heartbreaking experience, let alone seeing one’s film on television.

In spite of this uncertain future, the film crew puts all its talents and skills into producing a well-composed picture.

WORKING WITH THE CREW

There are three people on the crew ultimately concerned with the composition of the frame: the director, the cinematographer, and the camera operator. The balance of power among these three individuals is affected by many factors: personal experience, the subject matter or genre of the story, the individual background and national tradition. An American cinematographer who also directs discusses his interpretation of the balance of power.

THE CINEMATOGRAPHER AS COLLABORATOR

17
Haskell Wexler, ASC

I do not think of the director of photography as only the lighting cameraman. I think of him as the cameraman who sets the frame, the camera movement and the lighting. He does it in service to the director. If the director says, “I want to play this scene very static,” then the cameraman does it this way. The cameraman may suggest, “I understand what you mean but I think that if we make a very small move toward her when she says such and such line we will be on the medium shot. It will keep the static quality and maybe help what you are trying to say.” And the director may say, “I said I want this thing static, I don’t want any dolly move.” At this point you may doubt the aesthetic wisdom of his judgment, but you do the static shot. What I am saying is that a good director of photography feeds the director what he thinks about the scene after he gets the idea from the director what the scene is all about. If he is just trying to make what he calls a good shot, then he has no right to say anything because making films is not just making good shots. Making films is making films. The best world is one where there is mutual respect and there is a give and take; an acceptance of the fact that the director is the boss but recognizing that he is just a human being who sometimes can be right and sometimes can be wrong.

Traditionally, the cinematographer’s role is perceived differently in Britain.

Alexander Mackendrick

I distinguish between the way I work with the lighting cameraman and the way I work with the operator. As Director of Photography, and boss of the whole camera crew, some cinematographers will probably challenge me on this, insisting that they are responsible for all of it. However, my temperament has been to feel that I have to design every camera angle, every screen size, every camera move. I have to work directly with the camera operator on this and cannot afford to go through the Director of Photography, though, of course, he will be present as the decisions are made. This is because, as director, I am, above all things, concerned with narrative content, the story. Other values are very important, but they come later. Since the story is told through the positioning of the actors in relation to the camera, since the blocking of actors’ moves within the scene is inseparable from the design of camera moves in relation to the performer, the camera operator and I are concerned with narrative. He is the director’s right hand and he is my man.

Mackendrick’s description of the role of the operator stems from the heyday of the British studio system. In this tradition the cinematographer is known as the Lighting Cameraman and his role is predominantly to light the set. The operator is more concerned with the narrative. Hollywood tradition is different.

Vilmos Zsigmond, ASC

Sometimes the director will set up the composition but he will leave it up to me to finalize it. If my operator is very good I will give him a lot of freedom, I will let him decide certain things, let him be involved with it. But I certainly will work with the operator a lot because I have certain compositional feelings which the operator has to learn. For example I do not like too much headroom. It depends on the picture, but I usually like tight composition. If an operator that I work with does not have the same taste, then he has to learn to please my taste. That takes a little time but usually by the middle of the picture he can guess how I would compose it.
Allen Daviau, ASC

This relation depends on where one's strengths lie. I always would have something to say about the composition. Operators I like to work with are very good detail people in terms of moving props and setting things around to make the frame really work. And they have to do it in concert with continuity people and the prop department, so that everybody is aware when you are cheating something on the mantelpiece or over on the bookcase, just to make a better composition. You get very good in doing this and in terms of knowing what will get by.

You need to know whether for the next piece of coverage it should go back or should you move it even more this way. These are all details dealt with principally by the camera operator. I like to see what they are doing; I like to ride the rehearsal if it is possible time-wise, so I can see that the composition is working, that the shot is working. There is this need of having the picture in my mind all day long, particularly in a scene I know that I will be coming back to. Just having looked in the finder makes a great difference for me, particularly if I have been able to ride the rehearsal. Of course some directors, like Steve Spielberg, like to ride the rehearsal too. Spielberg loves to stage the scene through the camera. And you see it happening, and it is marvellous because he has the sense of moving camera to people and people to camera that is just priceless. He comes into a room and many times before he even starts the rehearsal he will say, Camera here, 29mm, and he will start blocking the scene that way.

I like all my key people reading the script. Like the operator, the first assistant, the gaffer, the key grip, and others as well, if possible. It is absolutely essential that they all read it. I like everybody to know the story they are telling. So they are not just showing up in the morning as mechanics. Because the more people on the crew are involved in telling the story and coming up with ideas, the better off you are and the more sense of participation they have. I like everybody to come to the dailies. I do not believe in closed dailies. I just think that people should see the fruit of the work they are doing. And many times you will get tremendous ideas from somebody who is the third grip or the second electrician because they are looking at it from an unprejudiced point of view. It is also the sense of involvement of the unit. It is one of the best things about filmmaking and it is particularly true of a film that shoots on location; the sense of family that forms in the film crew. You are living in the same crummy motel and you are eating in the same restaurants every night and when you see these dailies together in some little room or in the neighborhood theater, it provides a reason for all these people with these diverse backgrounds being out in some strange place shooting a movie. It is one of the best things about it. At the end of a long shoot, when people are saying good-bye to each other, it is very touching a lot of times because you have been through many difficulties together.

The collaborative effort, often under adverse conditions, creates intense relationships among crew members. In a very natural way the cinematographer often becomes the nucleus of this instant family with crew members looking to his leadership.

His second-in-command in the area of lighting is the gaffer. He is not only the chief electrician but also a close collaborator with
the cinematographer in shaping the look of the film.

James Crabe, ASC

I worked with several gaffers who had decidedly distinctive style in themselves. You often learn from the people that are working for you. I worked with Aggie Aguilar quite often. He works a lot with those soft lights with the egg crate grid and then he has that honeycomb that he puts on lamps, so you get the directionality of light and you are able to control the soft light.

Gaffer Richmond ("Aggie") Aguilar, whom James Crabe mentions, feels that the cameraman and the gaffer work as a team. With today's complicated camera movements occupying cinematographer's attention, lighting becomes too much work for one person. The gaffer communicates with the operator as well, regarding the frame lines of the shot. The Best Boy, who is next in line on the electrical team, runs the crew, takes care of equipment and makes the power connections. Most often cameramen leave it to the gaffer to decide on the particular lighting instruments to be used.

Michael D. Margulies, ASC

I will discuss with the gaffer what I want, where I want the light coming from, what I want the light to hit, and usually let him decide on the units he uses. Nine out of ten times he will make the decision on the unit. If I want something specific I will ask for a specific unit, but generally that is his department. I want the set looking in a certain way and I want so many footcandles and that is what he gives me.

When the gaffer and his electricians are setting the lights, the chief grip with his crew is responsible for handling all the reflective boards and the diffusion materials used in front of the lamps. They also set all the black gobos, flags and teasers to control the light spread.

James Crabe, ASC

It takes a new kind of grip nowadays. In the old days the grip was always there with a C-stand and a little flag, but when you deal with large sources you have to be quite ingenious in stringing up black cloth to keep light out of the lens.

A person who should become the cinematographer's close ally is the script supervisor. Some cinematographers plan their lighting of a given scene on the basis of the script. Others consider that you can bury your instincts by preconceiving the shots. They rely on their gut feeling. Conrad Hall confesses that he "attacks each day with absolutely no foreknowledge of what he is going to do." He knows the script, but asks the script supervisor to read the scenes for a given day, to hear it coming from somebody else. Often this reading gives him an idea. Hall also believes that the script supervisor is his ally when it comes to matching the shots.

Conrad Hall, ASC

It is very important to pay attention to matching, and it is one of the things where you work most closely with a script supervisor. You have to get together beforehand and come up with a system by which to remember how to reproduce weeks later what you had started out weeks before. You make notes on your lighting, you make notes that a given scene which was incomplete was shot at a
certain time of day, what type of light there was, what kind of weather. When you are dealing with close-ups, there are means to reproduce the atmosphere, but if it is a large scope then only nature can reproduce atmosphere effectively and you have to let the production department know that this cannot be done at this time.

The problem of matching constitutes the major difference between still photography and film. It is one of the most difficult and demanding tasks for the cinematographer; matching from shot to shot and from scene to scene. It requires the ability to constantly think in terms of three consecutive shots: the one we are lighting, the one before it and the one after it. Of course, the final editing will not necessarily follow the same order and this has to be taken into consideration as well. Within one shot, lighting balance is the chief objective.

I started this chapter by stating that filmmaking is a collaborative art. The members of the crew contribute their skills to translate the story from the script onto the screen. But no one should forget that this is a make-believe world and that the safety of the crew is of paramount importance. As Haskell Wexler (ASC) eloquently states:

The problem of the health and safety of the crew as it relates to the quality of the image is an important issue for the filmmakers to address themselves to. There is a tendency among some new filmmakers to forget that we are indeed in a make-believe business, that we are creating dreams and not dealing in true reality. Some directors think that they will reach some pinnacle of honesty if indeed they will hit an actor with a real hunk of wood and bruise him. And that psychology taken one step further has to do with how risky a place we will put a camera in. If the camera and the camera crew are lying on the ground in front of a skidding automobile and it is going to be dangerous, some directors believe that the image is going to be that much more exciting. That the adrenalin that will come from the camera crew, will somehow spread itself onto the emulsion of the film and make the director a better shot. Some directors feel that they are gods and forget that they are engaged in making theater, that they are engaged in making drama, that they are making images which in a manner are used to sell Coca-Cola and automobiles, and that to risk the crew members’ lives under those conditions is folly. And that is why I see the use of toxic smoke as endangering people’s lives not as immediately as being run over by a car or dropped out of a helicopter, but as hurting their health. Because this smoke is toxic. I think that these are moral, ethical issues which people who are making films should think about.

A cinematographer on the job is engaged in a complex venture involving several key figures, usually with well-developed egos. It is therefore small wonder that one of the talents often mentioned as absolutely necessary for a cinematographer to have is the ability to get along with other people. Without this quality even an otherwise brilliant cinematographer can, and will, remain unemployable.
The visual style the director seeks for a film will influence the decisions the cinematographer makes about lighting the scenes. There are several general choices he must make about his lighting technique. Will it be hard or soft? Will it be high- or low-key? Will it be lit to a great extent with practicals or from sources outside the frame? Each of these basic decisions will greatly affect the look of the film.

**HARD VERSUS SOFT**

Before we go deeper into the subject of composing with lights we have to look at the character of light itself. Light can be hard, soft or gradations in between. Hard light casts strong shadows and the softest light is shadowless. Hard light is generated from a small source whereas soft light comes from a large one.

The hardest source of light known in nature is the noonday sun; an overcast sky is the softest source known. It is as if a diffusion material has been stretched from horizon to horizon. The illumination comes from all directions and cancels out the shadows.

Over the years lighting designers, cinematographers, and gaffers have designed a vast array of lighting instruments to produce both hard and soft lights.

The hardest light in general use is the arc. Its light, created between two carbon electrodes, is smaller and brighter than the filament of an incandescent bulb. A Fresnel lens is used with an arc to bring the light into a narrow beam. Incandescent lights with Fresnel lenses also fall in the range of hard lights. Open-ended lights can be hard or soft depending on the size of the reflector and on the
type and positioning of the bulb. The softest are boxlike soft lights and a variety of lighting instruments made in the studio that consist of rows of bulbs behind a diffusion screen. Even softer sources can be created by placing very large diffusion screens in front of conventional lights or by bouncing light off large reflective screens onto the subject.

Soft light produces much lower light levels for the same wattage used than hard light and it falls off with distance much faster. In the days of slow emulsions, its use was limited mainly to a general fill function. With the advent of fast color film stocks, however, soft light sources became adequate as the main modelling light. Many leading cameramen developed a style of lighting that utilizes soft light as the chief light source in a majority of scenes. Other equally distinguished cinematographers continue to favor the predominantly directional focusable key lights; these should be chosen carefully for a particular area and function. There is, of course, a middle ground, which might be to use predominantly soft light but accentuate modelling with some harder sources.

Soft light technique is basically area lighting, which creates a more natural look. Since less equipment is involved it actually helps to keep the production moving at a better pace, especially when less professional actors and directors are involved. It also allows the actors more freedom of movement on the set. These attributes become rather important with today's budget considerations. There is a drawback to using soft light, however. It is difficult to control because, originating as it does from a large source, it spreads in all directions. Therefore huge black screens (flags, teasers) are needed to cut off the light from certain parts of the set.

Soft light falls off rather sharply also; therefore it must be positioned relatively close to the subject. That becomes problematical in a wide angle shot when a large area of the set is in the frame.

**Jordan Cronenweth, ASC**

Soft lighting is much more difficult to control than hard lighting. It is not what you light that counts but what you don't light. Anybody can go back there and turn on a beautiful soft light; take a light and bounce it off a white card and get 10 footcandles or 15 footcandles and say, Ready. But to control it you have to do many things. You can take it off the actor and just hit the back wall and silhouette him, or you can take it off the back wall. You can make a shadow. You can put a bottomer on it, or a topper, or a sider.

Soft lighting gained its popularity because it gives the scene a more natural, less "filmic" look than hard lighting. At the same time it has a danger of lacking character. In the final analysis, it is just another "brush" to paint with, but not the only one.

**Caleb Deschanel, ASC**

I think that soft lighting is very limiting. There are certain scenes or certain locations that call for that, or certain kinds of moods or atmosphere. I think that soft lighting mainly came as a result of the fact that film reacts a little bit differently than our eye does to light. Soft light was a means of achieving on film what we have a tendency to see with our own eyes. You very rarely see lighting in real life with real strong back light.

A cinematographer would be unwise to judge a style of lighting on its own merit. Sometimes the qualities of soft light that seem less interesting are just the qualities needed to serve the story.
Caleb Deschanel, ASC

The argument between hard and soft light is kind of weak because in a sense you really make your judgment based upon whatever the story is. There is a tendency to think that the philosophy is soft or hard lighting, but in reality the philosophy is what film I am doing. Basically you should have at your disposal any range of lighting styles.

One has to have practical experience in both styles of lighting to be able to mix and match them effectively.

Haskell Wexler, ASC

Everybody should still work in hard light as well. Not to do it and to say that it has to be all soft light is like throwing away part of the artist’s palette. I think that the more variety you can have, the better it will look. To be able to light well in hard light makes the soft lighting a piece of cake, because a soft light is very forgiving. Soft light, uncontrolled, is still acceptable photographically. It is really hard for soft light to look bad, but it is not hard for hard light to look bad.

Wexler has hit on an important point here. He continues:

One reason why soft lighting is so popular is due to the fact that there is more improvisation today which is tolerated by the soft light. It is possible to utilize in soft lighting what we have learned from hard lighting and a lot of good cameramen actually do that.

In immediate and practical terms, the character of light will be initially designated by the time of day. Day interiors are affected by sunlit windows. Many cinematographers call sunlight coming through the windows “sourcy” light, meaning that it is well defined in its origin. Practicals, or lights visible in the scene, are also sourcy.

Vilmos Zsigmond, ASC

Lighting depends on the picture. I really believe that daylight scenes should be lit softly except for harsh sunlight coming through the window, which is sourcy. But most daylight scenes are very soft and should be handled like a bounced light, no shadows and all that. But night interiors and night exteriors are, in real life, very sourcy. Sometimes you have hard light with practicals. Candlelight is a sourcy light. You really try to follow reality as much as possible. I do not like to light with hard sources anymore unless that is the way it is in real life. Almost everything nowadays is done through some diffusion material, unless you elect to be sourcy.

If you go too soft in the lighting, it just becomes boring. The difficult thing is really to light softly but to create a contrast at the same time. This is a difficult thing to do. Soft lighting can be more or less directional depending on the mood of a scene and the kind of set.

Directional light can be made soft through diffusing and bouncing. Soft light can only become partially directional with the use of flags, grids and teasers. Creating varying degrees of softness and directionality becomes one of the important methods used to create mood through lighting.

Richard Kline, ASC

In directional lighting we will take a unit and we can slip in a soft material like a spun glass a diffusion material which softens the light. You can use frosts and you can also bounce the directional light, which I do quite often.
Take a very strong light and bounce it off the card and then box it in with gobos, rather than [using] the generality of the overall soft light. It all depends on a scene. When I do a film I try to get a variety of looks because if the whole picture is soft-lit it becomes boring, and I have seen that quite often. Yes, it is pretty; each frame is gorgeous; but after a while it is meaningless because it is repetitious. It is a question of the overall picture so you have the variety of looks, and not just for the sake of variety. Most of the time in a story there is generally a night and a day, which require different looks. There are different times of a day and there are different rooms, which could dictate a different look. Sometimes you achieve it strictly through a bounce light. A bathroom or a kitchen, which are usually soft during the day, are ideal places. This might be a place to use the overall soft light, I think, but then again you come into a living room and it is usually down a bit, moodier, even if it is very soft. There are usually darker areas; you can make a set look soft and still go directional.

Experienced cinematographers see soft and hard light as two extremes in the whole range of light characteristics, each useful for certain applications.

James Crabe, ASC

To try to differentiate lighting generally by saying that there is hard lighting and there is soft lighting, one has to remember that there are a million variations between hard lighting and soft lighting, too. I certainly think that today the tendency is to use more soft sources that are more akin to what we experience in life, except in a tungsten situation at night where light bulbs and small sources are casting hard shadows. Much of what we see is bounced light and with the faster film it can be done.

I think the pendulum always swings [first] one way and [then] the other when you think that at the very beginning of motion pictures, the first studios were covered with muslin that would allow only soft light to come through. But, of course, there are many possibilities and effects available to soft lighting. Anyone who dismisses it as being easier to do or just a cheap shot is not really thinking about it. It is difficult with soft lighting to keep the sources out of the shot, usually because you often want them around a little bit. You can always put a Junior up, out of the set, or a Baby, or something, but to have a large radiating source like a bounce card from an interesting angle, particularly on real locations, quite often takes a lot of effort and thought.

Although cinematography began with soft lighting, for a good fifty years hard lighting predominated. The slow emulsions required lights with a “kick” to them. The resulting style was characterized by sharp shadows and well-defined areas of light. This created a rather dramatic, stylized quality. Since the sixties the trend toward more realistic treatment of the story has led the way to soft lighting. But the pendulum continues to swing.

LOW KEY, HIGH KEY

One of the most decisive factors creating the visual mood through lighting is the question of contrast and light distribution known as the Low Key and High Key styles. These
Low key effect is created by the use of one hard light source and predominant shadows. The lighter part of the face is played against a dark background. *Sophie's Choice*, Nestor Almendros (ASC), cinematographer.

The candle scene is in low key but with an upbeat mood. Lighting comes at an angle approximating the candle light. Street light patterns outside the windows provide more depth and separation of the planes. *Sophie's Choice*, Nestor Almendros (ASC), cinematographer.
The same room as in the candle scene is lit to a high key effect with strong daylight outside the windows and rather flat lighting of the actors. Sophie's Choice, Nestor Almendros (ASC), cinematographer.

-styles should not be confused with hard and soft lighting, though there are many parallels and similarities.

In a Low Key scene the majority of the picture is underlit, but some parts are correctly exposed or even overexposed. If, for example, there is a shot of a prisoner in a dark cell, perhaps a small window in the upper corner will be quite bright and one quarter of his face will be correctly exposed, but the remainder of the frame will be a few stops underexposed and no fill light will be used. The result is an overall impression of Low Key because the eye compares the dark areas with the few that are well lit.

Underexposing all the areas would lead to a murky picture without sufficient contrast and visual impact. We have to remember that it is by comparison of brightnesses and shadows that our eyes comprehend the lighting values in the frame. As many cinematographers state: "What you do not light is often more important than what you do light." In black-and-white pictures the brightness range is all there is. In color, the hues and saturation will also contribute to the overall gradation.

High Key represents the opposite concept. Here most of the frame is well lit with a lot of soft fill light. Sets are rather light in color. If the heavy shadows of Low Key are intended
The SS officer is crosslit and well filled in to give him a more self-assured and domineering character. *Sophie's Choice*, Nestor Almendros (ASC), cinematographer.

Lighting a night scene from the camera side rather than from three-quarters back is not typical, but is very effective here. The actress looks drab against the dark background, which is in keeping with the mood of the scene. *Sophie's Choice*, Nestor Almendros (ASC), cinematographer.

To introduce an element of suspense, the shadowless High Key leaves nothing to the audience’s imagination.

To understand High and Low Key styles better we should take a closer look at character and the functions performed by the key, fill and back lights.

In the hard, directional lighting style, the traditional concept of key light, fill light and back light was clearly defined. Today, a soft
In this scene, flat lighting, together with a high camera angle, helps to create the mood of dejection and alienation. The reverse shot shows the unfriendly library clerk looking down at Sophie (Meryl Streep). His lighting includes a kicker which gives him a more self-assured look. The light reflections in his eyeglasses add to the ominous effect. Sophie's Choice, Nestor Almendros (ASC), cinematographer.
Strong backlight is logically motivated by the street lamp. The ambient room light justifies the soft front light. Sophie's Choice, Nestor Almendros (ASC), cinematographer.

light, enveloping objects and bouncing off surfaces creates a seemingly less clear distinction, and yet with a little bit of common sense we can always analyze the sources. The main source of light, which gives character to the scene, is the key light, even if it is extremely soft. Although with softer keys the fill light is not always needed, it remains an important light when the key light comes as cross-lighting, for example, from the side (half light) or even from three-quarters back.
Richmond Aguilar

Fill light is a very important light. It is taken for granted, but it sets the mood and it can save your life in exposure. It starts picking up details in the background, things that you would not see otherwise.

In terms of placement, fill light can be described as being rather close to the lens axis, for example, slightly above the lens or opposite the key light, or both.

Back light traditionally fulfilled the function of separating people from the background. This function was necessary in black-and-white photography. It became less important with color, where the elements in the frame are separated from each other by their hue. Some more radical cinematographers reject back light altogether as artificial but with the advent of softer key light the majority of cinematographers find back lights useful.

Depending on the angle these accentuating, textural lights have many names. Back light usually means a light directly behind the subject, in line with the lens. A back light that does not indicate the source but just lights the hair is appropriately called the hair light. Also from the back comes the rim light or rimmer, which gives just a thin rim of light to the subject. The next light farther to the side is the kicker, which gives a certain sheen to the cheek as seen from the camera-position. Farther yet to the side is a liner, which could be defined as a kicker, but is forward enough so that it does not produce any sheen. Glow light comes more from the side and basically creates a little glow on the shadowy side of the face but does not produce any shadows of its own: it has no "kick" to it. For the sake of clarity I have tried to systematize all these terms, but in practice they are used less precisely and sometimes interchangeably.

The liner may mean the rimmer, or the kicker. Various cinematographers and gaffers develop their own nomenclature over the years. This variety of light directions represents part of the "palette" of the cinematographer, to be used judiciously when and where it is needed. Incidentally, back lighting need not

The actress' profile is delineated by a rim light. Her key light comes from the right. Sophie's Choice, Nestor Almendros (ASC), cinematographer.
be a hard, directional light. Many people use soft light to create the effects of separation and light rim on a subject.

**Richmond Aguilar**

I use almost exclusively soft light for back light. It gives a little bit more area of highlight and the light is less harsh, so you see the outline but you are not conscious of the light being there. On a location interior you are limited by the height of the ceiling. Under these circumstances your back lights are low. If you are shooting a party with a lot of people milling around, it is quite disturbing when people block the back light. But if you use a soft light up there, or more than one, then when someone is blocked from one light he still gets some from another back light. It is a very soft, easy change; you do not have that harsh on and off shadows.

A harder light that gives a real punch may be referred to as a zinger.

**Richard Hart**

A lot of cinematographers like that “zing.” It usually gives a rim-hot back light on hair to line out the profile, like a kicker. When someone says “I want a real kicker in there,” they don’t necessarily mean kicker in the terms that we used to use them. Kicker was the three-fourth back light. Now lots of times it is a term used for just a real hard punch from some direction. It may be a total half light that someone steps into at a point. “Give me a real punch right there,” “real kicker,” “zheimer”; they all mean the same thing.

We will conclude this review of back lights and kickers with a few words of caution.

**Jordan Cronenweth, ASC**

In lighting, time is a big factor. A trend in lighting is to get more and more simple, the judicious use of back lights and rim lights and kick lights. It stems from the fact that they all take time, so you put them where you absolutely have to have separation. You see unnecessary kickers every night on every channel on television. Lots of guys put them in out of habit, I guess, because of the “key light, back light, fill light” principle. Sometimes it is nice to have a face that is just almost melting into the background; it depends on what you are doing.

**Sources of Light**

Once the character of light is decided for a given scene, the cinematographer’s task is to decide the practical and hypothetical sources of light and the direction of lighting. These choices will be influenced by the script and the director’s concept of covering the scene. The more camera setups you can get from the director in advance, the less danger of “painting yourself into a corner” with lighting. Therefore most cinematographers insist on seeing the run-through of the whole scene before lighting it.

**Vilmos Zsigmond, ASC**

The sequence of lighting a scene depends upon how a director works with actors. Unfortunately, many times actors have a late call,
so usually you will talk to the director the night before or that morning. You ask him what he will do in that scene. He will rehearse with the stand-ins, walk it through, and he will establish a few things. For example, let’s say somebody walks in through the door and sits down in a certain place. I prerig the lighting for this move. When the actors arrive, even if I am not finished, I will ask the director to have a rehearsal to finalize the action, because many times it will change. The actor will come in with a different idea, and they will change the whole thing. Maybe he won’t come through the door anymore; maybe he will come from the other side of the room and that means that you would end up doing your job twice. I don’t want to do that, so I like to get a rehearsal as soon as possible. When everything is locked in, the stand-ins will walk it for me; then I light the stand-ins. When this is done, usually you can shoot the scene. Most of the set can be prerigged to a certain degree.

Cinematographer Allen Daviau suggests lighting the windows on the set even before the rehearsal begins. In this way the light sources are suggested to the director and may, in turn, influence his staging of the scene.

**Haskell Wexler, ASC**

When lighting a set, prerigging is a time-saving practice, and it allows you to see the lighting problems in advance. The sooner you will get something lit, the sooner you can see whether you have made a mistake or not. This way it will not happen when everyone is waiting and when for reasons of time economy you would have to live with your wrong decisions.

Although prerigging may save time in a long run, on fast schedules it may be considered a luxury that cannot be afforded. Gaffer Richmond (“Aggie”) Aguilar who frequently works with cinematographer Laszlo Kovacs, discusses ways to work around more restrictive budgets.

**Richmond Aguilar**

To a certain extent, it is dictated by how much time you have and what you are allowed to work with. When I started working with Laszlo Kovacs, I would be roughing-in when he was working with the director blocking the scene. I would be lighting the set from the background, or maybe outside, working toward the foreground, to the principals in front of the camera. By that time he will know where they will be on their marks and whether he will want to key the scene from the window or not. So, essentially, we would be working in the same time without too much coordination. I got very familiar with what he likes so it would work out very well without talking back and forth. In those early pictures, there was not a lot of time to release the set to the crew. We were lighting when they were rehearsing. Now in a major production you will have a rehearsal and a scene will be blocked out by a director, and we will be excused from the set. But on a very pressured schedule, we may have to work simultaneously, with the director rehearsing. It depends a lot upon a director and the people around him if they can work in this situation. Some want absolute quiet and privacy. That is a luxury which you cannot afford in a television schedule.

I start lighting from the background because we do not really know what the actors will do in front. When the director is working on that, I will go and do the windows outside and we will talk and establish, for example, that perhaps the sun comes through the window back there, so we have something to
work from. The other school is to light the foreground action and to cut it off from where you don’t want it, and then work your background. The basic question is: Where the hell will you start lighting the scene? Every scene has a key to it, something that will work for you. You see the light through a window or from a chandelier; those are obvious things. But, there are other scenes that are less obvious; a stained glass window perhaps, or maybe a plain room with one door open and a shaft of light coming down the hallway; something that would be appropriate for the dramatics. You find this one key, and if you like it you work from there. Many times it is awfully hard to get that one thing.

Deciding on light sources involves the aesthetic philosophy of the cinematographer. The two basic orientations are sometimes referred to as “Naturalism” and “Pictorialism.” The naturalistic school of lighting would follow the natural, logically established sources of light in the scene. The pictorialists on the other hand would use light angles that violate this logic if they achieve a more pleasing picture as a result. Of course, there is no cut-and-dried division between these two approaches. It is more a matter of give-and-take between the logic of the source and the compositional requirement of the frame. Generally, most cinematographers believe in justifying the source of light.

Richard Kline, ASC

I establish a source. The position of light can change in various setups but the general character of the source will still look the same on the screen. You just need to enhance the source. Now, whether it needs more light or stronger light, it will still be the same in character.

John Alonzo, ASC

Jimmy Wong Howe once told me: Start with the source as the premise, but if the source as the premise does not work and does not look right, then change the source, just make up a source. And that is the best way because in the end result, you do not know how they are going to cut the picture. No director will start with the shot of a window and say, “Here is the light coming from this direction,” and then cut to the actor. You may never see the window in the entire scene.

It is the overall character of the light direction that matters. The exact angle of light will never be scrutinized by the audience as long as it is not disorienting.

Vilmos Zsigmond, ASC

It is good to follow practicals but I am not dogmatic. When you see that a person needs another key, you can either start putting light sources on the other side and change everything around, which becomes ridiculous eventually because you will change the look of the room, or you can cheat. Now, how do you cheat? You can always cheat with light sources and the audience will never catch you. Who says that there cannot be a light source outside the frame? If I never shoot in that direction, I never reveal the cheat. You can get away with many things. If I was forced to cheat during the day, I would turn on some lights and use mixed light. But I like to justify the lighting. It is very important that people are lit realistically from existing light sources. And if you cheat, you cheat with light sources that you do not see but you feel that they could be there.

Sometimes the light direction is established by what “feels right” even if the logic of source is violated.
James Plannette

If you are photographing a scene and there is a light source in the picture, even 50 feet away, the direction of light should come from this source, even if in the previous shot another source was visible and another direction of light established. If it came from the same direction, but a new source of light was visible, it would be distracting. The audience may not be able to verbalize what bothers them, but something would be bothering them.

LONG SHOT AND CLOSE-UP

Once the light directions are established, the time comes to execute the lighting strategy for the master shot and the coverage of the scene in closer shots. The extent to which the lighting will have to change from a long shot to a close-up really depends on many aspects of a scene. With predominantly overhead soft lighting for a master shot, the eye sockets can look cavernous. Close-ups will most likely require some “cleaning of the eyes,” which means filling them in with lower angle light to get rid of the shadows. In hard, directional lighting, the changes will often depend upon the individual features of the person in close-up and on the composition of the frame, which tends to be affected more by hard directional light. Many cinematographers feel that if they spend more time and care on lighting the long shot, then there will be fewer delays and problems when they move into close-up coverage.

Vilmos Zsigmond, ASC

I usually spend a lot of time lighting a master and I usually do the rest of the shooting with very few changes. I prefer to spend twenty-five percent more time to light a master than an average cameraman would do, but then I use much less time on the close-ups. Directors do not like to wait too long after the master for the close-ups because they lose the level of the performance. Many times a director will set up two cameras and get a master and a close-up at the same time. Of course, I don’t like to use this technique too much because you end up doing the close-up with a long lens, in a lighting set for a master shot. This is sometimes limiting, especially when working on location. In case where I cannot light the master right, I will correct it in the close-up. I always try to bring the light through windows or from light sources, so it looks right and it can be used for the master and the close-up as well.

Coming closer to a close-up may require a change in the lighting ratio to better match these two shots.

Caleb Deschanel, ASC

You have to make certain adjustments for close-ups. You can generally use a higher lighting ratio in a close-up then you do in a long shot. Some of it depends on how hot the background is and many other things, but if you are in a setting, generally you get farther back and details that you would pick up in a close-up get lost and just become totally black or extremely dark, so that you don’t see any details. It is not an absolute rule because each scene is different. If you have a very hot background, then that rule changes, but if it is a
dark background, then when you are getting closer, when the image becomes large in frame, you start seeing details in shadows even at the same lighting ratio as when the object was farther away. There is also more grain there to create the detail.

The background may need adjusting as well when coming to a close-up. For example, in a long shot the shadow on a wall is halfway up the wall. In a close-up, actors may be only against white, so you have to lower the shadow line.

Specific lighting procedures always depend on the subject.

Haskell Wexler, ASC

You have to know what the scene is. Let’s suppose that it is a motel room. Two people are seated at the end of their beds watching the TV set. You rig a light that would simulate the light from the TV set. Now the director probably wants to turn the light between the two beds on or off, so you rig that light into a switcher. Generally speaking, we do not let the actors turn the lights on or off in a scene. They put their hands on the switch and we switch them off. You might have a small “coffin box” or a small square soft light on top of a set, so that there is an ambient exposure light, so to speak.

Sometimes you just light the room. You take the existing sources in the room and you enhance them visibly. You light the room for a naturalistic film and then, when they come to a close-up, you hit the eyes a little bit but not so much that it destroys the lighting character of the room. You do change the lighting when coming to a close-up but nobody should know it. Unless, again, you are trying to make a dramatic point. Sometimes you can make a dramatic point that is not necessarily realistic. I can imagine a film where someone is starting to cry and it is a very high dramatic moment in a film that is not realistic in its concept. You can rig a light to a dimmer to slowly brighten the person’s eyes. It is perfectly legitimate in this film. In a realistic film, when you go to a close-up, you have to keep the change in the same character as the other shots. The light that was hitting on the right side of the face in the master should not hit on the left side in a close-up.

IN THE STUDIO AND ON LOCATION

The actual painting with light, creating the three-dimensional composition to be ultimately recorded on the two-dimensional film, has to be approached differently in the studio and on location. The challenge of a dark stage holds an immense appeal for some cinematographers.

Conrad Hall, ASC

Starting on a dark stage is the most wonderful, joyful evolvement ever and it is just a metaphor of what all life should be like. It is as if you are coming into a problem that you have to face and there it is, like a life to live. What are you going to do? You have choices to make. It is not like there is one way to do it, and you have to figure out how to make those choices. I have gone about it starting with a concept. A concept gives you enough information to start talking to somebody else that you are working with, because at this point you are going into a teamwork opera-
tion. So, the concept has to be spoken, articulated, and everyone on the crew has to be imbued with that concept. Now we are all working with one concept instead of everybody working with his own idea. And, I am working with the director’s concept, and then [come] a lot of discussions, because sometimes you know just how to do it and sometimes you don’t.

In the past, the total control in the studio setting was often blamed for an unrealistic treatment of the story material.

James Plannette

When you are shooting a night street scene on a back lot everything looks too perfect. You get on a back lot of some studio, and you have arcs and towers, and you have everything you want and so you end up shooting at f/4 instead of at f/2.8, and so the headlights do not look the same and the neon signs in the windows don’t look so bright as they look when you shoot real exterior, and everybody has a perfect key light, because you have lights on top of the buildings and you’ve got the towers and all of a sudden it is the studio. So even if you are shooting on a back lot, pretend that you are not. That is the problem in the studio with scaffolds and lights on them, that everybody has a backlight: that says, Studio.

Some filmmakers find the limitations of location shooting more reassuring.

James Crabe, ASC

When working in sets you are creating everything yourself from the ground up. It is all artificial. When you are going to a natural location, walking through the door, you are aware of where you can put the camera, and where you cannot. You are affected psychologically by the lighting of the place when you see it in the natural situation. You may try to emulate that. It is a lot different from coming to a studio where the grips can tell you, any wall can come out, everything is wild, you can shoot anything you want to shoot. Some directors like the control, being able to design everything, and a lot of directors are terrified of that aspect and prefer to let the natural aspects of the location dictate the staging.

There is no question that the studio allows for much more precise and sophisticated lighting.

Conrad Hall, ASC

In the studio you have total control. I love the distance that you can have from your lights because I hate to see somebody walking close to a wall with a larger-than-life shadow of himself. That means that the light source is very close. But in the studio, when you can have your light source thirty or forty feet away, an actor can walk any place in the room and he does not burn up when he walks to a window.

Of course some location interiors are so vast that they combine the best of both worlds: space and authenticity. Irrespective of the type of interior where the scene takes place, the cinematographer has to decide on the look of it.

All the lighting strategies should serve only one thing: The story. It is the mark of a good cinematographer that he is not creating beautiful pictures for their own sake but that his vision helps to tell the story in the most effective way. And we can only hope that the stories that come our way will be worth telling in the first place.
LIGHTING FACES

The human face is the most studied subject that ever appeared before the lens or on the painter's canvas. Still photographers and painters before them worked out several ways of minimizing certain features of the human face and augmenting others. The general direction and angle of the key light will establish the mood in which the face is lit. Over the years we have seen countless angelic maidens haloed by light from above as well as A close-up lit by a soft light key which is also bounced off the foam-core board to provide the fill. Backlight comes from a hard Fresnel source.
The same lighting design with additional kicker and eyelight.
The same lighting design, but the white foam-core board is replaced by a black gobo.
This close-up is lit by two soft lights further diffused through Tough Frost plastic material. Backlight remains hard as in the previous setups.
Jezebels who are always lit from a low angle. As the saying goes, good people are lit from heaven and the bad people are lit from hell. These cliches are not as obvious in today’s more natural and often softer lighting, yet the angles of light and the composition of light in the frame remain as the most powerful tools for the creation of mood and for the shaping of the actor’s face.

Many techniques employed in the past are still useful to the cinematographer who has a more difficult problem to solve than the still photographer. His subject moves.

Conrad Hall, ASC

We are dealing with moving pictures and people are in various positions and in many different kinds of light. They cannot be in the same type of light unless you soft light them. Then there is no problem. But if you have a person by a window in bright light and then you take him to a corner in dim light, and you make him turn on the light, then you have those three different equations to deal with. You might have a hard half-light on him and then you might have a no-light look when you see his face in a soft dimness and then he comes in and turns on the light and he is very brightly lit.

The best way to learn how to light the human face, whether it is stationary or moving, is through experimentation. The still camera, Super 8 film or video are all affordable tools for such studies. Even careful observation of people in everyday light can be helpful.

Conrad Hall, ASC

I work with the person. If a person is meant to be unattractive, then you are lighting for unattractiveness. I study the actors’ faces very carefully. I watch them like a hawk all the time when they are drinking coffee, talking to anybody else, moving around. I try to imbue myself with the qualities that I find and the things that happen by accident in nature that appeal to me and apply to the type of lighting used for the story.

Actors are often sensitive about particular features. Any of these “flaws” can be diminished or accentuated to serve the story.

John Alonzo, ASC

If a person has a double chin and is conscious about it and doesn’t want to show it, you raise the key up higher and put a dark shadow under the chin. If they have a bump on one side of the nose, you try to keep the key on the other side. If they have a large nose, you try to shoot them straight on. There are a lot of different little tricks, but the actor has to be cooperative to do that. They have to be aware of that.

One rule of thumb is to position the light side of the face against the darker background to define the shape of the face and to create separation and depth. Wall color and brightness can cause the face to blend into the wall. Rarely is this a desired effect. Should you wish to deemphasize a bald head or large ears, the above may be useful. When lighting an actor with these features, be careful with the back light, or avoid it altogether. You can also use nets to keep them in shadow. Sometimes a round face needs extra attention.

Richmond Aguilar

When you deal with a round face and you do not want to accentuate it, usually you will go high with your light which brings up the top of the face and the light falls off at the cheekbones giving you a longer shape of the face.
The key light, eyelight, kicker and backlight are all Fresnel lights in this setup.
The floor angle key and high angle kicker are positioned on the same axis.
A soft light is hung from above as a key. Additional eyebright is used on the stand to accentuate the eyes.
You would not come up from the front with a soft light, because that makes the face even flatter and rounder with the light clear back to the ears.

One soon learns that deep-set eyes and large noses are usually the main problems to deal with and these are the features most commented on by the cinematographers interviewed.

Ralph Woolsey, ASC

Sometimes you get problems like deep-set eyes, or heavy eyebrows. Some performers cannot stand light very well, particularly outdoors, and they squint, and need help in opening their eyes. You may have to set up an overhead butterfly or other scrim, or take the sun off and replace it with another source. Reflectors are impossible for some to face, especially if such persons are not used to them.

Once on a western, we had a leading actor who wore one of those hats with a straight brim, pulled down right over his eyes. To fill the eyes in the outdoor scenes I started to use a small hand-held reflector, down under the camera lens. And he said, “No, no, you cannot use that. I can’t stand it.” I was a little surprised because he was an experienced actor, but I replied, “OK, but you’ll look like a raccoon if I don’t.” We then agreed not to use it, and look at the dailies for proof. Of course nobody could see his eyes on the screen, and he agreed to the reflector right away. We could not always get the best angle for using that reflector directly from the sun, so once in a while we directed a mirror into it. The reflector was small and soft, and I would ease it on gradually for comfort.

Try to prevent a kicker light from hitting the nose. If the light is just hitting the tip of a nose that has some irregularity, the result might be annoying in a close-up. By having a person turn slightly, you sometimes get a nice line along the length of the nose, and if straight it looks okay. But to avoid that one little angle that might look bad during the action, you work to get the light around to a better position. Fortunately, women often have enough hair to keep us out of trouble with nose kicks. But since performers do move in movies, we can’t lock them in one gorgeous angle anyway; however we do relight for close-ups and try to restrict movement in these. In films of the twenties and thirties, actors were often fixed in beautifully lit positions, and cinematographers even used burned-out gauzes which would diffuse the image around a person, which would greatly restrict movement. The wide screen and freedom to move around have required more flexibility in lighting, and some compromise.

Richmond Aguilar

Generally you are concerned about the eyes, how to get the light into the eyes most effectively. For deeply set eyes, you have to light fairly low and to the front. You cannot go around to the side with your light and very high, because the eyes will be shadowed. The bridge of the nose is also a feature to be careful about because you might be able to get the light into the eyes from a certain position, only to see that it gives a bad nose shadow. Then you have to compromise with that. Generally, you try to avoid the kicker hitting the tip of the nose at all costs. It is this hot spot in the middle of the face and we are not used to it. A long diagonal nose shadow is also not too flattering. Soft light softens the prominence of that shadow. We do an awful lot of lighting with a soft light. Even at night we have been doing more soft light work than so-called hard night scenes. We would use soft light on the principal actors and hard light maybe on the walls to control the set. Soft

LITENING A SCENE 137
lighting the action, eliminates the obtrusive shadows when actors move, so that you do not have shadows busily playing around in the picture.

**Michael D. Margulies, ASC**

A nose shadow does not stay the same because the actor or actress is not long enough in that position to put that shadow in a specific place. Several times I have asked an actor or actress to look only in a certain direction so that the shadow would stay at a certain angle. Many times I have gotten cooperation and then many times I have not. They do not want to be tied down. The new school of contemporary actors does not want to be restricted. In the early days of Hollywood, before the development of the soft light as we know it, in the dramatic, directional style of lighting, the actors were much more restricted in their movements and head positions.

When a kicker catches the tip of the nose it is always brought to my attention by the gaffer or the grip. Usually it does not bother me, in fact it is a little sparkle, a little highlight, that looks nice. Now, this is basically on men. I do take more care of the ladies and I try to avoid that. Another thing to watch out for when lighting women from a side with a hard light, is the shadow from long eyelashes. To me it is an ugly line on the bridge of her nose and that bothers me. Then I will go with my key up and fuller. It is hard to sidelight a lady with long eyelashes without getting that line.

The only anatomy of the face that is a problem for the cinematographer is the eye socket. When the eyes are deep set, then very often you have to come up with an eyelight. The top light or a ceiling bounced light will give you dark "wells." Some actors with experience know that they have that type of an eye and they will be aware of an eyelight or a lack of one. For an eyelight, I just use an Inky with barndoors closed and taped on the edge and with some diffusion.

When dealing with older, more difficult to light female faces, it is wise to make tests in advance.

**Philip Lathrop, ASC**

You generally do it when you make a hair test or a wardrobe test. You do a makeup test at the same time. The makeup test is really for a cameraman.

One way to light a close-up of a woman with many wrinkles, is to take a 10K far away, frontal and up, and cover it with diffusion on the light and then a few feet away put another diffusion in front of it. It gives a good modeling and soft shadows. By using a 10K, I get the light which goes right around the face.

There are times when the mood of the scene does not allow for a full frontal lighting. In such circumstances, Lathrop suggests minimizing wrinkles by lighting the face at a half-key level and adding a kicker at full key value. He also uses lots of shadows on faces like that, such as putting a net across a part of the face.

**James Crabe, ASC**

To help the problem of aging actresses, you do it the old way: you put the key light over the lens, maybe you soften it a little bit, but not too much because you still want maybe the underside of the chin to go dark. Sometimes using soft light is not the most glamorous way of lighting women. At least on Mae West, in Sextet, we tried to use a rather hard frontal key and some Mitchell-type diffusion on the lens. I shot some test shots with Mae. When she saw them, she said, I need more
light on my eyes and my teeth. When you think about eyes and teeth you realize that you can lose them if you have key lights too high. We all know that a real high key light makes dark sockets but in older people, sometimes their teeth are withdrawn back behind the lip. If you do not get the light low, you do not see the teeth. It is hard to beat that rule: To keep the light low, keep it over the lens, maybe slightly in the direction the person is looking—the old Hollywood kind of lighting, with some nice fill coming from the camera side.

Another kind of Hollywood edict about close-ups of women is that you never shoot them looking down; you never shoot with a low camera; not to say that I haven’t. You have people sitting around a table; you want a dynamic shot so maybe you have a low camera and you are looking up slightly. Very often these ladies who are camerawise get very nervous when they see a camera down below and they will say, “Oh, put the camera up.” Now maybe a cameraman will say, “No, this is very good, we are going to relight this,” or the director will say, “Believe me, Betty, it looks great”; but generally speaking they get very nervous when the camera is down, because whenever they look down, their jowls come out and the fold-up double chins and all that stuff. Whereas in the traditional movie two-shot, a man and a woman standing together, the woman is always looking up, the man is always looking down and he has a little more rugged key light. This is Hollywood lighting. So already the face is pulled to a good position. The key light is very close to the lens and above it usually with some nice fill coming through. That is how they often like to see themselves, and often maybe remember themselves. It must be very tough on some of these ladies to see themselves on the reruns on television and then look in the mirror.

For this night interior lighting, a soft 4K light was used to create a soft, yet quite directional lighting. Jessica Lange in Frances, Laszlo Kovacs (ASC), cinematographer.
Von Sternberg claimed to have invented everything including Marlene Dietrich and Marlene Dietrich lighting. He used a very exotic effect achieved by putting a very sharp, unfiltered light up high in front to bring out the cheekbones and the nose shadow, sometimes called the butterfly shadow.

In the old close-ups you see the shadow of each individual eyelash. It was really sharp, and of course being sharp the light could be cut off the hair and off the clothing and just have that wonderful glowing madonna light coming at you. It is just a matter of putting the light in precisely the right position; but the higher a key goes, the more accurately the head has to be placed to keep that effect on.

Traditionally it seems that the most interesting placement of key lights for defining the planes of the face is rather like architectural lighting on the building. Usually you see a building in three-quarters with the one side diminishing sharply. The key light, or the sun, will hit from outside and will leave the shadow side toward the camera. Of course, this is a type of light that painters use a lot in their effects and it delineates the planes of the face. However, with some women you cannot go that far. You suddenly realize that even though it is aesthetically correct and renders the subject in the way you like to see them, there is a scar that shows now, or something that was not visible before, so you cheat it around to the front. Of course a lot of old movies would pretty much disregard the lighting continuity and people never even knew it. The key light would be one way for the master shot or the two-shot and then you cut in and the key is now on the other side. I am not quite sure if you can get away with that today. If the key light is a small Fresnel light, it is going to cast a different kind of highlight on the face rather than a big one. If there is any moisture on the face and you are using a very large reflector, it can cast kind of a phantom reflection over much of the face. Instead of getting a snappy, more concise shadow, such a reflector can produce a skeletal effect.

There is a peculiar problem when lighting some leading actresses that has more to do with psychology than with lighting.

Jordan Cronenweth, ASC

There have been leading ladies down through the years that have been told by directors and/or cameramen that they look better from this side than the other and when they get power, they end up insisting that they should be photographed from that side. I would hate to work with someone like that. That would be a terrible pain in the neck for a cameraman and a horrible problem for a director, always having to stage for that, to make people walk around in a funny way in order to end up with her on the right and him on the left.

Of course, some leading men are just as difficult to work with.

Beware also of actors who put on their own makeup. They're not as consistent as the professionals. The makeup artist is the cinematographer's ally. It is important to coordinate the makeup of the actors appearing in the same scene to avoid lighting problems.

LIGHTING FOR SKIN TONES

The true test of a cinematographer's lighting skills comes when he or she has to deal with actors vastly differing in their skin tones. When a multiracial cast appears in one scene, the brightness range considerations are tremendous. On top of that, different skin textures require different amounts of light.
James Crabe, ASC

It is really tricky. I think it is really important that the cameraman on the movie makes sure that he sees the glasses people are going to wear before the picture starts. Maybe he could drop in a couple of words about hairstyles, too. Lots of times the hairstyle is so elaborate or wild that you cannot see the actress from a profile position.

Glasses can be a problem, particularly with big soft sources that are low and close to the lens. Almost all of these glasses are convex. I find that sometimes you can bend the glasses a tiny bit forward, or sometimes lift them off the ear just a little bit. It is of course a big pain to the actor and nobody has much sympathy with you at these moments when suddenly there is a massive reflection in the glasses and the director wants to shoot. With Marlon Brando on The Formula, John Avildsen, who directed the picture and who was a cameraman himself in the past, had Marlon Brando there bending his glasses. Marlon was very cooperative about the glasses problem, but he asked Avildsen, How does Woody Allen make a movie? If you are working with a specular light, hard light, and the key is very high up or very far to the side, then you get shadows of the glasses itself on the eyes. You try to add eyelight and then, of course, it is right in the middle of the glass if it is near the camera lens. So I think that it is important to check those things in advance. In the old days you would take the glass out of the lens but nobody believes that anymore. Sometimes we

To create the harsh sunlight penetrating this darkish room, an arc was pointed through the window. A soft light was used as the key. Frances, Laszlo Kovacs (ASC), cinematographer.
use flat glass. It gives you a little bit of a break because it does not reflect as large an area, but if you do go through the light then you really see it. The whole surface flashes on and off. It can be interesting. It is a difficult problem. The best that you can do is to get the key light as far up or as far around as you can get it without creating other problems. Sometimes glasses have to be pushed up to the face a little more or bent or played around with a little bit. I never tried anything like a Pola screen on the source and a Pola screen on the lens. You might be able to totally eliminate the reflections but of course that is not being realistic. Nobody has that kind of time anyway.

When a best compromise between the use of glasses and the most advantageous lighting has to be worked out, the production company will go to great lengths to provide the right glasses. Anything around the face can distract the eye.

**Richmond Aguilar**

On the last picture we had a glasses specialist. He had a kit full of glasses and he would shape them and bend them. They were flat and curved and had matching frames to work with. It may be as critical as that. If you are trying to make an actress look as pretty as possible, you want to put light in the most advantageous places. Glasses restrict the actor in relation to lighting because of all the reflections. But it gets to a point where worrying about glasses is not worth it if it restricts the actor too much. After three or four retakes of light reflections in the glasses, the actor loses his patience with it.

**James Crabe, ASC**

When you are doing close-ups of people, you see their hat, you see their collar, you see their tie, anything that comes within close proximity is very important to deal with. So often in films now the wardrobe person will come to a cameraman and say, Well, these new nurses' uniforms are all polyester and we cannot tech them down, we cannot gray them down. This happens all the time, so you say, okay, but it can be difficult, particularly if it encroaches on the face.

One solution to the problem is cutting a hole in the diffusion material to let more light through the middle. This brings up the face a little more than the light-colored dress.

**EYELIGHT**

The eyes are the windows of the soul, as the saying goes, and great care is taken to show the eyes of the protagonists. It is often necessary for the dramatics of the scene.

**Caleb Deschanel, ASC**

Sometimes you may not need to see the eyes to tell the story and then you may have other actors like the one I remember on The Black Stallion. We had this Italian actor in the poker game scene who came up to me and told me that he acted with his eyes. It was very important that we see his eyes. You do alter things to some extent based on the things you need to see. It is possible to use a hard light just to create a little dot in someone's eye, which brings out the eyes even if it does not create any exposure. You can bring the eye out of the darkness without increasing the exposure on the eye itself, because of the reflecting property of the eye.

Some lighting styles, like the overall soft light from above, will generally require eyelights more often. To obtain a clear sparkle in the eye, such light will usually be situated very
close to the lens. But due to the curvature of the eye, some people's eyes will pick up an eyelight from the side as well. And some actors have to blink just before a take for more moisture in their eyes.

A small light mounted on the camera is traditionally known as an "Obie" light, because it was originally designed by the cinematographer Lucien Ballard for his actress wife, Merle Oberon. When this light is stronger, it can serve as a general fill light for a close-up, but often it is used at a very low intensity just to create glints in the eyes. Many times it will be a little Baby or an Inky Dink, with a lot of diffusion or scrims, or both.

**Philip Lathrop, ASC**

*For an eyelight I use a little Inky Dink with a snoot on it. It is very soft. It does not fill the face. All it does is to reflect in the eye.*

A sophisticated Panalite is often used. It is an eyelight made by Panavision with a 1000-watt quartz bulb. The intensity of Panalite can be varied by an ingenious reflector system which is made of metal rods half black and half white. When these rods are rotated, the amount of reflected light changes without affecting the color temperature which is the chief drawback with dimmers. This system is particularly useful when dollying in to a close-up and gradually diminishing the eyelight intensity. The only problem with Panalite is its tendency to jam when it overheats. It needs to be oiled. For an effect like cat's eyes in headlights, we can mount a 50 percent transmission front mirror at 45 degrees in front of the lens and shine a lamp into it. Light reflected by the mirror will hit the eye on the lens axis. By rigidly mounting the mirror and the lamp to the camera, we can execute pans and tilts with the light always staying on the optical axis of the lens. This

Panalite. A sophisticated on-the-camera light with mechanical dimming which does not affect the color temperature of the light.
To create a very accentuated light reflection in the eye, the light must come on the optical axis of the lens. To obtain this condition a 50 percent surface mirror is mounted at a 45° angle in front of the lens, and an Inky lamp is pointed into it. A one-foot-square mirror and the lamp are rigidly mounted to the camera to remain in alignment during the camera moves.

method was used effectively by Jordan Cronenweth in Blade Runner.

The eyelight does not have to be circular. Using snoots and black masking tape, we can create other geometrical shapes. A strangely shaped eyelight can add a bizarre feeling to the scene. A special eyelight is of course superfluous if there is already a frontal fill light employed.

Richmond Aguilar

When you use a fill light close to the lens, it becomes your eyelight at the same time. With Laszlo Kovacs, we usually use a good size fill light. Usually a 2K, roughly 24 inches square, behind the camera and pretty close to the lens level. It puts a glint in the center of the eye.
Some cinematographers like to hand hold a reflector bulb with a barndoor attached to it as a fill/eyelight. This way they can obtain the exact position and angle and are able to move the light during the shot.

The traditional attitude of the Hollywood producers used to be that if you pay an actor big money, you want to see his eyes. Following this reasoning, the most expensive actors would be given the most elaborate eyelights. Happily this rather naive approach is nowadays often modified by the conceptual requirements of the story. It was rather revolutionary at the time to have Marlon Brando very dimly lit in some key scenes of The Godfather, photographed by Gordon Willis (ASC). Nevertheless, it became one of the cinematographic classics of our time. Once again, the thought expressed by many great cameramen comes to mind: What you don’t light is often more important than what you do light.