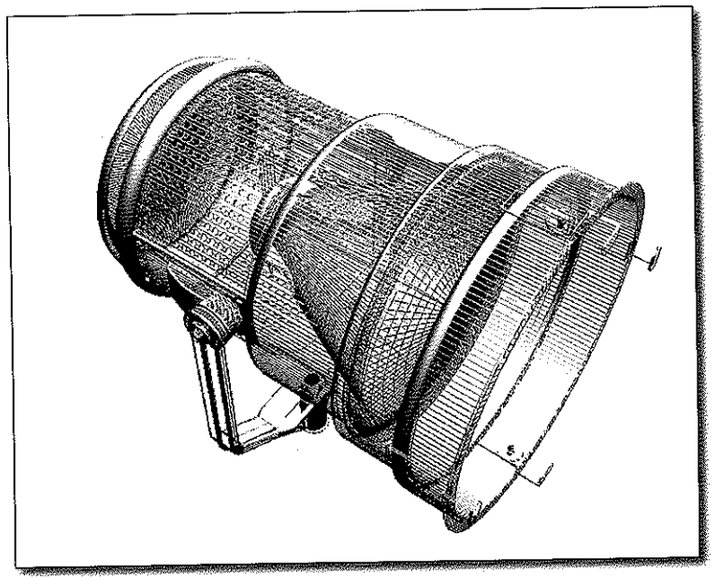

# BASIC SCENE LIGHTING

We have looked at the tools of lighting, the elements of lighting, and some basic principles of light and exposure. Now let's put it all together.

A movie is made one scene at a time; a scene is made one shot at a time. The same applies, of course, to commercials, industrials, music videos, and even documentaries. In this chapter we will select several scenes from features, commercials, and classroom projects. We'll analyze their lighting schemes and talk a bit about the thought process that went into planning and executing them.

Whenever possible, a lighting scheme is planned well in advance. In nearly all cases, there are deviations from the plan; this is normal. As a general rule, the lighting of a scene is built—one light at a time. With larger scenes, there is usually a prerigging plan. On the day before, the electricians, with perhaps a rigging crew, will lay out the cable and place the larger lights in preparation for the arrival of the shoot crew.

Even in these cases, however, there are always adjustments and these are generally done one light at a time. For smaller scenes, all DPs have their own ways of working, but as a

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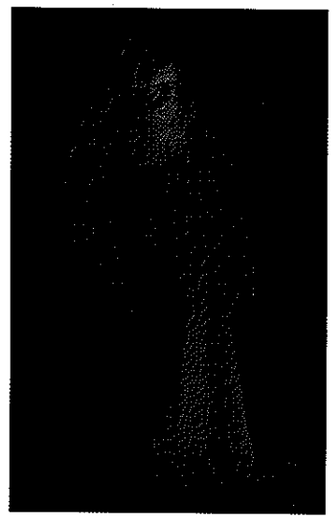


(b)

**FIGURE 4.1** (**a**) Knights gather around a campfire consisting of a propane fire ring and compressed logs. They are also lit with a ¾ back flicker rig and a low-key backlight from a 9-Lite coming over the top of the trees. Another 9-Lite and an electric lantern are on the wagon in the background. (**b**) Firelight effect from below can be used to lend dark, mysterious moody feeling to the look of the scene.

generalization, it is possible to say that, in most instances, the lighting is built in a methodical, incremental manner. Just having electricians run around throwing up lights at random is seldom productive. The most common procedure is to set the key light and then bring in additional units one at a time to see how they fit in with the existing plan.

It is very difficult to preconceive exactly how a lighting plan will come together. It is not difficult to come up with an overall concept, but the exact details will change as you finally see the real set dressed, props in place, and actors doing the final blocking. In this chapter we will attempt to cover as broad a range of lighting situations as possible: from film school classroom experiments, to low- and medium-budget independent films, all the way up to very large studio productions.

## Medieval Knights Around a Campfire

These scenes take place during the Crusades and at night, so there would have been no light other than campfires, lanterns, and torches.

The first obvious choice is to bathe the entire scene with moonlight. First it's natural, and second, without overall ambient moonlight, everything outside the circle of firelight would fall into complete blackness. Some slightly blue moonlight will serve to outline the surrounding trees and shrubs and add a bit of fill to the scene in a naturalistic way.

Also, the blue will serve as a contrast to the warmth of the firelight (fires burn at around 2000K to 2500K). We only know a thing by its opposite. If the entire scene is lit only with warm firelight, two things might happen: first, it might get timed out at some point in post-production; second,

the viewers' eyes will adapt after looking at the scene for a few minutes. This adaptation will eventually lead the viewer to see the light as basically white.

Spreading moonlight over such a large area (about two acres for all the scenes) usually calls for a large crane or, at the very least, a couple of levels of scaffolding. Either might be a problem as they may appear in the frame at some point (the trees are very low at this location) and a crane might need to be moved: a time-consuming process in a rough location like this. Scaffolding would be even more problematic.

Fortunately, the location itself offered a solution. The site chosen (with much urging from the DP) was a dry wash at the bottom of a steep hill, which was about 60 feet high. At the top of the hill was the crew parking lot—the perfect spot to park the generator.

### The Plan

There are a number of ways to create fire effects, and several of them were used on this production.

First was the *real* fire—important not only as a source of illumination, but also as a major prop. Because this fire is indispensable to the frame, there is no choice: no realistic substitute for fire exists. Then the real fire was supplemented by some techniques and devices. First, flame bars were made. These are simple iron pipes with holes drilled in them. These holes allow compressed propane (highly flammable) to escape the pipes when it is fed into those pipes. Next, rubber cement (also highly flammable) was painted on the iron pipes. Given its flammability, that rubber cement makes an efficient starter when ignited.

This type of rig has several advantages. It is fairly constant, so it is good for continuity. Real logs would change from take

**FIGURE 4.2** Here the moonlight dominates the scene while the fire effect adds a bit of backlight. The moonlight is two MaxiBrutes with ½ CTB. At roughly 100 yards away, the two Maxis provide about an F/1.3 at ASA 500.



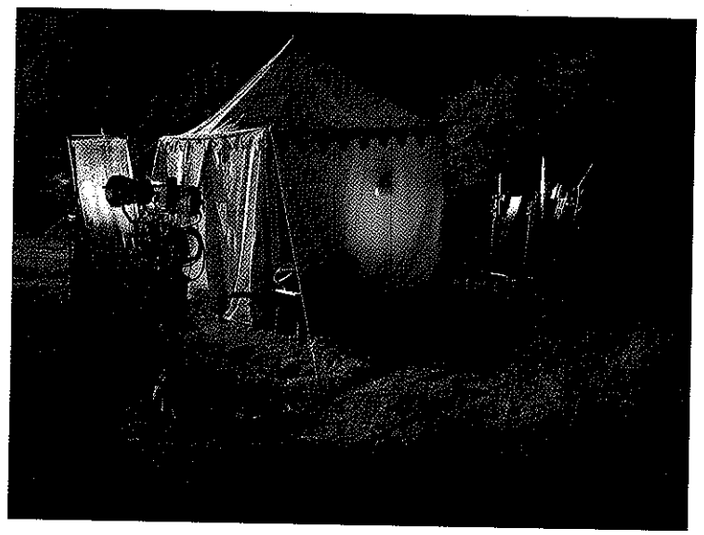


**FIGURE 4.3** The fire effect was provided by three fire rigs. These are a Mighty Mole, a Baby-Baby, and a Mickie Mole on a triple header with all lights run through a three-channel flickerbox. See Figure 4.4 for a closeup of the fire rig.

to take. Second, it is controllable; the operator can actually dial the flame up and down, thus regulating exposure and balance with some accuracy. Care must be taken to check exposure frequently, however, as the flame gets lower and the pressure in the propane tank decreases.

In the scene in Figure 4.1, a circular flame bar is placed in the stone ring and the gas line is buried under the dirt.

The second part of the flame is compressed fireplace logs. These burn longer and more consistently than real logs and provide a bit more of a real campfire look than the flamebar alone.

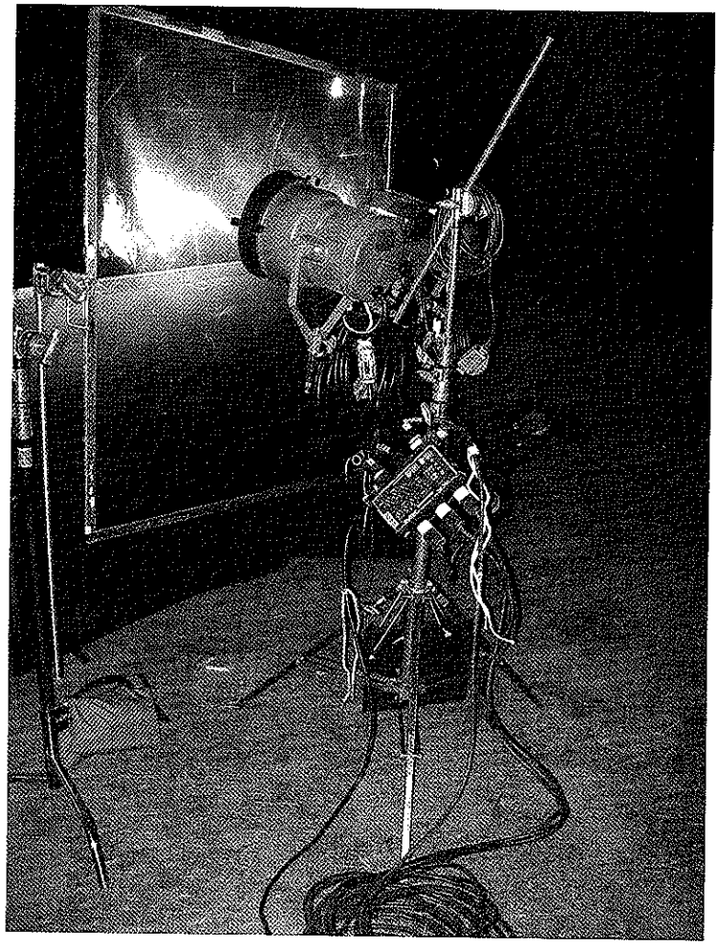
### Flicker Effect

A convincing fire effect is not difficult, but it is often done wrong. First of all, it cannot be done with a single light. It cannot be done by wrinkling aluminum foil or flexing a reflector. These merely result in a hotspot that unconvincingly "waggles" across the scene.

Observe a fire sometime. One thing you will notice is that the shadows on the wall dance around. This is because, as the individual flames rise and fall, the light source itself moves around and up and down. This effect can only be duplicated with at least three sources that flicker on and off randomly.

A flickerbox is the best way to achieve this, but it can also be done with individual dimmers, a programmable dimmer board, or hand squeezers. For this production a three-channel flicker generator was used. This provided the capacity to make each light on each rig flicker at a different rate and with different high and low points. The difference between the highest point of flicker and the lowest point is important for exposure readings and also for believability.

FIGURE 4.4 The flicker rig, here in the high position. Having three different sizes of lights ensures that the effect will flicker realistically—in this case a 2K Mighty, a 1K Baby Baby, and a 1K Mickie Mole. Three lights are always necessary for a convincing effect. One half CTO on a 4′ × 4′ frame brings the temperature down to simulate fire's color. Note the position of the grip arm that supports the triple header—it is set so that it can be lowered to the ground, which is often required for a campfire effect. The flickerbox has three channels, each of which can control a light up to 2000 watts. Each channel has independent settings for high point and low point and the flicker rate is controllable in a wide range.



Too great a difference doesn't look real and too small a difference doesn't provide a noticeable fire effect.

For this same reason, the flicker settings should be appropriate for the situation. Candlelight, for example, barely flickers at all except when there is a gust of wind, but in order to sell the effect, we usually make it flicker a little all the time. A slight breeze created by waving something can make the candle itself flicker a bit to enhance the illusion.

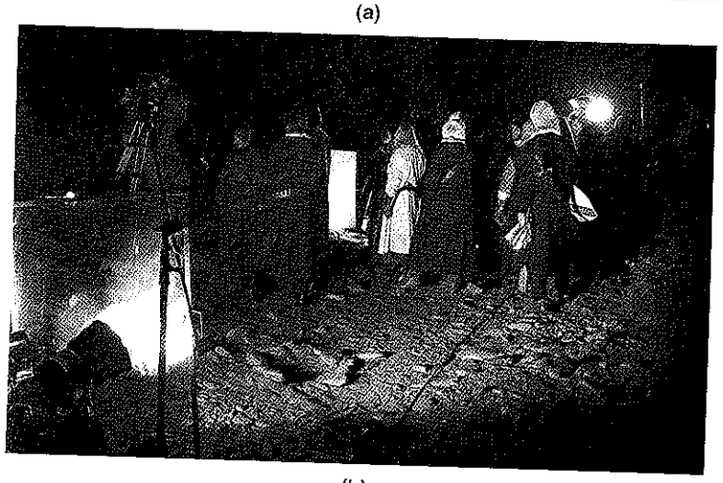
For candle effects, special movie candles are available. These candles have three wicks and burn much brighter than ordinary candles.

### Group Scene with Fire

**Figure 4.5a:** In this scene, a group of soliders listen as their leader addresses them. The wide establishing shot showed several campfires around them. Establishing the source is an important part of selling the effect. Without establishing the source by showing it, there is a danger that it might just seem like the lights are flickering. This is not a danger in a scene like this, of course.



(a)



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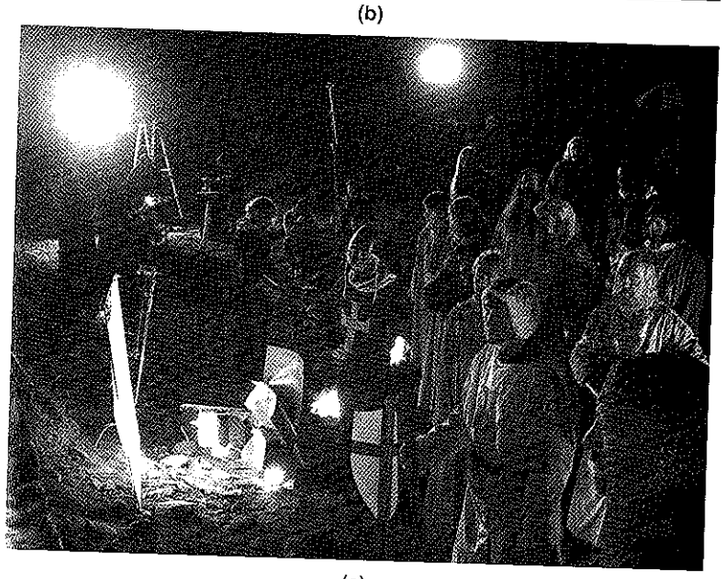


(c)

FIGURE 4.5 Group scene with fire. (a) The scene as shot. (b) The backlight fire effect. (c) The low fire-effect from front left with the two moonlight juniors in the background.

**FIGURE 4.6** Lighting diagram for the scene of knights gathering to listen to their commander (see Figure 4.5). The fire flicker rig is camera right and slightly behind them. In front at ground level is another softer, fire flicker rig with three 1K zip softs. Off to camera left and high are two 2Ks bringing in some moonlight from the side/back.

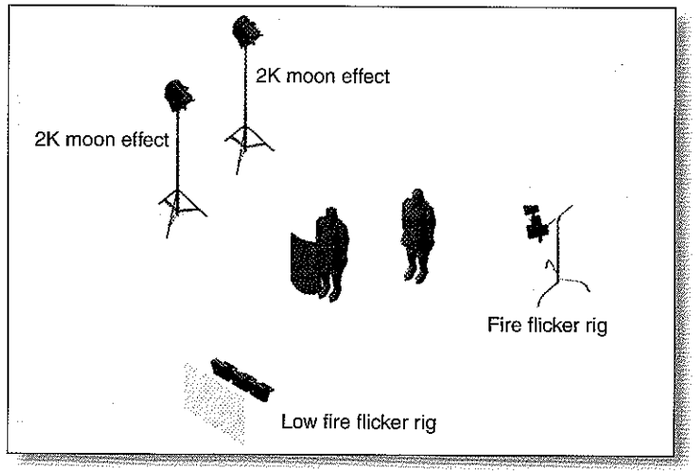



**Figure 4.5b:** Two flicker rigs were used on this scene. One is placed on the ground in front and camera left of the group. This simulates the campfire we saw in the wide establishing shot. The second fire rig is behind the group and camera right, its main purpose is to function as a back sidelight or kicker for some of the soldiers.

**Figure 4.5c:** The front fire rig needed to be as compact as possible so that it didn't stick up into the frame: Baby Zip lights were bounced into a white card rigged on a C-stand. A knight's shield was used to conceal it for the reverse angle.

The white card bounce was used, as direct light that close would have been too directional, even with soft lights. On camera left of the group we see two 2K juniors, which add a bit of moonlight fill.

## Science Fiction Scene

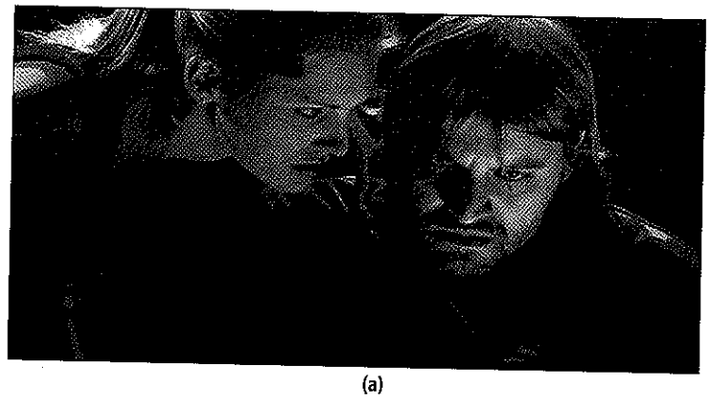
This was a lighting experiment to try some sci fi concepts. The decision was to go all blue in order to give it mood and also disguise the fact that we had just an ordinary living room set. The units are tungsten fresnels: a 5K and two 2Ks coming over the top of the set walls with the addition of a Kino Flo Diva 4-bank on the floor. Double CTB was added to all the tungsten lights. The Kino had daylight bulbs. In addition, the HD camera had a menu setting of +99 for the blue channel in video levels. A 5K with double CTB is outside the window, coming through venetian blinds.

## Film Noir Scene

The purpose of this scene was to duplicate the look of film noir (see Figure 4.8).

First of all, there were table lamps. Film noir interiors always seem to have table lamps. Here, they also provide





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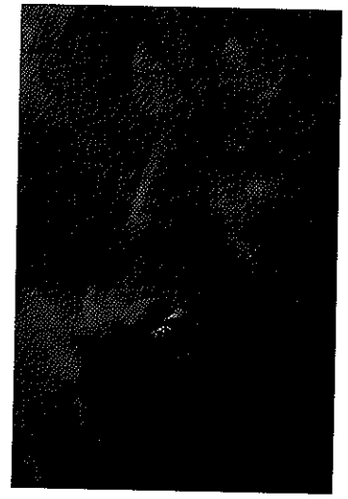
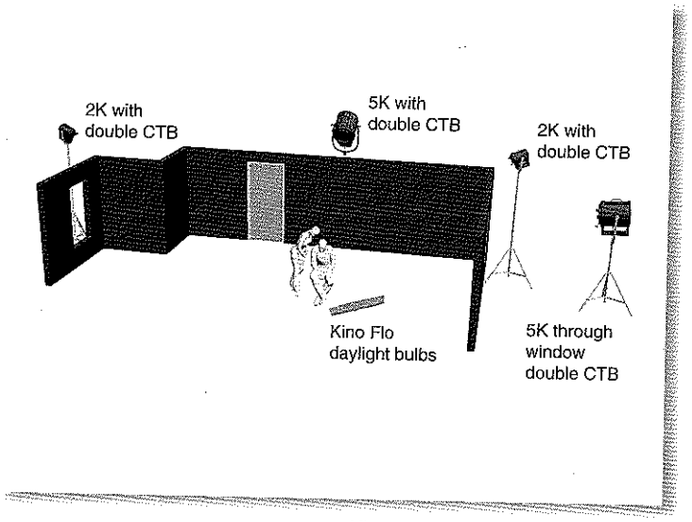


(b)

**FIGURE 4.7** A science fiction scene. **(a)** End of scene, lit with a Kino from the floor and backlight from the 5K over the camera left wall. **(b)** A closeup in the scene. **(c)** The opening shot. The smoke and glow of the butane lighter add mood and texture to the shot. **(d)** Diagram of the scene.

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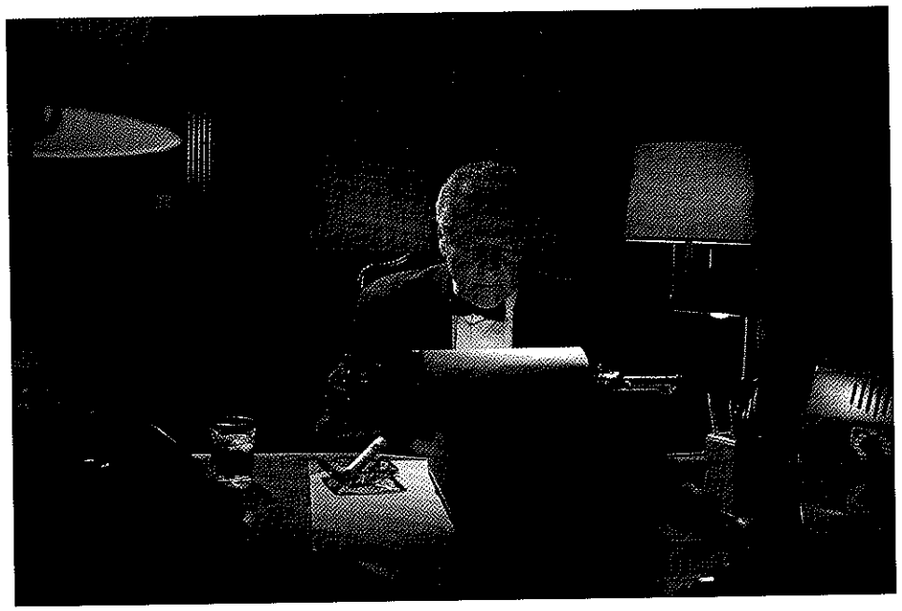

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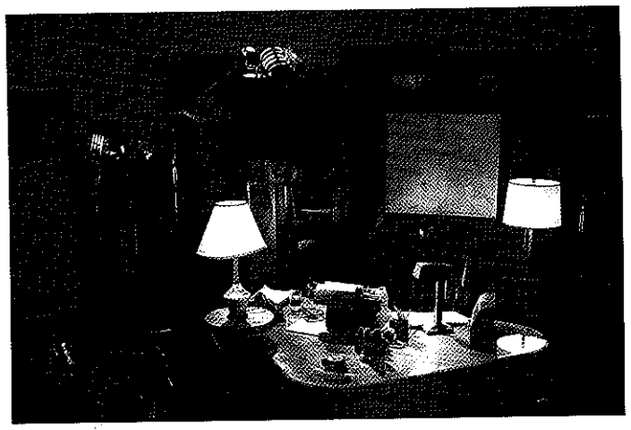

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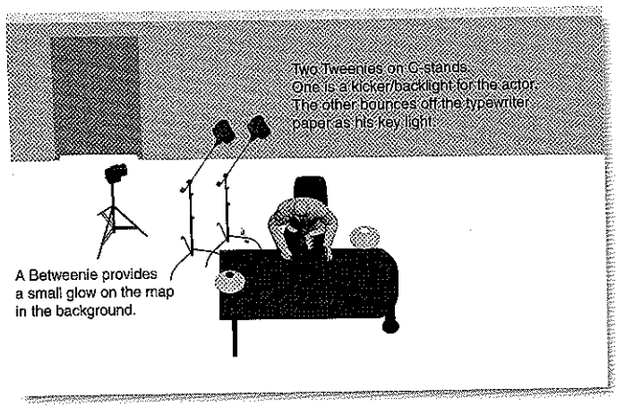



(c)

**FIGURE 4.8** A film noir scene. **(a)** The scene as shot. **(b)** The setup. **(c)** A diagram of the setup.



some motivation for the lighting, although they play little role in lighting the actual scene (see Figure 4.8a).

Two Tweenies armed out on C-stand arms are the main units for the scene (Figure 4.8d). One of them provides a back kicker for the actor and the second is the key light: its only task is to bounce off the white typing paper to provide a subtle underlight for his face (Figure 4.8c).

An additional Betweenie gives a slight glow to the map and books on the shelf behind him (see Figure 4.8a).

## Aces and Eights

This was a class lighting project and an experiment with Mole–Richardson's 2.5 K HMI beam projector. The beam projector provided a hot, sharp beam through the window. With full CTB added to the already blue HMI (and the camera set on tungsten balance), it provided an intense mood for the scene (see Figure 4.9).

A desk lamp provided some color contrast and hot spot on his head—a focal point for the image (Figure 4.9b).

A baby behind the desk adds some "kick" on the table (Figure 4.9b). A 650 Tweenie keeps the area under the desk from going totally black. Without the fog effect from a smoke machine, the shot would not have been nearly as effective.

## Detective Scene

This scene (Figure 4.10a) needed to be low key to allow the handheld LED panel to be prominent in the scene.

Although the LED didn't provide much lighting on the actors in the scene, it provided the motivation for a low-bounce return (the 4′ × 4′ beadboard on the floor being hit with a 1K, Figures 4.10b and c). A 5K through each window and a 12′ × 12′ white muslin blown out behind the door (Figure 4.10c) provided the rest of the lighting plan for the scene.

## Young Inventor

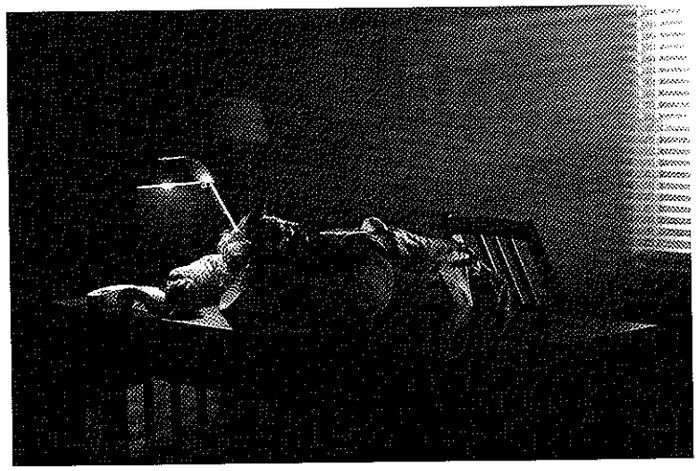
The challenge in this scene is the lightbulb. From top to bottom on the left: with the bulb as the only source, it burns out. Instead, the bulb is dimmed down and is carried by a MolePAR through a snootbox. Along with some light through the window and a backlight, the scene is complete (see Figure 4.10e).

**Figure 4.11a:** With just the actual practical light itself, the central part of the scene is burned out and the rest falls off into nothingness.

**Figure 4.11b:** With the practical dimmed down, the scene slides off the deep end.

**Figure 4.11c:** A key is added to carry the practical lamp. This means he looks like he is being lit by the practical, but it can be dimmed down to a good level.

FIGURE 4.9 (a) Aces and Eights. (b) A MoleBeam through the window provides the kind of hard directional light needed to give us defined shafts of light. A baby with some full blue fills in a part of the table not covered by the MoleBeam. (c) An overhead diagram of the scene.



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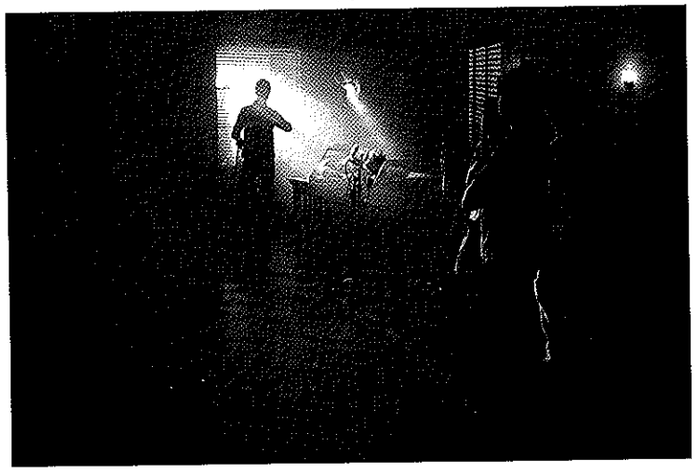

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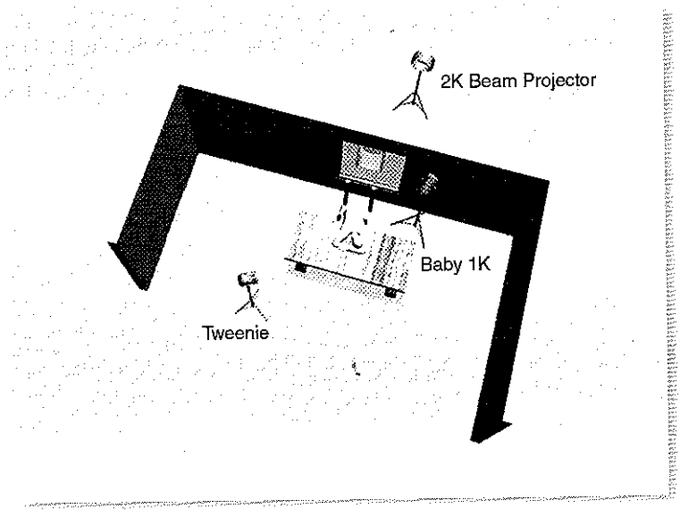


(c)



(a)

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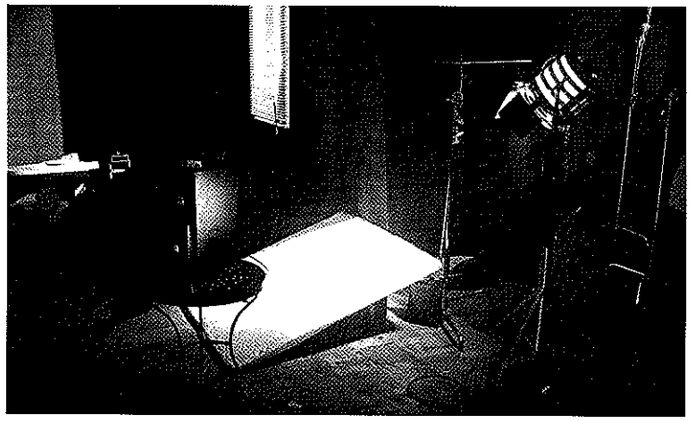

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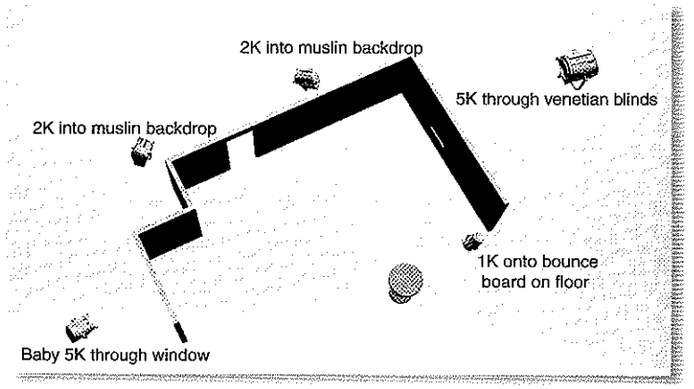


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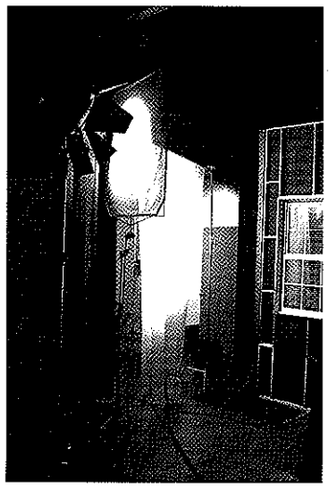
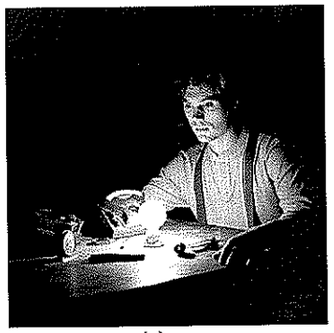


(d)

FIGURE 4.10 (a) A detective scene as lit by gaffer and DP David Chung. A handheld LED panels serves as both a prop and a practical light source. (b) A wide shot of the lighting. (c) A 1K bounced off a 4′ x 4′ foamcore serves as their key at the table. (d) A 5K through the left rear window. (e) An overhead diagram of the scene.



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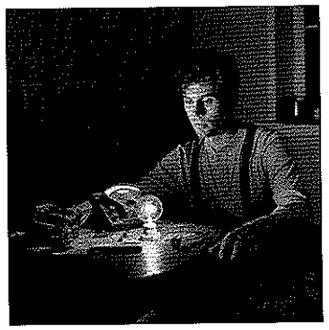

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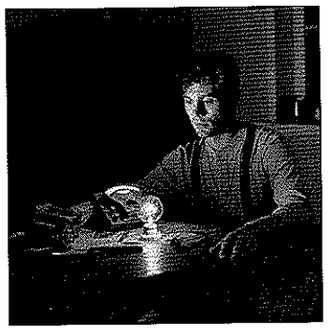

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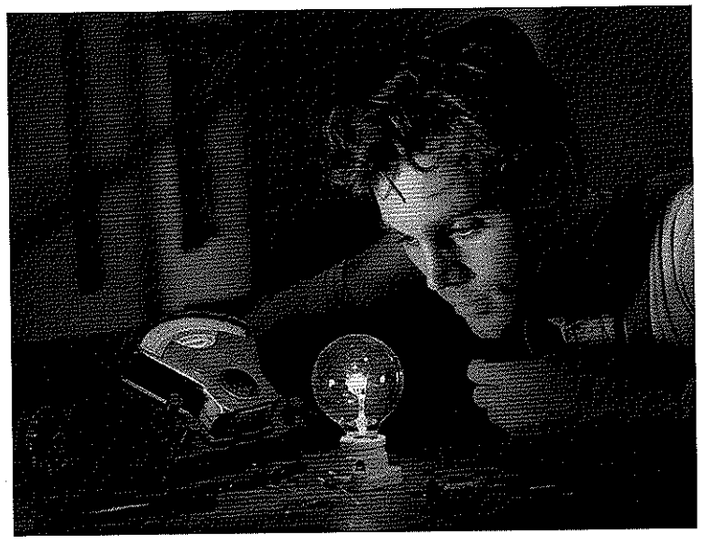

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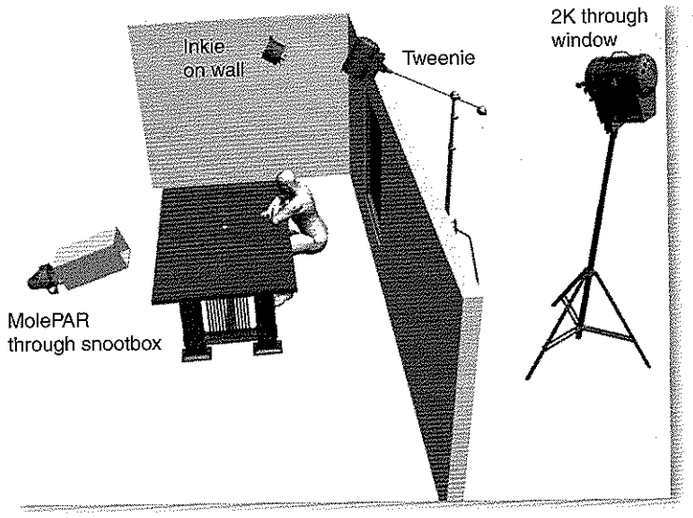



(e)

**FIGURE 4.11** The young inventor. (**a**) With just the actual practical light itself, the central part of the scene is burned out and the rest falls off into nothingness. (**b**) With the practical dimmed down, the actor is underlit. (**c**) A key is added to "carry" the practical lamp. This means he looks like he is being lit by the practical but it can be dimmed down to a good level. (**d**) With a bit of backlight and an accent through the window, the scene is complete. (**e**) A diagram of the lighting setup.

**Figure 4.11d:** With a bit of backlight and an accent through the window, the scene is complete.

## Miscellaneous Scenes

### Potter

**Figure 4.12a:** This scene is from a commercial that needed a romantic but manly look. The lighting scheme was extremely simple. In front of the actor working on the pottery wheel was a window. Heavy diffusion (in this case bleached muslin) was taped to the glass.

Outside were two *firestarters* (1K MolePARS) with NSP bulbs aimed through the diffusion. The overhead lamp was dialed in on a dimmer so that it balanced the window light and was close enough to the actor to provide a very soft fill for his face.

### Beauty Shot

**Figure 4.12b:** This shot is a simple floor bounce. A large piece of bleached muslin was placed on the floor, and a 2K open-face Mighty Mole was tilted down and aimed to bounce into it.

When using an arrangement like this, take care to avoid direct spill from the lamp—meaning that any light directly from the light must be cut off with barndoors, black wrap, or a flag, so that the subject is lit only with the bounce light from the white muslin.

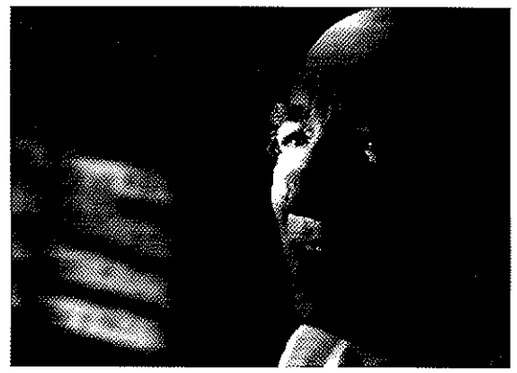
### Pool Room

**Figure 4.12c:** This barroom scene needed the harsh look of a down-and-dirty dive. The main light was a Lightwave (25 VNSP PAR bulbs) outside the window. Inside the light over the pool table, two 100-watt bulbs were hidden. Coming through the window of the back room was a 5K. The scene was shot during the day, and the small amount of existing daylight that crept in gave the scene an overall cold, gritty feel.

(a)

(b)

(c)



(d)

**FIGURE 4.12** Miscellaneous scenes.

### Pool Room CU

**Figure 4.12d:** A close-up from the barroom scene above. At the climax of the scene, the actor moves close to the windows, and we see the real intent of lighting primarily through the wooden blinds of the windows. This is a good example of how the eventual key close-up of the scene shapes the thinking about how to light the wide shot. Although there are usually some adjustments to be made when you move to the coverage, the lighting continuity must remain somewhat constant. It is important to be thinking several steps ahead as you light the master, so that it has some chance of working reasonably well for the coverage as well.

## Intimate Room Scene

Lighting this scene was a bit trickier than might appear. It's an existing room, so the ceiling was low, offering no chance to hang lights from above. The blocking of the scene had them placed right next to the window. Outside was a terrace, but in most places where you might want to position a light, it would have been visible through the window.

The solution was to partially close the blinds—placing them at an angle so the lights were hidden but the light could still reach the actors (see Figure 4.13a). It turned out to be a perfect angle to give each of them an upstage key that just reached into their downstage eye, leaving nice deep shadows on the downstage side of their faces (see Figures 4.13b and c)—perfect for the dark mood of this scene. No fill was used as the chiaroscuro effect of this upstage lighting was fine with only the ambient bounce from the rest of the room. Outside the windows: one Baby Junior for each actor. With an arrangement like this, it is important to check the angle of the blinds and the lights every time the camera moves and then adjust them enough to maintain the same lighting look, but not so much as to interfere with continuity.

Here we have a typical problem. As previously discussed, interesting lighting is most often achieved by bringing it from the back—getting the lights around to the sides and behind the actors. Frequently, this placement of lights would mean the lights are visible in the frame. In this case, they have even have been visible outside the window when we went for close-ups from either side. Bringing them through the blinds gets them where we want while hiding them from the camera.

Knowing how to hide lights in the frame is an important skill. Often it's pretty easy to figure out where you want lights to come from—the tricky part is figuring out how to get them where you want, either in terms of rigging them or hiding them.

(a)

(b)

(c)

**FIGURE 4.13** Intimate room scene.



**FIGURE 4.14** Sitcom lighting with back cross keys.

## Back Cross Keys (Sitcom Lighting)

Here we see an attempt at bad lighting or, more simply sitcom lighting. Situation comedy, indeed—all three-camera television—tends to be lit with the same basic scheme, called back cross keys. Each acting area is lit by two key lights from roughly ¾ back (upstage side, or the side away from where the cameras are) and then a soft front fill is added.

This is not actually a bad lighting scheme but it is bland, and what usually makes it so bland is that a great deal of fill is used—not that unusual for comedy in any case. The back cross keys setup gives some shape and definition and the front fill keeps it fairly suitable for television.

## Reality Show Set

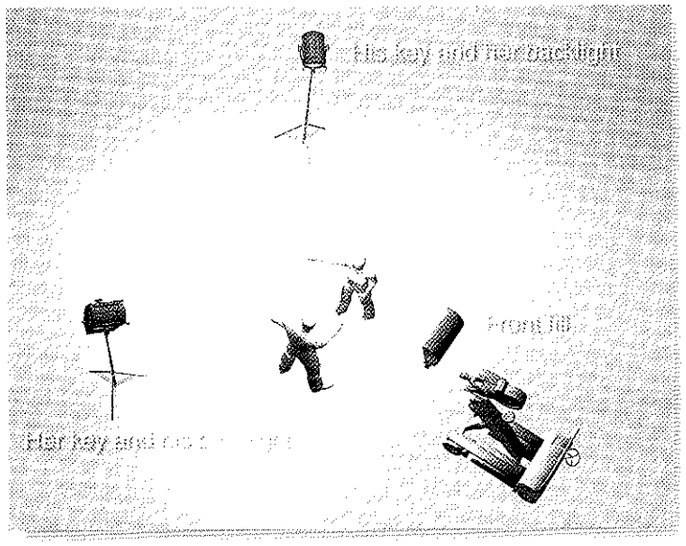
This short film about a futuristic reality show called for a soft TV look. The budget was low so it wasn't possible to rent spacelights, coops, or other types of overhead soft lights, so the DP had the grips build some soft boxes out of foam core and hanging bulb sockets. Each of the four soft lights held six 250-watt bulbs (ECA) (see Figure 4.16a).

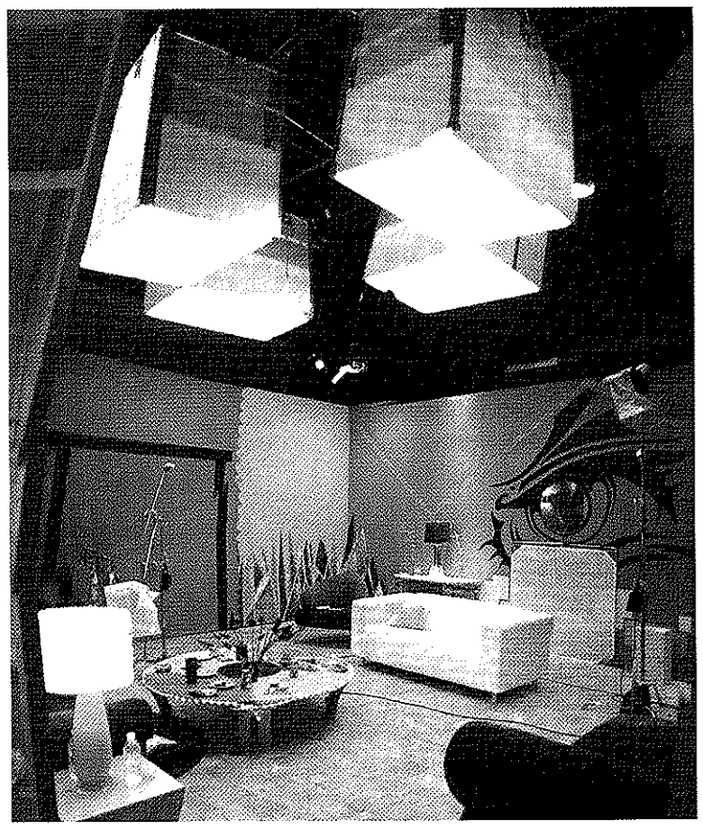
The soft boxes establish an ambient base—an overall directionless light that serves as a base to build on. This is supplemented by practical lights, a couple of PAR cans streaking down the wall, a zip light, and some 2K shooting in from the corner openings through half spun. A couple of floating Tweenies are repositioned for each shot.

## In or Out?

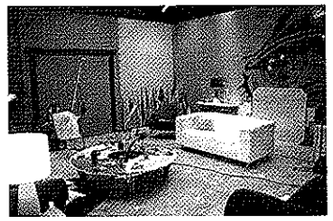
This classroom exercise aimed at a moody, low-key look. The experiment was to bounce a 1K MolePAR (commonly known as a "firestarter") into a black table. Only a single sheet of typing paper as a bounce on the table was needed

FIGURE 4.15 Black cross keys setup.

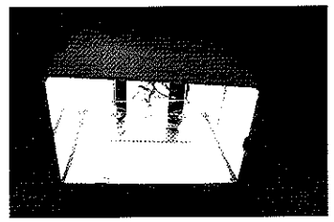


(a)

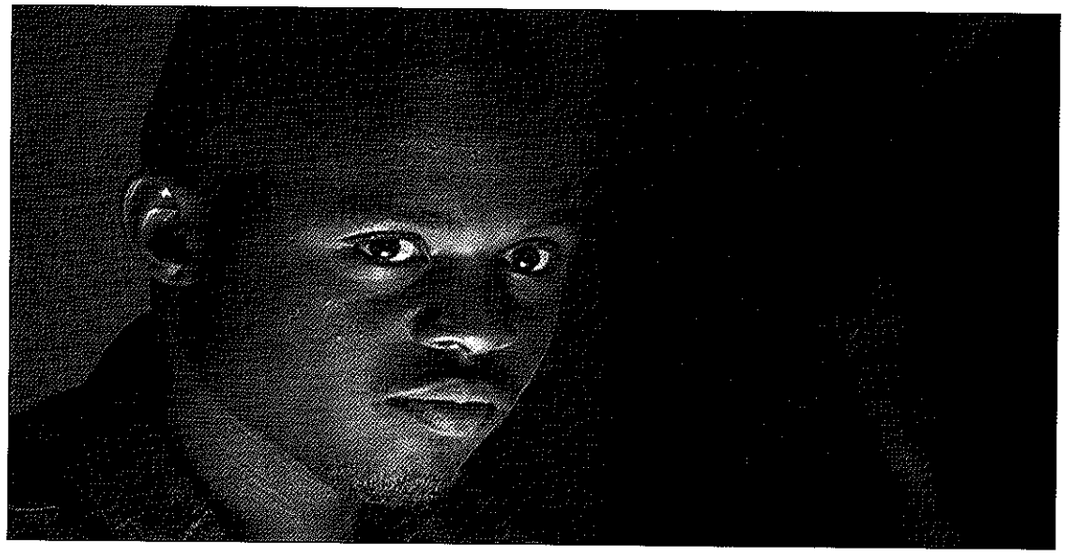


(b)



(c)

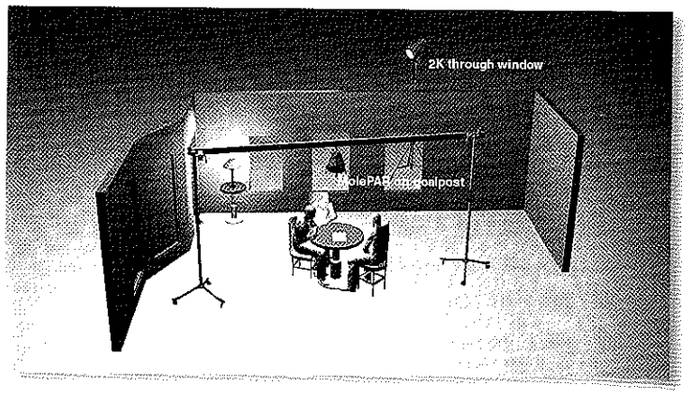
FIGURE 4.16 Reality show set (a) and the set-built softboxes (b) and (c) that provide the overall ambient light.



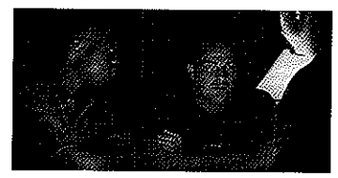
(a)

(b)

(c)




(d)



(e)

FIGURE 4.17 In or out?

to bring the exposure up to usable levels. A bit of blue moonlight through the window and a practical lamp were all that was added to this scene.

The 1000-watt VNSP (Very Narrow Spot) PAR 64 bulb was hung from a goalpost, which is simply a 10′ 2′ × 4′ (pipe or Speedrail is more frequently used) held by two high boy roller stands. Cardellini clamps hold the 2′ × 4′.

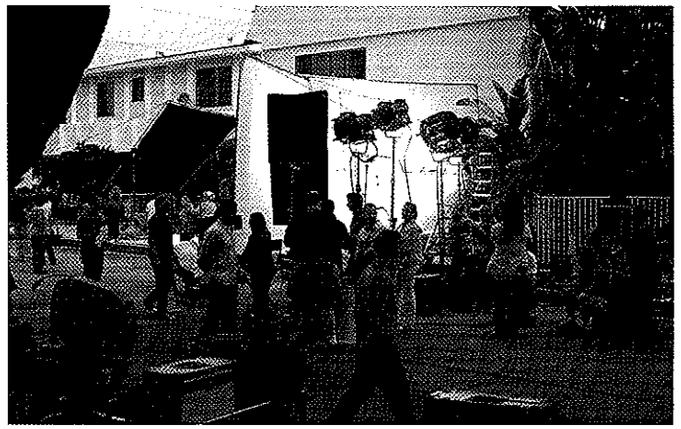
## Day Exterior

This day exterior needed a good deal of fill for a fairly shadowless look, both to counteract the harsh midday sun and also create a bright cheerful feel. Two 12′×12′ silks on one side have two 6K HMI PARs for a key and two 12K HMI fresnels provide soft side light.

FIGURE 4.18 A day exterior.

(a)

(b)



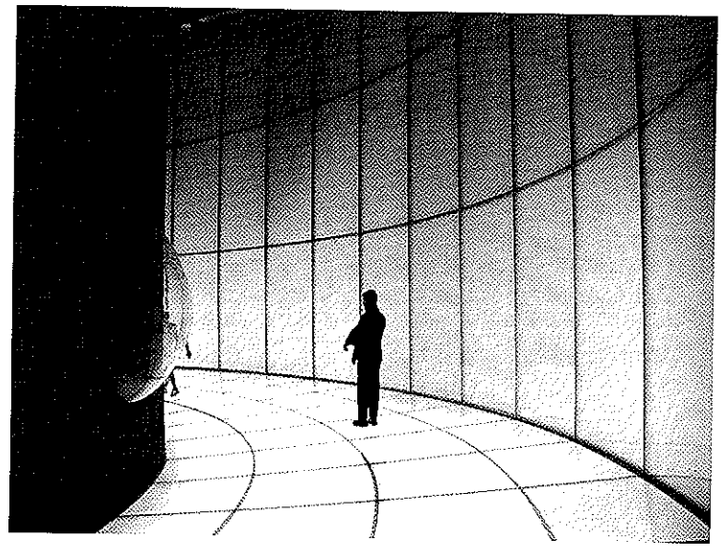
(c)



On the opposite side, a 12′×12′ solid (black) creates some negative fill to give the scene some sense of contrast and make it a bit more gutsy—not so flat and dull.

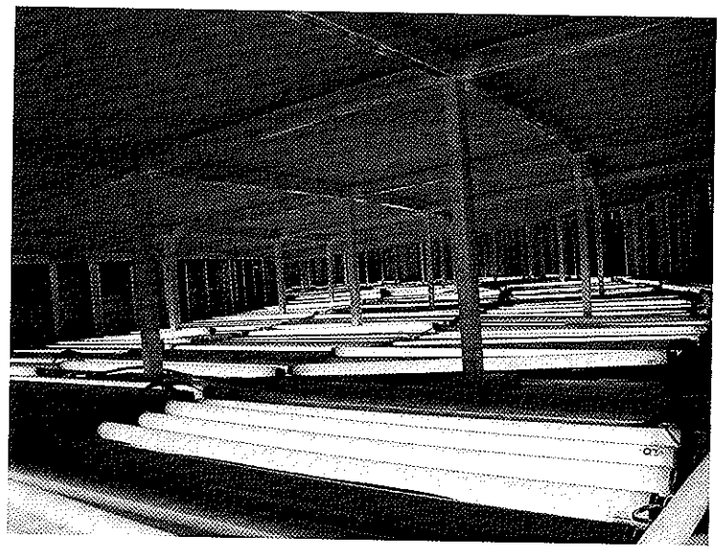
## From Under the Floor

Very large sets with confining walls can present a dilemma. The solution in this case was to light from underneath the Plexiglas floor. Dozens of Kino Flo tubes were removed from their housing and arranged underneath the elevated set to provide the primary lighting.



(a)

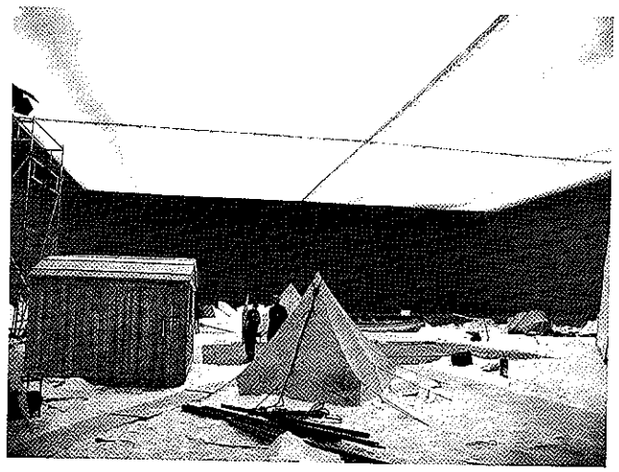
FIGURE 4.19 From under the floor. (Photos courtesy of Kino Flo, Inc.)



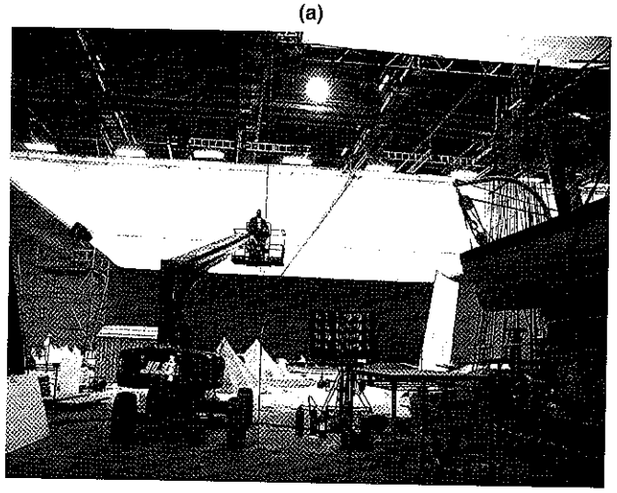
(b)

## Ambient from Above

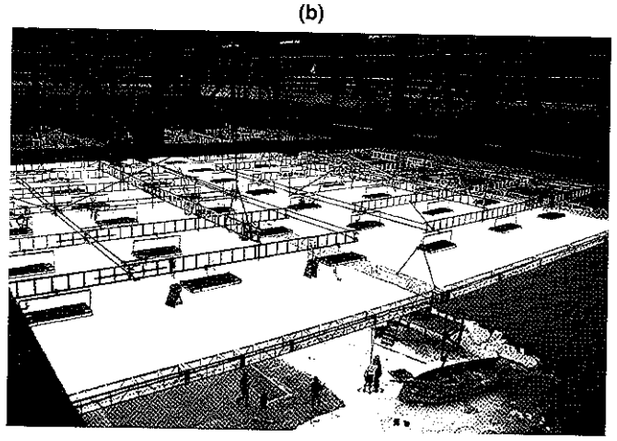
General lighting that is just sort of there is referred to as ambient. In some cases, the ambient just forms a base on which to build with other lights. In this case, the arctic winter setting called for a soft overall ambient as the main lighting. This was accomplished with several very large silks hung on trusses and large Kino Flo units suspended above them.



(a)



(b)

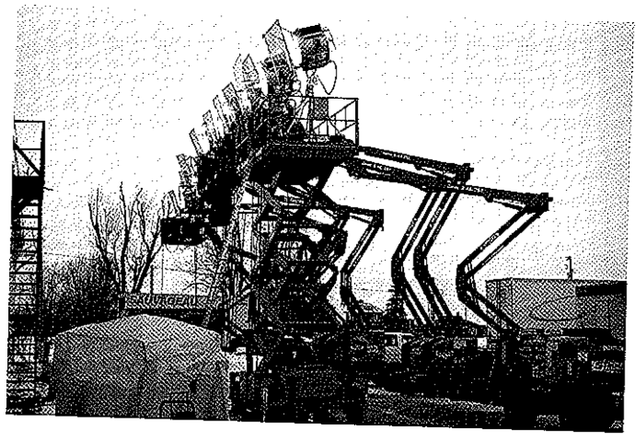


(c)

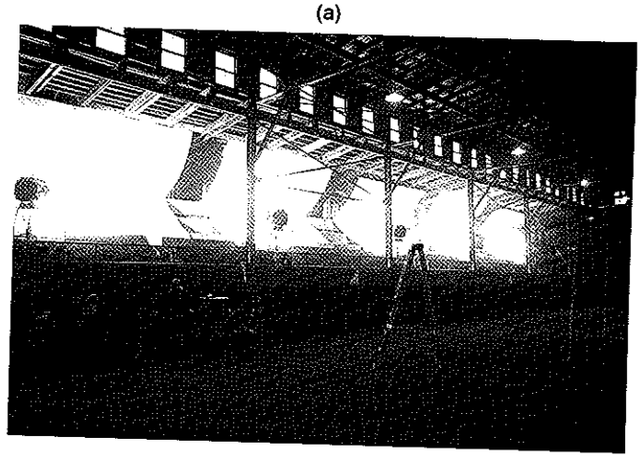
**FIGURE 4.20** Ambient from above. (Photos courtesy of Kino Flo, Inc.)

## *Confessions*: Training Scene

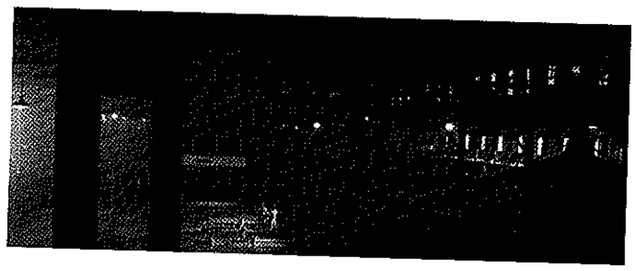
The training scene from *Confessions of a Dangerous Mind*, as lit by gaffer Tony "Nako" Nakonechnyj. On one side, a series of 18K HMI fresnels through the windows are supported on cranes with half blue (½ CTB) added (Figure 4.21a). On the other side, 18K HMIs are bounced into grifflon to add some fill (Figure 4.21b).



(a)



(b)



(c)

(d)

**FIGURE 4.21** *Confessions*: training scene. (Photos courtesy of Tony "Nako" Nakonechnyj.) **(a)** 18K HMI fresnels on cranes outside the windows. **(b)** Another row of 18K fresnels are bounced into muslin to create some fill on the side opposite the windows. **(c)** The scene as it appeared in the film. **(d)** Focusing (aiming) the 18K units.

**FIGURE 4.22** A night exterior alley from *Confessions of a Dangerous Mind.*

Figure 4.21a: the scene as it appears in the film. Notice that the practical lamps (china hats with 250-watt BBA bulbs) also play a role, but primarily as set dressing.

## *Confessions of a Dangerous Mind*: Alley

A very simple scene but one that makes a powerfully graphic and memorable image. At first glance, one would guess that it is lit with a single large unit on a crane at the end of the alley. In actual fact, it's more complex and subtle than that. The main light is a 12K HMI PAR, which has tremendous punch, however, it didn't have the spread to give the sheen on the wall all the way down the alley. Gaffer Tony Nako added a 12K HMI fresnel, which has a wider spread.

As an additional subtlety, he created a bare bulb socket unit which held a mogul screw base sodium vapor lamp, which gave just a slight glow of yellow/orange streetlamp at the far end of the alley. This is an excellent example of the artistic subtlety, careful thinking, and preplanning that goes into a well-made lighting scheme, even on what may seem to be the simplest of shots.

**FIGURE 4.23** An exterior in the studio. (Photos courtesy of Tony "Nako" Nakonechnyj.)

(a)



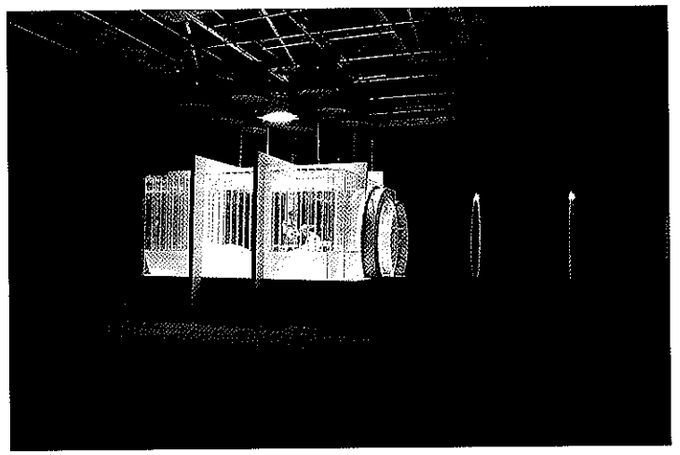
(b)



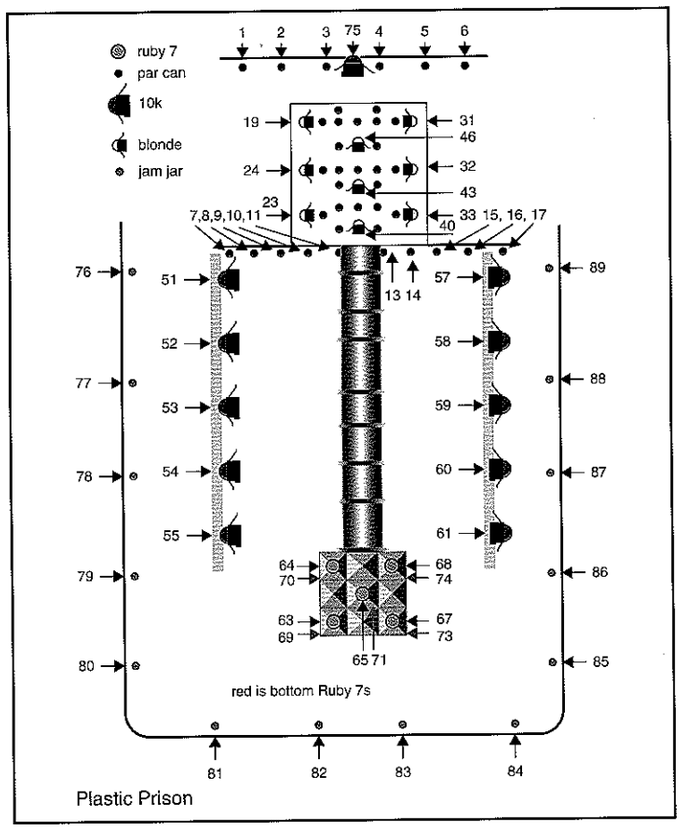
## Creating an Exterior in the Studio

In this scene from Terry Gilliam's *The Brothers Grimm,* (Figure 4.26) a series of "Storaro" lights (multi-PAR units which use ACL aircraft landing lights instead of PAR 64 bulbs) create strong shafts of downlight for this night scene. A smoke effect is also important to this shot.

**FIGURE 4.24** Tony Nako's lighting plan for a scene from *X2.* (Photo and diagram courtesy of Tony "Nako" Nakonechnyj.)



(a)



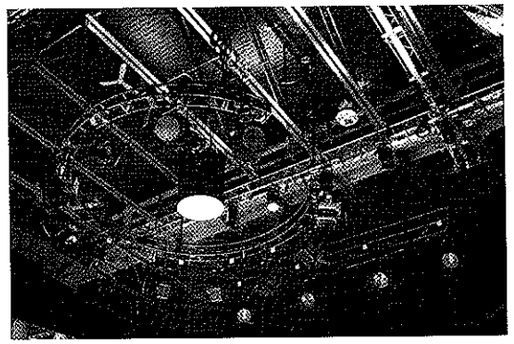

(b)

### *X-Men* Plastic Prison

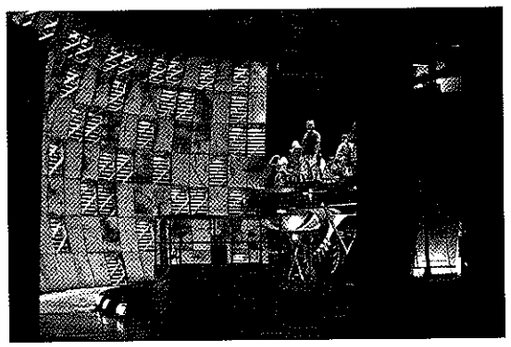
Figure 4.24 illustrates the use of large units even on a relatively small set: eleven 10Ks, nine Ruby 7s, and many PAR cans (1K PARs often used in rock and roll lighting) and Blondes (2000-watt open-face lights).

The diagram by Tony Nako (Chief Lighting Technician on the films *X-Men* and *X2*) also shows channel numbers for the dimmer system; he generally uses dimmer systems for all his lighting setups, even the largest ones. On a big studio picture, shooting is so expensive that anything that saves time in adjusting the lighting pays off in the end.

These are diagrams that Tony prints out and laminates in order to be able to give precise instructions to the dimmer board operator: essential when very large setups can have as many as 2000 lights/channels controlled separately.

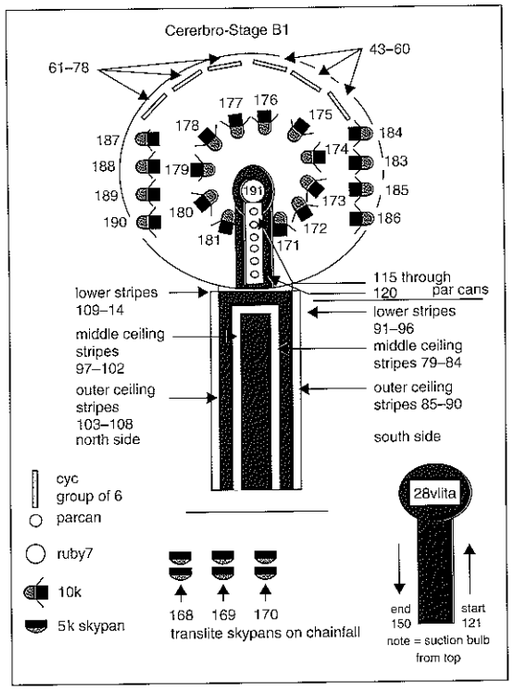


(a)



(b)

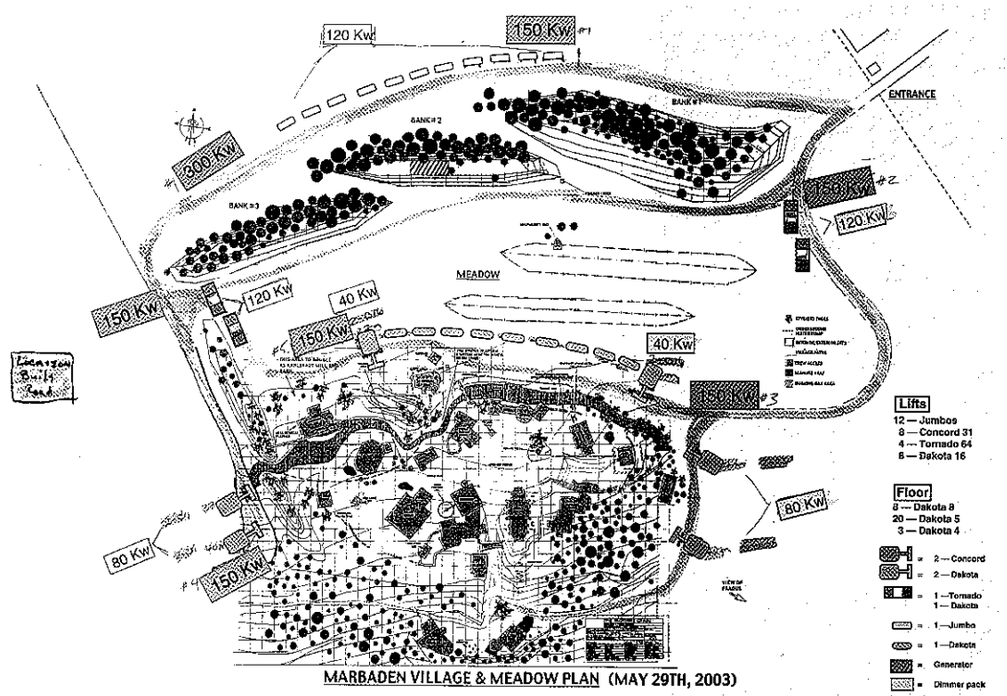
(c)




(d)

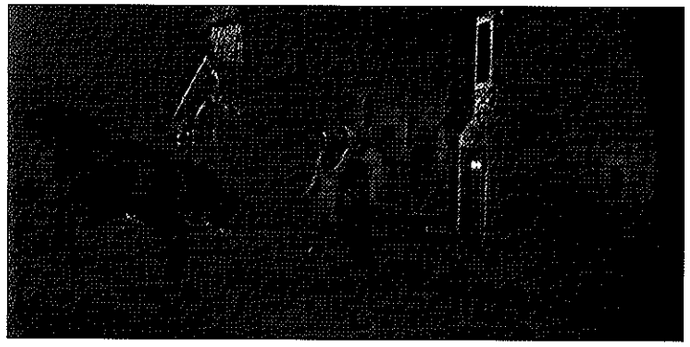
FIGURE 4.25 Stage rigging from *X-Men*. (Photos and diagram courtesy of Tony "Nako" Nakonechnyj.)






(a)

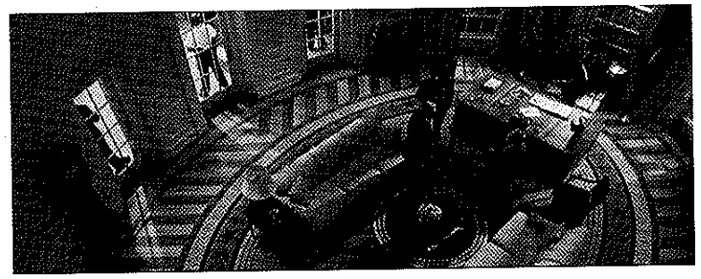
(b)



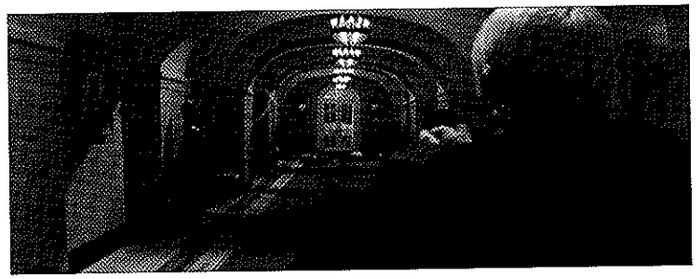
(c)

FIGURE 4.26 (a) Tony Nako lighting diagram for the night exteriors in *The Brothers Grimm*. (b) and (c) Some shots from the scene as it appeared in the film. (Diagram courtesy of Tony "Nako" Nakonechnyj.)

**FIGURE 4.27** The White House set from *X2*. (Diagram courtesy of Tony "Nako" Nakonechnyj.)



(a)



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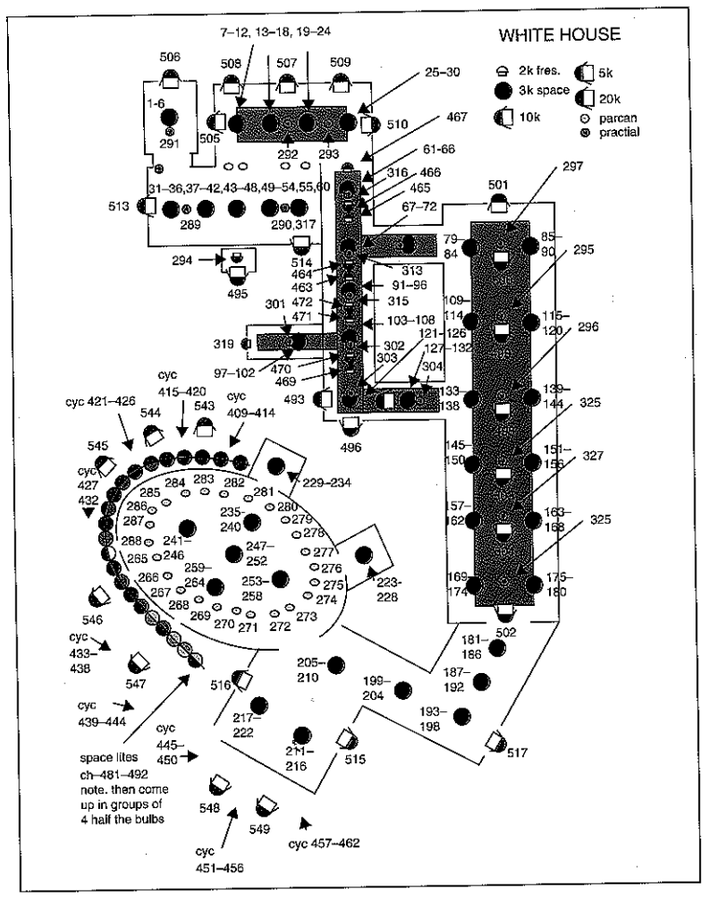


(c)



## Stage Rigging

In this scene from *X-Men* (Cerebro, Figure 4.25), units are rigged from the grid. In the case of the ring of 10Ks, they are rigged on a circular truss that is suspended from the grid. A Ruby 7 with a skirt is hung directly above the actor.

Grips handle this type of rigging, with assistance from the electricians when it comes to actually hanging the units. Electricians then wire up the units (in this case to the dimmer system) and focus them.

Figure 4.27a,b: the scene as it appeared in the film.

## Large Night Exterior

A lighting diagram for the night exteriors of the village in the film *The Brothers Grimm* (Figure 4.26), as done by Tony Nako, who for this film was dubbed Chief Lighting Dude by director Terry Gilliam. The large units were the Storaro series of lights, most of which use 28-volt ACL globes, which are aircraft landing lights and very punchy. Some were placed on lifts and some worked on the ground. Having so many units placed at such large distances makes it especially important to have them all on dimmers for centralized control.

In addition to lighting placement, this diagram also details power distribution and placement of dimmer packs, which are the actual dimmers controlled from a central dimmer board.

The Storaro lights were invented by cinematographer Vitorio Storaro. They are:

Jumbo = 16–28-volt ACL globes
Concorde = 31–28-volt ACL globes
Tornado = 64–28-volt 1000-watt PAR36 bulbs
Dakota = 8–PAR64 globes

## Complex Stage Set

For the opening sequence of the second *X-Men* movie, a large set of the Oval Office and West Wing corridors was built in a sound stage. A big set like this naturally requires a complex lighting design and extensive control. With lots of actors and crew standing by and the enclosed nature of the set, having electricians run around dropping scrims or having the grips set nets is out of the question. The only feasible solution is to run all the lighting on dimmers. Naturally this involves considerable extra cabling—rather than just running power from the electrical source directly to the light, it is necessary to run power to the dimmer racks and then to the lights. There is extra expense involved as well, but for a large production the savings in time more than makes up for the cost and labor.

See the appendix for a sample of a lighting order for a large feature film involving dimmers.