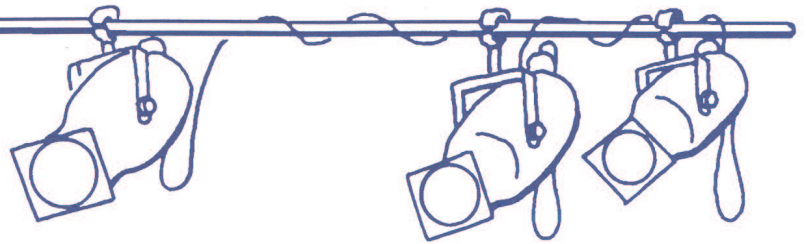


Theatre Video Series



“Shedding Some Light”

Teacher's Guide

F645

"Shedding Some Light"

Teacher's Guide

"Shedding Some Light" is designed to give students a basic knowledge of the mechanics of stage lighting. This video identifies and demonstrates basic tools, lighting instruments, and accessories. "Shedding Some Light" can be used independently or as a supplement to textbooks and lectures. The following is an outline of the video as well as a suggested breakdown and review for classroom and seminar use.

- I. INTRODUCTION: An overview of the video listing the equipment and the procedures covered (The lighting equipment and procedures shown are examples of the basic standards for stage lighting.).
- II. USING THE TOOLS OF THE TRADE
 - A. A visual description of the basic tools used in stage lighting include: crescent wrench with safety, needle-nose pliers, wire strippers, screwdriver, mat-knife, open-end wrench, multi-tester, continuity tester, solder iron, solder, electrical tape, and helping hands.
 - B. Basic electricity and its conductors: This selection includes the following instruments: cables, connectors, gauge guide, West Virginia formula, three-fer, terminals, adapters, and their uses.

STOP AND REVIEW: Sections II and IIB should be reviewed at this time. A short quiz may be appropriate and could include:

- Tool identification
 - How to solder
 - The West Virginia formula
 - Term identification
 - Various adapters and their uses
- C. Basic Instrument Types: This section includes the following instrument types along with the design and purpose of each: ellipsoidal reflector spotlights (ERS), spherical reflectors (Fresnel), scoop, par, beam, projector, strip, follow spot, and the mechanics of each.
 - D. Basic Instrument Accessories: This section includes the following accessories: barn door, top hat, gobo and patter, safety frame, safety chain, color wheel, plano-convex lens, Fresnel leans, and the uses of each.

STOP AND REVIEW: Sections IIC and IID should be reviewed at this time. A short quiz may be appropriate and could include:

- ERS
- Fresnels
- Identification
- Lamp types
- Safety frames
- How to use barn doors
- Why to use safety chains and the use of gobos

- III. THE LIGHT PLOT AND HANGING THE LIGHTS
 - A. Various symbols used on lighting plot. The symbols include: ERS, Fresnels, Beam Projector, Scoop, Par, Follow Spot, and Strip. This section also covers various things that should be included on a light plot, including: the stage space, the set outline, instrument placement, instrument distances, focus areas, hanging and measuring the instruments.

STOP AND REVIEW: Section III should be reviewed at this time. Make copies of the light plot provided in the back of this guide and go over them with your students. A short quiz may be appropriate and could include identifying the symbols provided in the back of this guide.

- IV. CIRCUITING THE LIGHT PLOT
 - A. A circuit plot and an instrument schedule; both or either can be used in determining where your instruments will be circuited. The circuit plot and instrument schedule also help to determine if instruments are singularly circuited, three-ferred, where the instrument will be circuited, the wattage, special notes for the instrument, and what gel to use with each.

- B. The process of circuiting an electric, a batten that has electrical circuits permanently attached. Some main points include: the three-fer and using a jumper or extension cable.
- C. The process of circuiting a non-electric batten. Included in this section: the floor pocket, a snake, hanging the snake, and using extension cables.

STOP AND REVIEW: Section IV should be reviewed at this time. A short quiz may be appropriate using the following questions:

- What is an instrument schedule?
- What is an electric?
- What is a snake?
- What is a floor pocket?

V. FOCUSING THE LIGHT PLOT

- A. Trouble Shooting: This section includes: using the continuity tester, checking for a complete circuit, and when to call an electrician.
- B. The focus plot and how it is used.
- C. Focusing the ERS: This section includes: moving the instrument, finding the hot spot, lens focusing, shuttering the instrument, focusing and using a gobo. This section demonstrates the instrument being used showing the actual light produced and how it looks on stage.
- D. Focusing the Fresnel: Included is the following: moving the instrument, focusing the Fresnel, finding the hot spot, using a barn door, using a top hat or snoot. This section demonstrates the instrument being used showing the actual light produced and how it looks on stage.

STOP REVIEW: Section V should be reviewed at this time. A short quiz may be appropriate using the following questions:

- What is continuity?
- What is a hot spot?
- What type of instrument uses a barn door?
- What type of instrument can create a hard edge?

VI. ADDING COLOR

- A. Working With Gels: Included in this section are the following: reasons for using color, types of gel, cutting the gel, most common sizes, protecting the gel from heat, stuffing the gel, securing the frame, securing the gel, and the gel stack.

STOP REVIEW: Section VI should be reviewed at this time. A short quiz may be appropriate and could include:

- Reasons for using color
- Why we use heat protection
- How to secure the gel and the frame

VII. LIGHTING BOARDS

- A. Types of Lighting Boards and How They Work: Included is the following: a two-scene pre-set lighting control board and it works, the memory or sub master lighting control board and how it works, a description of a computer lighting board, a sample cue sheet and how to make it easy to use.

STOP REVIEW: Section VII should be reviewed at this time. A short quiz may be appropriate using the following questions:

- What are two of the three lighting control boards mentioned?
- What is a two-scene pre-set?
- How should a cue sheet be numbered?

VIII. SAFETY

- A. Some safety tips for working with lighting instruments and color.
- B. Safety tips for working with electricity.

IX. CLOSING

- A. A review of the major topics covered throughout the video. You may wish to rewind and review certain sections of the video at this time. A quiz has been provided for your use.

Lighting Safety Tips

1. Use safety chains.
2. Secure Gel Frames to instruments.
3. Secure tools to work belt.

**If you are unsure about anything involving electricity, CALL AN ELECTRICIAN! DO NOT MESS WITH IT YOURSELF!!*

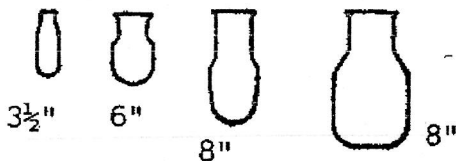
Electrical Safety Tips

1. Electrical current will follow the path of least resistance.
2. Your body will conduct electricity.
3. Tools and shoes should be insulated when working with electricity.
4. Heat build-up causes electrical flames.
5. Know the locations of electrical fire extinguishers (red in color).
6. Never bypass fuses or circuit breakers.
7. Always use either wooden ladders or have rubber foot pads on metal ladders.
8. Do not work with electricity around wet or damp conditions.
9. Electrical connectors should have strain relief.
10. Green is always ground.
11. **VOLTAGE CAN KILL!!**

Lighting Symbols

The following are examples of common lighting symbols found on most lighting plots.

*Symbols may vary depending on the template used to draw them.



Ellipsoidal Spotlights
(ERS)



Fresnel Spotlights



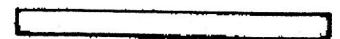
Scoop



Beam
Projector



Par



Strip Lights

Shedding Some Light Quiz

1. Give a brief explanation of the West Virginia Formula.

2. What does ERS stand for?

3. Name three types of lighting instruments.

1. _____

2. _____

3. _____

4. Give a brief explanation of a barn door.

5. What is a gobo?

6. What does the following symbol stand for on a lighting plot?



7. What is a snake?

8. What is a hot spot?

9. Name three types of lighting instruments.

1. _____

2. _____

10. How can gels be protected from heat?

Shedding Some Light Quiz Key

1. Wattage equals voltage times amperage ($W=V \times A$): A formula for determining wattage, voltage or amperage.
2. Ellipsoidal Reflector Spotlight
3. Any of the following: ERS, Fresnel, Scoop, Beam Projector, Par, Strip, and Follow Spot.
4. A barn door is a lighting accessory used to shutter a Fresnel.
5. A gobo is an accessory used to create a pattern of light projected on a stage.
6. ERS
7. Extension cables that run together from a non-electric to a floor pocket.
8. The brightest portion (the center) of the beam of light.
9. Any of the following: to keep from washing out actors, to create a mood, or to create special effects.
10. By perforating it.

Selective Bibliography

- Bellman, Willard F. *Lighting the Stage: Art and Practice*, 2nd ed. San Francisco: Chandler Publishing Co., 1974.
- Gillette, J. Michael. *Designing With Light*. Palo Alto, California: Mayfield Publishing Co., 1977.
- Parker, W. Oren, and Smith. *Scene Design and Stage Lighting*, 3rd ed. New York: Holt, Rinehart, Winston, 1974.
- Reben, Joel and Lee Watson. *Theatrical Lighting Practice*. New York: Theatre Arts Book, 1954.

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