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Preface

Introduction to Stage Lighting is a text for those who are developing their craft in the field of stage lighting design. It is also intended as a reference for drama teachers and directors as well as architects and other design professionals who are engaged in developing performance spaces and who wish to expand their insight into the process of lighting design. Although the historical, technical, and psychological aspects of design are explored in some depth, the text takes an anecdotal approach to the material. It is not intended to replace the many fine technical works on the topic, and additional study is encouraged. The text relates the development of the art of lighting the stage through a historical overview of lighting, with particular emphasis on the evolution of electric lighting sources and controls. Not all fixtures are covered, as this is not intended to be a catalog of fixture types and features, but the major categories of fixtures and their significant features are examined, providing an understanding of the basis for ongoing developments.

The focus of this book is on the *process* of design rather than the latest developments in lighting and control technology. Effective design, after all, relies more on a thoughtful approach to the work than on the ever-expanding capabilities of the fixtures that are employed to provide the light. Particular attention is paid to the quality of light that the different fixture types produce, how the light beam can be shaped, and how the controllable qualities of light (Angle, Intensity, Movement, and Color) are used to focus audience attention and enhance the emotional content of the piece. Different styles of production and how they affect our choices regarding how to light them is a theme that permeates both the technical and artistic areas of discussion.

The section devoted to color provides the basis for understanding the primaries and how color mixing works and gives some insights into how audiences react to color and the associations that they make when different colors of light are used in a controlled environment. Because learning how to use color and appreciating the effects of colored light are experiential in nature, ongoing experimentation in a controlled environment is strongly encouraged.

Although the entire process of designing is collaborative, some aspects of it are more solitary in nature than others. The balance and

interaction between the various phases of designing are explained in the text. The reader is taken on a journey that starts with the first production meeting and continues beyond opening night to photo call and strike. Along this journey, the text covers the development of the concept and the context in which the parameters that govern each production are agreed upon.

There are general guidelines for establishing the basis of the lighting design by considering the style of the production and audience expectations. The development of a Lighting Key is used to explain how the sources of the light are identified and how knowing those sources forms the basis for the design as communicated through the Light Plot.

Communicating our thoughts about how to light a show using a specific lighting inventory is a critical part of the design process. The movement away from drawings rendered by hand to the nearly exclusive use of computer-based programs to generate the drawings and paperwork required is given due consideration, along with the collaborative effort that is essential to bring the design to fruition. Particular attention is given to the pivotal process of focusing the lights to their predetermined location on the stage. The relationship of the focusing process to the success of the design is outlined in detail, including the responsibilities of those involved in implementing the design so that it is technically correct and artistically appropriate.

The transition of the production to the stage from rehearsal spaces, the scene shop, the costume shop, and design studios marks a critical point in the evolution of the show, and it marks a shift in the expectations, responsibilities, and the dynamics of the entire production staff. As long as you remain true to the objectives of the various steps of the process as outlined in the text, you can work through the rehearsal process in an orderly fashion while maintaining the integrity of the design — and your sanity. All too often, a good design is lost in the confusion that may prevail during those last few rehearsals where everyone is trying to apply his or her influence and expertise to make the show “perfect.”

The interface with the control console is a critical link to realizing the design on the stage, and this aspect of the process is covered in depth. Lighting control methods of the past are explored, as well as the developments that have led to today’s computer-based lighting consoles. From assigning channels in the console in a logical pattern, to the final time the show information is recorded to the disks, the implementation and the significance of each step in

using a lighting console are examined, with particular emphasis on preserving vital information throughout the process.

The text does not assume every production will enjoy well-equipped spaces, large experienced crews, and unlimited budgets. We all know that, for at least some part of our career, we will work under less than ideal circumstances. However, the storyline of the text has to “live” in some portion of the production spectrum in order to remain cohesive, and this text embraces the realm of collegiate and professional productions as a basis for defining the methods through which we can approach the work. Although the schedules, the titles, the composition of the crews, the physical manifestation of the design, and the intent of bringing a production to the stage may vary widely, the approach to the work and the process of realizing the lighting design remain essentially the same across production levels and types.

A few notes about safety are in order here in that the fixtures that we use to light the stage operate on robust electrical systems, generate considerable amounts of heat, and are hung above the performers as well as the audience. Electrical safety is a critical issue in protecting the health and well-being of all those who work on the stage, cast and crew alike. Instruments and cables of questionable integrity should be quarantined until they are repaired and tested for proper operation. The risk of electrical shock is accentuated by the fact that, in the theatre, a severe shock could be punctuated by a fall from a ladder or house lighting position. The latter is particularly disconcerting when you consider that it ends with landing on the seats and the opportunity to minimize injury is greatly reduced. Fall protection should be properly worn and utilized whenever it is available. Handling hot instruments becomes second nature to those engaged in the practice of lighting the stage, but requires continued vigilance to avoid repeated burns. This is particularly true when attempting to replace lamps that have been burning for some time, as the slightest contact with the glass envelope can cause severe burns instantaneously. Safety cables should be attached to all fixtures and their accessories at all times. Be sure to attach the cable to a secure object and in such a way that it will not come loose. Color media should be secured to the color frame because, even though a thin piece of plastic color material is unlikely to cause injury as it floats to the ground, it can cause a person who is unaware of its descent to panic, disrupting the production momentarily. It may also create a long-term disruption because everyone will continue to wonder what else might fall and

if it will fall on him. Special care must be taken when working with stage electrics that are part of a counterweight rigging system. Counterweight rigging should only be operated by trained personnel and kept in balance to operate safely. Typically the electrics battens carry the most weight and therefore create the greatest potential for hazardous situations if they are operated or secured in an out-of-balance condition. Batten “crashes” involving electrics battens are often the most serious and pose a high degree of danger and potential damage. Safety is a primary concern and everyone’s responsibility.