

اساليب تصميم الإضاءة ودور مدير التصوير والإضاءة في تأكيد وإبراز البعد السينوغرافي  
في برامج المنوعات والمهرجانات المنقولة تلفزيونيا بوحدة الإذاعة الخارجية  
**Lighting design technics and the role of the Director of Photography  
emphasizing and highlighting the scenography dimension in variety  
programs and festivals which broadcast by OB Van Units**

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## **Introduction:**

The technical development that prevails in the performing arts requires high accuracy in calculating time in variety programs and festivals that are broadcasted live, and between the computerization of lighting distribution systems and their temporal, spatial, and dramatic compatibility, and among the factors that are not an accounting system, the temporal and spatial differences occur.

Large performances have large work groups of individuals and systems. There is the technical team for the theater, the technical team for broadcast, there is the technical team, the author's team, the decoration team, the directing team, the lighting and photography team, the radio transmission team, the singer or performer team, and those whom in front of cameras, and often a conflict occurs among all these groups. Systems and teams, or there is an interference that affects time and effort, and the delay in decoration delays the suspension of lighting, so that it negatively affects the aesthetics of the scenography of the artistic show.

## **Research problem:**

Most problems come from the teams not being compatible in time with each other and implementing the integrated system at the same time allotted for them. There are also work groups that begin after other teams have finished, in addition to many variables. Also, during the show, the performer may be late in entering the stage or deviate from the place that was set. Adjusting clarity in it, and the problem of television transmission of the three-dimensional event

on a two-dimensional surface negatively affects all attempts by the lighting and photography director to embody the third dimension.

If time was lost, the lighting director would require double effort to keep up with his time schedule, and he may not have been able to achieve the artistic dimension or integrate scenographically with the show.

Therefore, in this thesis, we will examine the methods of addressing this deficiency and how the director of lighting and photography can achieve the scenographic dimension, highlight the required artistic state, and follow up on the artistic and dramatic development of the event away from the obstacles of temporal inconsistency.

### **Search goal:**

Reaching the best methods for implementing lighting design and overcoming the problems of short time and waste due to other work teams while maintaining the achievement of the scenographic dimension, highlighting the aesthetics, and achieving the third dimension.

### **Research Methodology:**

The descriptive approach to methods of implementing design and auxiliary programs and their appropriateness and features, in addition to the analytical approach to artistic works such as variety programs, festivals, and visual dazzle shows.

### **Research hypotheses and questions:**

- Can a lighting designer achieve his job if he does not have enough time to carry out his work?
- Do the old solutions still exist?
- How can we benefit from technological development of computer programs in the design process?
- Can architectural engineering drawing programs perform this task, or do they have shortcomings, and what is the alternative?
- Are there really specialized programs for lighting design?
- How can the director of photography choose lights with the appropriate colors so that they appear to the viewer as they really are?
- Is adjusting the white balance of the cameras sufficient, or are there lights outside the spectrum that the camera can distinguish, such as shades of red and dark blue?
- Does the use of specialized programs and techniques lead to the production of artistic performances at a professional and creative level?
- What are the basics of lighting design that must be taken into account when using the programs?

### **Research importance:**

The importance of the current research is embodied in finding effective solutions for compatibility between the temporal variables in the dramatic show and the computerization of the lighting distribution systems in the dramatic theatrical show, in order to highlight the high

energy of aesthetics in the viewer. The researcher believes that the problem of the current research is a general problem that is not linked to a specific time or place.

1- Design: lighting scheme, paperwork, and production

(Design Light Plot, Paperwork, and Production)

The primary purpose of a lighting diagram is to show installers where and how to install lighting equipment. The diagram usually shows the color, circuit connection, control method, and other information related to each device separately. The blueprint is the designer's working drawings.

1-1- The Light Plot

The lighting plan (Figure 1) and its paperwork represent the link between the designer's ideas and the reality of production operations. The diagram must be completely error-free so that the load, electrical conductivity, and focus values for each device (hang, circuit, and focus) can be implemented and adjusted in an orderly and rapid manner. The designer corrects and solves design problems while drawing the diagram.

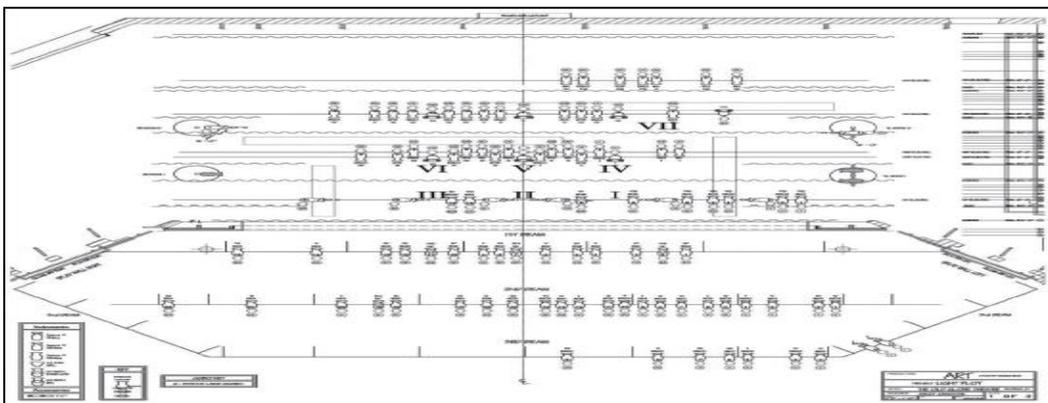


Figure (1): A complete drawing of the lighting plan for an artistic play at a scale of 1/2 inch

### 2-3-4- Lighting distribution and design

The idea was to have The Donut as a lit set piece as well as a massive source of light shining through it, a kind of stage of the sun if you like. The designer wanted the show to begin and end in Pink Floyd's bright, larger-than-life style.

2-3-4-1- Review lighting locations

There are two regular and straight backlit terraces on the two side terraces, two circular terraces above the podium, and two horseshoe-shaped terraces above the VIP stands, and around the hall.

The side lighting is placed on stairs and is divided into two groups, north of the stage SL and right of the stage, SR, and two groups, each one consisting of 9 units of the PRG ICON EDGE type, suspended on the main stage. There are no ground lighting devices that interrupt the backs of the actors and the performers.

### 2-3-4-2- The basic lighting units used and relied upon in the presentation

There is a flexibility and diversity regarding the selection of lighting units and attention to the quality of the equipment, taking into account the financial budget, availability of equipment, inventory rental company and the best possible compromise.

But the most apparent hero was the lighting unit devices from Robe Company, of the type Robe BMFL Blades and BMFL WashBeam, which were placed on suspension platforms due to the

quality of their light spectrum and good functional performance, and because they are characterized by a wide spread beam and have the Robe EMS electronic cruise control feature to move and stop smoothly, in fast and accurate way.

### **2-3-4-3- Elements of difficulty and challenge in this presentation**

This presentation was designed in just a few days. In circus shows you don't have enough days for full programming, everything is done overnight through production. This requires a lot of focus from the crew.

### **2-3-4-4- Designing performances that take place in the air above the level of the stage roof**

Because of the risk factor, design differs from drama due to the exploitation of all stage space and rapid movement. Therefore, it is important to communicate with the movement performers and trainers to create harmony between the artistic work, lighting, and acrobatic movement, in addition to space and safety factors.

Technically, he did not use diffused LED wash lighting devices, such as Quantum Wash and B-Eye, because he feared that focusing the lenses on the detection surface might cause disturbance to the performer's eyesight.

### **2-3-4-5 The beautiful light effect that forms the green malachite stone**

Figure (30): On the wall behind the scenes, a light projection effect or a lighting effect? This effect is the most successful and impressive design element, as the light projection devices harmonized with the other lighting devices, with the fabric ties wrapped around the circular terrace, resembling a donut.

#### **Research results: -**

- 1- Using virtual reality helps to better imagine what the artistic presentation will look like.
- 2- The use of lighting control devices enhanced the role of scenography for artistic performances.
- 3- These programs require correct entry of the location of each optical unit with height, length, and width parameters on the main axes X, Y, and Z.
- 4- The problem of embodying the characters and their clothes, as well as the decorative pieces, arose. This requires effort from the interior designer and cooperation to provide the lighting designer with all the data, drawings, and a special library for each decorative model to achieve more realistic results.
- 5- The height and angle of each device may change during the actual implementation and installation of the optical units, which leads to a change in the directions of the distance of the sources or their failure to produce the desired effect.
- 6- The importance of experimental demonstrations. The lighting director and the designer, whether they are the same person or different, still need adjustments and improvements after verification.

7- There must be agreement and discussion with the sound engineer and the loudspeakers, as they are also an essential factor in the artistic work and may obstruct the light paths or the installation of truss columns and light stands.

**Research recommendations: -**

- 1- The necessity of developing curricula for studying scenography using programs dedicated to lighting in the school curricula because it is the future.
- 2- Encouraging graduates of the Applied Arts Department of Cinema and Television to work in the field of light scenography in state theaters.
- 3- Lighting designers should pay attention to the steps of lighting design, magic maps, and organize the semantic steps of the artistic presentation to obtain good results that are compatible in time with the performed theatrical performance.
- 4- The necessity of building strong working relationships with the interior designer and cooperating together to produce a distinctive artistic image.