

UNIVERSITY OF ARTS, BELGRADE



SCENTEC

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researcher: Ksenija Markovic M.A.

Research methodology



• **The subject** of this research is the situation in the lighting sector in Belgrade theatres.

• **The goal** of the research is to determine:

- ✓ what kind of personnel policy is implemented in the field of stage lighting;
- ✓ how working processes are organized, and
- ✓ whether the appropriate safety at work is applied.

This research also tends to determine:

- ✓ a degree of technically equipped theatres (in the field of the stage lighting) and
- ✓ when it comes to education, establishing the needs of the employees in this field.

Research methodology



- The research has been conducted on five theatres in Belgrade which in relation to: (1) existence/non existence of permanent art ensemble, (2) program policy, (3) intensity of production, (4) technical equipment and (5) the number of stages comprise **a representative sample**.
 - ✓ The National Theatre
 - ✓ Terazija Theater
 - ✓ Zvezdara Theater
 - ✓ Belgrade Drama Theatre
 - ✓ Little Theatre Dusko Radovic Theater
- The research is based on **interviews** which have been conducted with the staff in the lighting departments of the previously mentioned theatres.

The purpose of these interviews is to get the desired data “at first hand”, and the situation to be evaluated according to the statements of those who are one of the most significant target groups of the project SCENTEC



NATIONAL THEATRE
Belgrade

Basic information



- The National Theatre hosts three artistic ensembles of Opera, Drama and Ballet.
- It has two stages: *Main* stage seating 700 spectators and *Rasa Plaovic* stage seating 300 spectators.
- Including guest programs, it shows more than 600 runs per year, for the audience of almost 150 000 spectators.
- The National Theatre is founded and supported by Serbian Ministry of Culture.

Lighting design department



Studio*

- 1 Lighting Designer / Head of Studio**
- 1 Assistant Lighting Designer**
- 2 Technicians - Operators**

Lighting crew

- 1 Master Electrician**
- 1 Assistant Master Electrician**
- 4 Console Operators**
- 4 Chief Lighting Technician**
- 9 Lighting Technicians**

in total: 23 employees

* This is the first studio of this type in Serbia, approved by Serbian Ministry of Culture

Lighting design department

The jobs description and systematization



Studio

- **Lighting Designer / Head of Studio**

The Lighting Designer is responsible for the creation of the lighting design for the most of National Theatre's production. He collaborates with the director, set, costume and sound designer, and choreographer. His job is to create the lighting atmosphere in response to the text and director's ideas, as well as to the issues of visibility, safety and the costs. He works closely with the stage manager and the lighting crew. As the Head of the Studio, he has full responsibility for everything that happens in this organizational unit.

Requested qualification: college degree, electrical engineering (6th degree)

- **Assistant Lighting Designer**

(assists the Lighting Designer)

Requested qualification: college degree, electrical engineering (6th degree)

- **Technician - Operator**

The Technician - Operator is responsible for: digital archiving cue sheets and the maintenance of equipment in the studio

Requested qualification: secondary education, electrical engineering (5th degree)

Lighting design department

The jobs description and systematization



Lighting crew

- **Master Electrician**

The Master Electrician is responsible for implementing the lighting design drawn up by the Lighting Designer. He supervises the preparation, hanging, connection and focusing of stage lighting equipment. *Beside this, in the case of the increased production, he can be engaged in creating the lighting design.*

Requested qualification: college degree, electrical engineering (6th degree)

- **Assistant Master Electrician**

(assists the Master Electrician)

Requested qualification: college degree, electrical engineering (6th degree)

- **Console Operator**

The Console Operator is responsible for setting up the Console or Dimmer Desk, mixing the lighting effects during a performance and responding to the various demands of the production (stage fog effects, stage fire effects, etc).

Requested qualification: secondary education, electrical engineering (5th degree)

Lighting design department

The jobs description and systematization



Lighting crew

- **Chief Lighting Technician**

The Chief Lighting technician is responsible for properly tuning the lights for the evening performance of the play. He directs the other technicians to set up the appropriate lighting equipment.

Requested qualification:secondary education, electrical engineering (5th degree)

- **Lighting Technician**

The Lighting Technician is responsible for installing color effects or image patterns, patching lighting instruments, hanging, focusing and changing lights before and during the performance. The Lighting Technician may also lay electrical cables and wire fixtures

Requested qualification:secondary education, electrical engineering (5th degree)

Since all jobs in the department are highly-specialized, and in regard to the restricted budget, the National Theatre's policy is against hiring freelance specialists, but using the resident ones.

Lighting design department

The organization of the work



The job is organized in two shifts: the daily and the evening

- **The daily shift** includes the regular address rehearsals, that take place simultaneously on the both stages and two extra stages.
- **The evening shift** is the run-time performances, that take place simultaneously on the both stages.

Performance on Main stage requires the presence of:

6 Lighting Technicians,
1 Console Operator and
1 Chief Lighting Technician

Performance on Rasa Plaovic stage requires the presence of:

1 Lighting Technician,
1 Console Operator and
1 Chief Lighting Technician

- Beside this regular job, lightening crew is engaged **on the road.**

Lighting design department



- **Training and education of employees**

When the Theatre purchases a new equipment, it sends people to appropriate technical course.

(This mostly regards to the training for Console Operators.)

- **Issues of the safety at the work**

The lighting crew is obligated to wear appropriate overalls.

In the last few decades there have no been the problems that threaten the safety of employees, public and property, produced by lighting crew.

General light plot

The Main stage



- **The type of the equipment:**

- ✓ Convention lighting
- ✓ Intelligent lighting
- ✓ Led diode lights

- **Acc. 380 lights**

- **Positions:**

- ✓ Front of House: first, second and third gallery, laterally arranged; forth gallery frontally arranged
- ✓ Portal Bridge
- ✓ Right and left gallery laterally
- ✓ 6 electric bridges
- ✓ 2 electric bridges laterally below the gallery
- ✓ Portal towers
- ✓ Plugs in the floor for extra lighting

General light plot

Rasa Plaovic stage



- **The type of the equipment:**

- ✓ Convention lighting

- **Acc. 60 lights (+ plugs in the floor for extra lighting)**

- **Ceiling architectural construction for hanging the lights**

- The Lighting department owns the road lighting equipment (The Console, lights and dimmers)

Lighting design department

What do they say?



The employees in Lighting department agree about necessity of forming the certificated course for Lighting Technicians, as well as the forming of the academic program for lighting design.



TERAZIJE THEATRE
Belgrade

Basic information



- Terazije Theatre is the only musical theater in Serbia with the drama, orchestra, ballet and choir ensembles.
- It has two stages: *Main* stage seating 468 spectators and *small Cabaret* stage seating 120 spectators.
- The building has been reconstructed from 1991 to 2005. In terms of technical equipment, this theatre is the most modern one.
- Terazije Theatre is founded and supported by City Council.

Lighting design department



1 Chief Lighting Technician/ The Lighting Designer

2 Console Operators

3 Lighting Technicians

in total: 6 employees

Lighting design department

The jobs description and systematization



Lighting crew

- **Chief Lighting Technician/ Lighting Designer**

Chief Lighting Technician is responsible for:

- (1) creating the lighting design for all theater's production;
- (2) directing the technicians to set up the appropriate lighting equipment; supervising the preparation, hanging, connection and focusing of stage lighting equipment.
- (4) When it's necessary the Chief Lighting Technician works as Console Operator and/or Technician.

Requested qualification: secondary education, electrical engineering (5th degree)

(The person that has been working in the position of C.L.T. had studied the management in theater)

- **Console Operator**

Console Operator is responsible for setting up the Console or Dimmer Desk; mixing the lighting effects during a performance and responding to the various demands of the production (stage effects, such as fog, fire, etc)

Every Console Operator is charged for a given play. He or she is involved in play's preparation and it's performing.

Requested qualification: secondary education, electrical engineering (5th degree)

Lighting design department

The jobs description and systematization



Lighting crew

- **Lighting Technician**

Lighting Technician is responsible for installing color effects or image patterns, setting up, hanging patching, focusing and changing lights before and during the performance. The Lighting Technician may also lay electrical cables and wire fixtures.

Every Technician is charged for a given play. He is involved in play's preparation and it's performing.

Requested qualification: secondary degree, electrical engineering (5th degree)

The problem of a small number of employees in the lighting department is solved by giving responsibilities every employee for the certain play.

Since all jobs are highly-specialized, the Theatre's policy is against hiring freelance specialists, but using the resident ones.

Lighting design department

The organization of the work in the lighting department



The job is organized in two shifts: the daily and the evening

- **The daily shift** includes the regular and dress rehearsals, as well as preparing the lighting equipment for the evening performance.

In the daily shift work: 2 Technicians and 1 Console Operator, as well as Chief Lighting Technician in the case of preparing new performance.

- **The evening shift** includes the performance of play. It requires the presence of: the Chief Lighting Technician, 2 Technicians and 1 Console Operator.

- Beside this regular job, lighting crew is engaged **on the road**, as well.

General light plot

The Main stage



- **The type of the equipment:**

- ✓ Convention lighting
- ✓ Intelligent lighting

- **Acc. 210 lights (150 conventional and 60 intelligent)**

- **Positions:**

- ✓ Front of House: 1 bridge and 1 proscenium
- ✓ Portal Bridge
- ✓ Portal Towers
- ✓ 2 electric bridges
- ✓ lateral lighting on stage (*Street*); on electric hoists
- ✓ *Hinterstage*
- ✓ Plugs in the floor for extra lighting

General light plot

Cabaret Stage



- **The type of the equipment:**

- ✓ Convention lighting
- ✓ Intelligent lighting

- **Acc. 12 lights (8 convention and 4 intelligent) + 4 extras**

- **Ceiling architectural construction for hanging the lights**

- The Lighting department doesn't own the road lighting equipment. In the case of tour, the Chief Lighting Technician sends the rider-list to the host.

Lighting design department



• **Training and education of employees**

When the Theatre purchases a new equipment, it sends the Chief Lighting Technician on adequate course.

• **Issues of the safety at the work**

Besides T-shirt with the Theater's logo, the lighting crew doesn't have appropriate overalls.

In the last few decades there have no been the problems produced by lighting crew that threaten the safety of employees, the audience and the property.

Lighting design department

What do they say?



The employees in the Lighting department think that the idea of forming the certificated course for Lighting Technician is very good. The Chef Lighting Technician stands out the working experience and the personal interests as important requirements for this kind of job. Beside this in addition he says that the general education about theater production should be foundation for upgrading technical skills.



ZVEZDARA THEATRE
Belgrade

Basic information



- Zvezdara theatre has two stages: *Main* stage seating 407 spectators and *New* stage seating 260 spectators.
- This theater is specific, because unlike the other theatres founded and supported by the City Council, this one doesn't have resident artistic ensembles.
- Considering the current ideas of Ministry of Culture related to reducing the number of employees in theaters, the Zvezdara and its job systematization in lighting department is good example for this research.

Lighting design department



1 Chef Lighting Technician /Console Operator

**1 Technician/Console Operator –
constantly hired freelance**

**1 Lighting designers or Master Electricians -
occasionally hired freelance***

in total: 1 full time employee

* In the production process, the Theater tends to hire freelance lighting designers or master electricians. By the light plots and cue sheets they create, resident Technician or the one hired outside the company, run the show

Lighting design department

The jobs description and systematization



Lighting crew

- **Chef Lighting Technician**

Chef Lighting Technician is responsible for:

- (1) creating the lighting design for the most of the theater's production;
- (2) working on lighting console.
- (3) when it's needed, working as the theatre's electrician.

Requested qualification: secondary education, electrical engineering (5th degree)

- **Lighting Technician/Console Operator – permanently hired freelancer;**

The Lighting Technician is responsible for:

- (1) installing color effects or image patterns, setting up, hanging, patching, focusing and changing lights before and during the performance.
- (2) working on lighting console

Requested qualification: secondary education, electrical engineering (5th degree)

in a case of the increased production the Theater can hire one more technician.

Lighting design department

The organization of the work in the lighting department



The job is organized in two shifts: the daily and the evening

- The **daily shift** includes the regular and dress rehearsals, as well as preparing the lighting equipment for evening performance.

- The **evening shift** includes the run-time performance.

This requires the presence of the: 1 Technicians and 1 Console Operator.

- Beside this regular job, lighting crew is engaged **on the road**.

General light plot

The Main stage



- **The type of the equipment:**

- ✓ Convention lighting

- **Acc. 68 lights**

- **Ceiling architectural construction "Net" for hanging the lights**

General light plot

The New stage



- **The type of the equipment:**

- ✓ Convention lighting

- **Acc. 72 lights**

- **Positions:**

- ✓ Front of House: 2 bridge
 - ✓ 1 Portal Bridge
 - ✓ "Tubes" for hanging lighting equipment

Lighting design department



• **Training and education of employees**

Zvezdara Theatre doesn't send its employees to the training courses.

• **Issues of the safety at the work**

The lighting crew doesn't have appropriate overalls.

In the last few decades there have not been the problems produced by lighting crew, that threaten the safety of employee, the audience and property.

Lighting design department

What do they say?



The employee in Lighting department thinks that the idea of forming the certificated course for Lighting Technician is very good. Examinee says that professional education in this domain would contribute to respect for the profession, as well as the better opportunities for freelance jobs.



**BELGRADE DRAMA THEATRE
(BDP)**

Basic information



- BDP is the oldest city's theater.
- It has two stages: *Rade Markovic* stage seating 374 spectators and *New* stage seating 129 spectators.
- Theatre was completely renovated in 2003.
- The theatre has the art ensemble, as well as full-time employees in the technical and administrative sector.
- BDP is founded and supported by City Council.

Lighting design department



1 Chief Lighting Technician

3 Lighting Technicians

in total: 4 employees

Lighting design department

The jobs description and systematization



Lighting crew

• Chief Lighting Technician

Chief Lighting Technician is responsible for:

- (1) creating the lighting design for all theater's production (and all other duties specified for the Lighting Designer).
- (2) He works as Console Operator, as well as
- (3) Lighting Technician

Requested qualification: secondary education, electrical engineering (5th degree)

• Lighting Technician

Lighting Technician is responsible for:

- (1) installing color effects or image patterns, setting up, hanging patching, focusing and changing lights before and during the performance. The Lighting Technician may also lay electrical cables and wire fixtures.
- (2) Beside this, lighting Technician works as Console Operator

Requested qualification: secondary degree, electrical engineering (5th degree)

Lighting design department

The jobs description and systematization



- Earlier the theater tended to hire freelance technician. Now, due the financial restrictions, for the working processes in the lighting department, theatre uses only resident technicians.

- The problem of a small number of employees in the lighting department is solved by giving responsibilities every employee for the certain play. This is why the job in the department isn't organized in the daily and evening shifts, but one works when his or her plays prepare or perform.

Still, all of four lighting technicians tend to know all plays that perform in the given season. This is helpful when someone is ill or on the road.

General light plot

The Main stage



- **The type of the equipment:**

- ✓ Convention lighting

- **Acc. 120 lights**

- **Positions:**

- ✓ Front of House: 1 bridge

- ✓ 1 Portal Bridge

- ✓ 2 lateral Portal Towers

- ✓ 8 electric bridges

- ✓ the lateral gallery above the stage

General light plot

The New stage



- **The type of the equipment:**

 - ✓ Convention lighting

- **Acc. 37 lights**

- **Ceiling architectural construction "Net" for hanging the lights**

- The Lighting department doesn't own the road lightening equipment. In the case of tour, the Chief Lightening Technician sends the rider-list to the host.

Lighting design department



• **Training and education of employees**

BDP doesn't send it's employees to the training courses.

• **Issues of the safety at the work**

The lighting crew doesn't have appropriate overalls.

In the last few decades there have no been the problems produced by lighting crew, that threaten the safety of employee, the audience and property.

Lighting design department

What do they say?



The employees in Lighting department think that the idea of forming the certificated course for Lighting Technician is very good. In addition they point on necessity of forming academic program for lighting design.



LITTLE THEATRE DUSKO RADOVIC
Belgrade

Basic information



- Little Theatre Dusko Radovic is one of the best known and most esteemed children's theatres in Serbia.
- Currently, the original theater's building has been renovated, so theater is located on a temporary address.
- This theatre runs the program for the children and the young audience.
- Little Theatre Dusko Radovic is founded and supported by City Council.

Lighting design department



3 Lighting Technicians

working as:

- ✓ **Lighting Designer**
- ✓ **Console Operator**
- ✓ **Technician**

in total: 3 employees

Lighting design department

The jobs description and systematization



Lighting crew

- **Lighting Technician**

Lighting Technician is responsible for:

(1) creating the lighting design for a given play:

(2) working on Lighting Console;

(3) installing color effects or image patterns, setting up, hanging patching, focusing and changing lights before and during the performance;

(4) video projections

Requested qualification: secondary education, electrical engineering (5th degree)

- The problem of a small number of employees in the lighting department is solved by giving responsibilities every employee for the certain play. This is why the job in the department isn't organized in the daily and evening shifts, but one works when his or her plays prepare perform.

General light plot



- **The type of the equipment:**

- ✓ Convention lighting
- ✓ Intelligent lighting
- ✓ Led diode lights

- **88 convention lights, 7 intelligent, 4 rgb led diode panels**

- **Positions:**

- ✓ Front gallery, left gallery, right gallery, back gallery
- ✓ 1 Portal Bridge
- ✓ 4 lateral Portal Towers
- ✓ 5 electric bridges
- ✓ Front of the house
- ✓ right and left lateral gallery (stage)
- ✓ lateral lighting on the stage (street)

Lighting design department



• **Training and education of employees**

The Little Theatre Dusko Radovic doesn't send its employees to the training courses.

• **Issues of the safety at the work**

The lighting crew doesn't have appropriate overalls.

In the last few decades there have not been the problems produced by lighting crew, that threaten the safety of employee, the audience and property.

Lighting design department

What do they say?



The employees in Lighting agree with the idea of forming the certificated course for Lighting Technicians. Still, examinees point on the fact that this type of course should be in correlation with the needs, possibilities and the program policy of the every specific theater.



CONCLUSIONS



Conclusions



Having in mind the comparison and the analysis of the respondents' answers, the following conclusions can be drawn:

- The lighting departments in Belgrade theatres are not structured in relation to specific rules of the profession, but in relation to the situation which implies: employees' characteristics, possibilities of the theatres and city financial capacities and/or culture state budget. Therefore, there is not an inimitable model of organizational structure but it varies from theatre to theatre.
- The employees in the lighting departments are prevailingly of secondary education (electrical department). Their expertness comes from many years of professional experience, not education.
- Theatres rarely send their employees to additional training.

Conclusions



- It is quite common that one employee does more jobs. For this reason, work places are quite vaguely defined so that being a skilled "Lighting Designer" ("Console Operator" or "Technician") involves a far wider range of activities than those that relate to the profile.
- The employees are poorly informed about the aspects of work safety. They do not have work apparel.

Incidents which originate from lighting department are not recorded in recent history.

Conclusions



- The employees find the idea about establishing the certified course for stage technician remarkably good. Also, the vast majority emphasizes the need to establish an academic program for the lighting design. They believe that it would contribute to better possibilities of individuals who are engaged in this work, and it would also ensure the personnel who would have in quite shorter period of gaining work experience become more easily and quickly trained for the job.



THANK YOU!

ksenijamarkovicart@yahoo.com