ULBS

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Theater and Performing Arts

PhD THESIS

TECHNICAL PRODUCTION MANAGEMENT FOR THE PERFORMING ARTS

SUMMARY

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II. KEYWORDS

The doctoral thesis entitled **"Technical Production Management for the Performing Arts"** contains the following keywords: performing arts, performance, artistic display, artistic act, cultural product, cultural industry, creative industry, production, technical production, technical production management, technical production manager, cultural management, artist, director, stage designer, technical director, stage director, stage manager, technical director, production manager, stage technician, stagehand, flying bar operator, rigger, lighting engineer, lighting designer, lighting operator, sound designer, sound engineer, sound operator, video designer, VJ, creation, pre-production, implementation, stage, mobile stage, amphitheater, proscenium, stage box, proscenium arch, rear stage, stage fly tower / fly loft, understage / trap room, orchestra pit, harlequin, sidestage, stage mechanisms, flying bar, flybar, trap, wagon / lift jack, bridge / catwalk, safety / fire / iron curtain, backdrop, cyclorama, stage floor, front of house, technical direction, technical booth, lighting, sound, video, set, props, profile, projector, PAR, fresnel, PC, profile reflector, moving head, LED, lighting desk, gobo, lens, barn door, sound mixer, amplification system, acoustics hall, public address system – PA, sound reinforcement system – SR, Line Array, immersive sound, immersive audio, Soundscape, microphone, monitor, monitoring, in-ear, HDMI, video processor, video mixer, video camera, media server, video server, video projector, lumens, ansi-lumens, video projection screen, rear projection, LED screen, LED module, LED net, pixel, LCD, plasma screens, VAMA, Better.

III.   INTRODUCTION

The interest for the research topic of this paper originates in my professional involvement in various activities and the implementation of technical production in the performing arts. Whether we are talking about the making of new shows, hosting shows at various festivals or touring with various shows, we have always faced the need to improve the technical productions as well as their management. Throughout this journey, I have been striving to identify more meaning, coherence and efficiency, a deeper understanding of the technical production management and its role in the performing arts. In all this time, a series of curiosities and fundamental questions have been arising, underlining the realization of technical productions and management:

What is the technical production? What is its purpose? What are the steps and activities necessary to carry out a technical production? What is technical production management? How do we do it? What is a technical production manager? What skills and abilities are required? What is this all about? What are the specific techniques, skills and abilities he is mainly relying on in his work? Is the technical production management an essential element of the quality of the cultural act?

These questions have been guiding our research in achieving a work that tries to approach and define the technical production management in the performing arts as a specialization, a well-founded profession and discipline, structured and systematized in terms of concepts, work stages, clarification of activities and actions necessary to achieve and present shows.

In our research and studies, we have been analyzing the environment and the context in which the specialists in the field of technical production management in the performing arts have been contributing to the knowledge and deeper understanding of these topics.

In recent decades, the change of technologies and especially the emergence and implementation of new technologies play an increasingly important role in the context of cultural management in the performing arts. In this context, the relevance of technical production management has become all the more important as the realization of shows is increasingly based on the use of technology.

One of the premises of this paper refers to the fact that research and specialized works in Romania, regarding the organizational and managerial theory and practice of cultural enterprises

completely neglect or omit the field of technical production. The documentations reveal that, in Romania, there are no books, publications or works that address technical production as a field, or technical production management as a specialization, profession, or as a practical discipline.

Despite its growing importance and role in the context of the performing arts, I have to say that the technical production management are not given the attention and support needed to achieve the potential and level of performance that can ensure and enhance the quality of the artistic act.

This paper explores the vast field of technical production in an attempt to make the first work in Romanian designed to create a comprehensive and coherent picture of what is the technical production management in the performing arts.

IV.   SUMMARY OF THE CHAPTERS OF THE THESIS

1.   INTRODUCTION

Performances animated people's lives long before our era; furthermore, over time, they proved to be a form of meeting the needs of society. Nowadays, events such as shows, concerts, festivals, exhibitions, conferences, sports games or TV productions enjoy extraordinary attention. From an economic point of view as well as culturally and touristic, events have become important projects for the communities and regions they take place. In recent decades, changing technologies and especially the emergence and implementation of new technologies have been playing an increasingly important role in the context of performing arts cultural management. In this context, the relevance of technical production management has become all the more important as the realization of shows is increasingly based on the use of technology.

One of the premises of this paper refers to the fact that researches and specialized works carried out in Romania regarding the organizational and managerial theory and practice of cultural enterprises completely neglect or omit the field of technical production. The documentations made in the field revealed that, in Romania, there are no books, publications or works that address technical production management as a field, specialization, profession, or practical discipline. Despite its growing importance and role, in the context of the performing arts, I have to say that the technical production management are not given the attention and support needed to achieve the potential and level of performance to ensure and enhance the quality of the artistic act.

Therefore, we considered opportune and useful to carry out a study on the technical production management for the performing arts based on general information, as they are found in international literature and practices, and taking into account the perspective of local realities, in terms of studies and personal experience of twenty years in this field.

Consequently, we aimed to create a work that defines and addresses the technical production management for the performing arts as a specialization, profession or discipline well founded, structured and systematized in terms of concepts, work stages, clarification of activities and actions necessary to perform and present performances.

2. TECHNICAL PRODUCTION MANAGEMENT FOR THE PERFORMING ARTS, ESSENTIAL ELEMENT OF THE QUALITY OF THE CULTURAL ACT

1. PERFORMING ARTS IN THE CONTEXT OF CULTURAL AND CREATIVE INDUSTRIES

The first point of the chapter dedicated to the technical production management for the performing arts presents an overview on the cultural and creative industries and the positioning of the performing arts within them.

To clarify the terms of *cultural and creative industries*, we used various documents and sources such as the Green Paper. *Unlocking the potential of the European Commission's cultural and creative industries*, Regulation (EU) No 1095/2010 1295/2013 of the European Parliament and Council establishing "Creative Europe" programme (2014-2020), The UNESCO Framework for Cultural Statistics, "LEG Culture" - Leadership Group Culture, Eurostat – The Statistical Office of the European Union, ESSnet-culture - The European Statistical System Network on Culture, Creative Industries Mapping Document - UK - 2001, INCFC – The White Paper of the Cultural and Creative Sectors in Romania. Therefore, we came to a first definition of the *cultural industry* given by Theodore Adorno and Max Horkheimer in the book "Dialectic of the Enlightenment", published in 1947. Enouncing of the cultural domains and sectors, the framing of the performing arts in one of these cultural domains continued with the clarification of the concepts, terms and notions essential to the field such as shows, performing arts, cultural products, services and goods, cultural cycles or functions, differences between cultural and commercial products, and so on. In conclusion, we addressed the cultural and creative industries in the economic context and the role of cultural management in the context of entertainment companies.

2. TECHNICAL PRODUCTION MANAGEMENT FOR THE PERFORMING ARTS

The field of technical production suffers from an informational void in terms of relevant writing in Romanian. Nationally, the technical production for the performing arts is not considered a field to be given the attention and resources needed to conduct research and studies designed to produce the specialized works so necessary in this field. In the absence of a sustained efforts to produce

basic work and materials needed to train and raise professional standards among performing arts workers, and implicitly among technical productions, it is impossible for performances to reach their full potential in terms of innovation, development and level of quality of the cultural act. Efforts should be directed towards defining technical production as a field and managing technical production as a science, specialization, profession or as a practical discipline that can benefit from studies and research resulting in relevant documentation applicable and shared by the practices of the entire cultural sector.

In this sense, this paper is a first effort in defining the technical production management in the performing arts as a discipline, profession or well-founded specialization, structured at the stage of work and description of activities within them, in order to support creation, to facilitate production and create the necessary framework for the presentation of shows.

To achieve the proposed, we started by substantiating the concepts of **production**, **technical production** and **technical production management** for the performing arts.

The **technical production** for the performing arts refers to the resources and technical means involved in the realization and presentation of the artistic act itself, such as: the stage or space of the actual performance, scenic mechanisms and annexes, sets, furniture, props, lighting equipment , sound, video and other technical means with the technical staff related for the realization, assembly and operation. The **technical production** supports the creation and facilitates the development of the performances, without substituting the artistic act itself, but as an integral part of it.

To answer the question - what is technical production? - we can summarize that **technical production is the sum of all the resources and technical means involved in the realization and presentation of a show**.

Technical production, through the sum of its resources and means, is constituted as a medium of creation, facilitator in the realization, providing the necessary framework for the development of the shows.

In conclusion, the general term of **production** for the performing arts includes both technical production and other resources and means involved in the realization and presentation of a show, including the arrangement of venues and hosting participants in optimal and safe conditions. The specific term of **technical production** refers to the resources and technical means involved in the realization and presentation of the artistic act itself. In this sense, technical production is an integral part and is subordinated to the broader concept of production in the performing arts.

Technical production management aims to provide and organize as well as possible all the resources and technical means involved in the process of realization and optimal development of the shows. It involves performing a set of specific activities and actions designed to provide and organize as well as possible all the resources and technical means involved in the process of performing and conducting performances.

The fundamental principles that govern the realization of technical production and their management are:

- **FUNCTIONALITY**
- **EFFICIENCY**
- **SAFETY**
- **BEAUTY – AESTHETICS**
- **RESPONSIBILITY**

The major challenge of our century is to protect the environment and find sustainability that will allow us, both new and future generations, a good life in a healthy environment. Recent global scientific reports all have the same conclusion: current trajectories are fundamentally unsustainable. In this context, I believe that it is the duty of our generation to turn its attention to a new principle that must be taken into account in the realization of technical productions and their management - **responsibility**.

Responsibility in the context of the realization of technical productions implies the approach of a management of the technical production erected to the sustainability. Our generation and future generations need to start wondering what the impact of their productions is on humans and the planet. This means that we need to start measuring how socially and ecologically responsible our actions are throughout the creation, production and presentation of shows and look for solutions to reduce the negative impact on the environment. In this context, the responsibility refers to the awareness and reduction of the impact that the materials, equipment, machinery, working methods, emissions, selective collection and recycling of materials involved in the process of making and presenting the technical productions of the shows.

The way in which technical production management relates to these fundamental principles should always be to find the means and balance necessary to encourage and respect them.

Respecting these fundamental principles offers the possibility that all actions and activities involved in technical production are guided and aimed at obtaining solid professional results,

regardless of the ambiguity or subjectivity of artistic concepts, approach, type of show or number of variables involved in achieving and the presentation of a show.

We continued with the clarification of the different contexts of realization and presentation of the shows.

In this sense, the specific processes and activities necessary for the development or presentation of a show require the technical production management three different approaches:

1. Technical production management from the perspective of making and presenting the shows for the first time;

2. Technical production management in the context of hosting shows;

3. Technical production management in the context of the touring and presenting the shows in other spaces than those in which they were created.

Next, we identified the path necessary for the realization and presentation of the shows from the point of view of production and technical management, divided into five work stages as follows:

1. The creation or realization of the artistic concept

2. Pre-production

3. Production

4. Implementation

5. Evaluation and archiving

The better the structure and the description of the activities within each work stage are carried out and clarified, the easier and more efficient the organization, task tracking, coordination and supervision.

Next, we treated individually all the three perspectives of approaching the realization of the technical and production management, explaining and clarifying the activities and actions undertaken in each stage and phase of work.

2.6 Technical production management from the perspective of the making and presentation of the opening night

2.6.1 The creation and realization of the artistic concept

This stage of work aims to create and realize the artistic concept of the show. The artistic concept incorporates all the elements and means involved in the realization and presentation of the show to the public, including the entire technical production.

The role of the technical production manager in this stage is to support and guide the efforts of the creative team in order to achieve the artistic concept and the technical production.

2.6.2 Pre-production

Pre-production is the next stage of creation in the process of making a show. It involves establishing, planning, scheduling and budgeting all the resources involved in making and presenting a show.

Pre-production can be structured in the following essential work phases:

Documentation and establishment of resources

Budgeting

Planning and scheduling

We have described and clarified the specific activities and actions necessary for the realization of all these work phases.

2.6.3 Production

In this work phase, the activities necessary for the realization (manufacture, construction, production), acquisition and rental of all resources and services of a technical nature necessary for the performance of the show are carried out. In the production phase, all the necessary acquisitions for the show are made; the workshops produce the sets, the furniture, the props, the costumes and the other elements necessary for the performance of the show. The staff of the technical departments plan and prepare the technical elements and equipment according to the received sketches and the technical production planning lists.

In this work phase, the role of the technical and production manager is to support and carry out the acquisitions, supervise the realization of the technical production elements and manage any situations that may arise.

The production process must be completed by the beginning of the implementation phase, when the elements involved in the making of the show are necessary to be assembled, tested and used in the presentation of the show to the audience.

2.6.4 Implementation

This stage aims to achieve the actions scheduled and planned in the pre-production phase in order to present the show to the audience. At this stage, all elements produced, purchased or rented for the purpose of making and presenting the show are assembled, put into operation, calibrated, tested, programmed and used in show mode. All efforts made in the pre-production stage, such as the research and establishment of resources, their planning and programming, the realization of technical production elements must be harmonized in a process designed to ensure the realization and development of a functional, efficient, safe and beautiful technical production.

The implementation can be structured in the following work phases carried out in chronological order:

Pre set up activities (*Load-in*)

Set up

Rehearsals

The presentation or opening night of the show

Dismantling

Venue clearing (*Load-out*)

To all these work phases, we have described and clarified the specific activities and actions necessary for their realization.

2.6.5 Evaluation and archiving

The evaluation aims to clarify whether the performance of the show went according to the plan and objectives. Based on a set of information and observations made during the show, the possible problems are identified and solutions are proposed to be solved or improved for future productions. This evaluation process can have a major impact on different aspects of the technical production and whether the production process can be streamlined and improved is reflected in the budget and ultimately in the quality of the cultural act.

Archiving all documents resulting from the activities of technical production is an important mission, especially if the show aims at a long life. All creative documents (sketches, 3D renderings, material lists, pictures, budgets, creative processes, etc.), planning and programming documents as well as other documents resulting from the technical production process are subject to archiving.

2.7 Technical production management in the context of hosting performances

At the beginning of this subchapter, I was saying, that the technical production management for the creation of a show is to a certain extent different from what is necessary for the presentation of the shows already created in a host space (festival, performance hall, etc.). The differences result from the fact that the approaches, activities and actions within the different stages in the realization of the technical production are different.

In the case of hosting shows, we encounter different situations that require specific approaches from the perspective of technical production as follows:

The first situation is where guest performances are hosted in buildings or spaces built especially for presenting such activities (theaters, operas, circus, houses of culture, halls for shows, etc.).

The second situation is the one encountered when the hosting venue is a space that does not have the necessary equipment for performing shows (gym hall, multipurpose hall, outdoor, unconventional space, and so on.).

The third situation is when dealing with a festival that uses multiple spaces to host shows. This case combines the two situations described above and requires a much greater volume of work in order to host and present the shows.

In any of the situations, the technical production management to host shows involves completing all the necessary activities to facilitate the realization of the technical production in efficient, functional, safe and beautiful conditions.

The previous point deals with the structuring and approach of the technical production management in the context of creating and performing a show. This structuring of the work stages is, to a large extent, relevant to all types of approaches to the management of technical productions in the performing arts, but depending on the perspective of the approach it has some differences and particularities that need clarification.

This subchapter clarifies the differences in approach and the specific actions within the different stages and phases of work in the context of hosting a show starting from the structure and systematization of the previous point and exemplifying the changes that are required to the new context. In this sense, in the context of hosting a show already created, we can guide our managerial activities in the following work stages:

Creating or realizing the hosting concept

Pre-production

Implementation

Evaluation and archiving

Compared to the context of creating and performing shows, where production is an important stage in the process of making shows, in the case of hosting, production is no longer a work stage in itself (because the shows have already been created), but we have a series of specific production activities necessary to prepare the space in order to host the performances in the pre-production stage. Thus, in this case, the production stage in the context of the performances was included as a working phase for pre-production.

Next, we treated individually all the stages and work phases, insisting on clarifying the differences in approach and the specific actions in the context of hosting the shows.

2.8 Technical production management in the context of performing on tour or other venues than at creation

Just as the technical production management for the creation of a show is to a certain extent different from that necessary for hosting shows in different spaces, such is the technical production management in the context of moving and presenting shows in other spaces than the one in which they were created, with some peculiarities that need further clarification. When we refer to the movement and presentation of a show in other spaces than the one in which it was created, we refer to the shows that are on tour, away, or to those shows that are already created to be staged and presented in other spaces than those in which were created or premiered.

The peculiarities in the management of technical production result from the fact that certain approaches, activities and actions within the different work stages differ from the cases analyzed previously. In the case of moving some shows, we encounter different situations that require specific approaches in the process of technical production:

The first situation is the one in which the show is moved together with all the technical production (stage design, sets, furniture, props, costumes, equipment and technical staff).

The second situation is that in which the show is moved together with a part of the technical production. Usually, this part includes those elements that ensure the core or distinctive design of the technical production of the show, and that incorporate the equipment and resources essential to the technical production (custom stage or stage elements, sets, props, costumes, instruments, technical equipment and technical staff).

The third situation is that in which for the presentation of the show only the artistic body is moved and the realization of the technical production is entirely up to the host.

The complexity of the performing arts can reveal other situations, but the approach of solving the technical production management for the three situations mentioned above is the basis for addressing most possible situations. The systematic approach of these managerial activities is largely relevant to all performing arts technical production types, but depending on the perspective of the approach, there are some differences and particularities that need clarification.

For any of the situations set out above, the technical production management involves going through the necessary steps to achieve technical production in efficient, functional, safe and beautiful conditions.

In the previous points, meant to clarify the work stages and specific activities to each stage involved in the technical and production management, in the context of creating and hosting shows, we have made a structure and chronological systematization of work stages on which we intervene with changes to the new context of the movement and presentation of the performances in other spaces than those in which they were created or had their premiere.

In this sense, in the context of moving and presenting the shows in other spaces than those in which they were created, we can guide our managerial activities in the following stages and work phases:

Creating or realizing the artistic concept

Pre-production

Documentation and establishment of resources

Budgeting

Planning and scheduling

Contracting and making the technical production needed elements

Implementation

Pre-staging activities (*Load-in*)

Set up

Check up and rehearsals

Performing the show

Dismantling

Venue check (*Load-out*)

Evaluation and archiving

As can be seen, the work stages in the case of moving and presenting shows in other spaces than those in which they were created, preserve the order and structure of the implementation of technical production in the context of making and hosting shows, with a major difference. In the context of the performances especially made to be presented on tour, we include in the creation stage the actual realization of the show, according to the procedures described in the subchapter dedicated to the creation and realization of the shows.

In this subchapter, we have mainly dealt with those actions or approaches that fundamentally differ from the actions described in the previous points dedicated to the realization and hosting of shows.

2.9 Technical production management

This subchapter is dedicated to defining the personality of the technical and production manager. He can be defined as a person who has the necessary skills and abilities to design, plan, facilitate, coordinate and supervise the technical production of shows. These qualities must be channeled into a well-structured work process, subject to deadlines pressure and stress, limited budgets and the fatigue accumulated in the large number of working hours. The dedication for this profession, sustained work capacity, without losing the big picture or attention to detail, along with finding your own balance between work and rest are other essential elements that add to the complexity of the personality of the technical and production manager.

Among the essential abilities and skills that a production manager must possess, we have stopped on the following:

a) **Knowledge of the field of activity**

b) **Organizational spirit**

c) **Communication skills and abilities**

3. STAGE – THE CENTRAL SPACE OF THE PERFORMING ARTS

The stage, the space for presenting the shows, is the central element of technical production. The entire technical production is based on the elements and characteristics of the scene such as: type, shape, size, height, equipment, floor and bridge strength and resistance, mechanical and electrical systems, etc. Regardless of the type of show, the stage accommodates all the elements of the technical production necessary for performing in optimal conditions. Knowledge of the means, elements and resources involved in a show is essential for the technical production management of the performing arts.

In this subchapter, we made a short introduction to the universe of stage space in order to present its main features.

We approached topics that we considered to be essential from the perspective of technical production and its management in the context of creating and presenting shows.

Fixed stages: short history, types of fixed stages, parts of the stage, stage annexes, stage features, stage mechanisms, etc.

Moving stages: stage structure and parts, stage annexes, types of moving stages.

4. NOTIONS, EQUIPMENT AND BASIC PRINCIPLES USED IN THE TECHNICAL PRODUCTION OF PERFORMANCES

Knowledge of the means, elements and resources involved in a show is essential for achieving the technical production management of performing arts.

The realization of a technical production is based on the sum of all the means, elements and technical resources in a functional, efficient, safe and harmonious unitary whole. In order to reach this sensitive balance, it is necessary for the production manager to have the best possible knowledge of the key notions and terms, of the equipment and technical means, of the basic physical and technical principles that are used in the technical productions of the shows. Technical productions are based, from the creative phase, on: knowledge and information related to the stage and its annexes, technical equipment that is defined by different features, communication represented by specific terminology and language, as well as knowledge of fundamental principles and basic notions of physics, mathematics, and so on.

In this subchapter, structured in three main parts, we made a brief introduction to the universe of technical production in terms of technical equipment used in the performing arts, in order to present the principles by which they operate and main features:

Lighting for performing arts

Sound for performing arts

Imagine for performing arts

3. CASE STUDY. BETTER SHOW - VAMA, 12 OCTOBER 2017

The choice of approaching VAMA's Better show for the case study was made for several essential reasons:

1. At the basis of the realization and presentation of the shows is the creation. The show distinctive creation, both in terms of music, being a new album, as well as in terms of technical production. From the perspective of the technical production, the experience was relevant and essential in the context and the approach of Tudor Chirilă. Having a solid and relevant background for the performing arts, Tudor had a professional approach involving from the start a creative team consisting of a set designer, light designer, sound implementation engineer, graphic design team, clothing stylist and a technical and production manager. Thus, from the perspective of the technical production, the necessary premises for the creation and realization of a valuable show were fulfilled.

2. Studying the creation, realization and implementation of the technical production for this show gave me the opportunity to reach all three perspectives:

1. The perspective of making and presenting a show for the first time;
- because we are dealing with the creation, realization and presentation of a new show.
- because in the process of creation, realization and implementation all the stages and phases of work with the specific activities and actions were reached.

2. The context of hosting the shows;
- because the hosting of this show was carried out in a space that had neither the necessary equipment to host a show nor the technical staff meant to facilitate and facilitate all the technical measures necessary for hosting. In this context, I was put in the situation of ensuring myself those activities that, normally, the technical staff of the host space would provide. This situation was valid both during the creation and pre-production, as well as during the implementation of the show.
- because in the process of creation, realization and implementation, all the stages and phases of work with the specific activities and actions were reached.

3. The context of the movement and presentation of the performances in other spaces than those in which they were created.

- a large part of the activities and actions of the technical production management carried out during the creation and implementation of the show were rather specific to the context of the movement and presentation of the shows in other spaces than the original ones. This is due to the fact that the show was held in the Polivalenta Hall in Bucharest (a space that has no equipment or technical facilities necessary for performing) using technical resources largely provided by a company in Sibiu.

- from the creation phase, we discussed and considered making a show which could be presented in other spaces, namely the Polivalenta Hall in in Cluj.

All these aspects determined us to choose Better show as the most suitable and conclusive case study for the research topic of the thesis.

The case study presents, describing and exemplifying with sketches, tables and photographs, each stage and phase of work involved in the creation, realization and implementation of this show. This case study extends over 55 pages, as per the following structure:

The creation or realization of the artistic concept

Pre-production

    Documentation and establishment of resources

    Budgeting

    Planning and scheduling

Production

Implementation

    Set up *(Load-in)*

    Mantling

    Rehearsals

    Technical rehearsals

    Dress rehearsals

    The show or premier of the performance

    Dismantling

    Clearing the space *(Load-out)*

Evaluation and archiving

V.   CONCLUSIONS

At the beginning of this paper, we formulated several fundamental questions related to the technical production and the performing arts: *What is the technical production? What is its purpose? What are the steps and activities necessary to carry out a technical production? What is technical production management? How do we do it? What is a technical production manager? What skills and abilities are required?*

In trying to answer these questions, we also used the existing literature at the international level and the experience gained in the last twenty years of activity in the field of technical production in the performing arts. After all the studies and documentations dedicated to this subject, I support the hypothesis formulated in the introduction, according to which the field of technical production together with the discipline, specialization and profession of technical production management are treated insufficiently (internationally) or absent (in Romania) from the literature. I admit the possibility that such works exist in certain countries or academic environments to which I did not have access. Being a very dynamic field, I also admit the possibility that new writings are being published. Taking into account all this, I can say that, at least locally (in Romania), the management of technical production has not received enough attention, interest and support to produce results in terms of studies, research and materials published in academia or profession. . The effects of poor treatment applied to these subjects are also reflected in the professional environment where technical production and its management are still ambiguously addressed and described in the absence of "writings" to substantiate, systematize, structure and clarify the stages and phases of work and actions and activities. each stage involved in the process of making and presenting the shows.

Only one question remained unanswered: *Is the technical production management an essential element of the quality of the cultural act?*

A first answer to this question I invoked as a direct result of some actions, or of the cumulation of the activities carried out in the process of making and presenting the shows. Any professional who has ever been involved in making and presenting a show, easily recognizes the essential role that the technical production management has in both making and implementing shows.

Another way to answer this question would be to eliminate the management of technical production together with all the activities it involves and imagine the results. How would the creation be made and look like? How would the production be done? How would the implementation take place? Who would ensure the functionality of the technical means as a whole? How efficient would the process of creation, production and implementation be? How would it be achieved and who would guarantee the safety of the technical production, of the technicians and artists engaged in the realization of the show and of the spectators? What would such a production look like? Would it reach its full potential? Following this exercise that involves the imaginary and the rational, we can conclude that private performances by technical production management do not have the ability to reach their full potential by following and respecting the fundamental principles of technical production that will ultimately be reflected in the quality of the cultural act.

In conclusion, I consider that the management of technical production is an essential element of the quality of the cultural act.

This work dedicated to the technical production management in the performing arts can only be a beginning for the literature in terms of research and publication of new materials to improve this field that tends to play an increasingly important role in the realization and presentation of performances. It settles years of study on the experience gained over the years in which I was actively involved in the production and presentation of shows from the perspective of technical production management.

VI.   PERSONAL CONTRIBUTION

In order to be able to approach such an area - ambiguous, dynamic, constantly changing and operating, to a large extent, in a sphere of subjective concepts - it was necessary, and we did manage to make a series of clarifications and introduce some novelty elements:

1. Creating some fundamental principles to guide the management of technical production in the context of the realization and presentation of the shows: *Functionality*, *Efficiency*, *Safety* and *Aesthetics / Beauty*.

2. Defining technical production and its management in a unitary system, governed by fundamental principles.

3. Creating work stages with specific activities, differentiated for each type of approach to technical production management in terms of making, hosting and moving shows.

By introducing these novelty elements, we managed to create a solid framework that offered us the possibility to structure and systematize managerial processes in chronologically staged activities and actions, subject to fundamental principles, reasoning and rules specific to this field. This framework, systematized in various work stages and phases, structured chronologically, can be constituted as a skeleton, adaptable to the management of technical production for all forms of performing arts, both in the context of their realization and hosting or movement.

VII.   DIRECTIONS FOR FUTURE RESEARCH

Future research directions include:

Creating foundations and criteria (possibly quantifiable) that would form the basis of a method for evaluating technical production and its management;

Creating a method for evaluating technical production and its management.

Performing an in-depth analysis of how new technologies (holograms, VR technologies, virtual reality, AI - artificial intelligence, etc.) are increasingly thinning or even dissolving the paradigm in which the performing arts involve the human presence, in the form of the artist, at the moment presentation. We are at the moment when new technologies take the place of both the creator and the performer (AI who composes and performs music simultaneously) and the boundaries between installation, multimedia performance and show must be rewritten.

Carrying out a study on the interaction of people, both artists and the public, with intelligent technologies (AI, robots) in the performing arts. The purpose of this study may be (without limitation) to identify the needs and effects / results of the interaction between man and intelligent technologies. The relationship between man and the new intelligent technologies used in the performing arts can be a new chapter of study in the field of performing arts. In the not too distant future, there is a possibility that the human-intelligent technology relationship will become a major subject in the social sciences, anthropology and psychology.

VIII.   BIBLIOGRAPHY AND WEBOGRAPHY

BIBLIOGRAPHY

Adorno Theodor, M. H.: *Dialektik der Aufklärung (Dialectic of Enlightenment)*. Amsterdam: Querio Verlag, 1947.

Andersson Tommy D, Solberg Harry Arne: *Leisure Events and Regional Economic Impact.* World Leisure and Recreation, Vol. 41 No. 1, 1947.

Lluís Bonet, Schargorodsky Héctor: Managementul teatrelor. Modele și strategii pentru organizații și instituții de spectacol. Editura Pro Universitaria, 2017.

Carter Paul, George Chiang (illustrator): *The Backstage Handbook: An Illustrated Almanac of Technical Information.* 3rd Edition, Broadway Press, 1994.

Cărbunaru Stelian: *Tehnica în teatru – ghid pentru regizorul tehnic*. Editura Tehnică București, 1988.

Ciulei Liviu: *Trecut și viitor în arhitectura teatrului de astăzi*. fragment dintr-o lucrare, editura și anul necunoscute.

Corbeanu Aura: *Managementul proiectelor culturale*, București, Editura Comunicare.ro, 2000.

Corbeanu Aura: *Managementul Proiectului Cultural,* Editura Centrului pentru Formare, Educație, Permanentă și Management în Domeniul Culturii, București, 2005.

Coteanu Ion, L. M.: *Dicționarul explicativ al limbii române (ediția a II-a revăzută și adăugită)*. (E. U. Gold, Ed.) Academia Română, Institutul de Lingvistică, 2009.

Cunningham Glen: *Stage Lighting Revealed*. Betterway Books, 1993.

Gary Davis & Ralph Jones: *Sound Reinforcement Handbook*. Published by Hal Leonard Corporation, Copyright by Yamaha Corporation of America and Gary Davis & Associates, 1990.

Peter Dean: *Production Management. Making Shows Happen*. The Crowood Press Ltd, 2010.

Milena Dragicevic-Šešic, Branimir Stojkovic: *Cultura. Management. Mediere. Marketing. / Culture. Management. Mediation. Marketing,* Brumar Publishing House Timișoara, 2002.

Ovidiu Drîmba: *Teatrul de la origini și până azi / Theatre from Origins to Nowadays,* Albatros Publishing House, Bucharest, 1973.

Atul Gawande: *The Checklist Manifesto: How to get things right*. Metropolitan Books, 2009.

David H. Gaylin: *A Profile of the Performing Arts Industry. Culture and Commerce*. Business Expert Press LLC, 2016.

Gabriella Giannachi: *Virtual Theatres: An Introduction*. Routledge, 2004.

Greg Giesekam: *Staging the Screen. The Use of Film and Video in Theatre*. Palgrave Macmillan, 2007.

Cary J. S. Gillet: *The Production Manager's Toolkit: Successful Production Management in Theatre and the Performing Arts*. New York, London: Routledge, 2016.

G. Greer: *Why Don't Women Buy CDs*. BBC Music Magazine, September 1994.

Neil Fraser: *Stage Lighting Design, A Practical Guide*. The Crowood Press Ltd, 2007.

Kenneth Macgowan & William Melnitz: *The Living Stage A History of the World Theatre*. Prentice-Hall INC, 1955.

Nicolae Mandea: *Teatralitatea. Un concept contemporan. / Theatricality. A Contemporary Concept,* UNATC Publishing House, 2006.

Marco van Beek: *A Practical Guide to health and Safety in the Entertainment Industry*. Entertainment Technology Press Ltd, 2000.

J. E. McCarthy: *Marketingul de bază: o abordare managerială / Basic Marketing: A Global Managerial Approach*, 9th Edition, Richard D. Irwin Inc., 1981.

Maria Moldoveanu, I.-F. V.: *Marketing şi cultură. / Marketing and Culture,* Expert Publishing House, Bucharest, 1997.

Alex Oliszewski, Daniel Fine, Daniel Roth: *Digital Media, Projection Design & Technology for Theatre*. Routledge, 2018.

Petrovici Virgil: *Lumină şi culoare în spectacol. / Lights and Colours while Performing*, Albatros Publishing House, 1974.

Cristian Radu: *Managementul Cultural Contemporan / Contemporary Cultural Management*, Nemira Publishing House, Bucharest, 2008.

Francis Reid: *The Stage Lighting Handbook*. 6th edition, Routledge, 2001.

Rena Shagan: *Booking & Tour Management for the Performing Arts*. 3rd edition, Allworth Press, 2001.

Mark Shanda, Dennis Dorn: *Technical Management for the Performing Arts*. Focal Press, 2016.

Mark Sonder: *Event entertainment and production*. John Wiley & Sons Inc., 2004.

Robert I. Sutherland-Cohen: *Introduction to Production: Creating Theatre Onstage, Backstage, & Offstage*. Routledge, 2017.

The Event Safety Guide – A Guide to Health, Safety and Welfare at Live Entertainment Events in the United States. Event Safety Alliance of USA, Inc., Skyhorse Publishing, 2014.

Ruth Towse and contibutors: *A Handbook of Cultural Economics*. 2nd Edition, Edward Elgar Publishing Limited, 2011.

Gheorghe Vais: *Probleme de arhitectură – Clădiri pentru spectacole*. / Achitectural Problems – Performing Arts Halls, Cluj-Napoca Technical University, 1998.

Jan Verhaar: *Project Management. A Professional Approach to Events*. Boom, 2005.

Ray Waddell, Rich Barnet, Jake Berry: *This Business of Concert Promotion and Touring*. Watson-Guptill Publications, 2007.

Paul White: *basic Live Sound*. SMT, 2003.

Fritz Wilms, Wedemeyer Alfred: *Lichtspieltheaterbauten*. Berlin Hubsch, 1928.

Ion Zamfirescu: *Istoria Universală a Teatrului / The Universal History of the Theater, State Publishing House for Literute and Art,* vol. I, Bucharest, 1958.

WEBOGRAPHY

Beyond Branding : Contemporary Marketing Challenges for Arts Organizations:
https://www.researchgate.net/publication/240636801_Beyond_Branding_Contemporary_Marketing_Challenges_for_Arts_Organizations

Creative Industries Mapping Document, UK - 2001:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/183544/2001part1-foreword2001.pdf

d&b Soundscape, immersive sound technology: https://www.dbsoundscape.com

The Universal Declaration of Human Rights:
http://www.anr.gov.ro/docs/legislatie/internationala/Declaratia_Universala_a_Drepturilor_Omului.pdf

The Development of Economics through Cultural and Creative Industries:
http://www.rsdu.ro/Art/RSDUv3a04.pdf

Functional Elements for the theatrical performing art: http://oaji.net/articles/2017/2547-1532467364.pdf

European Statistical System Network on Culture:

https://ec.europa.eu/assets/eac/culture/library/reports/ess-net-report_en.pdf

Future Art Ecosystems. Issue 1. Art x Advanced Technologies. Serpentine R&D Platform:

https://serpentine-uploads.s3.amazonaws.com/uploads/2020/07/Future-Art-Ecosystems-1-Art-and-Advanced-Technologies_July_2020.pdf

How Covid-19 Forced Art Institutions to Take New Media Art Seriously, But Not

Holistically: https://testset.io/2020/07/16/the-business-of-future-art-ecosystems/?fbclid=IwAR0Mjr2BO3f9YOG4SHhIT8xiAHl1A3kaUsAcCL5VacYtGMdq6v1gO9_TCkQ

http://en.wikipedia.org/wiki/PA_system

http://europa.eu/

http://layher.com/en/Event-Systems

http://stagelightingprimer.com

http://www.meyersound.com/

http://www.titan5040.com/default.html

http://www.wikipedia.org/

https://citate.info/authors/francois_de_la_rochefoucauld/singurul_lucru_constant_icircn_viata_este_sch

https://elizabethanenglandlife.com/images/Elizabethan-Theatre-Globe-2.jpg

https://en.wikipedia.org/wiki/HDMI

https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0389:0403:ro:PDF

https://i.pinimg.com/originals/2f/73/40/2f7340b811c342c4dd80e153374f0cf2.jpg

https://ro.wikipedia.org/wiki/Artele_spectacolului

https://ro.wikipedia.org/wiki/Frecventa

https://ro.wikipedia.org/wiki/Grad_de_protec%C8%9Bie

https://ro.wikipedia.org/wiki/Ohm

https://www.arri.com/en/lighting/tungsten/true-blue-st-theatre/true-blue-st1-2-theatre

https://www.brilliantstages.com/

https://www.classicist.org/assets/images/student_work/_crop32/4.Teatro-Olimpico_Palladio.jpg

https://www.culturadata.ro/

https://www.culturadata.ro/barometrul-de-consum-cultural-2018-dinamica-sectorului-cultural-in-anul-centenarului-marii-uniri/

https://www.dbaudio.com/global/en/products/series/j-series/j8/

https://www.eea.europa.eu/ro/publications/mediul-european-starea-si-perspectiva

https://eur-lex.europa.eu/legal-content/RO/TXT/HTML/?uri=CELEX:32013H0179&from=EN

https://www.iec.ch

https://www.pointpinoslighthouse.org/sites/default/files/flat%20fresnel.jpg

https://www.shure.eu/musicians/discover/educational/polar-patterns

https://www.theatre-architecture.eu/res/archive/162/018298.jpg?seek=1370204931

https://www.theatre-architecture.eu/res/archive/164/018560.jpg?seek=1370355485

https://www.theatre-architecture.eu/res/archive/199/022729.jpg?seek=1381166092

Creative Economy and Knowledge-Based Society: https://www.revistadesociologie.ro/pdf-uri/nr1-2-2008/03-OscarGlodeanu.pdf

Cultural and Creative Industries in the 21st century. A Short Comparison of the Support Measures England – Romania @ NewCreative Industrials: https://formareculturala.ro/industriile-culturale-si-creative-icc-in-secolul-21-o-scurta-comparatie-a-masurilor-de-sprijin-anglia-romania-noii-industriasi-creativii/

L-Acoustic immersive sound system L-ISA: https://www.l-isa-immersive.com/

National Foundation on the Arts and the Humanities Act of 1965: https://www.govtrack.us/congress/bills/89/s1483/text

National Foundation on the Arts and the Humanities Act of 1965: https://www.govtrack.us/congress/bills/89/s1483/text

On NEW MEDIA. A Theoretical Approach: http://www.diacronia.ro/ro/indexing/details/A22816/pdf

Oscar Hoffman, I. G. (2008). „Cultural Industries" Knowledge-Based Society. Social and Economic Effects of Cultural-Creative Industries in the 21st century. https://www.revistadesociologie.ro/pdf-uri/nr1-2-2008/03-OscarGlodeanu.pdf

Particularities of Cultural Management: https://ibn.idsi.md/sites/default/files/imag_file/114_125_Particularitatile%20managementului%20culturii.pdf

Plato in Twelve Volumes, Vol. 9 translated by Harold N. Fowler. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1925: www.perseus.tufts.edu

Report on the Development of the Performing Arts Sector in the Republic of Moldova: https://www.culturepartnership.eu/upload/editor/2017/Subsector_report_Mol_Ro.pdf

Regulation (EU) No 1295/2013 of the European Parliament and of the Council Establishing Creative Europe Programme 2014-2020:

https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX%3A32013R1295

The Contribution of the High-End Cultural and Creative Industries to the European Economy:

https://www.eccia.eu/assets/activities/files/2014%2011%2027_FINAL_Frontier%20Economics%20report%20prepared%20for%20ECCIA.pdf

The Charter of Fundamental Rights of the European Union: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0389:0403:ro:PDF

The Cultural Product: Integration and Relational Approach:

https://www.researchgate.net/publication/261134147_The_Cultural_Product_Integration_and_Relational_Approach

The European Convention for the Protection of Human Rights and Fundamental Freedoms: http://legislatie.just.ro/Public/DetaliiDocumentAfis/175187

The International Covenant on Economic Social and Cultural Rights:

http://legislatie.just.ro/Public/DetaliiDocumentAfis/82589

The International Convention on the protection and diversity of cultural goods and artistic expressions, 2005. Article 4, Point 5. https://lege5.ro/Gratuit/he3tamby/conventia-asupra-protectiei-si-promovarii-diversitatii-expresiilor-culturale-20-octombrie-2005-paris

TPI – magazine dedicated to performing arts technologies: http://www.tpimagazine.com/

UNESCO Framework for cultural statistics, 1986:

http://uis.unesco.org/sites/default/files/documents/unesco-framework-for-cultural-statistics-1986-en_0.pdf

The White Paper of Cultural and Creative Sector in Romania:

https://www.nemo.org/fileadmin/Dateien/public/Working_Group_1/Working_Group_MCI/White_paper_for_CCS_in_Romania.pdf

UNESCO Framework for Cultural Statistics, 2009:

http://uis.unesco.org/sites/default/files/documents/unesco-framework-for-cultural-statistics-2009-en_0.pdf

What do we Mean by the Cultural and Creative Industries?:

https://en.unesco.org/creativity/sites/creativity/files/digital-library/What%20Do%20We%20Mean%20by%20CCI.PDF

Why I do Not Believe in the Cost-Disease. Comment on Baumol:

https://d101vc9winf8ln.cloudfront.net/documents/27978/original/10.1007_s10824-005-7214-1.pdf?1523464843

www.cultura.ro

www.hdmi.org

www.ministerulculturii.ro

www.stageline.com

www.stagespot.com

www.unesco.org/

www.uniter.ro

www.vari-lite.com