OPINION

by Assoc. Prof. Dr. Vladimir Veselinov Bozhilov, Faculty of Physics, Sofia University "St. Kl. Ohridski"

for dissertation for awarding the educational and scientific degree "doctor" in the professional field 3.1. Sociology, Anthropology, and Culture Sciences, doctoral program "Cultural Studies" (Cultural connections between science and the arts. Scientific theatre as an intersection of science, art and education)

Doctoral Candidate: Gergana Yuliyanova Dimitrova

Title: "Exploring the Potential of Sofia University for Creating a

Center for Scientific Theatre"

Scientific Supervisor: Prof. Alexander Kyosev

1. General presentation of the procedure and the doctoral student

By Order RD-38-320/14.06.2024 of the Rector of the Sofia University, I was appointed as a member of the Scientific Jury for the defense of a dissertation on the topic: "Exploring the Potential of Sofia University for Creating Center for Scientific Theatre" in the professional field/ doctoral program 3.1. Sociology, Anthropology and Cultural sciences doctoral program "Cultural Studies" (Cultural connections between science and the arts. Scientific theatre as an intersection of science, art and education). The author of the dissertation is Gergana Yulianova Dimitrova, a full-time doctoral student, and the scientific supervisor is Prof. Alexander Kyosev.

Gergana Dimitrova has a B.Sc. degree in Cultural Studies from SU "St. Cl. Ohridski", where she also defended her M.Sc. degree in the Department of Cultural Studies, specializing in Theory of Culture. She also graduated in "Theatrical Directing" at NATFIZ "Krastyo Sarafov" and successfully defended her M.Sc. degree in "Theatrical Directing" at the State Theatre Academy "Ernst Busch" in Berlin, Germany. She completed her Grünes Diplom pedagogy training at the Goethe-Institut. Furthermore, she is the founder and chairperson of the Organization for Contemporary Alternative Art and Culture - 36 Monkeys, Co-founder of the Association for Free theatre (AST) - an association of freely practicing professional theatre groups, Co-founder and member of the Association Toplotsentrala.

Gergana Dimitrova is the author of numerous productions with a strong positive national and international response, most of them dealing with topics from various sciences, presented through the techniques of theatrical art and dramaturgy. I personally know Gergana Dimitrova and have had the opportunity to watch the performances "The Time of the Quarks" and "Praechidno" and I have excellent direct impressions of the presentations of the complex scientific topics to a non-specialist audience that she and her team have realized.

The educational and professional training, as well as the rich creative activity of Gergana Dimitrova, without a doubt show that she is fully ready to acquire a doctoral degree.

2. Relevance of the topic and knowledge of the problem

Today, fewer and fewer young people are interested in a career in the natural sciences - the so-called STEM disciplines. At the national and European level, there are various studies that try to understand the causes and find a solution to this problem. It is indisputable that the communication of science to a non-specialist audience, starting from childhood and reaching adulthood, is of great importance for dealing with the problem. The theatre, as well explained in the dissertation, has an audience that most likely does not overlap with those attending strictly scientific or popular science events. The reverse is also true – the audience of a popular science event does not necessarily overlap with that of regular theatrical viewers. In this sense, the connection between theatre, art and science is an extremely powerful tool that can enrich the communication of science and help to really reach the so-called knowledge society.

A second important point, which makes the thesis extremely relevant, is the need to evaluate the effect of various science communication activities, the science-theatre connection, etc. What is the effect of a visit to a scientific theatre, to a popular science lecture - these are extremely important questions that the dissertation examines.

Last but not least, it is important to emphasize the main element that considers the possibility of creating a Center for Scientific theatre at Sofia University. As can be seen from one of Gergana Dimitrova's publications ("Let's help them, but how? Crisis measures for freelance artists", article in the collection THE CRISIS IN CULTURE AND TOURISM BASED ON CULTURAL HERITAGE: IDEAS FOR A WAY OUT OF THE SITUATION, SU "St. Kliment Ohridski", 2021), free artists and creators in our country face a number of difficulties and challenges. One of the most basic is the lack of constant and certain support to guarantee sustainability and long-term development of the sector. The creation of a Center for Science theatre is an extremely important issue, given the many intersections that natural science specialists, artists, and theatre people have with each other.

3. Evaluation of the dissertation work and the contributions therein

The dissertation consists of 214 pages, which contain an introduction, five main chapters, a conclusion and a bibliography. 42 figures (distributed in Chapters I, II and III) and 24 tables (distributed in Chapter IV) are presented. There are 14 appendices to the work with a total volume of 195 pages.

As an overall impression, the dissertation is well written and structured and easy to read. The introduction presents the concept of the dissertation work and introduces the concept of scientific theatre, the methodological framework and the science-art relationship. Chapter I examines in detail what scientific theatre is and attempts to forge a definition, which I find to be a an important contribution by Gergana Dimitrova. It is also reflected in two of the three listed author publications. The methodological framework, presented in this chapter, is adequate and allows for further comparison and examination of the different forms of scientific theatre.

Chapter II presents an overview of several Centers of interactions between science and theatre in Europe. I find the selection to be adequate and appropriate, as it covers the various forms of scientific theatre and sets the context for building such a Center at Sofia University.

After the overview of good practices in Europe, a natural continuation is chapter III, which looks at examples in Bulgaria that connect scientists and science with the public and the arts. Here, an extremely good impression is made by the fact that Gergana Dimitrova presents her own artistic projects. The attached script of one of them (for the video project "In the Little Big World of Bats", Appendix 4 in the dissertation) has a significant enriching value and can be an example for the preparation of similar types of formats by other creators, scientists and artists. I consider Gergana Dimitrova's main contribution to be the realization of successful artistic projects and the science-art connections applied in them. I also see the main contribution of the dissertation work in chapter IV, where a detailed study on the audiences of some of Gergana Dimitrova's artistic projects is presented. A total of 4 forms were analyzed in all three studies. They are very well selected – we have a science theatre, a video project and an interactive installation. The analysis of the effect of the science-art and science-society relationship, the attitudes of the public and the change in these attitudes after the encounter with the science communication events are extremely valuable and important.

Chapter V analyzes the potential of Sofia University to create a Center for Scientific theatre. The main advantages are well presented, as well as the challenges which are mostly financial ones. The interviews with key stakeholders, available in full as appendices, are well structured and provide important information. The conclusion summarizes well the tasks set and the goals achieved.

After all the above, I have a few remarks, some of which are about the technical formatting. The numbering of the figures could be better, as it currently restarts from 1 in each chapter. It would be better, for example, in chapter II, figure 1 to be numbered 2.1 rather than 1. The tables are not numbered and there is no separate text for them at all, which I regard as a shortcoming. It is noteworthy that in some places the text for a given figure is not below it, but has been moved to another page. There are 14 appendices in the text of the dissertation, but only 13 are listed in the table of contents (all 14 are specifically listed in the Author's abstract, though). The list of publications on the topic of the dissertation should be included not only in the Author's abstract (as it currently is), but also in the text of the dissertation.

From a content point of view, I am missing two elements: 1) a definition of science communication and 2) it would be good to mention, even in general terms, the STEM/STEAM methodology, which is entering our country as well.

In Chapter V or as an Appendix, I would also like to see a sample budget for a Center for Scientific Theatre". The thesis stated that in the interviews all the governing bodies would refuse due to financial reasons, but no one asked about the actual amount of investment. Therefore, my expectation here would be to present a sample budget.

However, all of the above remarks in no way diminishes the value and excellent impression of the dissertation and can be taken rather as a recommendation.

4. Evaluation of the publications, the abstract and the personal contribution of the doctoral student

Gergana Dimitrova has presented three articles on the topic of the dissertation, and she is the the sole author of all of them. The articles are in scholarly journals and magazines in the respective professional field, and I believe that in this way they have reached the professional community in this field. There is no doubt about the personal contribution of the doctoral student to the preparation of the articles, but I have a recommendation related to the fact that there is an overlap of entire passages in the introductory parts of the articles "What we call "scientific theatre"", Journal of Art Problems, No. 3, 2024", and "The Dramatic Potential of Science. Basic characteristics and forms of the scientific theatre", magazine Piron, issue 24, The hybrid: forms in crisis, ISSN 2367-7031". I'll give just one example: the passage on the second page of the first article, "In the 1990s and early 21st century, interdisciplinary art projects....- digital art, BioArt, AI art and others.", is absolutely the same at the top on page 3 of the second article. There should not be so much identity of passages, even between two articles by the same author. Additionally, the second article should cite the first (although it is a self-citation), and this is also absent. I find this a problem that Gergana Dimitrova should pay attention to.

The Author's abstract presents the content of the dissertation well. I believe that in this form the dissertation work would be useful to any artist or scholar with an interest in science communication.

CONCLUSION

The dissertation work of Gergana Yuliyanova Dimitrova on the topic "Investigation of the potential of the University of Sofia to create a Center for Scientific theatre" contains an indepth and important study about scientific theatre and the possibility of building a Center for Scientific theatre at the University of Sofia. The presented results in a dissertation work are significant, and the dissertation meets the requirements of the law. That is why I evaluate her **positively** and propose to the respected Scientific Jury to vote for awarding the doctoral student Gergana Yuliyanova Dimitrova the educational and scientific degree "doctor" (Ph.D.).

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05. 09. 2024,	
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