

REVIEW

by

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of the PhD thesis by GERGANA DIMITROVA

Examination of the potential of Sofia University to establish a Science Theatre Centre

In professional division 3.1. Sociology, anthropology and cultural sciences, PhD programme "Cultorology" (Cultural connections between sciences and arts. The science theatre as a meeting point of science, art and education)

Gergana Dimitrova's dissertation is an in-depth practice-based study of science theatre – an existing (and successfully practised by Dimitrova herself) performance area, which nevertheless remains an understudied subject in academia. The doctoral candidate offers the following definition of the notion of "science theatre": "...those encounters between science and art leading to publicly presented productions that convey through the medium of theatre (in its most comprehensive understanding) scientific content related to problems, discoveries, ideas, studies of various branches of science" (26). The task set by Dimitrova in her research is to establish the potential for creating a base for science theatre practice within the institutional context of the Sofia University "St. Kliment Ohridski", identified by the doctoral candidate as the most suitable platform for this purpose. This question actually serves as the starting point from which the thesis is developed, focusing on current tendencies in the development of both contemporary theatrical forms and techniques and science outreach, which is increasingly looking for performative and interactive ways to communicate scientific achievements to non-specialized audiences.

The thesis comprises 214 pages and features an introduction, five chapters, a conclusion and a bibliography. The text includes 42 images and 24 graphics; in addition, there are twelve appendices (195 pages) of miscellaneous content: interviews and surveys commissioned and conducted by Dimitrova which are analysed for the purposes of the study, an original script for an interactive science performance event as well as foreign and foreign-language materials related to the science theatre practice in Europe. The first chapter

considers the essence and dimensions of the interdisciplinary art form defined as science theatre and the different production stages of a science theatre project – preliminary/preparation, production and post-production (archiving and reflection/analysis). The main types of the practice are then outlined; these are: installation, theatrical production based on a text with scientific subject matter or with the participation of scientists either as consultants or performers, a science show, and a scientific stand-up comedy. The second chapter introduces specific European achievements and a variety of initiatives in the field subject to examination. The following collectives are presented: Scientific Theatre Freiburg, Jet Propulsion Theatre, Nexus Experiments, the Art & Science MA programme at the Laboratory for Applied Innovation at the University of Applied Arts, Vienna, Ars Electronica Futurelab, Experimenta, Science Gallery (hosted by Trinity College, Dublin). The selection of case studies is valuable and demonstrates acute awareness of the dynamics of the research field chosen by the doctoral candidate. It is important to note that this is not a mere compilation of the information and data, but a structured and thoughtful analysis. In the third chapter, Dimitrova engages with examples of science theatre performances in Bulgaria. The organizations and initiatives examined are FameLab, Ratio, Forum "Democritus", the international festival for digital art "DA Fest", and the work of "Arte Urbana". Here, the most significant analysis entails a discussion of the projects created by or with the participation of the doctoral candidate as a writer, director and manager. Dimitrova thus convincingly applies her professional experience accumulated over a decade in order to further her argument. Her important practical contribution finds expression in the analysis of the two projects specially created for the purposes of her doctoral study: the documentary "In the Little Big World of Bats" and its subsequent re-creation as an interactive installation presented at the National Museum of Natural History under the title "In the Little Big World of Bats with Antonia Hubancheva". An online discussion entitled "Bats: Horror and Reason", which covered both questions related to the topic of the flying mammals and the points of intersection of art and science complemented the projects; insights from it are included in the chapter. Earlier productions created by Dimitrova also find a place in the study – these include "Eva Bechstein – Night of the Bats" (2009), a production by the Contemporary Alternative Art and Culture Organization – "36 Monkeys" (the PhD candidate is its founder and chairperson), as well as the theatre installation "Time of the Quarks" (2012).

The fourth chapter focuses on exploring the impact of projects designed to communicate scientific achievements through art. The impact of science theatre initiatives has been measured by surveys involving respondents of various age groups, providing feedback on projects that took place in the past (“The Time of Quarks” and “Eva Bechstein” – thus measuring the long-term effect) and of those especially created as part of the practice-based doctoral research (the documentary and subsequent installation “In the Little Big World of Bats” – assessing short- and medium-term impact, especially on young audiences). It is important to note that the surveys were conducted by Dimitrova through the organization “36 Monkeys”, a project that was funded by the National Culture Fund; the successful funding application attests to the doctoral candidate’s proven commitment to the subject.

In the fifth chapter, the prerequisites for Sofia University to establish a Centre for science theatre are examined in detail. The potential of the educational institution is evaluated according to the following criteria: the existence of suitable infrastructure, including the functioning Cultural Centre and the premises of the University theatre “Alma Alter”, as well as the institution’s affiliation with networks such as UNICA. Dimitrova does not limit herself to theoretical reasoning, but approaches the subject through the lens of the practitioner by conducting extensive interviews with members of the university management, members of the Academic Council and representatives from potential partnering bodies such as the Cultural Centre at the SU and the University Theatre (the full transcripts of the interviews are enclosed as appendices to the dissertation).

The conclusion reached by Dimitrova is that “[U]nfortunately, it appears that Sofia University currently does not have the potential to create a Centre for Science theatre. ‘Potential’ in this case refers not only to financial resources and infrastructure, but also to its management’s strategic thinking and visionary policy, and willingness to invest in its future development” (207).

The problem that the doctoral candidate identified, namely that despite the clear prerequisites for successful development of a platform to host science theatre projects and the positive attitude of all interviewees, there is a lack of institutional support to ensure the sustainability of such projects, which otherwise would have to rely exclusively on external project funding, is disappointing from a professional and perhaps from a personal point of view; however, it has a clearly positive research value. One of the merits of the thesis is that

the study does not remain in the realm of hypotheses and the descriptive, but is based on a realistic, proactive view and acumen expressed by a specialist whose valuable experience in performance art, both as a creator and as a manager, has been acquired over the course of many years. It is her experience that enables Dimitrova to consider possible solutions to the problems pinpointed in the thesis.

The fact that the dissertation is the work of a distinguished practitioner is clearly translated in the text – it is written in accessible but by no means simplistic language, retaining its research focus throughout, with a well-formulated methodology, interdisciplinary by nature and following a clear direction from the general to the specific – elucidation of the conceptual framework, introducing case studies of specific European initiatives and Bulgarian ones, and progressing towards the consideration of the issue described by the title of the thesis, namely an examination of the possibilities science theatre performances to be produced on the territory of Sofia University.

Since the success of various European science theatre initiatives, thoughtfully scrutinised by the doctoral candidate, is largely due to the institutional support provided by higher education institutions (among them the universities of Freiburg, Linz, Trinity College Dublin, etc.), the emphasis of the study naturally shifts to the search for a similar suitable environment in Bulgaria. And yet, there seems to be a slight disproportion as the section dedicated to Sofia University (concentrated in a single chapter out of five) is much shorter in comparison to the others, while the title assigns great importance to this particular question. However, I would like to point out that this peculiarity is not to the detriment of the material presented in chapters 1-4; on the contrary – the work actually builds on the task set by the assigned topic and has a big potential to grow into an even more profound study, covering both the practical and the theoretical interactions between the science theatre in Bulgaria and other European countries.

On this point, and in the light of a future development of the study (which is recommended, in view of Dimitrova's interests and proven creative capacity), some recommendations may be of use. The extensive bibliography of the thesis consists of over one hundred titles, but it is noticeable that many of them have not been referenced in the actual body of research and it remains unclear how exactly the doctoral candidate has engaged with these materials in order to construct her argumentation and methodology. A purely technical question concerns the links to the websites of the various case studies – if

further research of the topic is to be undertaken it may be beneficial to double check whether the provided links are still active – for example, as of September 3, 2024, the links to the projects by Nexus Experiments as well as the Kairos exhibition unfortunately lead to an error message.

As a practice-based research study, the thesis makes significant contributions to diverse and interdisciplinary fields of knowledge (convincingly presented in the summary). If pursued further, the theoretical side of the work could benefit from engagement with certain recent foreign publications dedicated to the subject – e.g. the edited volume *Science and Drama: Contemporary and Creative Approaches to Teaching and Learning* (2021), edited by Joe Raphael, Peta White and Kitty van Cuylenburg, as well as *Science & Theatre: Communicating Science and Technology with Performing Arts* (2022) by Emma Wykamp and Carla Almeida. The fact that these studies have been published over the last few years also attests to the topicality of the thesis and demonstrates that Dimitrova's research interests are fully in accordance with those of her European colleagues.

The analysed successful initiatives in Bulgaria and the recorded positive feedback from the audiences exemplify the development of science theatre in Bulgaria as running parallel to its development in Europe. Against the backdrop of this tendency, Dimitrova's competently written thesis stands out as timely and greatly enriches the knowledge about the theoretical and practical character of this contemporary interdisciplinary performative form in Bulgaria.

I recommend the acceptance of the thesis and the awarding of a PhD degree to its author Gergana Dimitrova.

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