

OPINION

By Prof. Dr. Joanna Spassova-Dikova

Institute of Art Studies – BAS,

In connection with the competition for acquiring the academic position of associate professor in Theory and History of Architecture (Digitalization of Architectural Heritage), professional direction 5.7 Architecture, Construction and Geodesy for the needs of the Fine Arts Department,

Institute of Art Studies - BAS

State Gazette issue 52 from 18.06.2024

With candidate senior asst. Dr architect Dimitrina Popova

I have known Dimitrina Popova since 2011 as a PhD student at the Institute of Art Studies, where she defended her dissertation on “The Borders of Interference of the Roman Empire through the Architecture in Thrace” in 2014. Popova graduated with a Master of Architecture from the University of Architecture, Civil Engineering and Geodesy in 2000. After that she worked as an architect in various companies and as a freelancer. She is a visiting assistant professor in Architecture for the educational program "Construction of Buildings and Facilities“, UACEG and a visiting lecturer and assistant professor at the European Polytechnical University where she teaches "Aesthetics", "Preservation of Architectural Heritage" and "Architecture".

In 2015 she won a competition for the academic position of Senior Assistant in Theory and History of Architecture at the Institute of Art Studies - BAS, where she conducts and publishes research in the field of theory and history of architecture, participates in international and Bulgarian research projects, presents papers at conferences and seminars in the field of architectural heritage conservation.

Senior assistant Dr architect Dimitrina Popova has proved over the years that she is a responsible and organized researcher. The numerous project participations are proof that she works well in a team, including in an international environment.

All this experience of Popova as a scholar and practitioner contributes to her achievements in research and its practical application and supports her work as an educator.

For the competition for associate professor, she has presented the following academic papers which have not been used for her PhD: author's monograph with a volume of 224 pages with the title "The architectural heritage in the photographs of houses from the 19th century", 2024, IAS; 21 articles published in scientific journals and collections of reports, among which five are refereed in ERIH PLUS, two are indexed in Web of Science and one - in Scopus. In these articles, the author discusses the elaborations made by Arch. Popova's three-dimensional digital reconstructions of lost architectural objects: Thracian tombs, Roman villas and gardens from antiquity, houses from the nineteenth century, the architecture of the period of socialism, associated with ideology and certain rules (canons), panel housing and, in particular, folk art in socialist panel complexes, as well as on self-made park architecture between the panel blocks in Sofia, on the interior of the Palace of Justice, on the study of the rich archive "Architecture" - IAS, BAS, and on the messages in the architectural image of the central building of the BAS in Sofia, a monument of culture. The majority of the attached 21 articles are papers from academic conferences. They have been published in refereed journals and have undergone anonymous peer review. The most recent texts are positioned at the intersection of research between digitization and architectural heritage, but overall, this broad spectrum of inquiry is indicative of the diverse interests of Arch. Popova as a researcher.

The submitted materials cover the necessary scientific-metric indicators for the acquisition of the academic position "Associate Professor" in the field of the required developments in indicator B.3. and Г.7. - Г.11. in the field 5.7. Architecture, Civil Engineering and Geodesy under the Architecture, Civil Engineering and Geodesy in accordance with the ADASRB. They meet the minimum requirements under Article 1a, Paragraph 2 of the ADASRB, as well as according to the report on the fulfilment of the requirements of Annex 2 of the Regulations on the Conditions and Procedure for Acquisition of a Scientific Degree and for Occupying an Academic Position at the Institute of Art Studies - BAS.

Senior asst. Dr. arch. Popova has also presented publications and evidence of her academic and applied activity on the topic of the competition "Digitization and Architectural Heritage" - an area in which she has been working hard in recent years towards:

- Study of architectural heritage in virtual reality.
- Digitalization of architectural archives and architectural graphics.
- Digital three-dimensional reconstruction and visualization of ancient buildings of architectural heritage.

The monographic work *Architectural Heritage in 19th Century Architectural Captures* is 224 pages with 37 figures, including 16 graphs, diagrams and three-dimensional digital visualizations, including the cover, which are original. The book has a well-set structure. It consists of two parts with each part containing three

chapters. The work ends with a conclusion where the contributions are systematized. There is a bibliography with 116 titles in Bulgarian and English.

The composition of the monograph in two parts corresponds to the two perspectives of analysis undertaken. One addresses the past of the collection, exploring the context and history of the making of the architectural captures. The second perspective examines the collection of ancient houses in the present and close future, with a primary focus on the contemporary interpretation of the digitized archive, the role of digital technology in rethinking architectural heritage, and specifically through the applied research of digital and three-dimensional reconstruction of five houses.

The object of research in the monograph is a collection of architectural documents created in the period from 1949 to 1962, which are deposited in the archive "Architecture" of the Institute of Art Studies - BAS and which are currently in the process of digitization. The studied architectural graphics represent professionally made architectural captures-drawings of houses from the 19th century in the Bulgarian lands.

In her texts arch. Popova demonstrates exceptional conscientiousness and thoroughness in the study of source materials, skills in the selection and scientific analysis of artifacts and phenomena, and innovation. The texts are interesting and engaging, richly illustrated with archival and authorial material.

The candidate Dr Dimitrina Popova has presented evidence of participation in 3 academic research projects to the National Scientific Program "Bulgarian Studies", where she is the main coordinator for the Institute of Art Studies - BAS, to the program "Heritage BG - Interactive Map of Arts in Bulgaria" and to the National Science Fund of Bulgaria. Popova is very active in research projects outside Bulgaria. She also participates in international applied research programs: *Loom-Interweaving the Arts of Europe* и *Atlas of Invisible Borders*. The number of papers presented at international scientific forums since 2015 is 13. Presented papers have been published in different collective works. Some of them are in print.

Arch. Popova has realized architectural projects independently and in a team. She holds a "Full design capacity license" from the Chamber of Architects in Bulgaria, reg. number No. 03724. She is a member of professional and scientific organizations: Union of Bulgarian Architects, *Bulgarian Studies Association*, *Europeana Network Association*. She has had independent creative presentations such as the interactive exhibition "Architectural Heritage in Virtual Reality".

Arch. Popova has won several grants and scholarships such as the grant for a study visit to the Institute for Artificial Intelligence, Bremen, Germany, 2024. Another competitive grant is for the development of two digital projects from the European

Alliance of Academies, *Academie der Kunste*, Berlin, Germany, *The Five Houses - Loom* (allianceofacademies.eu) and *Concrete House*, 06.-10.2023, *Concrete Home - Loom* (allianceofacademies.eu). She has a grant to attend the conference in the city of Bern, Switzerland, *Sites of Memories of Socialism and Communism in Europe*, September 2015 and a grant from the Center for Academic Research Sofia to conduct the research project "Networks of Objects of Folk Art in the Post-Socialist Spaces between the Panel Blocks in Sofia", March-July 2015. In 2013 she won a fellowship from the American Research Center in Sofia to conduct a month-long research project in Athens, Greece. She won an award from Sofia Development Association for the project "Interactive Lamp" in the competition "Innovation in the Capital's Cultural Industry", 2012.

The main contributions of Dr. Arch. Dimitrina Popova are aimed at creating new methods of research and achieving new results based on the creation and selection of existing digital databases, where the thesis that the architectural graphics is part of the architectural heritage. Very valuable is her contribution related to the selection and systematization of the archival data from the Architecture Archive of the Institute of Art Studies, which were captured according to the typology of the 1950s capture: abbreviated and full capture. They represent the basic material for study and further scientific and practical-applied developments.

The scholar builds a methodology in two components, which allows to fill through the digital reconstruction missing portraits from the family tree of residential architecture of the 19th century in the Bulgarian lands, which are presented in a modern way, digitally, three-dimensionally and with wide possibilities for representation and interactivity. The transformation from two-dimensional projections onto the architectural document on paper into a three-dimensional structure is beneficial, which is essentially the methodology of study through action, insofar as the re-construction in a digital environment largely repeats the construction in the real one. More specifically, archival materials of houses in Berkovitsa, Teteven and Etropole were used, including architectural captures, photographs, recollections of contemporaries, and administrative documents collected for the houses in regional museums. Another contribution is related to the fact that for the first time a three-dimensional digital reconstruction of non-existing buildings is undertaken, for which there is undeniable evidence of what they used to represent in the form of archival architectural documentation. For this purpose, two software applications for digital three-dimensional reconstruction are used.

To date, five three-dimensional digital houses have been created with a high degree of authenticity. The new medium of virtual reality opens a new horizon for reimagining architectural heritage in three dimensions through experience and interactivity. The digital reconstructions of the ancient houses of the archival collection are an upgrade of the metadata (digital descriptions) of the archival units. They open new possibilities for a multidirectional approach to the representation of architectural heritage and its connection with other fields of knowledge such as ecology, ethnology and literature.

In view of the already highlighted qualities of Sen. Asst. Dr. Dimitrina Popova's qualities, as well as the above-mentioned contributions and innovative moments in her overall work as a researcher, I give a positive evaluation and support the candidature for the academic position of Associate Professor in Theory and History of Architecture ((Digitalization of Architectural Heritage), professional field 5.7. Architecture, Civil Engineering and Geodesy, Institute of Art Studies.

23. 10. 2024

Signature:

Prof. Dr. Joanna Spassova-Dikova