

A REVIEW

Of

the dissertation work of Assoc. Prof. Stella MilchevaDoncheva, PhD for obtaining the scientific degree "Doctor of science" in a professional field 2. Humanitarian sciences, 2.2 History and archeology, scientific subject area Archeology (Medieval Bulgarian archeology XI-XV centuries)

Reviewer: prof. Stoyan Vitlyanov

The set of materials which Assoc. Prof. Stella MilchevaDoncheva, PhD has presented on paper and in pdf electronic version is in accordance with the Law on the Development of Academic Staff in the Republic of Bulgaria (ZRASRB) and the relevant Rules of the University of Shumen "Episcope Konstantin Preslavsky". The following documents are attached:

1. Application form to the Rector of Shumen University for starting a procedure for public defense of a dissertation entitled "Production of artistic metal in Early Medieval Bulgaria (based on the finds data)" for obtaining the scientific degree "Doctor of Science";
2. CV in European format;
3. Copy of her PhD diploma
4. Copy of Certificate for holding the academic position "Associate Professor";
5. Transcript-extract from the meeting of the Department of History and Archeology, for the internal discussion of the dissertation;
6. Information about the contributions in the dissertation work;
7. Information about the compliance with the specific requirements of the respective faculty;
8. List of selected publications on the topic of the dissertation and a copy of the publications;
9. Attribution;
10. Author's summary of the dissertation.

The attached documentation verifies that all requirements and deadlines for conducting the procedure for public defense of Assoc. Prof. Stella Doncheva's dissertation have been met.

Assoc. Prof. Stella Doncheva PhD is well known to the Archaeological Guild, with the various issues of her activities in the field of early medieval archeology. She was born on May 17, 1972 in the town of Shumen. In 1996 she completed a master's program in Bulgarian Language and History at the University of Shumen "Episcope Konstantin Preslavsky". In 2002 she completed a master's program in Theology at the same university. In 2000 she successfully defended her doctoral dissertation before the Higher Attestation Commission on the topic: "Principles and interpretation of the planned and volumetric staging of the cross-domed churches in Veliki Preslav" and got her PhD in Archeology. In 2002 she started working in RHM – Shumen, as head of the Department of Medieval Archeology and National Historical Archeological Reserve "Shumen Fortress". In this capacity, she was engaged in specific museum activities: working on funds, organizing exhibitions and arranging expositions, participating as an expert in committees and other tasks related to museum

activities. In 2011 she won a competition for "Associate Professor" in medieval archeology at NAIM - BAS, Shumen Branch. Since 2015 she has been elected its head, a position she holds successfully to this day. She has participated successively in field archeological tours and regular archeological excavations, of which she has been a scientific supervisor, in the lands of the villages of Zlatar, Nadarevo and Novosel. She is the author of a sufficient number of scientific publications and monographs related to the dissertation; she has participated in research projects and in national and international scientific forums. The listed activities accompanying the attached documentation accurately reflect the candidate's academic career and scientific development.

The chosen topic is extremely relevant, as in the recent years a lot of new data has been accumulated on this very interesting group of belt trimmings. However, a number of issues related to the typology of the finished products, the technology of their manufacture, the tools used and the chemical analysis of the raw material remained out of the researchers' attention. The proposed dissertation partially fills this gap.

Assoc. Prof. St. Doncheva's interest in metal products dates back to 2004, when she made her debut with a message about the ornamental decoration of the early medieval Bulgarian metal sculpture (item 6) published in the collection Preslav. Maybe then she fell in love with this interesting topic, which later became a lasting goal of her scientific pursuits. During the years of her professional growth, many articles on metal followed. The attached list of selected publications on the topic of the dissertation contains 16 published articles, four of which are in English. Simultaneously, Assoc. Prof. Doncheva, PhD published three monographs (one of which was co-authored). It is noteworthy that all publications are purposefully related to individual parts of the dissertation, which shows Assoc. Prof. Doncheva's lasting interest in the issues under consideration. In fact, this dissertation is the most significant achievement in the candidate's research and publication so far.

The dissertation is structured according to the rules and is prepared independently by the author on the basis of extensive literature, including many sources in Bulgarian and English. The text has the impressive number of 943 pages, structured in an introduction, a two-part exposition with a total of seven chapters, a conclusion, a list of references, a list of abbreviations, three appendices, including illustrative material on the text. I will not dwell on the appropriateness of the structure of the dissertation for which I have some reservations. I will only note that the layout of the content in two text parts and separately each part of chapters with many points, sub-paragraphs and paragraphs (only they are on 5 pages) is overloaded with information, does not facilitate the READER, and to some extent creates an impression of asynchrony, a tendency for volume and distance from the research tasks.

As for the title, it is too pretentious and does not seem completely relevant to the content. The big discrepancy, in my opinion, is in the declared territorial space (early medieval Bulgaria) and on the other hand, the only three production centers Novosel, Nadarevo and Zlatar announced for research. The second discrepancy is in the stated subject

of study, the artistic metal. In fact, the text studies only the belt sets and another small group of Byzantine bronze coins from the tenth century. The beginning and the way of studying the artistic metal in its rich variety was set with Prof. St. Stanilov's doctorate entitled "The artistic metal of pagan Bulgaria (VII-IX centuries)". Presumably, Assoc. Prof. Doncheva's dissertation should possibly cover the next period – 10th c., while considering the entire range of jewelry. The way it is formulated, the suggested title does not correspond to the proposed text and it would be good to be corrected. As an option, I would suggest the following title: "*The production of artistic metal in early medieval Bulgaria (following the example of finds from Novosel, Nadarevo and Zlatar)*".

The introduction of the research (pp. 6-12) presents the topicality of the theme, goals and objectives; the chronological and territorial scope; the sources of information and the research methodology. In this part, and further in the text, I did not notice a historiographical review on the stated topic. The reader is left with the prejudice of the author's lack of awareness. The historiographical review is precisely the part where the different trends in the researched issues stand out. Here an overview of the state of archaeometric research in Bulgaria should be made and hence justify the need of such research and the importance of the elaborated topic.

According to the proposed structure of the dissertation, the first part is dedicated to the production centers in the region of Preslav. It consists of three chapters dedicated to the belt sets, their element composition, the raw materials from which they are made, and finally the reconstruction of the finished products. In fact, this chapter is the most important being an archaeological contribution that the candidate makes.

Examining the products from Novosel, Zlatar and Nadarevo, Doncheva assumes that the finds of belt sets found there, which exceed 3000 pieces, are a sufficient and reliable reference point "for outlining the general trends in the production of metal products during this period" (p. 14). In my opinion, this conclusion is exaggerated. The large number of finds cannot always be a reliable argument on the basis of which to draw conclusions about the nature of the production of belt sets for the entire territory of Early Medieval Bulgaria. Although these finds are standardized, there are always specific differences that result from technology, material, decoration, typology, functional purpose, or other significant features.

However, Assoc. Prof. St. Doncheva's considerations regarding the typological classification of the considered finds are acceptable, although in some places the author herself shows some hesitation in establishing the typological framework used by her. Here I immediately want to note that typology and classification is a difficult theoretical issue for all fields of science, including archeology. This problem turns out to be somewhat difficult for the author, who correctly notes on page 30 that "the exposition is far from the claims for classification and a strictly established scheme". What complicates the candidate is that there are many suggested typologies and classifications in the literature, but there is still no generally accepted theory. In this case, Assoc. Prof. Doncheva, PhD relied on the widespread but obsolete typologies of archaeological finds made by Prof. Julia Leonidovna Shtapova, and

especially by Prof. Vasily Alekseevich Gorodtsov, whose first edition of "Typological Method in Archeology" was in 1927.

In the summarized presentation of the belt sets from Novosel, Zlatar and Nadarevo, Assoc. Prof. Doncheva PhD has tried to avoid their endless division of kinds into types, types into subtypes, subtypes in variants, variants in varieties, etc., which in itself can, as she rightly points out, lead to confusion and ambiguity in the course of the exposition.

Chapter two of the first part is devoted to the element composition of raw materials and products made from them. The chemical and mineral composition of ores and metals is of particular importance for the qualities of the finished product. The presence or absence, even insignificantly, of an element can radically change the physical properties of the finished product. This feature is one of the reasons for the candidate to pay special attention to the mineralogy and geochemistry of various ore deposits in our country, and at the same time to offer a quantitative element analysis of some of the finds from the production centers studied by her. It is important that at the same time she makes assumptions about when a metal is deliberately added in the copper alloy, or its occurrence is the result of the respective ore raw material processing.

Chapter three "Reconstruction of the belt sets" should precede the part of the chemical research. The reconstructions of the different types of belt sets proposed in it are, in my opinion, acceptable and deserve attention. In most cases, they are made on the basis of rich comparative material with finds from Bulgaria, Romania, Moldova, Southeast Europe and Eurasia. This is indicative, among other things, of good knowledge of the archaeological material in a wide geographical area.

The second part of the dissertation is devoted to the technology and practice of jewelry production in the Middle Ages. The first two chapters of this section deal with mining and metallurgy, as well as the structure and properties of metals and alloys, the tools used and the technology used. Here is the place to note that the chosen interdisciplinarity of the topic is to some extent a risky endeavor, as it requires special engineering knowledge in various fields of mining, metallurgy and other disciplines of metallurgy. To work on such a topic and write a dissertation with an interdisciplinary sound, one must have some scientific confidence. Despite the difficulty of this approach, Assoc. Prof. Doncheva PhD manages to combine in a well-functioning mix, the potentialities of historical, archaeological and physico-chemical science to achieve the goals of her research.

It is understandable that the results obtained from the analytical tests are the work of laboratory specialists. Their interpretation, however, was made by the author of the dissertation and it is an indicator of the consideration of this matter, which appears to be difficult for archaeologists. There is no doubt that the candidate is very well aware of the state of the problem, and skillfully interweaves the results of these studies in the interpretation of

the archaeological material. Extensive comparative material has been used for their complete and systematic description.

The candidate's participation in the team of the European project CHARIZMA for preservation, conservation and research of the European cultural heritage is commendable (Project RAMOMV (Production of art metal objects in Medieval Bulgaria)). Parties of the project are the INRNE (Institute for Nuclear Research and Nuclear Energy), BAS and RHM – Shumen. The result of the project work is the quantitative element analysis of belt sets from the three archaeological sites. For this purpose, Doncheva suggested 120 samples, which were subjected to highly sensitive energy dispersion element analysis. The method is a process in which accelerated charged particles, most often protons, bomb a certain place in the sample, initiating the emission of element-specific X-rays. Their energy determines the element, and their intensity - its quantity respectively. The analyzes were performed on the proton accelerator at the Institute of Atomic Nuclear Research of the Ukrainian Academy of Sciences in Debrecen, Hungary. According to Assoc. Prof. St. Doncheva PhD, this PIXE-method (particle induced x-ray emission), has been used for the first time to study archaeological finds from Bulgaria. Its essence and meaning are professionally interpreted by the candidate.

As far as I can judge in terms of content and volume, the ratio of the analytical part of the dissertation to the archaeological one is in favor of the analytical one. It would be good for the ratio to be the opposite, given the claim of Assoc. Prof. St. Doncheva PhD for a scientific degree in the field of the scientific specialty Archeology. In my opinion, the work would only benefit if the dissertation was refined and the candidate focused more on her archaeological interpretation, for which she is best prepared.

The working hypotheses about the centers of ore extraction and the ways of distribution of the different types of non-ferrous metals such as copper, gold, tin, silver, etc., which participate in the composition of the artistic metal, are interesting and deserve attention. The author is very well familiar with the theoretical context and the empirical basis of the belt sets, on the basis of which she accomplishes the set research goals. The sources used are in four languages and cover a wide range of subjects and disciplines.

It would not be an exaggeration to say that the dissertation was written with creative enthusiasm, which shows competence and knowledge in the field of artistic metal. Many parts in it attest to the author's observation and constructivism, which helps her see the studied material in a new way, and make the necessary conclusions from the extensive literature used, ours and foreign. Assoc. Prof. Doncheva's language is academic, without linguistic inaccuracies. The exposition is analytical, and historical and interdisciplinary methods are skillfully used. In general, the work is characterized with a good argumentation of the defended scientific theses. To the merits of the work I would add the well-arranged catalog of the analyzed samples, which very well complements the text part and contributes to the correct and accurate consideration of the tasks. The accurate interpretations of the extremely

voluminous archeological material, skillfully mastered by the author of the dissertation, also deserve admiration. The list of used literature is impressive, which shows that along with the Bulgarian scientists' research, the candidate knows and quotes many prominent Western and Russian scholars. Just reading everything written by them is a test for the researcher, let alone making sense of it and using it to prove a specific scientific thesis. In my opinion, Doncheva has coped with this challenge as well.

I am familiar with the author's summary of the dissertation, which is written according to the rules and accurately reflects the content of the dissertation. I did not notice any additions included in her text in order to fill gaps in the facts and conclusions of the dissertation. Summarizing the main points of the work, in my view the author's summary of the dissertation is a retelling rather than a synthesis of the achieved goals.

In conclusion, I would like to state that the presented dissertation is a completed scientific work in which the goals set by the author have been achieved. The remarks made are rather recommendations, which I would like the author to take into account in the future printing of the dissertation. The facts and circumstances presented so far are sufficient grounds to give a positive assessment and to propose to the esteemed scientific jury to confer the highest scientific degree "Doctor of Historical Sciences" on Associate Professor Stella MilchevaDoncheva, PhD.

10. 08. 2020

Prof. Stoyan Vitlyanov, PhD

