

REVIEW

On the procedure for the defence of a dissertation on the topic
**"Technology and Society at the End of the Second Millennium BC in
Western Black Sea. The Late Bronze Age settlement near the
Durankulak"**

for the degree of Doctor of Education and Science

from

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Scientific field: 2. Humanities

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The topic of Bogdan Atanassov's proposed work is well formulated and responds to the need to summarize the knowledge about the end of the Bronze Age and the transition to the Early Iron Age in the Eastern Mediterranean. The choice of the site of the Big Island at Durankulak is not accidental - on the one hand, it is the most completely studied Late Bronze Age settlement in the Western Black Sea region, on the other hand, the scientific research of colleague Atanassov has long been associated with it. This is probably the reason why he has taken up the challenge to process, make sense of and interpret the data from the archaeological site that he studied more than 40 years ago.

The dissertation consists of two parts. The first, of 349 pages, is the main text, in which 156 images illustrating the issues commented on in the relevant passage are also inserted. The second part brings together the illustrations – 32 tables with plans, photographs and drawings of finds. The structure of the textual part of the dissertation could be described as inconsistent with accepted standards. It is divided into 10 parts very different in length and scope, with the first, entitled "Introduction and Acknowledgements" and the conclusion being distinct. There is some disproportion in the division of the individual chapters; it would be useful to consider merging the very small ones, such as the third and fourth and the last three. Presented in this way, however, it

follows a logic of its own that contributes to the easy flow of the narrative and facilitates the reader's appreciation of the narrative.

Already in the introductory part, the main issues that will be addressed in the exposition are raised, such as the presence or absence of continuity between the Late Bronze Age and Early Iron Age in settlement life, funerary practices, and pottery production. Changes in the topography of sites and their characteristics, innovations in architecture, and the emergence of new forms and motifs in ceramic decoration are outlined. All these important observations are presented in the context of what was happening at the time in Central and Southeastern Europe and Anatolia.

My first impression when I read the chapter "History of the research and aims of the work" was that it brought together two parts that should be presented separately (at least that is the accepted view). Furthermore, the extensive historiographical overview, presenting the development of the science of Archaeology from the mid-nineteenth century to the present, seemed to me superfluous. But this review, and especially the emphasis on research in the field of prehistory, and specifically for the last centuries of the Bronze Age and the early Iron Age, draws a rather unflattering conclusion about the native science - its disproportionately slow development compared to research in the Eastern Mediterranean and the Balkans for these periods. Precisely because of the limited number of summarizing studies, despite the not insignificant number of excavated sites in our country, the difficult task of processing and promulgating the results of the excavations of the Late Bronze Age settlement at Durankulak is very important. The presented analysis of the established trends in the Aegean world after the end of the Mycenaean civilization and the so-called "Dark Ages" is extremely useful for outlining the processes observed in the Eastern Balkans and the Western Black Sea in particular. Also important is the delineation of recent trends in archaeological periodization, established on the basis of stratigraphic observations and a series of radiocarbon dates. Consecutively examining in chronological order the achievements in the research of the Bronze Age in our country and in the neighbouring lands, Bogdan Atanassov outlines the context in which the settlement with stone architecture and apsidal buildings at Durankulak appears and thus prepares its complete presentation. The second part of this chapter describes the main objectives that the PhD student sets himself and the questions he will try to solve. In my opinion, most of the objectives have been successfully met, many of the questions have been answered, but there are some that we are not yet ready to address. In connection with the note about the still limited research on human DNA from the Bronze and Iron Ages, I would like to mention a genetic analysis of human remains with interesting results from the necropolis at the village of Stambolovo, Haskovo region in 2017.

The chapter entitled "Physical and Geographical Conditions and Palaeoenvironment in the Late 2nd Millennium BC" presents a critical review of the existing views on the natural conditions at the end of the Bronze Age in the Eastern Balkans and their influence on historical development. The results of various studies are drawn upon, resulting in various hypotheses. Early written sources from the Levant and Asia Minor, however, refute the decisive importance of climatic changes between the 13th and 11th centuries BC for the economic, social and political changes that then occurred. For the Durankulak Lake area in particular, pollen surveys show that an increase in herbaceous vegetation and a decrease in woody vegetation was found at the end of the

2nd millennium BC, but this may have been the result of intensive human activity. Important for determining the state of the palaeoenvironment of the area at the end of the Bronze Age is the level of the Black Sea and therefore that of the lake, which was about 1.5 m lower than today.

Chapter Three is devoted to the archaeological investigations of the Late Bronze Age settlement on the Big Island. In it my colleague Atanassov describes the methodology of excavation, the way of documenting the situations and finds, the keeping of the archaeological documentation and even the tasks of the individual team members. From the distance of today it is easy to criticize the methods of work applied then, but with his inherent tolerance Bogdan spares largely negative assessments of the "imprecise but extensive" excavations in the 1980s of Prof. Atanasov's team. Henrietta Todorova. It is important to emphasize that on the basis of brief descriptions in the diary, small-scale black-and-white photographs and relatively decent graphic documentation in the following chapters, he manages to create a clear picture of the site, its stratigraphy and periodization.

The location of the Late Bronze Age settlement and its topography is the subject of the short fourth chapter. It remains unclear whether the settlement occupied the south-eastern and southern slopes of the island or whether it also extended onto the flat area above it. It is also still unclear whether there are remains of synchronous sites on the shores of the lake.

The main and most voluminous chapter in the dissertation is the fifth. It is devoted to the architecture and stratigraphy of the Late Bronze Age settlement. It presents the stratigraphic layers (four according to H. Todorova, three according to B. Atanasov) and all the excavated structures examined by areal. At the end of the chapter, in section 5.21, generalizations are made about the general plan of the settlement, the organization of the space, and the changes in residential planning in later phases. The parallels drawn, although not numerous, according to B. Atanasov demonstrate common building techniques in a rather extensive area, but these conclusions do not sound very convincing, at least due to the lack of sufficiently studied sites from the period. Dwellings with stone foundations and an over-wall of wattle-and-daub construction are characteristic of mountainous regions, and the example from Kush Kaya provides an explanation as to why such a building solution was arrived at. In the plain, however, Neolithic houses were traditionally built only with a structure of wooden posts and walls of wattle and daub plastered with clay, and there are examples of two- and even three-storey homes. The apsidal plan also has ancient traditions in Thrace. The dwellings formed in the rocky hillside, located both transversally and later also longitudinally, the terracing and levelling of the terrain (ramps) for the siting of dwellings can be pointed out as features of the settlement plan and of housing construction in Durankulak. A specific construction technique for the site is the use of orthostats, a practice not previously recorded in Thrace, but with parallels in synchronous layer VII b at Troy.

The results of palaeobotanical studies and pollen analyses provide a clear picture of the agricultural cultivation in the Late Bronze Age in Durankulak and the increasing impact of human activities on the environment. Very interesting are the results of archaeozoological studies that prove the use of cattle in agricultural activities. The overall conclusion in Chapter Six is that during the Late Bronze Age, agriculture was the main occupation in the settlement on the Big Island, as illustrated by the significant number of flint plates from composite sickles (Ch. 9), and cattle breeding was

an auxiliary occupation. An important conclusion drawn here is that the thin-walled nature of the Late Bronze Age settlements identified is related to the type of agriculture practised rather than the way domestic animals were kept.

In terms of defining the chronological framework for the Late Bronze Age settlement at Durankulak, pottery processing is particularly important and is the subject of Chapter Seven of the thesis. Unfortunately, all the ceramic material acquired during the excavations was not available and my colleague Atanasov had to content himself with working only the more representative fragments that survived. This fact significantly limits the possibility of applying statistical analysis and hence the real evaluation and complete representation of the ceramic complex from the site. Nevertheless, the classification built allows to delineate the main forms and even to distinguish types, especially among the better represented categories of vessels. Working with the pottery is also hampered by the lack of a clearly stratigraphic position of the fragments found. For this reason, the materials presented are asynchronous, and if the earlier ones can indeed be associated with the Coslogeni culture, the later ones have characteristics of the transition to the Early Iron Age, and some can be placed at its beginning. I agree with the conclusion that no phase corresponding to the early phases of Babadag is represented and that the Durankulak vessels are earlier than those found in the necropolis at Sbornanovo and certainly than those associated with the Pshenichevo cultural group. The available radiocarbon dates from the site do not help to delineate the chronological limits of the existence of the Late Bronze Age settlement.

The last three chapters of the work are devoted to the finds from the site. They are very limited in number, but nevertheless they are thoroughly analysed and the necessary information for the subject is extracted.

The conclusion summarises the observations and conclusions presented in the thesis and again focuses on the situation in a vast region covering the Eastern Mediterranean, the Balkans and the Black Sea coast during the Late Bronze Age. It is in the context of the processes developing in the dynamic period between the 13th and 11th centuries BC that the phenomena identified at Durankulak, such as the 'flowering' of stone architecture, are placed. The main implications of the changes in the social sphere, village life and funerary practices at the boundary between the Bronze and Iron Ages are also outlined.

The bibliography presented fully meets the objectives of the study. A total of 366 publications are included in the list of cited literature.

The illustrative materials included in the second part well illustrate the ideas developed in the textual part of the thesis. The lower quality of the images from the excavation of the site is understandable. It would have been helpful if small- and large-scale maps of the Durankulak area had been included, as well as those illustrating trade contacts in the wider region covering the Eastern Balkans and the Mediterranean, which are referred to repeatedly in the exposition.

The abstract is a great summary of the dissertation. It outlines its structure, with each section comprehensively presented. The scientific contributions and authored and co-authored publications related to the topic are appended. The dissertation and related articles meet the

minimum national requirements for the degree of Doctor of Education and Science in the scientific field and professional field of the procedure.

Bogdan Atanassov's dissertation has been competently developed and the set objectives have been achieved. The text is readable, the expression is measured with a well mastered professional vocabulary. The overall impression left after reading the dissertation is of a well thought out work with serious scholarly contributions to the field of Thracian antiquity. I recommend that he continue and deepen the work on the subject in the future and consider preparing a publication of the achievements.

In view of what has been said so far, I confidently propose to the esteemed scientific jury to award the scientific and educational degree of Doctor of Science in scientific field 2. Humanities, professional field 2.2 History and Archaeology to Bogdan Atanassov.

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