## Munitiones castrorum. Fortifications of the legionary camp of Novae in the Principate period (AD I-III c.)

## Piotr Zakrzewski

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## **ABSTRACT**

The principal aim of this dissertation is to comprehensively present all the documented elements of the defence systems of the legionary fortress in Novae (Lower Moesia) constructed in 1<sup>st</sup>-3<sup>rd</sup> century AD. The period in question is characterised by a marked change in the strategy and the organisation of border defence, now commonly referred to as limes. The intent was not to give a raw description of the subject matter, but to put forward a broad analysis of the available archaeological material and relevant historical sources. Information and interpretations included in this work are based on my observations and conclusions made in the course of archaeological excavations conducted in Novae for over 10 years under the direction and in cooperation with the late Professor Tadeusz Sarnowski, the long-term director of the Archaeological Expedition of the University of Warsaw in Novae. For the purposes of this dissertation, site documentation was supplemented with all the data available on the fortification system in Novae, both published and unpublished, such as archival plans, trench and architectural section, excavation journals dating from 1960 onwards as well as photographs and other materials, including oral accounts. I have also performed a comparative analysis of the fortifications in Novae based on the collected data on defence systems in the Lower Danubian provinces and other parts of the Roman Empire erected under the Principate.

The main research goal is to determine whether the discussed defence structures shared a set of architectural features typical for the period in question, or whether they were constructed by means of less common building solutions, or even according to a wholly innovative (and therefore unique) design. In the case the structures diverge from the established model, the possible reasons for such change are investigated. The dissertation also considers the issue of the so-called military architecture style associated with a particular legion or region.

Chapter 1 examines the shift in the Roman worldview concerning the idea of external borders and the necessity of their protection. The emergence, functioning and evolution of border defence systems in particular areas of the Empire, including their defining characteristics and existing threats, are presented in Chapter 2. The next two chapters are devoted to the region

of Lower Danube, as Chapter 3 outlines its geographical and geological features, while Chapter 4 offers a historical and political overview of the region, its conquest by the Romans and ensuing conflicts. Particular attention was drawn to the Dacians, who represented the greatest threat to the Roman power in the area. Chapter 5 discusses the methodology employed in the present dissertation and the most relevant sources used in the research. Chapter 6 presents the history of research on the defence systems of the fortress in Novae, including the most recent research project – "Per lineam munitionum". Chapter 7 outlines the results of topographical works conducted at the site, which resulted in determining the characteristic features and properties of the region and the strategic premises for placement of the fortress. Chapter 8 examines the construction and maintenance works of defence systems recorded in Novae, while Chapter 9 describes evidence for processes and activities outside of the fortress which influenced certain elements of the fortification system. A catalogue of fortification elements attested in Novae is presented in Chapter 10. As 3D modelling proved to be an indispensable tool for verification of proposed reconstructions of the fortifications, Chapter 11 reviews this method, its applications and results obtained in the course of research in Novae. Chapters 12 and 13 are devoted to my observations and interpretations concerning factors and properties of the architectural design and the appearance of Roman fortification structures, made based on the data presented in the previous parts of the dissertation. Finally, in the Conclusions, I attempt to prove that the defence system attested in Novae can be considered unique as well as to account for the reasons for such a design.