




Project Gallery

Principia of the legionary fortress in Novae: digital rendering as a tool for analysing Roman army religion and imperial propaganda

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A 3D reconstruction of the *principia* at Novae (Bulgaria) allows modelling of the inscribed statues, altars and building stones as they used to look. By restoring the inscribed monuments to their original contexts, the model means that Roman military religiosity and its messages can be analysed in the legionary headquarters.

Keywords: Bulgaria, Roman Empire, 3D virtual reconstruction, military, religion

Introduction

Novae (Lower Moesia, present Bulgaria) was founded sometime after the mid-first century AD. The First Italic Legion arrived shortly before AD 71/72 and was garrisoned there until the 430s. Within the fortress covering almost 18 ha, the remains of a monumental headquarters building (*principia*), military hospital, and baths have been uncovered (Figure 1), and many years of excavation in the *principia* have brought to light more than 300 inscriptions of all types.

The primary goal of the present project, entitled ‘In medio castrorum: Sculptural and epigraphic landscape of the central part of the legionary fortress at Novae’, is to gain a better understanding of the way in which the inscriptions were presented within the *principia*, which, in addition to its practical administrative functions, provided a space for communication between soldiers and divine agents via inscribed monuments (e.g. statue bases and altars). The propaganda aims required careful planning of the position of inscriptions within the *principia* (Sarnowski 1989; Stoll 1992). The installation of a monument (funded by specific groups of donors) was marked by a military ceremony (Helgeland 1978). The concept of ‘lived ancient religion’ focusing on religious experience, practices and the interactions of individuals (Fuchs & Rüpke 2015), is an increasingly debated topic, as are the relationships between texts and the spaces in which inscribed monuments were displayed (Lasagni 2017; Orlandi *et al.* 2017).

The current project will provide 3D reconstructions based on the discoveries made in the *principia* in Novae which can be a useful tool for scholars studying the concept of ‘lived ancient religion’. This will allow evaluation of the research potential via multiple resources

Received: 30 March 2023; Revised: 19 April 2023; Accepted: 20 June 2023

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The dimensions and spatial layout of the building were recreated based on archaeological data acquired during excavation (Figure 2). The epigraphic catalogue comprises 60 monuments, including statue bases, altars, and building inscriptions, most discovered during excavations in the *principia* and found in a context of reuse. Several stones were found outside the

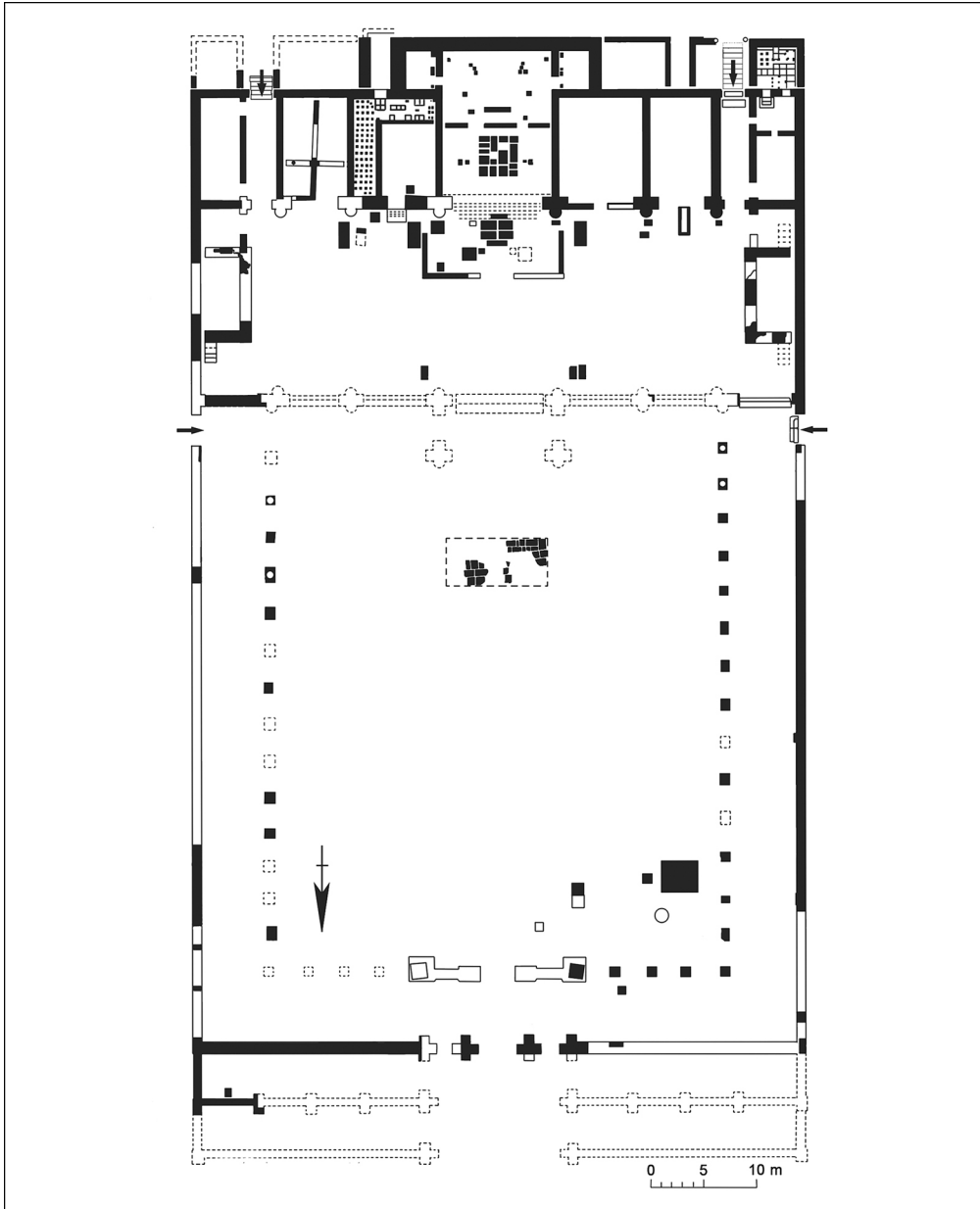


Figure 2. Novae. The plan of the principia. Black rectangles mark the places where the supports for the bases of equestrian statues were found (drawing by T. Sarnowski and E. Jęczmienowski).

building, but originally they were exhibited in the *principia*, as indicated by their text. All the finds, including those currently unpublished, have been re-examined, drawn and photographed at high resolution (Figure 3).

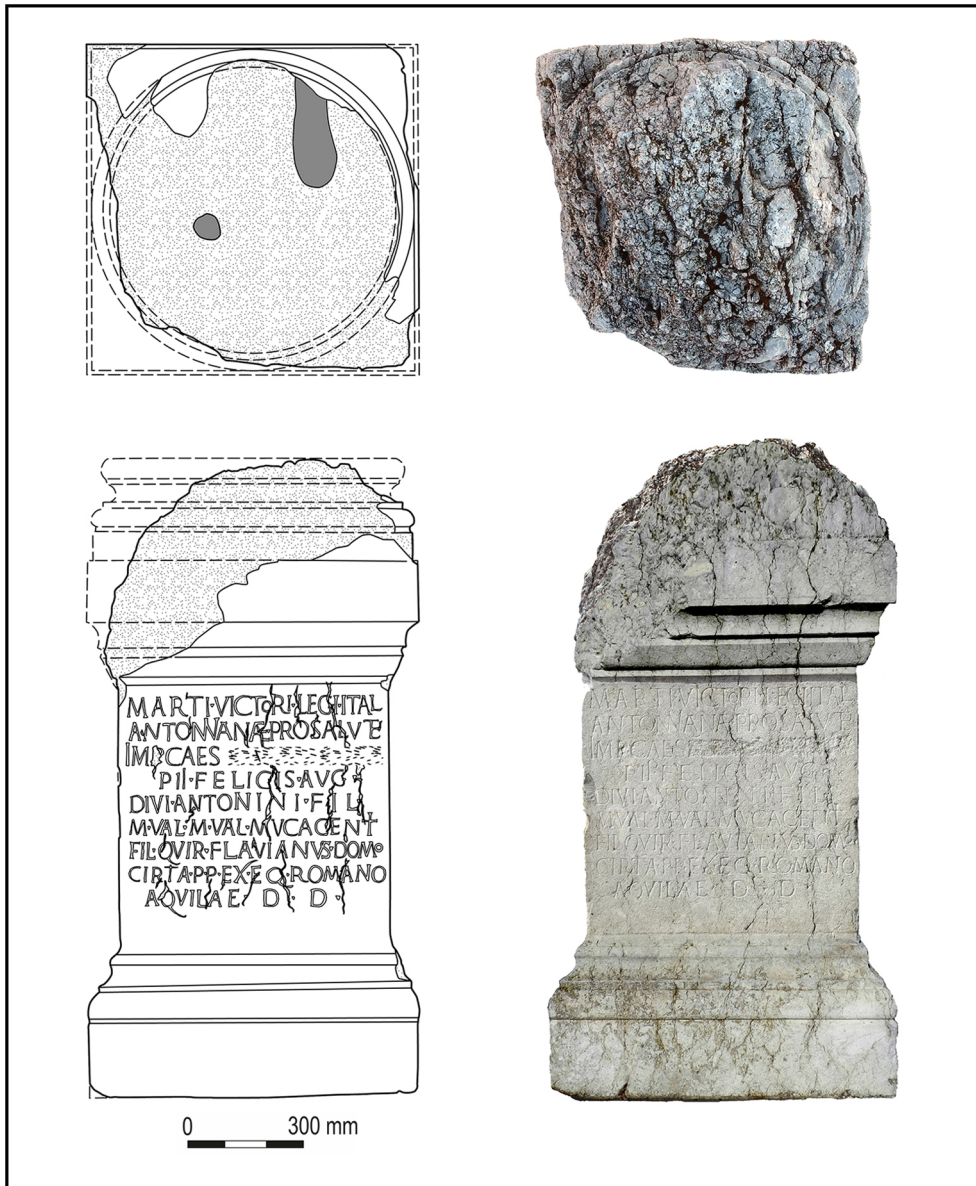


Figure 3. Novae. The updated documented statue base of Mars Victor. The drawing shows precisely the preserved inscription with erased name of Caracalla or Elagabalus. The photograph of the top surface shows the traces of the fitting holes, previously published incorrectly (drawing by E. Jęczmienowski and M. Różycka; photograph by A. Tomas).

To portray the internal arrangement of the building, we chose several stages during the Severan period when the *principia* underwent a renovation involving the most eminent statues (Sarnowski 2018). The finds seem to attest to a programme for statuary arrangement with inscriptions intended to clearly convey the official *damnatio memoriae* ('condemnation of memory') passed on Emperor Geta, marking an exemplary historical moment.

Following original documentation from the excavations carried out between the 1970s and 2013, all architectural elements, altars and statue bases have been modelled using Autodesk 3ds Max and Blender software. The *principia* model consists of several thousand geometric objects (Figure 4), while the three-dimensional statues were created separately using Agisoft Photoscan, Poser, Blender and 3ds Max software.

Preliminary results

Examination of the inscriptions provided partial explanations for the circumstances and motivations behind the erection of the various statues. A group of monuments set up by the *primi pili* is highly informative. These were the highest-ranking centurions, responsible for military supplies and also for religious activities, whose contribution to the *principia* related to financial settlements at the end of their service (Faure 2019). Analogous evidence was left by the *primipilarii* (late Roman civil clerks) (Łajtar 2021). Both groups

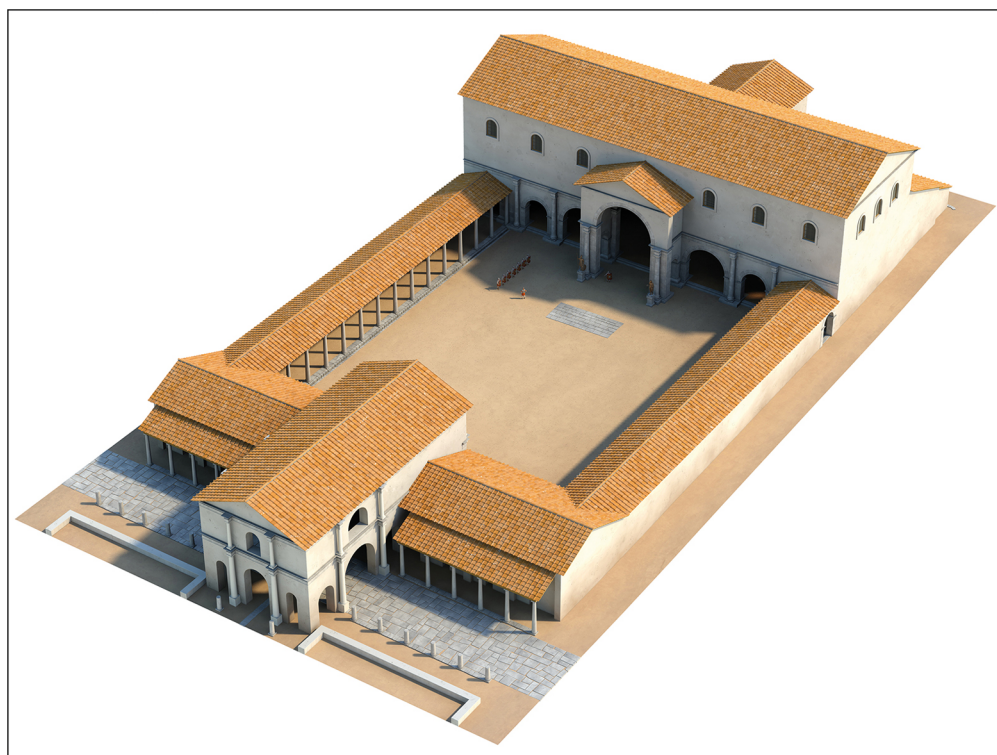


Figure 4. 3D visualisation of the principia in Novae (figure by J. Kaniszewski).

venerated Dionysus/Liber Pater, which was clearly an important deity who prevented famine as evidenced by seven statues and a depiction present in the early fifth-century building.

The original settings of certain types of statues could, in many cases, be inferred with considerable confidence, for example based on the preserved supports for the bases of equestrian statues (Figures 2 & 5). The exact location of each statue, however, remains hypothetical. Where possible, the dimensions of missing statues could be deduced from the size of the fixing holes on the upper surface of the stone base, while their appearance was approximated based on analogous statues from the same period (Figure 6).

Conclusions

The specific location of a statue displaying a particular text would determine the order in which that information was received, contributing to the drama of religious ceremonies. Although a faithful digital reconstruction of the sculptural decoration will always contain hypothetical elements, a virtual model showing the relationship between the inscribed monuments within the space will enable researchers to trace the way visual stimuli were received by participants in ceremonies within the *principia*; it is a

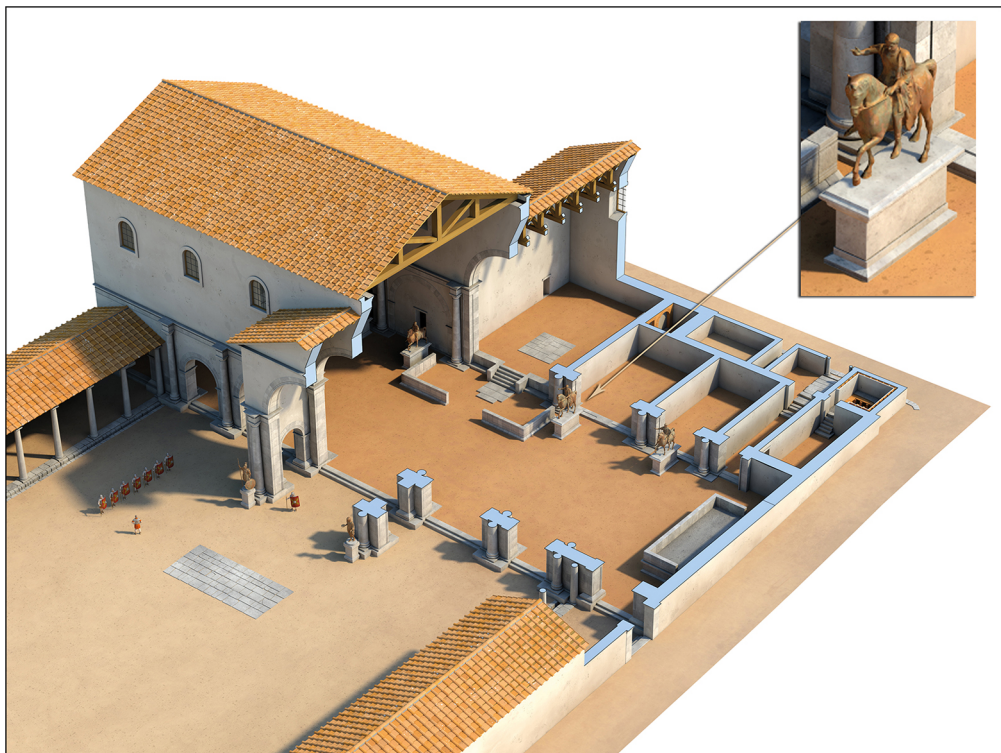


Figure 5. Principia in Novae. The cross-section of the rear part of the building with reproduced statues (figure by J. Kaniszewski).



Figure 6. Novae. The entrance to the basilica principiorum and the reconstructed statues (J. Kaniszewski),

potentially useful tool for further analyses like the visibility of the ceremony performed in the *principia*.

The epigraphic evidence from Novae shows that the transmission of propaganda at the centre of the Roman military base was controlled by a small group of people through religious acts relating to both spiritual and practical aspects of military provisioning. Detailed analysis of the content of the epigraphic texts, combined with knowledge of the material, workmanship, or type of statue exhibited in the building will reveal new insights. The publication planned at the end of the project accompanied by a dedicated website presenting digital reconstructions will enable users to view details of the individual inscriptions, and will present dating information and justification for the location of the monuments within the virtual *principia*. Further research will include contextual analyses of other finds.

Funding statement

The project entitled ‘In medio castrorum: Sculptural and epigraphic landscape of the central part of the legionary fortress at Novae’ received financial support from the Polish National Science Centre (grant no. UMO-2016/21/B/HS3/00030). The present work comprises part of the ‘Excellence Initiative – Research University’ Programme, the University of Warsaw, action III.3.2.

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