

Increasing NAIM capacity to study archaeological artifacts using a metallographic microscope

The acquisition of the ZEISS Axio Observer 3/5/7 inverted metallographic microscope allows cross-sections of samples taken from the artifacts to be studied. This type of research provides valuable information about the production technology, identification of materials and techniques used in the process of making the objects, the type and extent of the destructive processes that have taken place. The information obtained contributes to a better knowledge of the artifacts, reconstruction of the process of production



and building-up a strategy for conservation and restoration intervention.

Building up a new laboratory for conservation and restoration of NAIM

The new laboratory was built in the period 2021-2022 after a complete reconstruction of a premises of approx. 80 sq. m and adjacent yard space (approx. 200 sq. m). The lab is located in the BAS complex at the 4th kilometer at the address "Tsarigradsko shose" Blvd. No. 125, bl. 26B. A large part of the works were carried out with Inframat funds.



Condition of the premises before the reconstruction

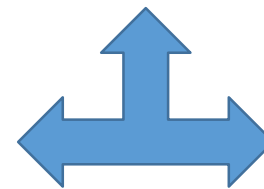


Condition of the premises after the reconstruction



Building up a new laboratory for conservation and restoration of NAIM

Complete equipment was purchased with Inframat funds, which enables specialized conservation and restoration of archaeological stone and ceramic artefacts at four conservator workplaces.



The Lab in 2023:
Four restorers have fully
equipped workshops places



Building up a new laboratory for conservation and restoration of NAIM

The lab is supplied with Poseidon specialist steam jet, Thunder Compact sandblaster and archaeological artifact cleaning laser, chemical oven, AC0200 hoods for 4 workstations, 4 sets of individual instruments, laboratory furniture etc.



Cutting-edge equipment at the conservation and restoration laboratory of the National Archaeological Institute with museum

Among the equipment of the laboratory the Thunder Compact portable laser system is a unique cutting-edge equipment for Bulgaria. The system provides gentle, efficient and fast cleaning during the restoration of archaeological artefacts made of stone, wood, metal, glass and textiles..



Improvement of the working environment of the Laboratory for analyses, conservation and restoration in the central building of NAIM

*A complete ventilation and dust collection system was built.
The system provides a dust-free working environment for
restorers and significantly improves working conditions.*



Improvement of the working environment and retrofitting of the Laboratory for analyses, conservation and restoration in the central building of NAIM

The following new equipment was also purchased with Inframat funding: A vacuum dryer, 2 pcs. Zeiss Stemi 508 microscopes, fine-blaster (sandmaster) type FG1 Resta microsanding machine, individual tools.



Creation and capacity improve of NAIM to document conservation and restoration activities of archaeological artefacts by renewing the photographic equipment

Three digital cameras and specialized photographic lighting were purchased. The photographic equipment is distributed as follows: In the central photo studio of NAIM - medium format Fujifilm GFX 100 with 2 lenses, 3 lenses for upgrading an existing 4/3 Olympus OM system, lighting kit and tripods. In the branches of NAIM in the town of Veliko Tarnovo and the town of Shumen, one digital camera each with lenses, lighting and a tripod.



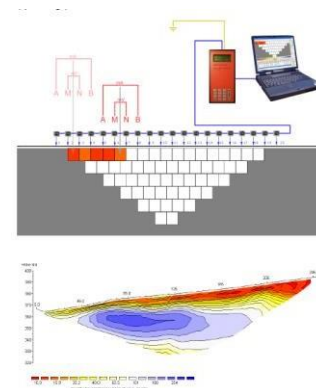
Digital medium format camera
Fujifilm GFX 100

Specialized lighting and
the Olympus OM 4/3 lens



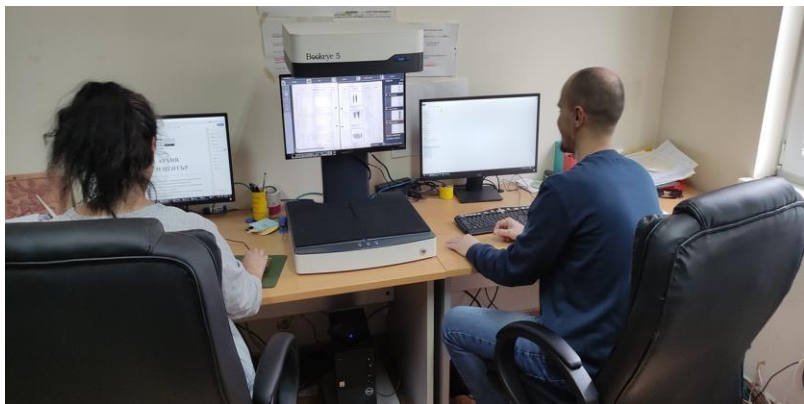
Building up new capacity of NAIM for field work by renewing geophysical and geodetic equipment

A modern digital resistivity meter Lipmann 4 point light 10W was purchased for searching for archaeological sites and 3 pcs. GNSS GPS systems Hi-Target V30 Plus for geodetic surveying on archaeological sites. Upgrade modules were also purchased for the available 2 pcs. GNSS GPS receivers

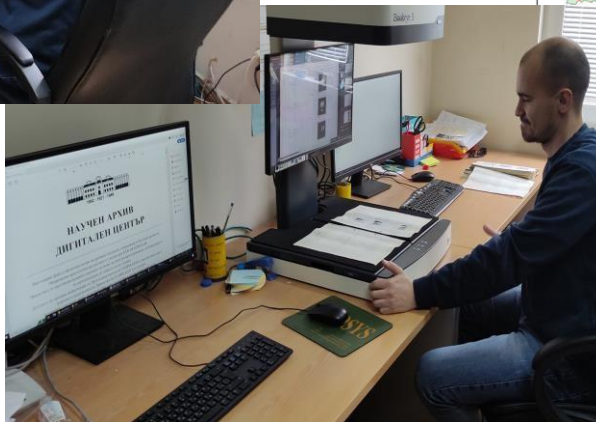


Increasing access to the scientific archive of NAIM through digitization

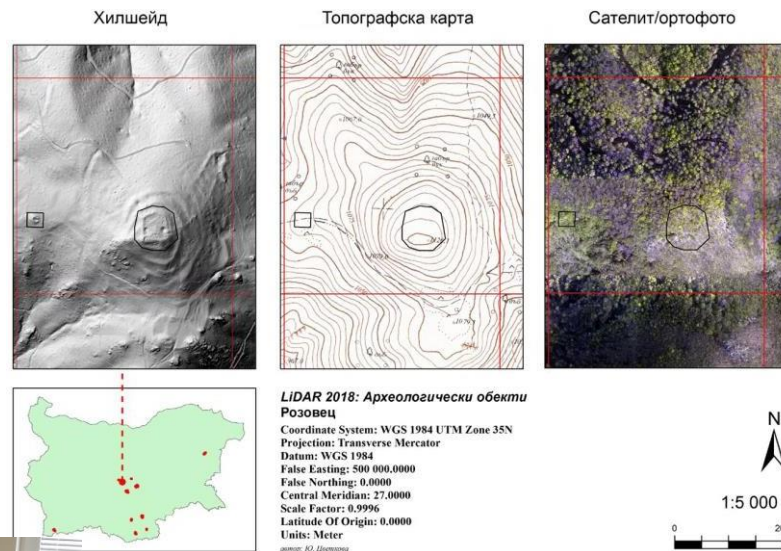
A specialized Bookeye 5 V3 Kiosk Color A3+ scanner, 2 Konica Minolta BIZ HUB C224e digital copiers with automatic sheet feeding and computers are delivered. With them a three-year program for the complete digitization of the NAIM archive is implemented



Digitalizing the scientific archive
of NAIM



Capacity building and maintenance of computers, network and servers of NAIM



Two servers are maintained: a new Fujitsu Celsius W5011 was purchased for general use by the institute and the museum, and a second one on which the Automated Information System "Archaeological Map of Bulgaria" is uploaded