

Tripolis ad Maeandrum (Denizli – Türkiye) Bridging Knowledge and Restoration

The «Monumental Nymphaeum» Joint Project of Pamukkale University and CNR-Institute of Heritage Science

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INTRODUCTION

Tripolis ad Maeandrum lies in a border zone between the ancient regions of Lydia, Phrygia, and Caria (western Asia Minor), occupying a strategic position at the confluence of the Maeander and Lykos rivers. Since 2012, the University of Pamukkale, under the direction of Bahadır Duman, has been conducting systematic excavation, research, and restoration work with the permission of the Ministry of Culture and Tourism of Türkiye (Tripolis Excavation – Tripolis Kazısı). During its most significant phase - the early Byzantine period (4th–6th century CE) - the city centre underwent extensive reconstruction. Particularly noteworthy is the Monumental Nymphaeum, a 40-metre-long fountain featuring a three-storey columnar façade and a rich sculptural programme. Dating to the 2nd century CE and restored in the 5th century CE after an earthquake, the monument provides an exceptional case study for investigating ancient restoration practices and the transition to the Byzantine architecture. Since 2016, the documentation, reconstructive study, and anastylosis of the Nymphaeum have been the focus of a joint project carried out by the University of Pamukkale in cooperation with the Italian team of the CNR-Institute of Heritage Science, coordinated by Tommaso Ismaelli.



Fig. 1: Tripolis ad Maeandrum (Buldan, Denizli): location of the ancient city, view of the Monumental Nymphaeum

DOCUMENTATION, ANALYSIS AND RESTORATION



Fig. 2 The blocks collapsed inside the pool and their direct and instrumental survey.

The research began with the study of the thousands of blocks discovered inside the pool, whose positions were carefully documented in order to understand the dynamics of the collapse and the structural relationships between the columns and aediculae of the three storeys. The cataloguing and photographic documentation of the blocks were complemented by direct survey and Structured Light Scanning, while a photogrammetric survey guarantees an accurate 3D model of the in-situ remains. Particularly essential was the painstaking analysis of technical details and stylistic features, which made it possible to reassemble broken blocks and small fragments and, consequently, to achieve a deeper understanding of the monument's architectural layout.

Parallel to the study of the blocks and the 20,000 fragments of marble revetments, restoration activities were carried out by the Tripolis restoration team, both on site and in the depot, offering restoration students from Pamukkale University the opportunity to strengthen their theoretical and practical skills.

THE ONGOING ANASTYLOSIS PROJECT

In 2025, the study and restoration work focused on the large barrel vault, 4.20 m wide, which allowed the Nymphaeum to span the main road leading from the city centre to the Theatre. The 45 collapsed marble and travertine blocks of the vault were carefully analysed and surveyed, and their relative positions were repeatedly tested on an iron centering laid out on the ground, in order to reconstruct the original sequence and understand the technical details. The vault was then tested in its original location, and - after a positive evaluation - reassembled using the original connection technique. This anastylosis offers a much clearer understanding of the challenging structural solution that links the baroque façade of the Nymphaeum to the street, a characteristic feature of the architecture of ancient Asia Minor.

The restoration project will now progress to the anastylosis of the aedicular façade, concentrating on the columns and the entablature of the first order, which have been thoroughly studied and restored over the past years. The intervention is funded by the Ministry of Culture and Tourism through the “Geleceğe Miras” (Heritage for the Future) initiative.



Fig. 4 The anastylosis of the vault on the north of the Nymphaeum (May-September 2025)



Fig. 3: Study, recomposition and restoration of the architectural blocks.

REFERENCES

B. Duman, T. Ismaelli, S. Bozza, *Il Ninfeo Monumentale di Tripolis: primi risultati tra ricostruzione storica, conservazione e valorizzazione*, in *La ricerca archeologica per la ricostruzione storica e la valorizzazione del patrimonio*, XIII Convegno sul contributo italiano a scavi, ricerche e studi nelle missioni archeologiche in Turchia, Istanbul 2024, pp. 174-189.
<https://www.pau.edu.tr/tripolis/>
<https://www.ispc.cnr.it/en/2023/02/01/il-ninfeo-monumentale-di-tripolis-ad-maeandrum/>