



# The 3D Lapidarium of the National Museum of Banat from Temeswar between Virtual Exhibition and Scientific Epigraphic Corpus

CĂLIN TIMOC

The project aimed at digitizing Roman epigraphs within the National Museum of Banat using the technique of digital photogrammetry to offer the public and specialists a better perspective on Roman monuments.

## Museum History Conference 2021 SZEDED 10-11 Nov.

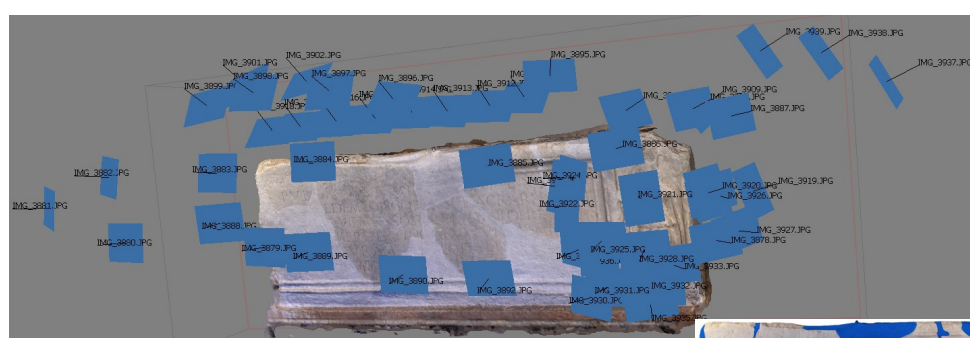
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**WORKSHOP DE EPIGRAFIE**  
Jocuri cu inscripții.  
Oameni și zei în Dacia Romană

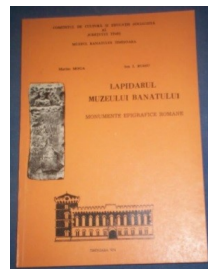
9-11 Decembrie 2016  
TIMIȘOARA  
Sala de conferințe a Direcției Județene pentru Cultură Timiș  
str. Episcop Augustin Fața 8

The product was inaugurated and promoted especially in the educational environment through a workshop for students organized within the Directorate for Culture Timis

**Primary Team:**  
Călin Timoc (Museologist)  
Claudiu Toma (IT and Photographer)



It is the first 3D digital exhibition in Romania that will include a whole collection of epigraphic monuments of a museum, made at an exceptional quality and available free online at the following addresses: <http://muzeulnationalalbanatului.ro/evenimente/lapidarium-3d> <https://sketchfab.com/muzeulnationalalbanatului/models>



1974 booklet of the Banat Museum Lapidarium

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We used a 12 MP DSLR digital camera, Canon 1100D, with a standard kit EF-S 18-55mm f / 3.5-5.6 III, two external light sources TG-PROJECTOR with 500W halogen, a computer: Processor: Intel Core 2 Duo; 3.0 GHz; E 8400, Video card: NVIDIA GeForce GTS 250, DDRAM 3; 1GB, 6GB RAM. and the standard version of Agisoft.

We tried to take quality photos, clear and sharp without motion blur. We mention that we did not use a tripod, because it would have limited the number of photos due to our size and would have created unwanted shadows. The photographing of the text was done from left to right with an overlap of photos between 60-80%, given the inaccessible space due to both the positioning of the monument on the corridors of the Huniade Castle (where the Lapidarium is preserved) building and the lights placed by us. In rendering the three-dimensional models, in addition to the native texture of the 3D object, we added two more colors: the first - a matte blue to render the parts inaccessible to shooting, but which could be completed using existing geometry, the second color is a semi-transparent blue with native texture, which represents the cement used in the restoration processes that the epigraphic pieces have gone through over time.

The ultimate goal of the virtual format of Latin inscriptions is to draw attention to the type of stone monument used by the ancients for inscription and last but not least to educate the public to better appreciate the extraordinary quality of these written sources. From a museological point of view, 3D photogrammetry (or 3D scanning) helps a lot to check the state of preservation of the stone and is a witness to the preservation of epigraphs, which if over time suffer degradation during restoration can be much better to follow what was the initial appearance.

**Bibliography:** E. Dall'Asta, N. Bruno, G. Bigliardi, A. Zerbi, R. Roncella, *Photogrammetric techniques for promotion of archaeological heritage: The Archaeological Museum of Parma (Italy)*, The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volumul XLI-B5, Republica Cehă, 2016; F. Bruno, S. Bruno, G. De Sensi, M. Luchi, S. Mancuso, M. Muzzupappa, *From 3D reconstruction to virtual reality: A complete methodology for digital archaeological exhibition*, Journal of Cultural Heritage, 11, 2010; G. Tucci, D. Cini, A. Nobile, *Effective 3d digitization of archaeological artifacts for interactive virtual museum*, International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volumul XXXVIII-5/W16, Italia, 2011; Haukaas, Colleen, *New Opportunities in Digital Archaeology: The Use of Low-Cost Photogrammetry for 3D Digitization of Archaeological Objects from Banks Island, NWT*, Electronic Thesis and Dissertation Repository, 2014; Jiri Zára, *Virtual Reality and Cultural Heritage on the Web*, From Proceedings of the 7th International Conference on Computer Graphics and Artificial Intelligence Limoges, France, ISBN 2-914256-06-X, 2004; Kjellman, Erik, *From 2D to 3D - A photogrammetric revolution in archaeology?*, Faculty of Humanities, Social Sciences and Education Department of Archaeology and Social Anthropology University of Tromsø, 2012; Liritzis, F.M. Al-Otabi, P. Volonakis, A. Drivaliari, *Digital technologies and trends in cultural heritage*, Mediterranean Archaeology and Archaeometry, Vol. 15, No 3, 2015; Rami AL-Ruzouq, *Photogrammetry for Archaeological Documentation and Cultural Heritage Conservation*, Special Applications of Photogrammetry, ISBN: 978-953-51-0548-0, 2012

IDR III / 1, 11

1. Descrierea generală: Alteze vechi (stabilizată).
2. Material, tehnologie: conglomerat calcaros, densitate de rășină mare; realizat.
3. Stare de conservare: piesa fragmentară, se păstrează doar ceea din partea dreaptă, piesa fiind foarte uzată și roșie în culoare.
4. Dimensiuni: 50 x 46 x 53 cm, lăţime) - 5 cm.
5. Descriere: aluat este de mică dimensiune, modelul cherestelii clădită inscripţionată schematic sculptată;
6. Inscripţie: Inscr. Epigrafice Muzeei - Dolicehroni - Qumana Peroniului - Novara (Profesorul - colobran V Galbonni) viciu pisanu)
7. Trădătorii literari: La. Ingulter col ban si mare, imuniti ul Dolicehroni il pune acrasa ofrandu Quimno Peroniua Novara, preferen colobran a Va de gal.
7. Loc de descoperire: Pajpina carbanca. Pasa a fost salvata de capitaniul portului Moldova Veche M. Gropozia; valdun acrasa va dusa in anul 1900, colobran de amatori Moldova Banatului Timisoara.
8. Observatii cronologice, analogii: imnulele acestui carand este foarte cunoscut pentru ca mai tarziu s'ingur.