



**CD-ETA**  
Interreg Europe



European Union  
European Regional  
Development Fund

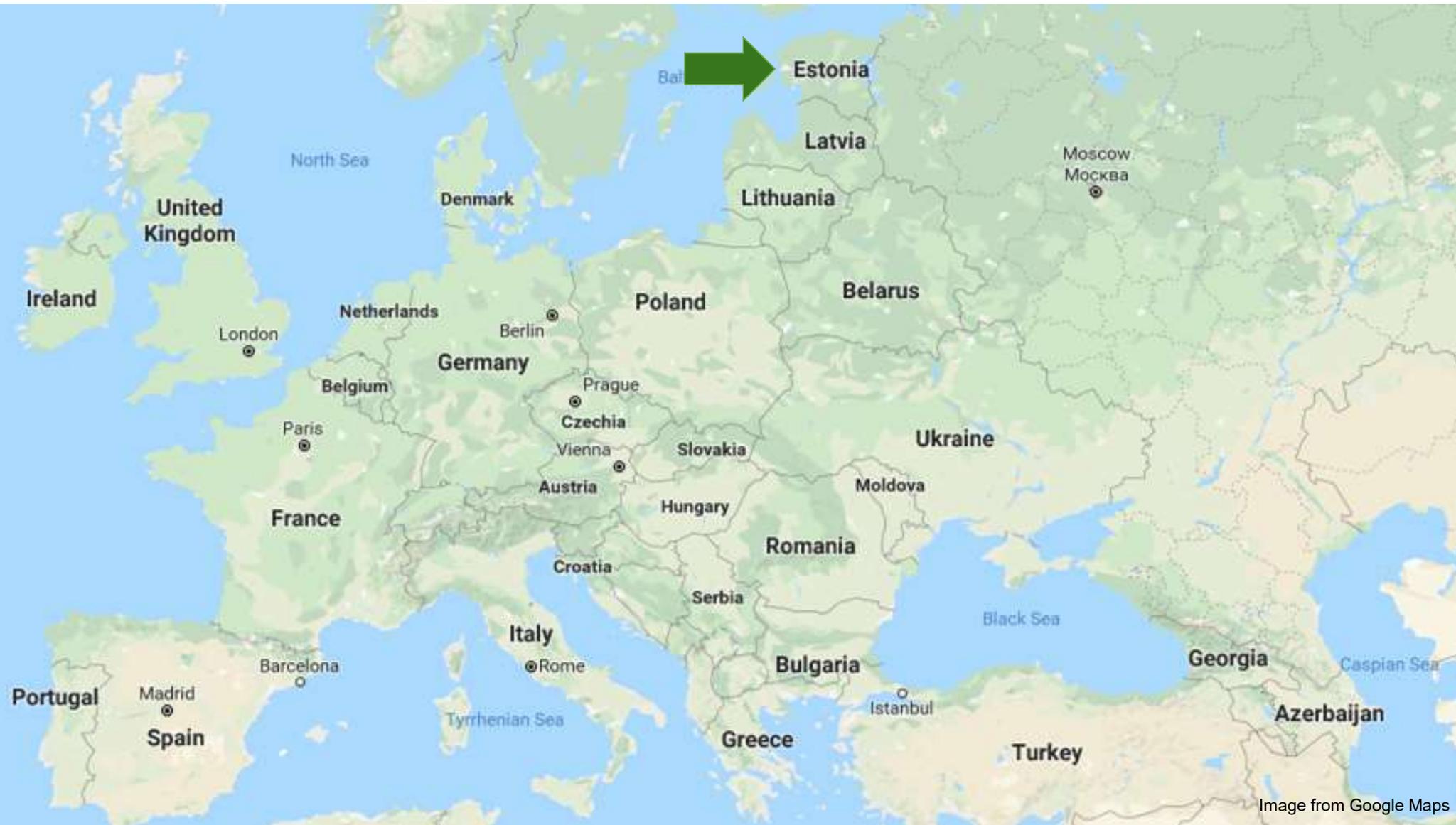
# Digitisation of Monuments and Archaeological Sites in Estonia

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University of Tartu

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Estonian War Museum –  
General Laidoner Museum

CD- ETA PROJECT INTERREGIONAL TRAINING WORKSHOP  
March 14-15, 2018, Greece

# Where are we from



# National registries

## National registry of cultural monuments *register.muinas.ee*

Kultuurimälestiste riiklik register

Mälestised

2615 Kultusekivi, I a- tuh. e.Kr. - I a- tuh.

Mälestise nimi: Kultusekivi, I a- tuh. e.Kr. - I a- tuh.

Mälestise vana number: 1980

Mälestise registri number: 2615

Registreeritud: Kinnimälestis

Arvel: 08.04.1997

Registreeritud: 08.04.1997

Määrused ja käskkirjad (1)

Inspekteerimised (2)

Address (3)

## Estonian Museum Information System *muis.ee*

Museums Public Portal

Home Search Objects Minu Lugu Wiki

Museums Public Portal is the online gateway to Estonian museums, giving everybody an opportunity to study the collections of the museums that have joined the system.

Learn about museum objects by using the search engine or browsing the collections by museums. The wiki is an exciting feature for those with a deeper interest in history.

Share your knowledge and experiences by posting on My Story. For the complete and best experiences, you are welcome to visit the museums!

Latest updates

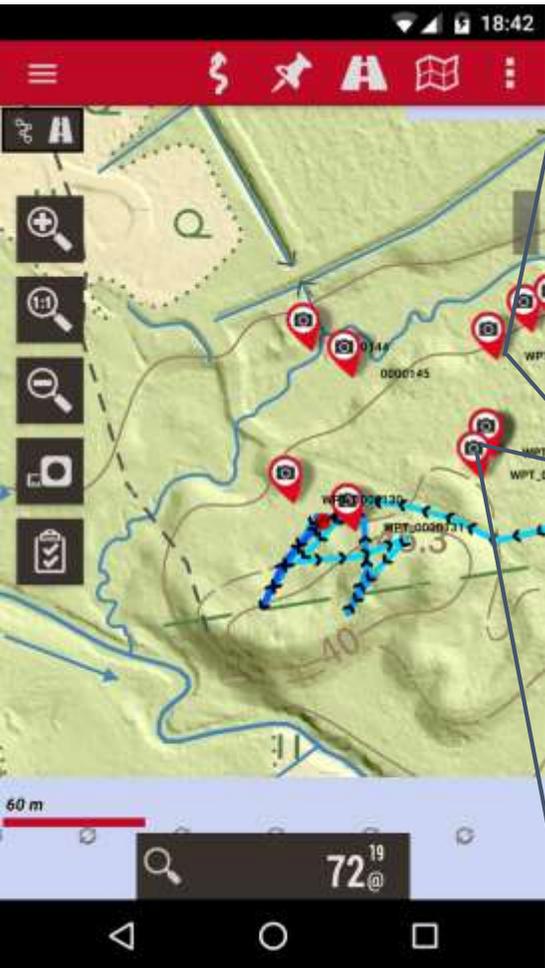
"Kaarepõli "Juhan Liiv-125"" (LM F 4788:1 Fo 772), Liivi Muuseum

"raamat" (ESM Fo 3392:12 R 13344/D-1404), Eesti Spordi- ja Olümpiamuuseum SA

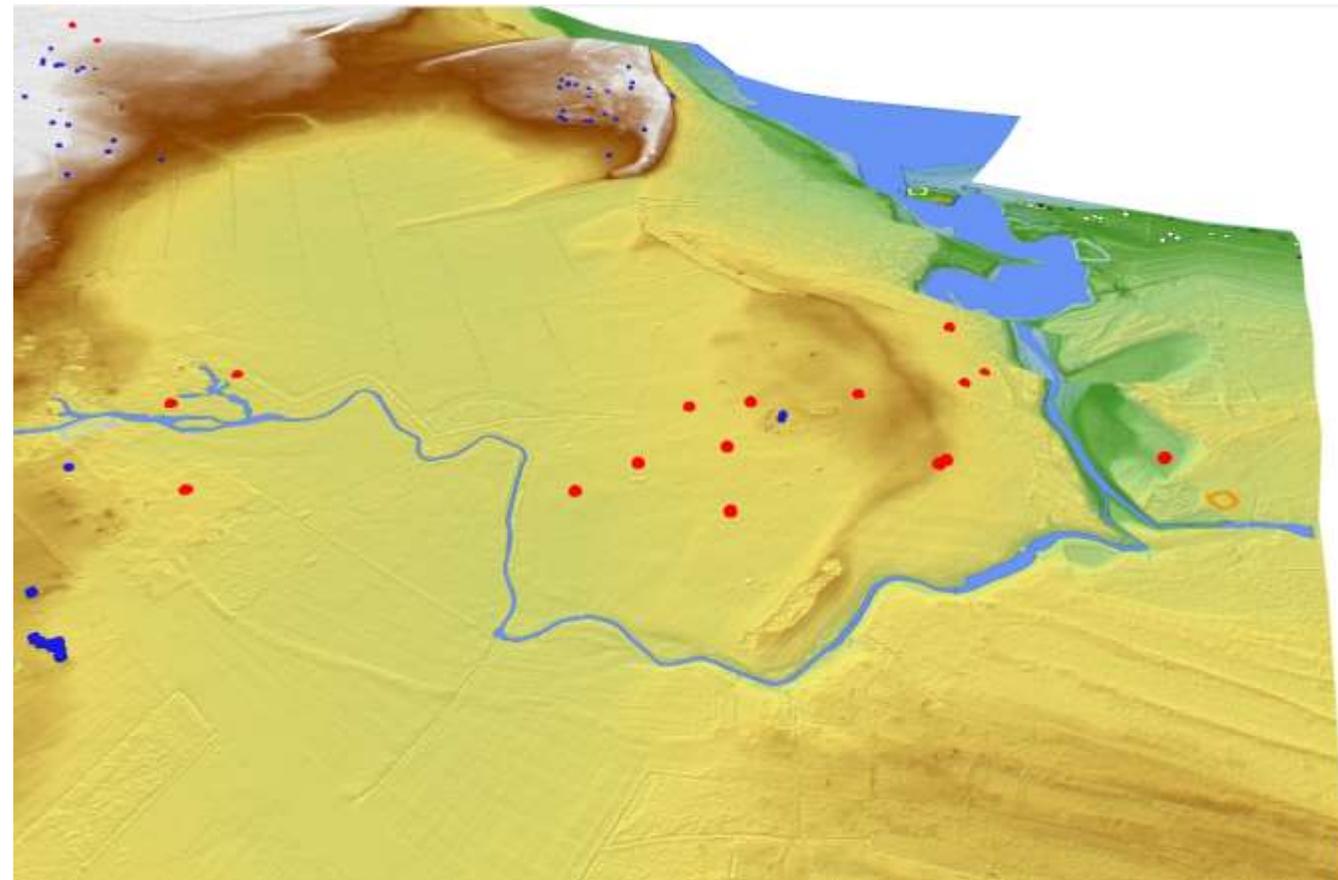


# Digital tools at the archaeological fieldwork

Smartphones and GPS used for documentation on the field



Sites and digital elevation map in 3D of Rebala Heritage Reserve



# Rescue excavations

Excavations prior/during construction work in Tartu



Cellar of a 14th century merchant house in Tartu



# Some examples

Bronze Age cup-marked stone



Medieval aqueduct in Tallinn



Model by Ragnar Saage / University of Tartu

# Cup-marked stone at Tallinn Airport

Recording cupstone using laser scanning, photogrammetry and Reflectance Transformation Imaging

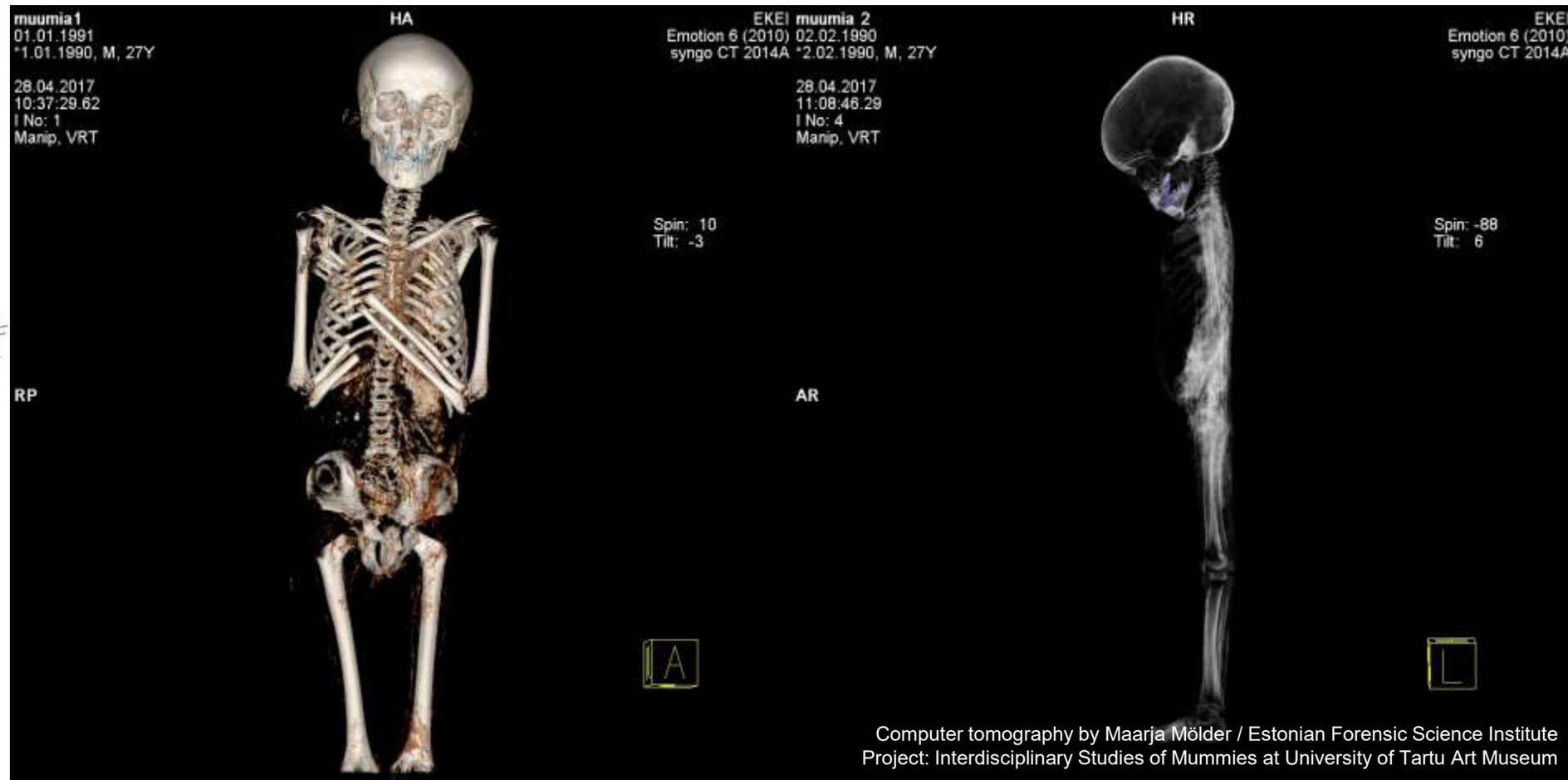


# Mummies of University of Tartu Art Museum

Two mummies of boys from 4th - 2nd century BC at University of Tartu Art Museum



Model by Ragnar Saage / University of Tartu



Computer tomography by Maarja Mölder / Estonian Forensic Science Institute  
Project: Interdisciplinary Studies of Mummies at University of Tartu Art Museum

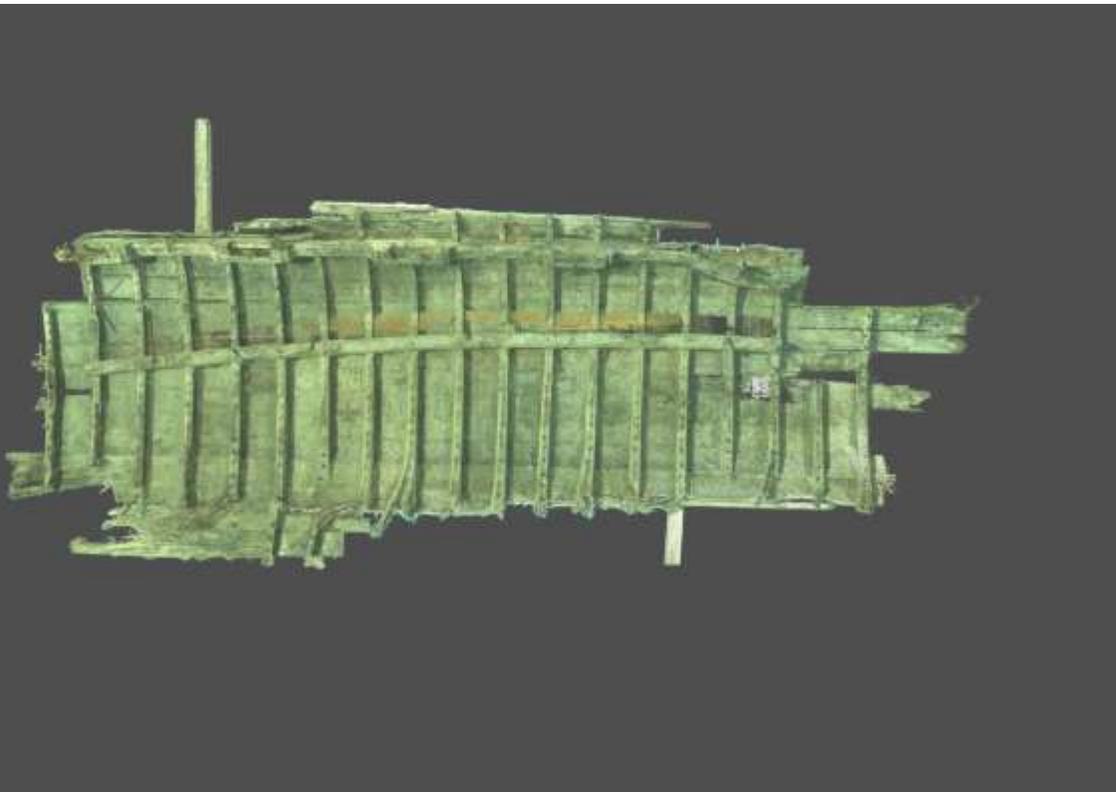
# Crowdsourcing: Ajapaik

ajapaik.ee

The screenshot shows the 'ajapaik' website interface. At the top left is the 'ajapaik' logo. To its right is a navigation bar with the text 'Pictures from the map', a search bar containing 'Search pl', and several icons (a grid, a book, and a plus sign). On the far right of the navigation bar are social media icons for Facebook, information, and a user profile, along with the text 'EN'. Below the navigation bar is a grid of eight historical photographs of ancient Greek ruins. Each photograph has a caption in Estonian at the bottom. The first row contains four images: 1. 'Antikaja varemete vahel Ateenas' (Among the ruins of ancient Athens), 2. 'Vene meremehed suundumas Akropoli templi ...' (Russian sailors heading towards the Acropolis temple ...), 3. 'Vaade Akropollile Ateenas' (View of the Acropolis in Athens), and 4. 'Antikaja templi varemete vahel Ateenas' (Among the ruins of an ancient temple in Athens). The second row contains four images: 1. 'Kreeka. Ateena. Vaade Erechtheloni ja Parthenoni...' (Greece. Athens. View of the Erechtheion and the Parthenon...), 2. 'Acropolis, Propylaea and Erechtheum', 3. 'Erechtheum, Porch of Caryatids', and 4. 'Parthenon from the Northwest'. The bottom of the page features a decorative bar with yellow, blue, and green segments.

# Shipwrecks

Recording (inland) shipwreck using laser scanning and modelling techniques



# Ackermann project

Documenting the works of Christian Ackermann - the sculptor from 17th century

[www.ackermann.ee](http://www.ackermann.ee)

The screenshot displays the website for Christian Ackermann, featuring a navigation menu with 'Elulugu', 'Looming', 'Projektist', and 'Blogi'. The main content area includes a map of Estonia with markers for Ackermann's work locations, a gallery of altarpieces from 1693, 1696, and 1697, and a detailed view of the Tallinn Toomkiriku altarpiece. The detailed view shows a close-up of a sculpture with a crown of thorns, accompanied by a list of figures and a legend.

**Christian Ackermann**  
TALLINNA PHEIDIAS, ÕLBE JA ANDEKAS

Elulugu **Looming** Projektist Blogi

Ackermannile omistatud 1600de asukohad

Tallinn  
Hager  
Juuru  
Rapl  
Martin  
Libul  
Karuse  
Märjasteen  
Vigala  
Türi  
Järva-Madise  
Kocru  
Simuna

Ackermannile omistatud tööd

1693 Türi kiriku altarpiece

1696 Tallinna toomkiriku altarpiece

1697 Karuse kiriku altarpiece

**Tallinna toomkiriku altarpiecein / detailid ja uuringud**

Altarpiecein

Kristus Võitmatu

Apostel Paulus

Apostel Peetrus

Evangelist Johannes

Evangelist Matteus

Evangelist Markus

Evangelist Luukas

Maarja Magdaleena

Ingal

1 / 5

FOTO

3D MUEEL

RÖNTGEN

ULTRAVIOLET

INFRAPUNA

VÄRVIK.

UURINGUD

**Tallinna toomkiriku altarpiecein**

Tallinna toomkiriku barokne altarpiecein valmis 1696. aastal, pärast kiriku sisustuse hävimist suures Toompea tulekahjus 1684. aastal. 1866. aastal ehitati altarpiecein põhjalikult ümber ning värviti üle. Selle tulemusel kaotas Eesti uhkeim ja tugevaima ikonograafilise programmiga barokk-retaabel oma algse mõju.

> Loe lisaks

Ikoonograafia:  
Kristus Võitmatu

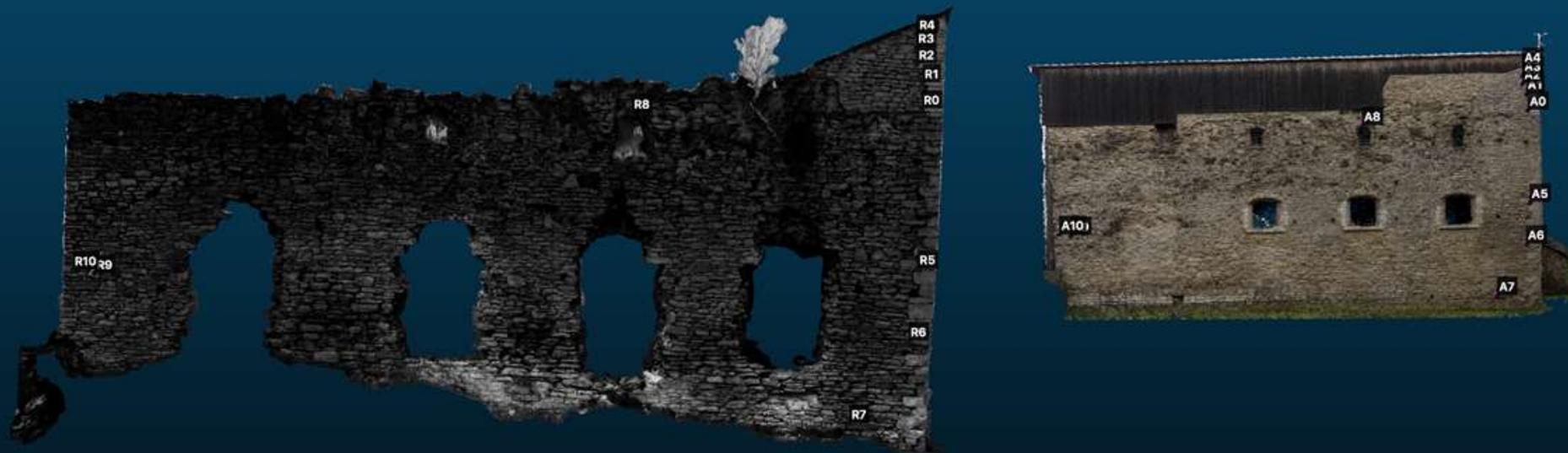
# Analogue to Digital Photogrammetry

**Pilot project to digitise and process photogrammetric glass plate negatives and re-use the digitised material to create digital photogrammetric model**



# Analogue to Digital Photogrammetry

Comparing two photogrammetric surveys of Padise Abbey: 1991 (K. Pärtna) & 2017 (Archaeovision)



# Conclusions

- ❑ Data-bases
  - ❑ No official requirements and policies
  - ❑ Open access
- ❑ Documentation tools/methods
  - ❑ Photogrammetry
  - ❑ Laser scanning
- ❑ Future perspectives/plans/needs
  - ❑ Digital data archiving
  - ❑ Metadata requirements

# Thank you for your attention

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