Digital photogrammetry used for the 3D reconstruction of the walls around the acropolis of Titani (Greece)

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Introduction

- Monitoring and managing the site
- Photogrammetric documentation
- DEM – Orthophotomaps
- 3D reconstruction (CAD)
Workflow

- Field work
  - total station
  - non-metric camera

- Photogrammetry
  - VirtuoZo™ v3.3
  - abs orientation < 1 cm
  - editing procedure

- 3D reconstruction with orthophotos in CAD
Coordinate transformation

Image Matching

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Virtual 3D reconstruction

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Virtual 3D reconstruction

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Conclusions

- Accurate metric documents

- Difficulties photogrammetric process
  non-ideal recording points
  insufficient contrast
  scale differences

- Absolute orientation < 1 cm

Contacts

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