When
Course 2D: 04-08 July
Course 3D: 11-15 July
The courses will have a duration of 40 contact hours in the following schedule: 09h00 - 13h00, 14h00 - 18h00

Where
University of Evora, Palácio do Vimioso, Largo Marquês de Marialva, n°8, 7000-809 Évora (Portugal).

Registration
Registration should be made through the CHRONOS website (http://www.chronos.uevora.pt/67), from 4th to 30th of April.

Number of participants
15 to 20 participants.

Price per course: 200€.
If it will not be possile to meet the minimum number of participants, the organization reserves the right to cancel the course, proceeding to a full refund of the amount paid, without loss to the participants. In case of cancelation or absence by the participant, the amount will not be refunded.

Teachers
Course 2D: Dr. Luca Bezzi
Course 3D: Dr. Alessandro Bezzi

Official Language
The courses will be taught in English.

Fotografies: http://arc-team-open-research.blogspot.it

ADDRESS

University of Evora
Palácio do Vimioso
Largo Marquês de Marialva, 8
7000-809 Evora
Portugal

RESPONSIBLES

Carlo Bottaini
(CIDEHUS/HERCULES, Universidade de Évora)

Rui Bordalo
(HERCULES/Universidade de Évora)

CONTACT

email: chronos@uevora.pt

www.chronos.uevora.pt

CHRONOS
Cultural Heritage Research ON Digital
Documentation for Safeguard and Sustainability

Training on

Digital Open Source Technologies Applied to Cultural Heritage

UNIVERSIDADE DE ÉVORA   CIDEHUS   LABORATORIO HERCULES
HERANÇA CULTURAL ESTUDOS E SALVAGUARDA

ARC-TEAM ARCHAEOLOGY   COMPETE 2020   PORTUGAL 2020   FCT Fundação para a Ciência e a Tecnologia

PRESENTATION

The first edition of the Digital Open Source Technologies Applied to Cultural Heritage training will take place in the first half of July. The training is organized by the Centro Interdisciplinar de História, Culturas e Sociedades (CIDEHUS) e HERCULES Lab (University of Evora).

The training is organized into two courses:

2D documentation Methodologies with Management through GIS

3D Documentation Methodologies

The two courses will have both theoretical and practical classes and are preferentially oriented towards students and professionals with training in the fields of Archaeology, History, Architecture, Art History, Museology, Conservation and Restoration, and Multimedia, as well as experts who are involved in Digital Technologies applied to Cultural Heritage.

From a transdisciplinary point of view, the training aims to combine the knowledge of the material culture of our past with technology and innovation. The courses are designed to introduce the participants to the concepts of Open Source and to acquaint them with the use of open source software as a resource for documentation, dissemination and exploitation of Cultural Heritage.

2D DOCUMENTATION METHODOLOGIES WITH MANAGEMENT THROUGH GIS

PROGRAM

1. Introduction to GIS projected and geographic coordinate systems; **2.** Introduction to QGIS; **3.** Raster, vector and database concepts, with practical exercises; **4.** Photomapping in QGIS. Geo-referencing and photo correction. Equalization of photomosaic in GIMP; **5.** Vector drawing and printing; **6.** Database creation and introduction to the query; **7.** Documentation of buildings and structures sections.
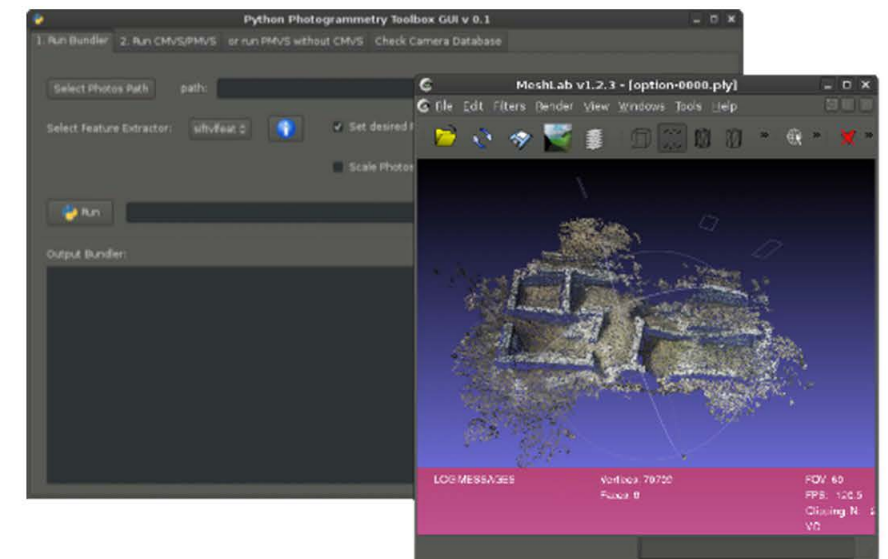

WHAT YOU WILL LEARN

At the end of the course, participants will be able to perform georeferenced photomosaic plans, sections, and building facades.

3D DOCUMENTATION METHODOLOGIES

PROGRAM

1. Introduction to 3D documentation by photogrammetric techniques; **2.** Image acquisition techniques; **3.** Introduction to the concepts of Structure from Motion and Bundler software CMVs and PMVS2; **4.** Python Photogrammetry Software Toolbox, MicMac and openMVG with practical exercises; **5.** mesh editing, with MeshLab and CloudCompare software; **6.** Return of metric values to the model created through mesh editing software; **7.** Model optimization for online publication; **8.** Publications on 3D platform (3dhop, sketchfab, etc.); **9.** Introduction and comparison with the 3D Laser Scanner survey (objects and structures).

WHAT YOU WILL LEARN

1. 3D reliefs with digital images; **2.** Reduce and georeferencing the obtained relief; **3.** Develop the 3D model; **4.** Post-processing treatment.