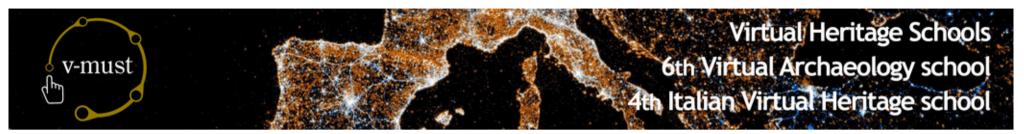# Call for Participation
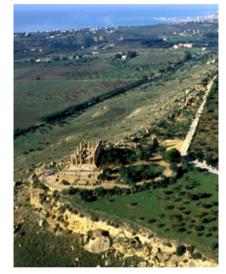## 2014 Virtual Heritage Summer School: Virtual Archaeology

The **4th Virtual Heritage School / 6th Virtual Archaeological Summer School** is held in the astonishing location of the Temples Valley in Agrigento (Sicily), from the **14th until the 26th of July.**

In two weeks, young carrier researchers and professionals will learn how to **acquire** and **process 3d digital** datasets (hands on will be carried out directly in the archaeological park) and **landscape data** and to produce real time **Virtual Reality** application for **on line** use and on site **museum installations**.

The school is organised by **Italian National Research Council (CNR ITABC and ISTI)** and **V-MUST.net** (www.v-must.net) in cooperation with the Archaeological Park (Parco Valle dei Templi di Agrigento).

20 applicants are selected through a competitive call. To best 10 students will be offered free accomodation.

Location: Sicily -Temple Valley (Parco della Valle dei Templi di Agrigento)

Period: 2 weeks (14-26 July 2014) / 80 hours

Number of applicants: 20

Eligibility conditions: Batchelor Degree (Laurea triennale) or Master's Degree (Laurea specialistica)

Deadline: 06/05/2014

Fee: 500 Euro

How to apply: fill in the application form (http://www.v-must.net/schools/italian-virtual-heritage-school/applicatio-form)

web: www.archeologiavirtuale.it

mail: info@archeologiavirtuale.it

PROGRAM

> Mon 14/07

Introduction to the "Valley of the Temples" Archaeological Park ; Introduction to virtual heritage (virtual archaeology e virtual museums); Introduction to Computer Graphic; Introduction to Archaeological Landscape; GPS - GNNS and data postprocessing

>Tue 15/07

Survey in the Valley of the Temples (laser Scanner, SFM and spherical photogrammetry)

Introduction to 3D Scanning (Triangulation and TOF systems); Scanning pipeline: from raw data to a 3D model, raw data cleaning, 3D data alignment

>Wed 16/07

Scanning pipeline: from raw data to a 3D model, raw data cleaning, 3D data alignment

Colour processing (1): acquisition, photographic alignment, color mapping, texturing

Introduction to Photogrammetry and Dense Image Matching (Commercial solutions)

>Thu 17/07

3D From Images: basic principles, available software solutions; Introduction to Drones and UAV systems; 3D From Images: post-processing

>Fri 18/07

Color processing (2): acquisition, photographic alignment, color mapping, texturing

Digital Libraries on web: HTML5, WebGL, SpiderGL library, basic examples

Web publication: V-MUST technologies: 3DHOP / Model Convert

>Mon 21/07

3D reconstruction for research and cultural heritage Dissemination; Designing a virtual reconstruction: 3D reconstruction workflow (Tools, expertise, pipeline); 3D Reconstruction and Visualization with Blender: introduction and user interface

>Tue 22/07

3D Reconstruction lab: 3d modelling and texturing; 3D Reconstruction laboratory: shading and lighting; 3D Reconstruction laboratory: rendering and animation

>Wed 23/07

Virtual Landscape: introduction to GIS; Tutorial GRASS; Tutorial QGis

>Thu 24/07

From GIS to 3D landscape reconstruction: examples and case studies; On-line e Real-Time applications: OpenSceneGraph, OSGdem, OSG4WEB; On-line / Real-Time apps

>Fri 25/07

Sum up: Virtual Museums state of art and V-Must experience; V-Must Case study: Virtual Museum of Survival Tool; Wrap up, projects evaluation and conclusions

INSTITUTIONS

Consiglio Nazionale delle Ricerche

ITABC

Istituto di Scienza e Tecnologie dell'Informazione
Consiglio Nazionale delle Ricerche

Fraunhofer
IGD

Faculty of Electrical Engineering
Sarajevo

valle dei templi

INSTRUMENTS

DGPS
Laser Scanner
Digital Cameras
Drones

SOFTWARE

GRASS
Quantum GIS
MeshLab
3D Hop
Blender
Blender Game Engine
OpenSceneGraph
OSGdem
HTML5
WebGL
Metadata Editor