THE VAST PROJECT:
VALORISATION OF HISTORY & LANDSCAPE
FOR PROMOTING THE MEMORY OF WWI


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- Trentino’s region used to belong to Austrian-Hungarian Empire at the end of 19th century
- Italian Kingdom wanted to conquer the area
- Many military fortifications, trenches, tunnels very built all along the borders
- 1914 “outbreak of WWI”
- 1918 end of WWI and Trentino becomes Italian
The VAST project

- 1930’s Fascism law “Iron to the Motherland” and most fortifications are further damaged
- Nowadays most of the WWI military constructions are ruined and risk to disappear
- Needs of documentation, conservation, restoration and valorization
- Establish a multi-disciplinary project in occasion of the 100th anniversary of WWI
AIM OF THE PROJECT

- **VAST** – Valorization History and Territory

- **Keywords:**
  - **documentation:** 3D recording of actual architectures
  - **conservation & restoration:** preserve what is left to hand it down to the young generations
  - **valorization:** educate, promote cultural tourism…not to forget

- **3D surveying of fortifications, tunnels, military objects**

- **Virtual tours (panoramic images)**

- **webGIS of forts localizations, trenches, fronts of the war, etc.**

- **VR/AR** to better communicate and involve the young generations

- **Involvements of high schools for educational purposes**

- **R&D activities:**
  - new methodology to integrate reality-based data and digitized maps
  - mass digitization of war artefacts
  - web-publications of the results
  - test new surveying methods for complex architectures
  - realization of innovative products for communication purposes
- Digitization of historical maps
- CAD modeling
- Topography / GNSS
- Terrestrial and UAV photogrammetry
- Panoramic images
- Terrestrial / handheld laser scanning
- WebGIS
- Online point-based visualization
- VR / AR
Digitization and rectification of badly conserved 100 years old drawing and CAD modeling.
Testing and evaluation of new surveying technologies
Supervised classification and segmentation of point clouds

http://3dom.fbk.eu/repository/3Dpointclouds/celva/index.html
2D and 3D webGIS for sharing information and communicating history
- integration of heterogeneous data and information
- fort locations
- visibility analyses
- ranges of bombing
- cultural itineraries

- VR / AR tools for communication and dissemination purposes
  - re-photographing
  - immersive and queryable virtual tours of the fortifications
  - QRcode-based access to surveyed underground structures
  - mobile app to super-impose 3D fortification on top of the actual monuments
3D MODELING PRODUCTS

Verle fort

Dosso delle Somme fort
Sommo Alto fort

Cherle fort or Werk Sebastiano
- Developed standard procedure for metadata / paradata collection and publication
- Data available as Creative Commons - Attribution, Non-Commercial, No Derivatives (BY-NC-ND)
The VAST project has provided a timeless rebirth to the memory of WWI in the area around Trento, Italy.

The considered WWI places and items have been digitized, enriched and empowered with new meaning thanks to the exploitation of 3D & ICT digital technologies.

Communication material, based on 3D reconstructed scenes and objects, allow to disseminate cultural information and to reach also young generations.

Valorization project involving local authorities, citizens and schools/students.

Heritage projects needs interdisciplinary teams, everyone bringing its expertise and knowledge.
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