

THE EL ALAMEIN PROJECT

Project for the Preservation of the El Alamein Battlefield
(Egypt, 1942)



Embassy
of Italy in
Cairo



Padova
University



THE EL ALAMEIN PROJECT

Purpose of the Project

Preserving the El Alamein battlefield area by the creation of a geographical database aimed at the historic, cultural and touristic exploitation of the sites

The following slides content a proposal for the project, to be implemented, corrected or expanded taking into consideration each contribution from participants



THE EL ALAMEIN PROJECT

The preliminary research group

Prof. Aldino Bondesan

Geologist and Professor of Geomorphology at the Padua University

Dr. Roberto Francese

Geophysics and Senior Researcher at the INOGS

Dr. Daniele Moretto

Expert in Military History and Sahara Desert

Dr. Lamberto Fabbrucci

Geologist, Expert in Military History

Dr. Nicola Petrella

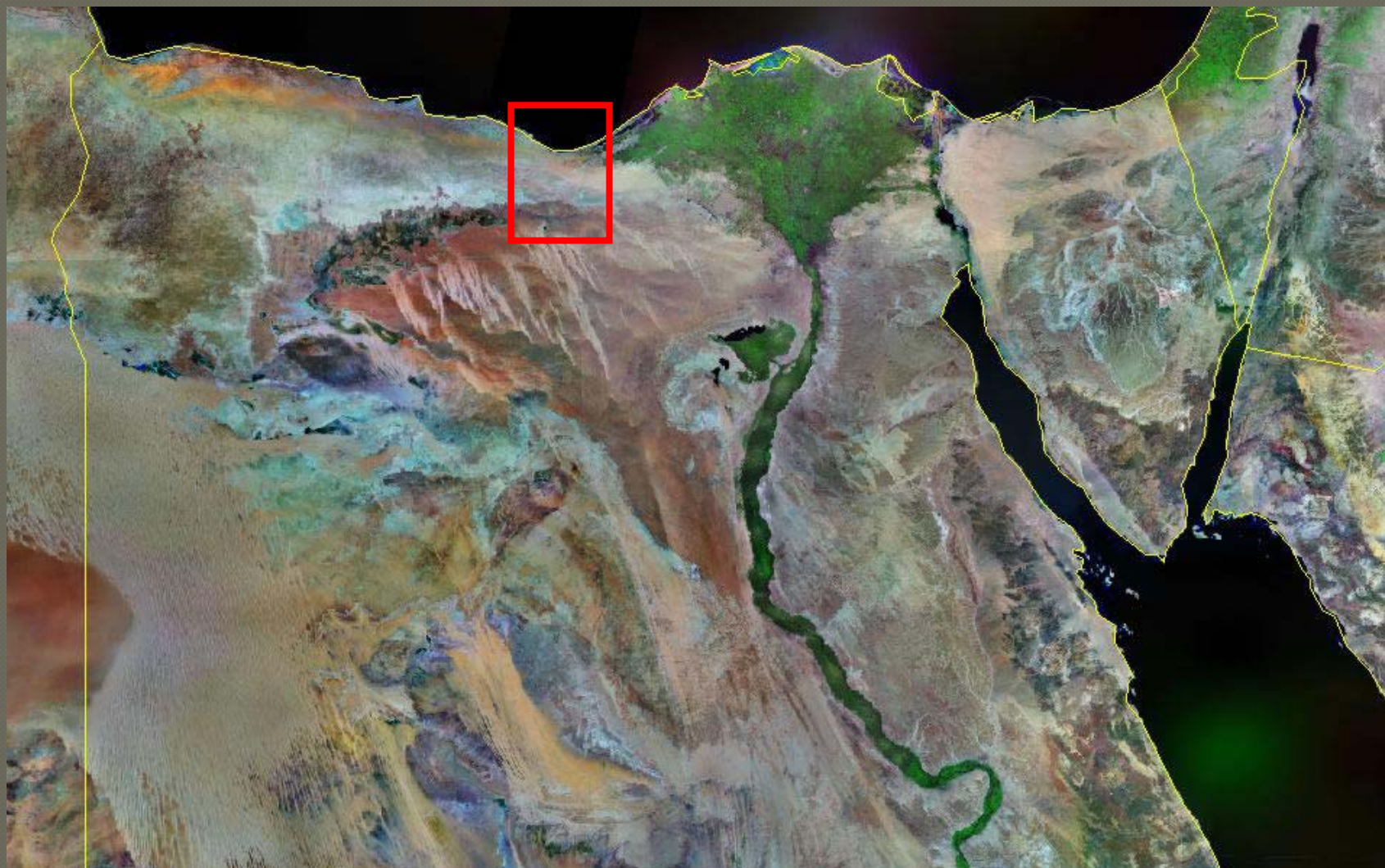
Geologist, Expert in Military History

Dr. Lorenzo Facco

Topographer, Expert in Geographic Information Systems (GIS)

Dr. Giorgio Cinti

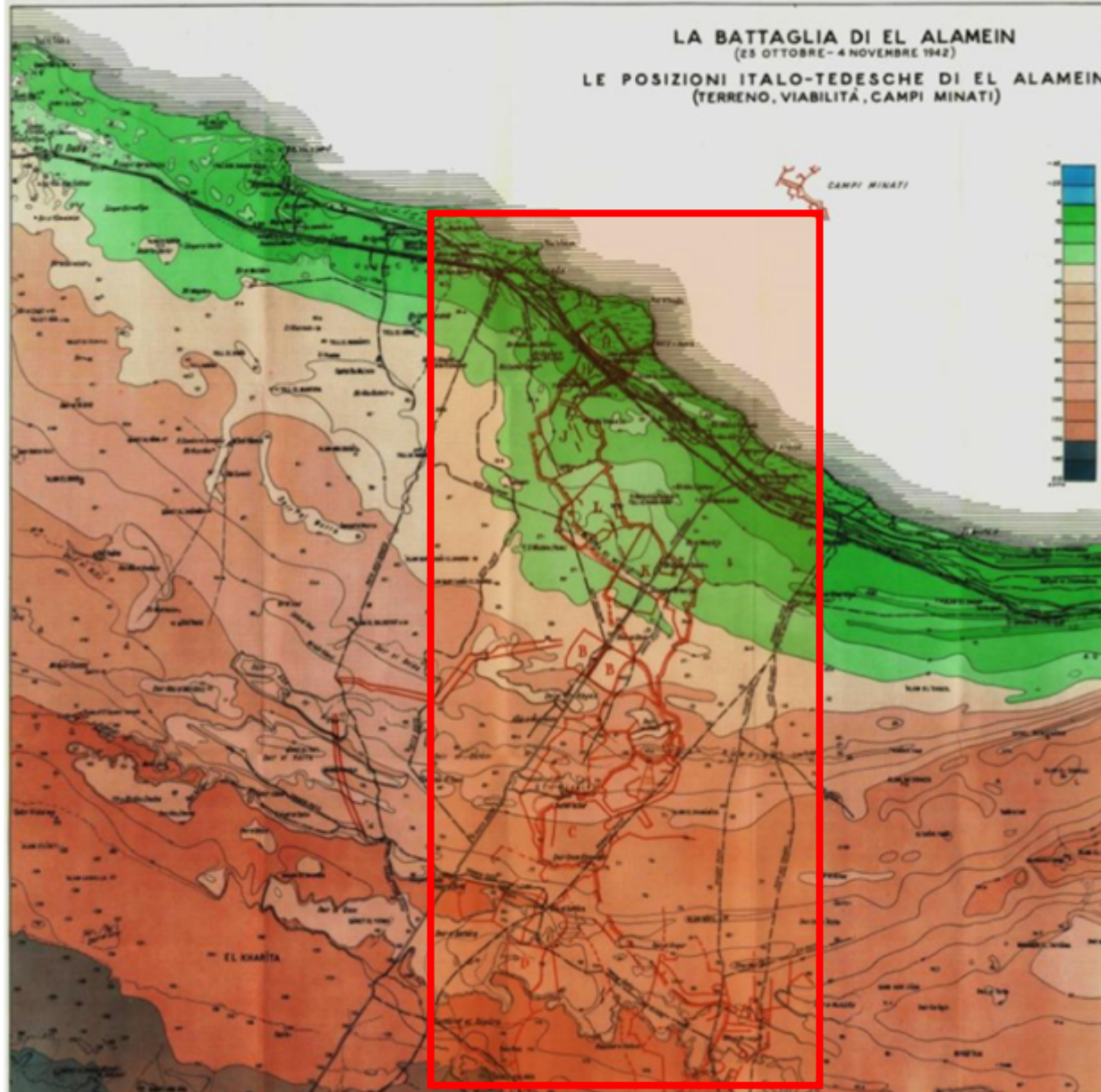
Retired NATO Officer, Expert in Military History





LA BATTAGLIA DI EL ALAMEIN (25 OTTOBRE - 4 NOVEMBRE 1942)

LE POSIZIONI ITALO-TEDESCHE DI EL ALAMEIN
(TERRENO, VIABILITÀ, CAMPI MINATI)



Reasons for the Project

- The desert stretches between El Alamein and the El Qattara Depression is interested by increasing **touristic presence**, due to international resorts development of the El Alamein coastal areas.



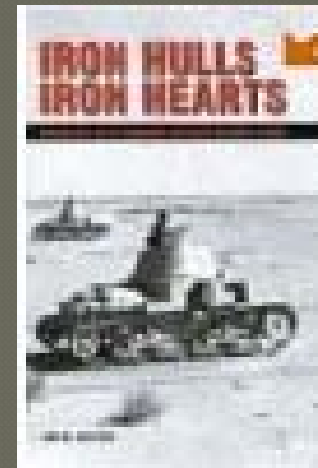
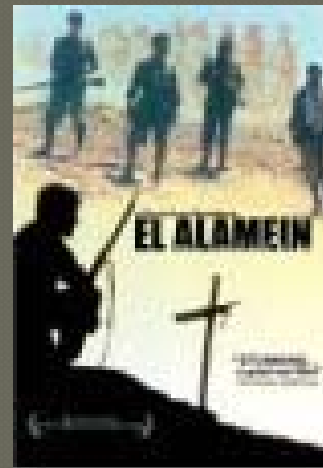
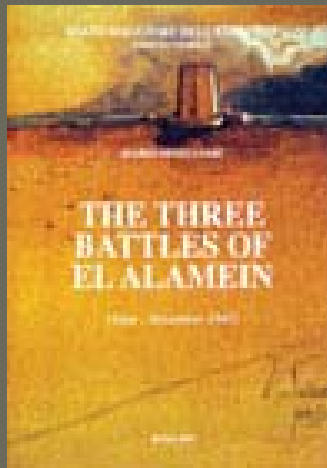
Reasons for the Project

- At the same time, **oil prospecting activities** have resulted in the spreading of new tracks, trenches and artefacts which have concerned, and in part modified, the most peculiar sites of the El Alamein battlefield.



Reasons for the Project

- ◉ At present, **no geographical research** has been performed by italian researcher (and probably by other countries) on the three battles of El Alamein.



Only historical papers

Reasons for the Project

- As a consequence, it is **urgent to survey and document** these areas before that transformation imposed over the territory shall result in the disappearing of such remarkable historical war remains.



*Recently buried
posts and
holes at Camel
Pass by road
works*

Benefits

- 1) The setting-up of a detailed and complete database of the battle
- 2) The creation of a cognitive framework for further applications (tourist exploitation of the old battlefield, museum, books...)
- 3) The creation of a international working group (and funds raising)
- 4) Development of the geomorphological research in the area
- 5) International programmes of exchange for professors and students (research projects, PhD students etc)
- 6) Application: open air war museum

Geographical Information System

The GIS shall include:

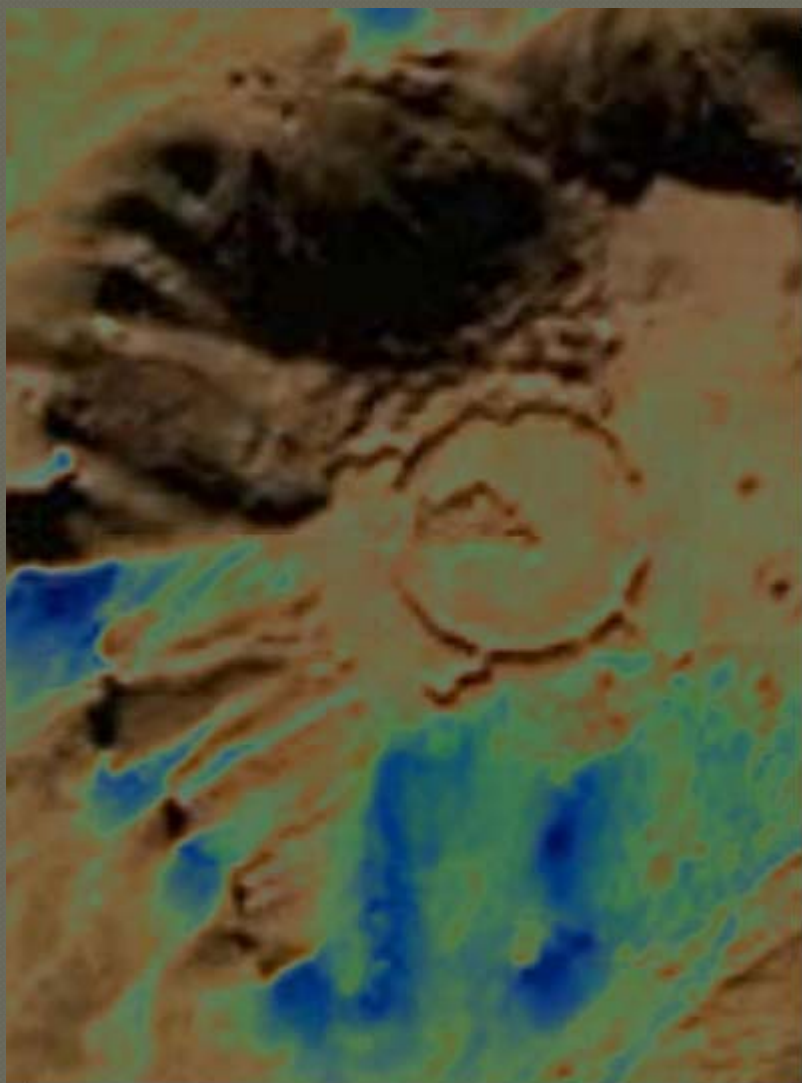
- **1942 Aerial Photographs** (provided by Italian, British, German, American, French, Australian and New-Zealand military authorities; Aerofototeca Nazionale, Istituto Luce; Istituto Geografico Militare; Padua University Geography Department, Map and Aerial Photo Library; Keele University (UK) Aerial Photo Library; RAF Archives; Imperial War Museum Archives, etc.);



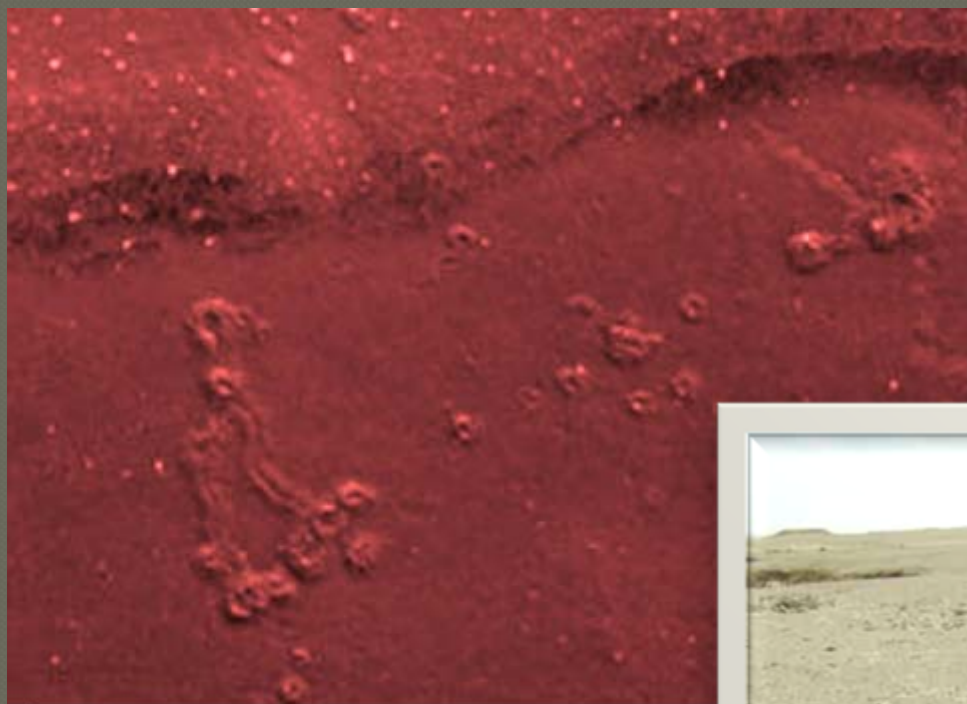
Geographical Information System

- **Quickbird Images**, both panchromatic and multi- spectral, to be specifically acquired;
- **Battle positions**, Identification, drafting and cataloguing of today's recognisable positions by arranging in categories those evidences identifiable by satellite: trenches, individual digs, artillery positions, command posts, tracks, etc;









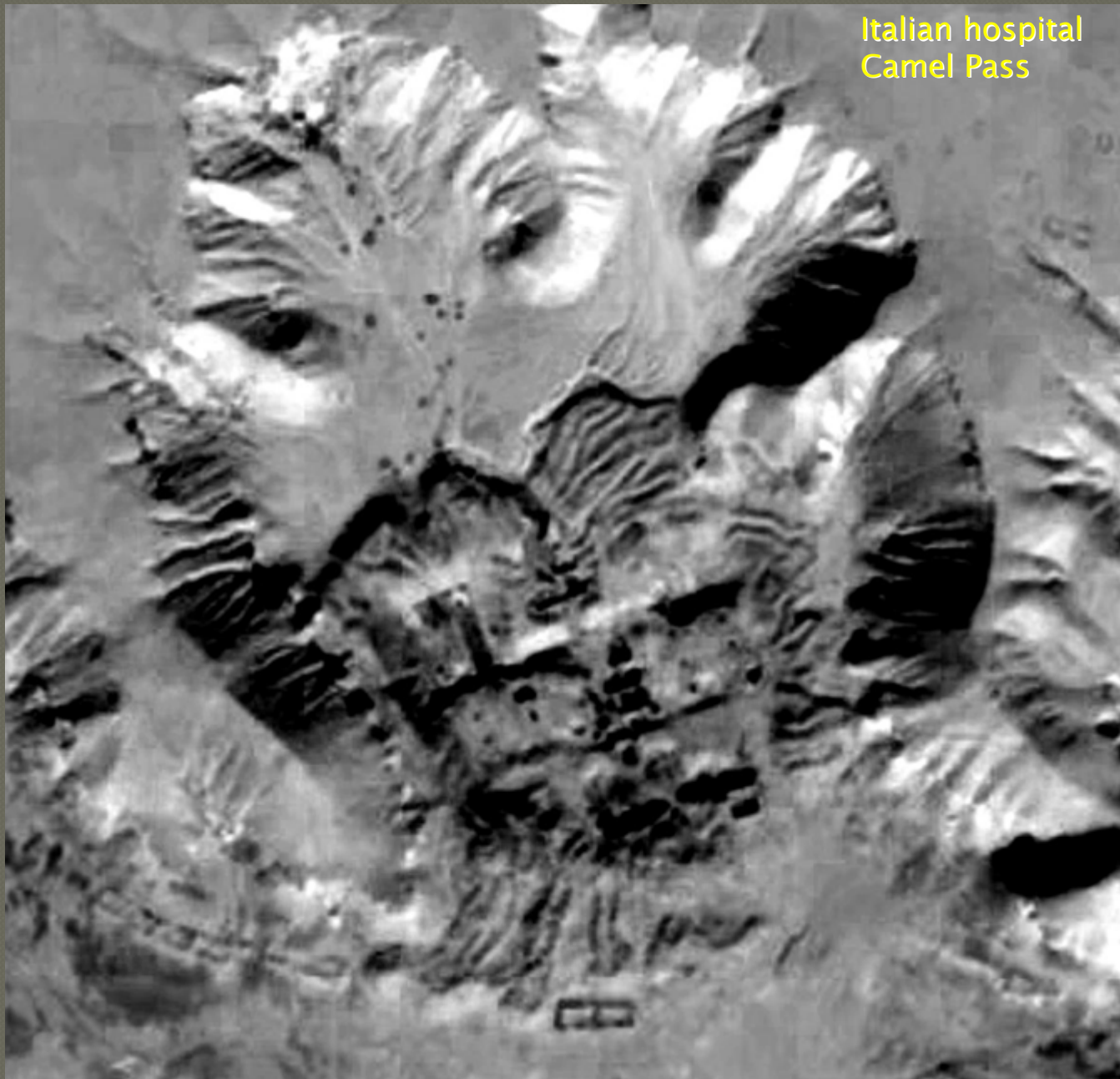








Italian hospital
Camel Pass





Italian hospital
Fort Menton

Qaret El Abd



Italian hospital

El Taqa –Camel Pass



Italian trenches – Folgore Parachute Division – Naqb Rala



Fox holes at Deir El Munassib



Artillery position at Naqb el Kadim



Artillery position at Qaret El Himeimat (on top of smaller hill)



Machine Gun position at Naqb el Kadim



Observation post at El Taqa



Machine gun posts in front of Qaret El Himeimat

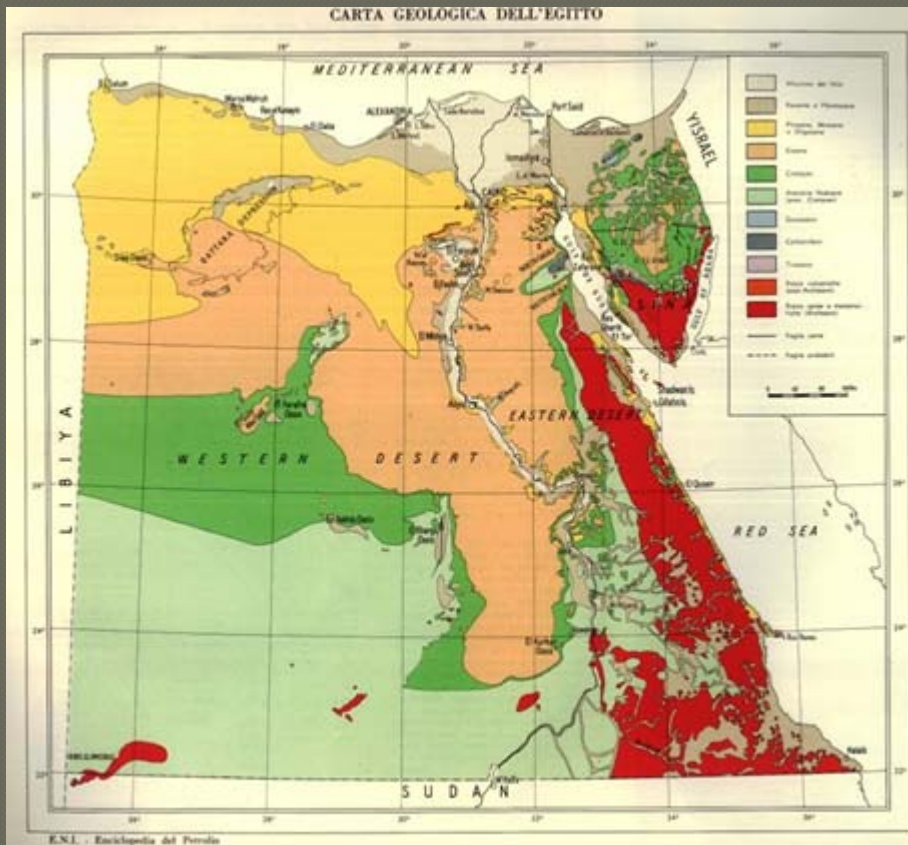


Qaret El Himeimat



Geographical Information System

- Geological and geomorphological map;

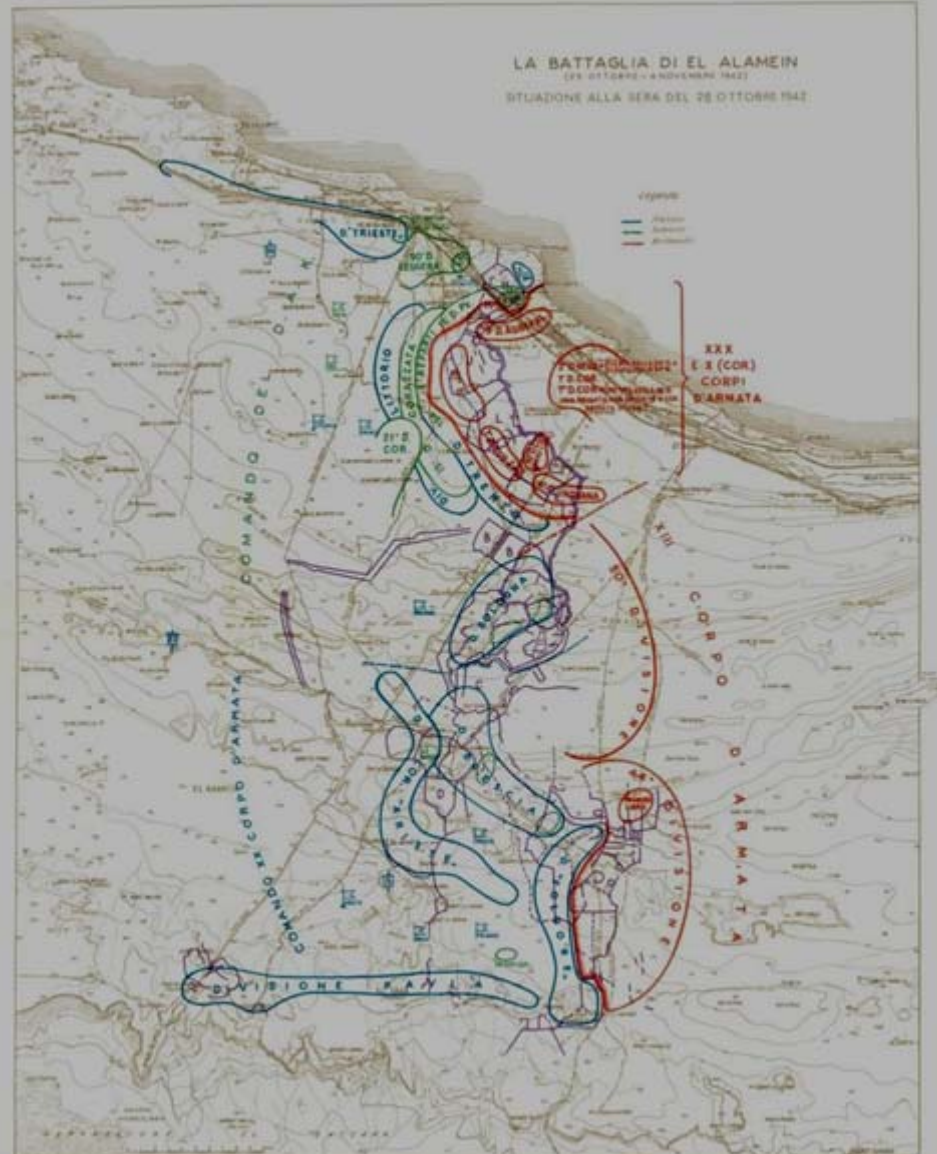


- **Geo-referenced maps of the battle** (to be derived from the vast and considerable historic and technical literature on the subject);



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SITUAZIONE ALLA SERA DEL 28 OTTOBRE 1942



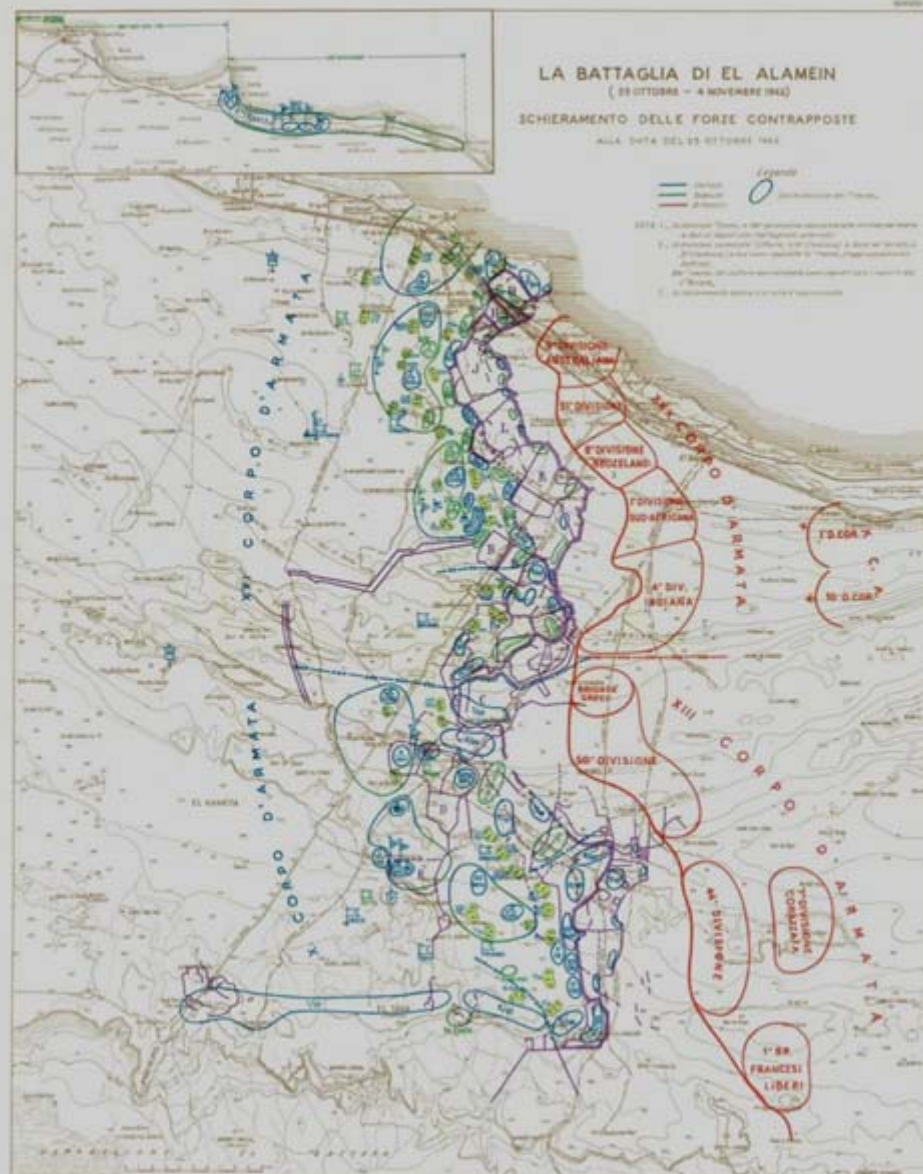


FIGURE 18.





minefields maps
derived from WWII
documents

EXPOSED AND BURIED POSITIONS LOCALISATION

- Buried positions search and identification (by **remote sensing** and **multi-spectral analysis** of Quickbird images);
- **Direct land survey**, topographic and geologic-geomorphologic surveys;
- **Geophysical investigation of buried positions** (by using geo-radar, proton magnetometer and, in case, other measurement techniques as geoelectrical tomography, electromagnetic surveys, etc.);
- **Sites archaeological excavations**
- **Georeferenced multimedia documentation** (photographs, videos, and films and pictures of the time).

Geophisycal surveys



Terravision
(Ground penetrating radar)



EM surveys

LIDAR LASER AIRBORNE SCANNER



LASER AIRBORNE SCANNER: WWI detection in Italy



LASER AIRBORNE SCANNER: WWI detection in Italy



LASER AIRBORNE SCANNER: WWI detection in Italy



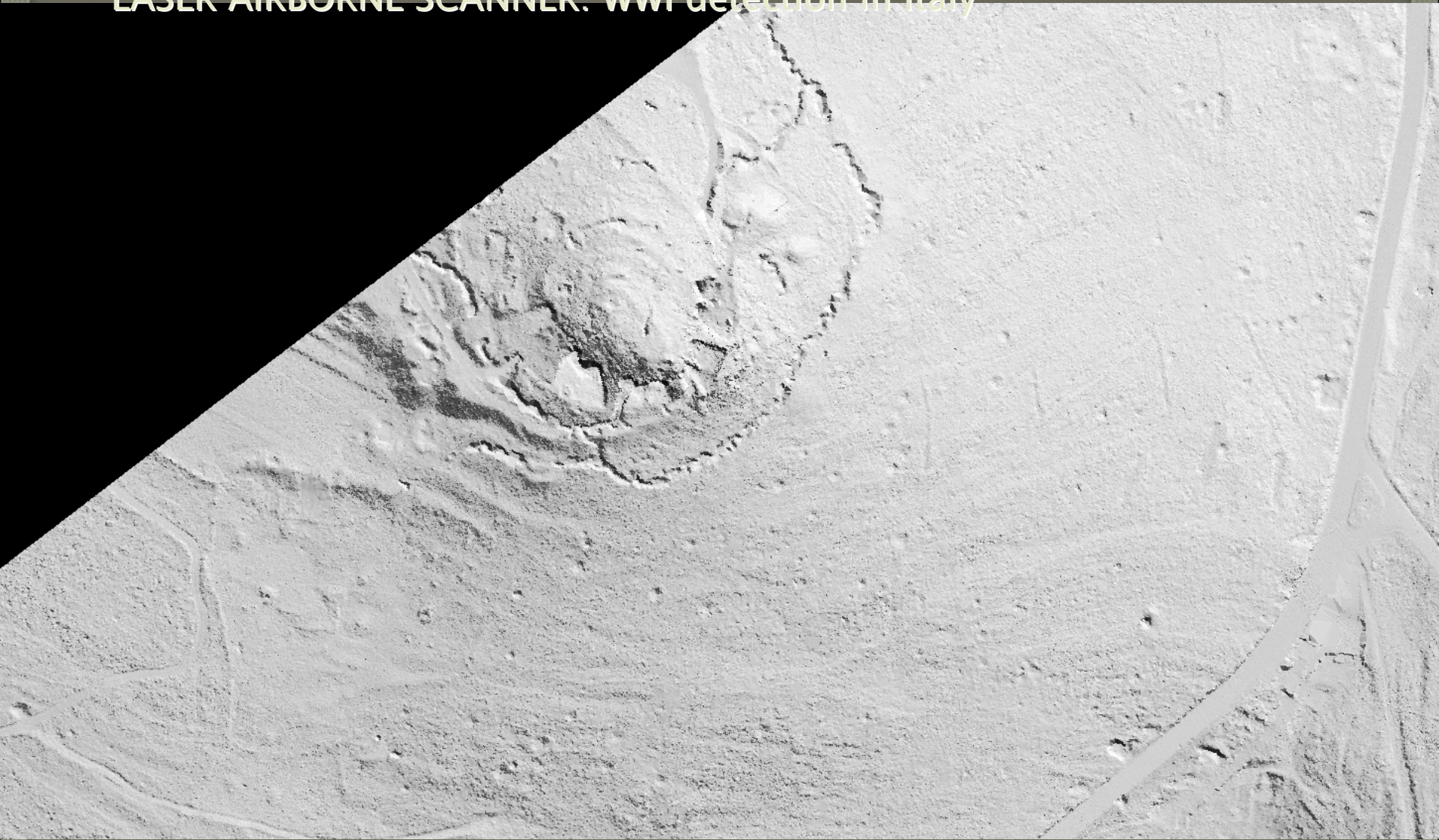
LASER AIRBORNE SCANNER: WWI detection in Italy



LASER AIRBORNE SCANNER: WWI detection in Italy



LASER AIRBORNE SCANNER: WWI detection in Italy



LASER AIRBORNE SCANNER: WWI detection in Italy



LASER AIRBORNE SCANNER: WWI detection in Italy



Future implementation

MULTIMEDIA DATA BANK (associated to the GIS):
Gathering of historical images, films, and various documentation; their scanning, geo-referencing and insertion into the GIS; production of a multilanguage Web GIS, accessible via Internet;

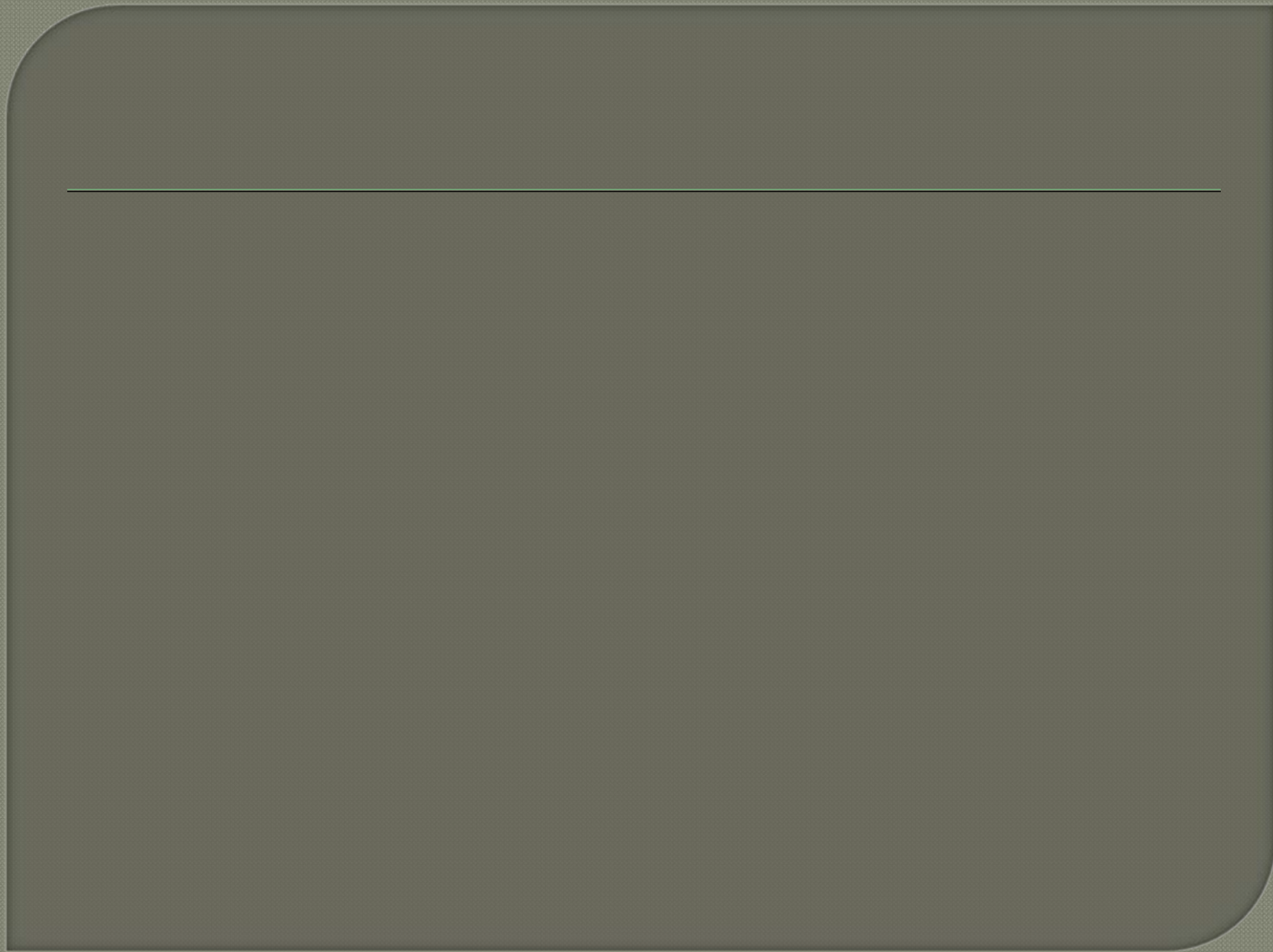
HISTORIC-CULTURAL ITINERARIES:
Utilisation of the collected material for creating guided tourist itineraries, also with the use of advanced technologies (tablet PCs and GPS traced pathways);

VIRTUAL REALITY SYSTEMS:
State-of-the-art systems for virtual-reality representation of the various phases of the El Alamein battle.

MUSEUM:
Improvement of the El Alamein Italian Sacrarium Museum and connection with the local Museum of the battle..

Agenda

- ◉ Participants at the project
- ◉ Funds
- ◉ Step in the project
- ◉ Preliminary budget

























Depressione di el Qattara



3[^]/11^o cr. "Trieste"



Battaglia di carri

































SACRARIO

MILITARE

ITALIANO

EL

ALAMEIN







مدفعية إيطالية مضادة





















$\frac{24}{19}$ 10
1942 Alamain - La strage degli Sherman
P.C.D.













DON GREER





شبكة الجزيرة الإعلامية، القاهرة، ١٢ يونيو ١٩٩٩، (الرجوع إلى الفهرست رقم ٢٩/ ١٩٩٩).

[illegible]

Scale 1:500,000 مقياس الرسم 1:500,000

Experiment 1 Sec. 1	Experiment 2 Sec. 2
Experiment 3 Sec. 3	Experiment 4 Sec. 4
Experiment 5 Sec. 5	Experiment 6 Sec. 6

[illegible]