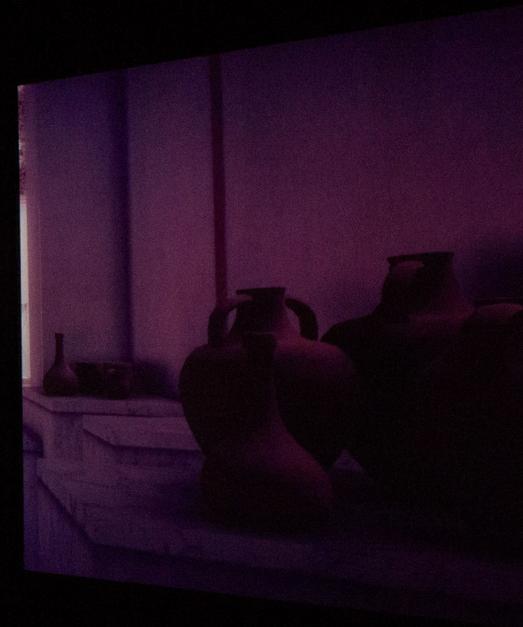
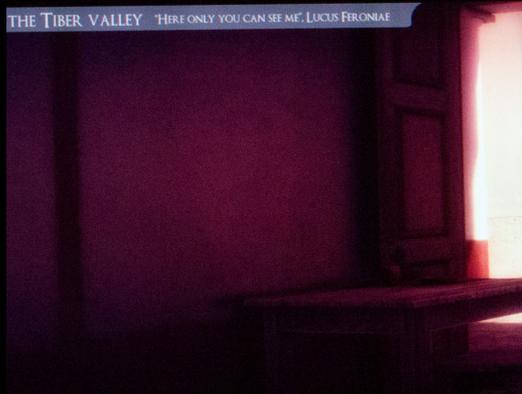


# Museo Virtuale della Valle del Tevere: verso una nuova convergenza tra realtà virtuale, paradigmi cinematografici, interazione naturale e realtà aumentata.



Eva Pietroni

CNR, Istituto per le Tecnologie Applicate ai Beni Culturali , Roma, Italia

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The area North of Rome,

Limits:

Monte Soratte (North) and

Fidene (South),

Palombara Sabina (East)

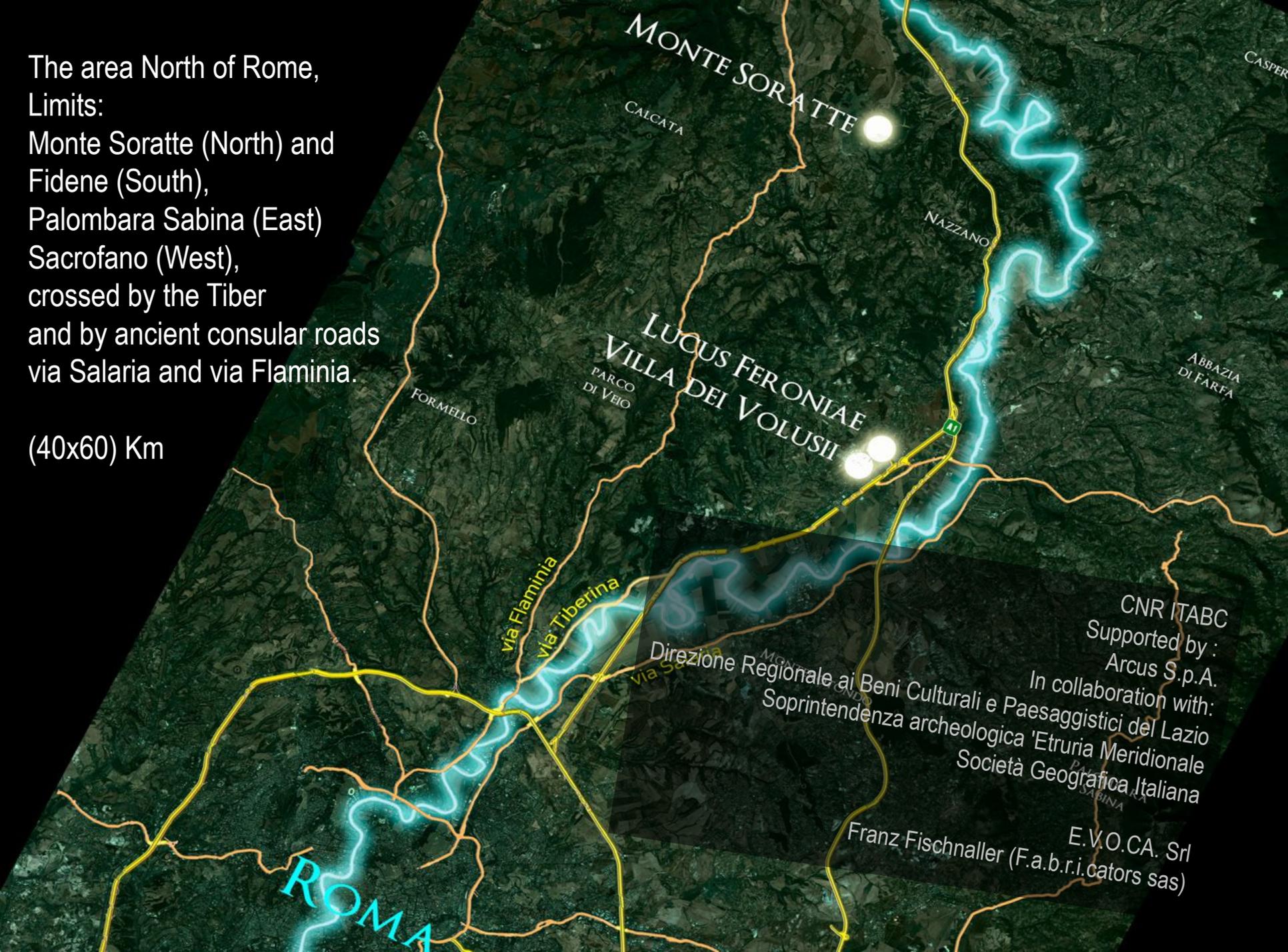
Sacrofano (West),

crossed by the Tiber

and by ancient consular roads

via Salaria and via Flaminia.

(40x60) Km



MONTE SORATTE

CALCATA

NAZZANO

LUCUS FERONIAE  
VILLA DEI VOLUSII

PARCO  
DI VEIO

FORMELLO

Via Flaminia

Via Tiberina

ROMA

Direzione Regionale ai Beni Culturali e Paesaggistici del Lazio  
Soprintendenza archeologica 'Etruria Meridionale  
Società Geografica Italiana

E.V.O.CA. Srl  
Franz Fischnaller (F.a.b.r.i.cators sas)

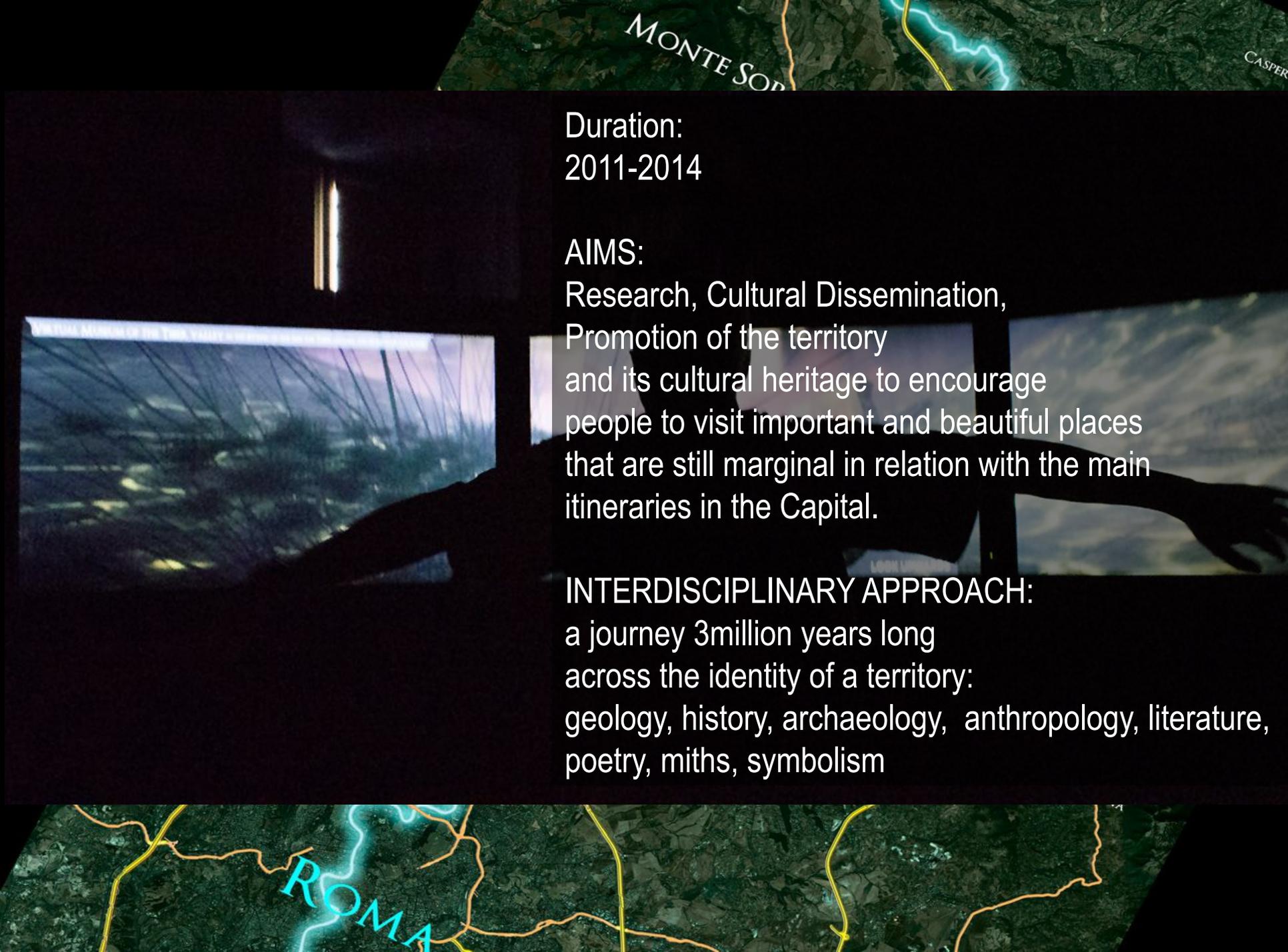
CNR ITABC  
Supported by :  
Arcus S.p.A.

In collaboration with:

CASPER

ABBAZIA  
DI FARFA

PALOMBARA  
SABINA



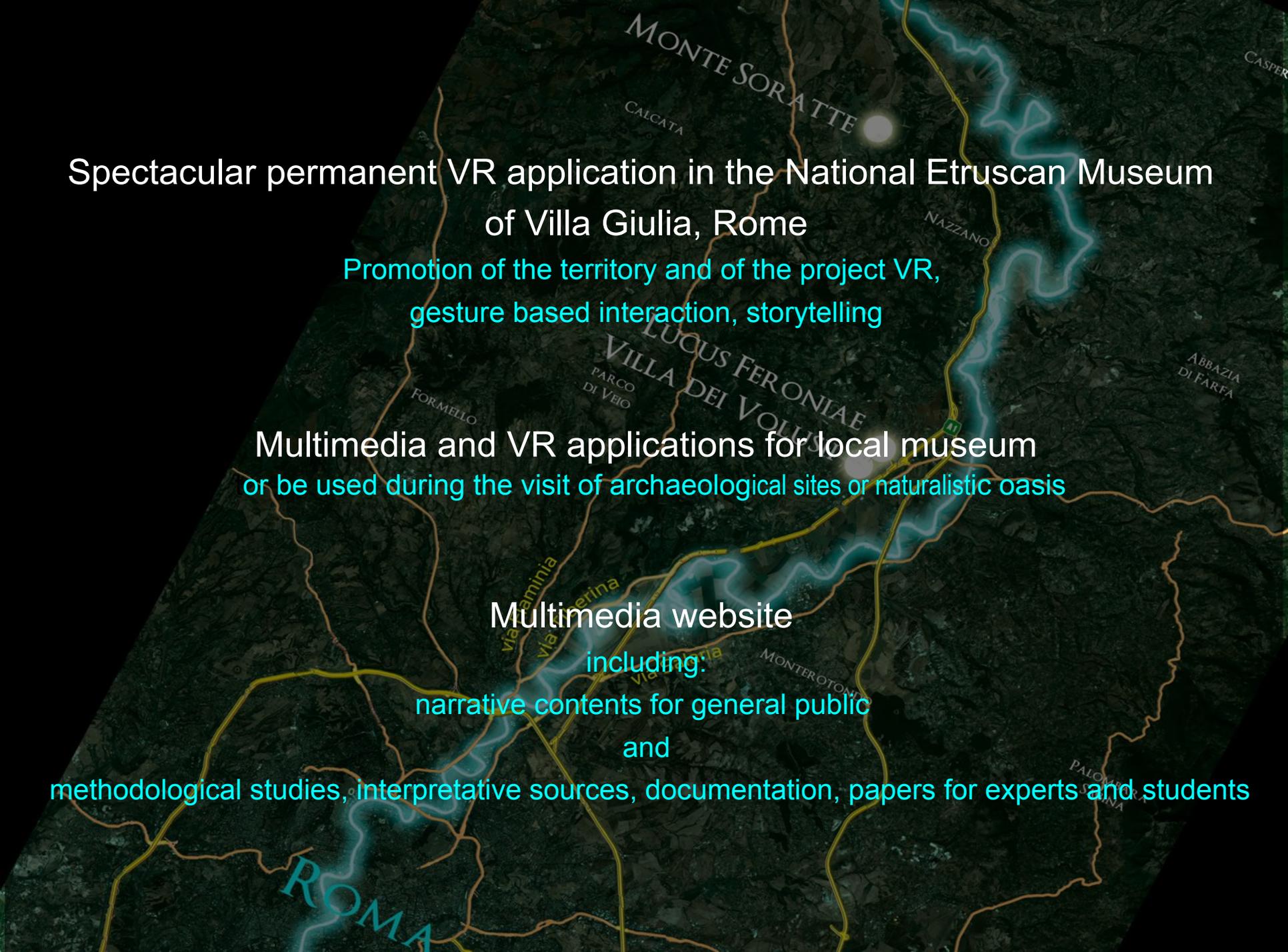
Duration:  
2011-2014

**AIMS:**

Research, Cultural Dissemination,  
Promotion of the territory  
and its cultural heritage to encourage  
people to visit important and beautiful places  
that are still marginal in relation with the main  
itineraries in the Capital.

**INTERDISCIPLINARY APPROACH:**

a journey 3million years long  
across the identity of a territory:  
geology, history, archaeology, anthropology, literature,  
poetry, myths, symbolism



Spectacular permanent VR application in the National Etruscan Museum  
of Villa Giulia, Rome

Promotion of the territory and of the project VR,  
gesture based interaction, storytelling

Multimedia and VR applications for local museum  
or be used during the visit of archaeological sites or naturalistic oasis

Multimedia website

including:

narrative contents for general public

and

methodological studies, interpretative sources, documentation, papers for experts and students



Spectacular permanent VR application in  
National Etruscan Museum of Villa Giulia, Rome

Conceptual and emotional involvement

Affection= main vehicle of preservation and valorization towards this CH



as a FIStH, swimming among images and sounds  
belonging to the memory of the Tiber river

Preview and testing period

In Villa Celimontana, Rome, Sept- Dec 2014

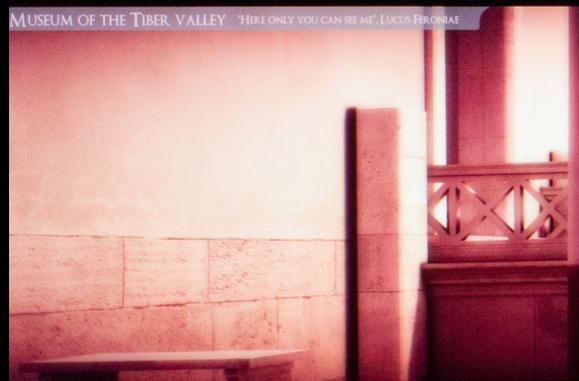


as a BIRD, flying over the territory  
and going back in time  
to the geological evolution and the birth of cities



Leonardo Rescic © CNR - ITABC

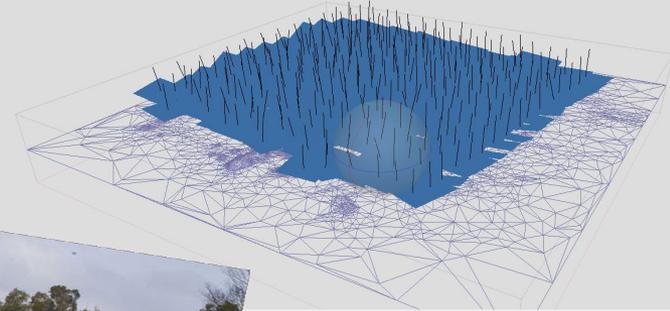
as a MAN inside the Volusii's Villa rebuilt in augustan age  
and following the Individual drama of the freedman Mena



as a MAN walking through the city of Lucus Feroniae,  
rebuilt in the I - II century AD, where the memory  
of the ancient goddess Feronia survives

demo

# Documentation / improvement of existing topographical data

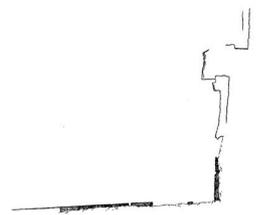
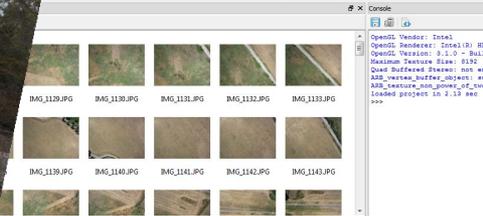


Total laser station

TOF Laser scanner

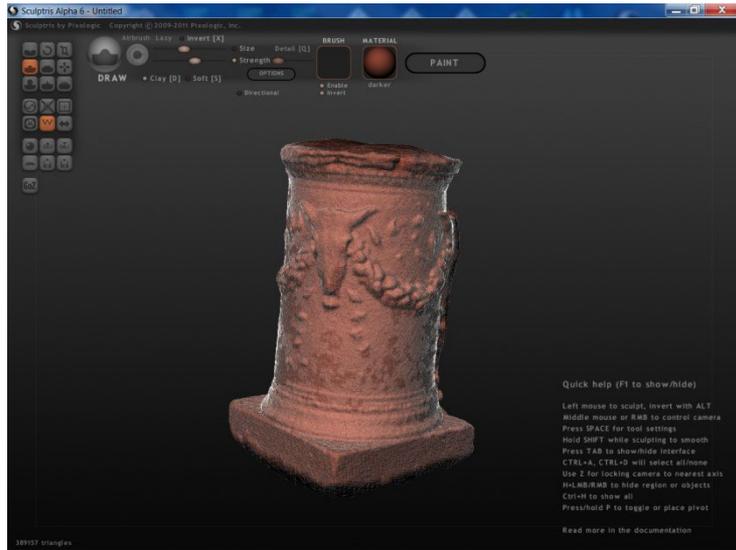
GPS

Drone Swinglet cam,  
Camera: Canon IXUS 220HS

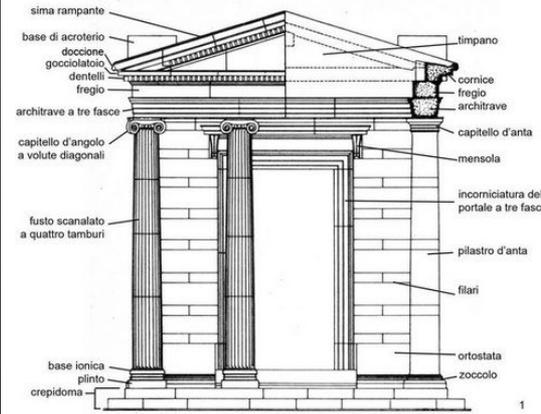
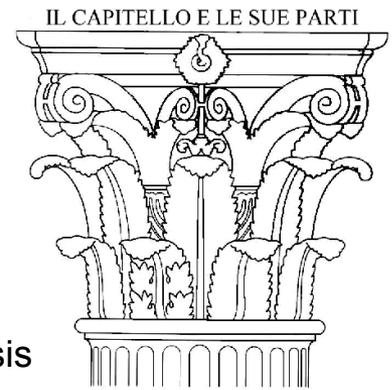


# data collection and source elaborations

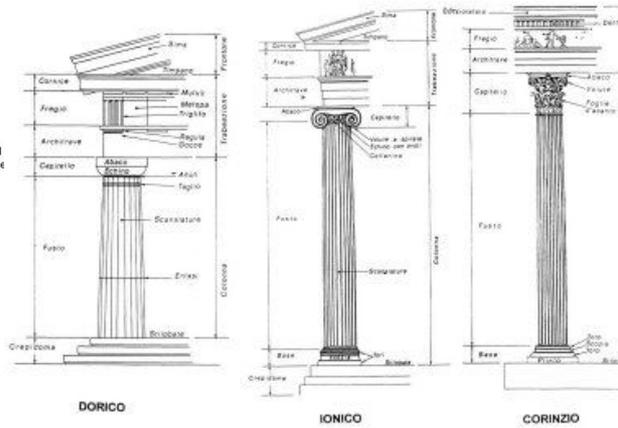
3D models reality-based  
Dense stereo matching from photos



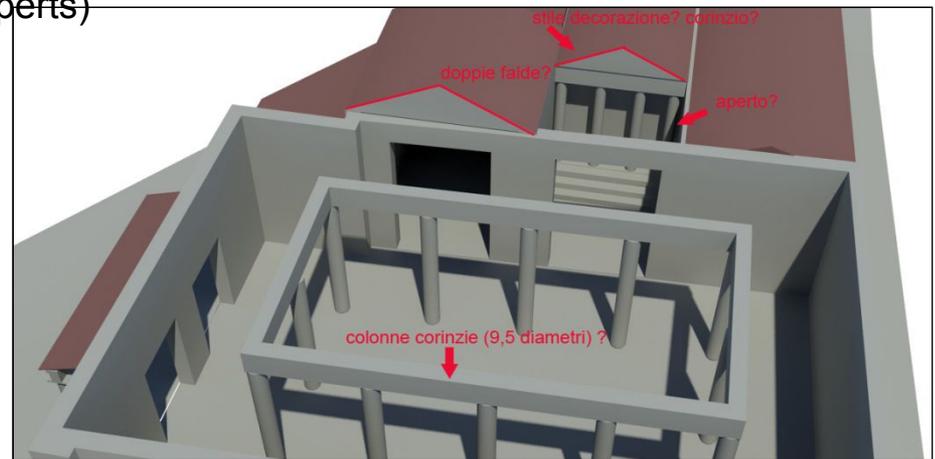
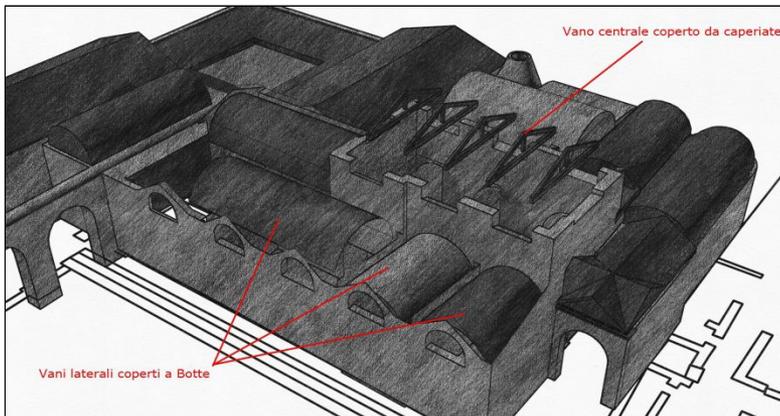
## Architectural analysis and hypothesis



### GLI ORDINI ARCHITETTONICI



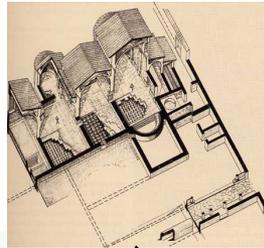
## Hypothesis, first Drafts, 2D, 3D (supervised by experts)



# Reconstruction: comparisons/ hypothesis



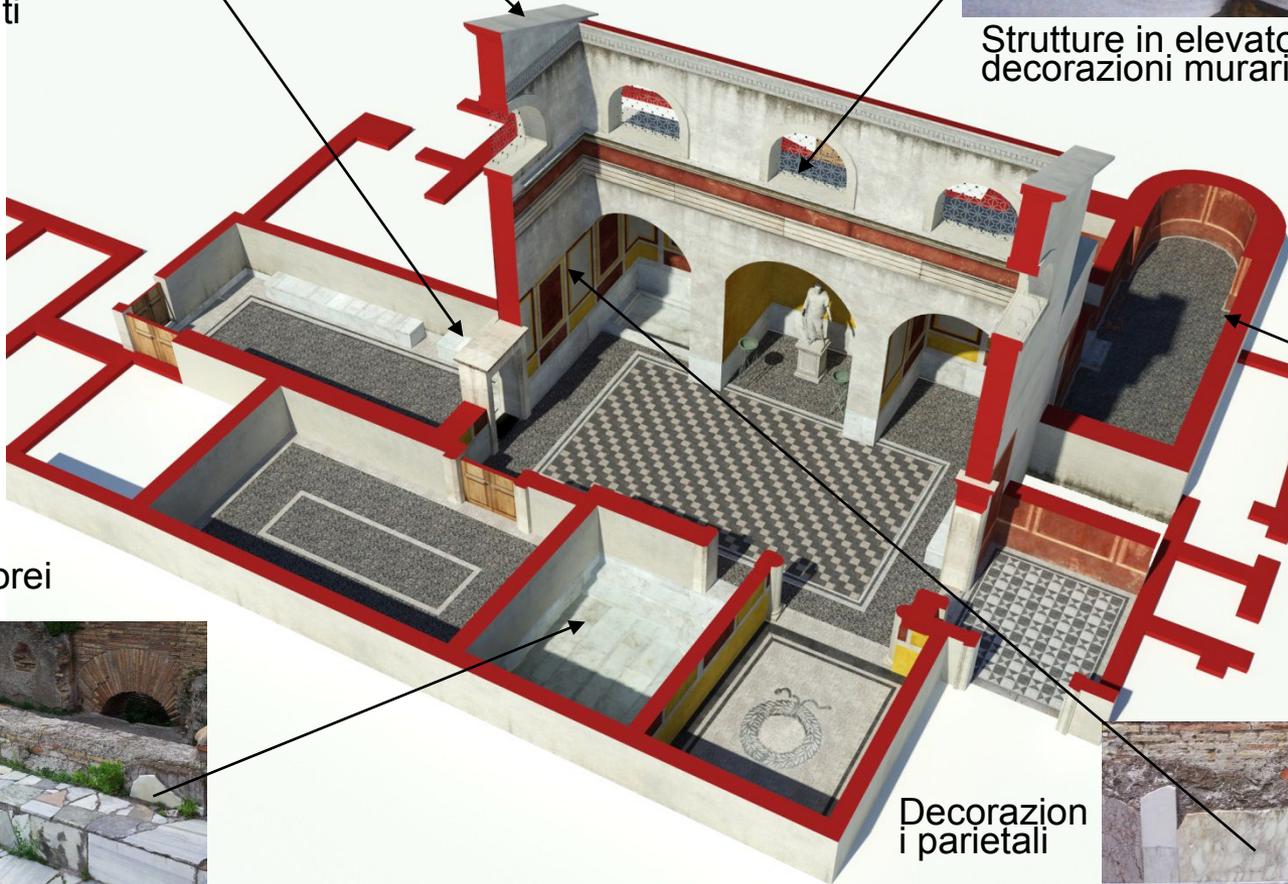
Portali elementi architettonici



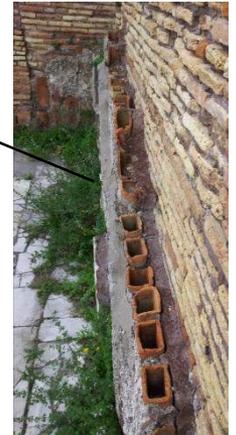
coperture



Strutture in elevato, aperture e decorazioni murarie



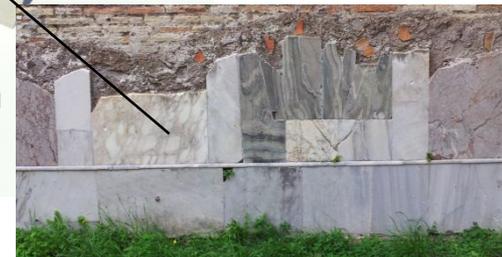
condotte



Elementi marmorei



Decorazioni i parietali



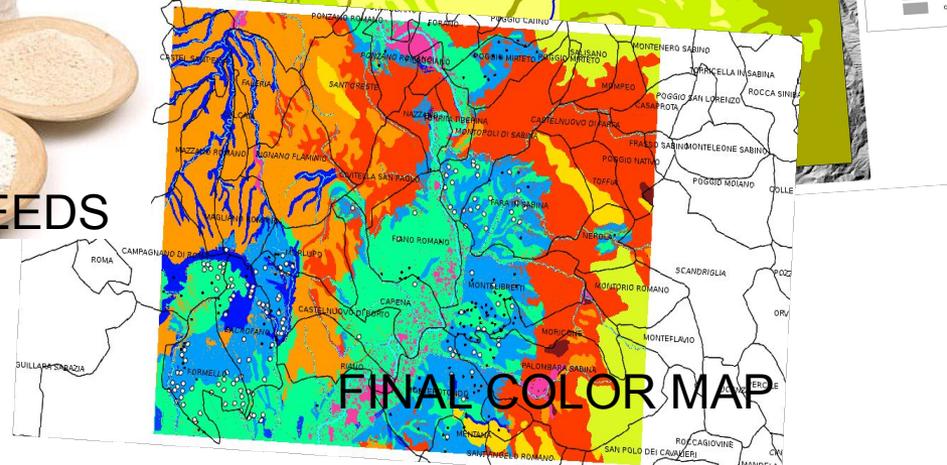
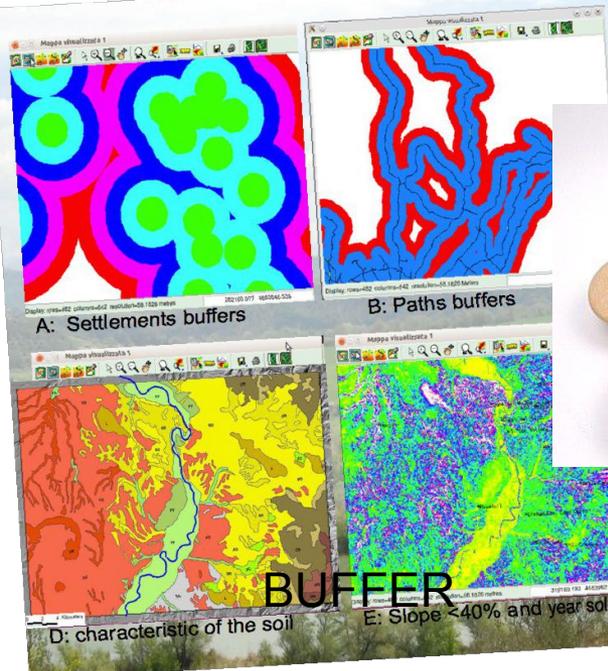
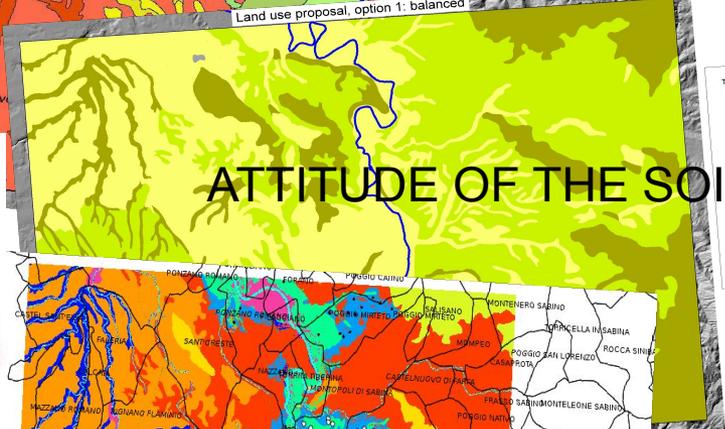
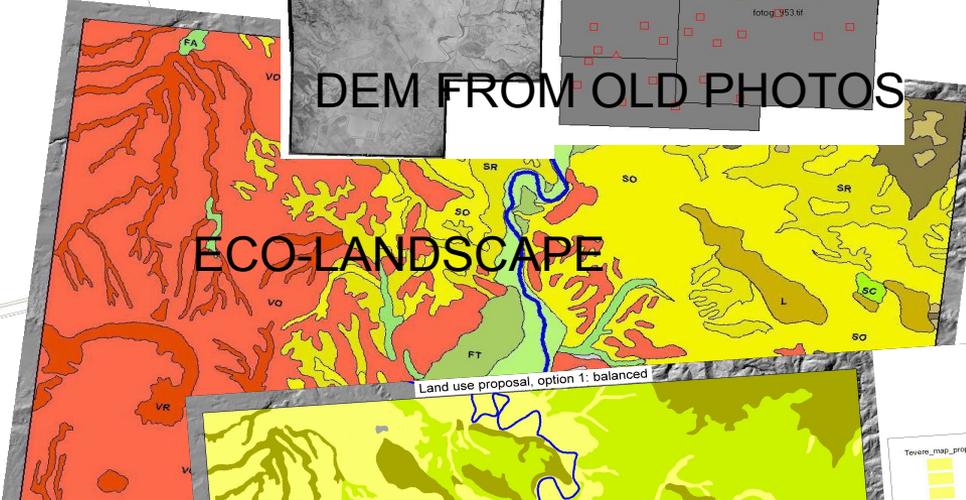
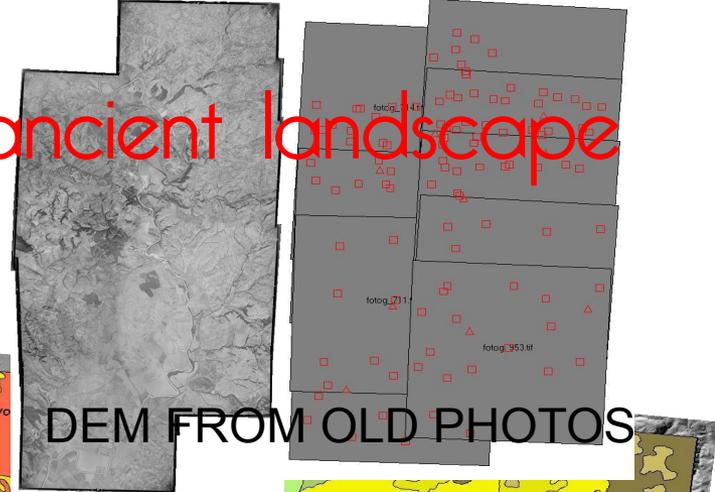
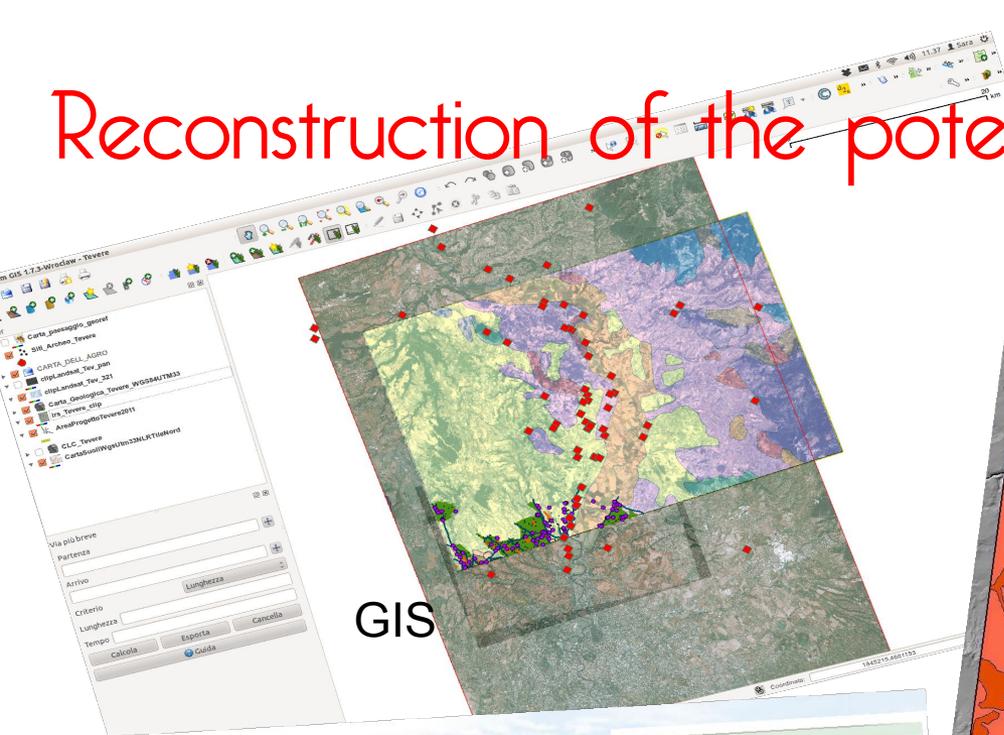
MODELLI TERME IMPERIALI I-II SEC. D.C (Ostia, Roma)



Real and Virtual



# Reconstruction of the potential ancient landscape





# Implementation

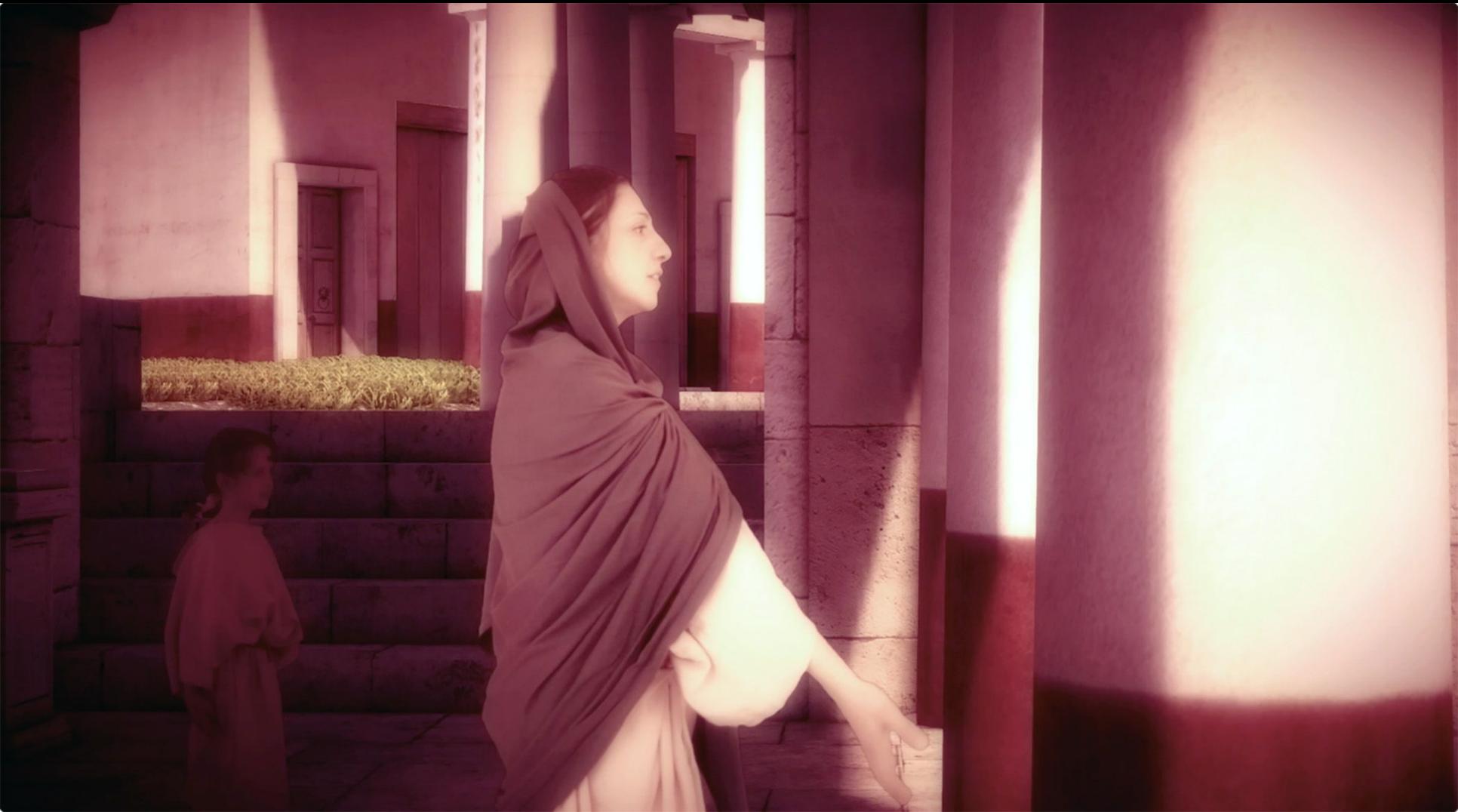
VIRTUAL MUSEUM OF THE TIBER VALLEY "HERE ONLY YOU CAN SEE ME", LUCUS FERONIAE



AN "AUGMENTED" PERCEPTION:

Present/real( left screen) and past/virtual (middle screen)  
are shown in parallel from the same point of view.

On the right the user's position



**STORYTELLING:** real actors are the ancient inhabitants

- Goddess Feronia appears to little Cesia and shows how the city will be in 100 years - ,

# Virtual set / green screen - BlackMagic Cinema Camera, RAW format



# User experience evaluation in progress



Villa Celimontana, Rome, November 2014

# User experience evaluation in progress







Thank you!

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