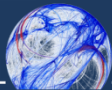
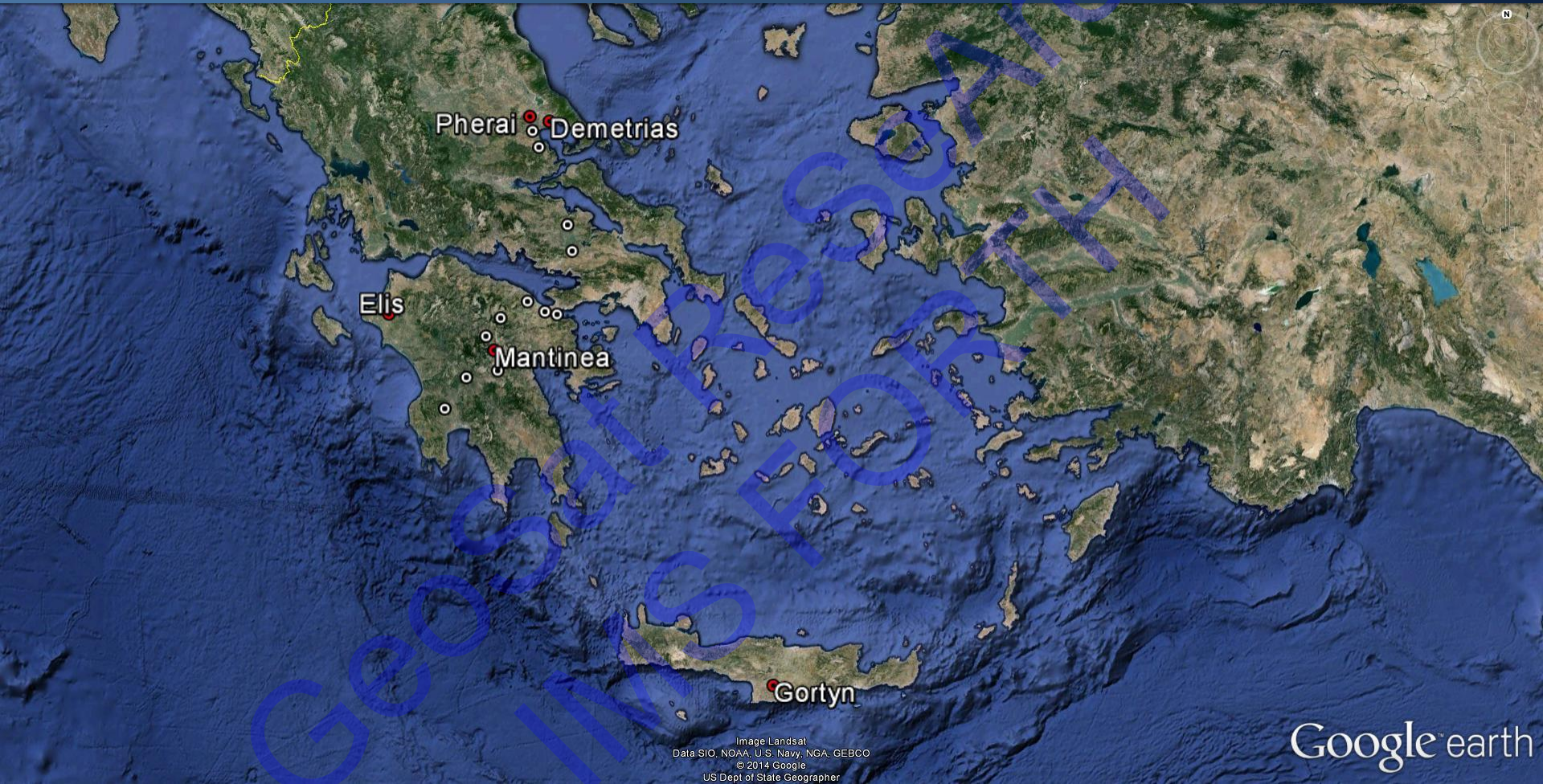
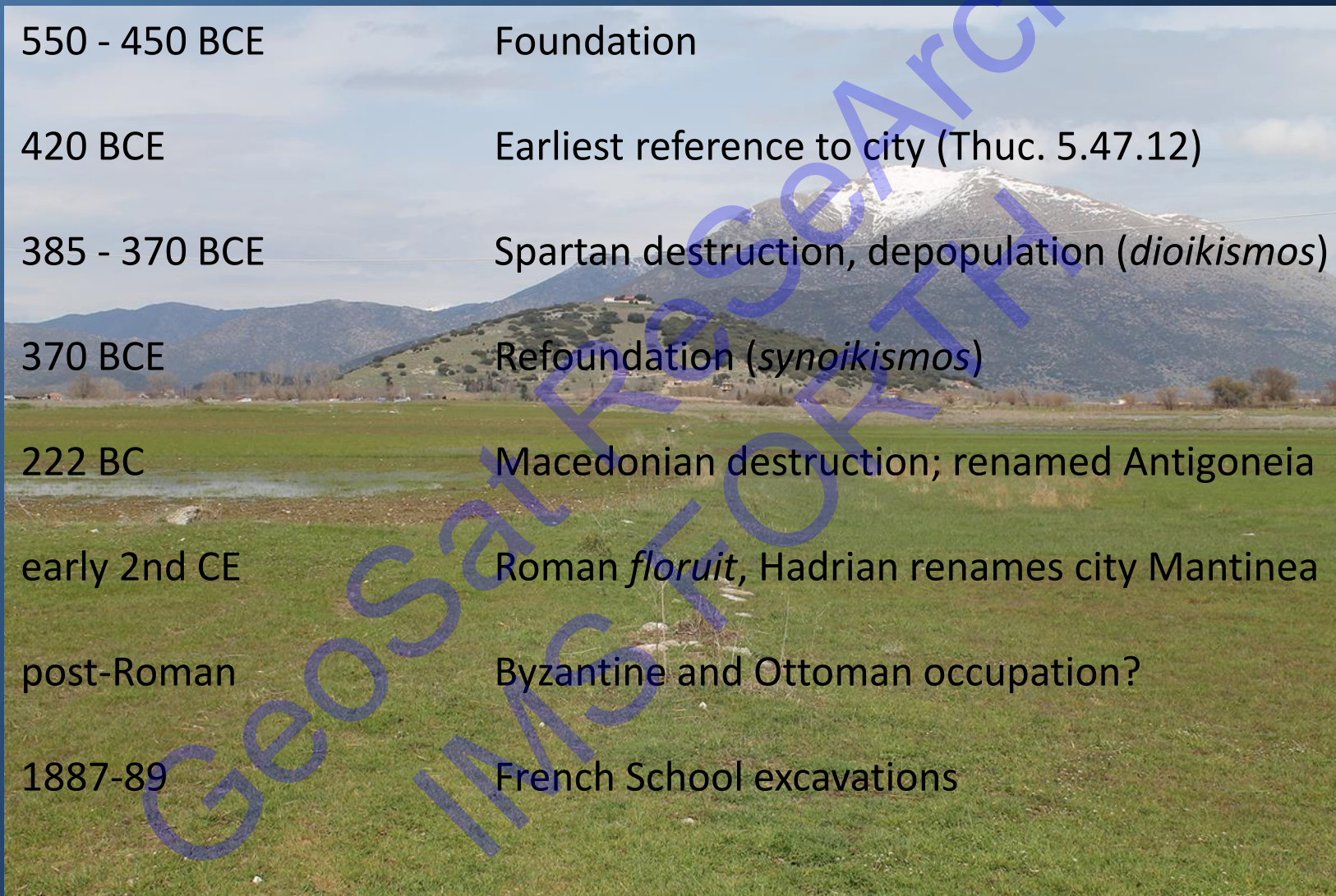


The Urban Plan of Mantinea in the Peloponnese: An Integrated Geophysical and Satellite Remote Sensing Fieldwork Campaign

Jamieson C. Donati, Apostolos Sarris, Carmen Cuenca-García, Tuna Kalaycı, Nikos Papadopoulos, and François-Xavier Simon

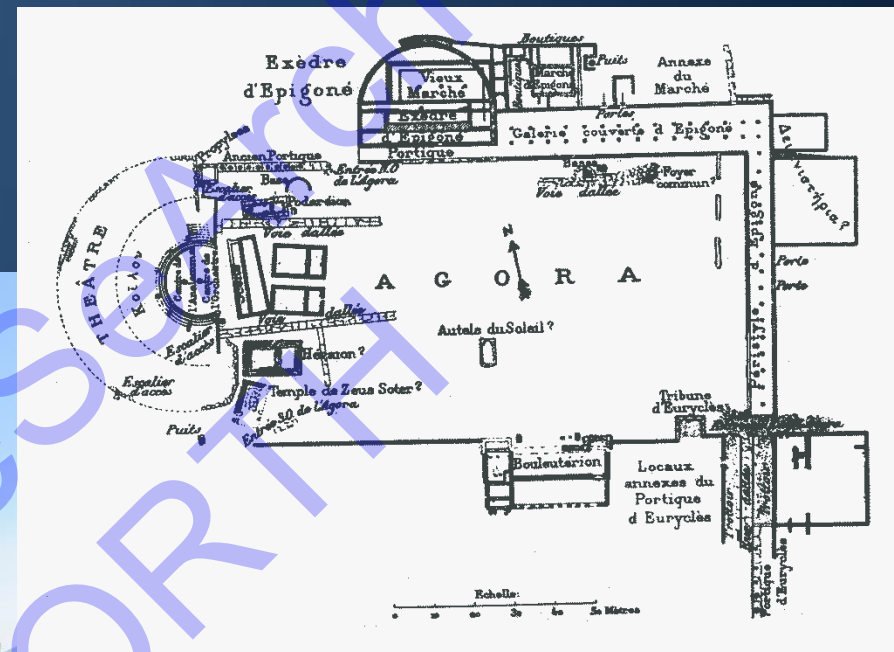
Laboratory of Geophysical, Satellite Remote Sensing and Archaeo-environment,
Institute for Mediterranean Studies



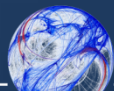


550 - 450 BCE	Foundation
420 BCE	Earliest reference to city (Thuc. 5.47.12)
385 - 370 BCE	Spartan destruction, depopulation (<i>dioikismos</i>)
370 BCE	Refoundation (<i>synoikismos</i>)
222 BC	Macedonian destruction; renamed Antigoneia
early 2nd CE	Roman <i>floruit</i> , Hadrian renames city Mantinea
post-Roman	Byzantine and Ottoman occupation?
1887-89	French School excavations

Theater and agora, Nov. 2014



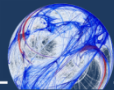
Mantinée et l'Arcadie
Orientale (Fougères 1898)





4 km circumference

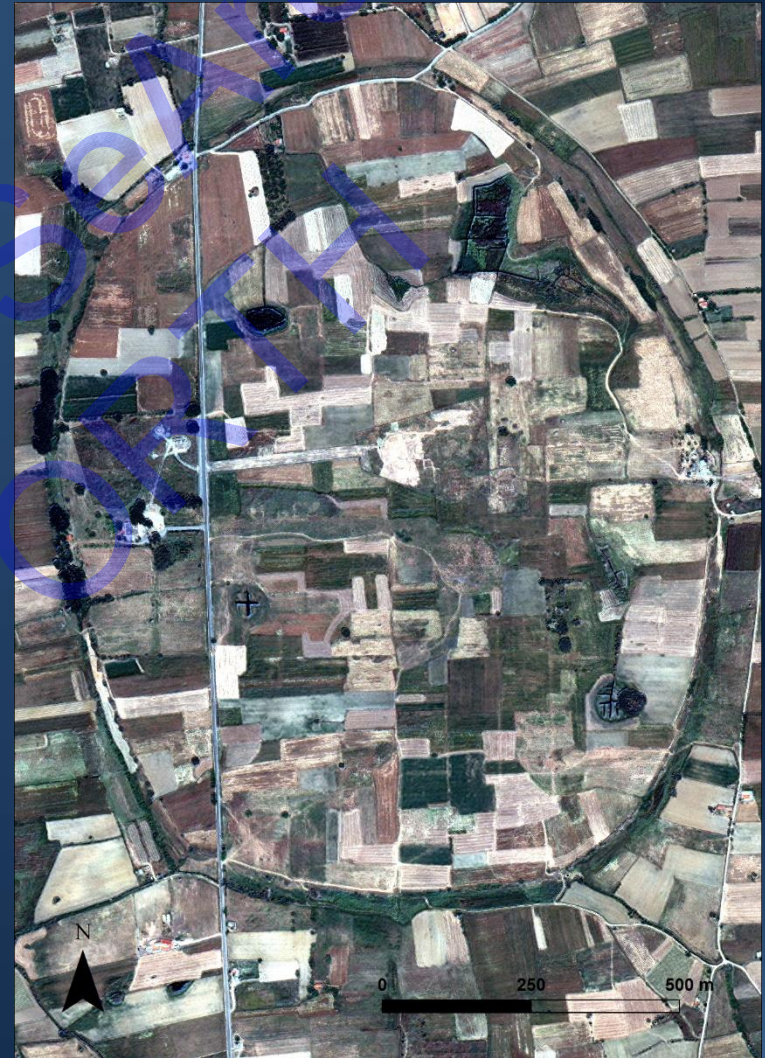
119 hectare urban area



Quickbird 9/13/2003



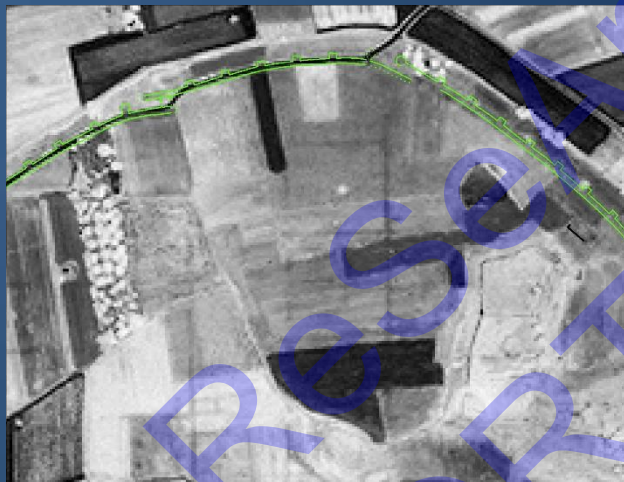
Quickbird 6/10/2009



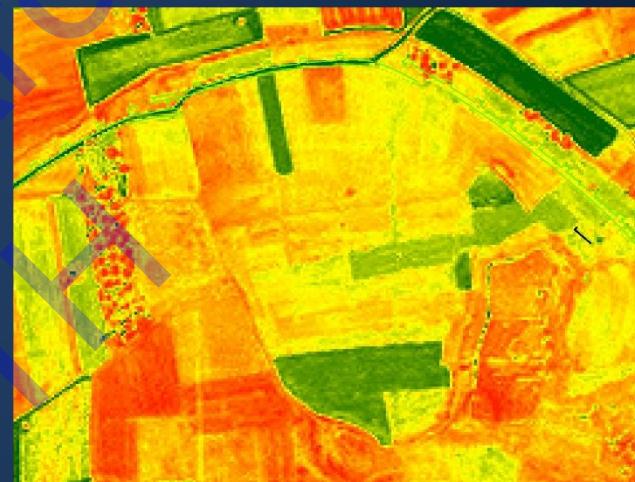
True Color



NDVI



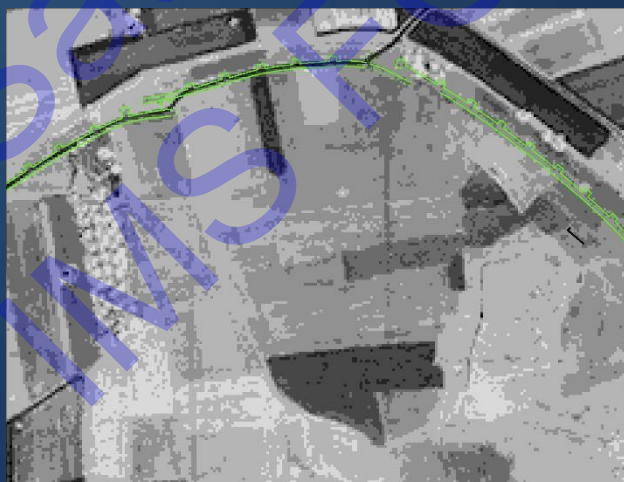
Green NDVI



Tasseled Cap

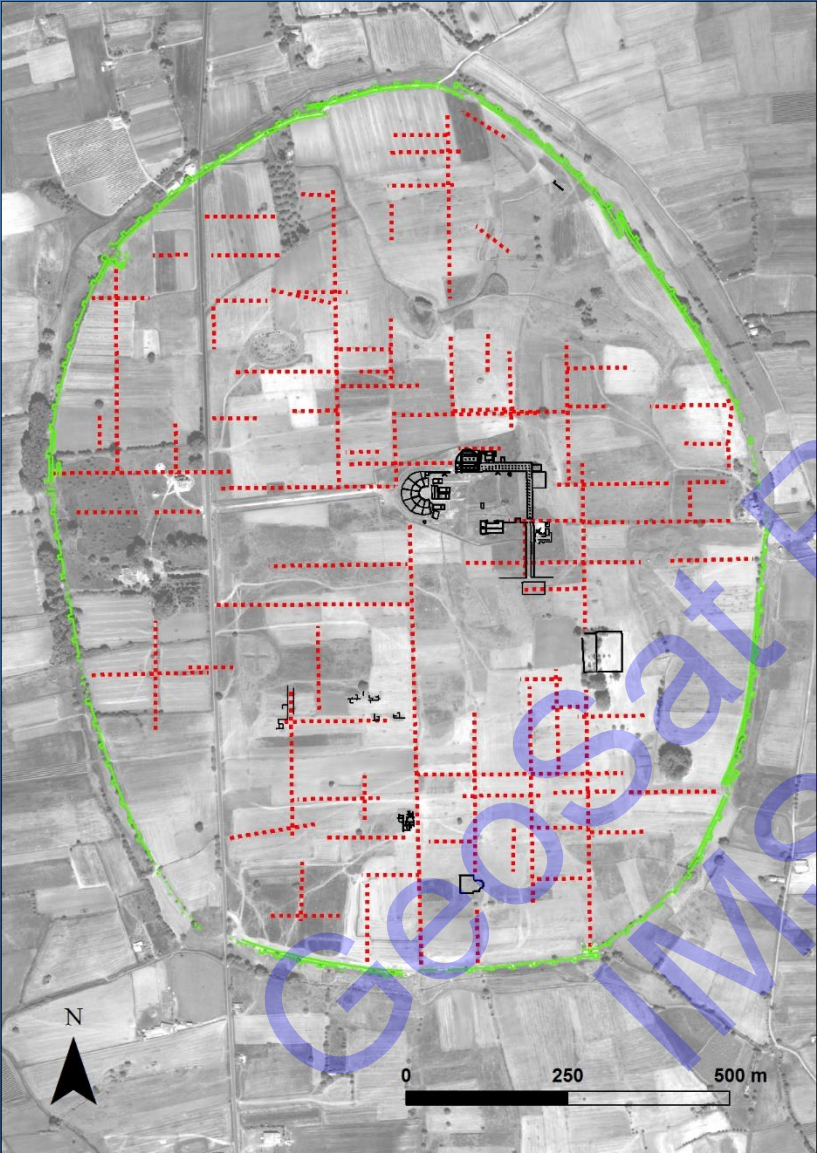


TSAVI



MSR

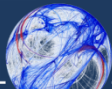
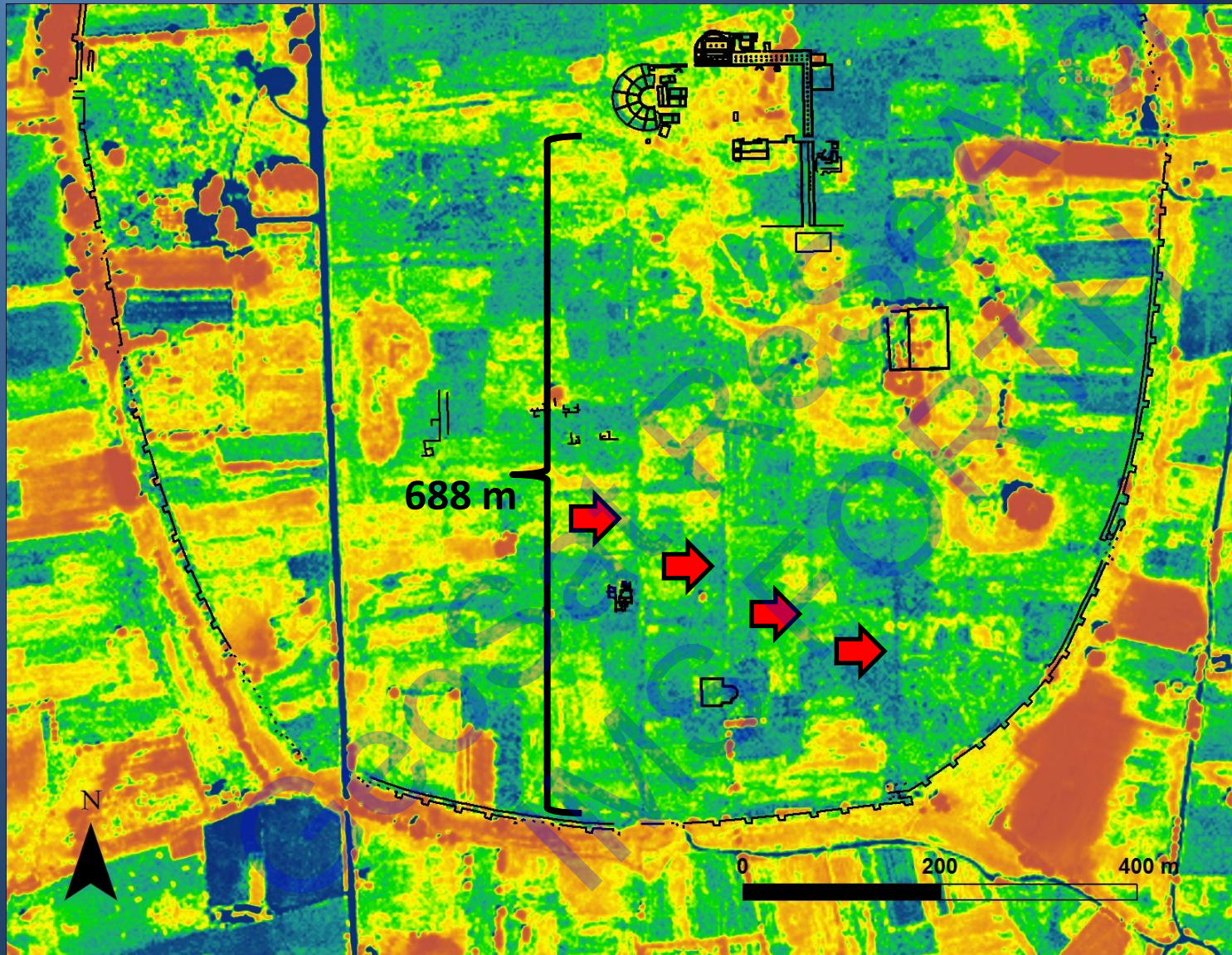




Quickbird 6/3/2012
MSAVI

Quickbird
9/13/2003

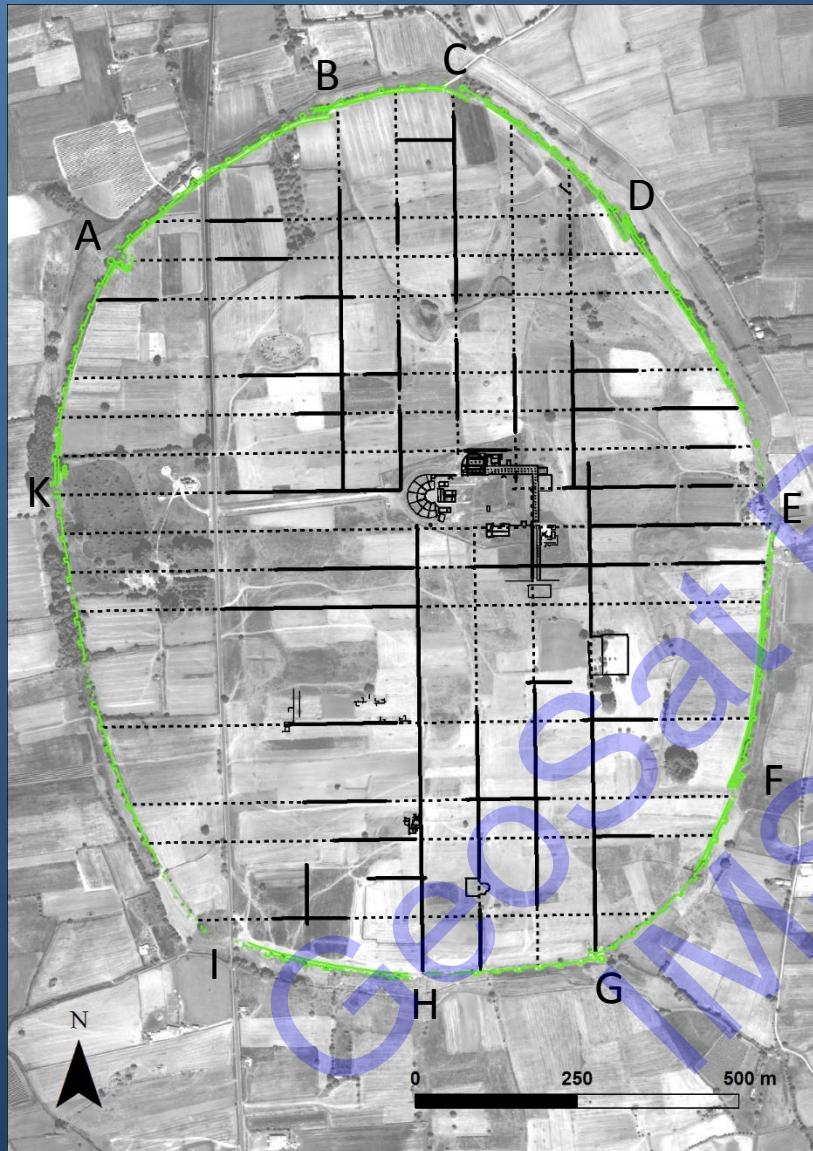
Green NDVI



Quickbird
6/3/2012

IR/R





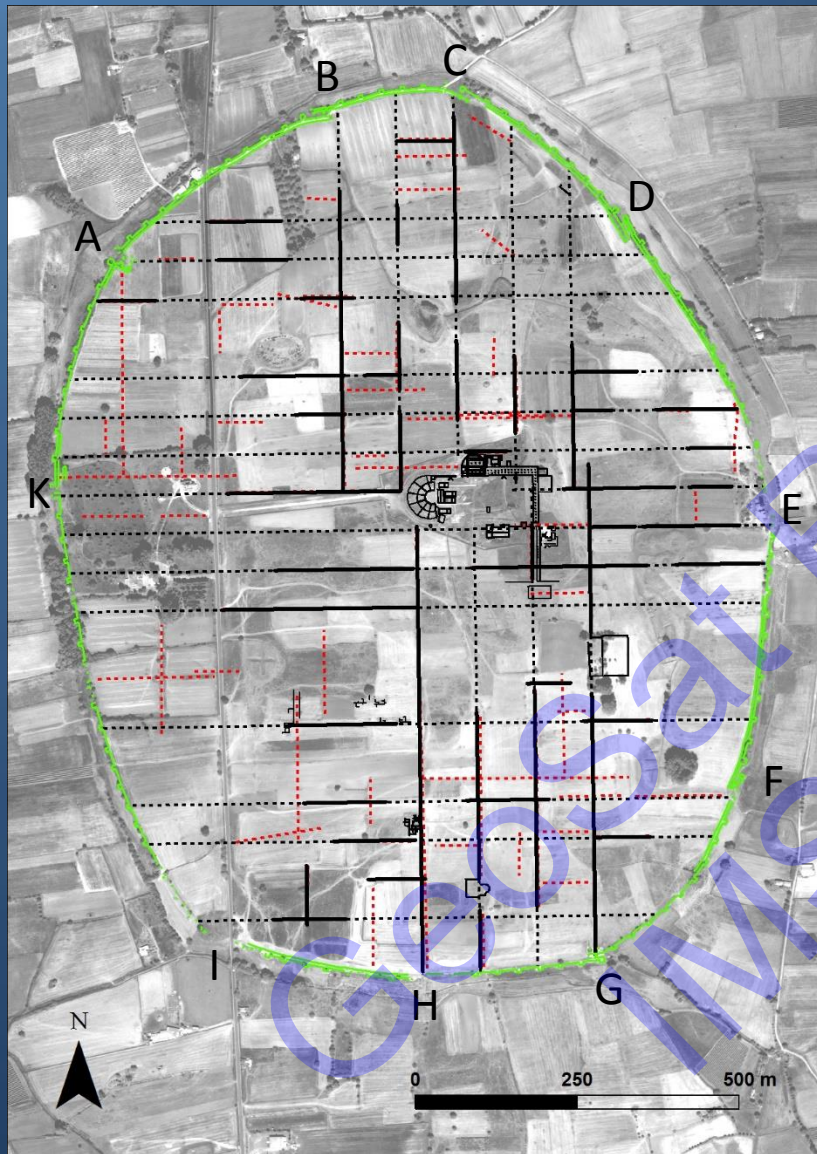
60 m spacing E-W streets

89 m spacing N-S streets

Solid black lines = streets (confirmed)

Dotted black lines = streets (unconfirmed)

Streets link the city gates (A-K) with the central agora



60 m spacing E-W streets

89 m spacing N-S streets

Solid black lines = streets (confirmed)

Dotted black lines = streets (unconfirmed)

Streets link the city gates (A-K) with the central agora

Some anomalies (in red) do not conform to the system

Magnetics



Resistivity



EM

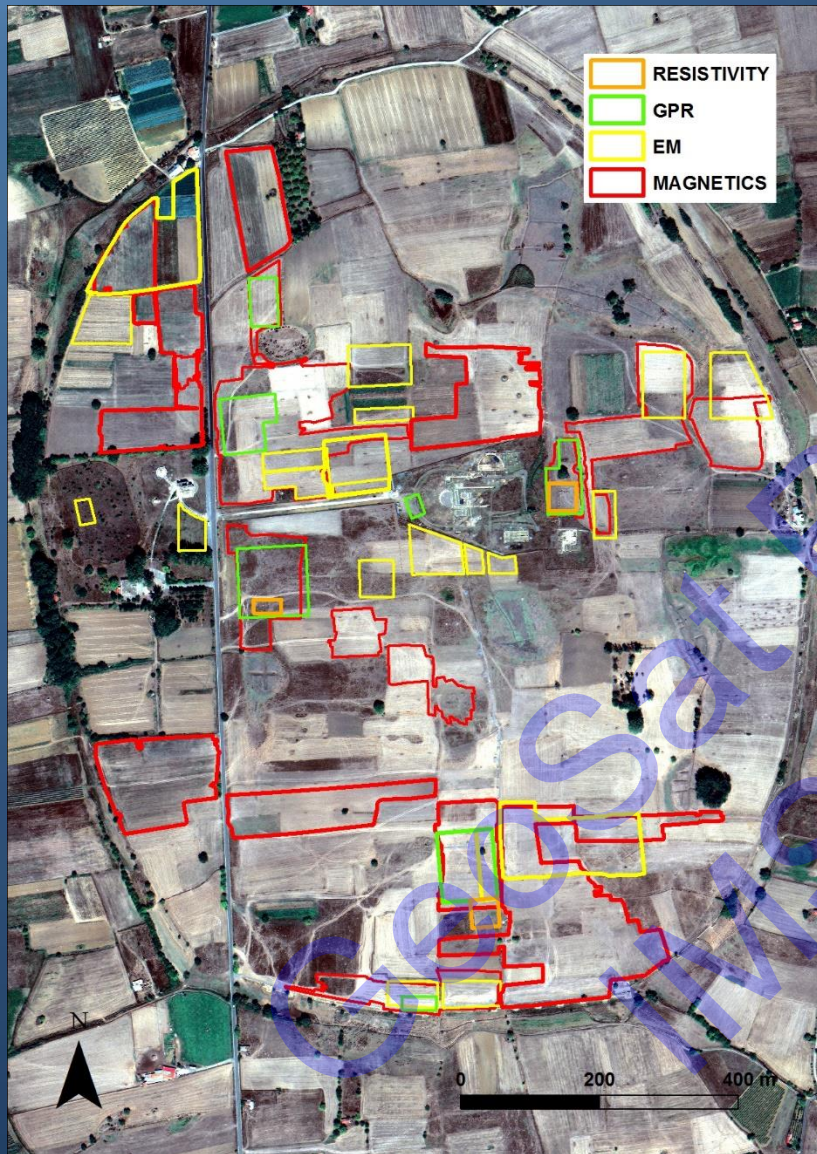


GPR



ERT





2014 Fieldwork (11 days in May and Nov.)

40 ha total coverage

3.5 ha/day

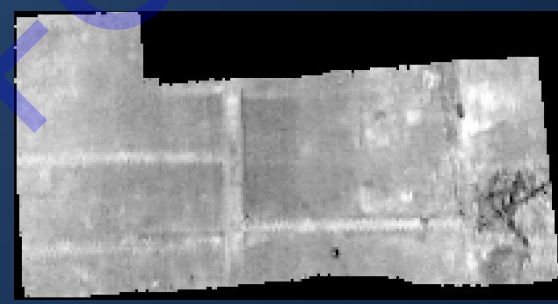
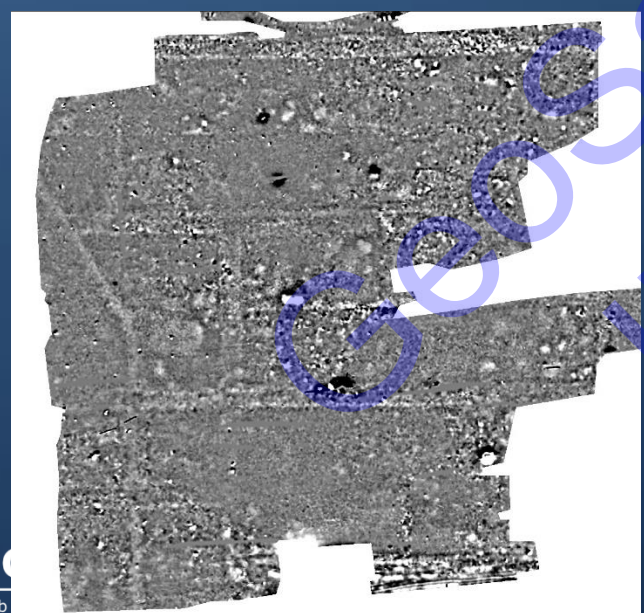
31 ha total coverage w/o overlap

25 more days for complete coverage

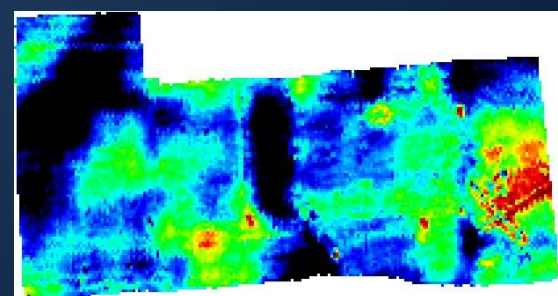
SENSYS Magnetometer MX



Geophex GEM-2 EM

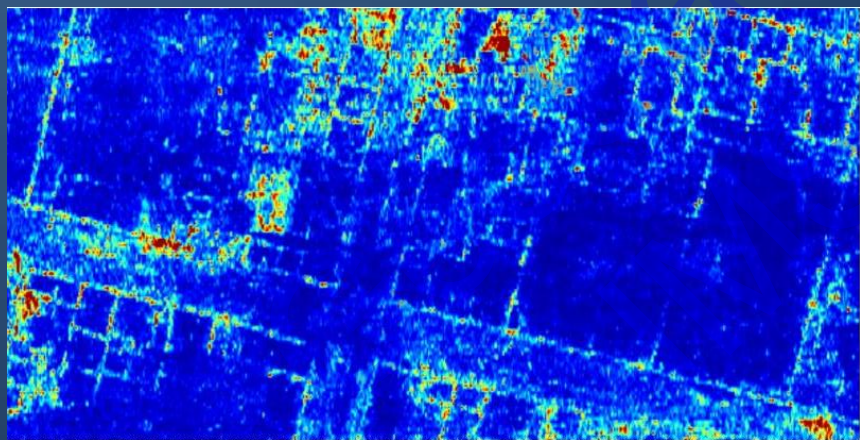


susceptibility

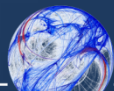


conductivity

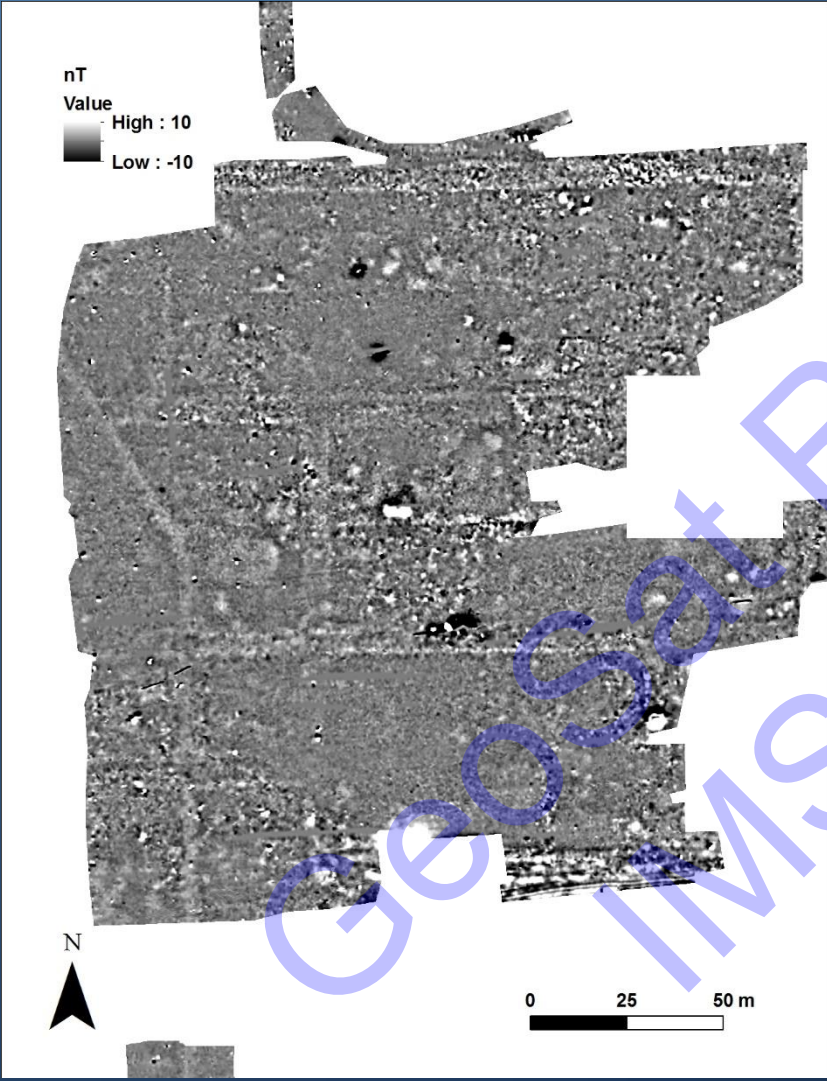
Sensors and Software NOGGIN GPR



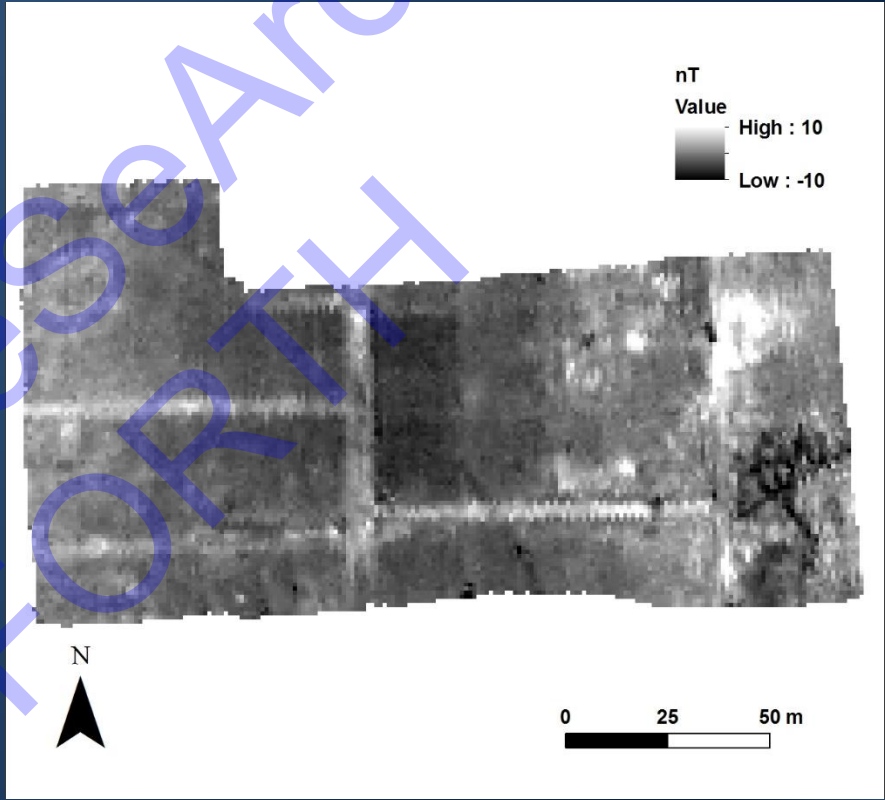
MALÅ GPR



Magnetics

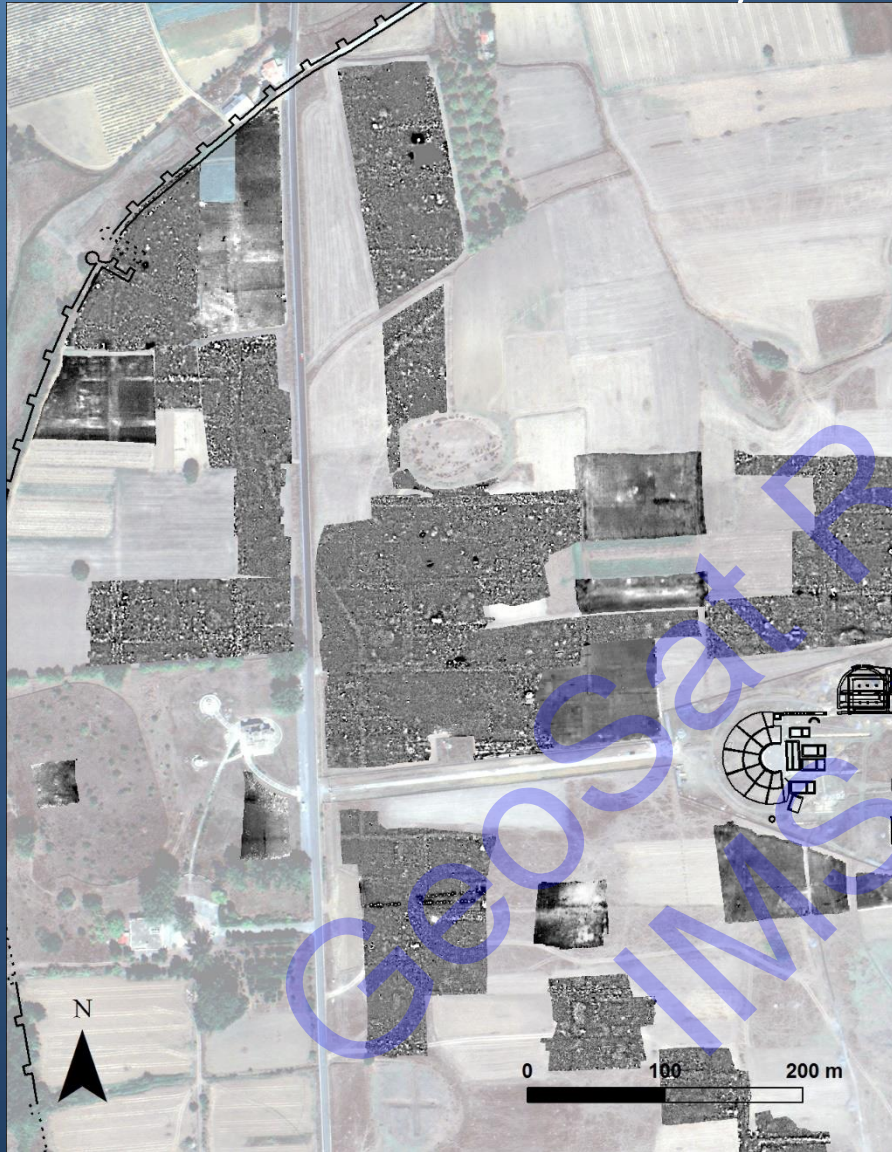


EM



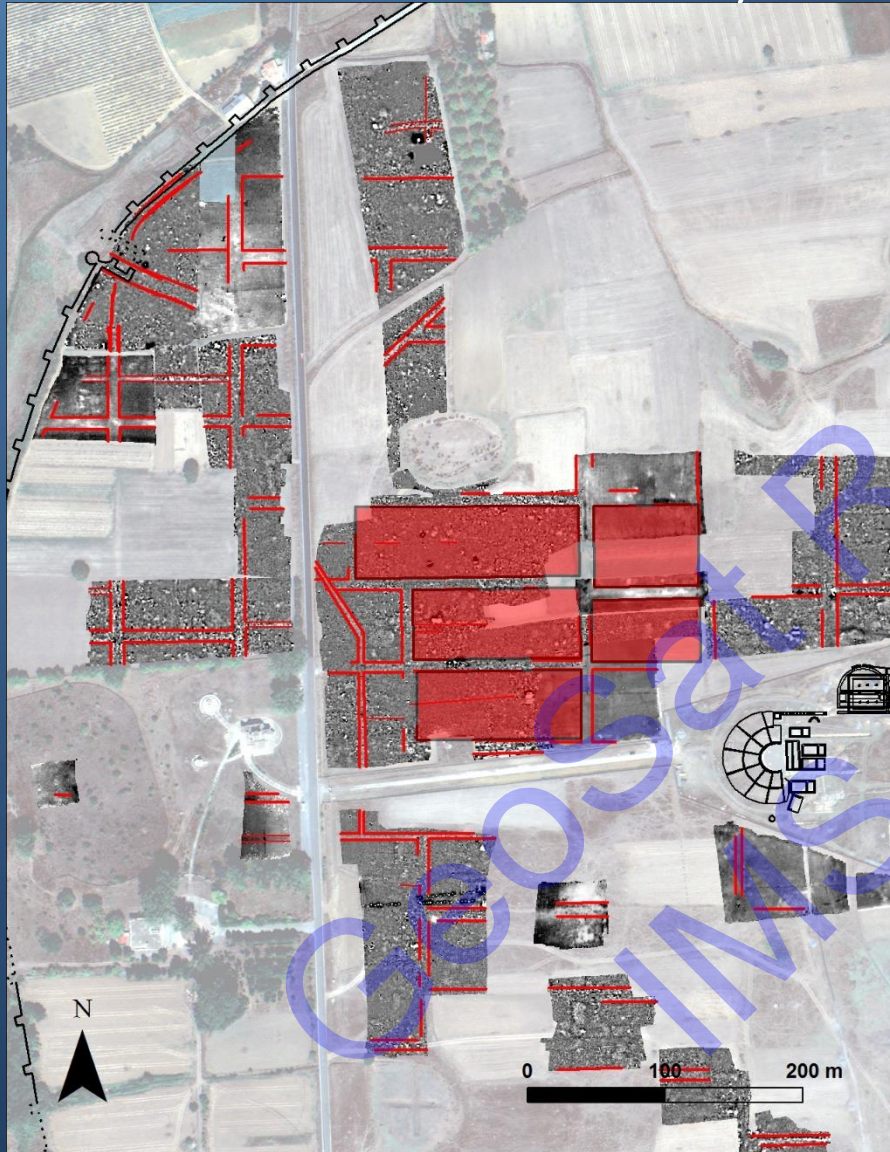
NW street system

SW street system



NW street system

SW street system



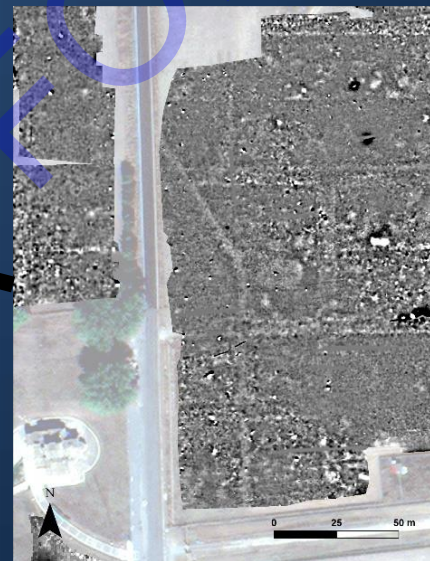
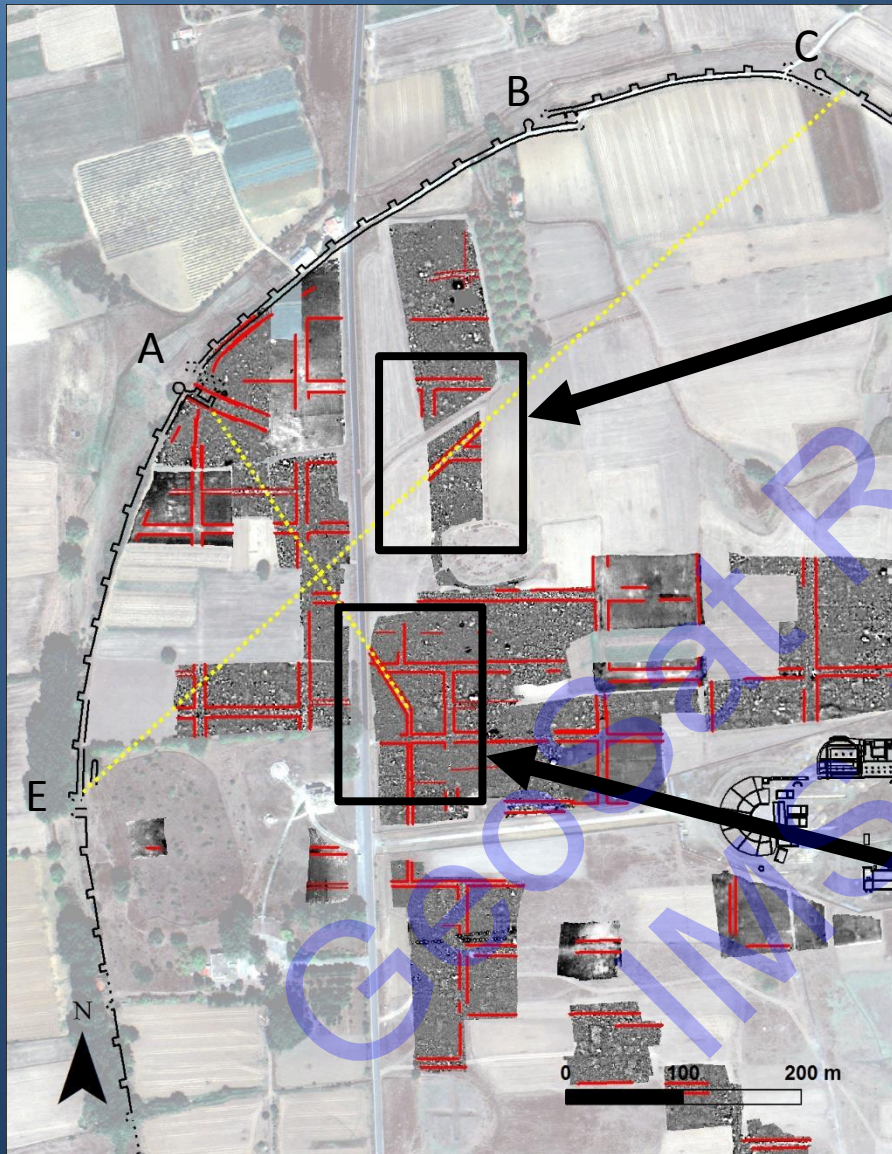


E street system
Small alleyways between streets

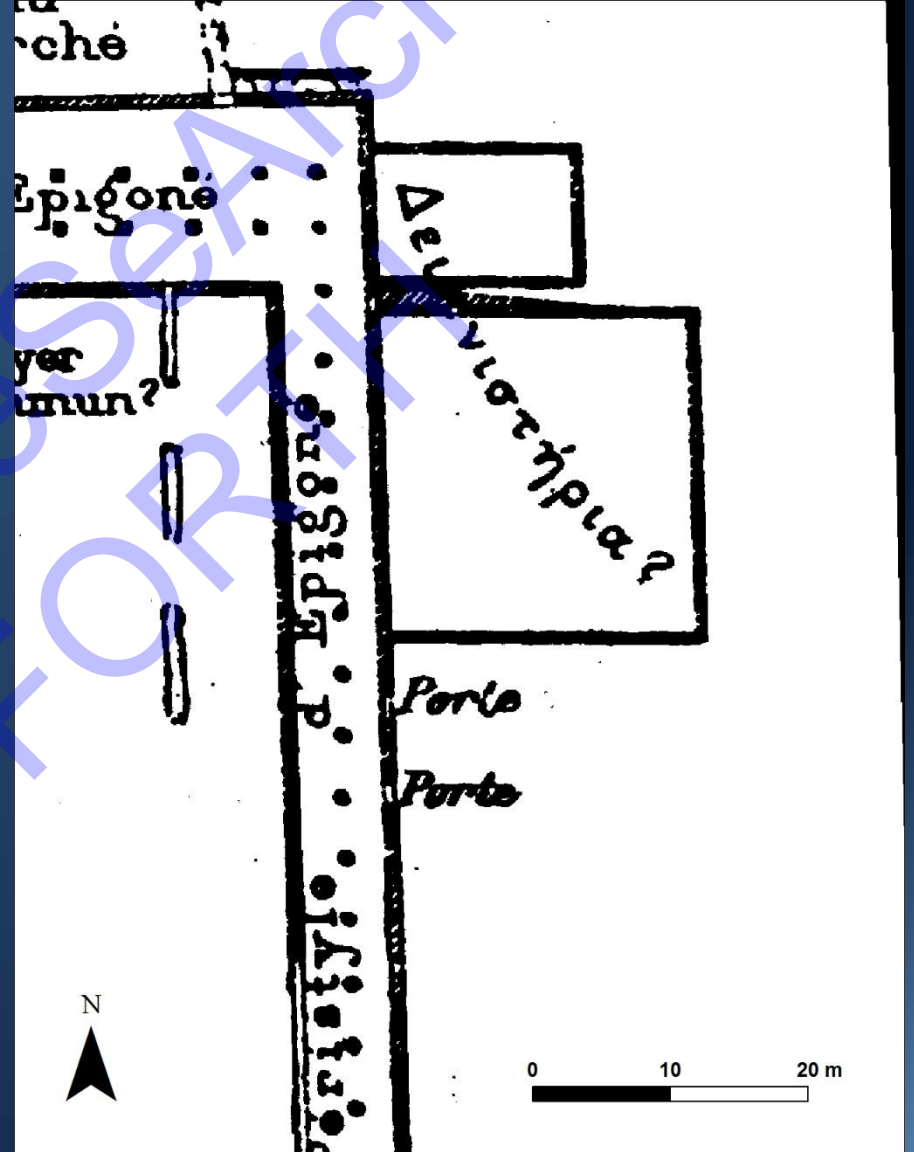
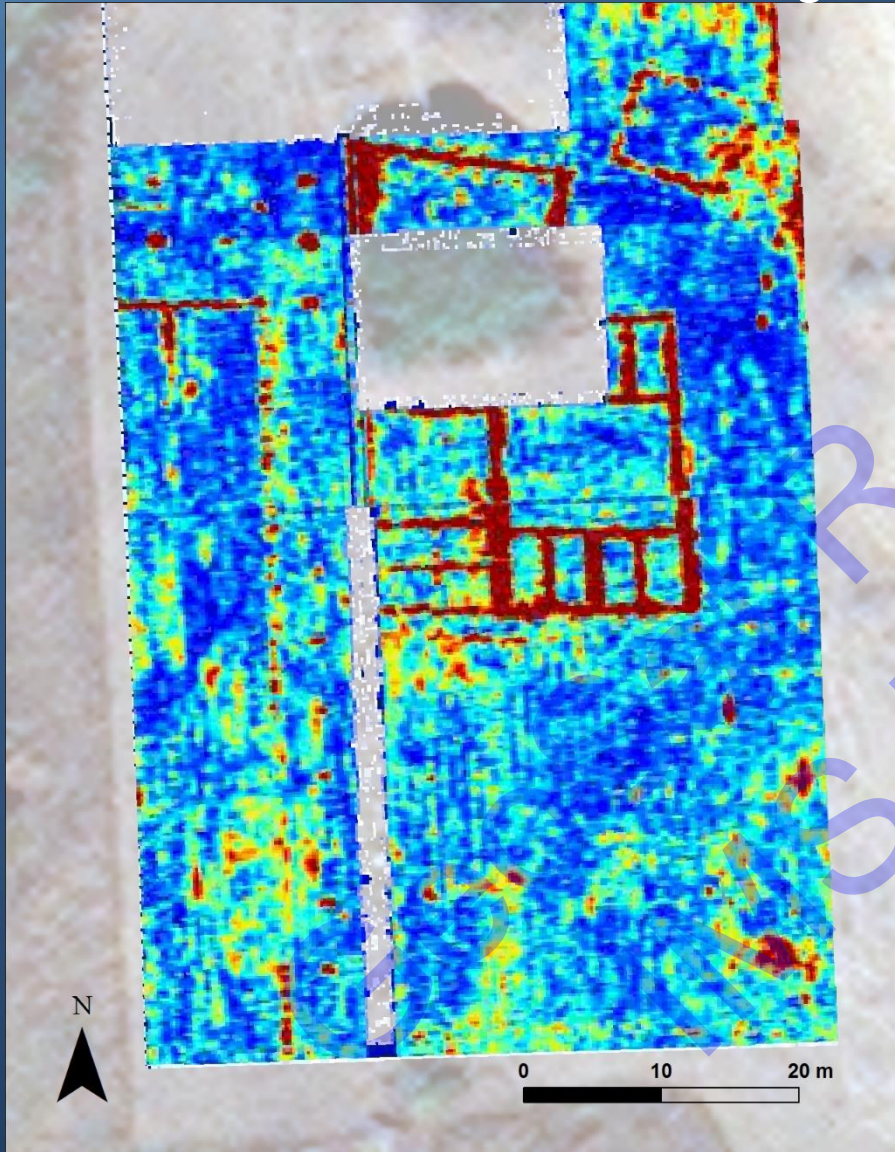
E street system

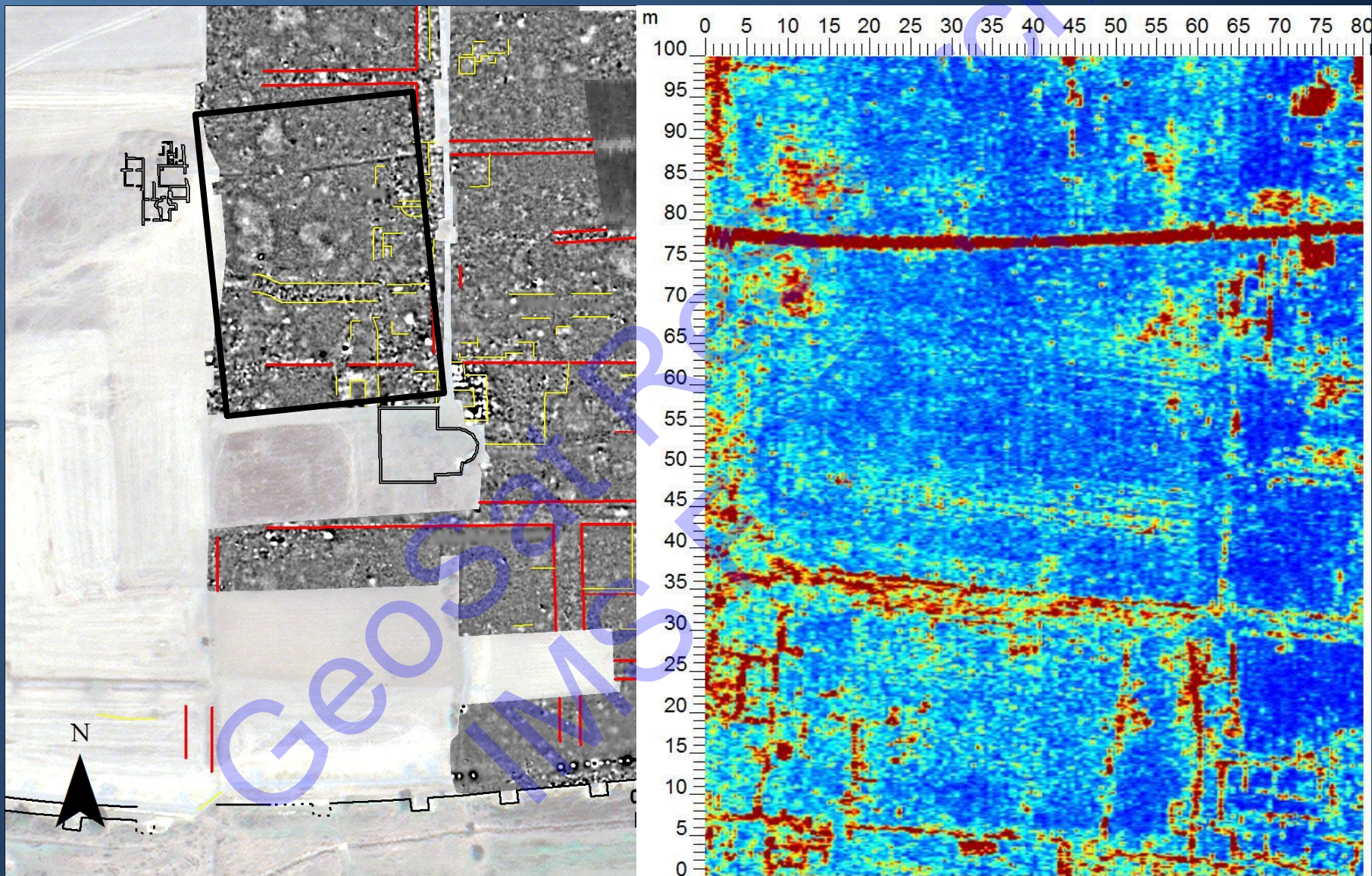
SW street system

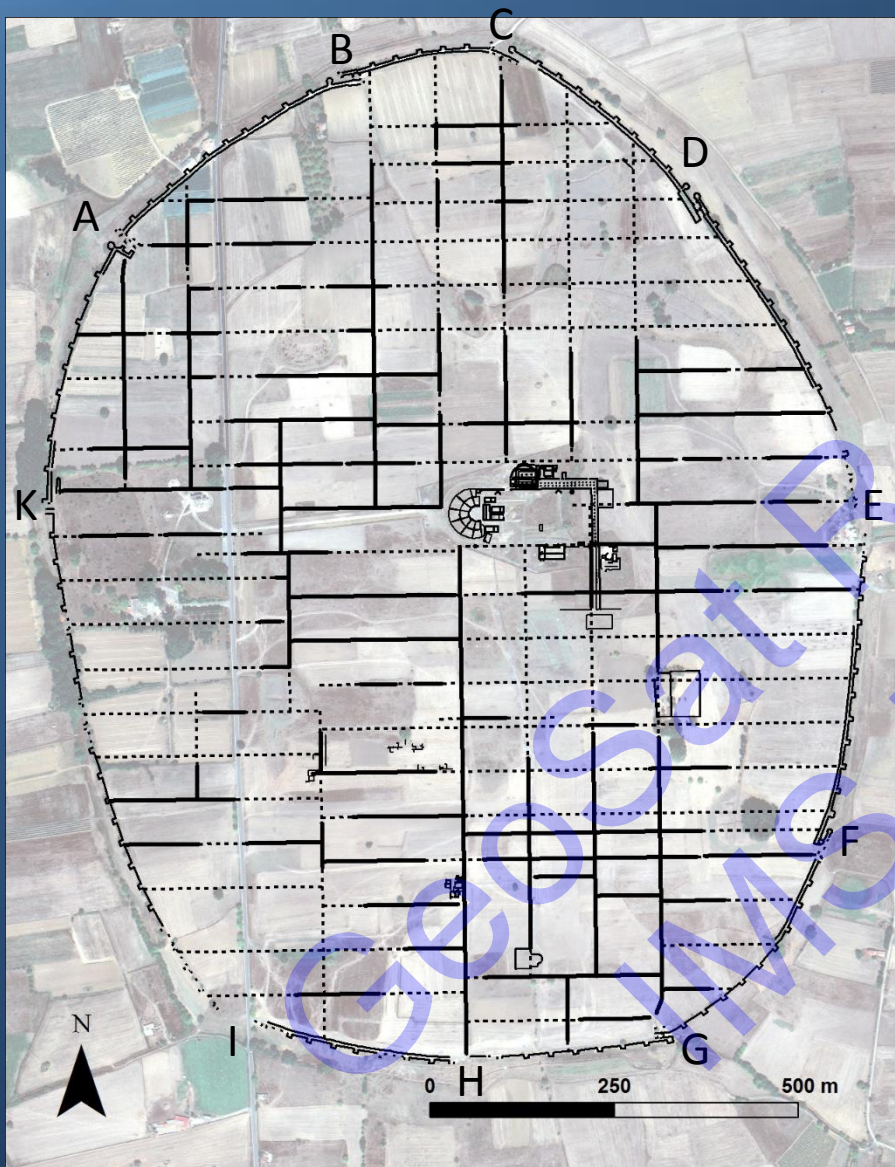




NE Corner of Agora



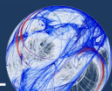


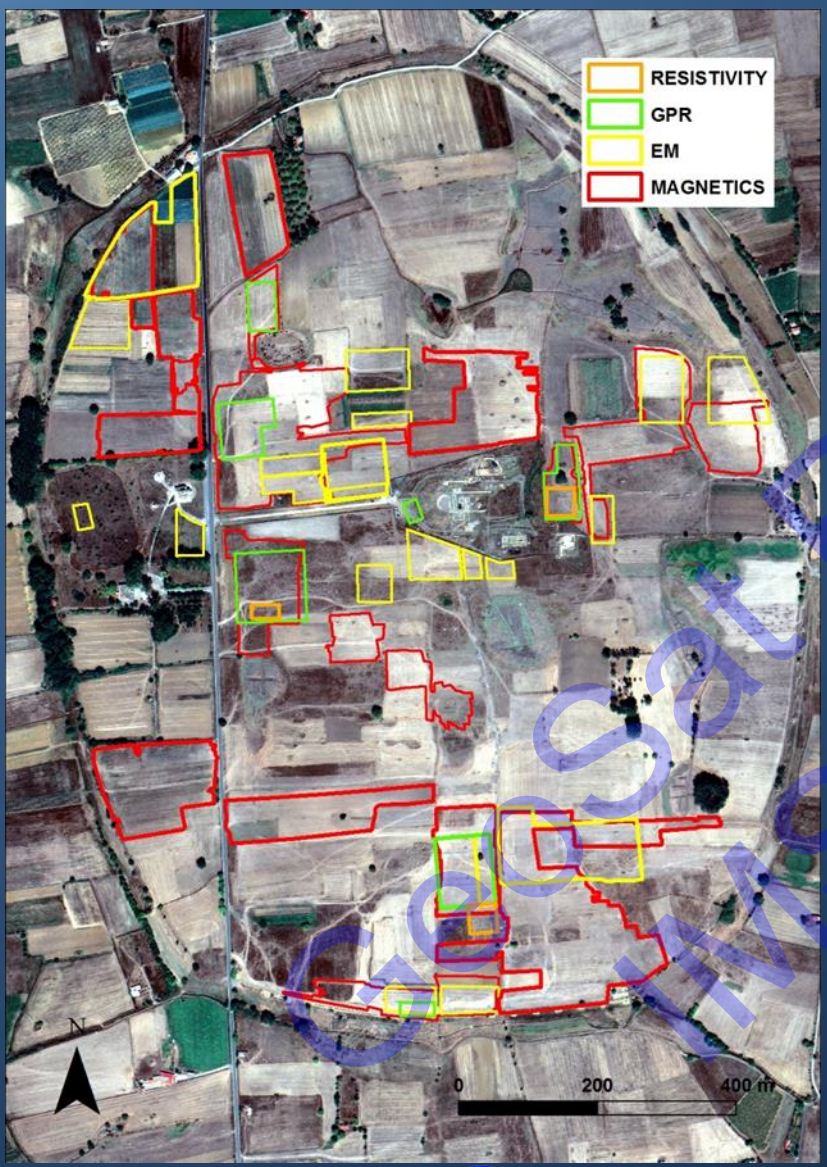


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Planned Settlements in the Peloponnese





Rhodes from *Haus und Stadt im klassischen Griechenland* (1994)

Acknowledgements:



For further information, see politeia.ims.forth.gr/

