

# Il paesaggio archeologico visto dall'alto Il progetto ArchaeoCultour



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Faculty of Humanities



VRSAR-ORSERA  
MUNICIPALITY



CENTRE FOR  
INTERDISCIPLINARY  
RESEARCH IN  
LANDSCAPE  
ARCHAEOLOGY



CROATIAN  
CONSERVATION  
INSTITUTE



Faculty of Economics and  
Tourism "Dr. Mijo Mirković"



Faculty of Interdisciplinary,  
Italian and Cultural Studies

Speleoklub HAD Vrsar

VRSAR  
inspires



Vrsar Tourist Board

*maistra*  
ROVINJ - VRSAR

## ARCHAEOCULTOUR

The Archaeological Landscape  
in a Sustainable Development of Cultural Tourism  
in the Municipality of Vrsar  
2018-2021

Direttore del progetto: Robert Matijašić



# IL COMUNE DI ORSERA-VRSAR, ISTRIA, CROAZIA

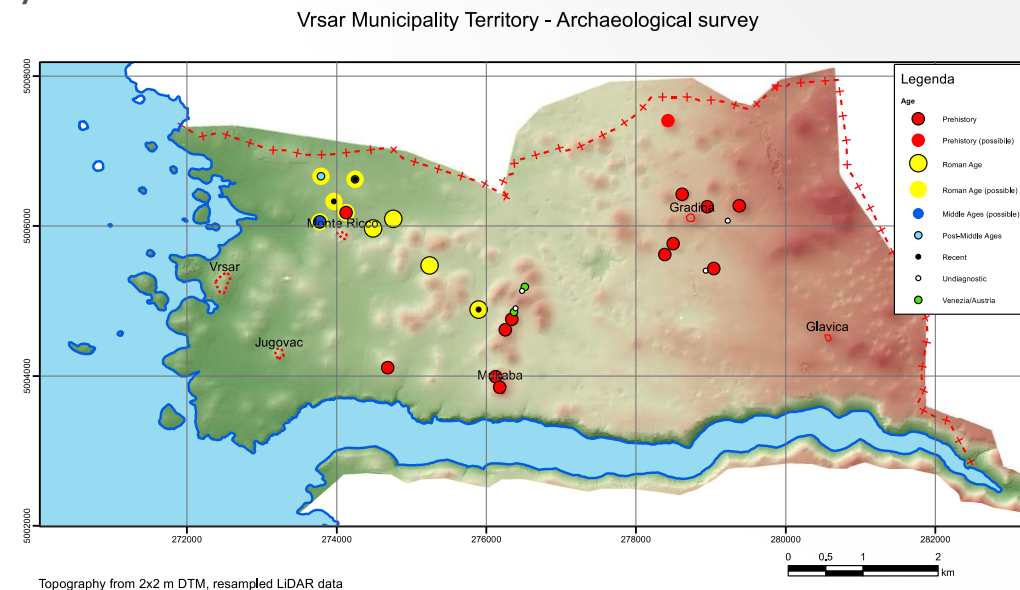
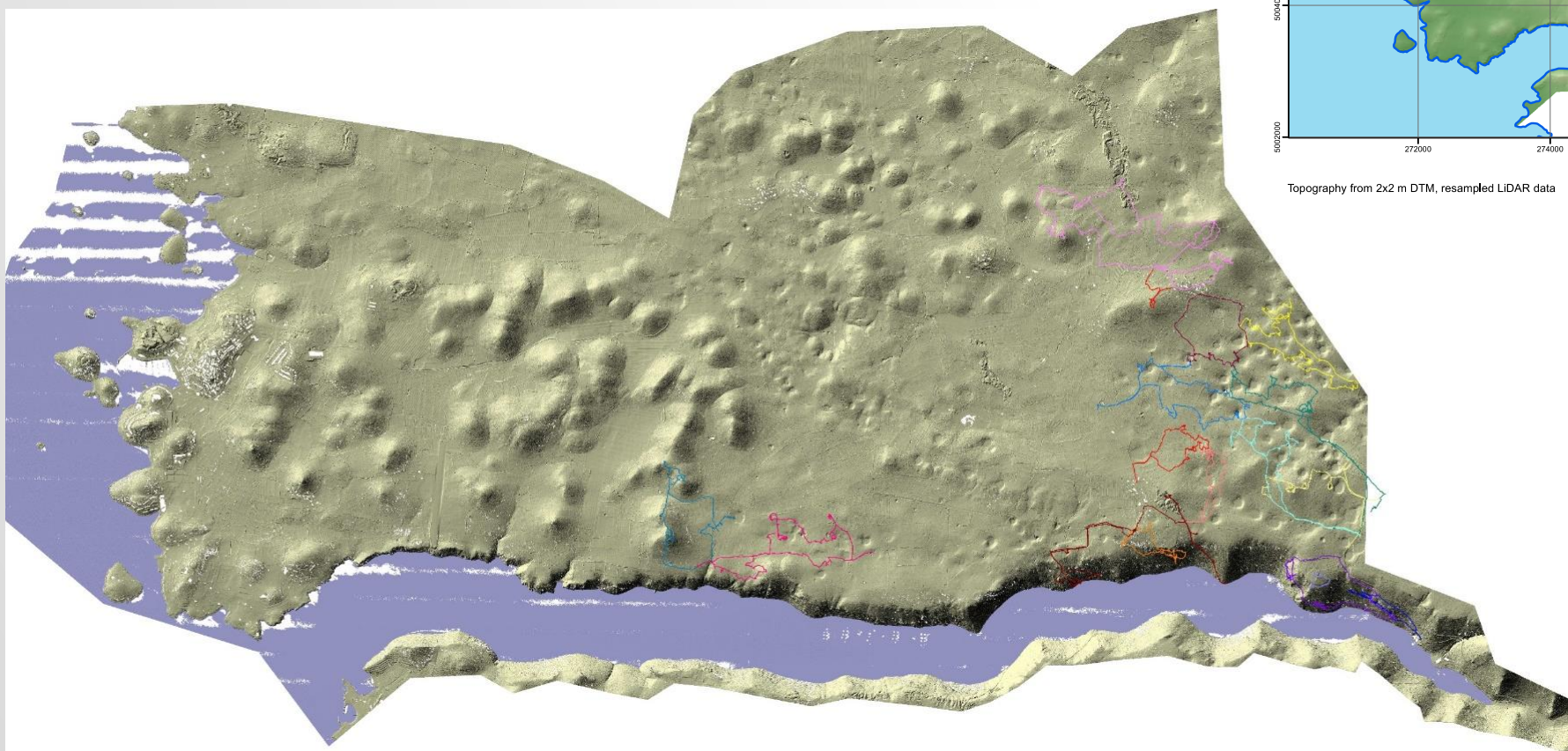


- Superficie: 37,92 km<sup>2</sup>
- Centro amministrativo Vrsar (Orsera) situato su una collina a 50 m a.s.l. - insediamento preistorico



OBIETTIVO 1.  
**IDENTIFICAZIONE**  
dei beni  
archeologici del  
Comune di  
Orsera.

- progetti precedenti RAT-ROPH (UNIPU) + ARCHAEOOLIM (Istituto antropologico di Zagabria)
- + **ARCHAEOCULTOUR**





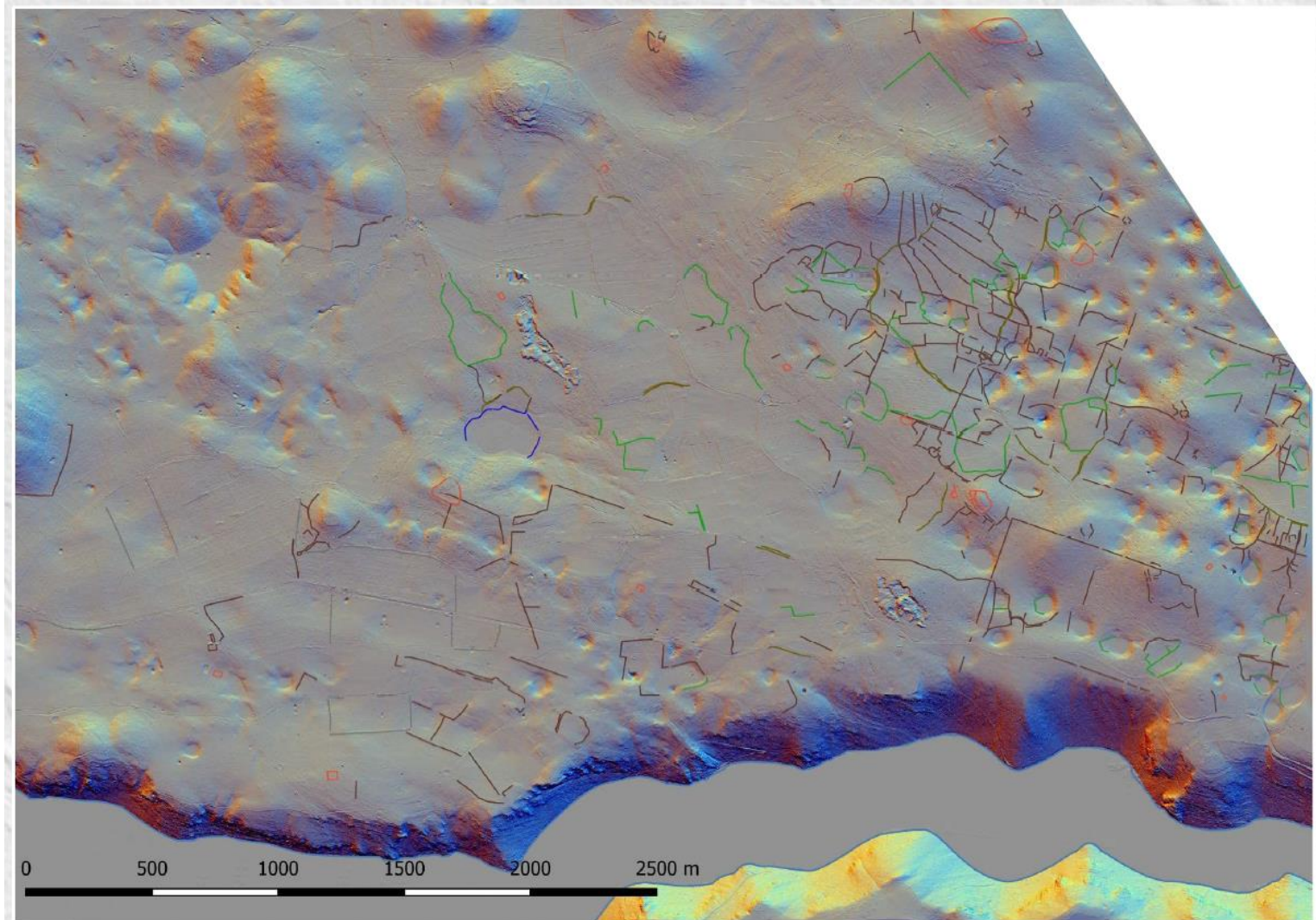
OBIETTIVO 2. **RICERCA** – **scavi** di selezionati siti archeologici per conoscere la morfologia, la cronologia e la dinamica dei siti e del paesaggio





### OBIETTIVO 3. **ELABORAZIONE DI UN GIS**

**DATABASE** integrando i dati sul patrimonio archeologico ricavati dalle ricognizioni sul terreno, da fotografie aeree, Lidar, scavi, ecc.





# Ricostruzione del paesaggio storico









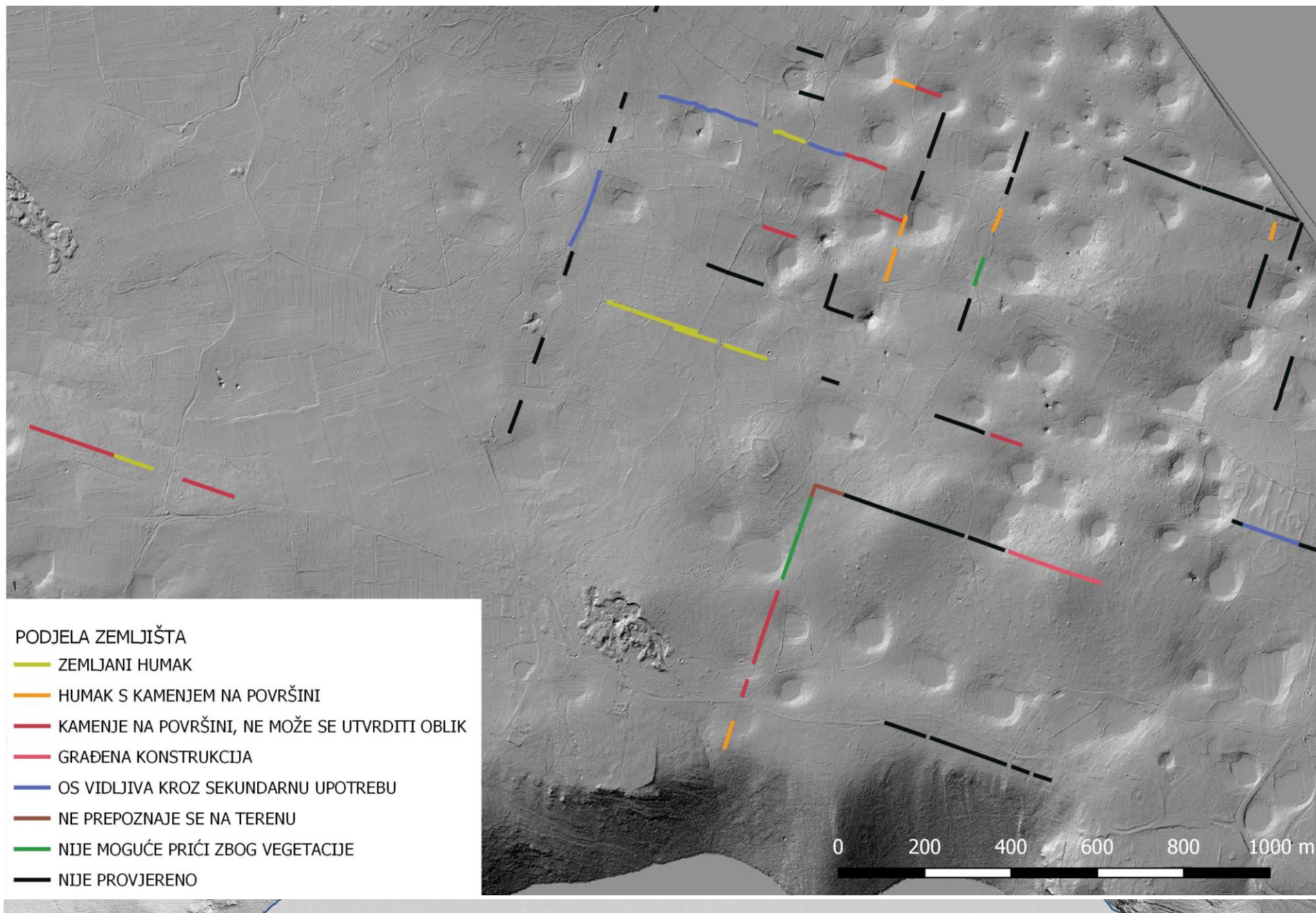
OBIETTIVO 4.  
**VALORIZZAZIONE** e  
determinazione dello  
stato di conservazione  
dei siti e delle strutture  
archeologiche e della  
potenziale  
presentazione e/o di  
ricerca dei siti.



OBIETTIVO 5. Lo sviluppo  
di un sistema di  
monitoraggio continuo  
del patrimonio e del  
paesaggio  
archeologico ai fini  
della manutenzione del  
patrimonio e la  
**CONSERVATION/PROTE  
ZIONE.**









SVEUČILIŠTE JURJA DOBRILE U PULI

ANKETNI UPITNIK

Poštovani (a), ovaj anketni upitnik predstavlja podlogu istraživanja u sklopu znanstvenog projekta „Arheološki krajolik u održivom razvoju kulturnog turizma općine Vrsar – Archaeoculture“. Upitnik je anonimn, a rezultati će se koristiti isključivo u znanstvene svrhe.

1. Molimo Vas da odredite svoj stav prema nabrajanim tvrdnjama na način da označite kućicu koja najbolje opisuje Vaše mišljenje slovom „X“.

|                                                               | Izrazilo se slažem | Slažem se | Niti se slažem, niti se ne slažem | Ne slažem se | Izrazilo se ne slažem |
|---------------------------------------------------------------|--------------------|-----------|-----------------------------------|--------------|-----------------------|
| 1.1 Turizam pridonosi zapošljavanju u našoj općini            |                    |           |                                   |              |                       |
| 1.2 Turizam je najvažnija djelatnost općine                   |                    |           |                                   |              |                       |
| 1.3 Većina stanovnika ima koristi od razvoja turizma u općini |                    |           |                                   |              |                       |
| 1.4 Turisti ne ometaju svakodnevni život i rad u našem mjestu |                    |           |                                   |              |                       |
| 1.5 Sudjelujem u planiranju razvoja turizma svoje općine      |                    |           |                                   |              |                       |
| 1.6 Turizam pridonosi očuvanju okoliša u našoj općini         |                    |           |                                   |              |                       |
| 1.7 Jazak gosta nije prepreka u sporazumjevanju               |                    |           |                                   |              |                       |
| 1.8 Turisti su dobrodošli bez obzira iz koje države dolaze    |                    |           |                                   |              |                       |
| 1.9 Turizam pomaže očuvanju domaćih običaja i kulture baštine |                    |           |                                   |              |                       |
| 1.10 Ocijenite svoje zadovoljstvo kulturnom porudom Vrsara    |                    |           |                                   |              |                       |

2. Molimo Vas da ocijenite važnost navedenih atraktivnosti za razvoj turizma općine Vrsar.

|                                                                      | Izrazilo se slažem | Slažem se | Niti se slažem, niti se ne slažem | Ne slažem se | Izrazilo se ne slažem |
|----------------------------------------------------------------------|--------------------|-----------|-----------------------------------|--------------|-----------------------|
| 2.1 Obilježja mora oko Vrsara                                        |                    |           |                                   |              |                       |
| 2.2 Vrijeme i klima                                                  |                    |           |                                   |              |                       |
| 2.3 Obala i otoci                                                    |                    |           |                                   |              |                       |
| 2.4 Priroda i ugođeni biljni pokrov                                  |                    |           |                                   |              |                       |
| 2.5 Lirski zapisi                                                    |                    |           |                                   |              |                       |
| 2.6 Posebni kulturni rezervat Korijata                               |                    |           |                                   |              |                       |
| 2.7 Spomenik Samostan i crkva sv. Mihovila                           |                    |           |                                   |              |                       |
| 2.8 Spomenik Arheološki kvartier Monte Ricco                         |                    |           |                                   |              |                       |
| 2.9 Spomenik Arheološko nalazište u okolici crkve sv. Marije od Mora |                    |           |                                   |              |                       |
| 2.10 Spomenik Crkva sv. Marije od Mora i ostaci samostana            |                    |           |                                   |              |                       |
| 2.11 Spomenik Kulturno – povijesna cjelina Vrsara                    |                    |           |                                   |              |                       |
| 2.12 Tradicija kulturna i zabavne manifestacije                      |                    |           |                                   |              |                       |
| 2.13 Kulture, sportske i zabavne manifestacije                       |                    |           |                                   |              |                       |
| 2.14 Neki drugi atraktivnosti, navedite koje:                        |                    |           |                                   |              |                       |
| 2.15                                                                 |                    |           |                                   |              |                       |

3. Turisti u općini Vrsar vrijeme najviše provode na sljedeći način:

|                                                        | Izrazilo se slažem | Slažem se | Niti se slažem, niti se ne slažem | Ne slažem se | Izrazilo se ne slažem |
|--------------------------------------------------------|--------------------|-----------|-----------------------------------|--------------|-----------------------|
| 3.1 Posjet i dopis rekreacije u moru uz more           |                    |           |                                   |              |                       |
| 3.2 Posjet i boravak u zaštićenim prirodnim područjima |                    |           |                                   |              |                       |
| 3.3 Posjet biosferi                                    |                    |           |                                   |              |                       |
| 3.4 Posjet zaštićenim objektima                        |                    |           |                                   |              |                       |
| 3.5 Posjet kulturnim manifestacijama                   |                    |           |                                   |              |                       |
| 3.6 Posjet kulturnim manifestacijama                   |                    |           |                                   |              |                       |
| 3.7 Sudjelovanje u kulturnim manifestacijama           |                    |           |                                   |              |                       |
| 3.8 Sudjelovanje u kulturnim manifestacijama           |                    |           |                                   |              |                       |
| 3.9 Sudjelovanje u kulturnim manifestacijama           |                    |           |                                   |              |                       |
| 3.10 Navedite ostale aktivnosti                        |                    |           |                                   |              |                       |

Molimo Vas da navedete:

- Po čemu je Vrsar prepoznatljiv i jedinstven?
- Koja je najveća prednost Vrsara kao turističke destinacije?
- Koji su glavni nedostaci?
- Koji su, po Vama, glavni razvojni potencijali Vrsara kao destinacije kulturnog turizma?
- Navedite 5 najatraktivnijih kulturnih i turističkih manifestacija na području Vrsara.
- Navedite 5 najatraktivnijih kulturnih i turističkih manifestacija na području Vrsara i šire.
- Imate li prijedloge za unapređenje kulturno-turističke ponude na području Vrsara?
- Jeste li upoznat(i) s dosadašnjim projektima razvoja kulturnog turizma u Vrsaru? Navedite pozitivne rezultate projekata.
- Jeste li informirani o projektu Archaeoculture? Koje rezultate očekujete od tog projekta?
- Imate li dodatna pitanja ili prijedloge?

Molim Vas da odgovorite na sljedeća pitanja koja se odnose na Vas osobno:

Spol: ☐ Muškarac ☐ Žena

Starija stručna sprema: ☐ Osnovna škola ☐ Srednja škola ☐ Fakultetsko obrazovanje

U Vašem kućanstvu: ☐ Zaposlen ☐ Poduzetnik ☐ Student ☐ Umirovljenik ☐ Magister ili doktorat

U Vašem kućanstvu: ☐ Ivedi do prihoda ostvaruje se kroz turizam i ugostiteljstvo ☐ Magister ili doktorat

Imate li prihoda ostvaruje se kroz turizam i ugostiteljstvo ☐ Magister ili doktorat

Imate li prihoda ostvaruje se kroz turizam i ugostiteljstvo ☐ Magister ili doktorat

Imate li prihoda ostvaruje se kroz turizam i ugostiteljstvo ☐ Magister ili doktorat

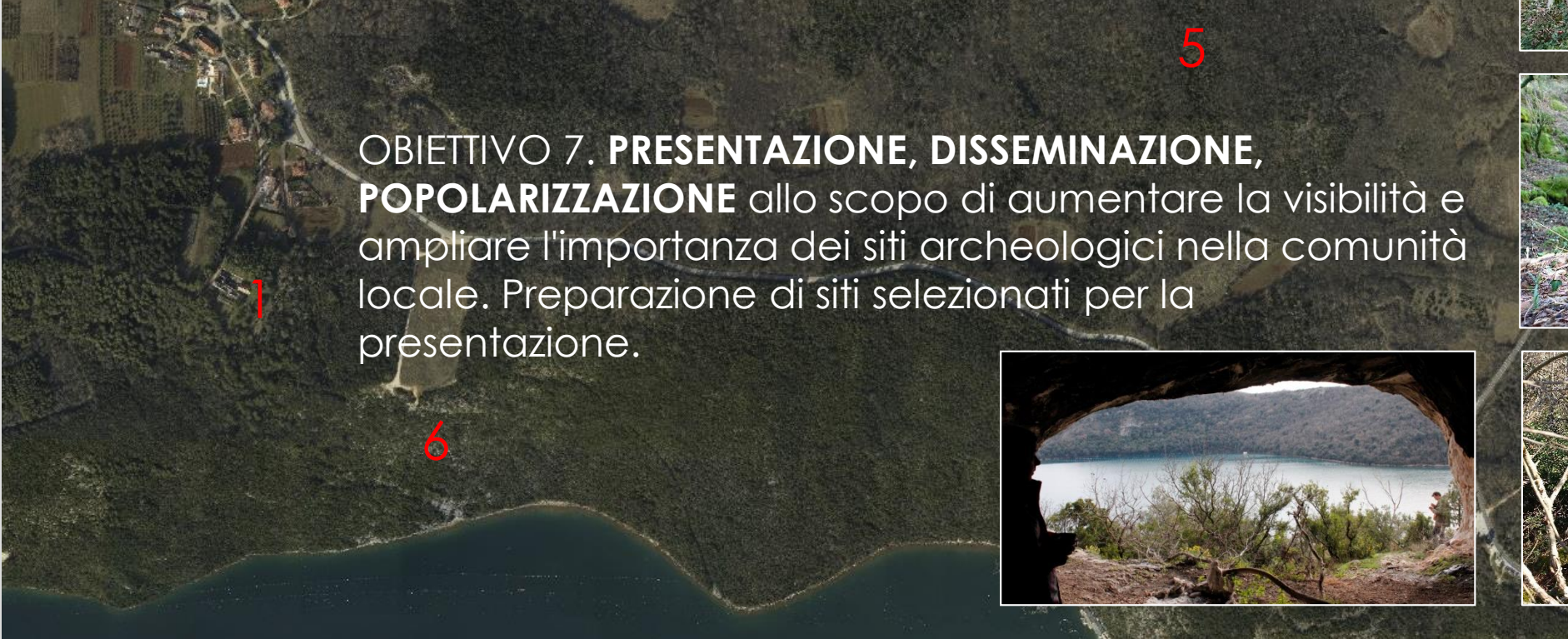
Imate li prihoda ostvaruje se kroz turizam i ugostiteljstvo ☐ Magister ili doktorat

Imate li prihoda ostvaruje se kroz turizam i ugostiteljstvo ☐ Magister ili doktorat

OBIETTIVO 6. RICERCA DI MERCATO E OPINIONI allo scopo di una valutazione efficace del patrimonio culturale per lo sviluppo economico. I risultati di un sondaggio di opinioni di turisti, gente locale e gli esperti mostreranno il modo più adeguato per la presentazione del patrimonio culturale.







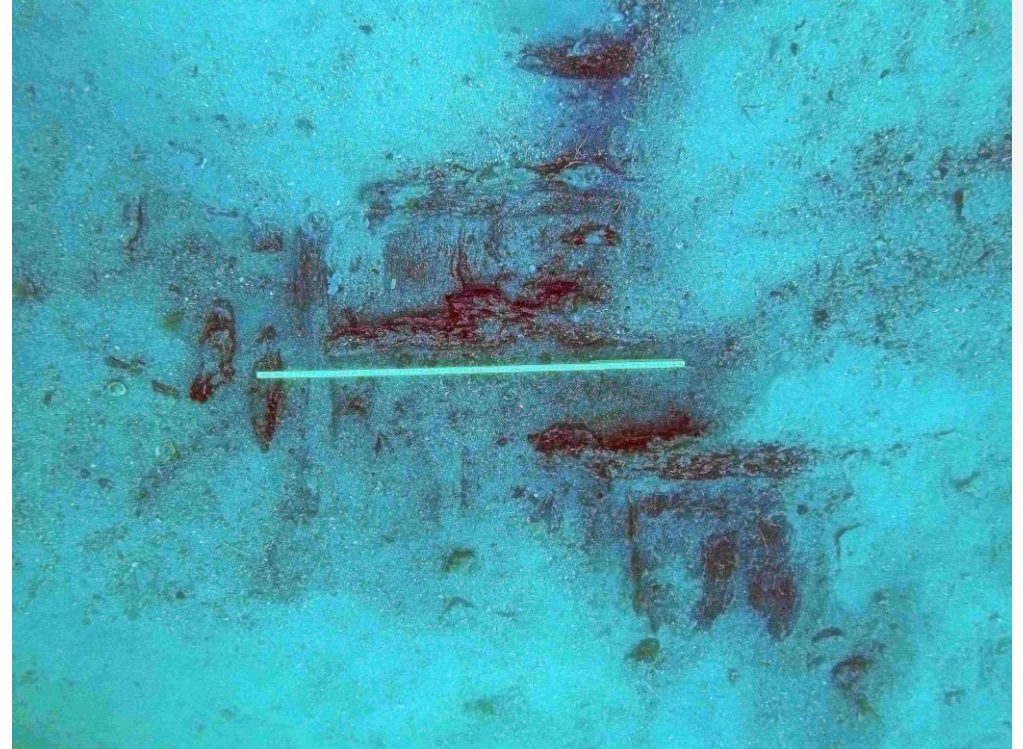
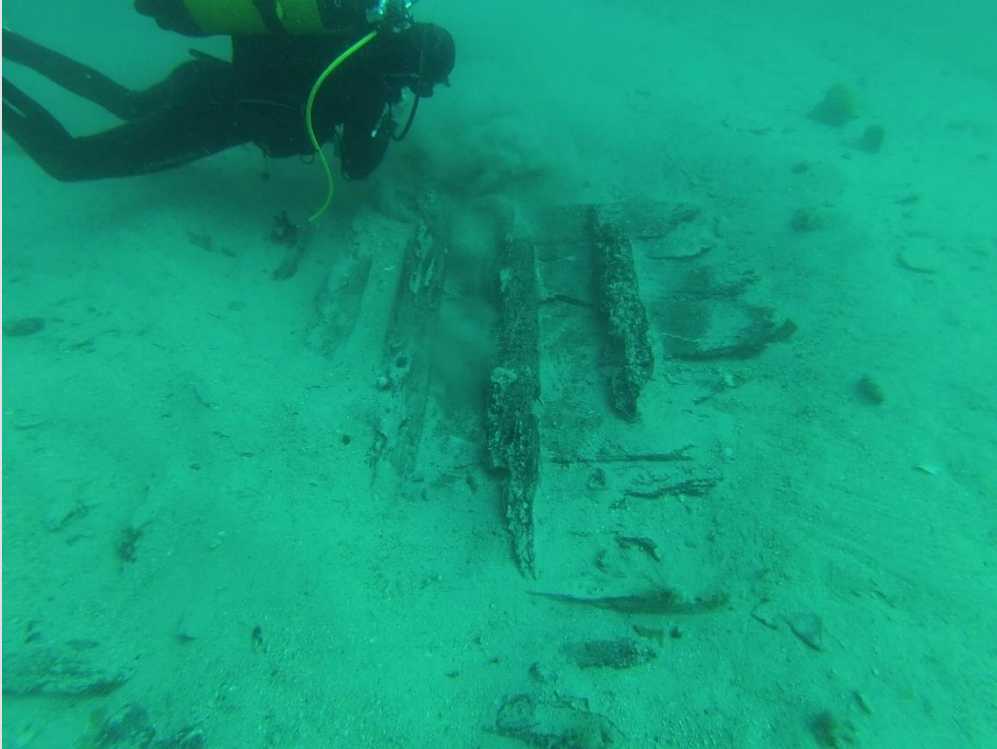
OBIETTIVO 7. **PRESENTAZIONE, DISSEMINAZIONE, POPOLARIZZAZIONE** allo scopo di aumentare la visibilità e ampliare l'importanza dei siti archeologici nella comunità locale. Preparazione di siti selezionati per la presentazione.







# ARCHEOLOGIA SUBACQUEA



- Relitto
- Quercus Sp.
- 1436-1522 cal. AD



Relitto delle tegole  
romane



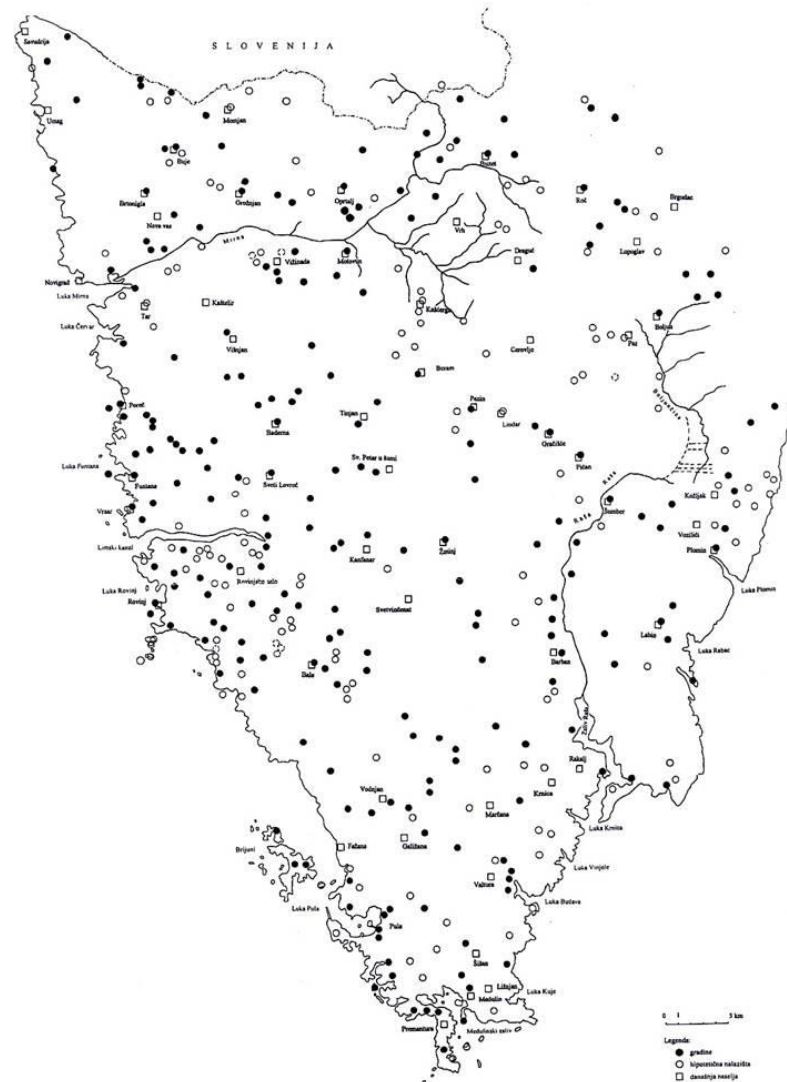


# Porto romano

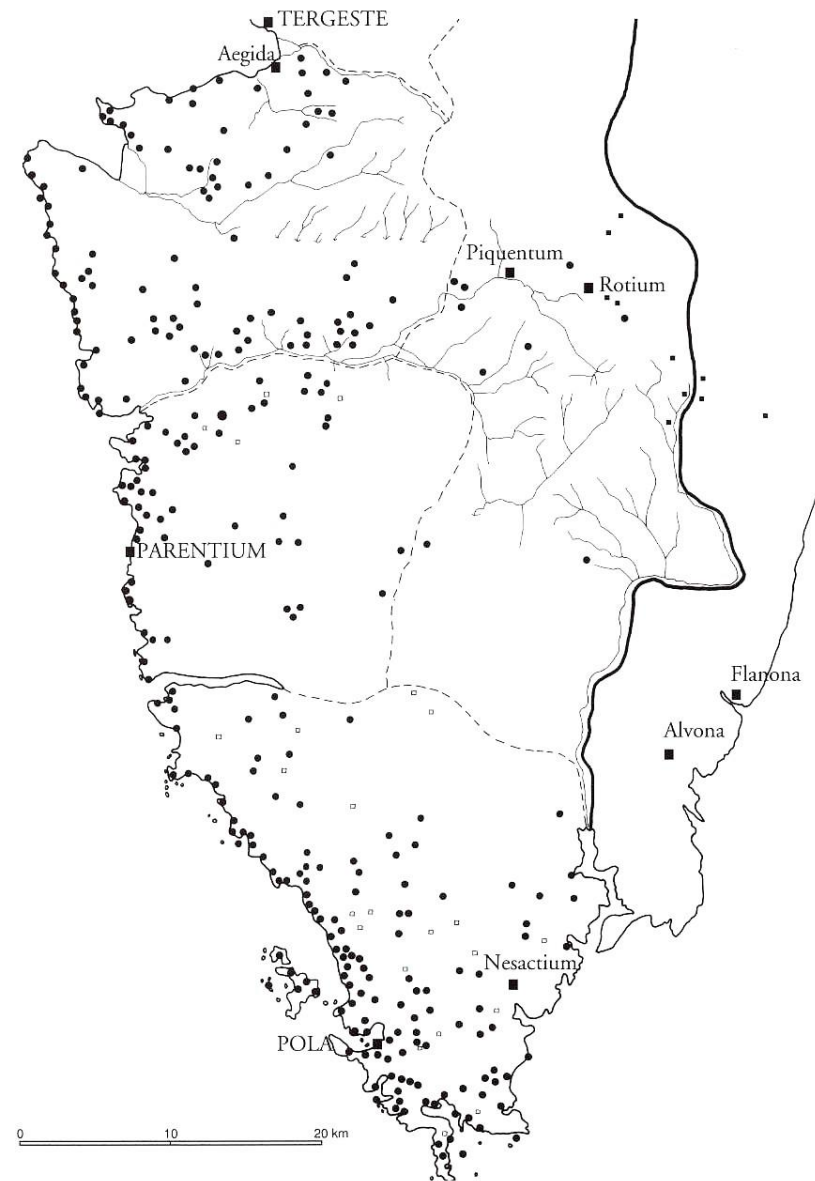




## Castellieri preistorici



## Villae romane







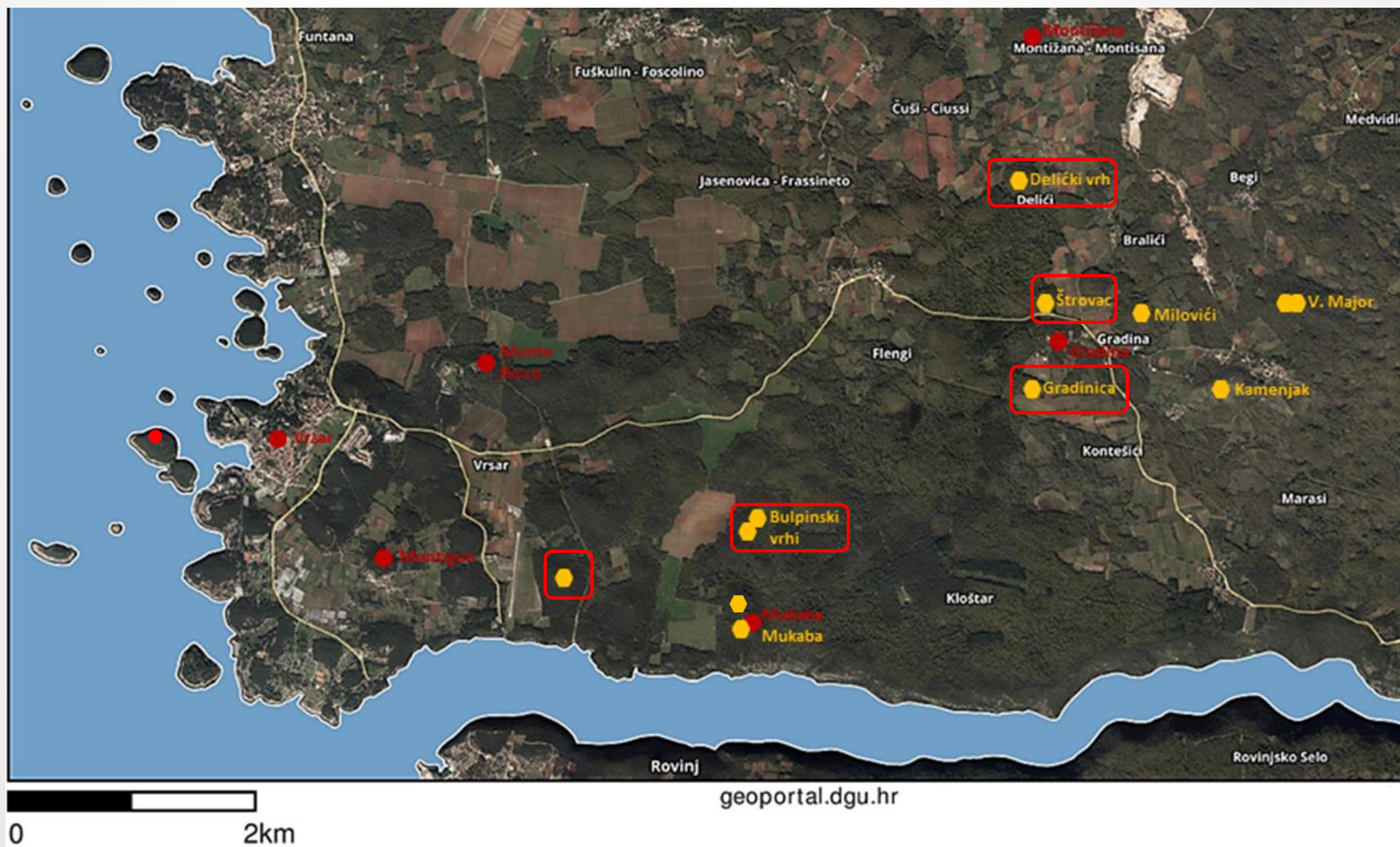
Tumuli conosciuto  
prima del 2015



Tumuli 2015



Castellieri





Colonia Iulia Tergeste

Colonia Iulia Parentium

Colonia Iulia Pola













# MONTE RICCO

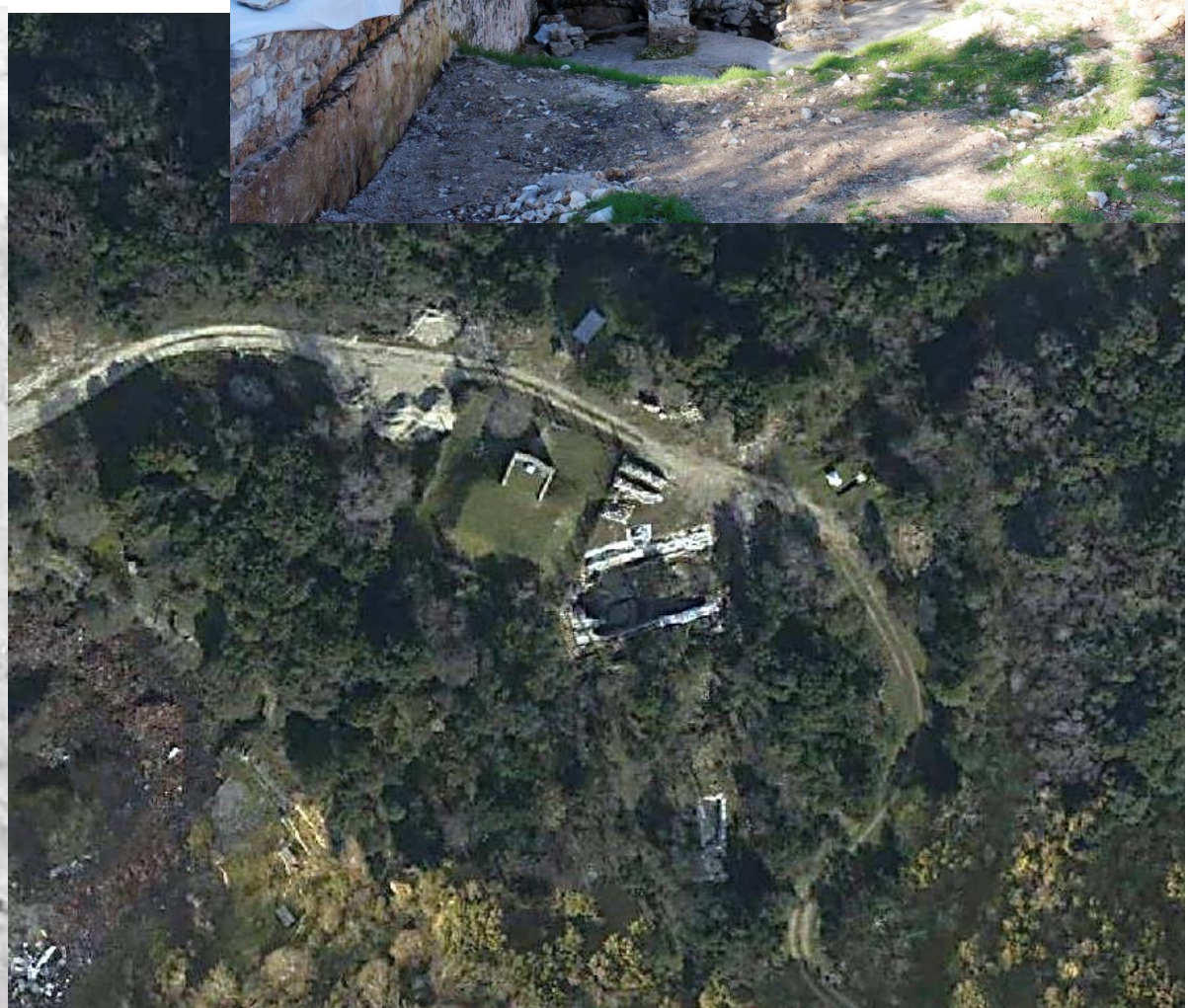
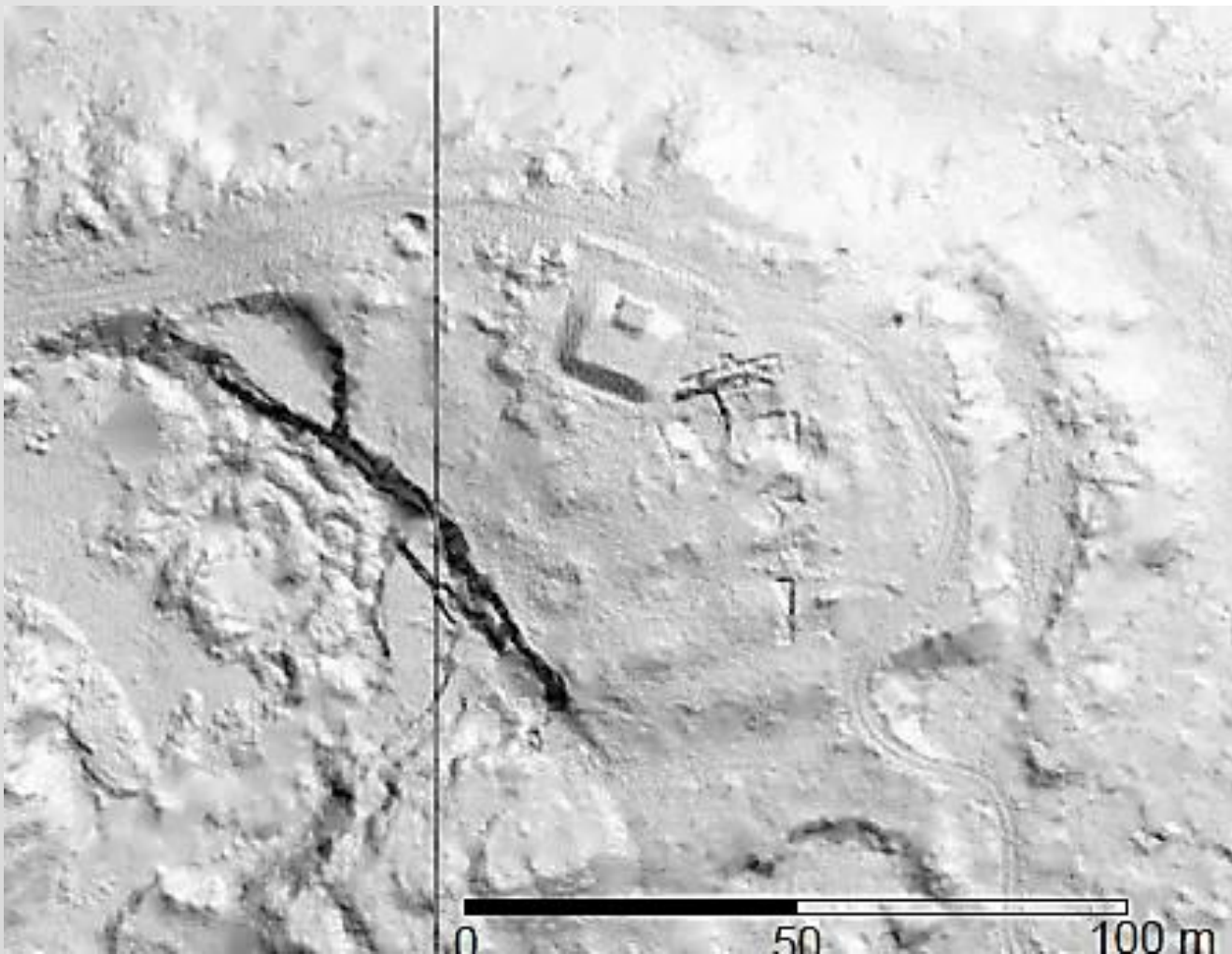




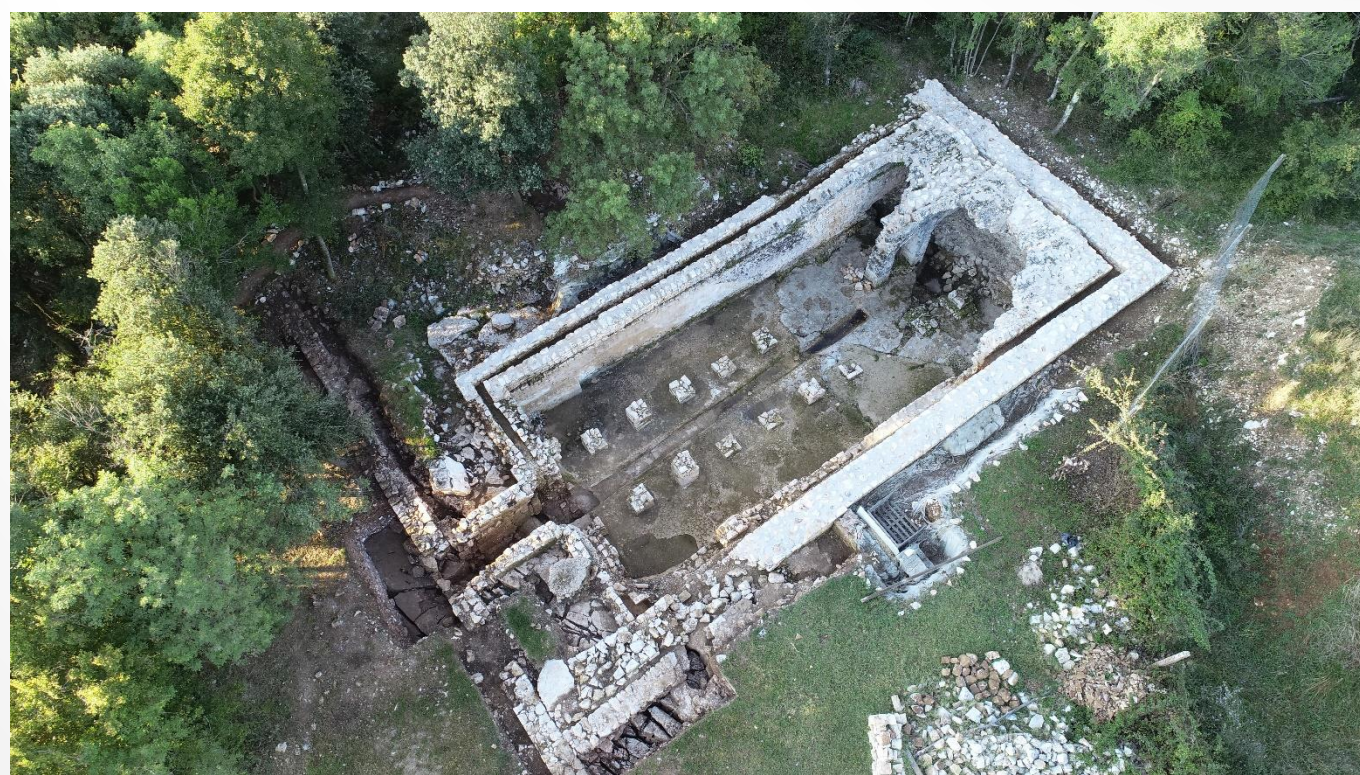




# MONTE RICCO







- <https://vektra.net/en/project/vrsar-rimska-cisterna-monte-rico/>

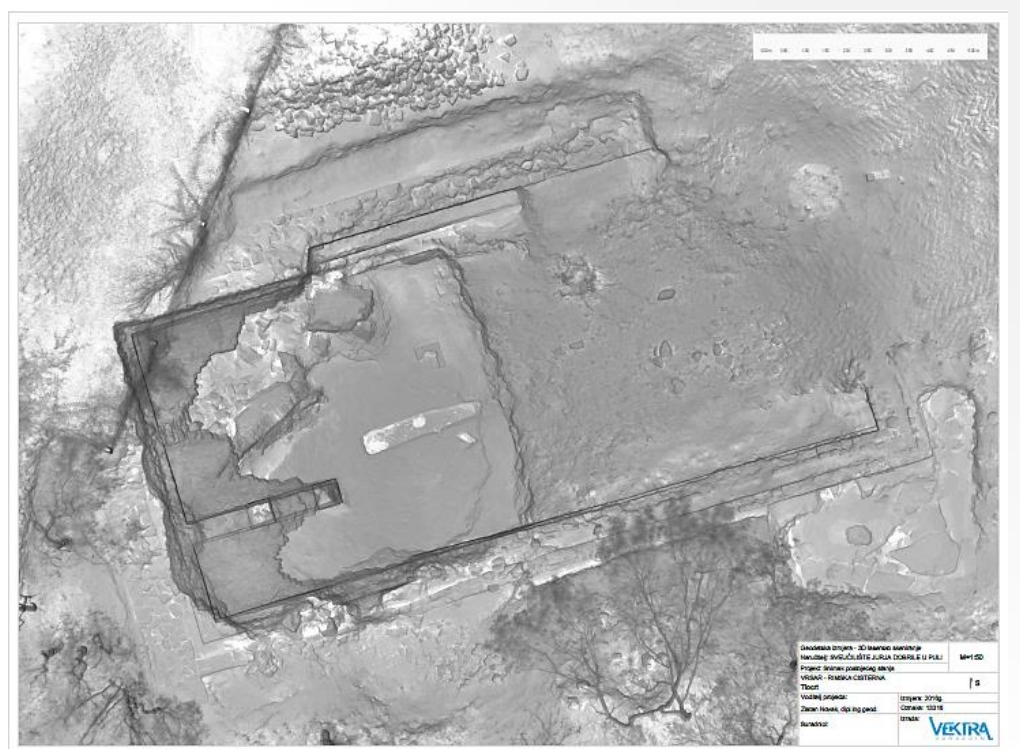






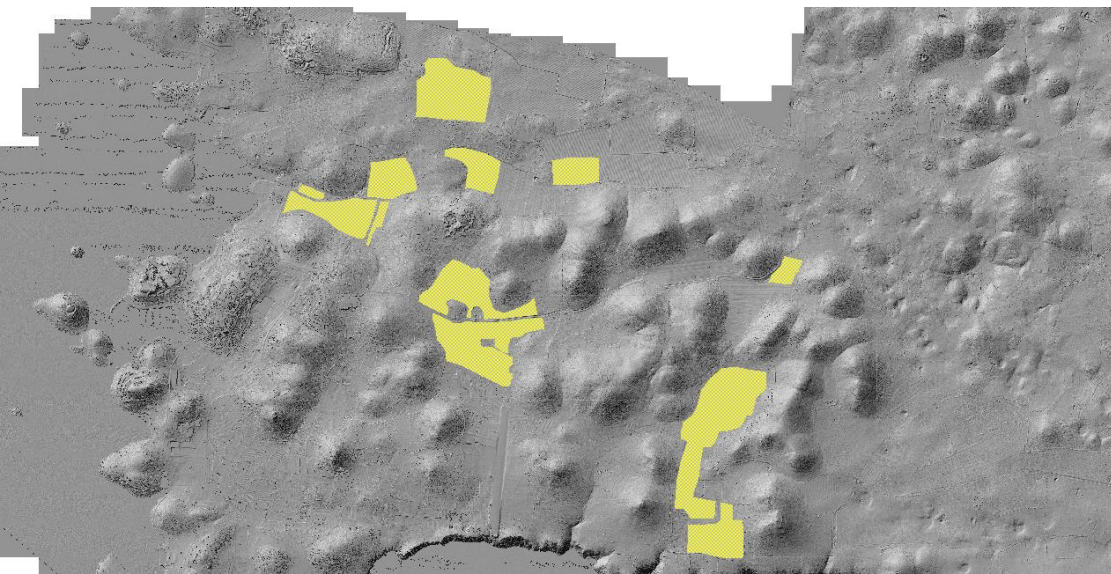
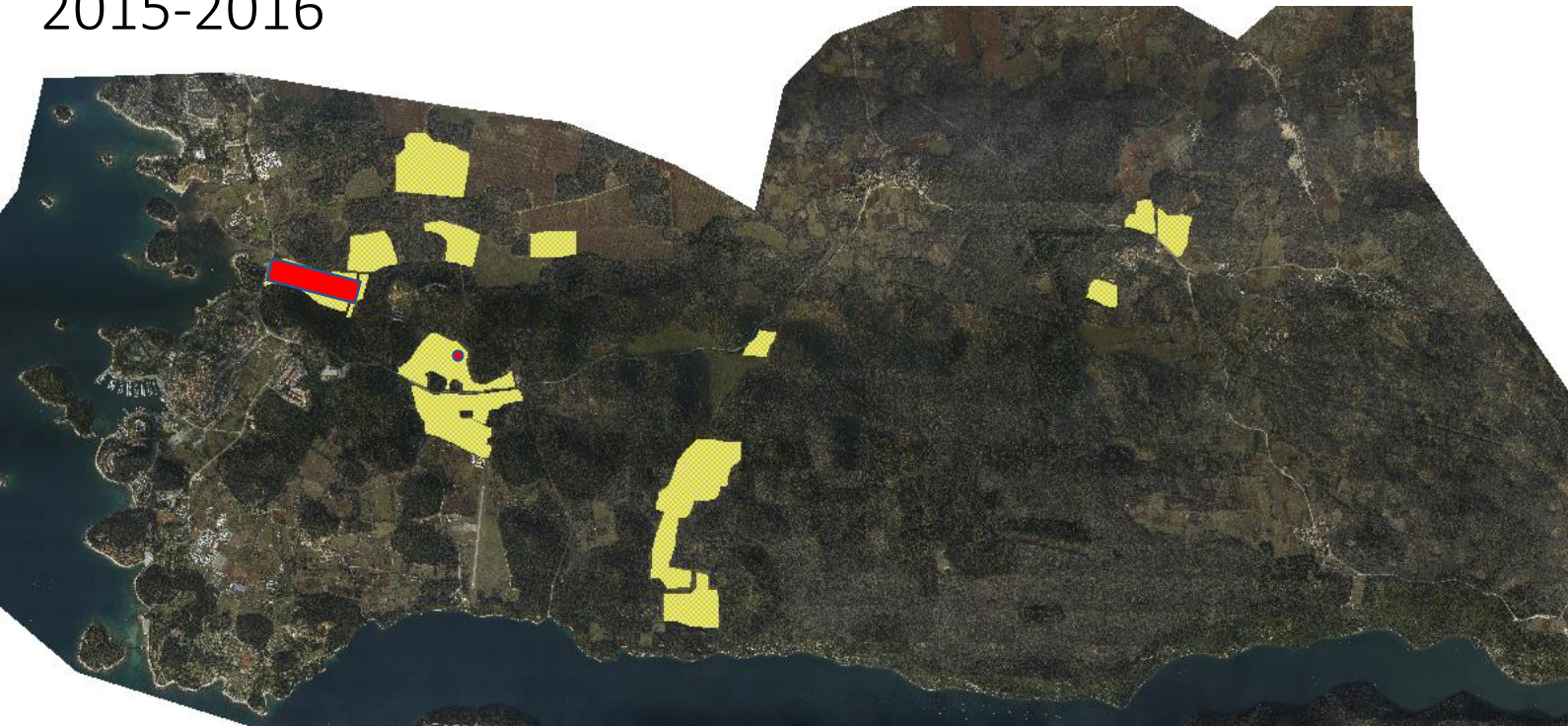








# Intensive PEDESTRIAN SURVEY 2015-2016

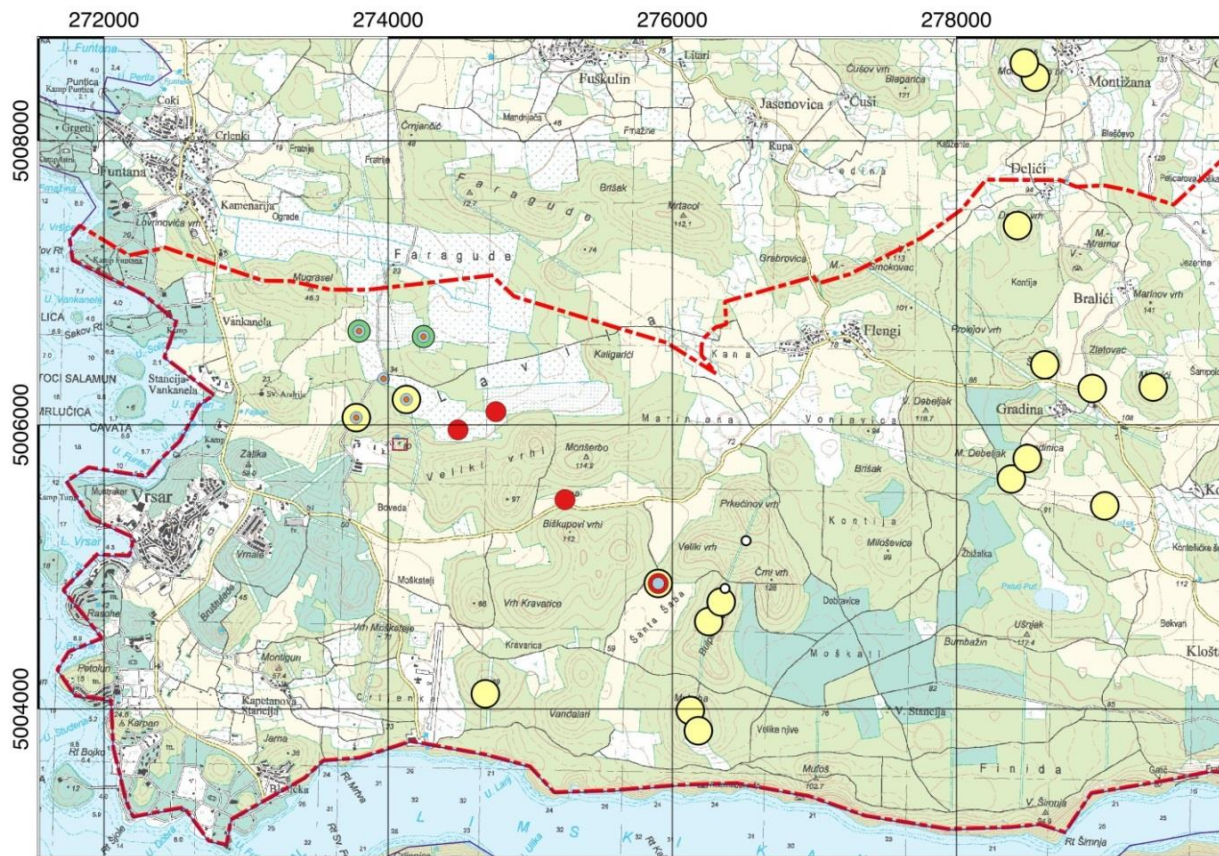


## GROUND VISIBILITY





# RICOGNIZIONE 2015



## Legenda

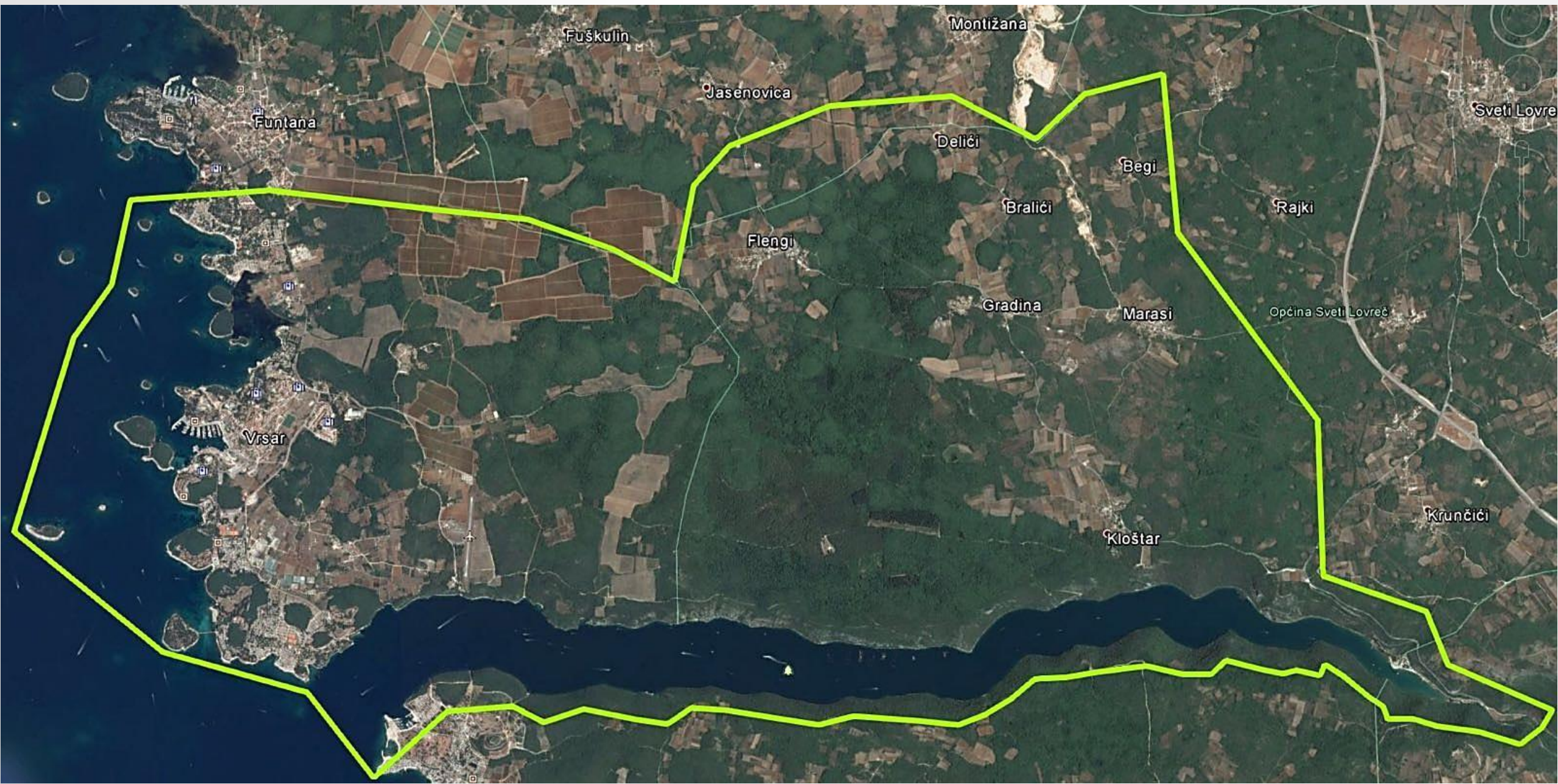
— MR\_Perim  
 VrsarOpcinaPGon

## Ricognizione\_MR15

-  Preistoria
-  Età Romana
-  Post\_Medievale
-  Recente
-  Venezia/austria
-  Romano Possibile







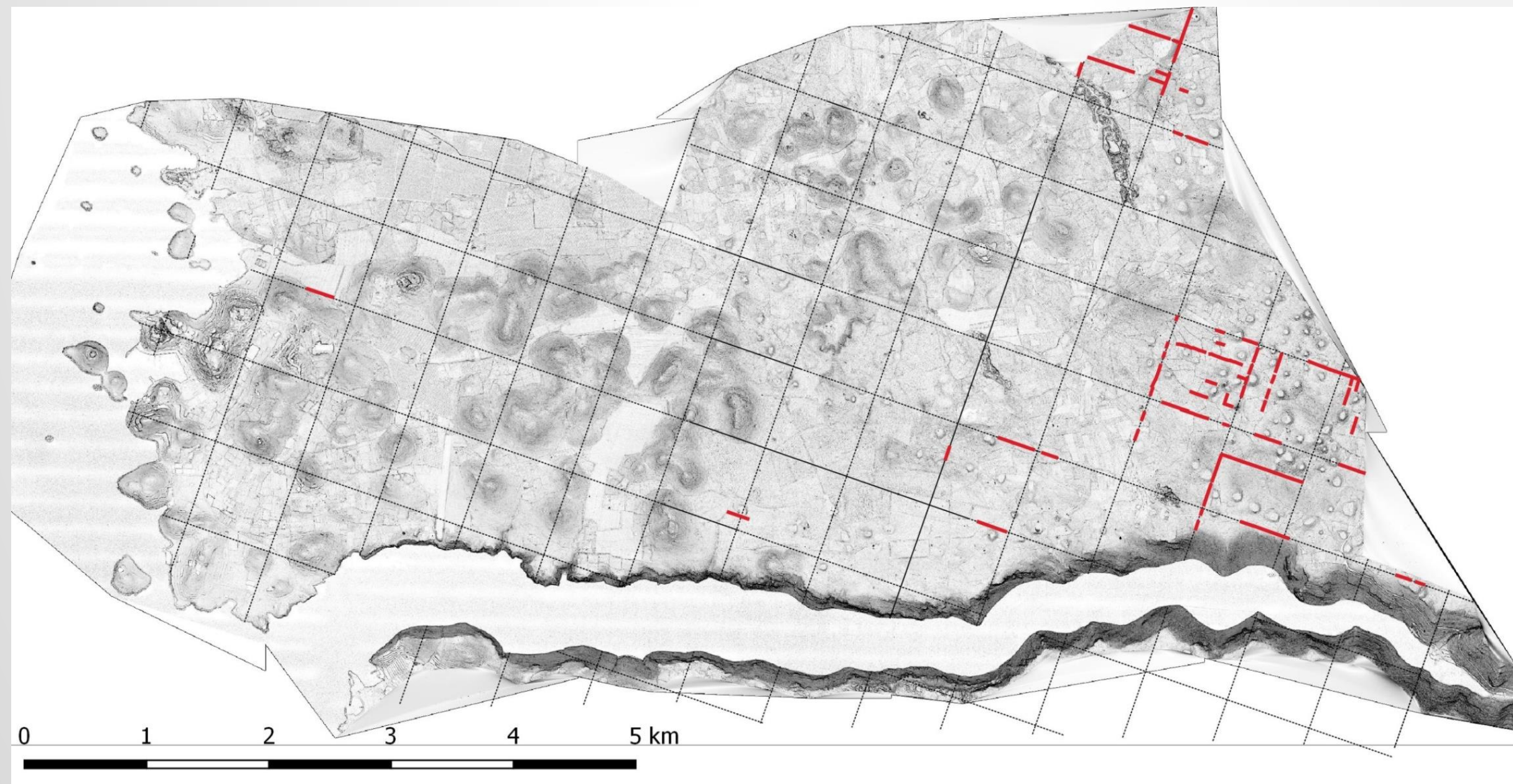




Terreno  
boscoso –  
visibilità  
molto bassa







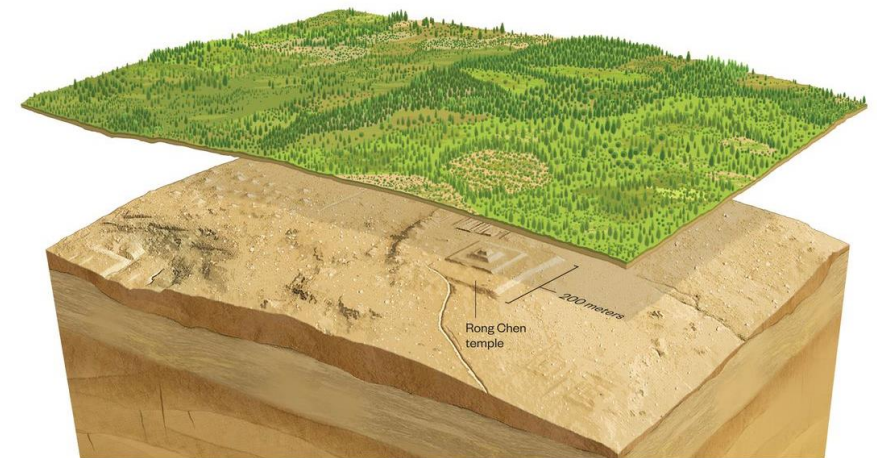
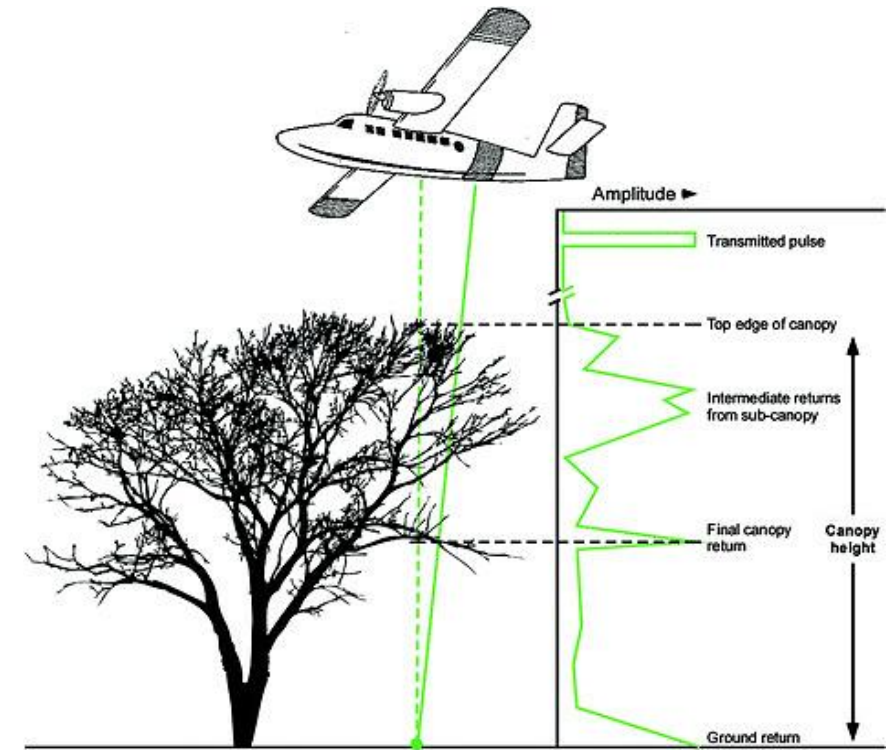
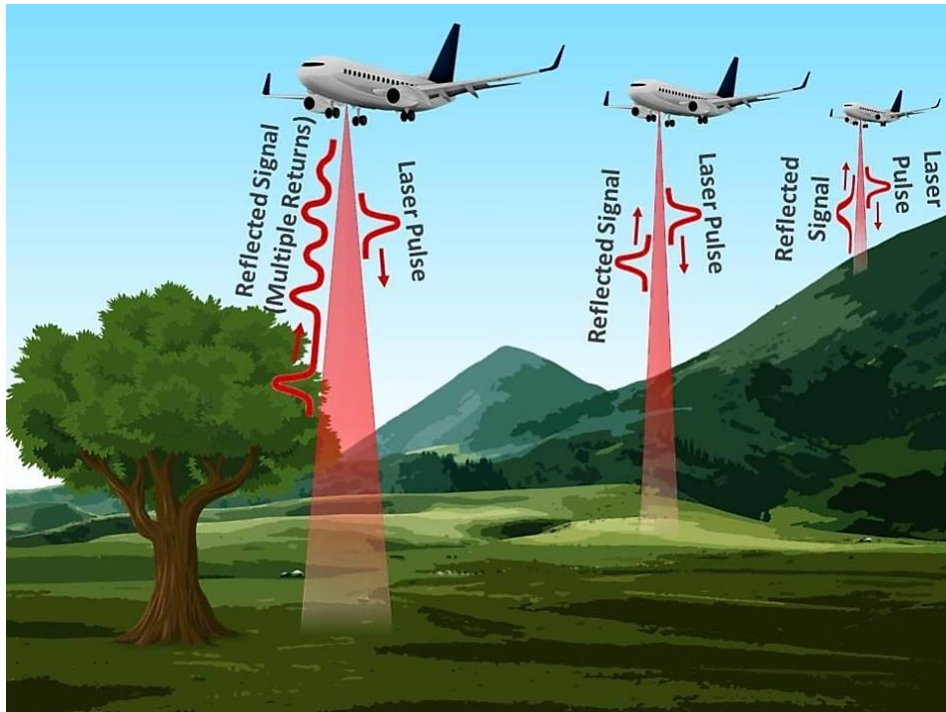


# L'uso del LiDAR nello studio del paesaggio archeologico

LIDAR - Light detection and ranging

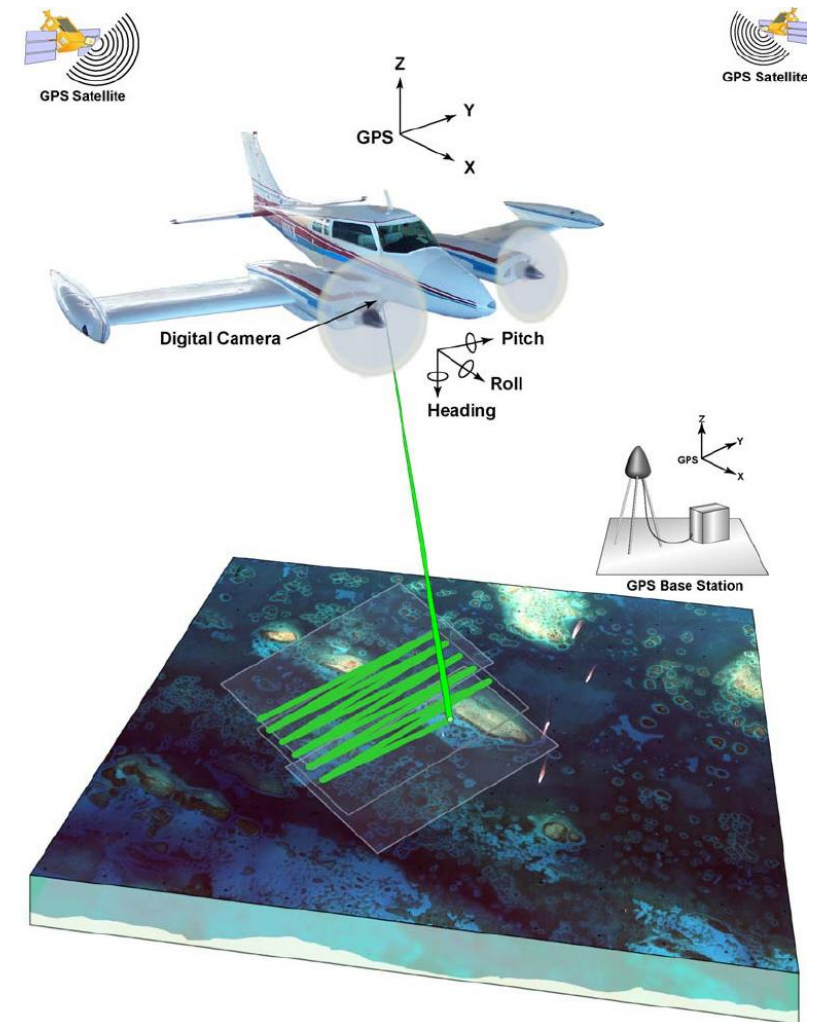
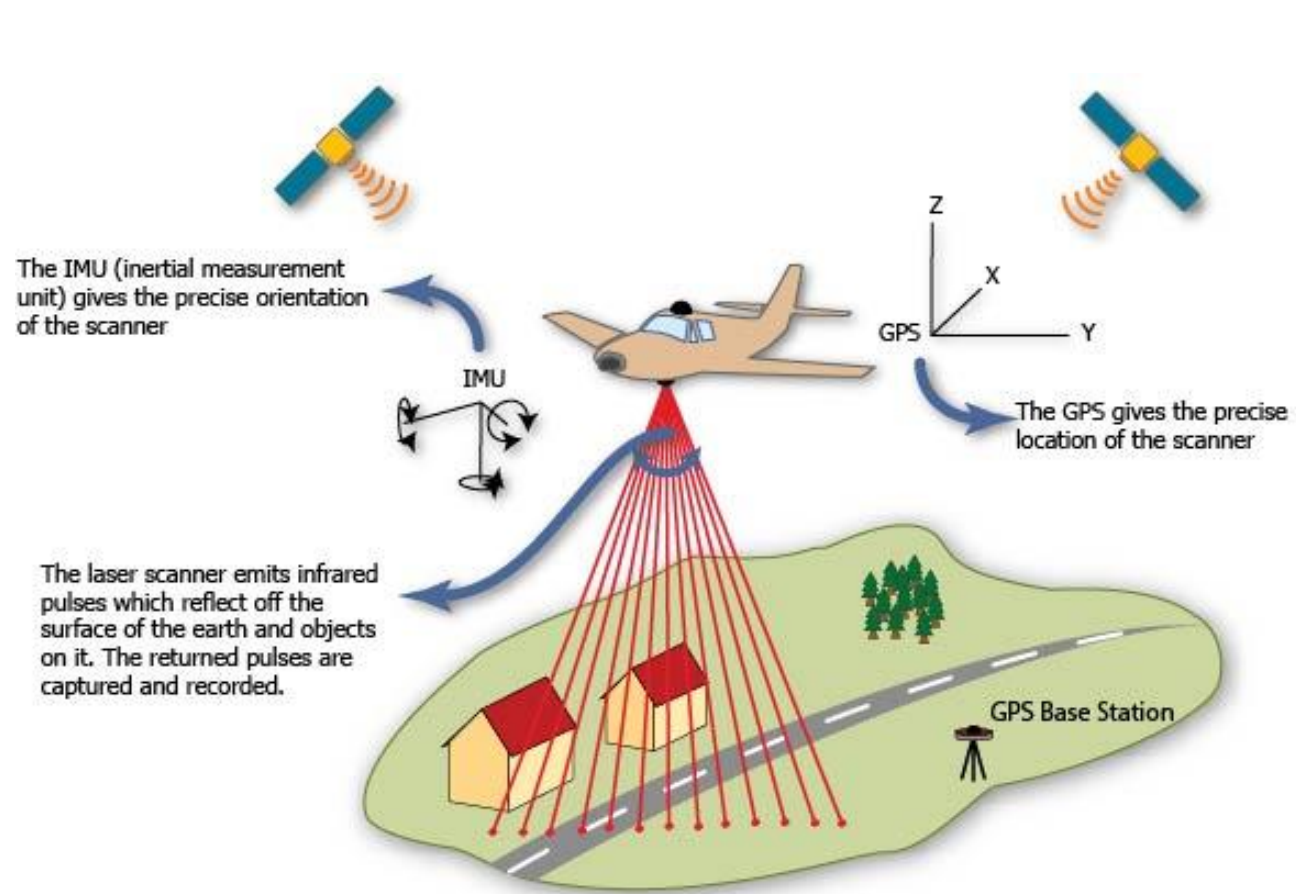
ALS – Airborne Laser Scanning

- Misura il tempo trascorso tra l'emissione dell'impulso e la ricezione del segnale di ritorno





## Sistemi di localizzazione e navigazione

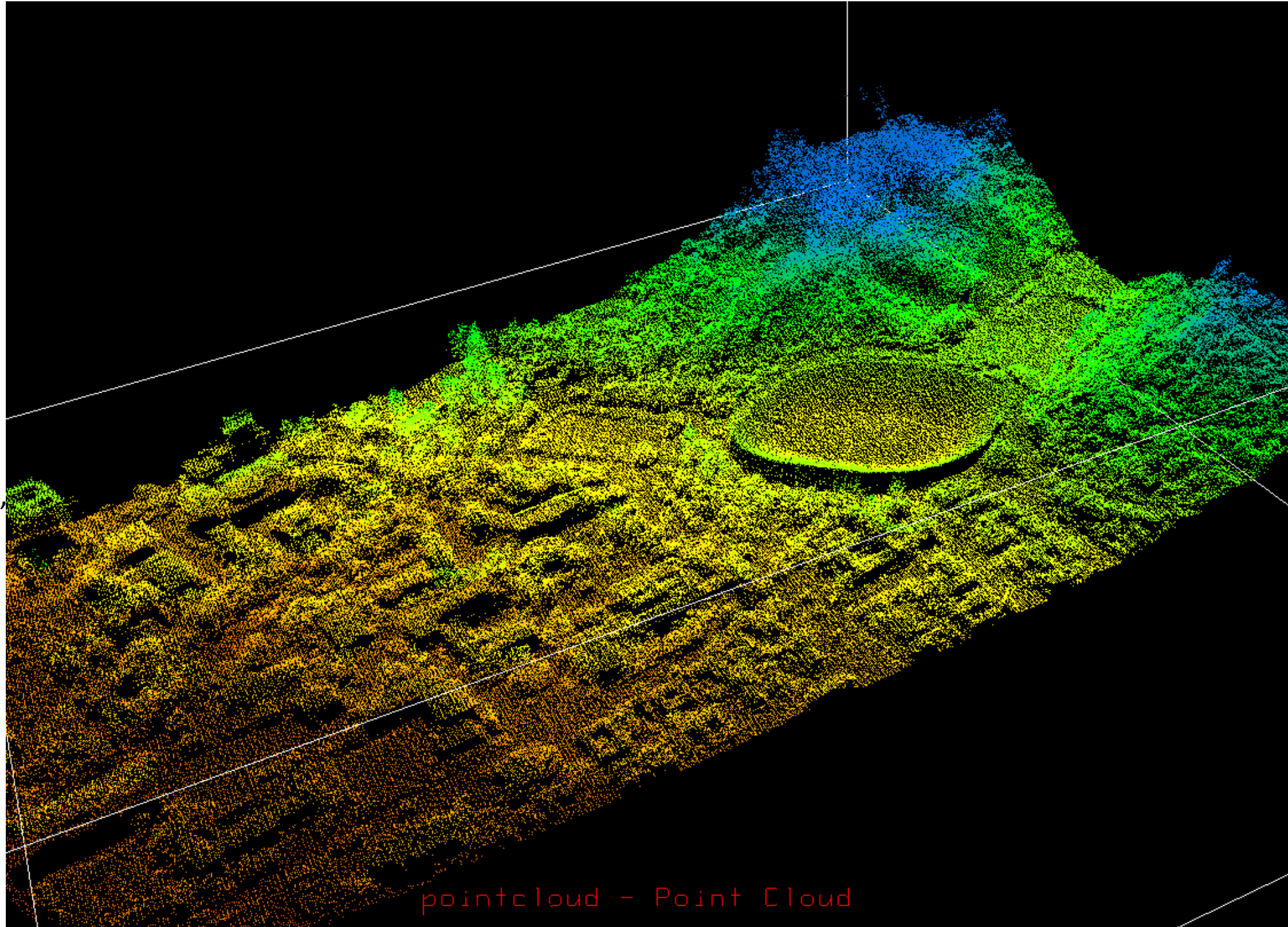




Il laser scanner misura centinaia di migliaia di punti formando delle nuvole dei punti (point-clouds).

Ogni misurazione – una mappa delle distanze e una mappa dell'intensità del segnale di ritorno.

Elaborazione dei dati point-clouds tramite software

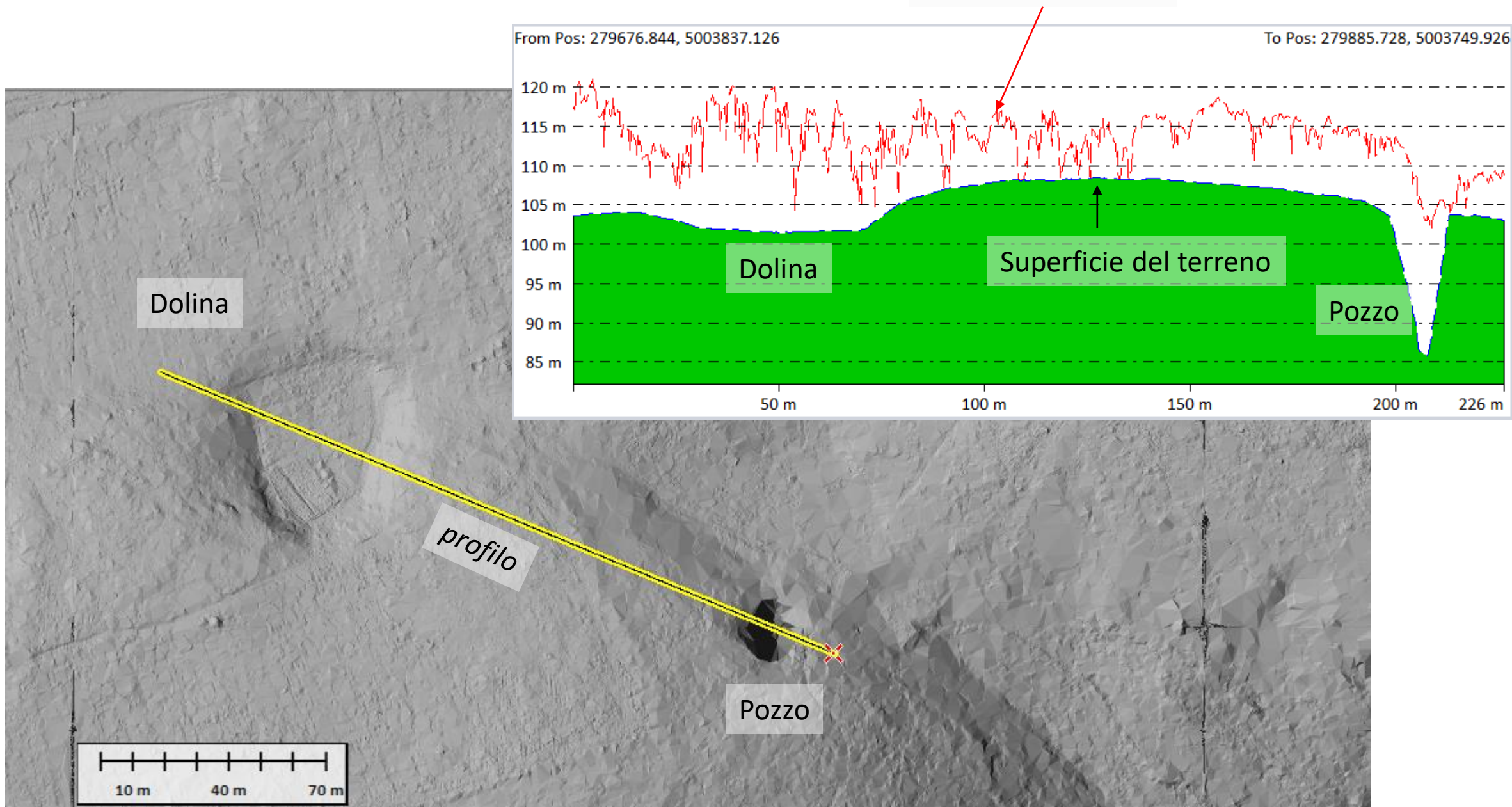


pointcloud - Point Cloud



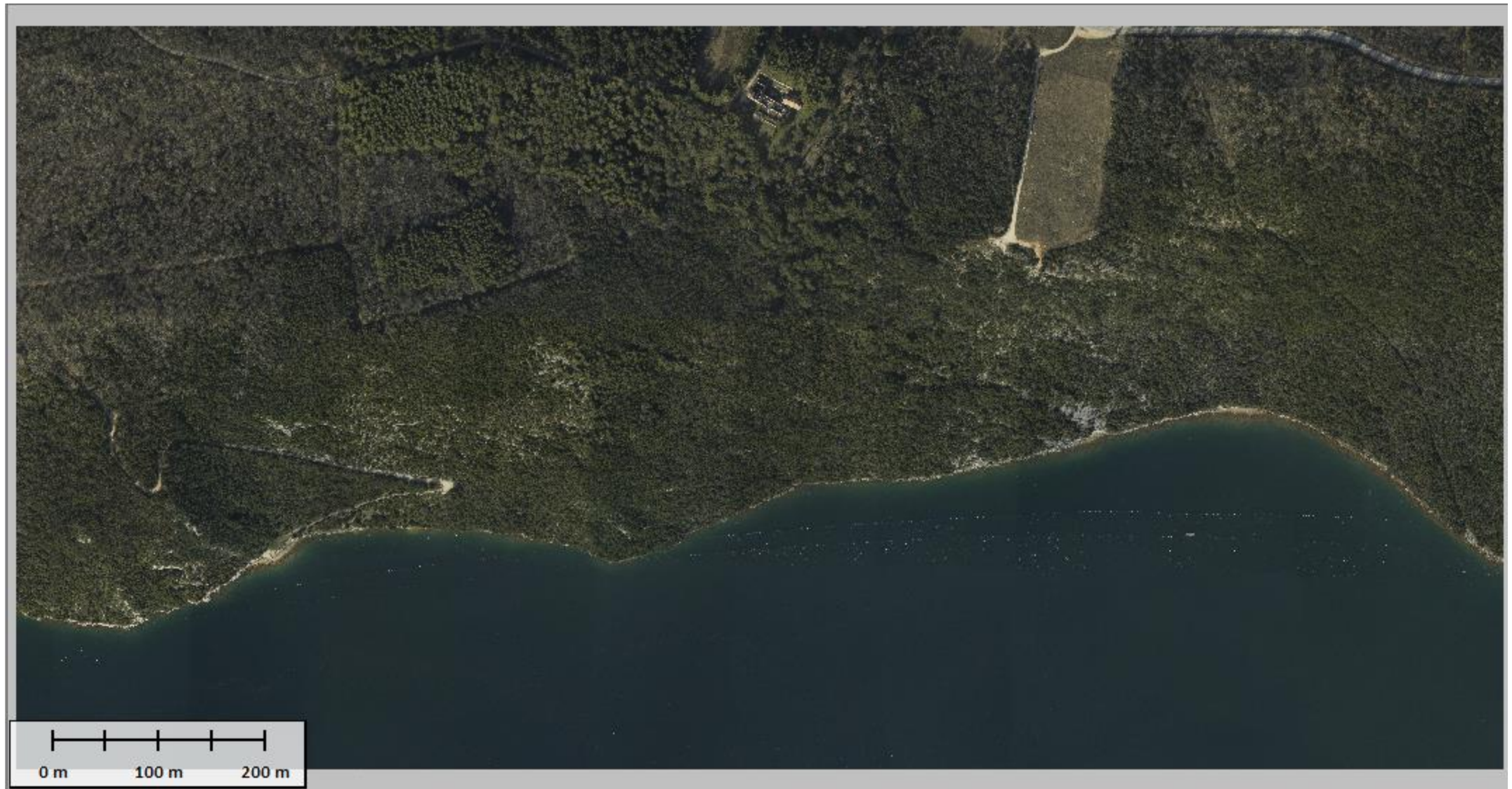
# Il bosco di Kontija, Comune di Orsera

## Ground arrival – topografia





## Ortofoto digitale



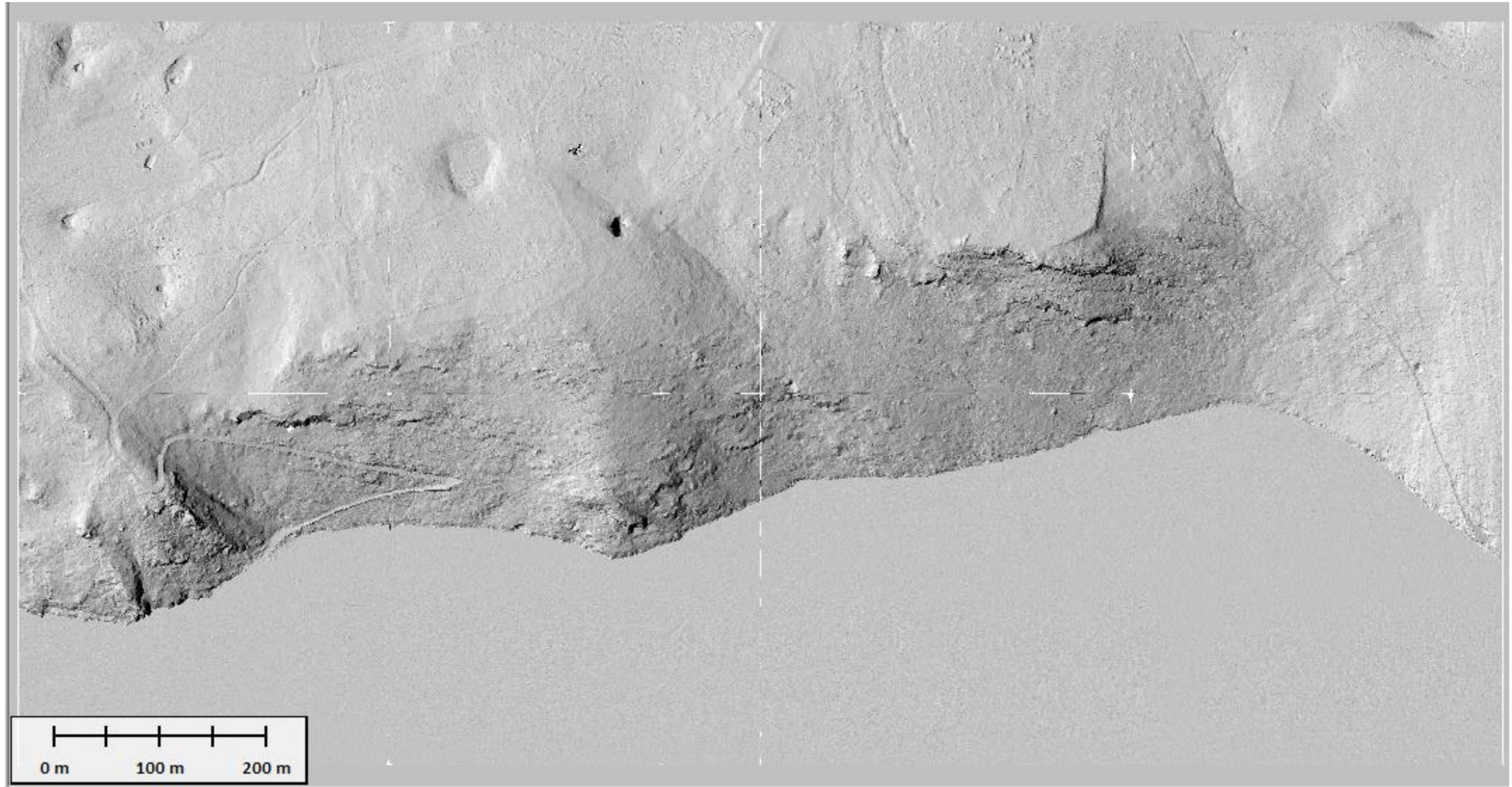


First arrival shaded relief (chioma degli alberi)

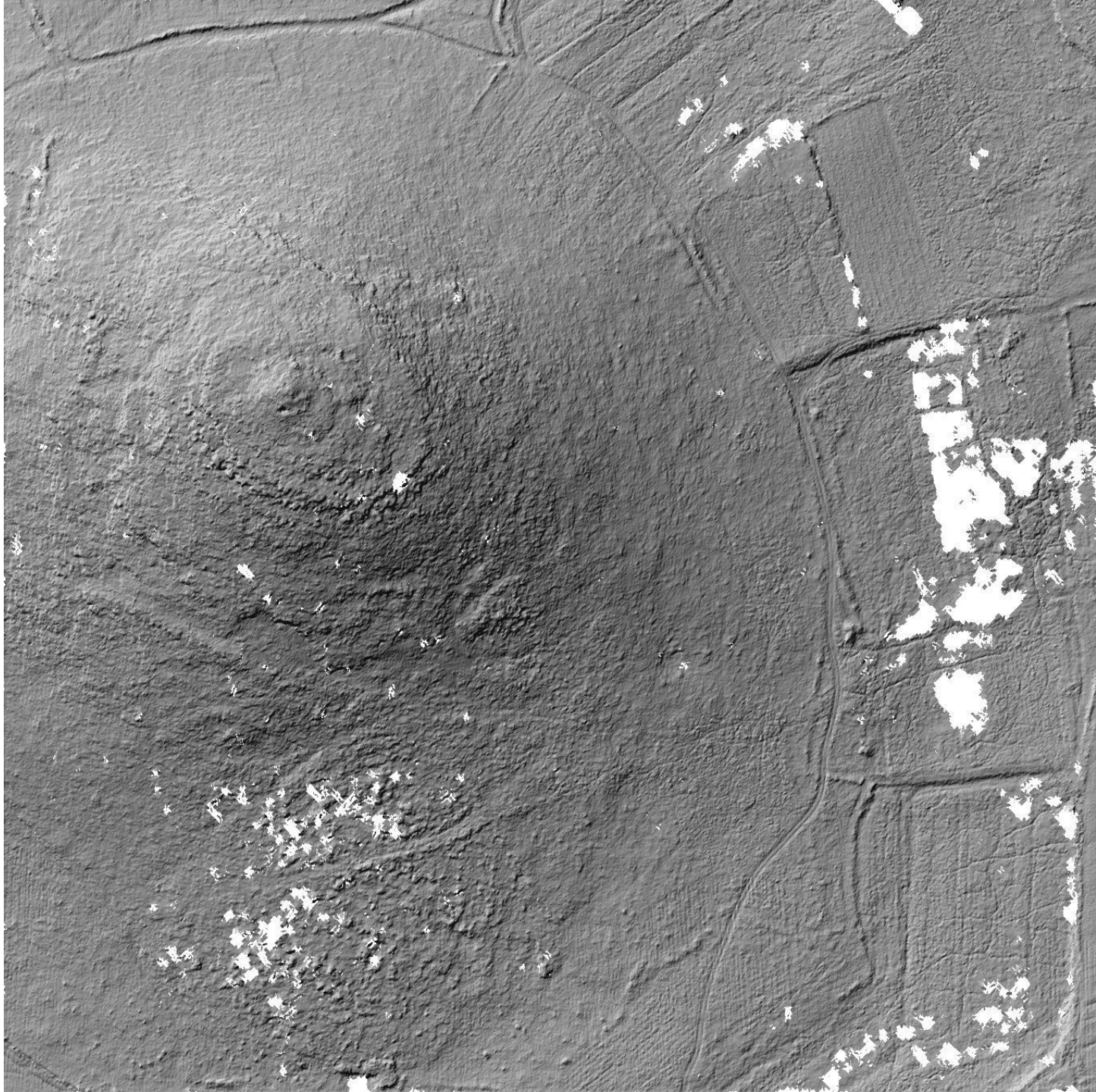




Ground arrival shaded relief (superficie sottostante)









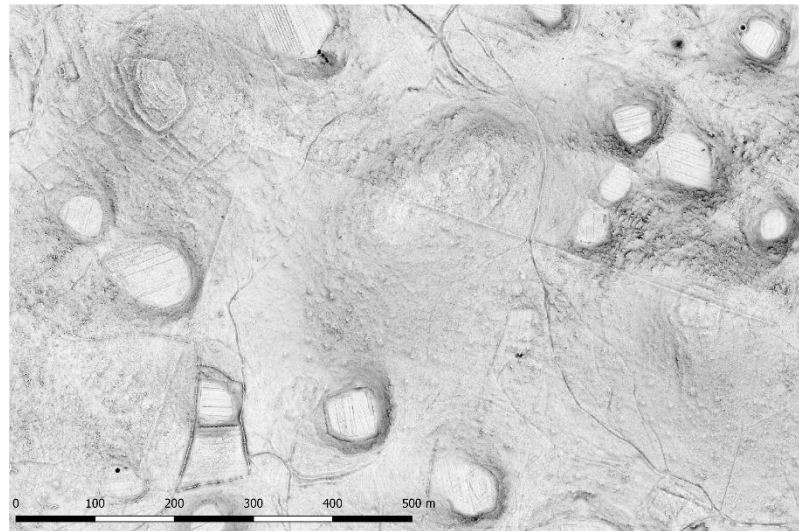
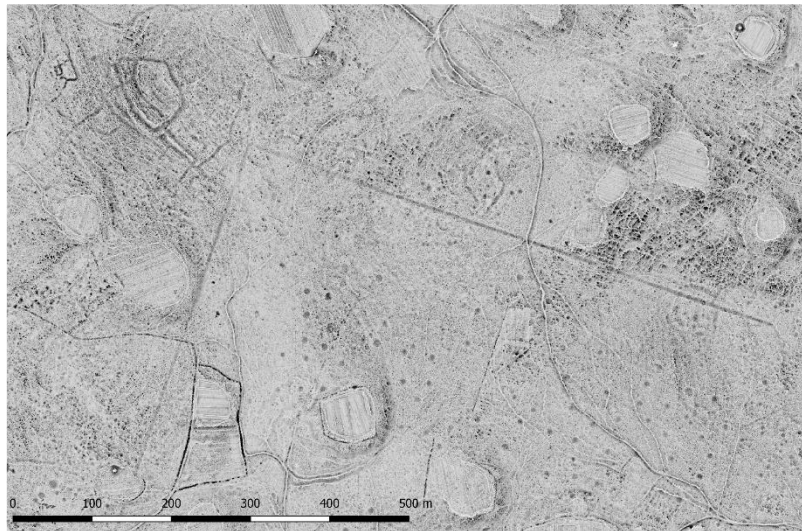
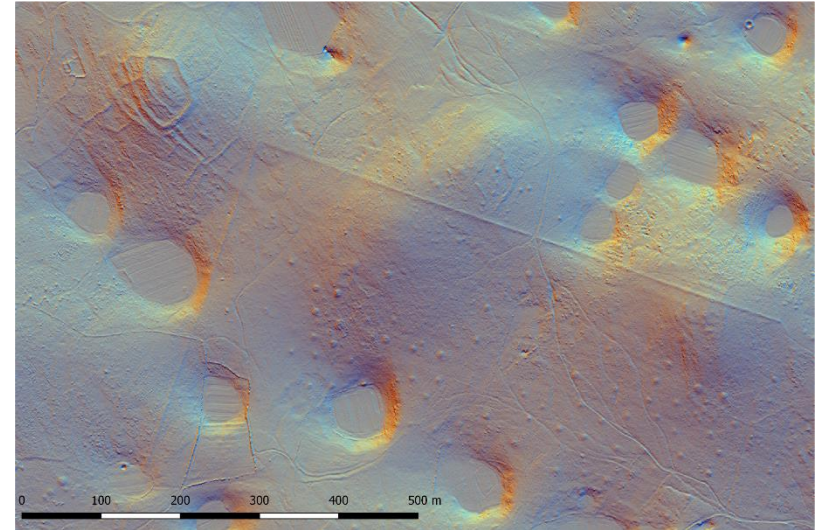
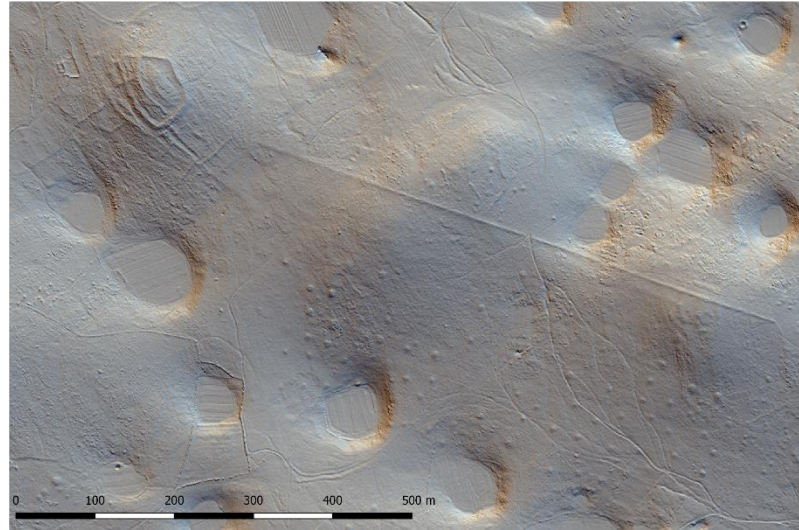
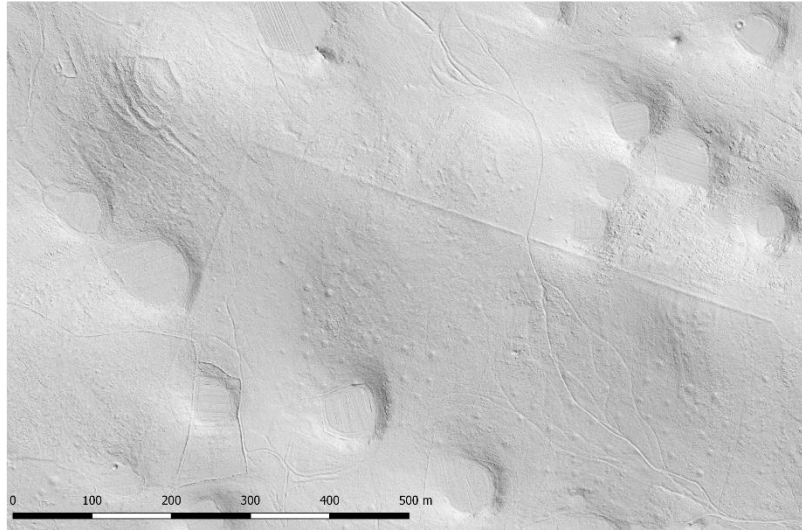






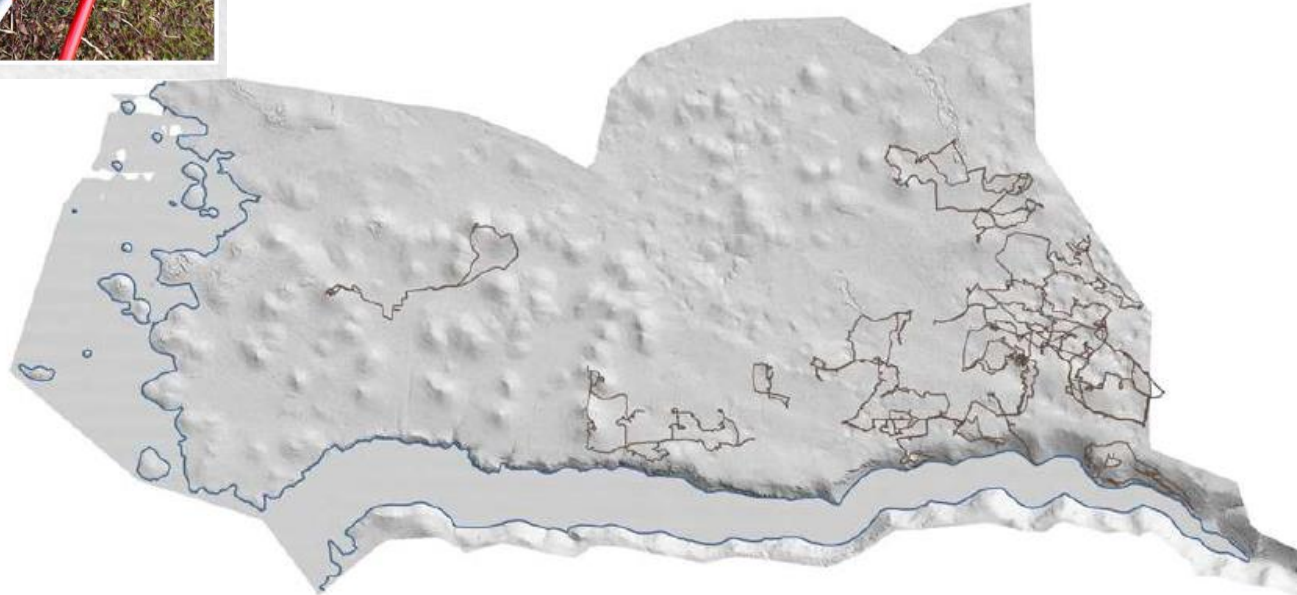


# VISUALIZZAZIONI LIDAR in GIS

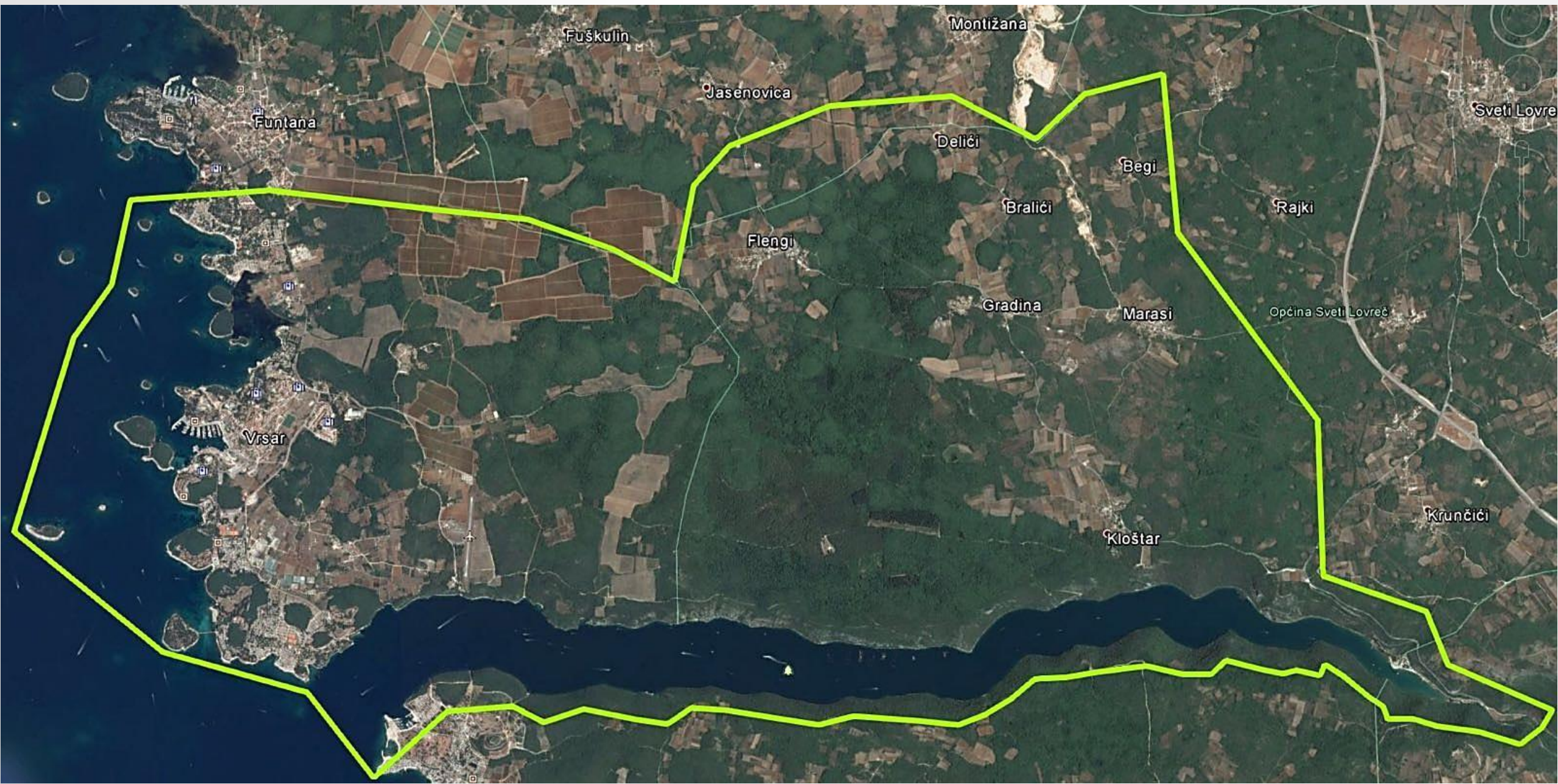




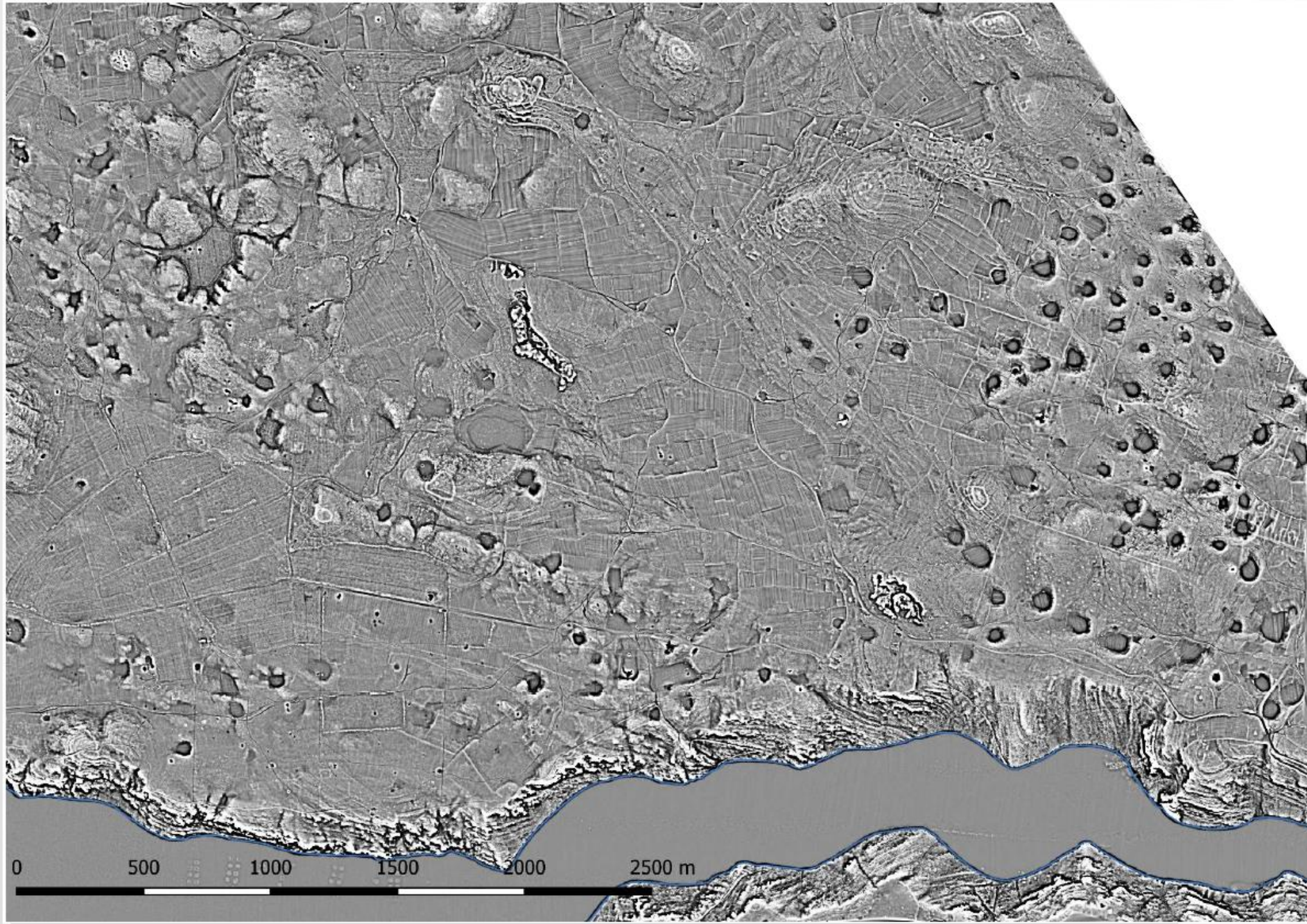
Loading LiDAR data into GPS



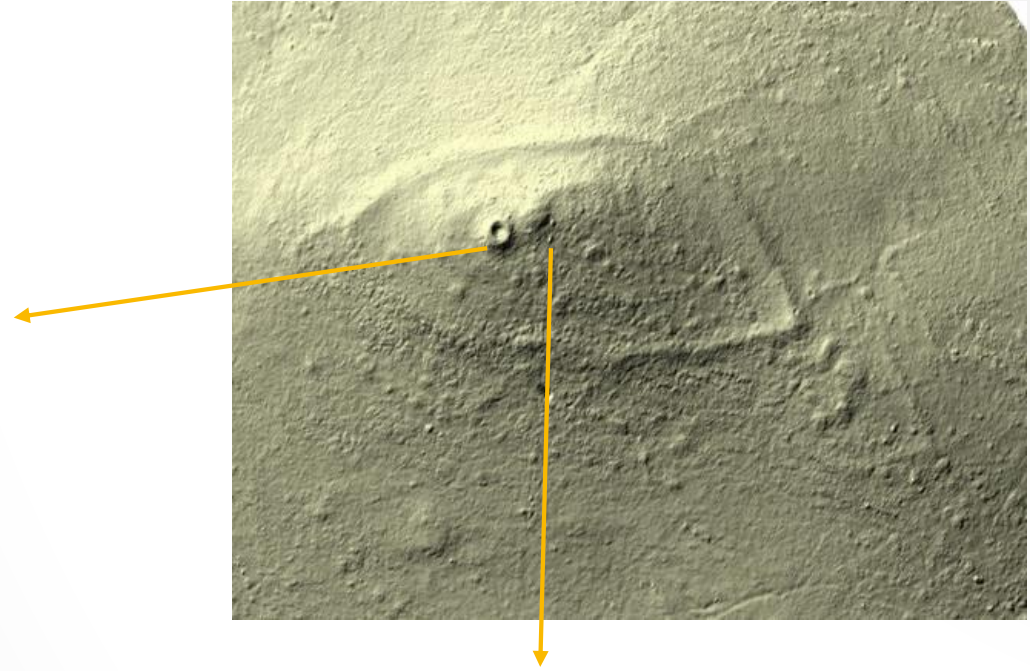




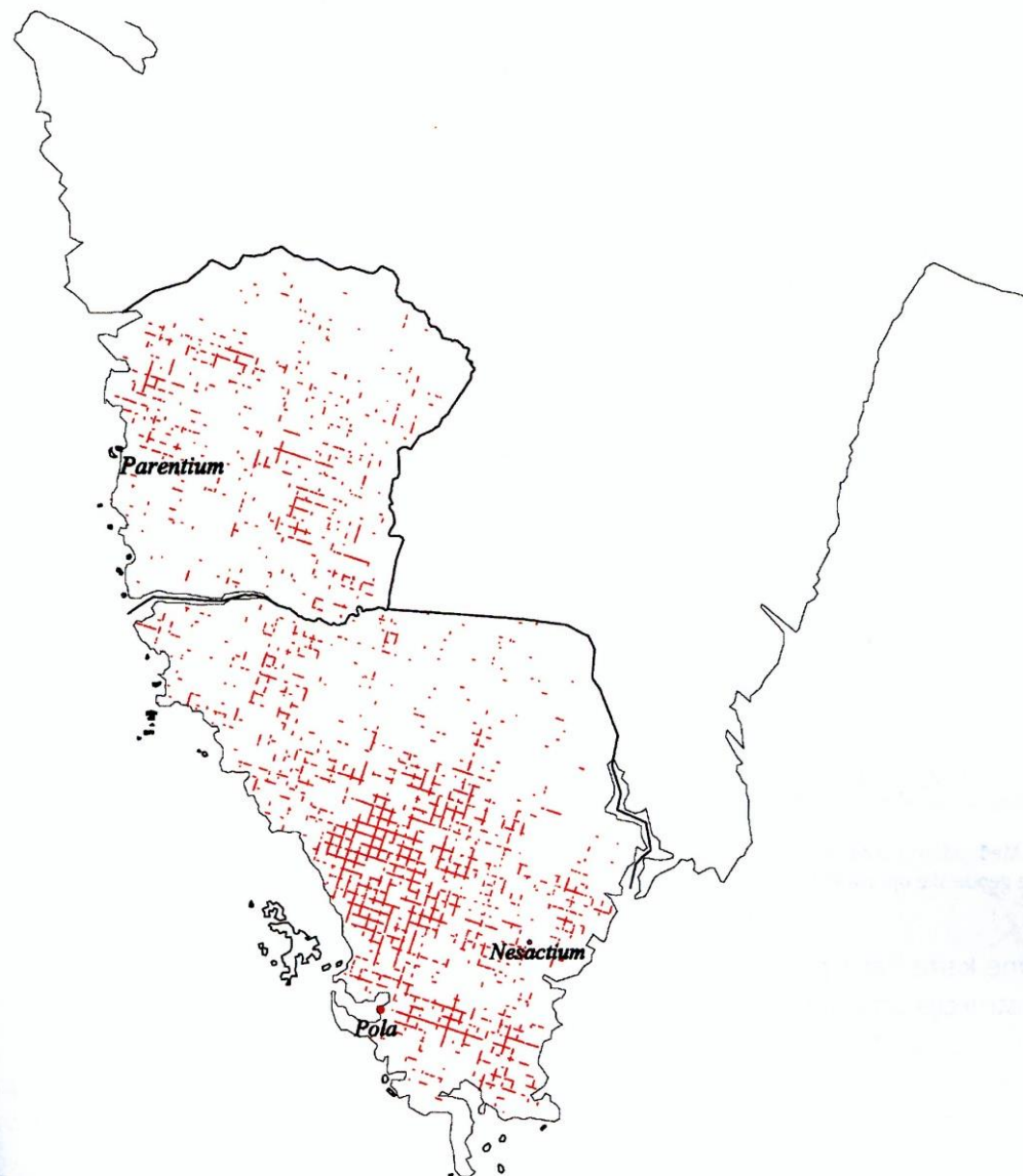




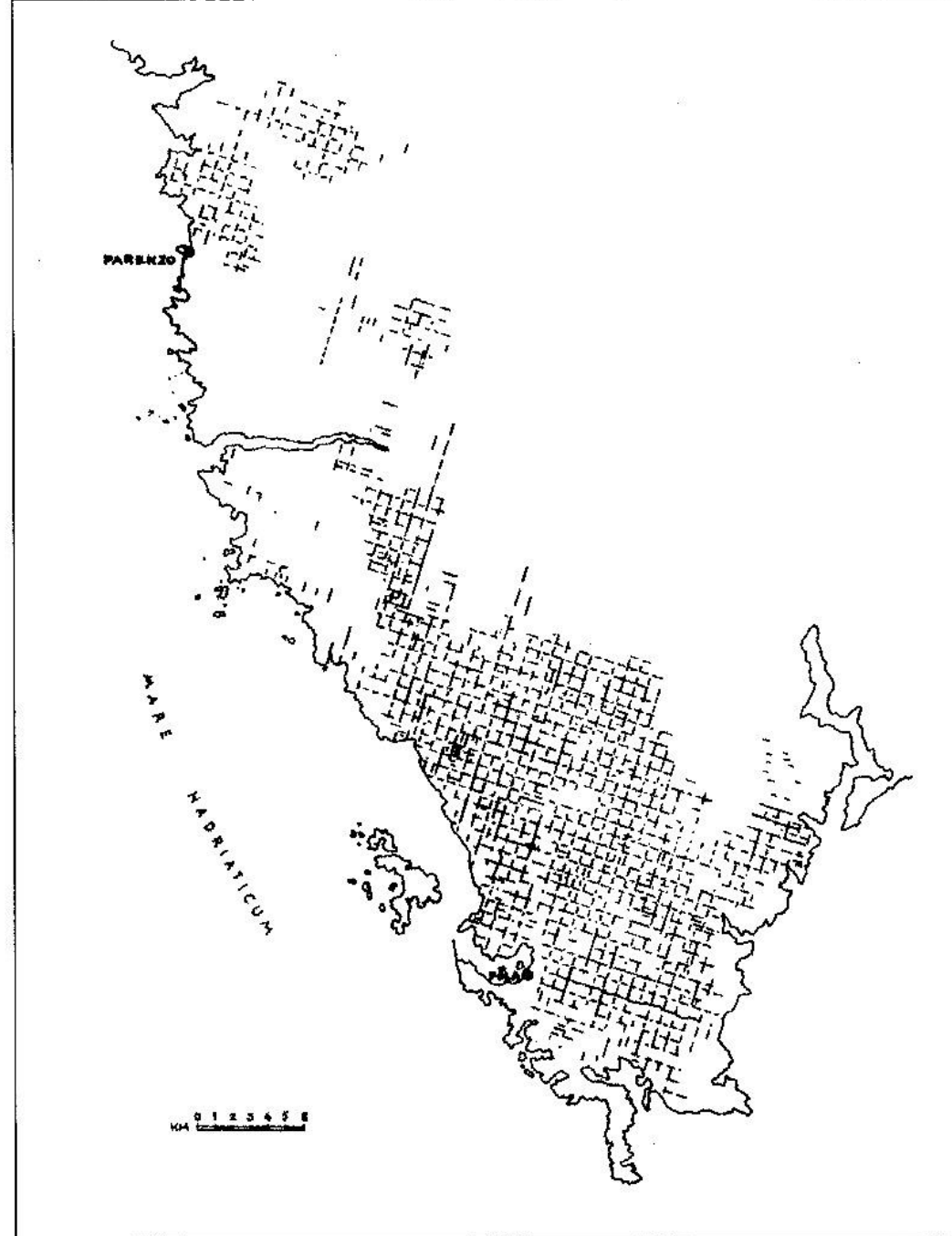






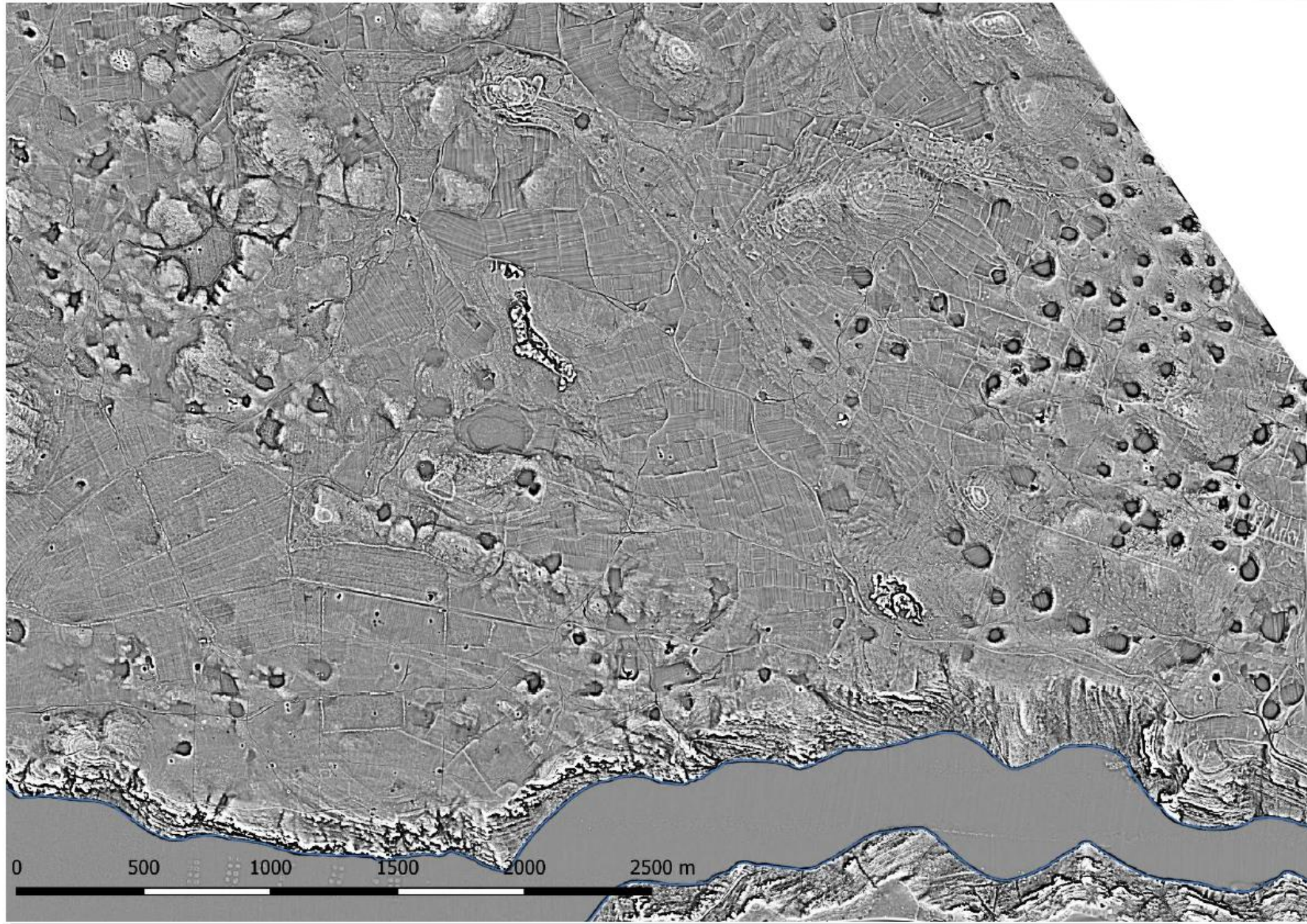


Slika 3. Vidljivi ostaci rimske centurijacije Istre (izradio D. Bulić).

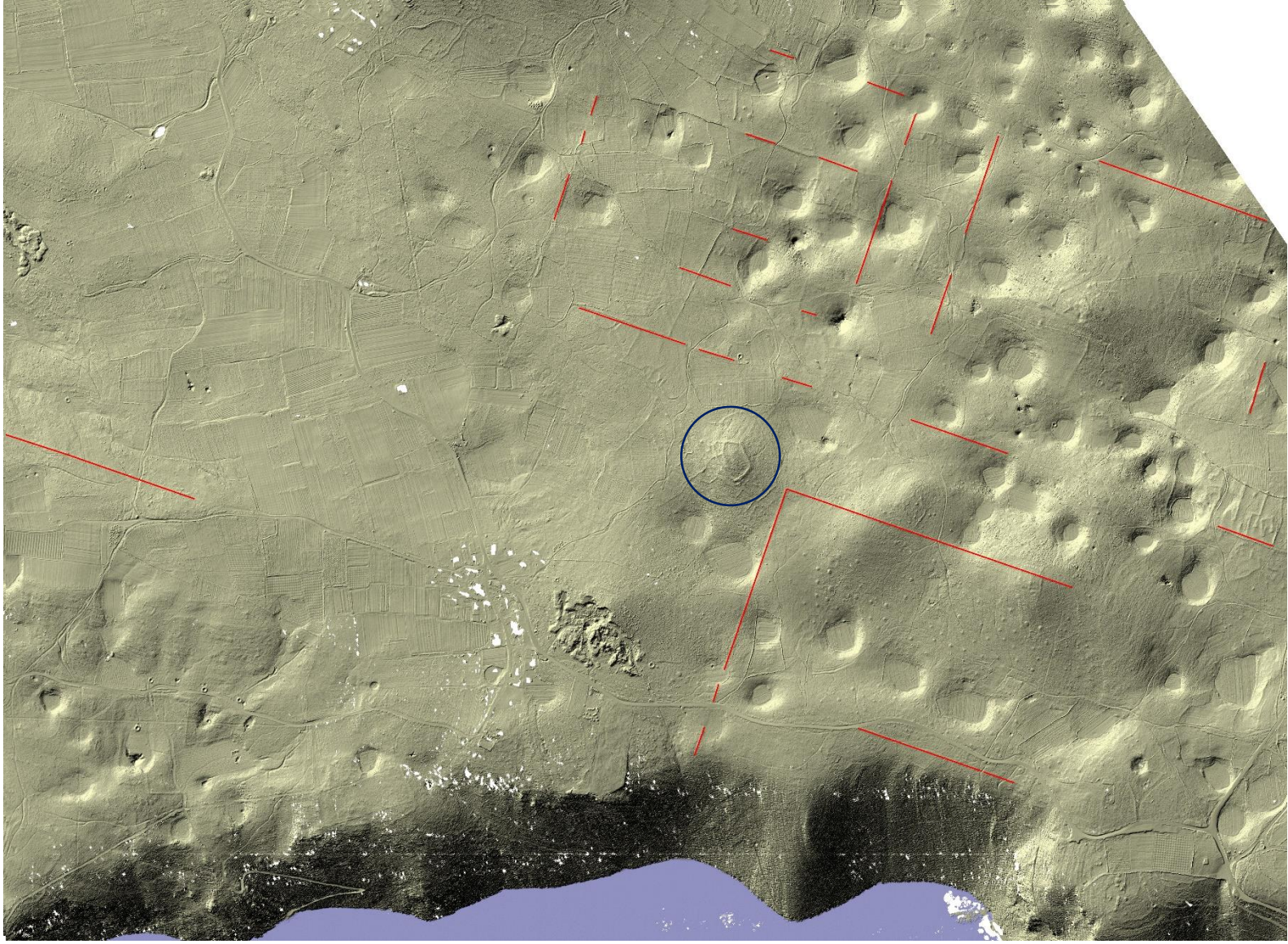


Raymond Chevallier, 1956







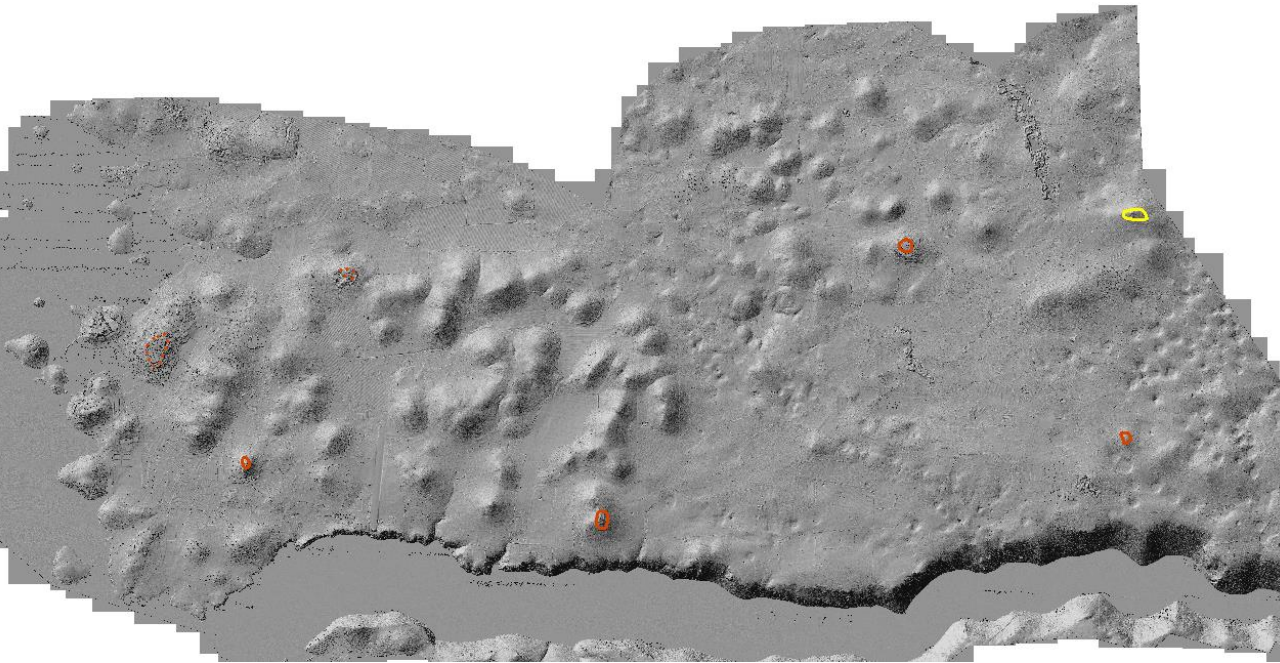








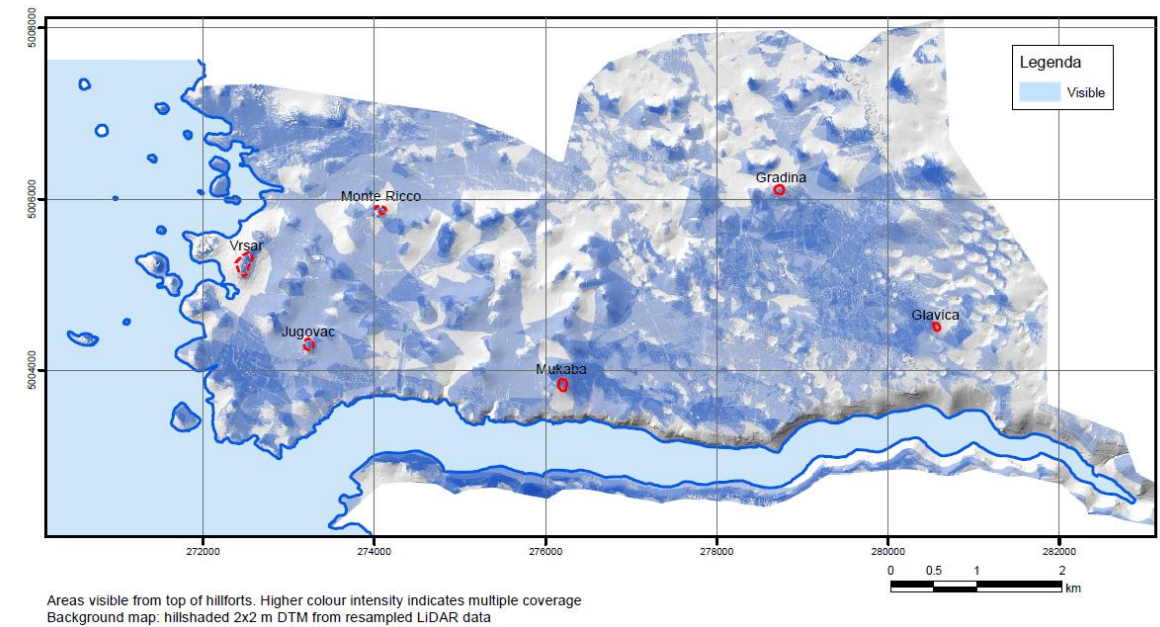
# LATE PREHISTORIC HILLFORTS



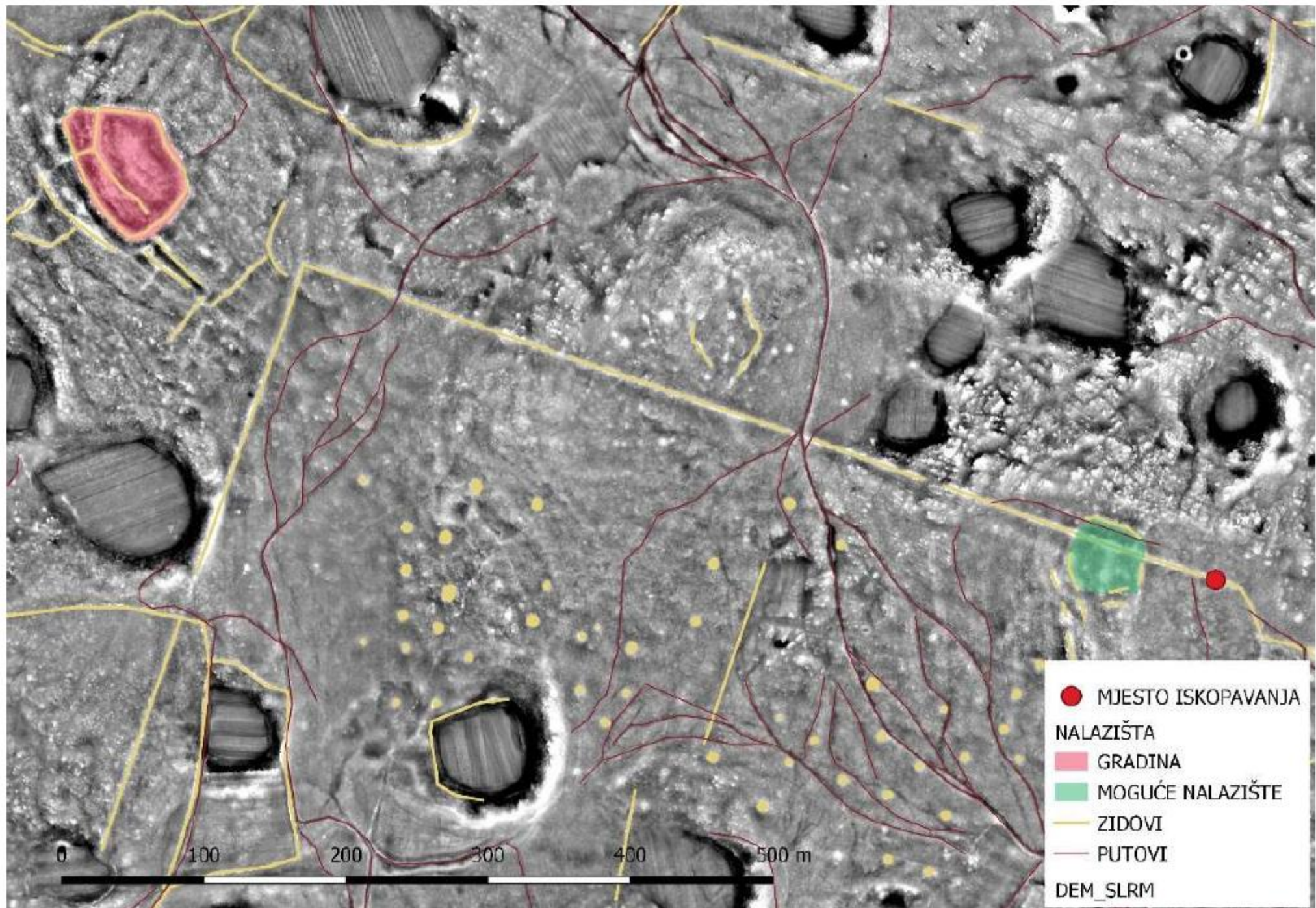
-  UNCERTAIN EXTENT
-  CERTAIN EXTENT
-  NOT CONFIRMED



Vrsar Municipality Territory - General viewshed map







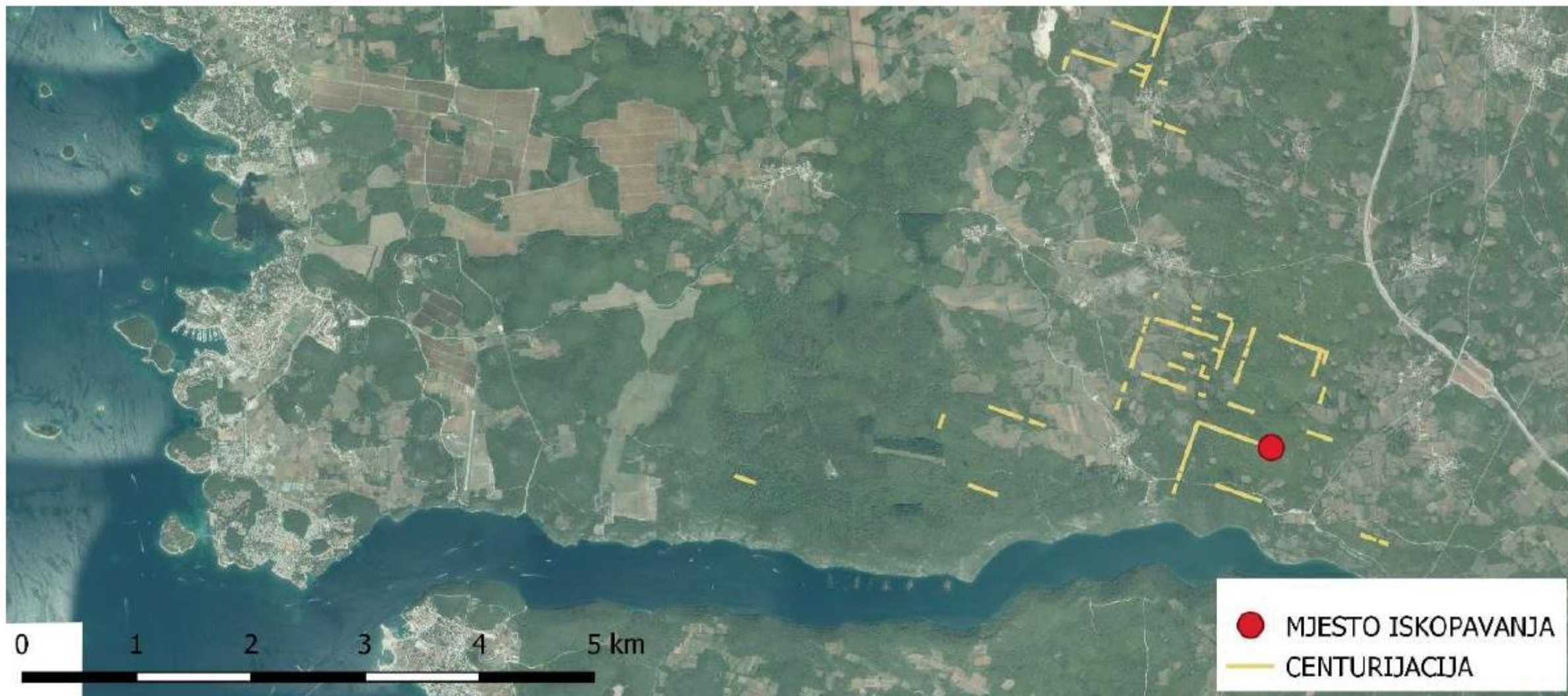








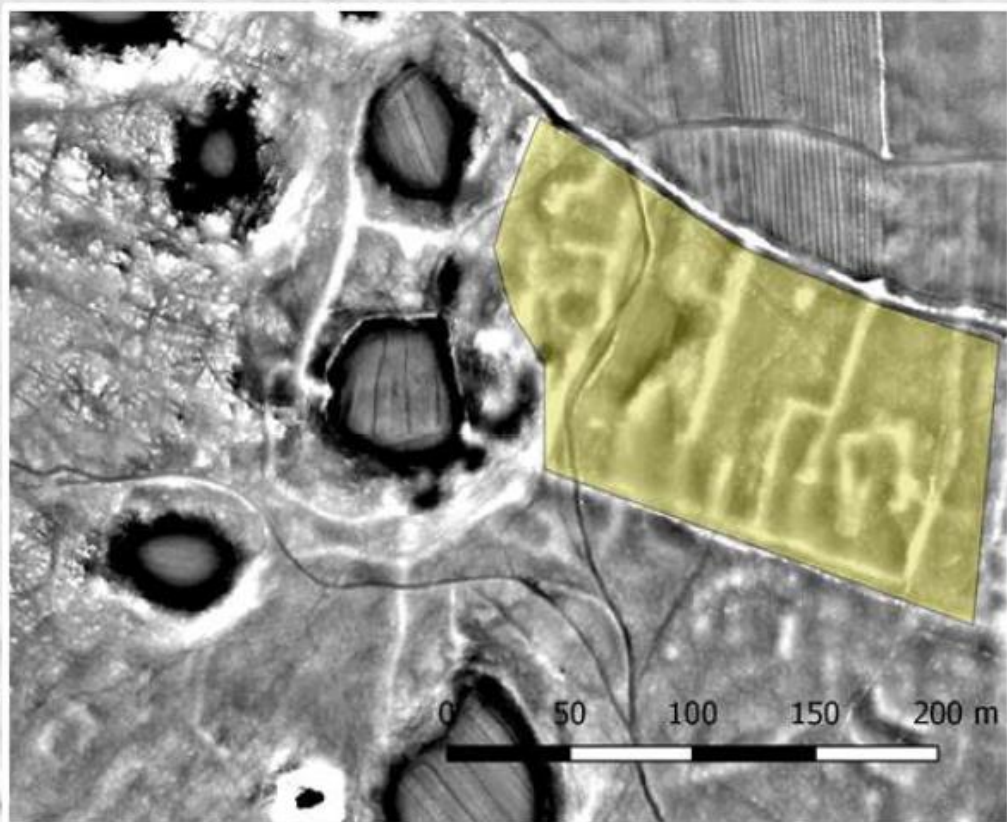








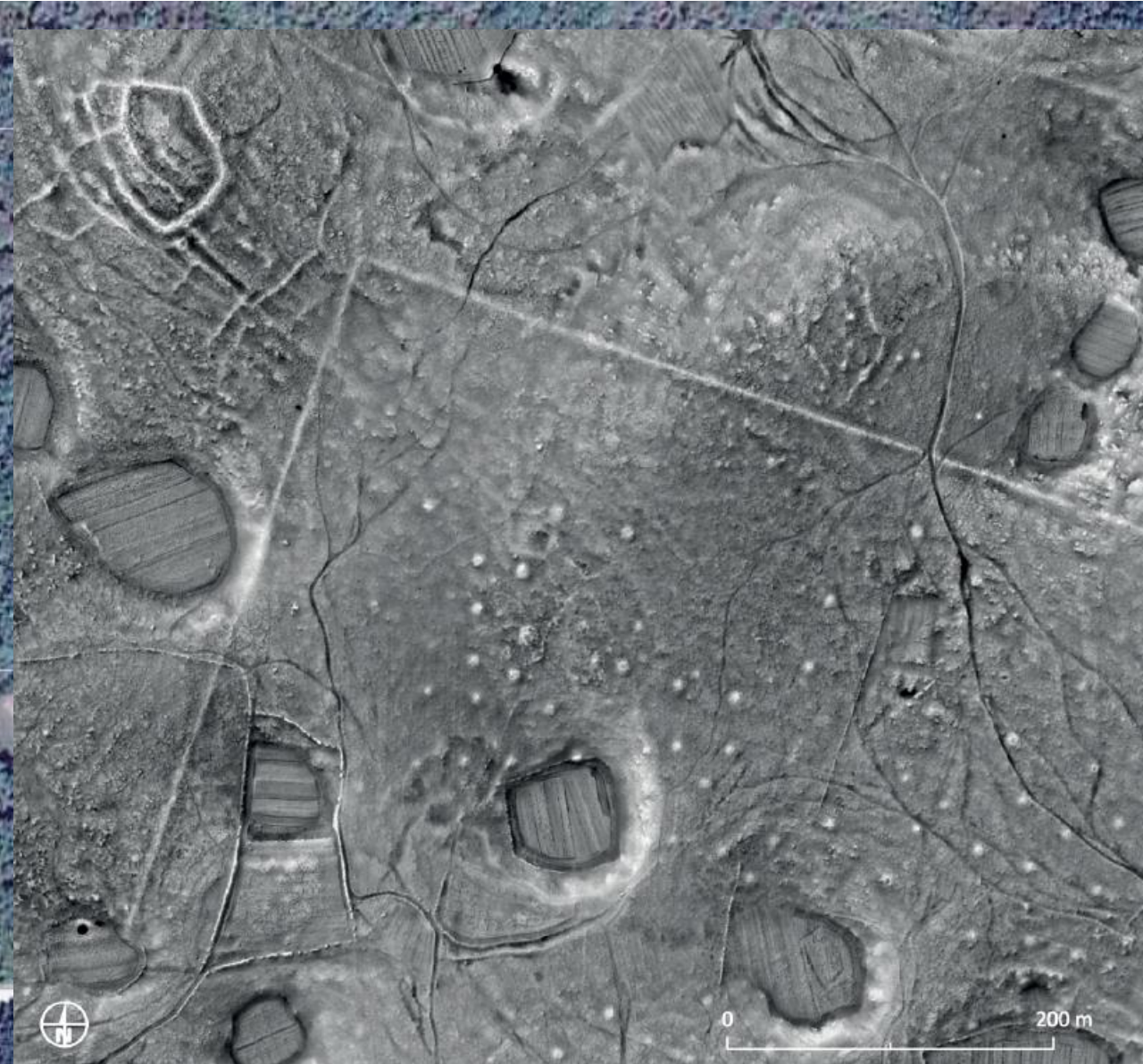




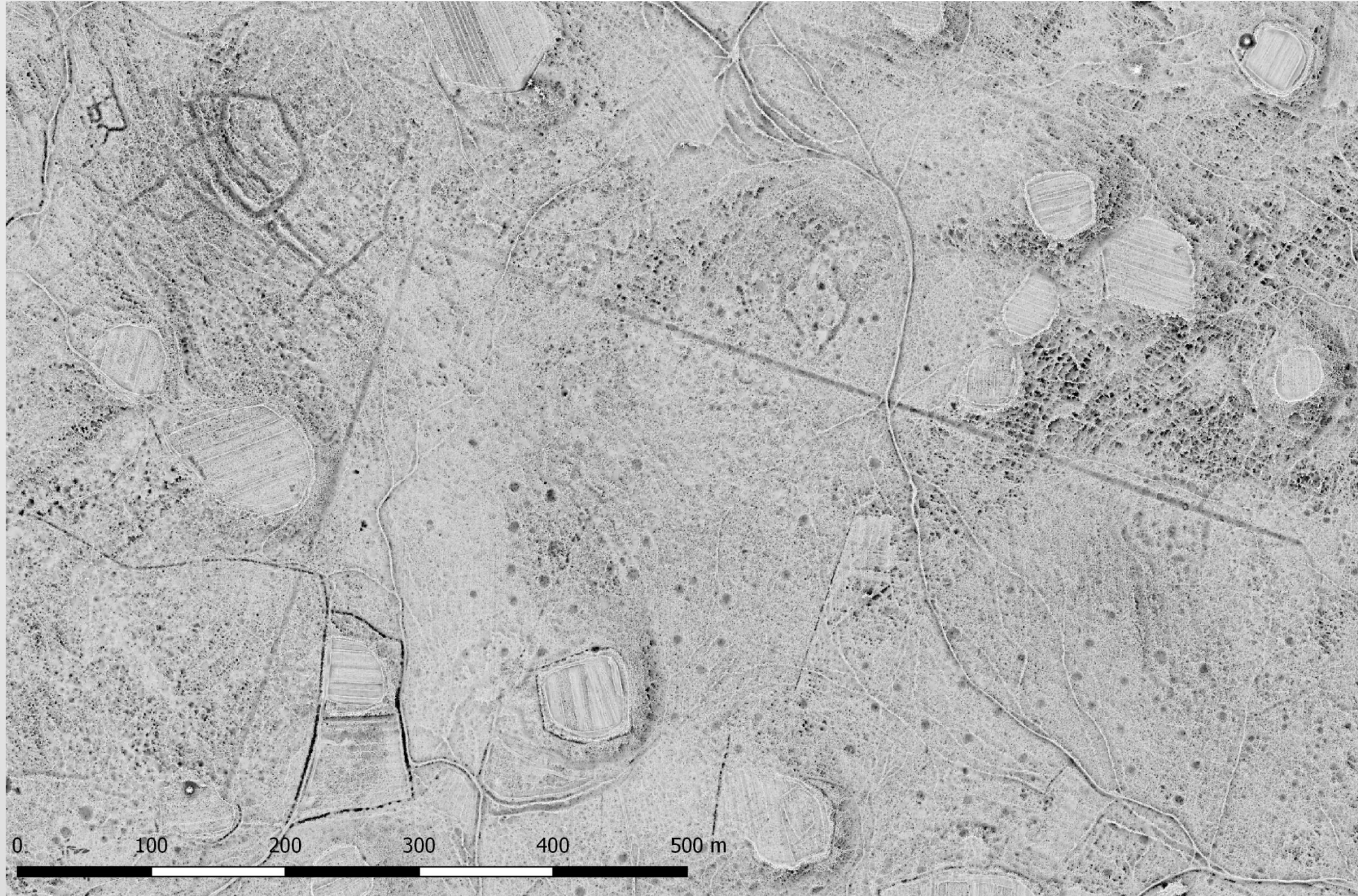




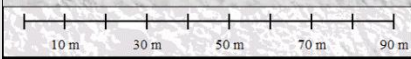
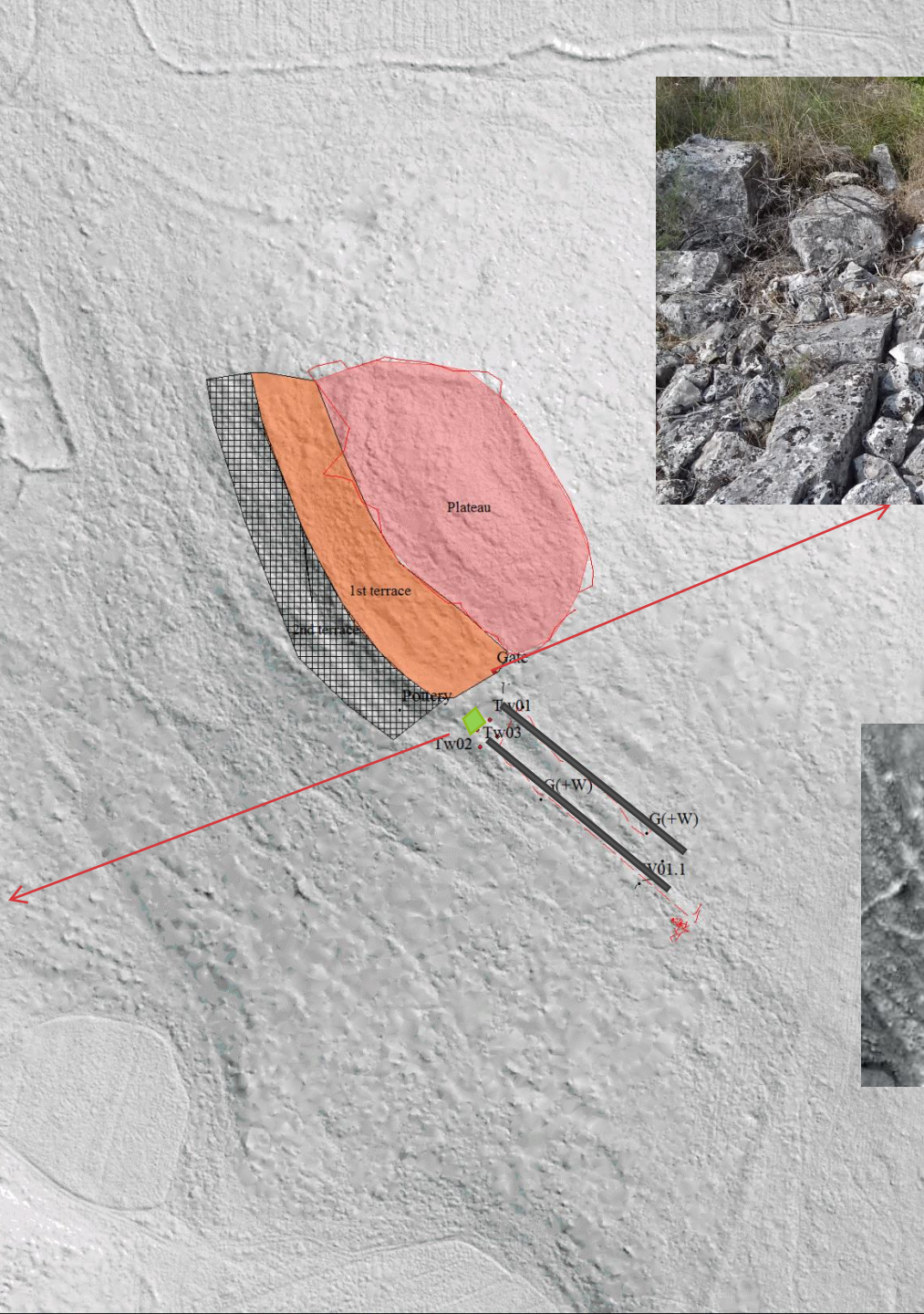










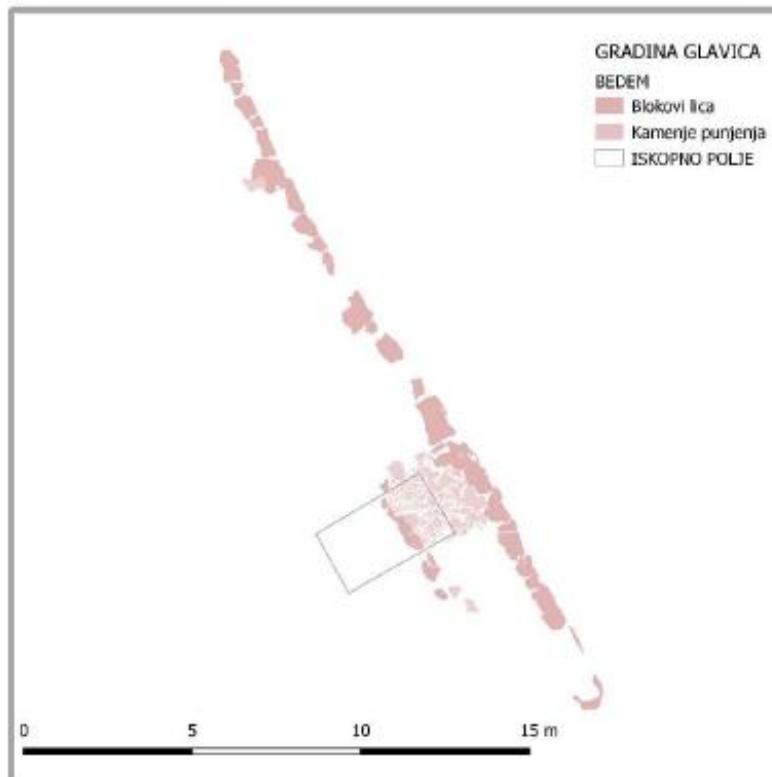




# Glavica – castelliere, Eta' del Bronzo





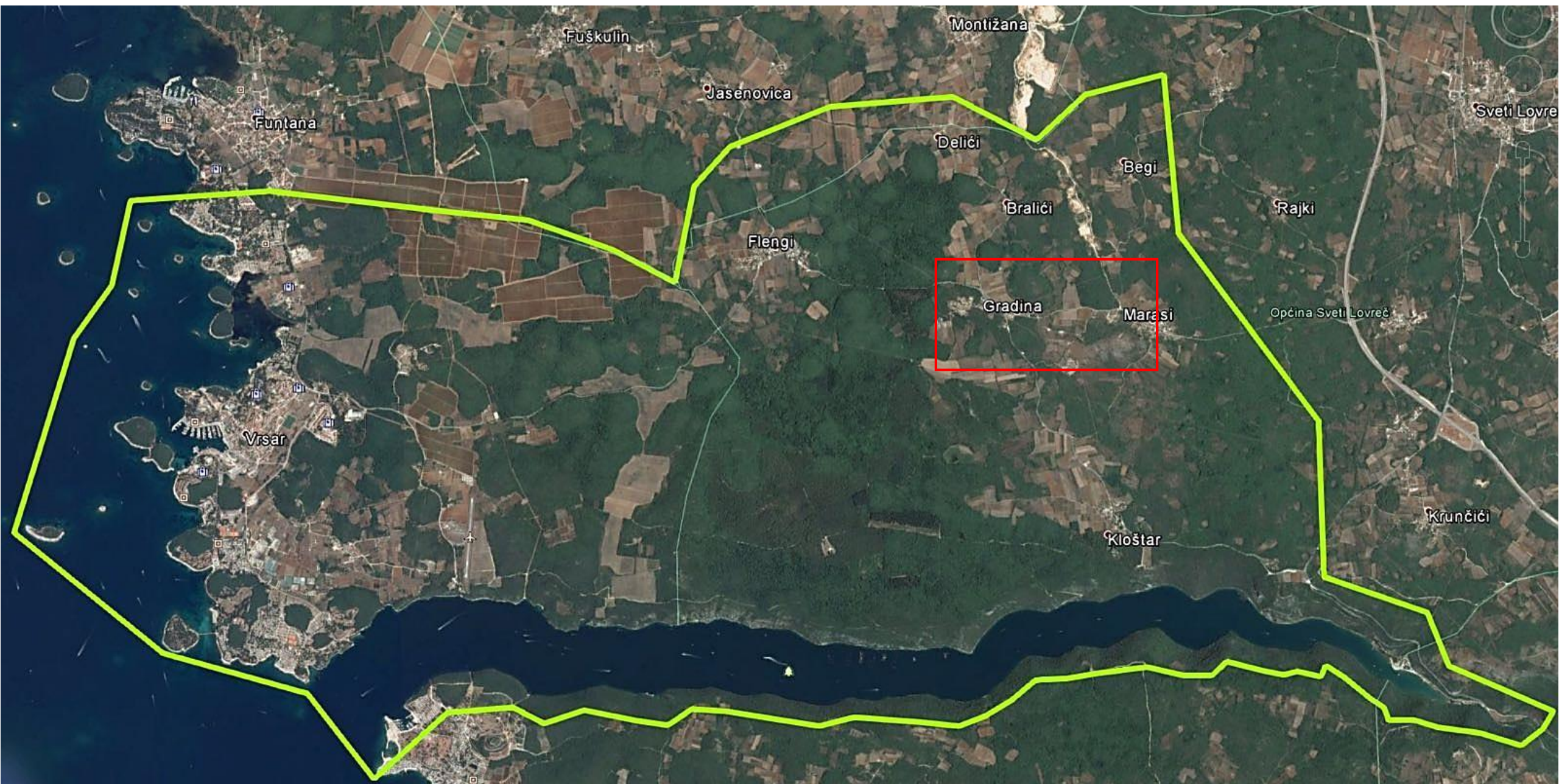




# Glavica – castelliere







Fuškuljin

Montižana

Jasenovica

Funtana

Sveti Lovre

Delići

Begi

Rajki

Bralići

Flengi

Gradina

Marasi

Općina Sveti Lovreč

Vrsar

Krunčiči

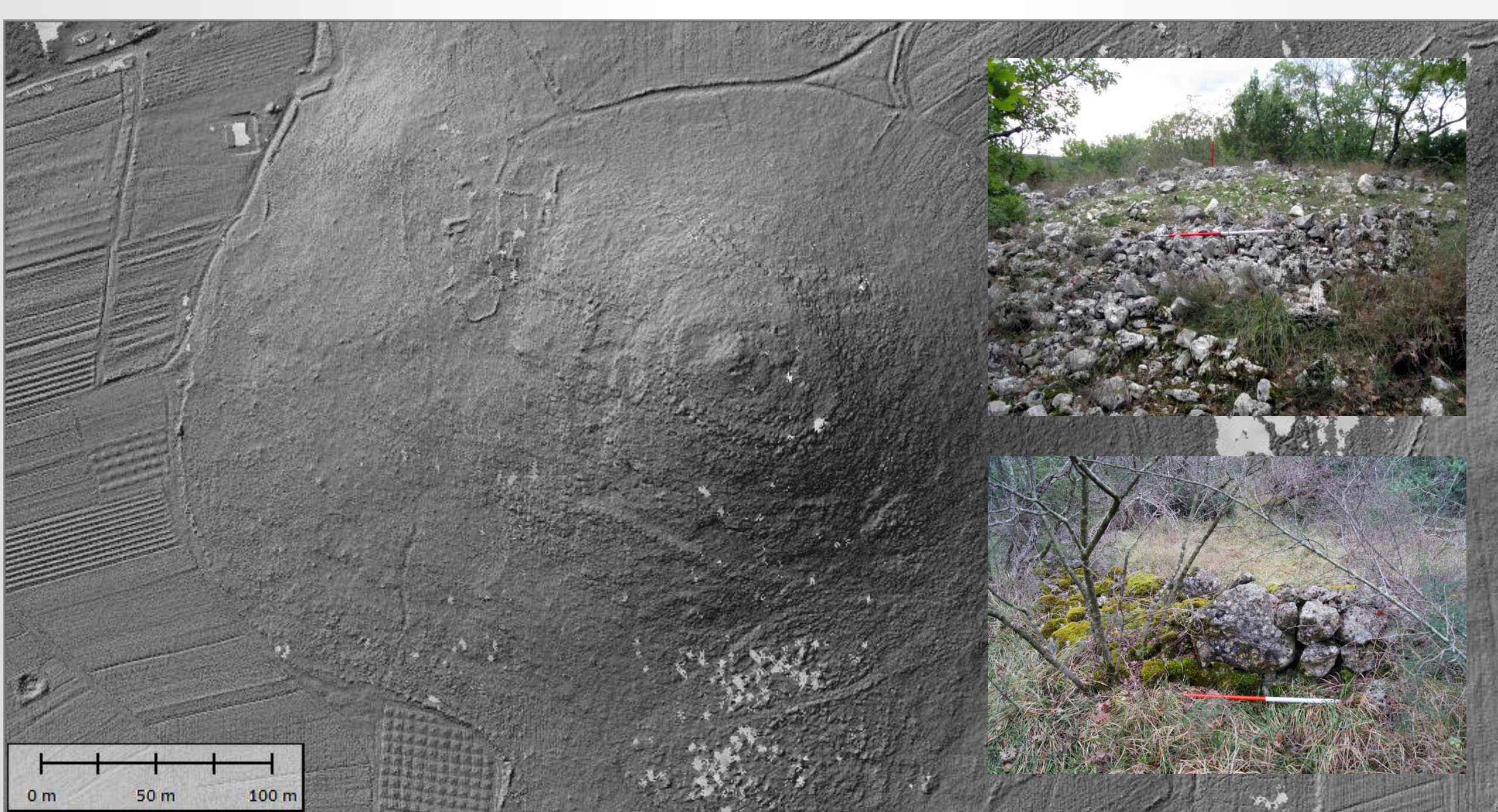
Kloštar



# Gradina/Geroldia

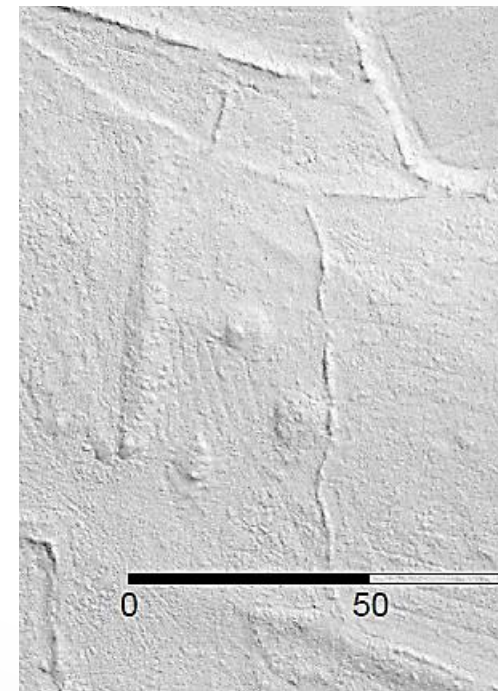
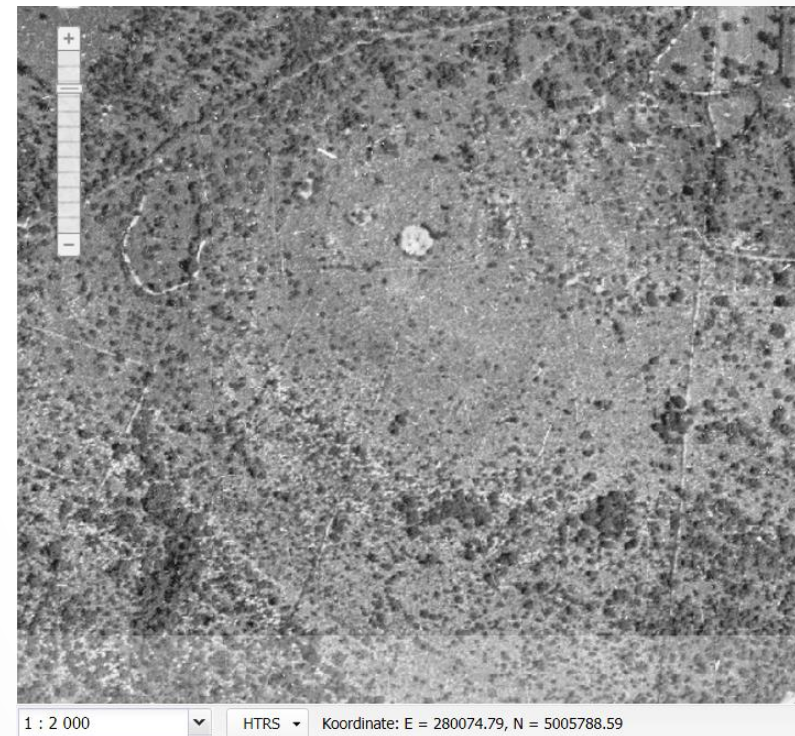
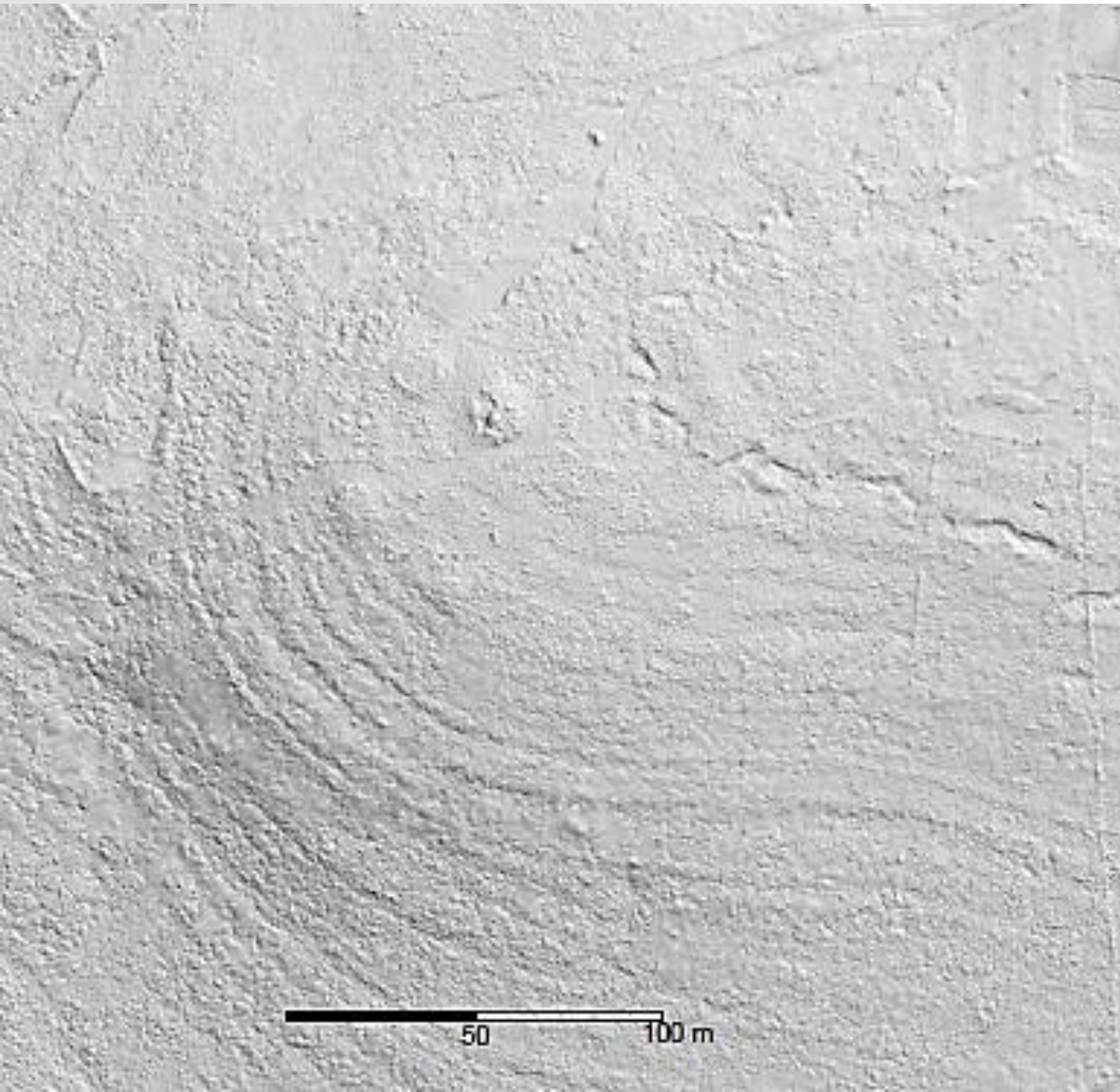




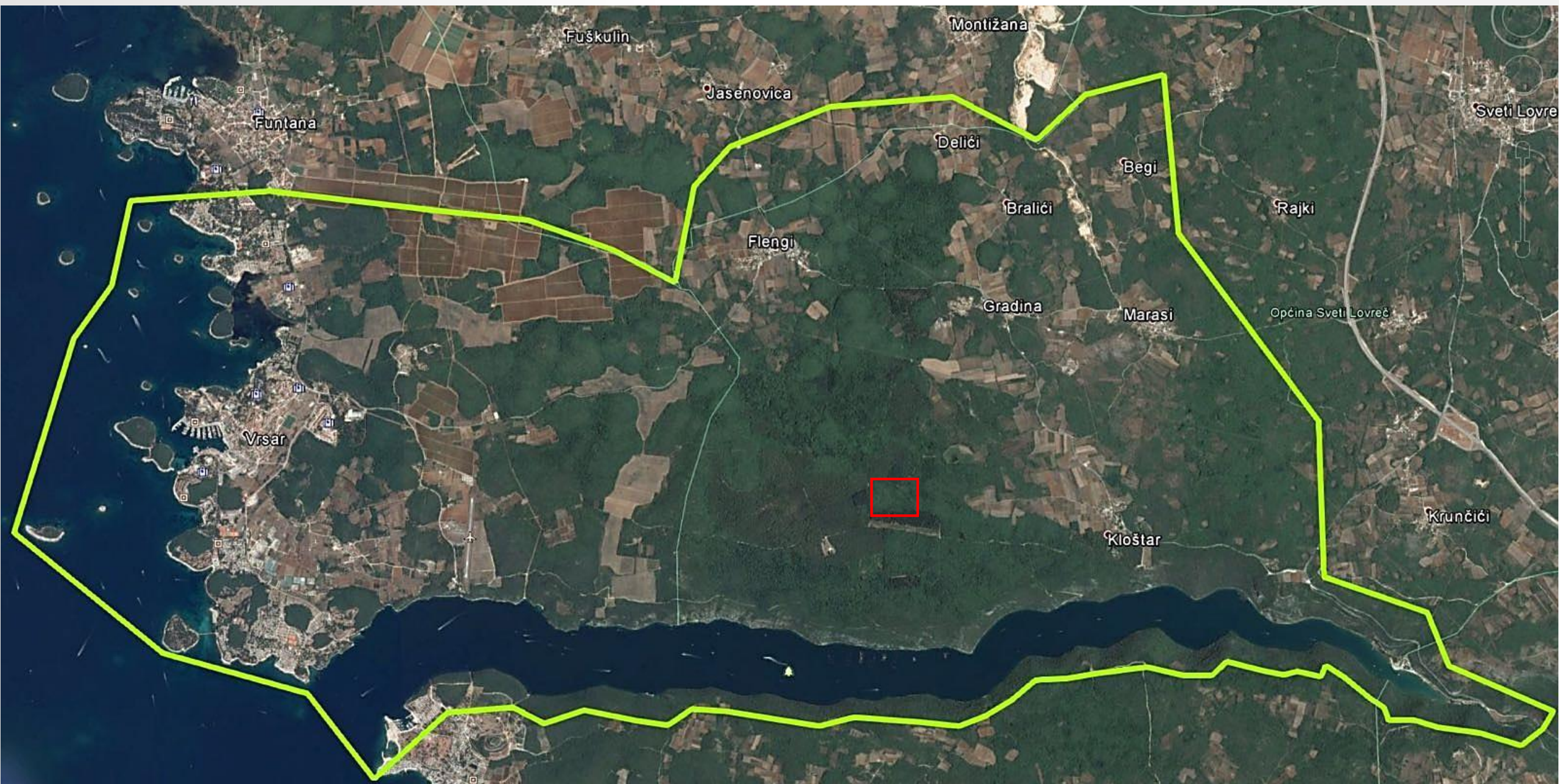




# MARASI - KAMENJAK







Fuškulin

Montižana

Funtana

Jasenovica

Sveti Lovre

Delići

Begi

Rajki

Bralići

Flengi

Gradina

Marasi

Općina Sveti Lovreč

Vrsar

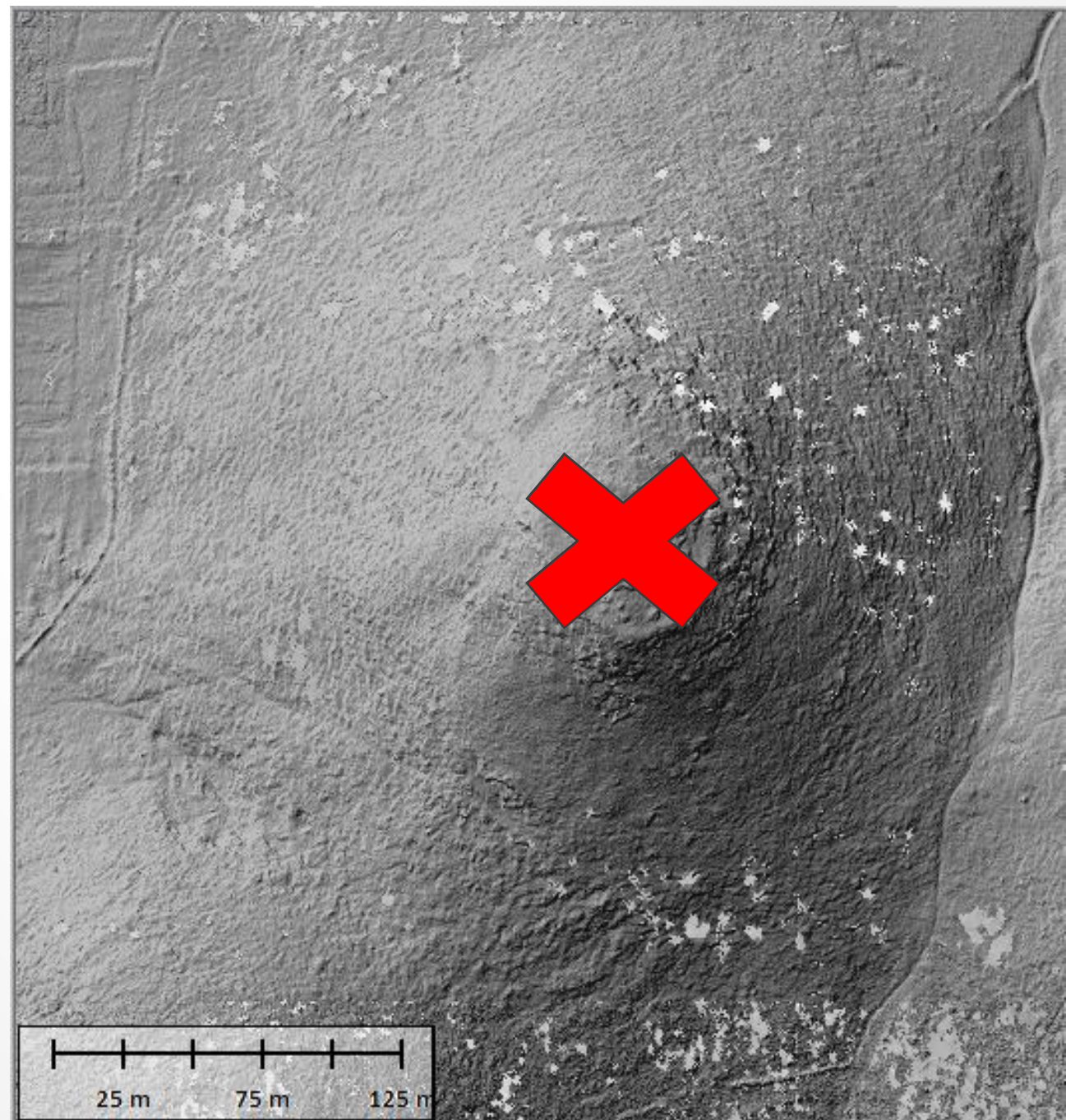
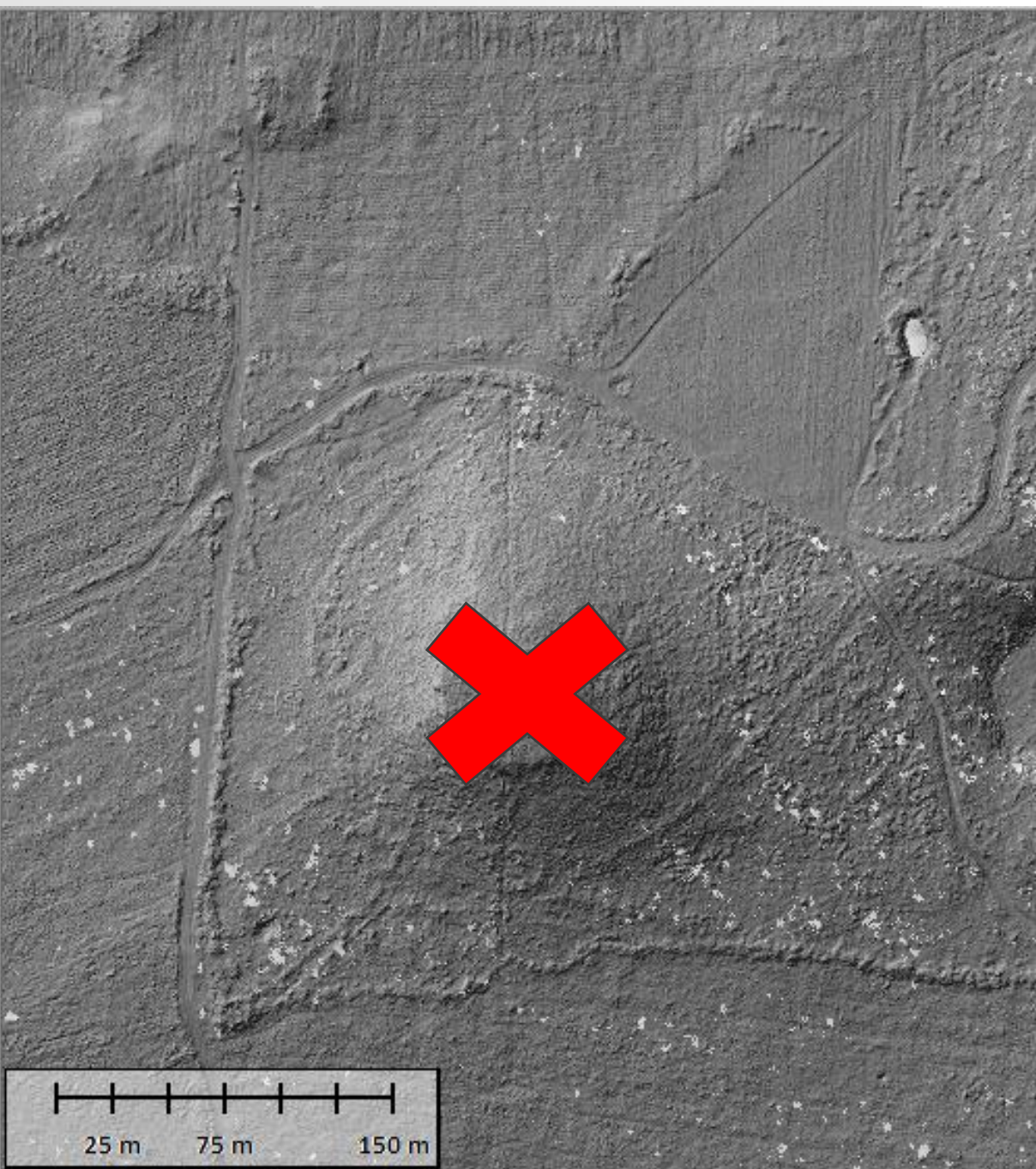
Krunčiči

Kloštar





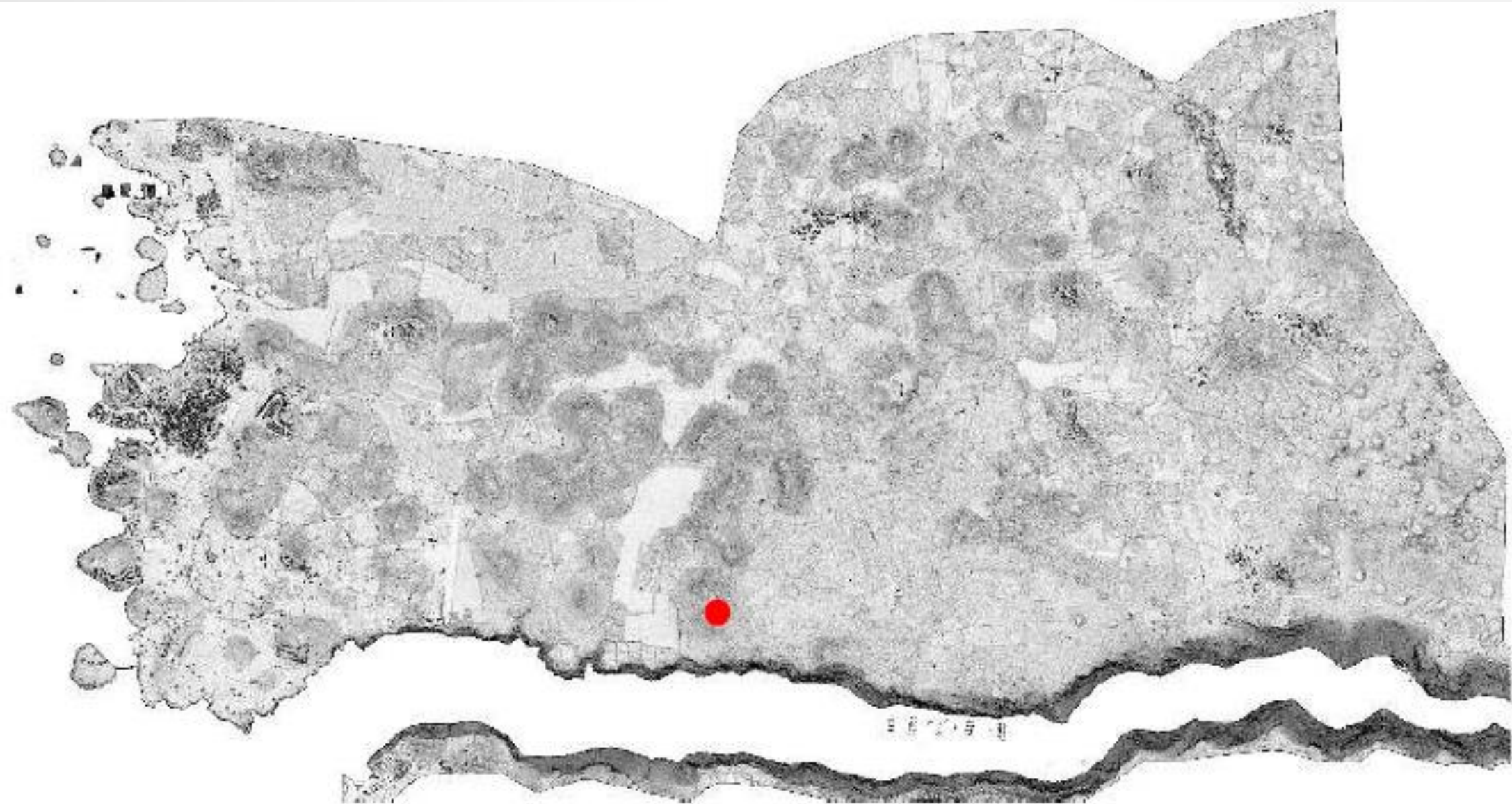




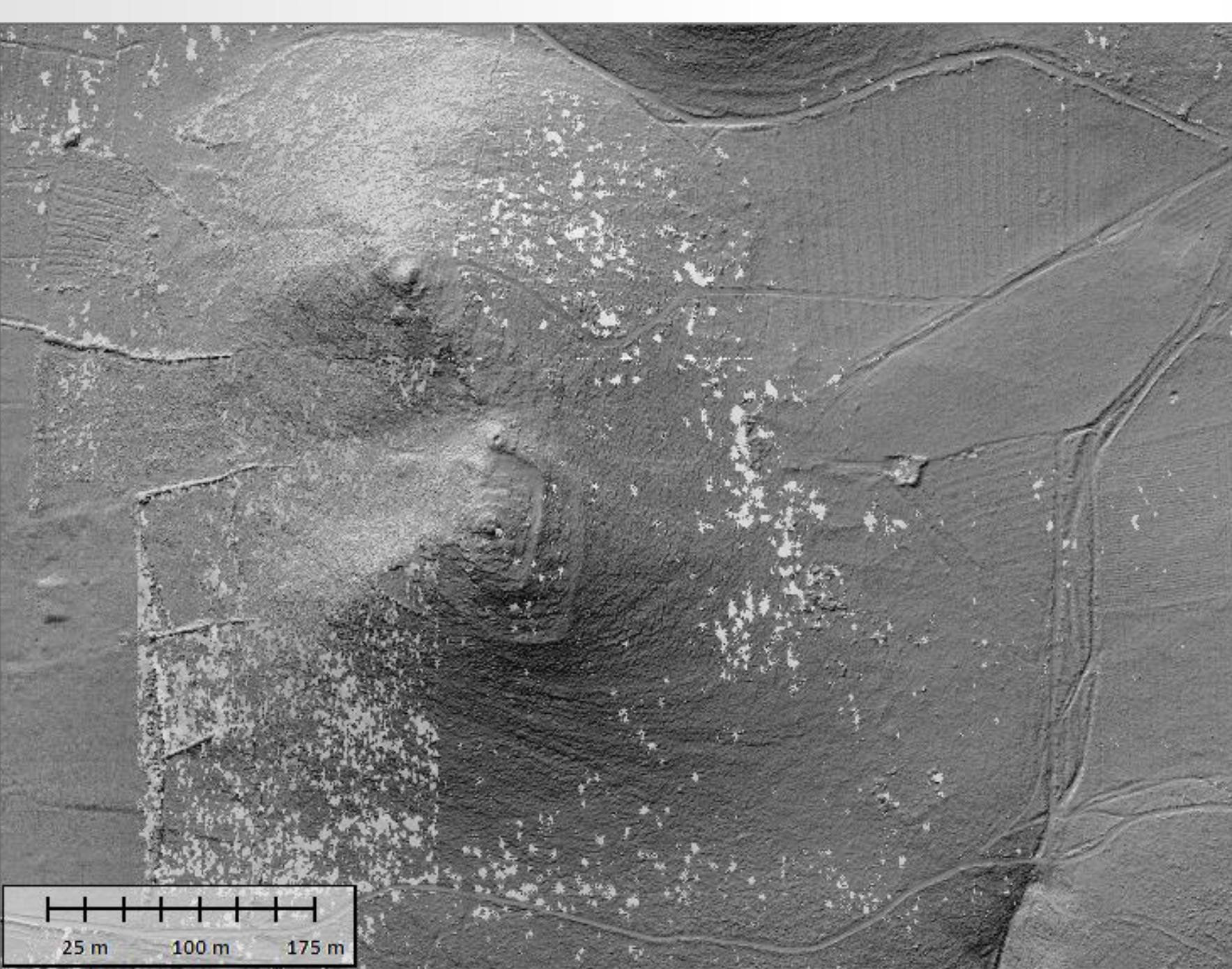




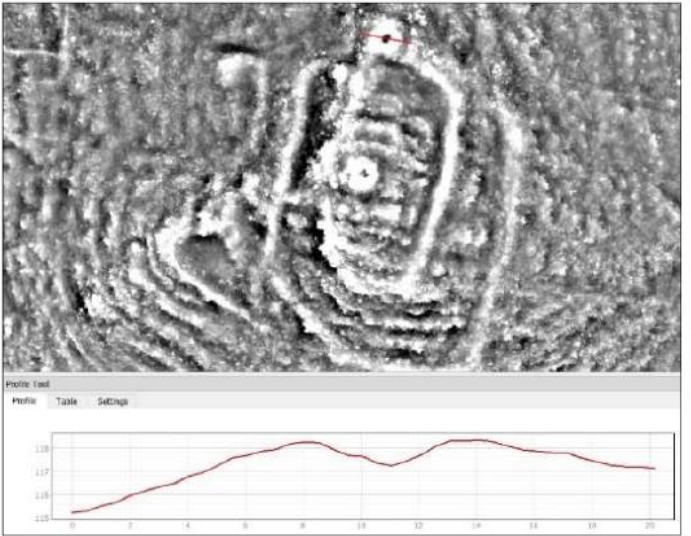
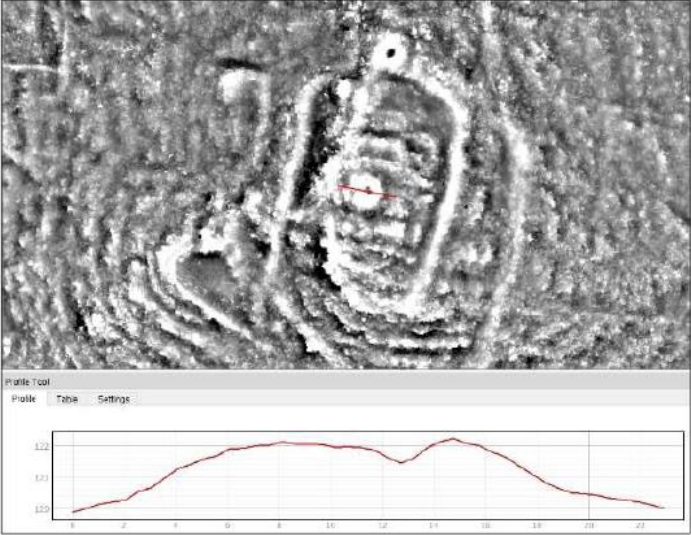
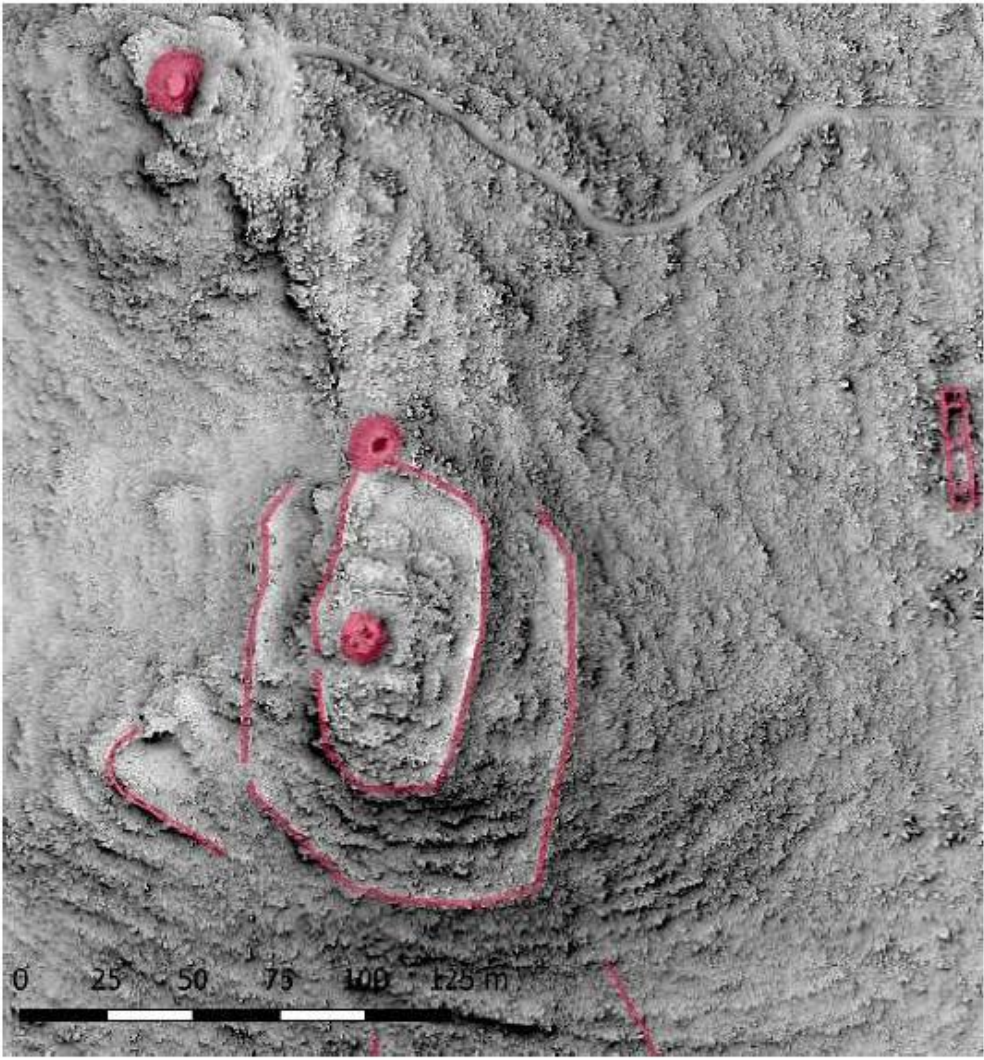




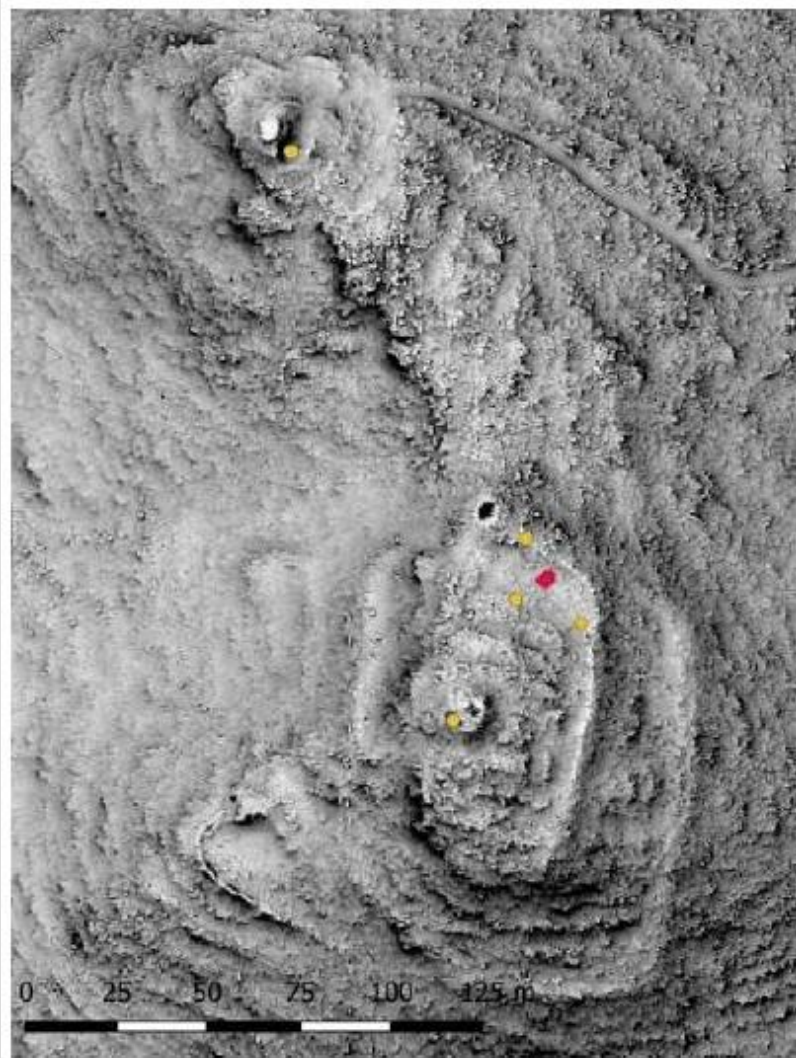




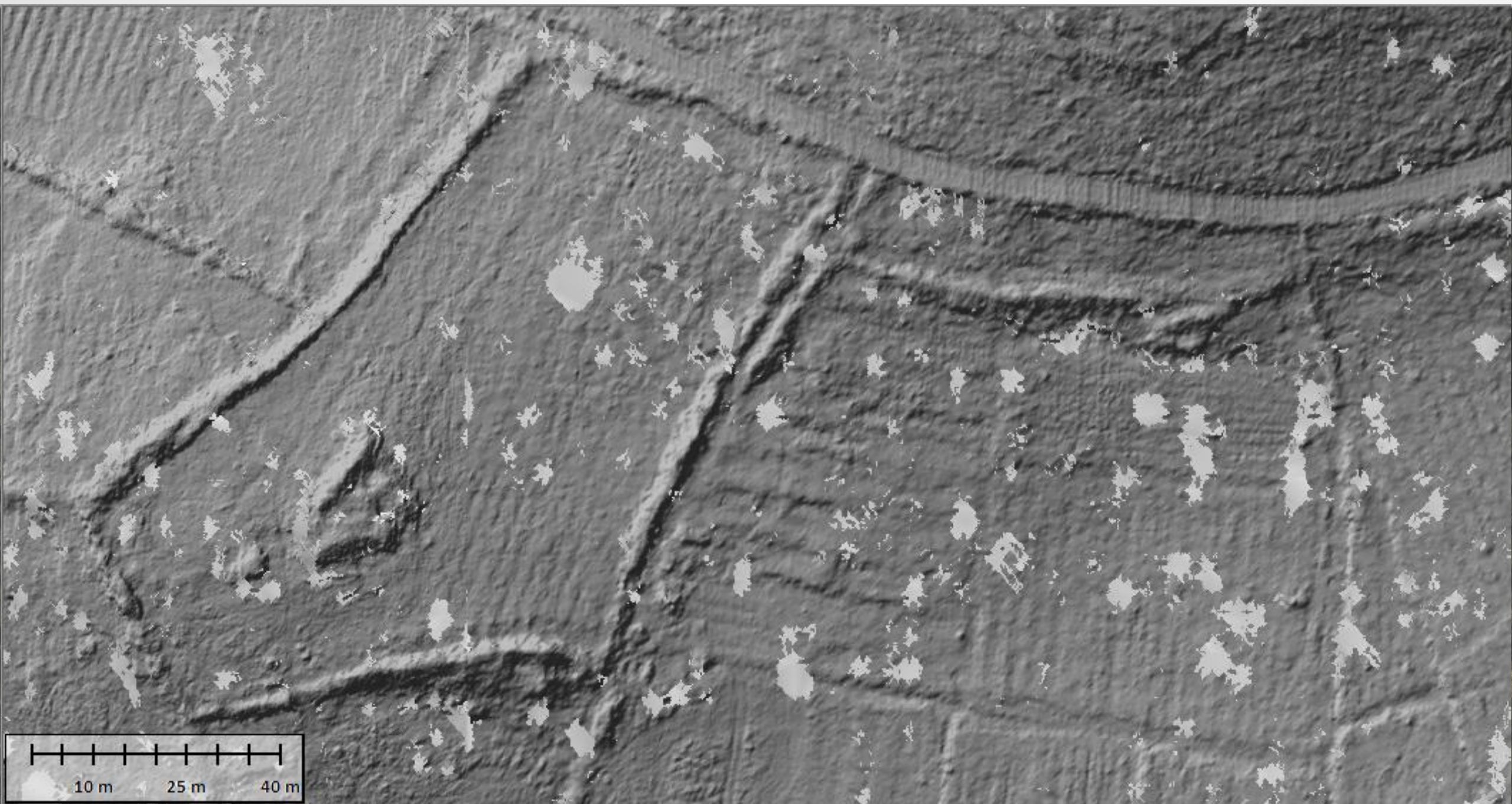




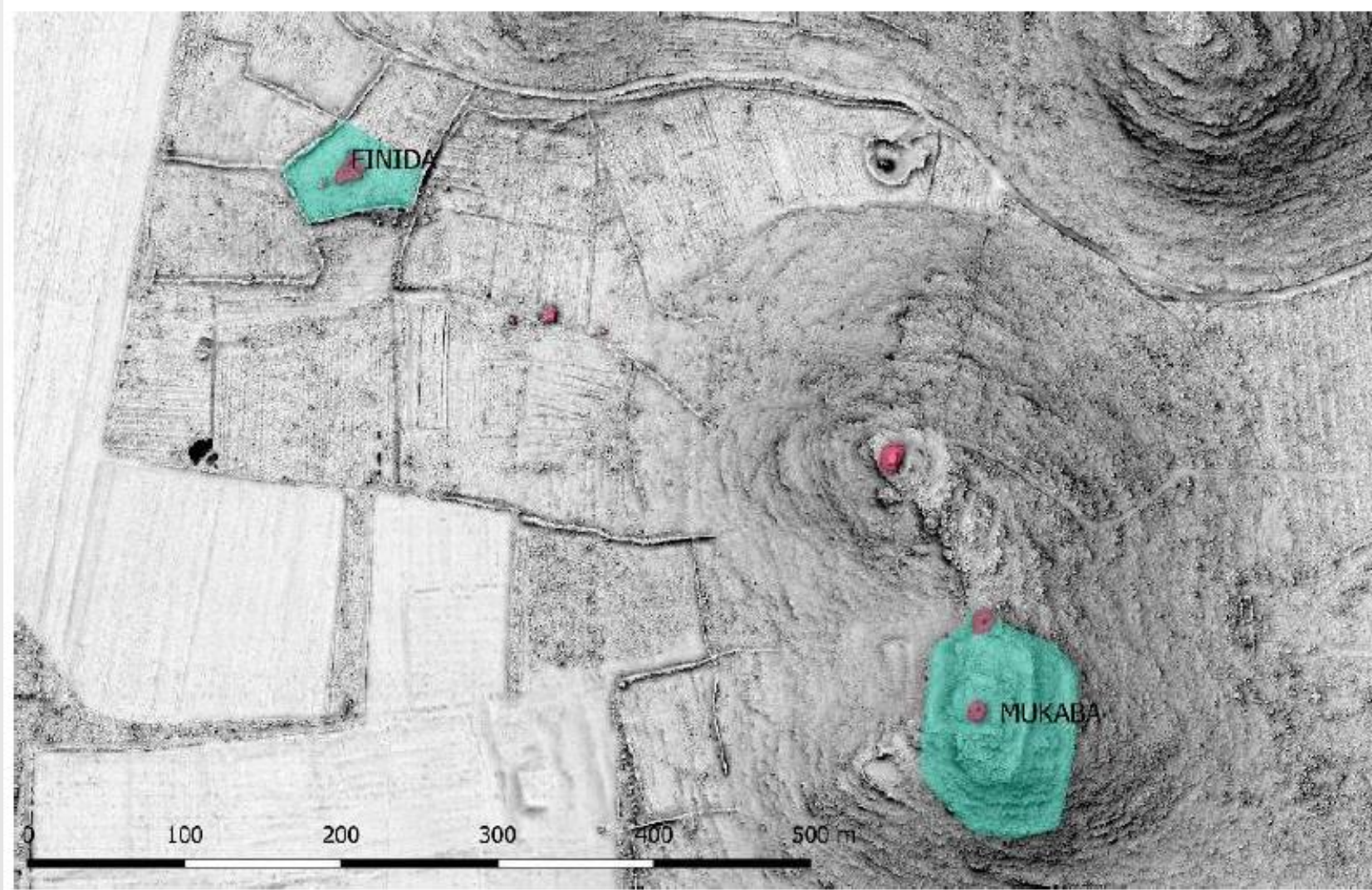






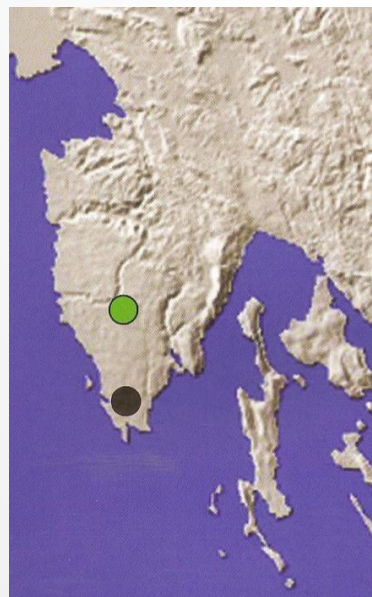
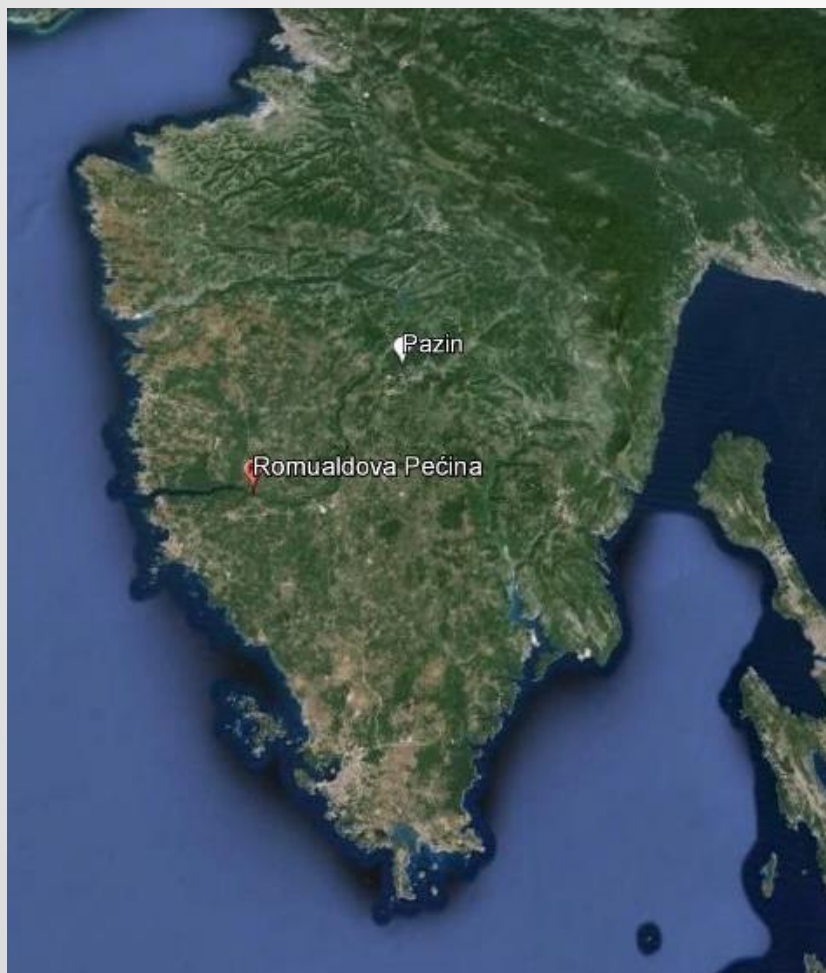






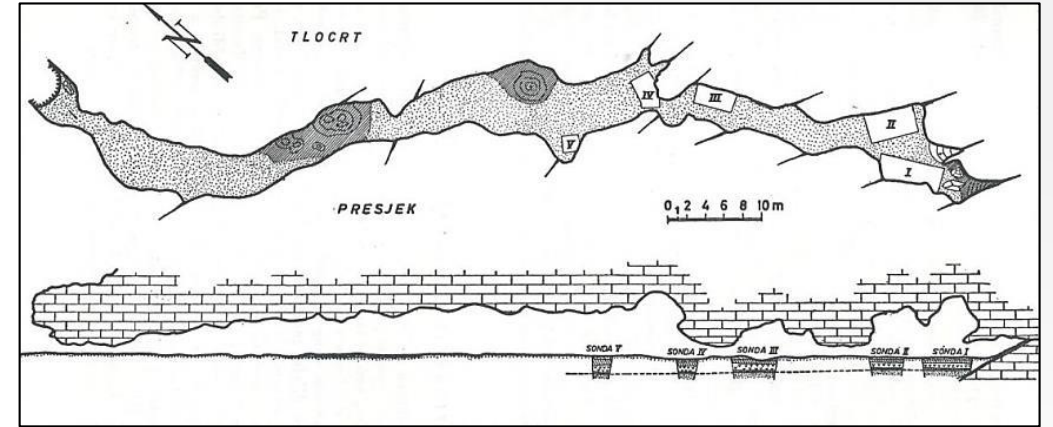


# Canale di Leme/Lim



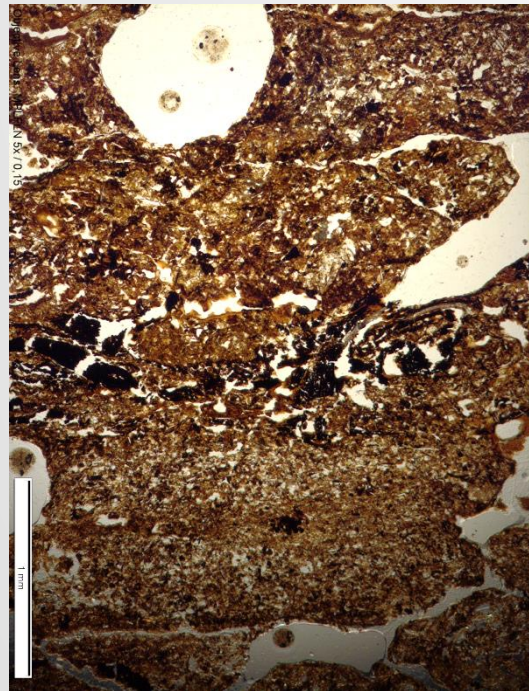


# Grotta di S. Romualdo – progetto ARCHAEOOLIM, I. Janković

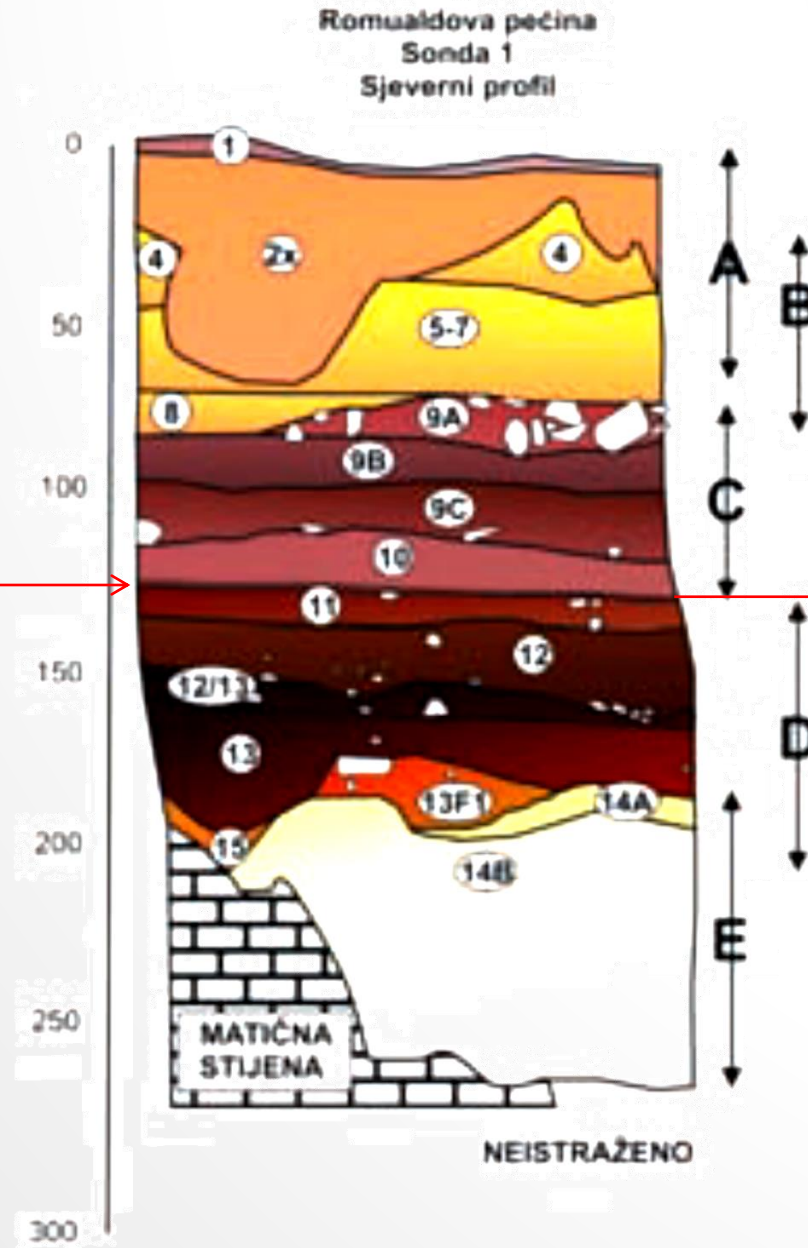




# GROTTA DI SAN ROMUALDO

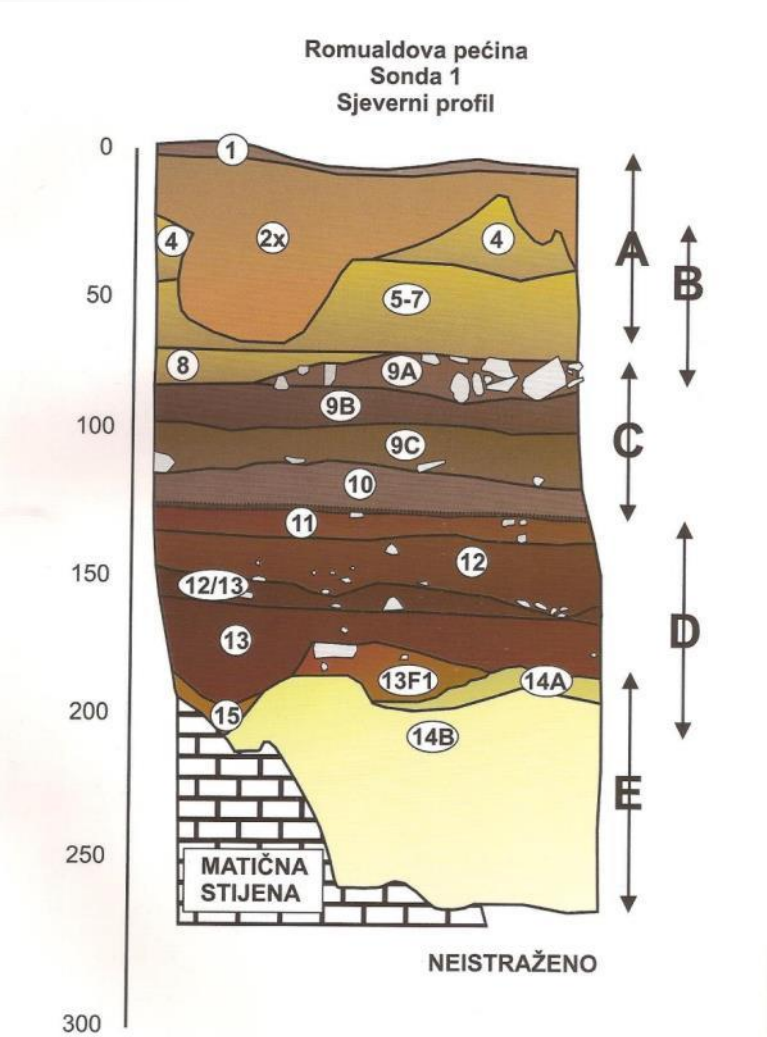


Materia organica vegetale





# Grotta di S. Romualdo



Sjeverni profil sonde 1 u Romualdovoj pećini  
North profile of sondage 1 in Romualdova pećina

(Malez 1968).

- 50.000 – 48.000 BP

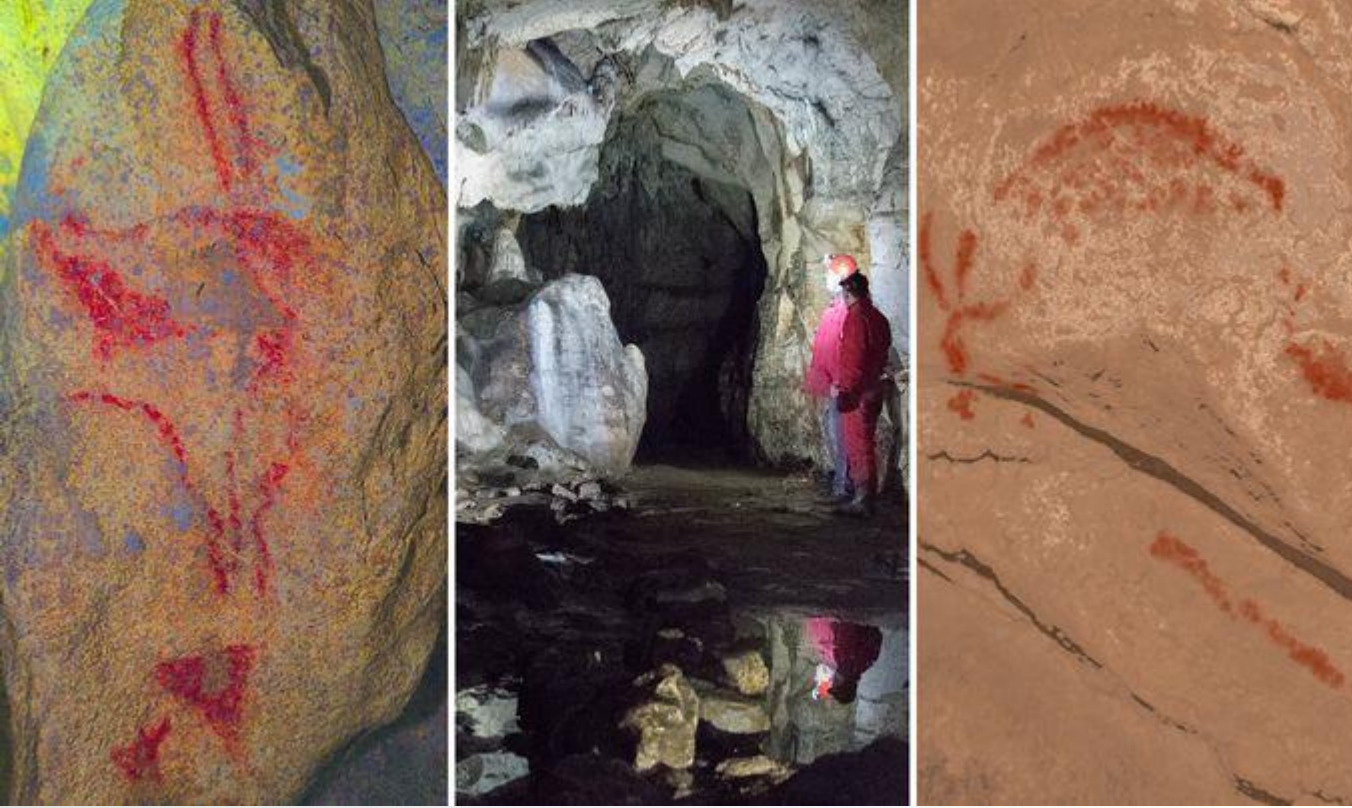




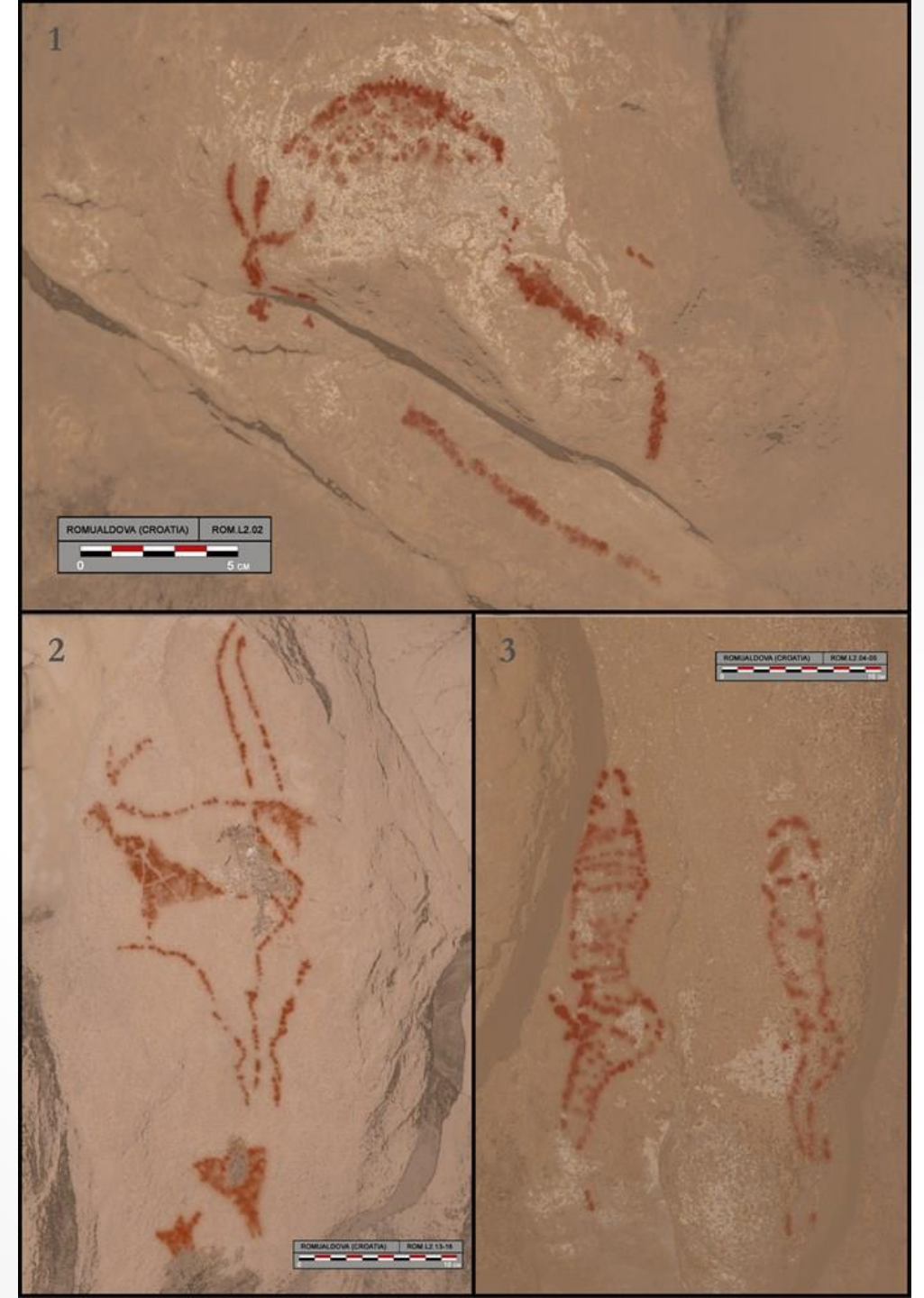


Figure 5. a) Bronze and Iron Age pottery from trench 3; b) Upper Palaeolithic blade; c) Middle Palaeolithic finds from trench 3 (illustrations and photographs by D. Maršanič/J.C.M. Ahern/I. Jankovič).



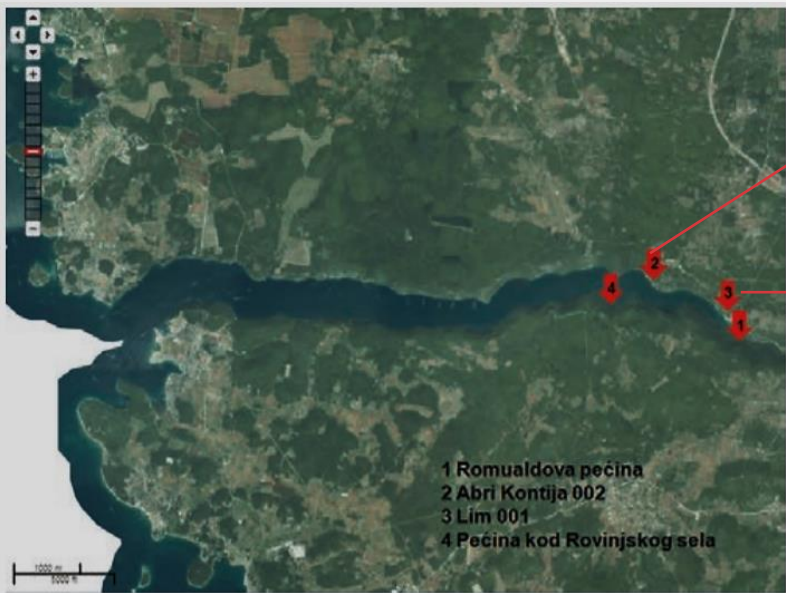


Ruiz-Redondo, Komšo, Maidagan, Moro Abadía, Gonzales-Morales, Jaubert, Karavanić, Expanding the horizons of Palaeolithic rock art: the site of Romualdova Pećina, Antiquity, 2019. <https://doi.org/10.15184/aqy.2019.36>





# Le grotte del Canale di Leme – il progetto ARCHAEOOLIM





# Le grotte del Canale di Leme – progetto ArchaeoCulTour

