KATHOLIEKE UNIVERSITEIT LEUVEN

VIOE

the erosion of a neolithic enclosure site ottenburg, belgium

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Anton Van Rompaey

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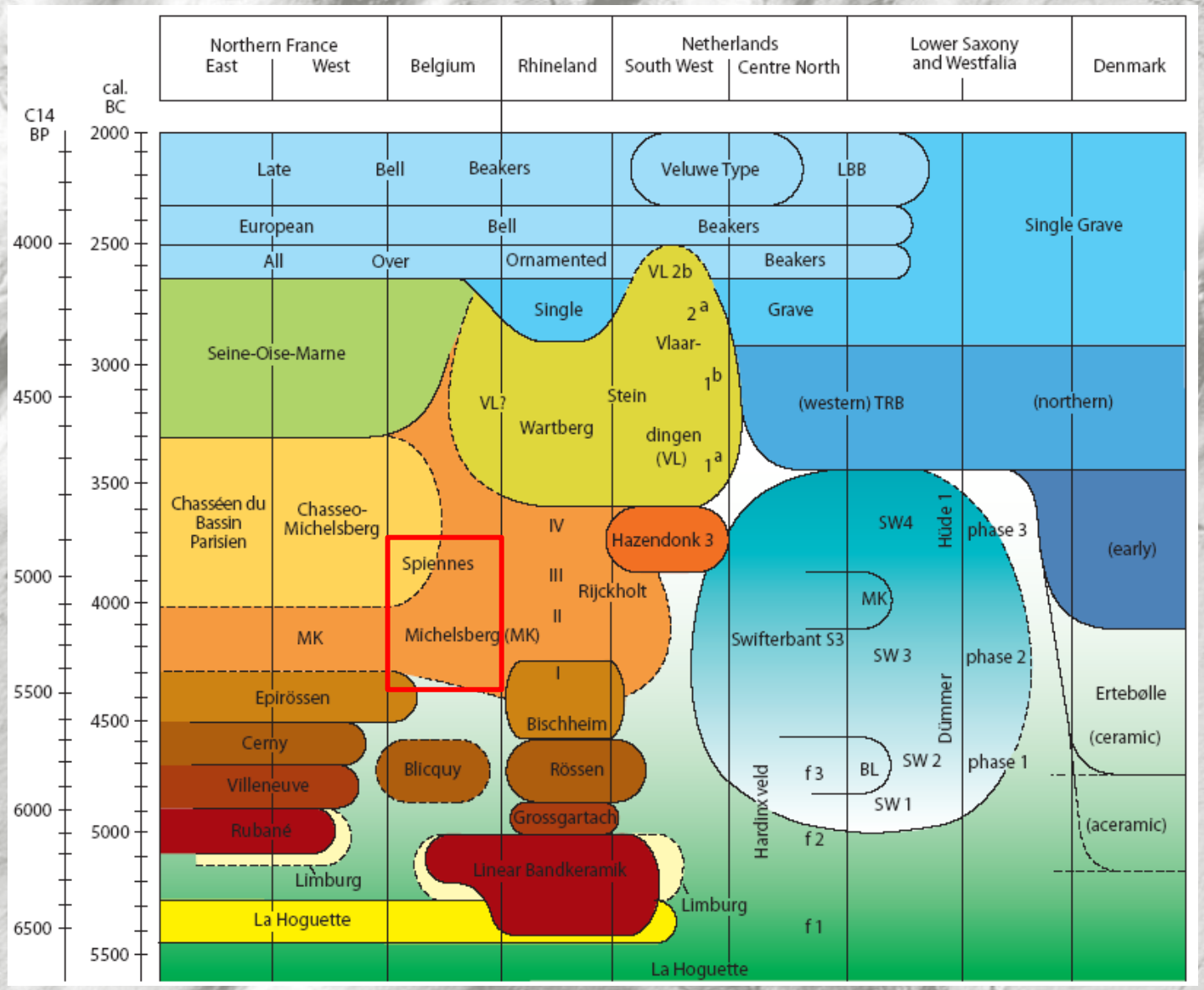
Project aims
- evaluation & management
- case use Lidar (2002/2003)

Case study
- Neolithic enclosure sites



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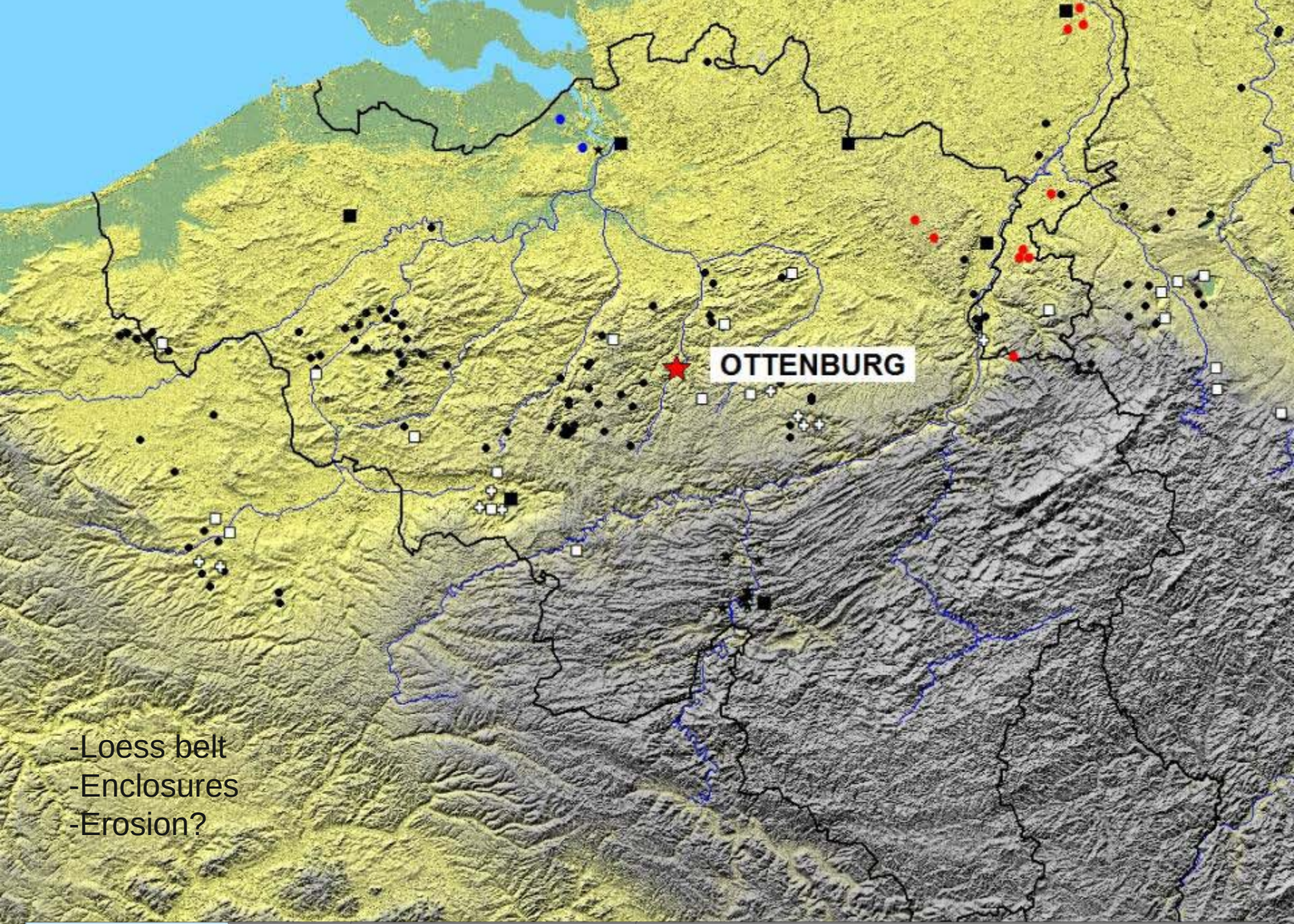
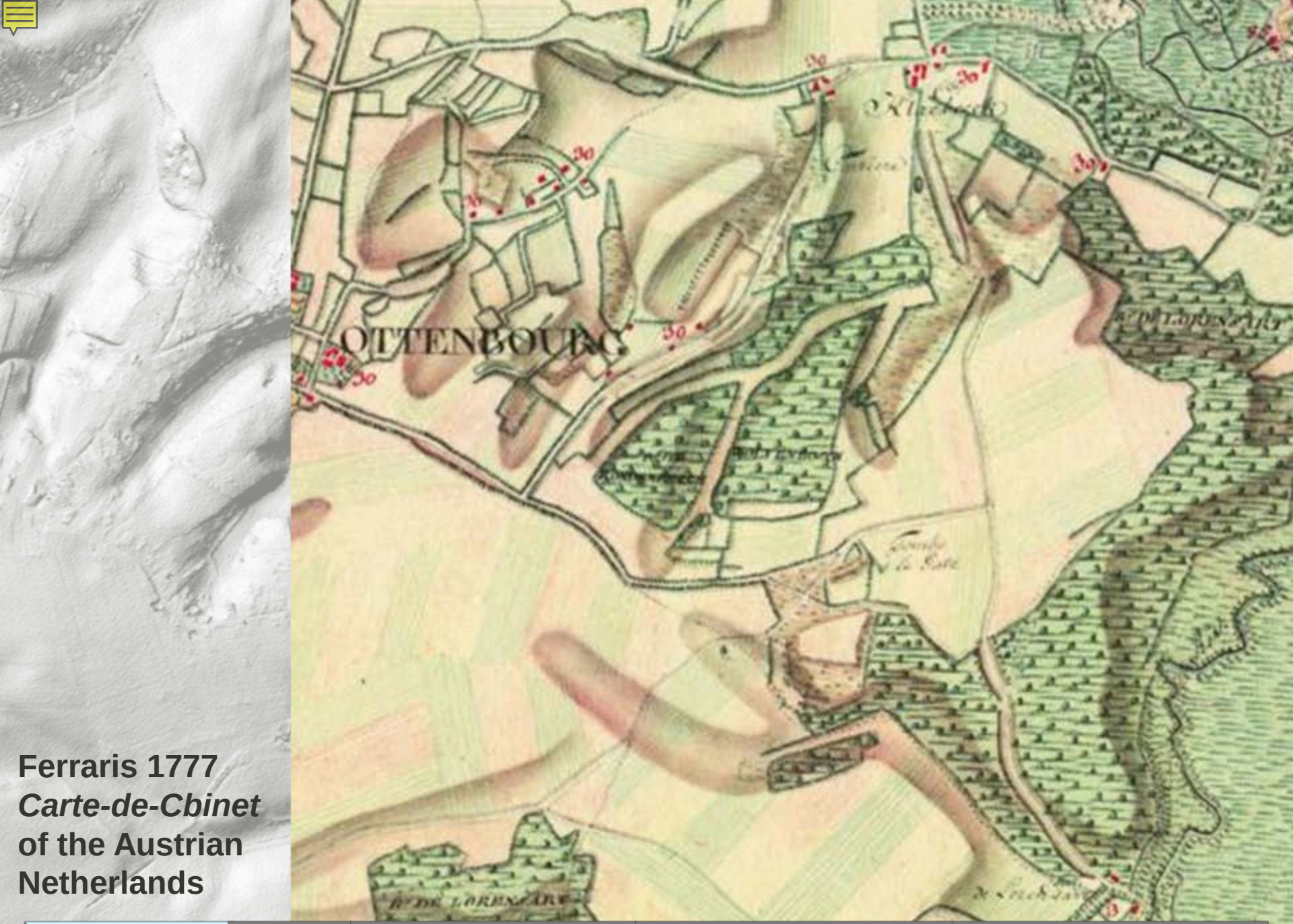
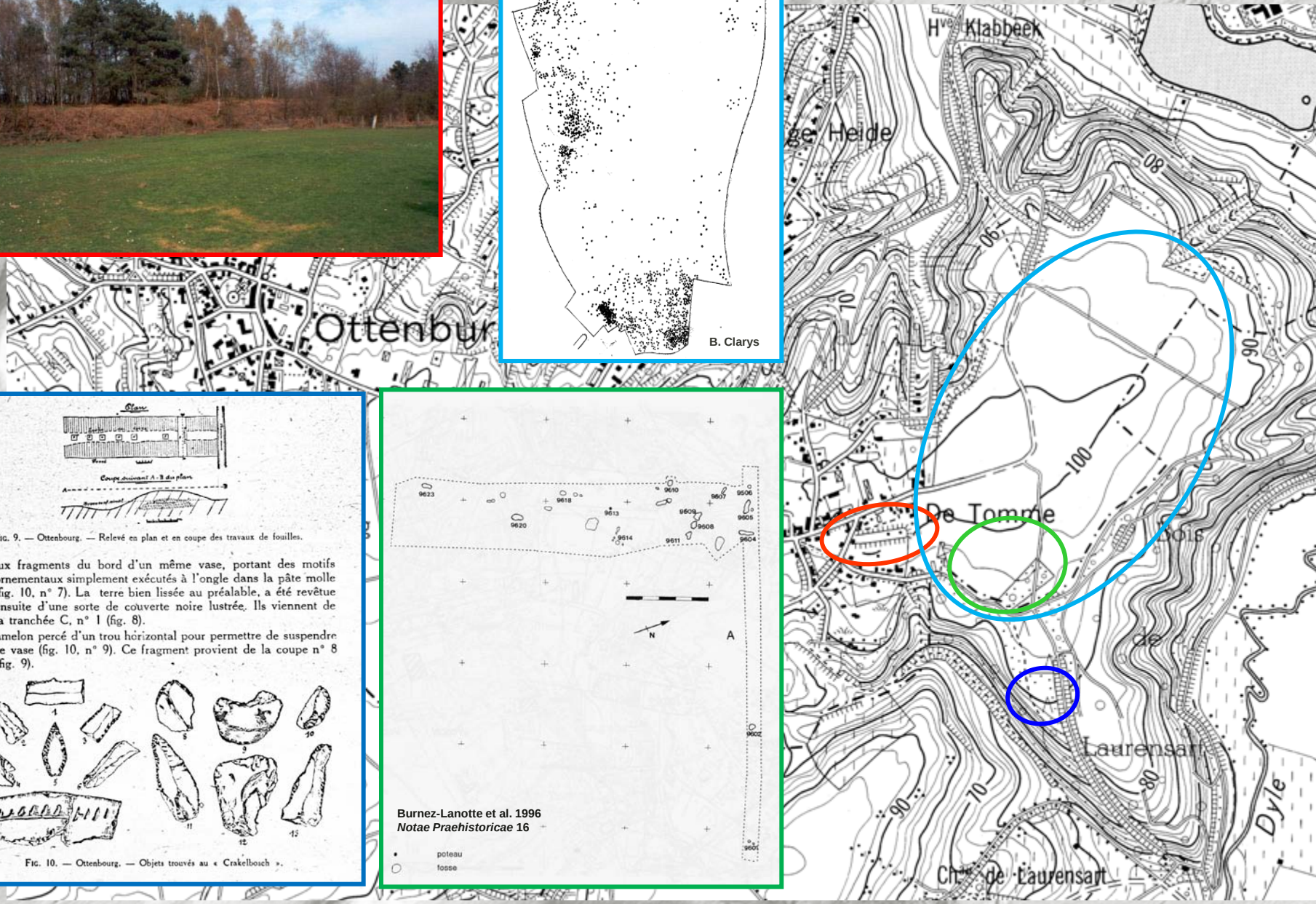


-Loess belt
-Enclosures
-Erosion?



Ferraris 1777
Carte-de-Cbinet
of the Austrian Netherlands



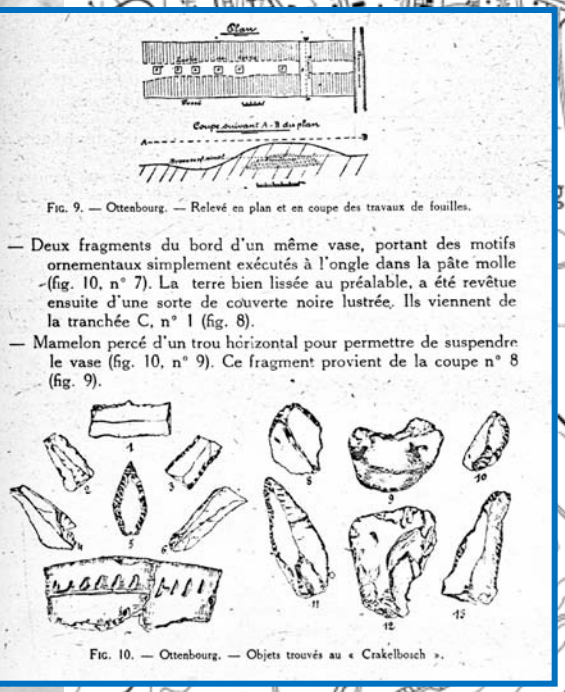


Fig. 9. — Ottenbourg. — Relevé en plan et en coupe des travaux de fouilles.

— Deux fragments du bord d'un même vase, portant des motifs ornementaux simplement exécutés à l'ongle dans la pâte molle (fig. 10, n° 7). La terre bien lissée au préalable, a été revêtue ensuite d'une sorte de couverte noire lustrée. Ils viennent de la tranchée C, n° 1 (fig. 8).

— Mamelon percé d'un trou horizontal pour permettre de suspendre le vase (fig. 10, n° 9). Ce fragment provient de la coupe n° 8 (fig. 9).

Fig. 10. — Ottenbourg. — Objets trouvés au « Crakelbosch ».

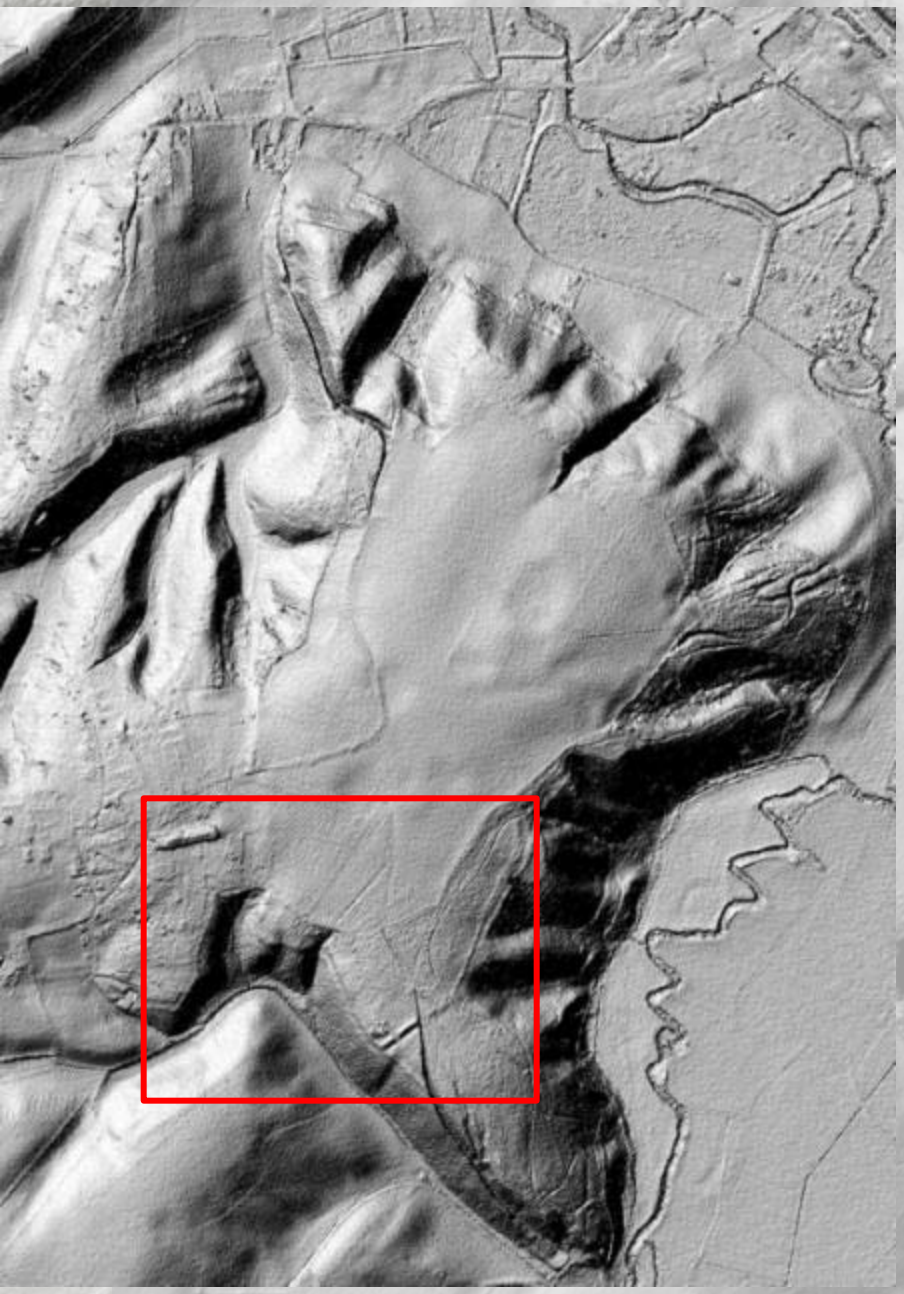
Burnez-Lanotte et al. 1996
Notae Praehistoricae 16

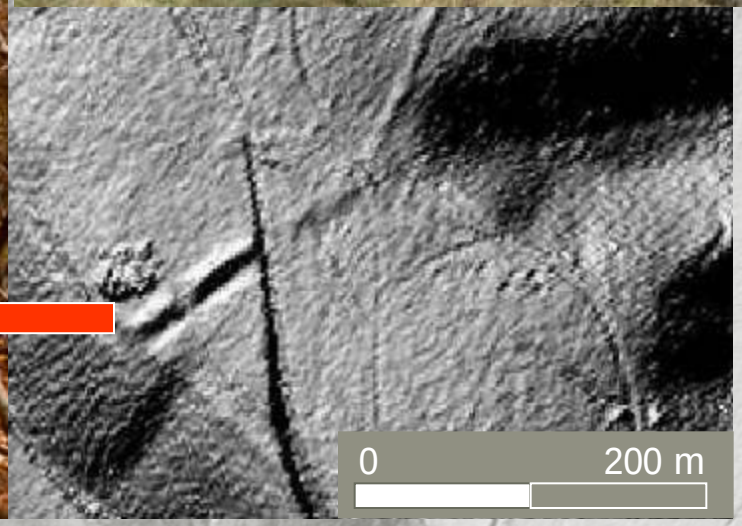
Method

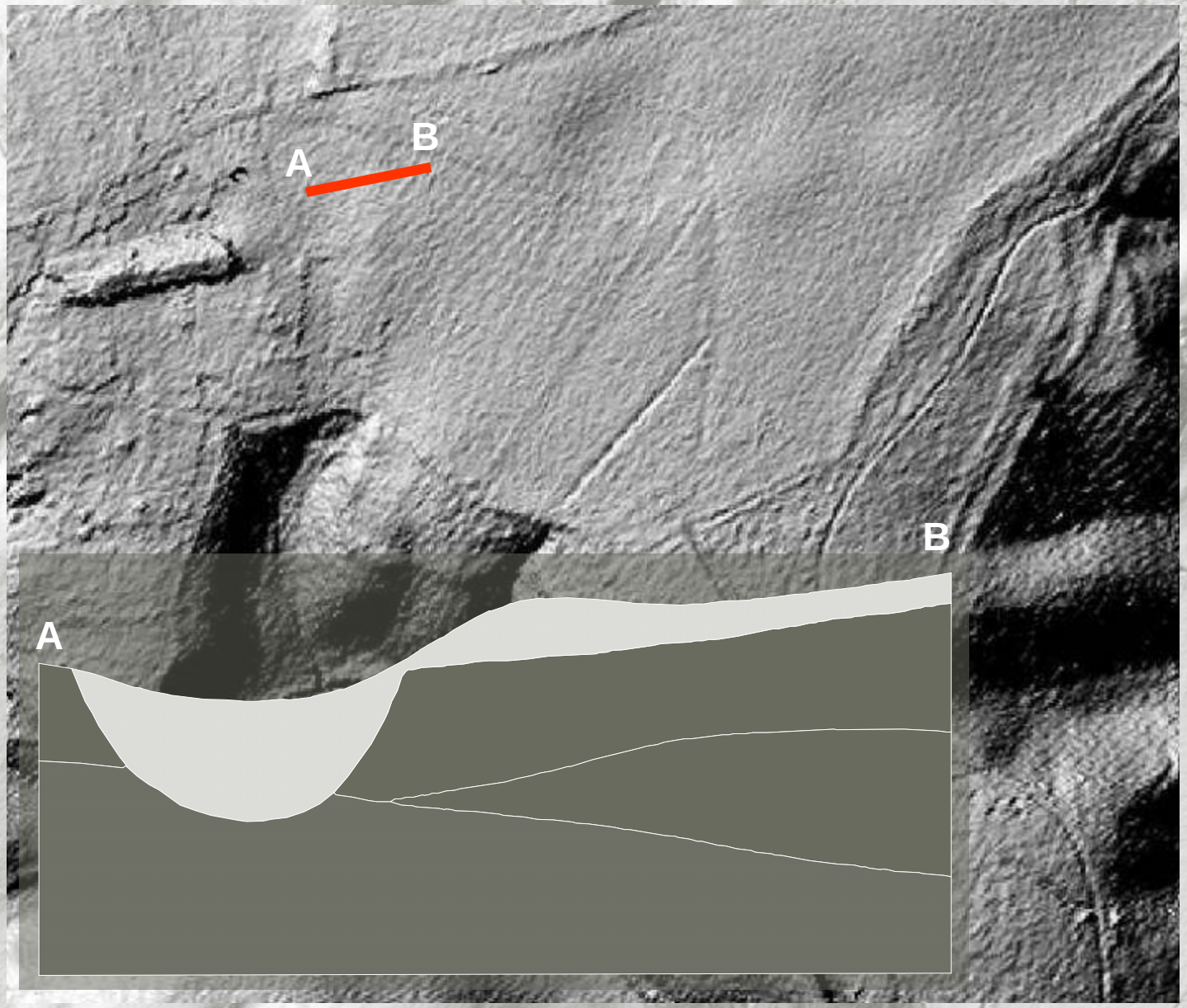
DEM
- Construction based on Lidar data
- Visual inspection

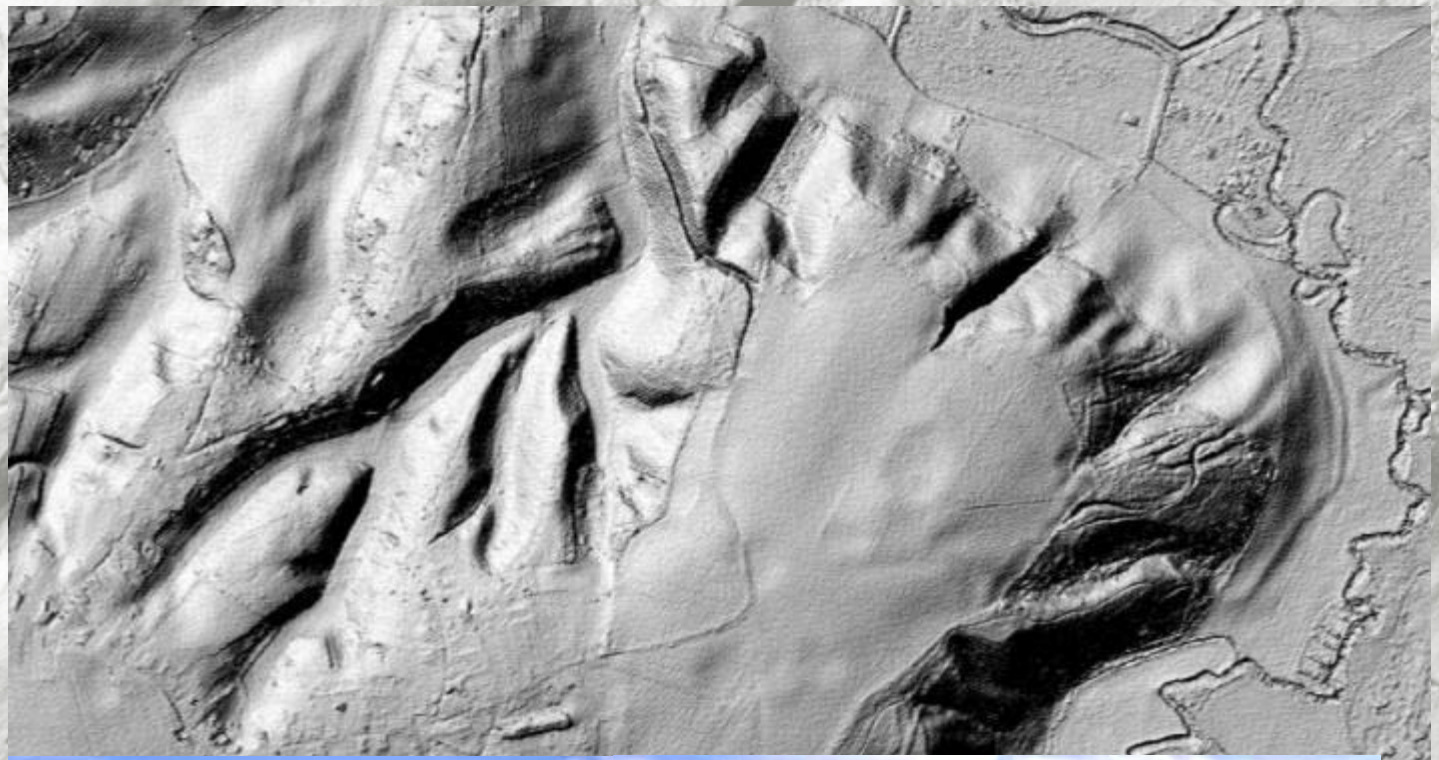
Historical erosion: augering

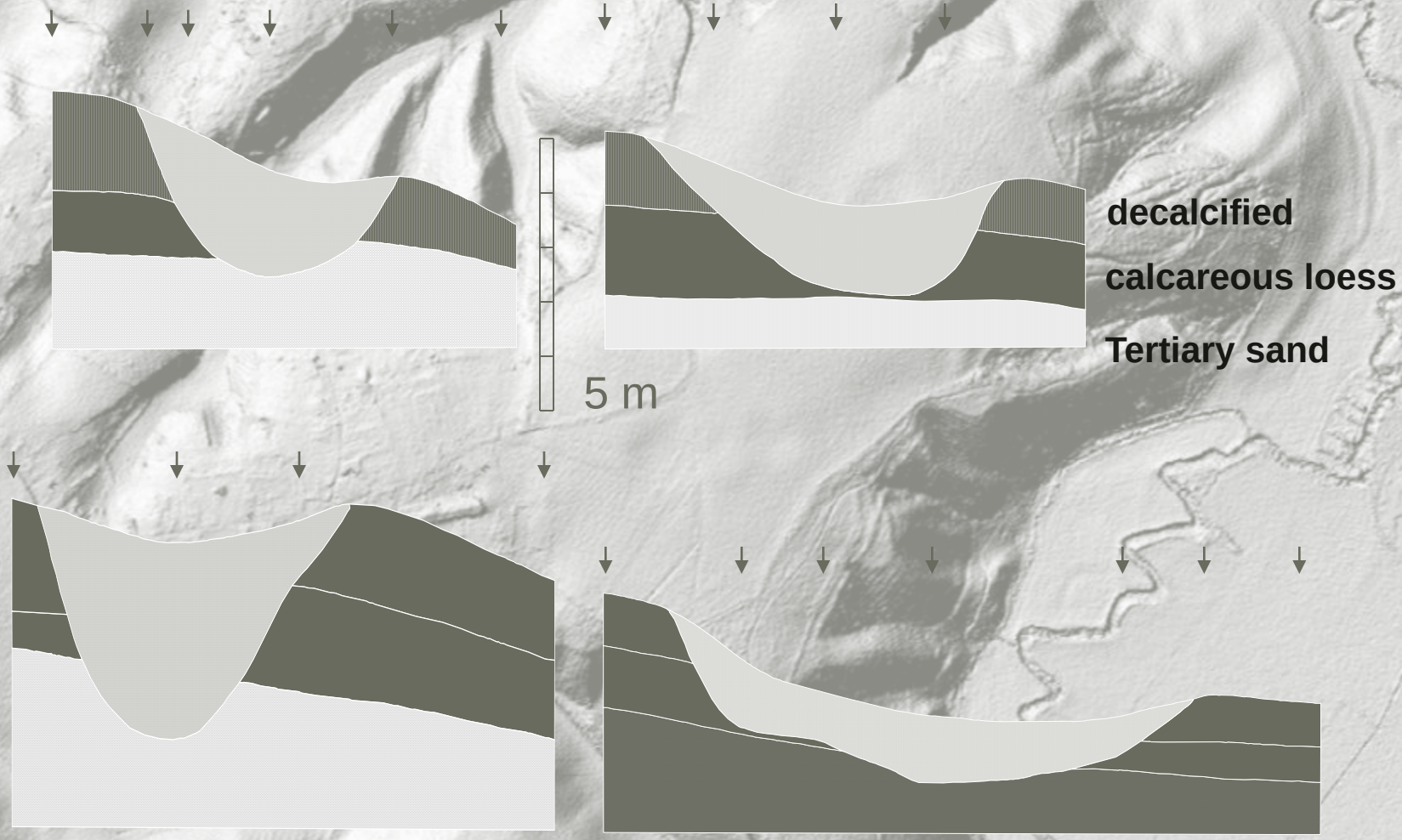
Present-day erosion: modelling

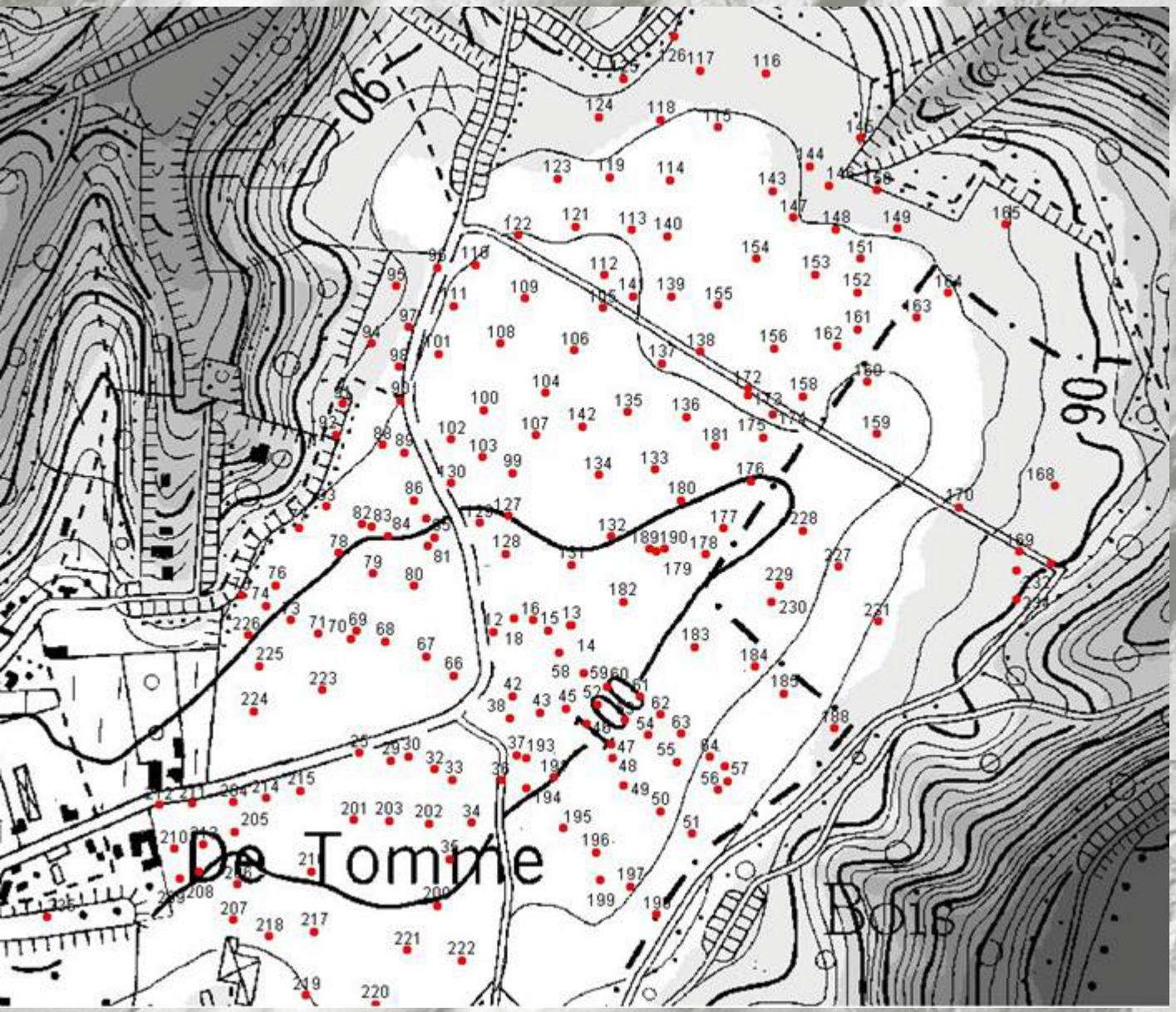



0
200 m


A
B
A
B

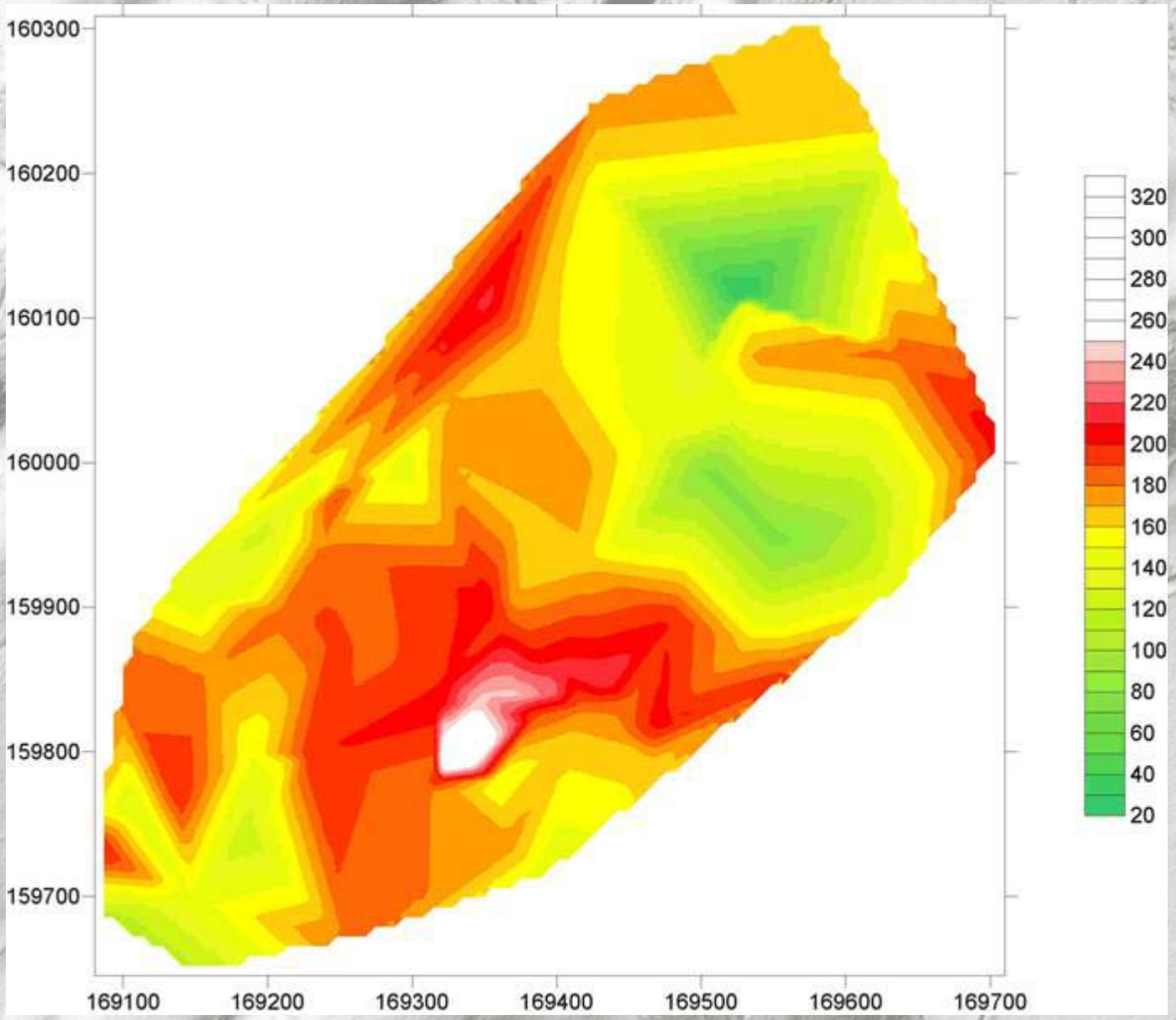



decalcified
calcareous loess
Tertiary sand
5 m



120 cm

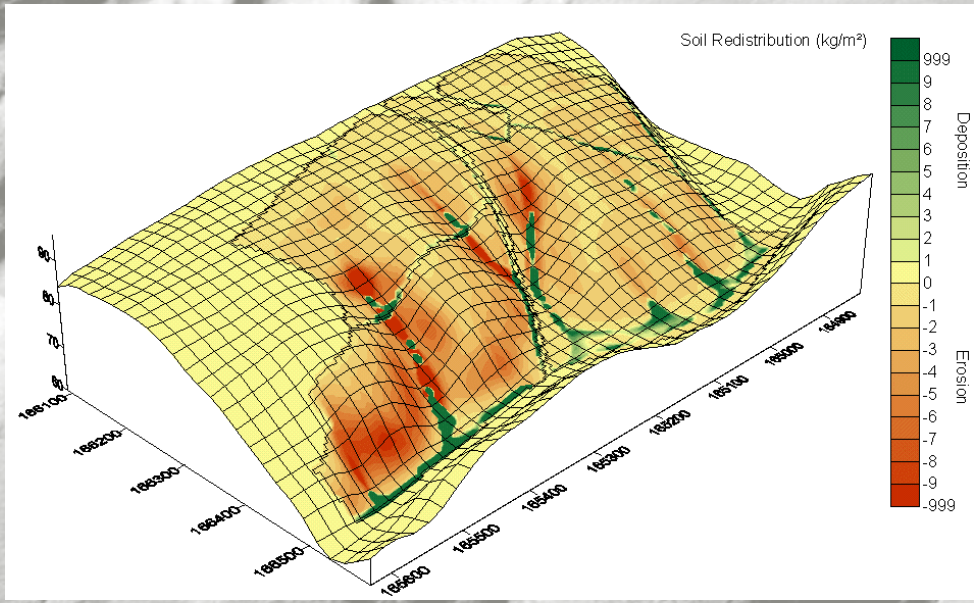
200-250 cm


160300
160200
160100
160000
159900
159800
159700
169100
169200
169300
169400
169500
169600
169700
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20

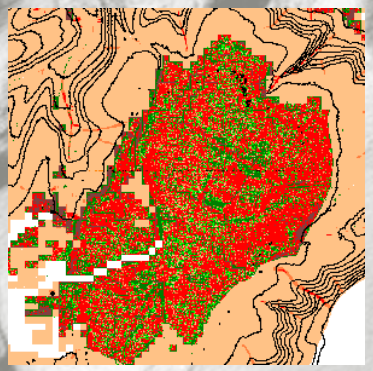
Modelling present-day erosion

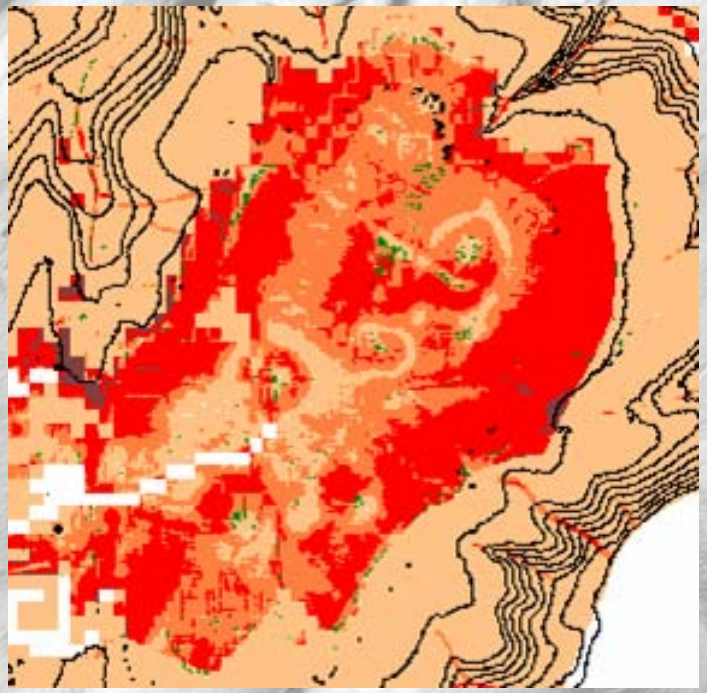
WaTEM/SEDEM

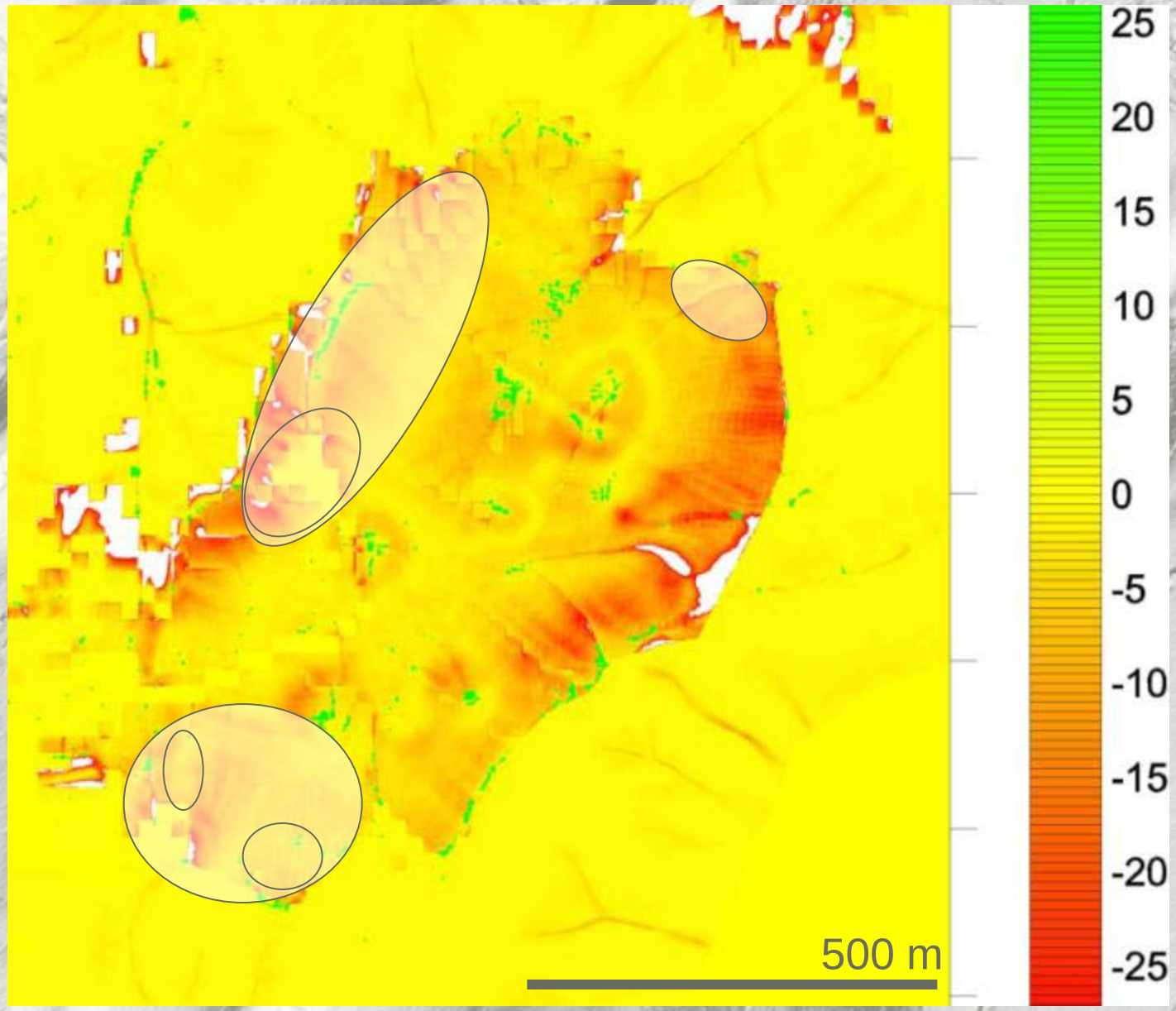
http://geo.kuleuven.be/geography/modelling/erosion/index.htm

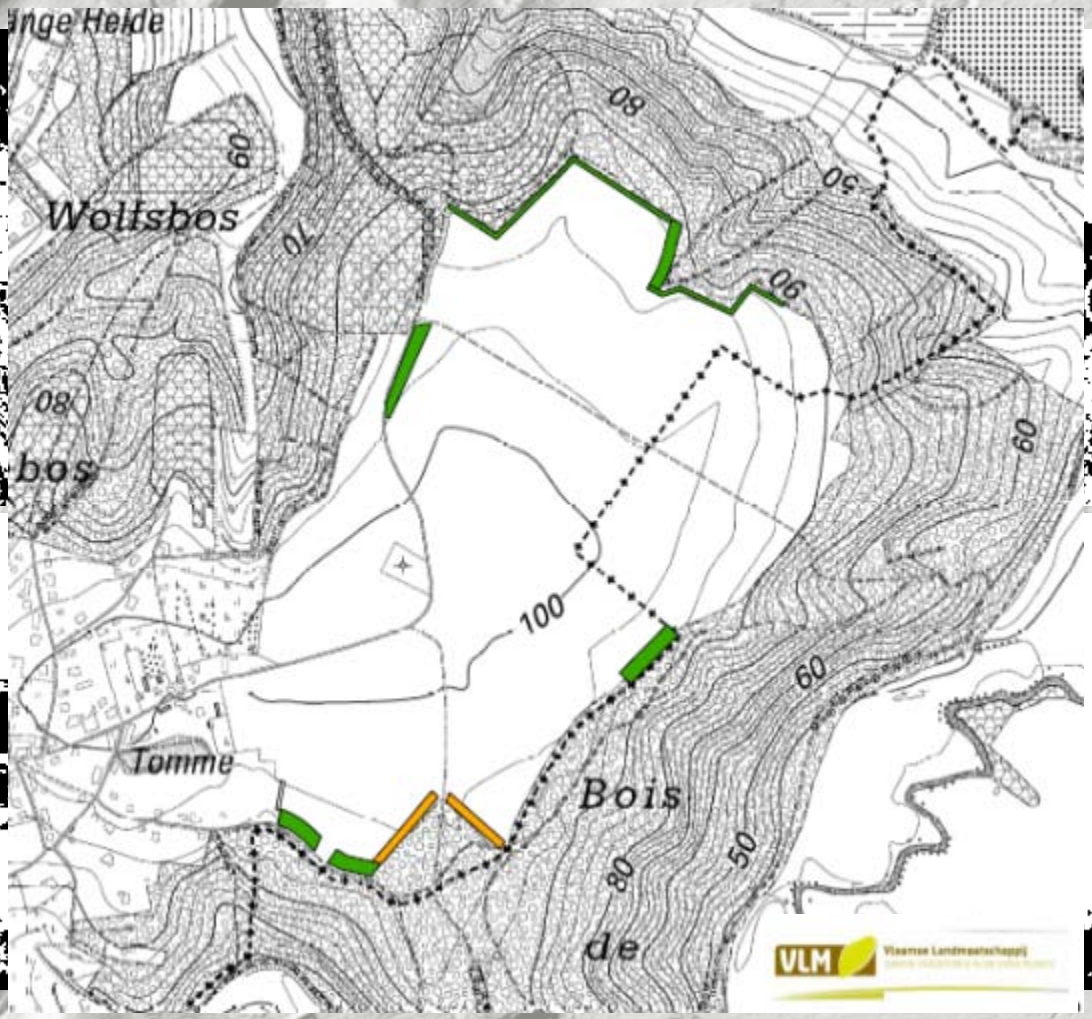


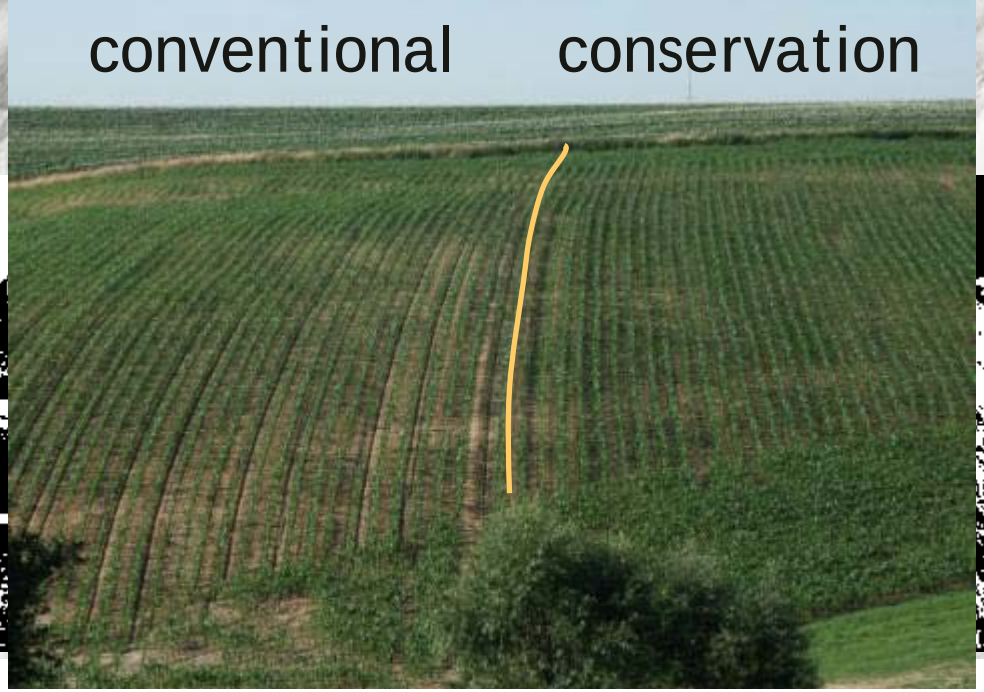
- Spatially distributed soil erosion & sediment delivery model
- Simulate impact of soil conservation & sediment control measures
- Water erosion: RUSLE
    - + Field borders, tillage direction & road infrastructure

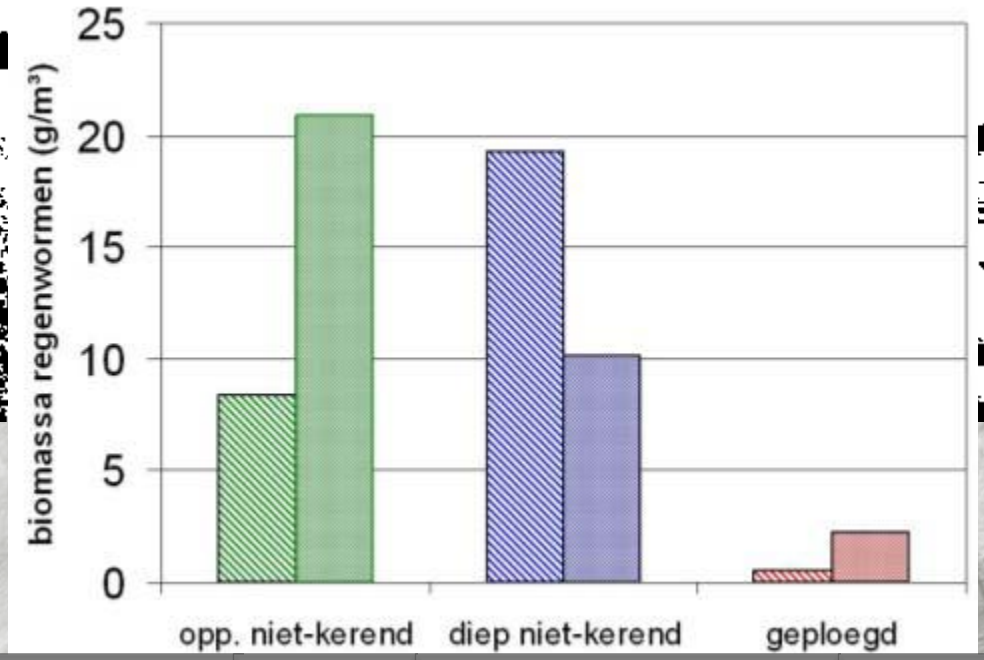





25
20
15
10
5
0
-5
-10
-15
-20
-25
500 m


Wolfsbos
bos
Tomme
Bois
de
60
70
80
90
50
100
VLM


conventional
conservation


biomassa regenwormen (g/m³)
25
20
15
10
5
0
opp. niet-kerend
diep niet-kerend
geploegd

Thank you for your attention