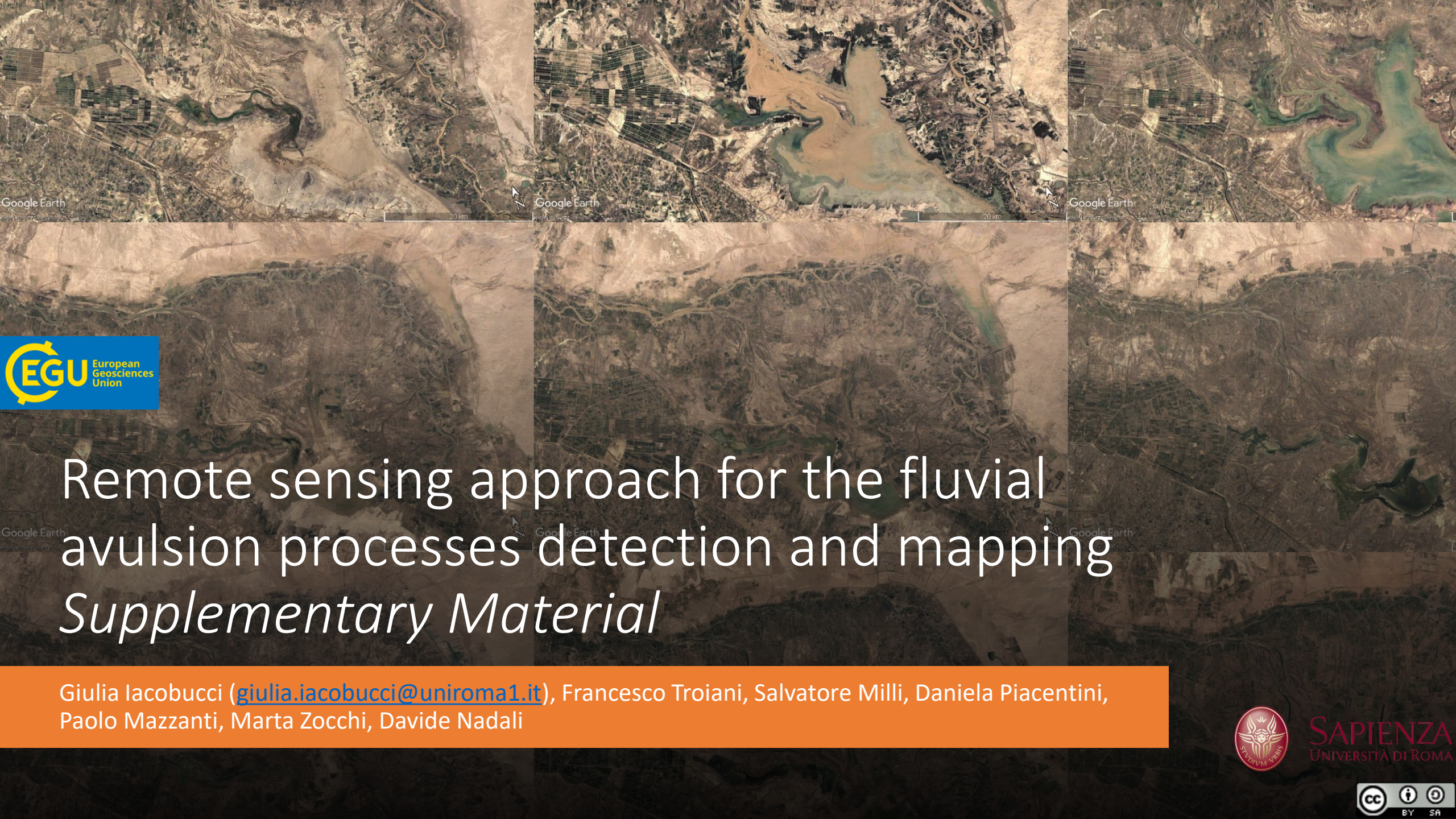




Google Earth

Google Earth

Google Earth



Remote sensing approach for the fluvial avulsion processes detection and mapping

Supplementary Material

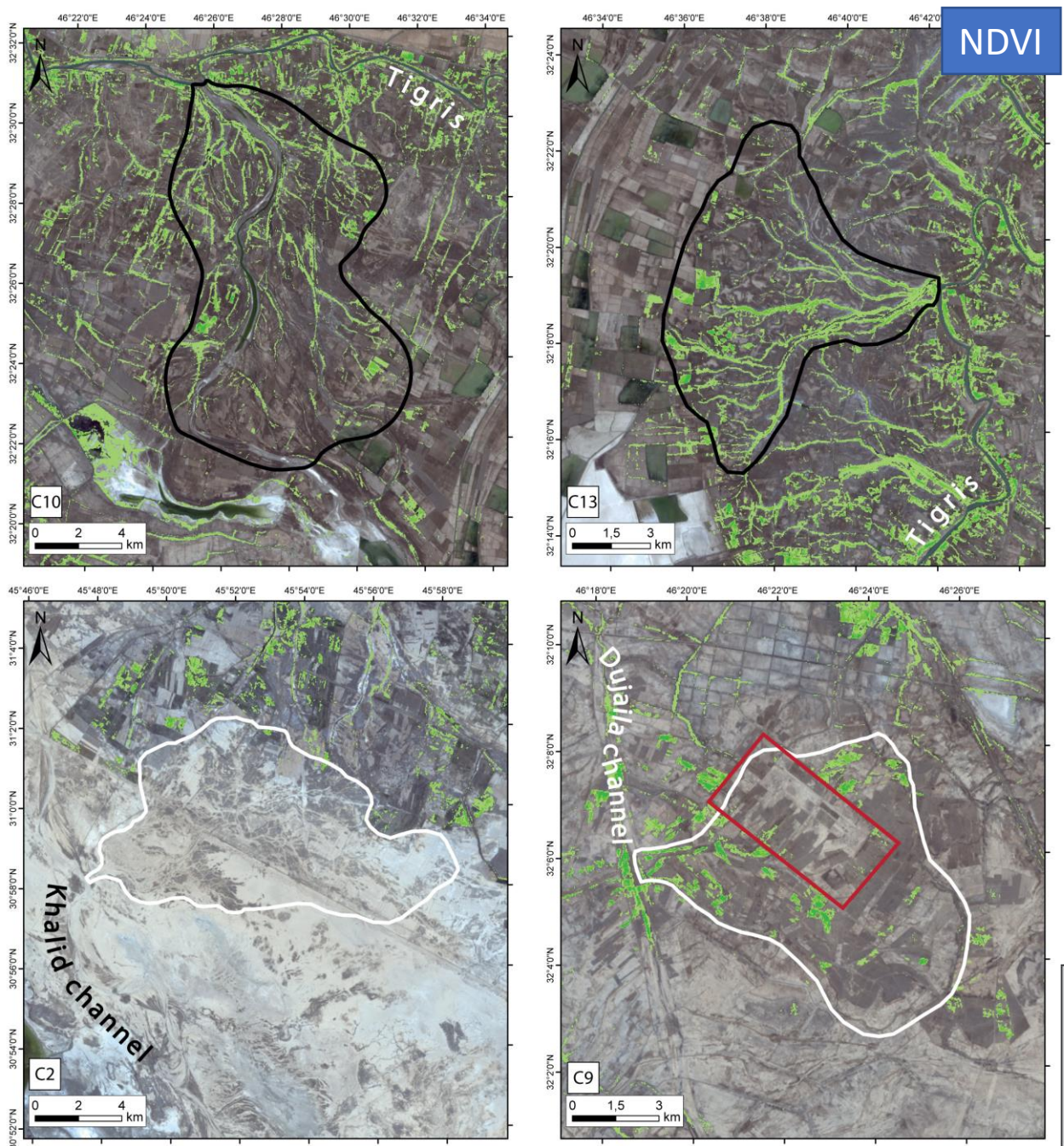
Giulia Iacobucci (giulia.iacobucci@uniroma1.it), Francesco Troiani, Salvatore Milli, Daniela Piacentini,
Paolo Mazzanti, Marta Zocchi, Davide Nadali



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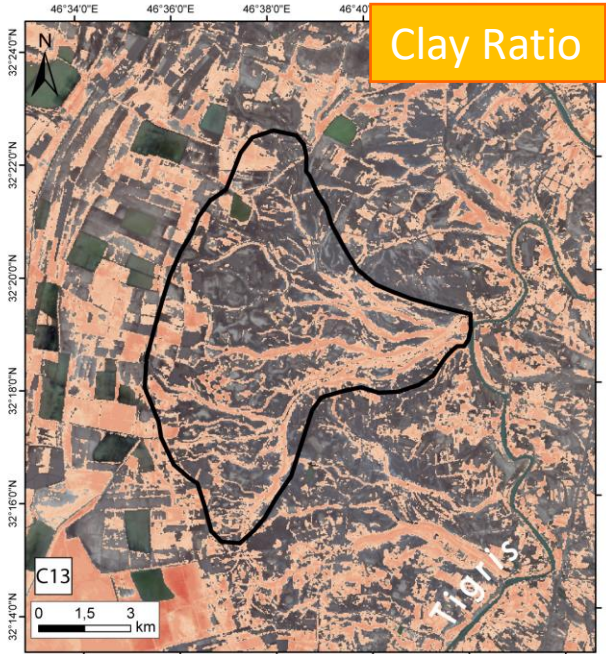
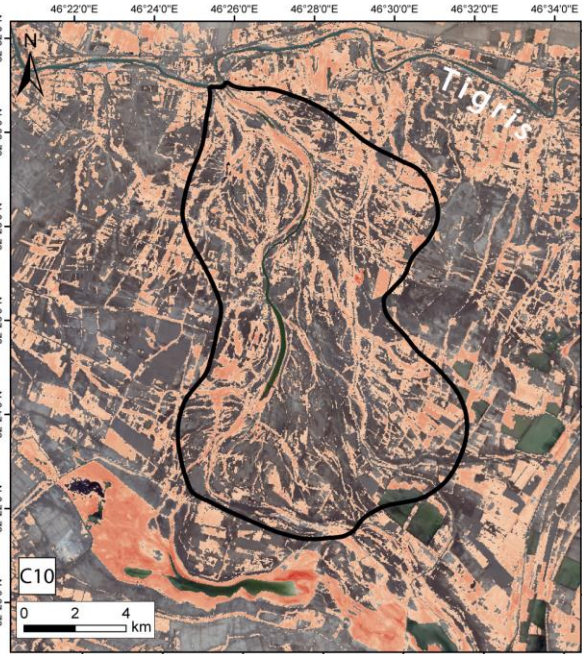


Multispectral indices: NDVI and CR



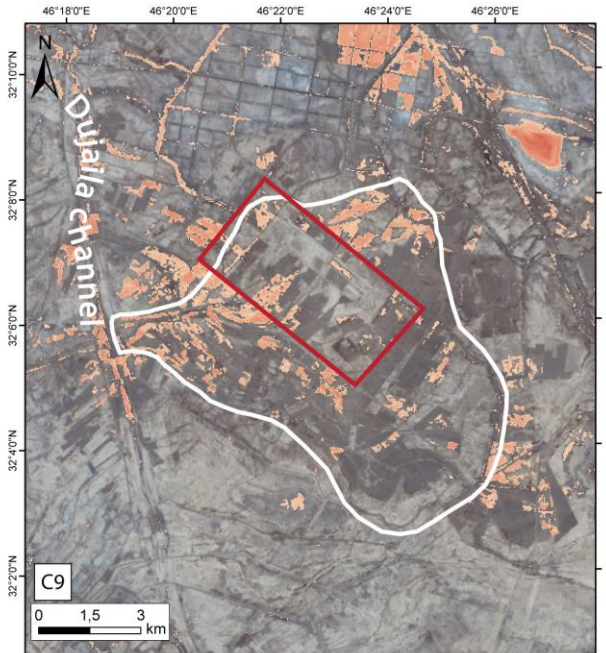
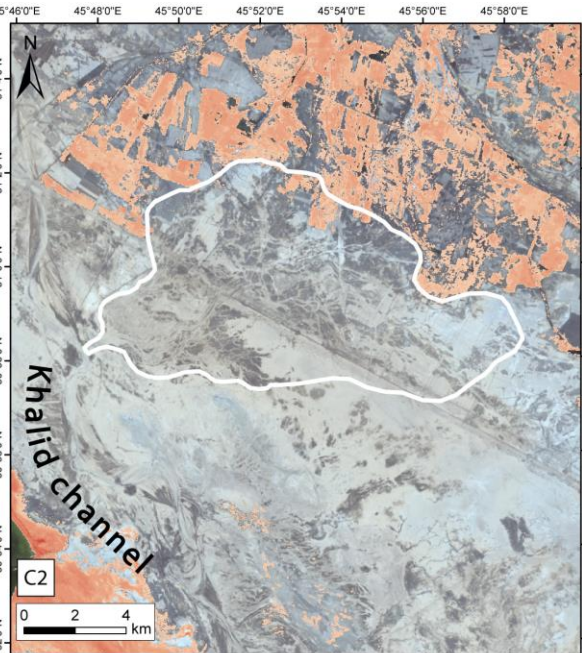
- ✓ Discerning the state of activity
- ✓ Recognition of active crevasse channels
- ✓ Recognition of active levees

Multispectral indices: NDVI and CR



Clay Ratio

- ✓ Discerning the state of activity
- ✓ Recognition of active crevasse channels
- ✓ Discerning transport VS deposition sectors

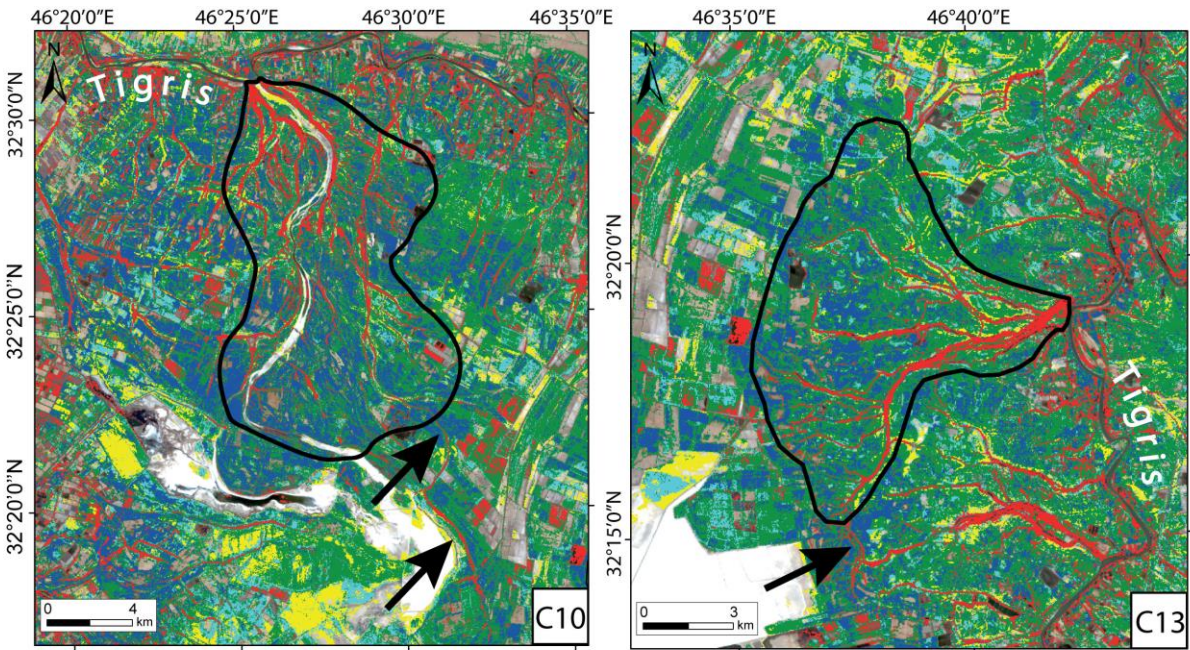


Legend - CR (wettest period)

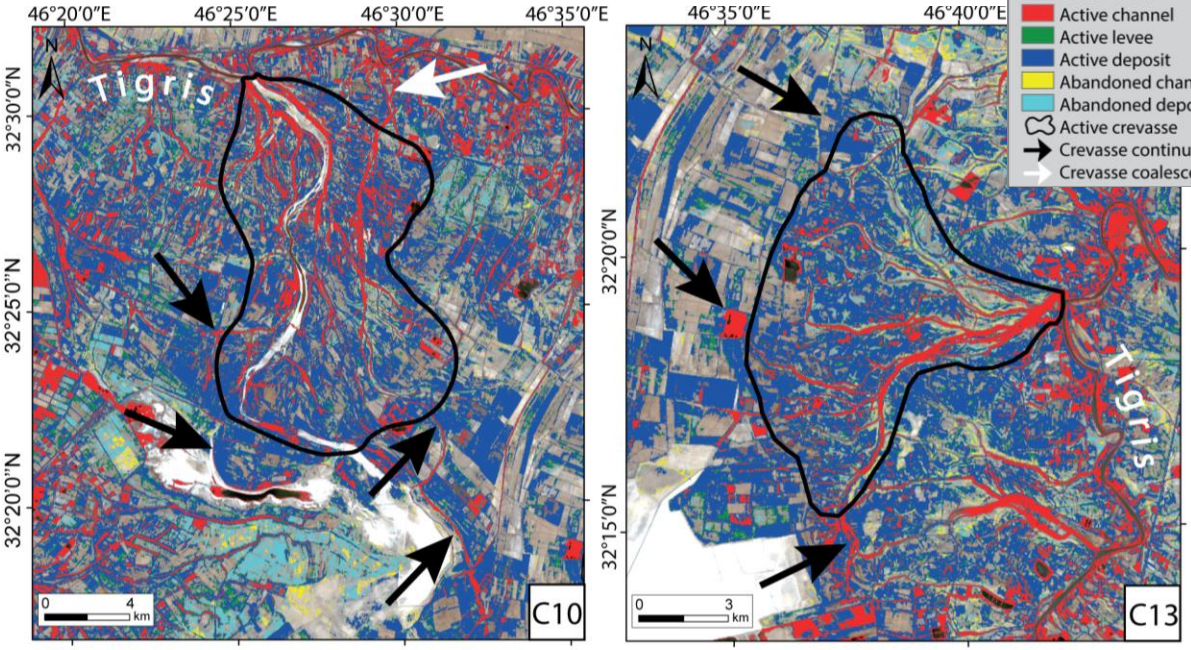
0 - 1.14	1.25 - 1.3	1.5 - 1.55	Active crevasse
1.14 - 1.16	1.3 - 1.35	1.55 - 1.6	Abandoned crevasse
1.16 - 1.18	1.35 - 1.4	1.6 - 1.65	Kutt-Al-Hay East airbase
1.18 - 1.2	1.4 - 1.45	1.65 - 1.7	
1.2 - 1.25	1.45 - 1.5	1.7 - 1.75	

Supervised Classification: active crevasse splays

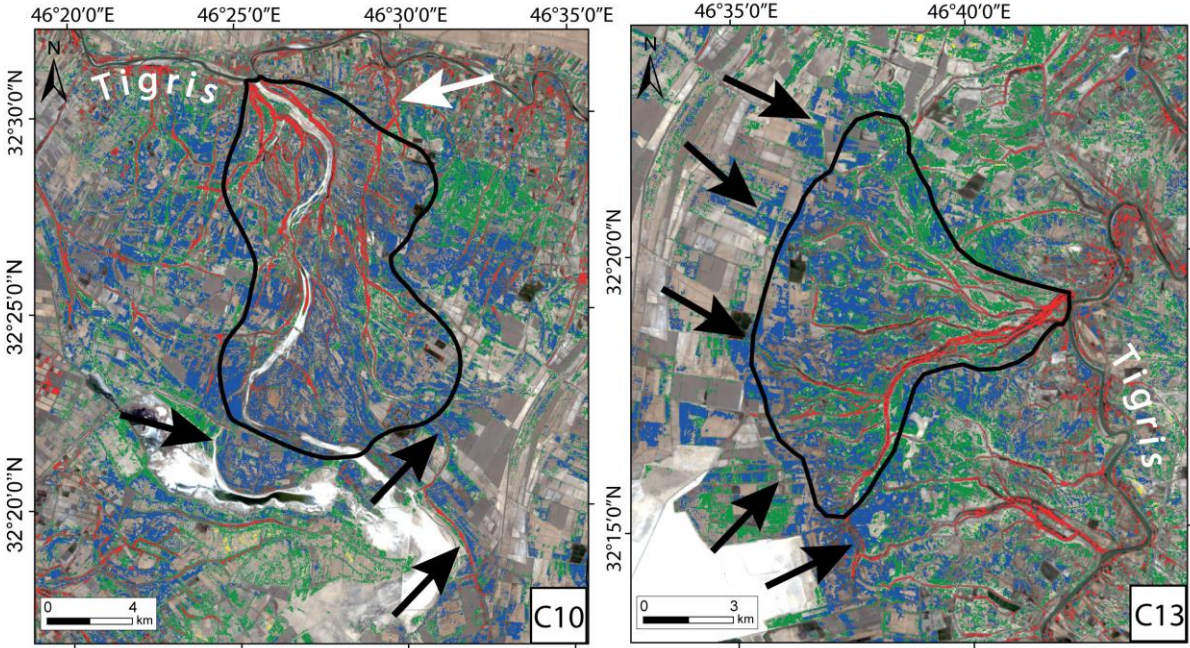
Mahalanobis



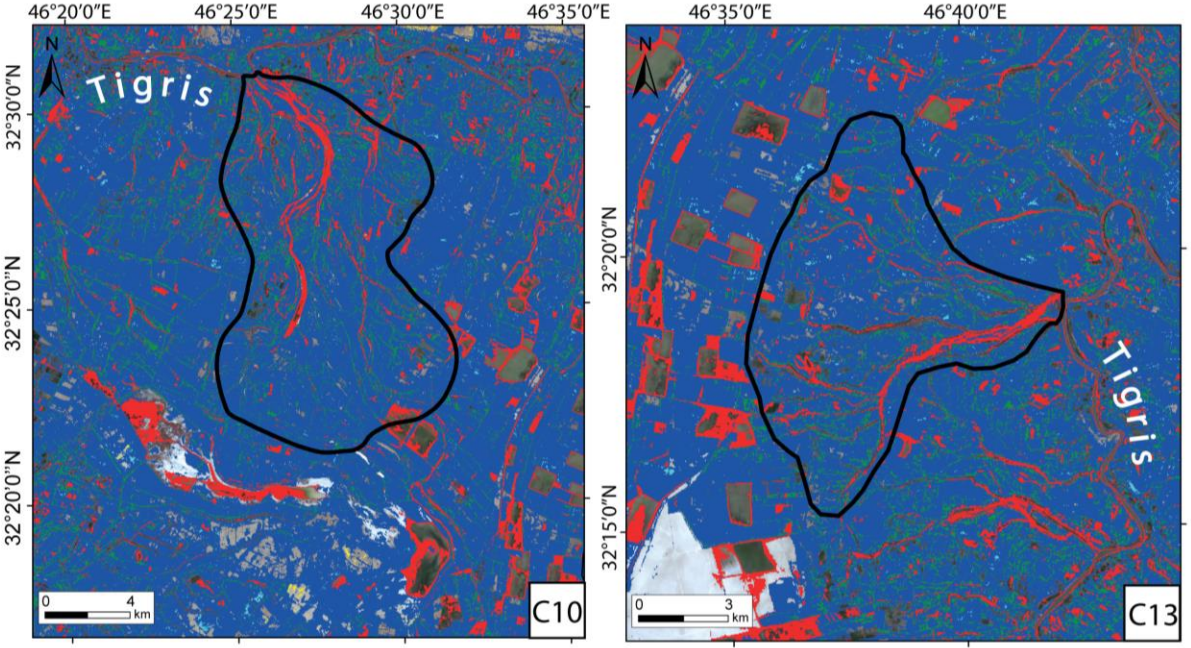
Minimum Distance



Maximum Likelihood



SAM

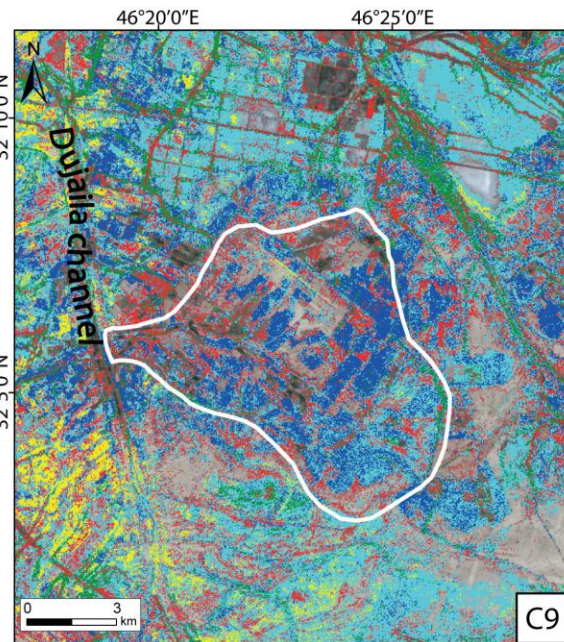
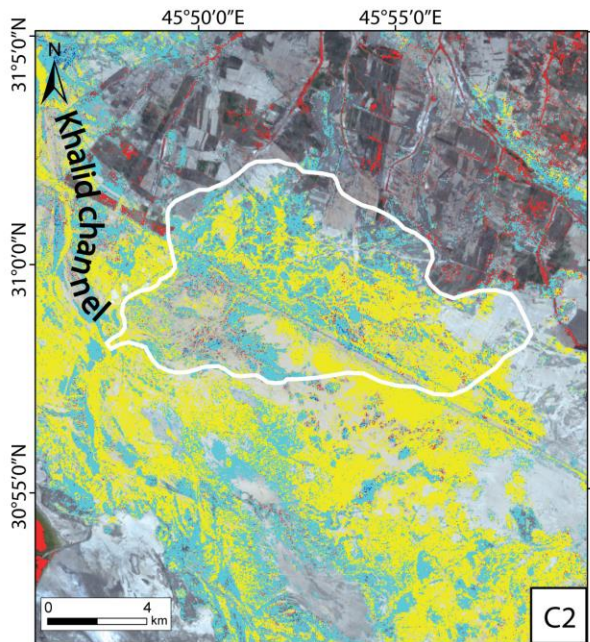


Legend

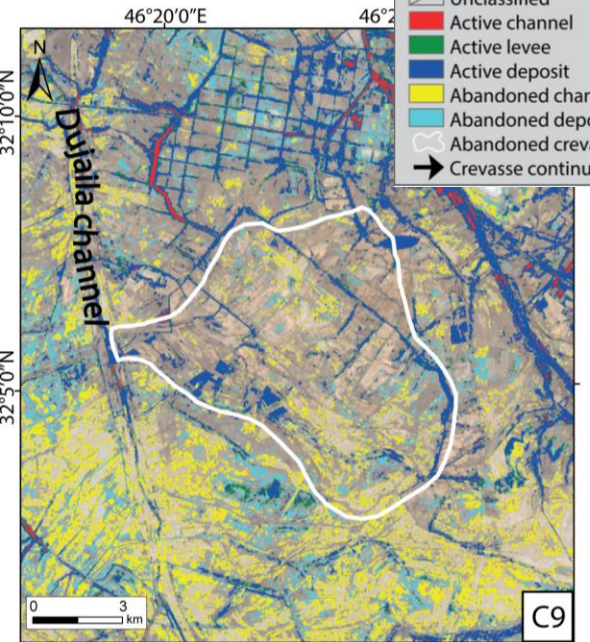
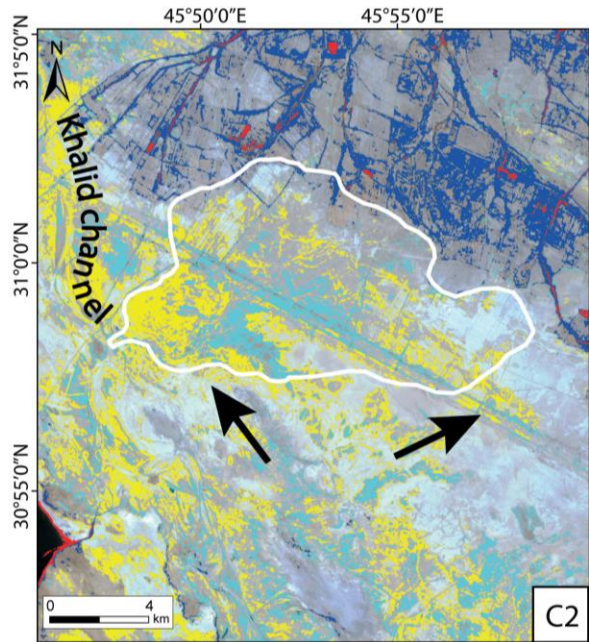
- Unclassified
- Active channel
- Active levee
- Active deposit
- Abandoned channel
- Abandoned deposit
- Active crevasse
- Crevasse continuation
- Crevasse coalescence

Supervised Classification: abandoned crevasse spays

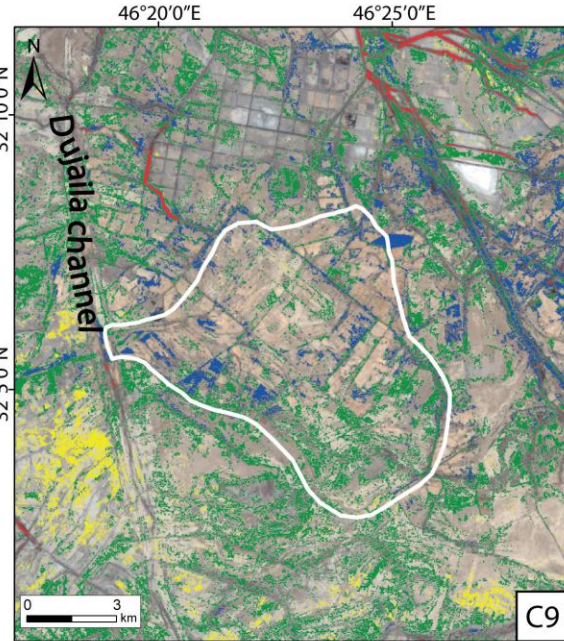
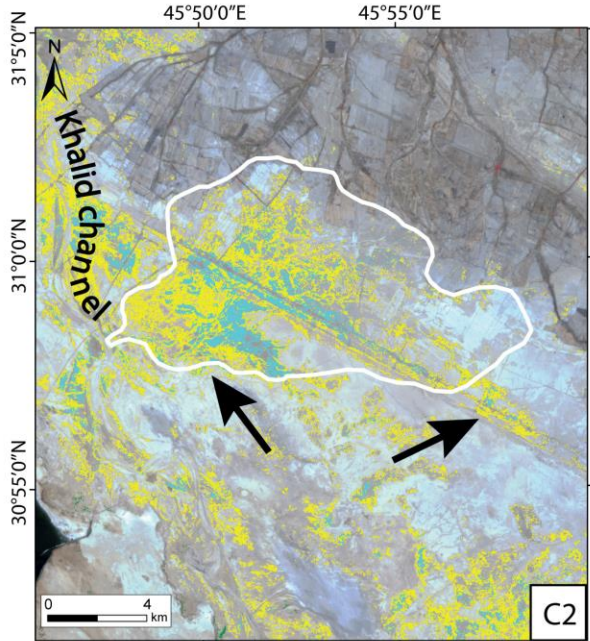
Mahalanobis



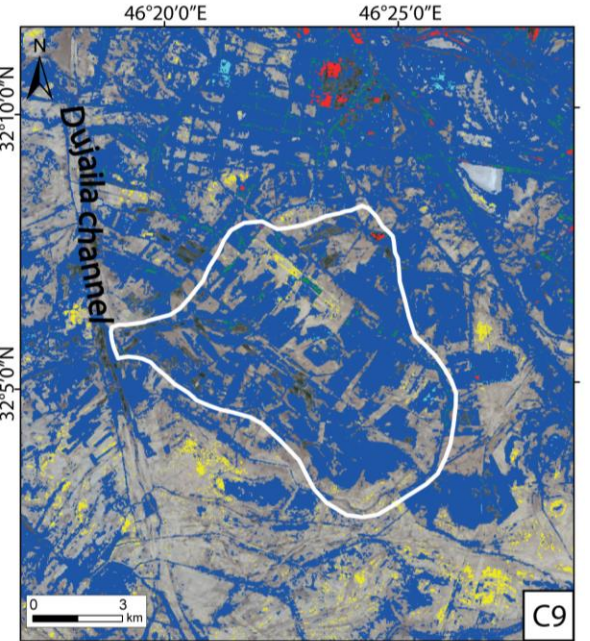
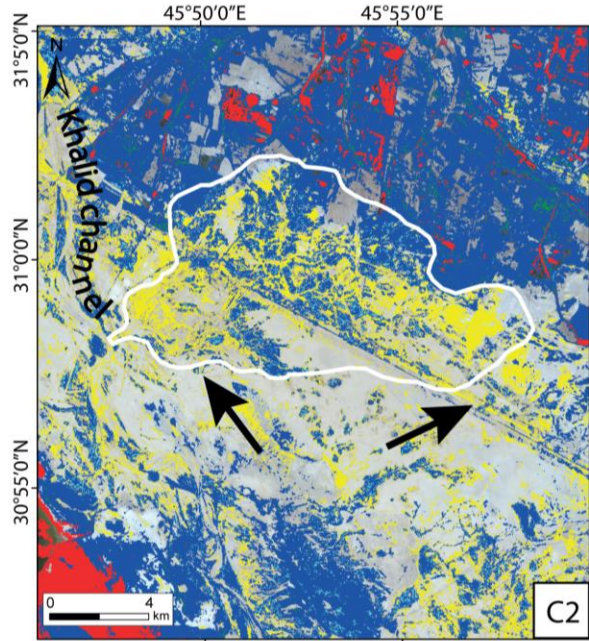
Minimum Distance



Maximum Likelihood



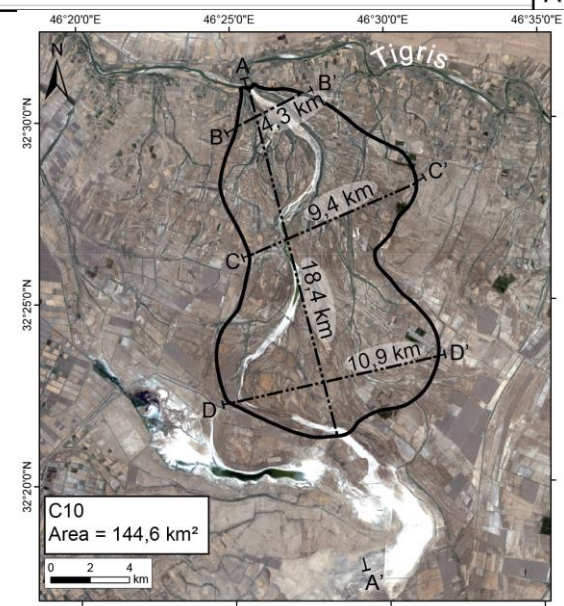
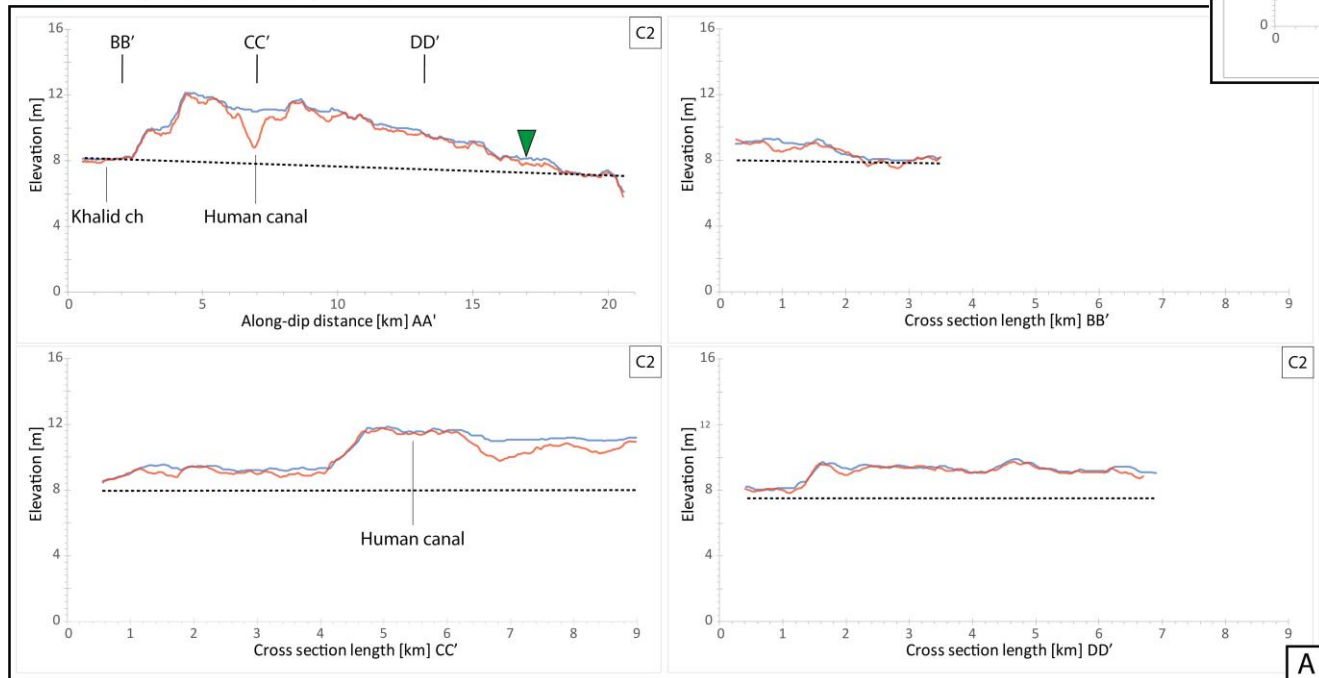
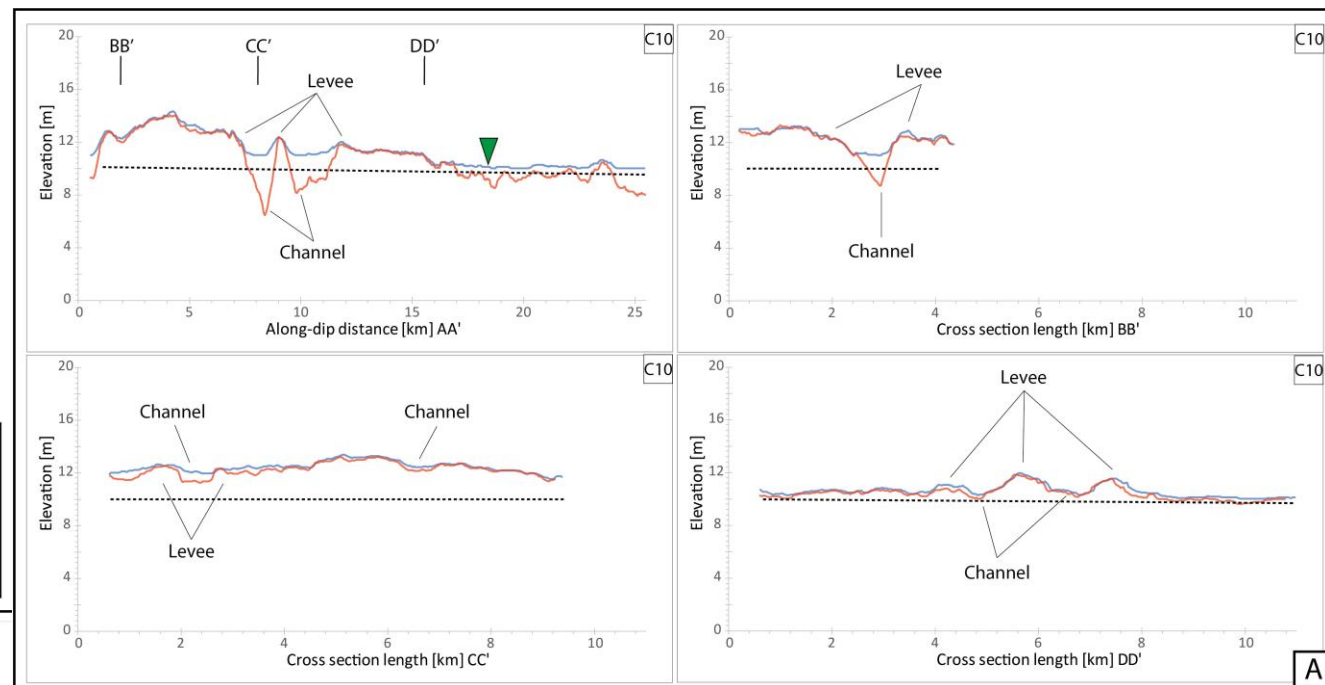
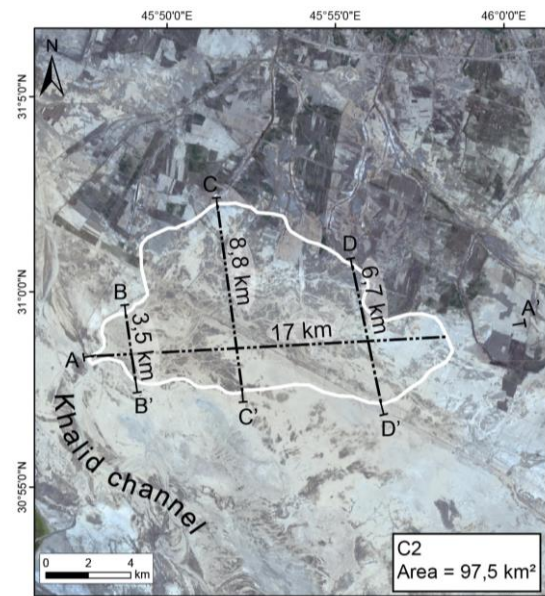
SAM



Legend

- Unclassified
- Active channel
- Active levee
- Active deposit
- Abandoned channel
- Abandoned deposit
- Abandoned crevasse
- Crevasse continuation

Topographic analysis of the micro-relief



Recognition of the avulsion processes: conceptual models

