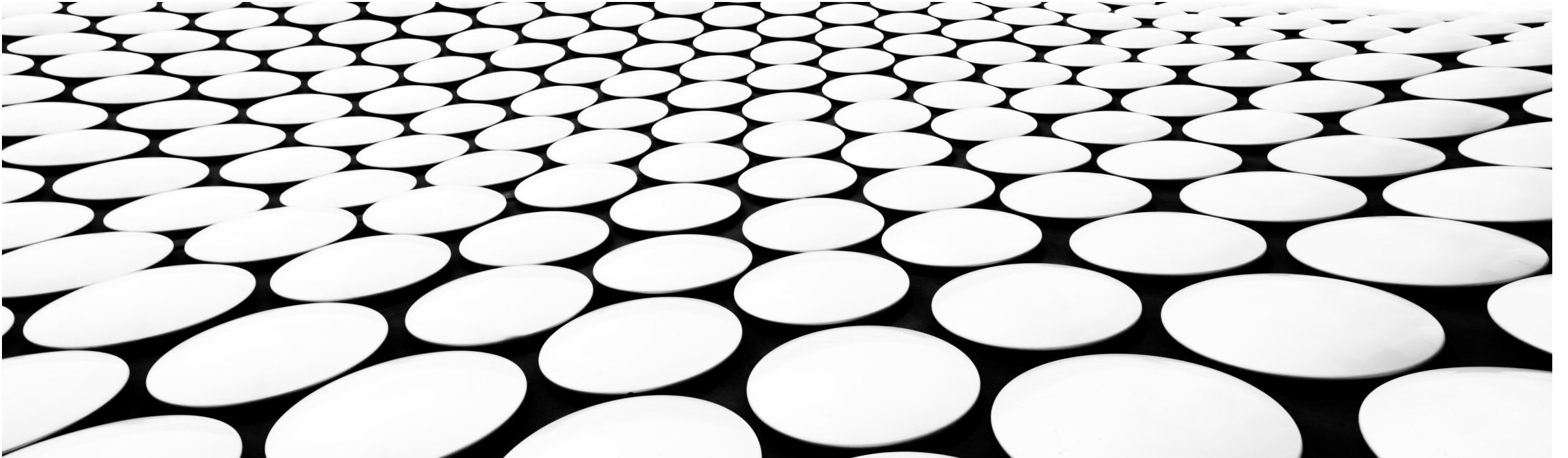

IDENTIFYING PAST ECONOMIC ORGANIZATION THROUGH THE RURAL LANDSCAPE

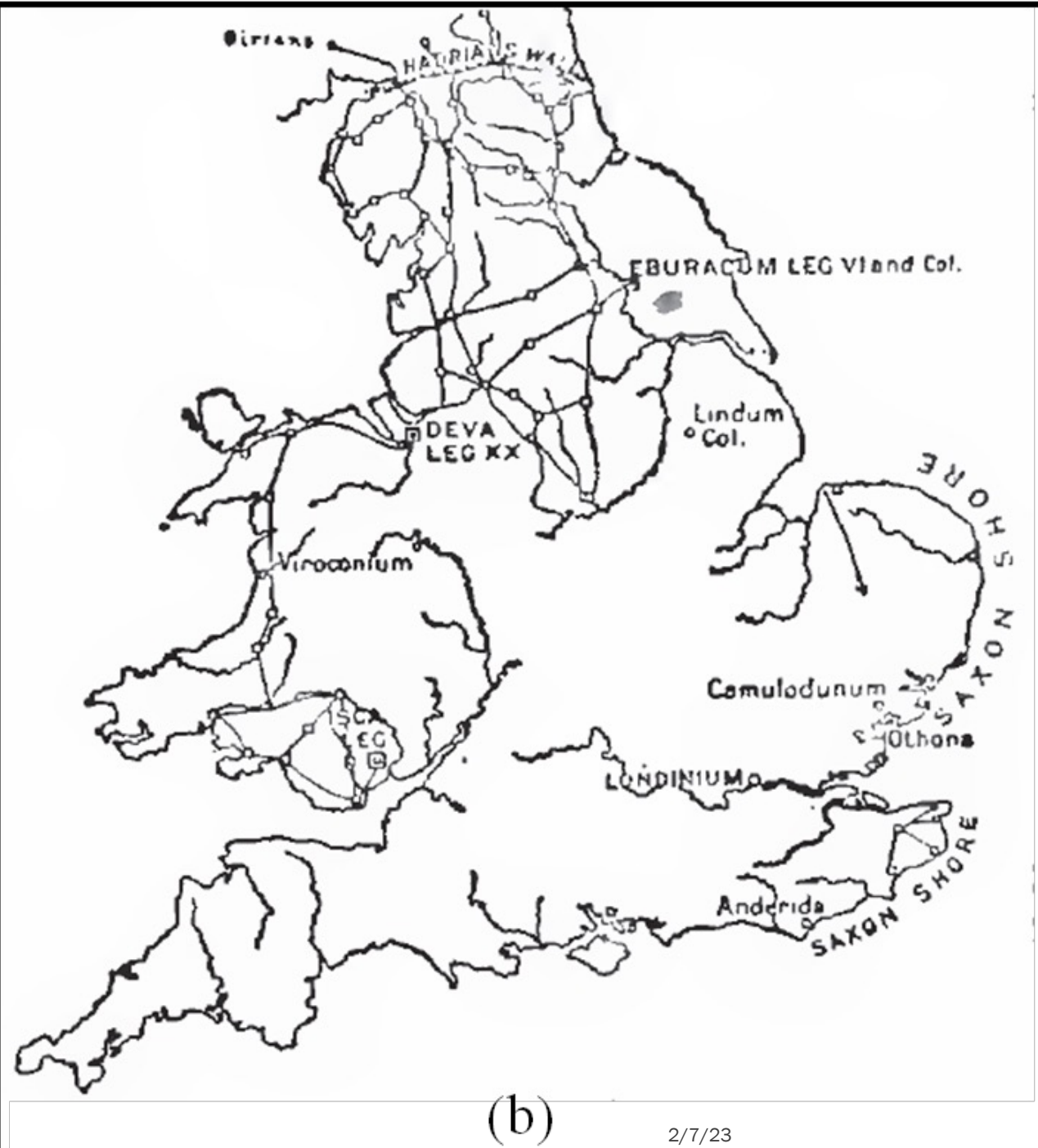
DR DANIEL MAY





INTRODUCTION

- Ongoing research on Roman-Britain identity
- Haverfield's Romanisation model (Francis John Haverfield) based on two main aspects:
 - Incorporation (i.e. defending the frontiers)
 - Assimilation/denationalization (i.e. civilisation of the provinces)



INTRODUCTION

- Criticism to Haverfield's Romanisation model
 - Assumed linear progression from barbarism to civilisation
 - difficult to support the idea that Roman city/town is the idealised way of life of civilisation (abandoned or sub-utilised)
 - Colonised people were not passive. Romans and natives were involved in a two-way process of cultural interaction
 - A number of material items have been assumed to indicate Romanisation. However, they are not derived from Rome but from other areas of the Empire
 - Archaeological research has focussed mainly on excavation of houses and settlements of the elite
 - The Romanisation model reflects colonialist ideologies of the late nineteenth and twentieth century



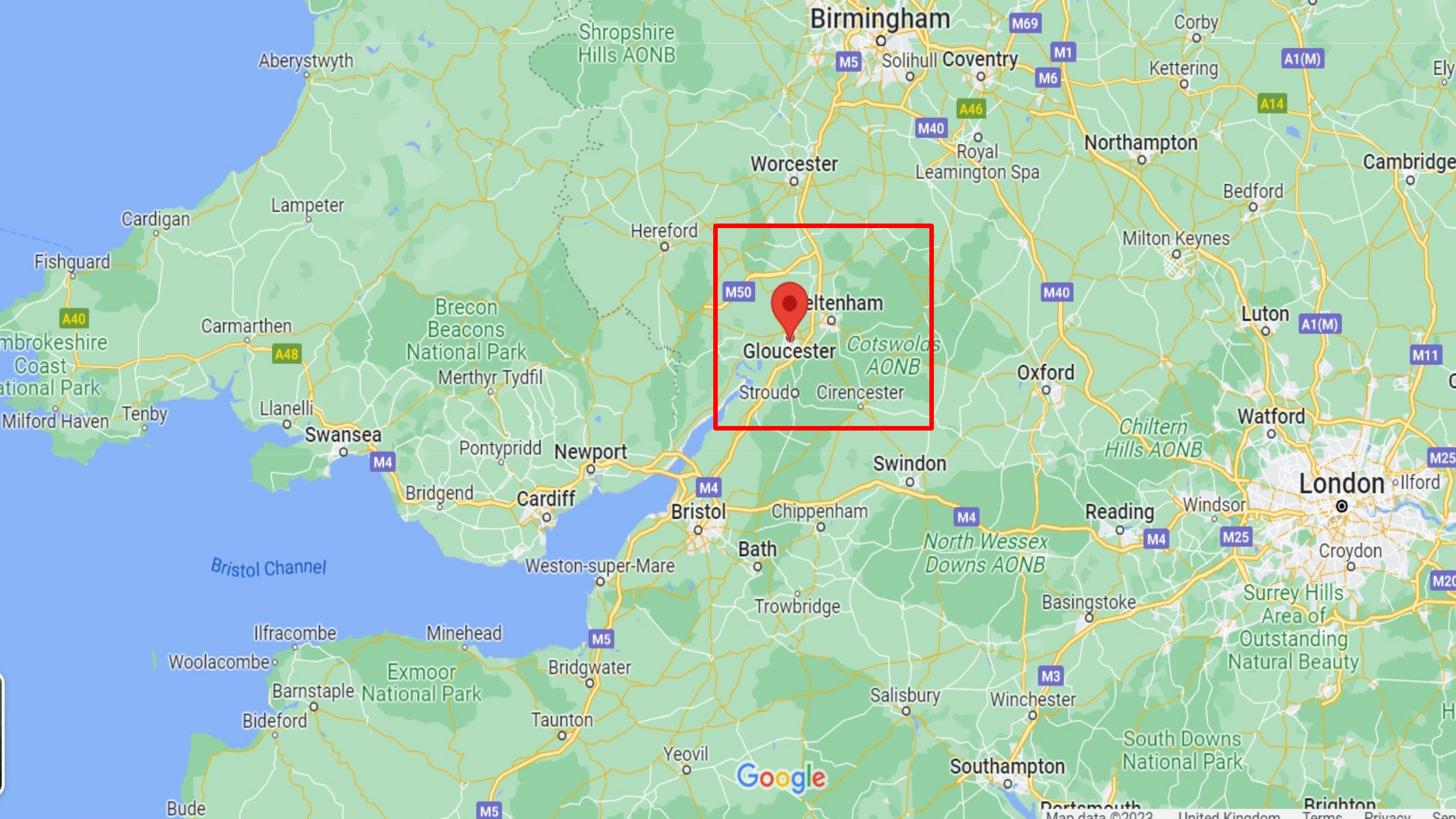
INTRODUCTION

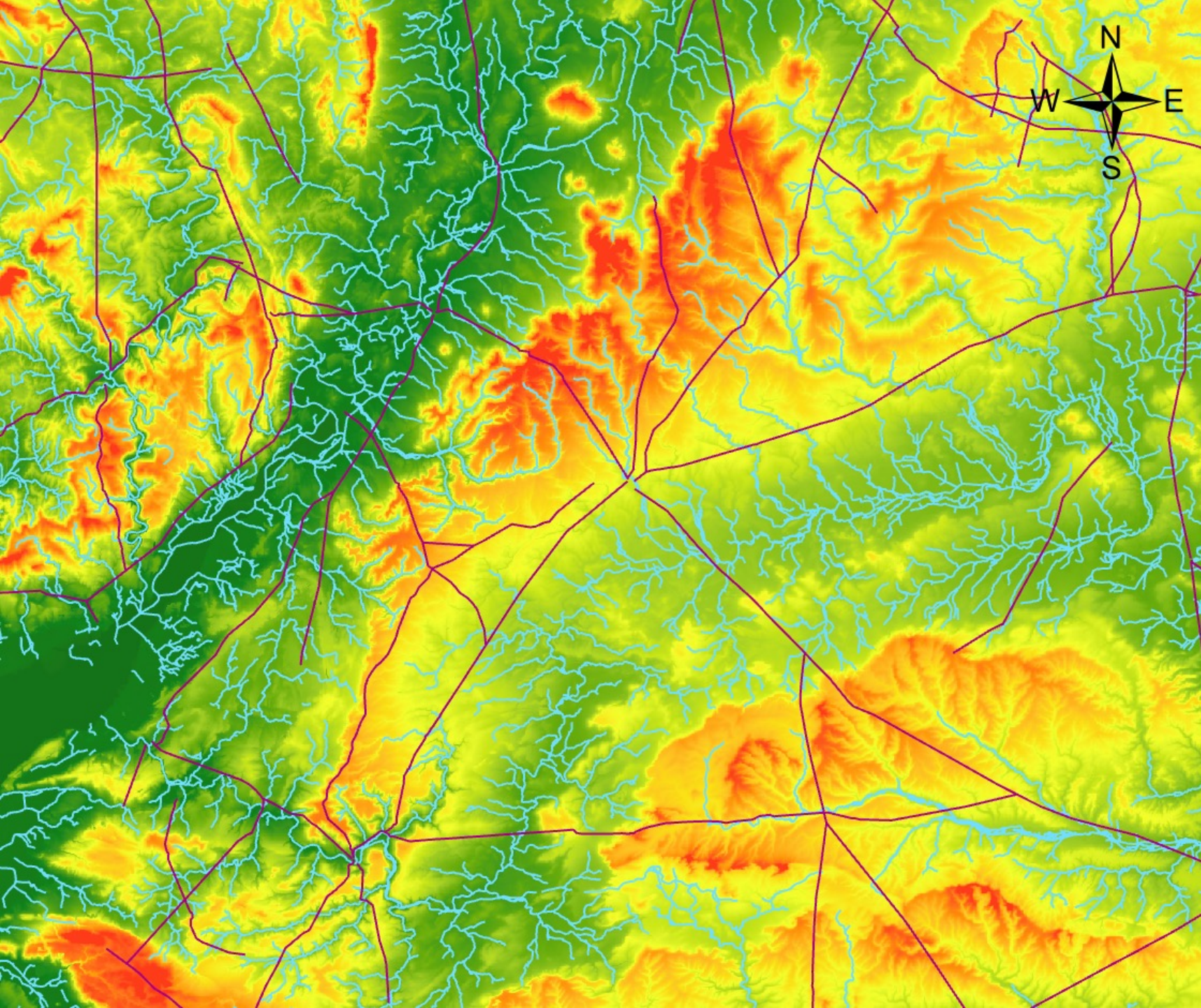
- New models and approaches
 - Emulation: elite of the western provinces adopted Roman material symbols and ideas, and they down the social hierarchy
 - Nativist model. Celtic society did not change and its culture remained hidden beneath the Roman culture
 - Creolisation model: It suggests the emergence of hybrid culture by means of a process of negotiation
 - Discrepant experiences: Discrepant experience is assumed to be the engine that led to discrepant identity within a society



EVIDENCE

- May, D. 2021. A Study of Diverse Identities during the Roman Period in the Severn Valley: a Cultural Network Approach
 - Network model of material culture to identify heterogeneous identities in Gloucestershire
 - Results revealed five distinct identities
 - Evidence consistent with the Discrepant Experiences Model

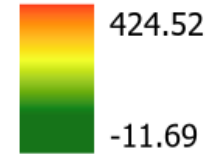




— Roman roads
— Water courses

Digital Elevation Model

Value



0 5 10 20 Kilometers

ECONOMIC CHARACTERISTICS OF THE FIVE IDENTITIES

- Green Circle
 - Poor in material culture. Subsistence farming
- Green Cross
 - Relatively poor in material culture. But evidence of diverse economic activities: farming, metalwork and quernstones
- Red Circle
 - High-status settlements (building remains) with evidence of several economic activities (farming, metal work)
- Red Cross
 - High-status settlements with a range of cultural material remains. Evidence of several economic activities (farming, metalwork, textile, food processing, etc)
- Blue Circle
 - Relatively high-status settlements based on farming economy



RESEARCH PROBLEM

- We know the economic activities developed by the sites in each cluster.
- We also know the relationship between the type of the identity and the surrounded landscape:
 - High-status identities are located in places with significant visibility
 - Status
 - Control over the farms
 - Control over slaves
 - Low-status identities are located in areas with low visibility (not interested to be seen)



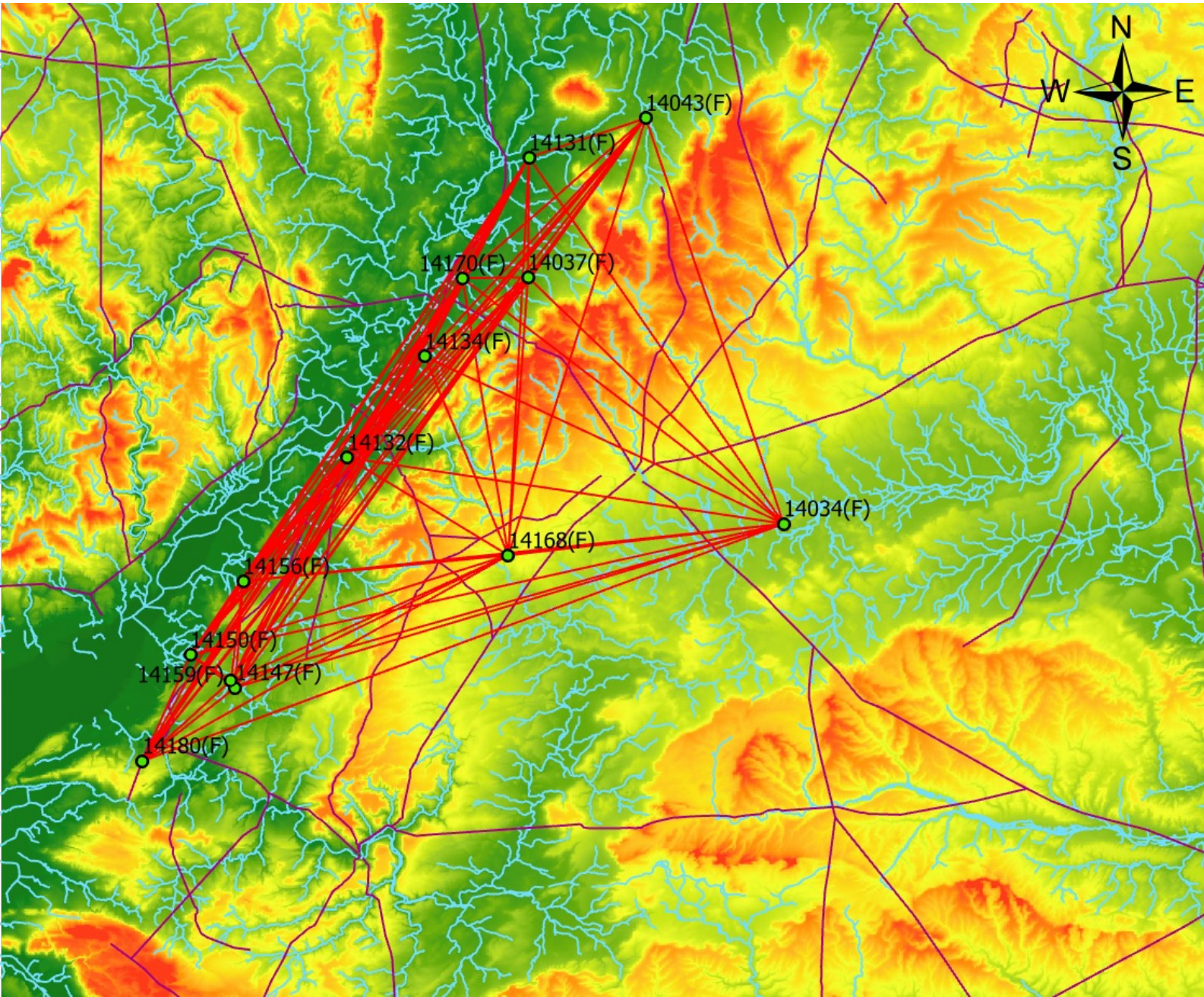




RESEARCH PROBLEM

- What is unknown is how they organised their economic activities in the wider landscape
- The aim of the research is to study this organisation by means of GIS analysis:
 - Visibility analysis
 - Site catchment analysis
 - Cost of movement on land
 - Last cost path from Roman roads

1. VISIBILITY ANALYSIS (GREEN CIRCLE)

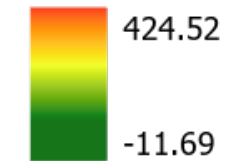


— Roman roads

— Water courses

Digital Elevation Model

Value



Line of Sight

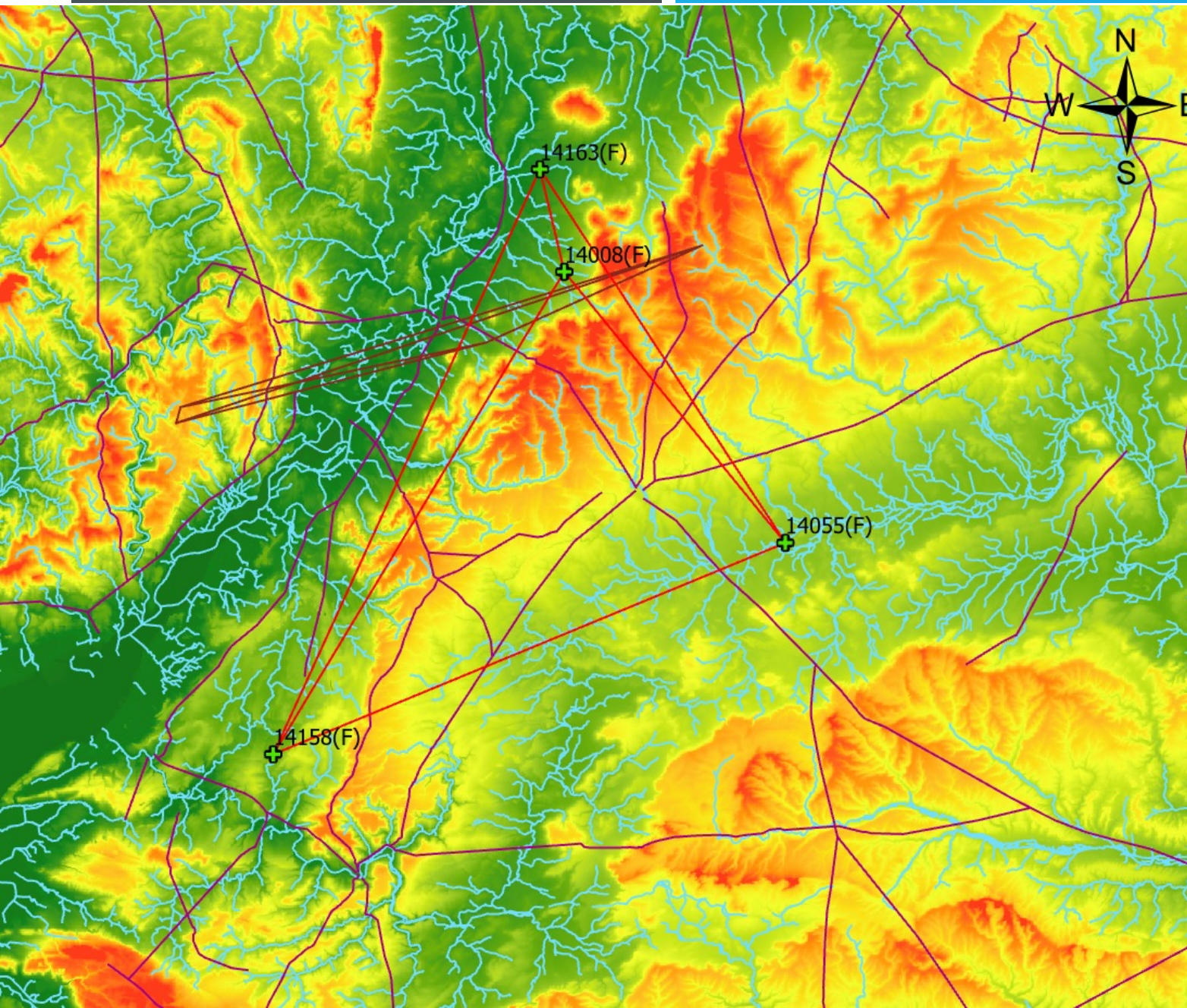
VisCode

— Visible

— Not visible



1. VISIBILITY ANALYSIS (GREEN CROSS)

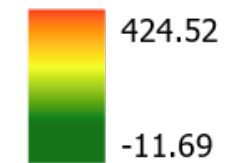


— Roman roads

— Water courses

Digital Elevation Model

Value



Line of Sight

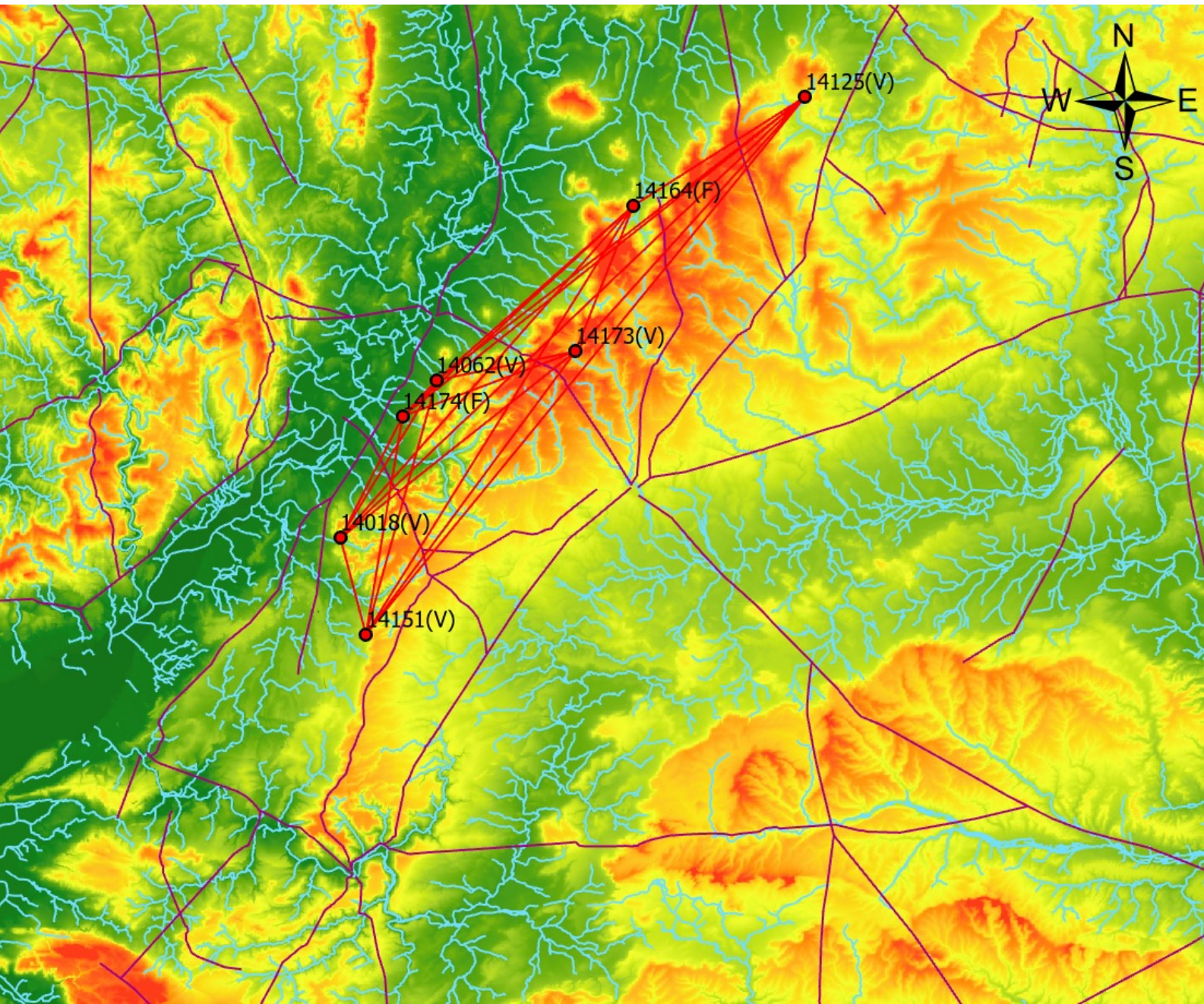
VisCode

— Visible

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1. VISIBILITY ANALYSIS (RED CIRCLE)

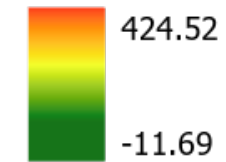


— Roman roads

— Water courses

Digital Elevation Model

Value



Line of Sight

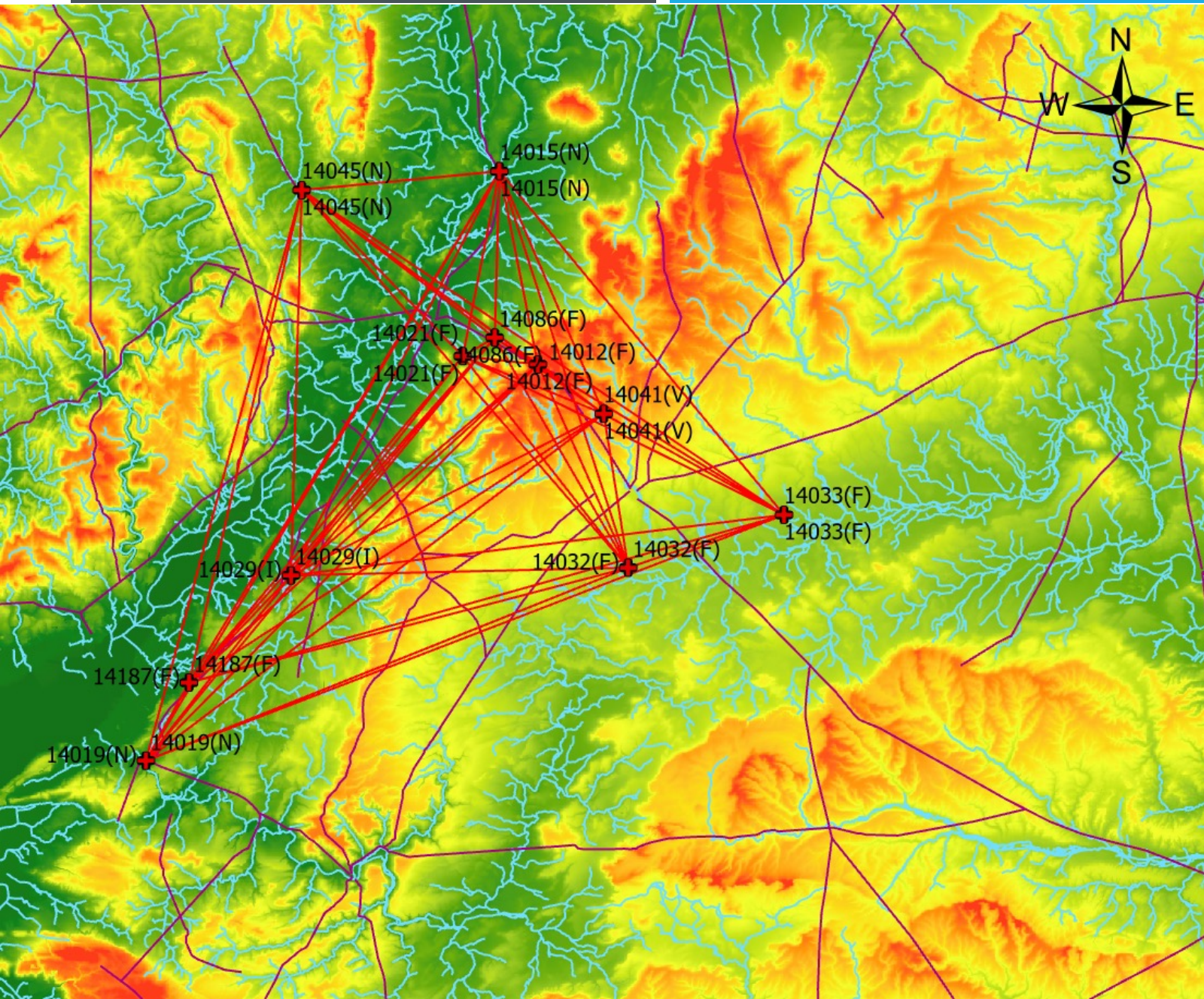
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1. VISIBILITY ANALYSIS (RED CROSS)

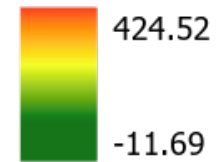


— Roman roads

— Water courses

Digital Elevation Model

Value



Line of Sight

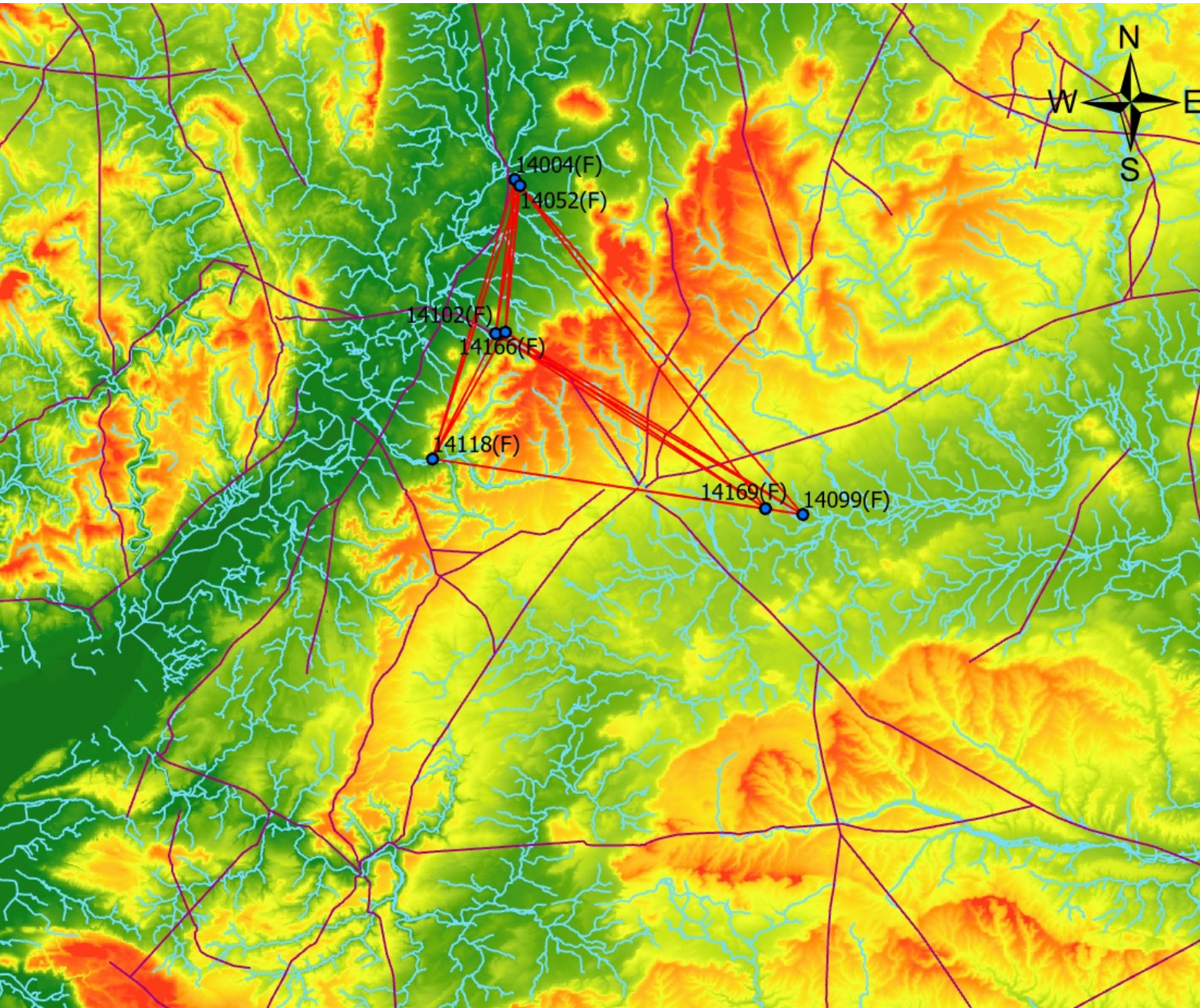
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1. VISIBILITY ANALYSIS (GREEN CIRCLE)

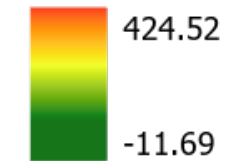


— Roman roads

— Water courses

Digital Elevation Model

Value



Line of Sight

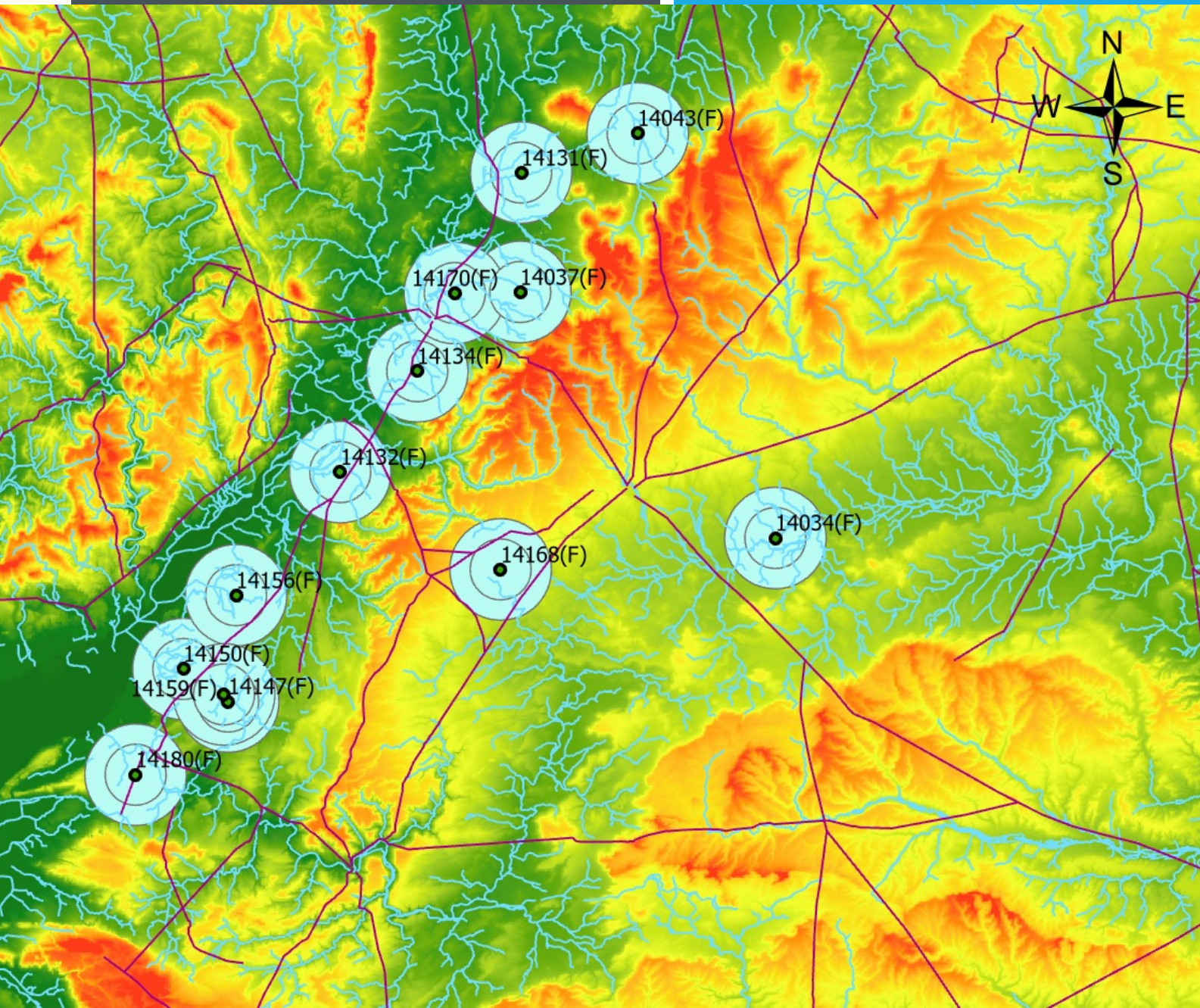
VisCode

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2. SITE CATCHMENT ANALYSIS (GREEN CIRCLE)



Roman roads

Water courses

Digital Elevation Model

Value

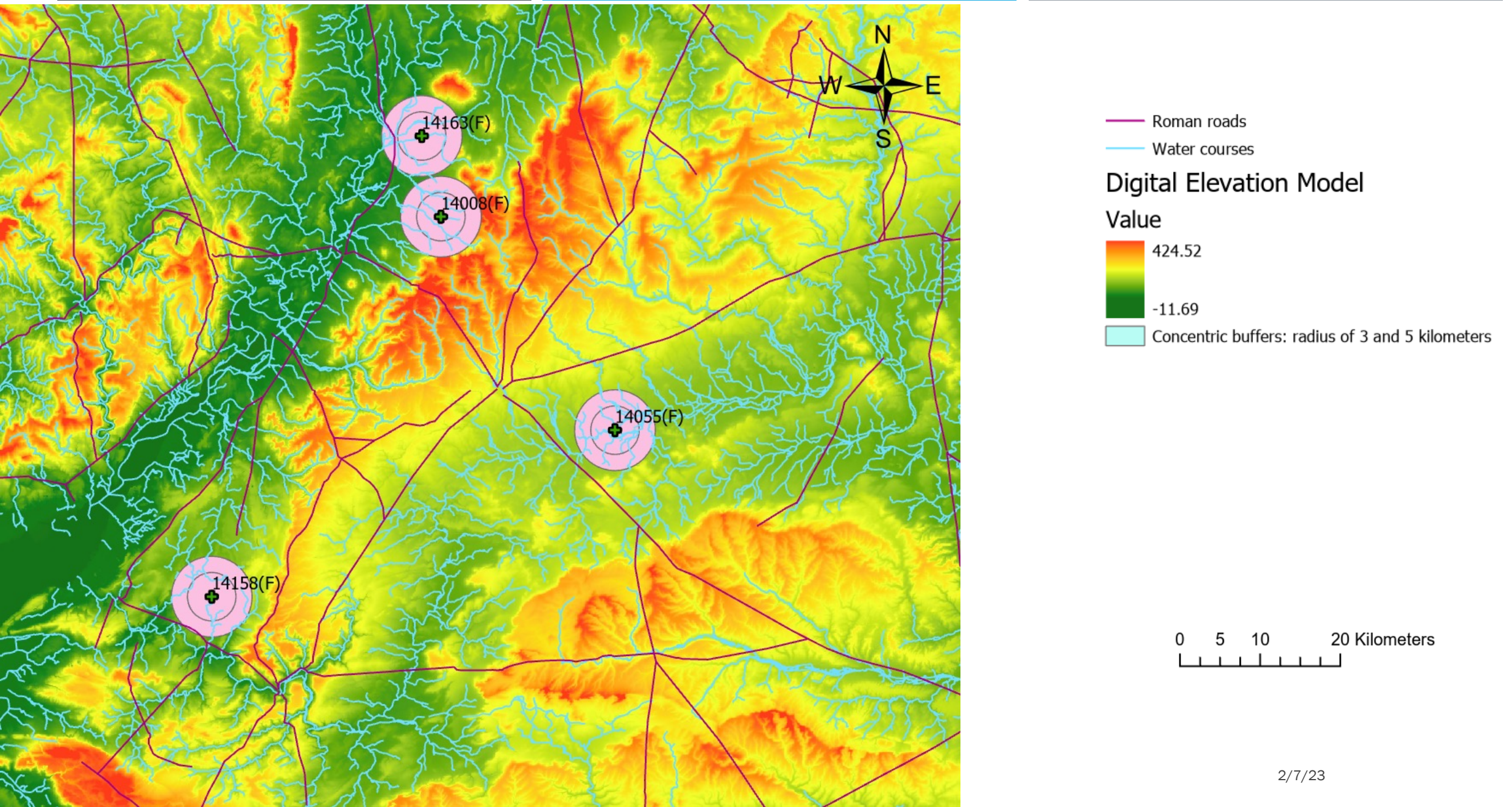
424.52

-11.69

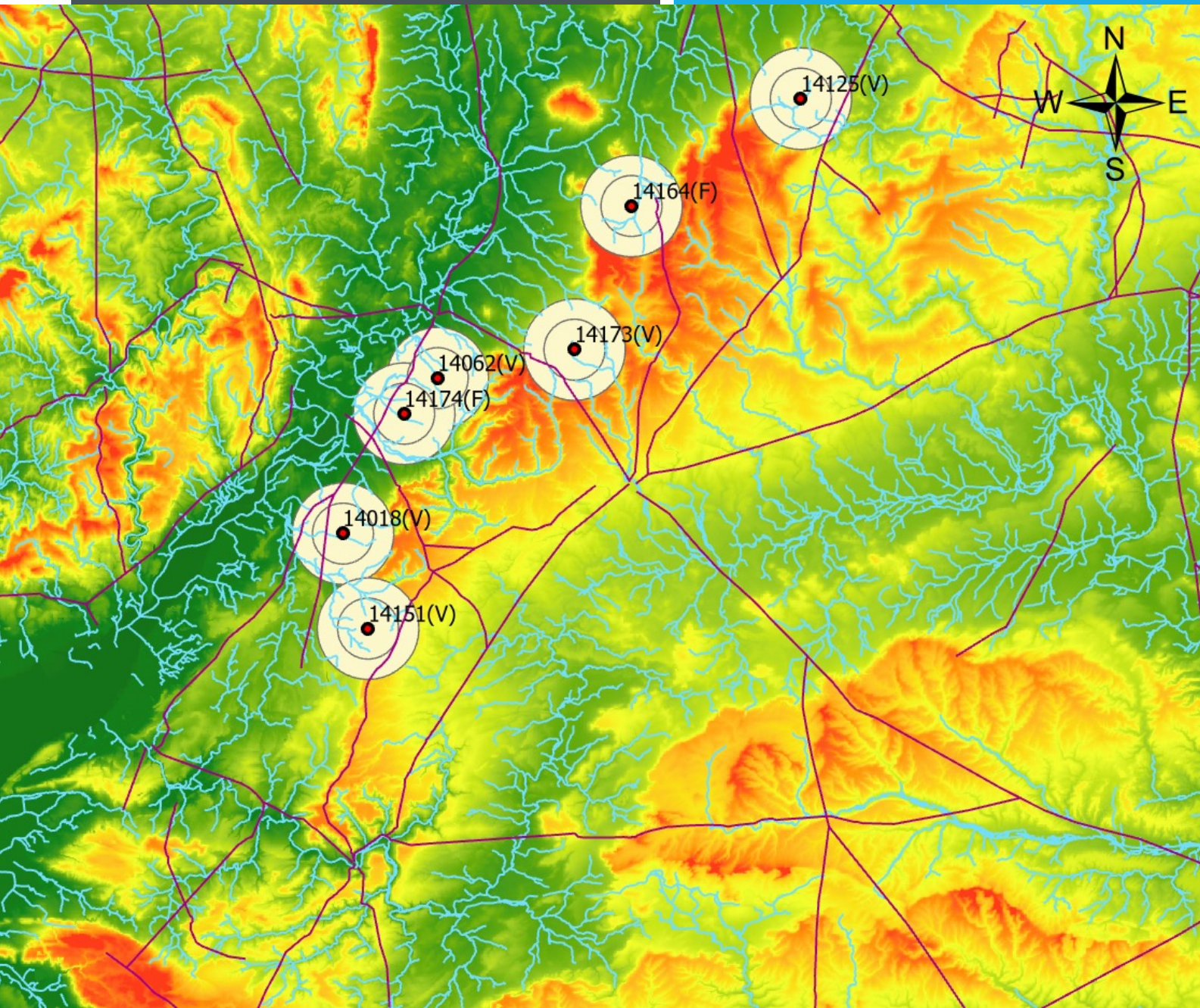
Concentric buffers: radius of 3 and 5 kilometers

0 5 10 20 Kilometers

2. SITE CATCHMENT ANALYSIS (GREEN CROSS)



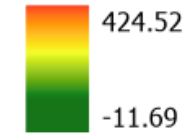
2. SITE CATCHMENT ANALYSIS (RED CIRCLE)



Roman roads
Water courses

Digital Elevation Model

Value

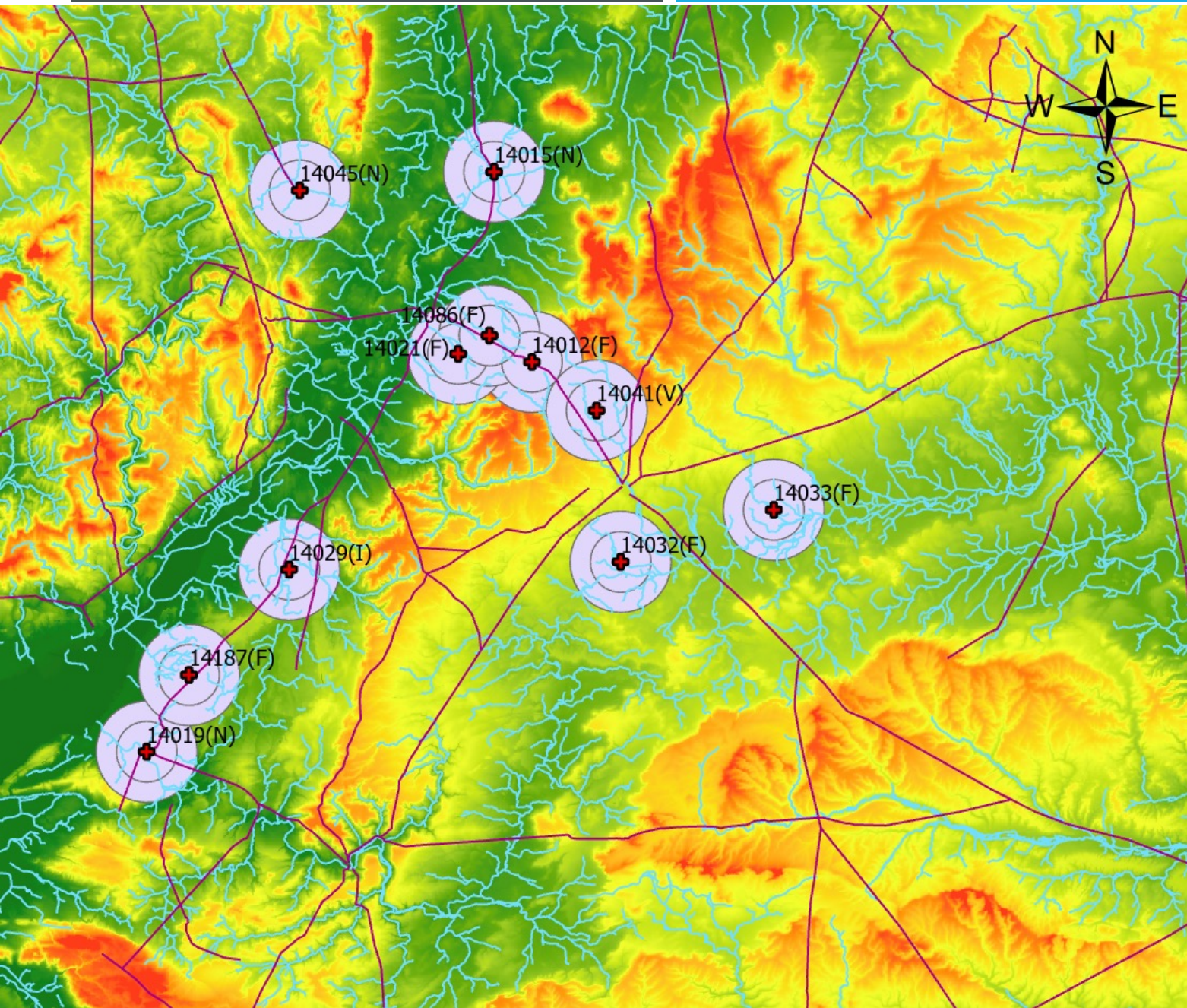


Concentric buffers: radius of 3 and 5 kilometers

0 5 10 20 Kilometers

A horizontal scale bar with markings at 0, 5, 10, and 20 Kilometers.

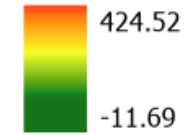
2. SITE CATCHMENT ANALYSIS (RED CROSS)



Roman roads
Water courses

Digital Elevation Model

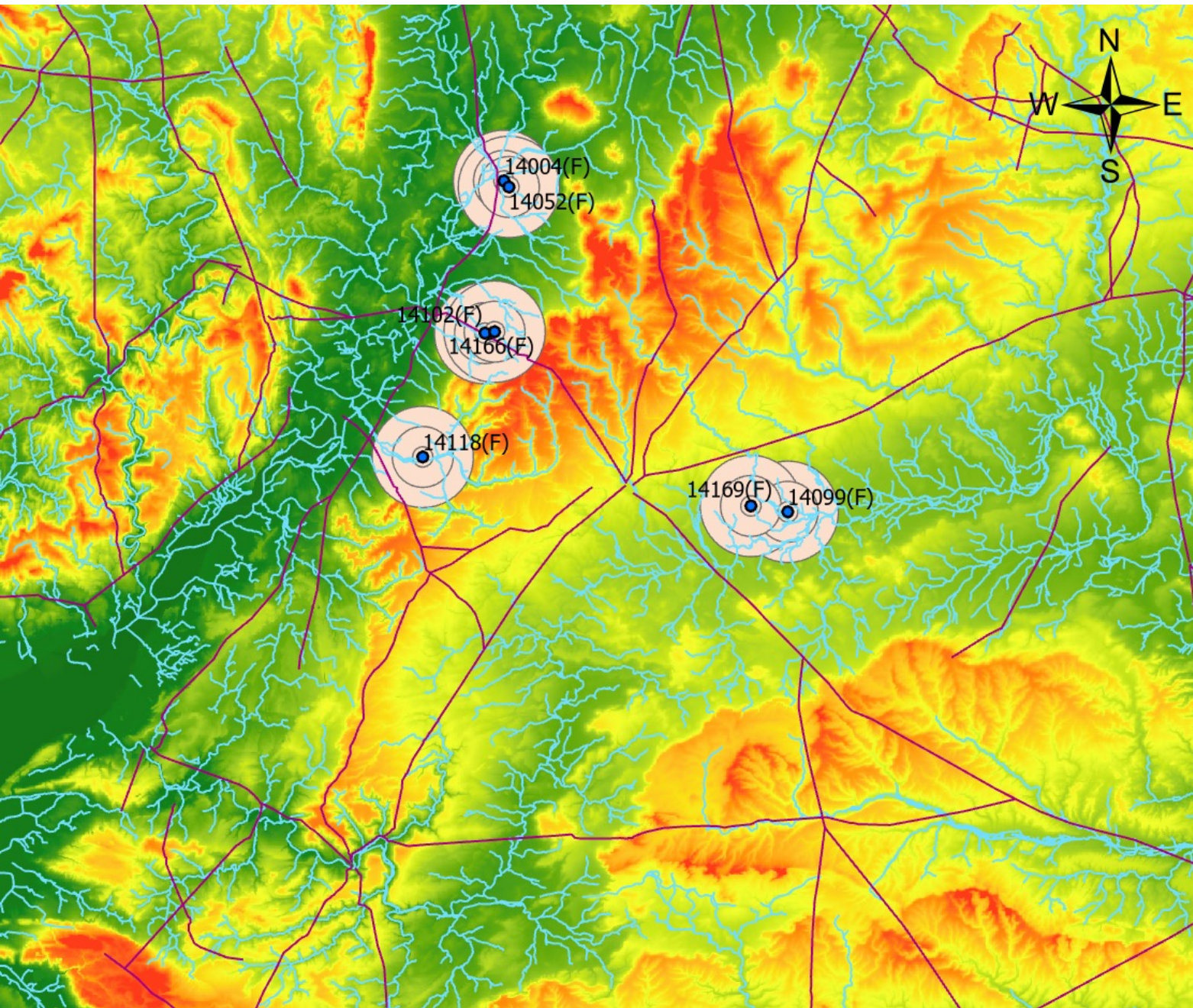
Value



Concentric buffers: radius of 3 and 5 kilometers

0 5 10 20 Kilometers

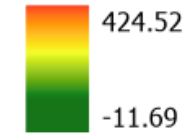
2. SITE CATCHMENT ANALYSIS (BLUE CIRCLE)



Roman roads
Water courses

Digital Elevation Model

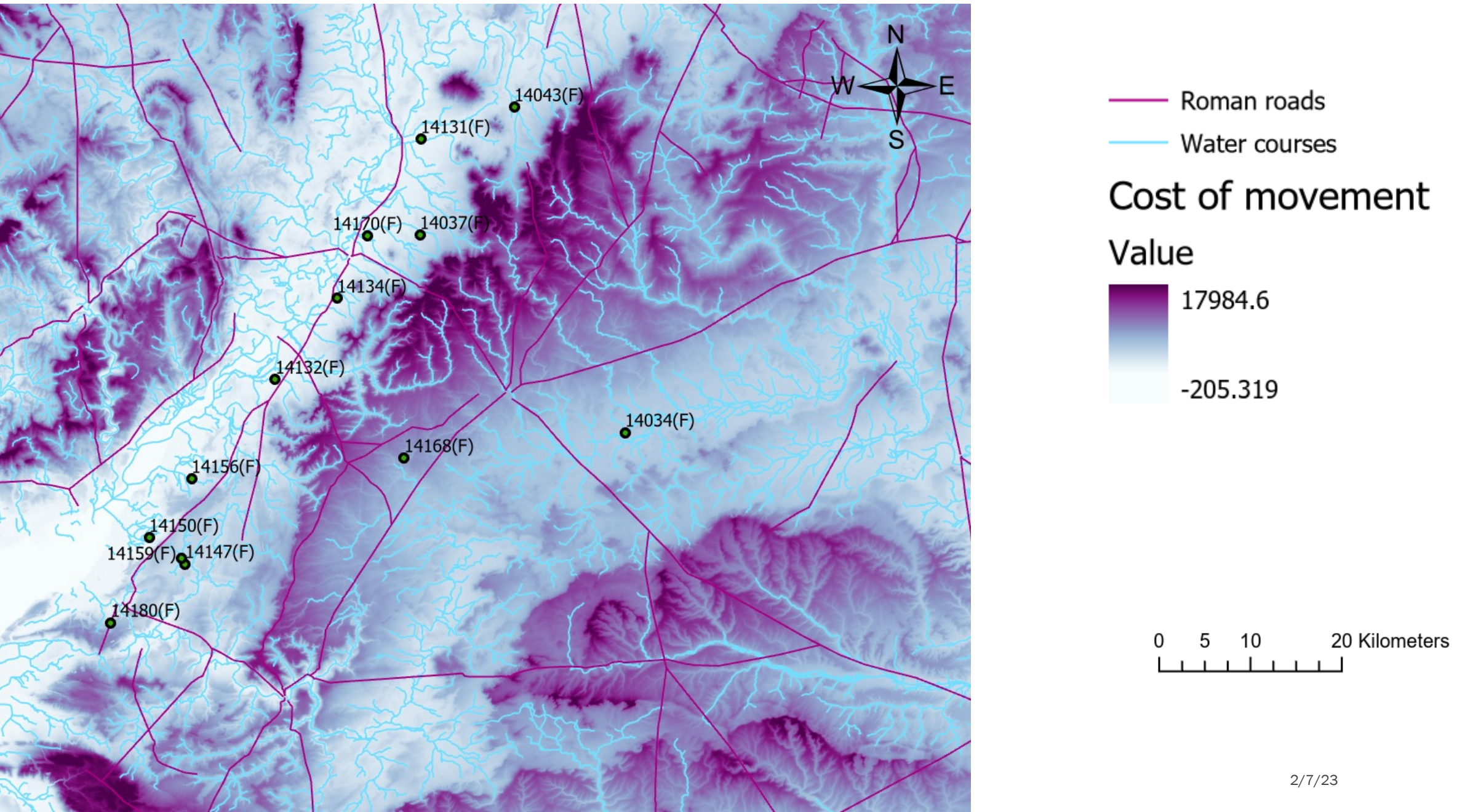
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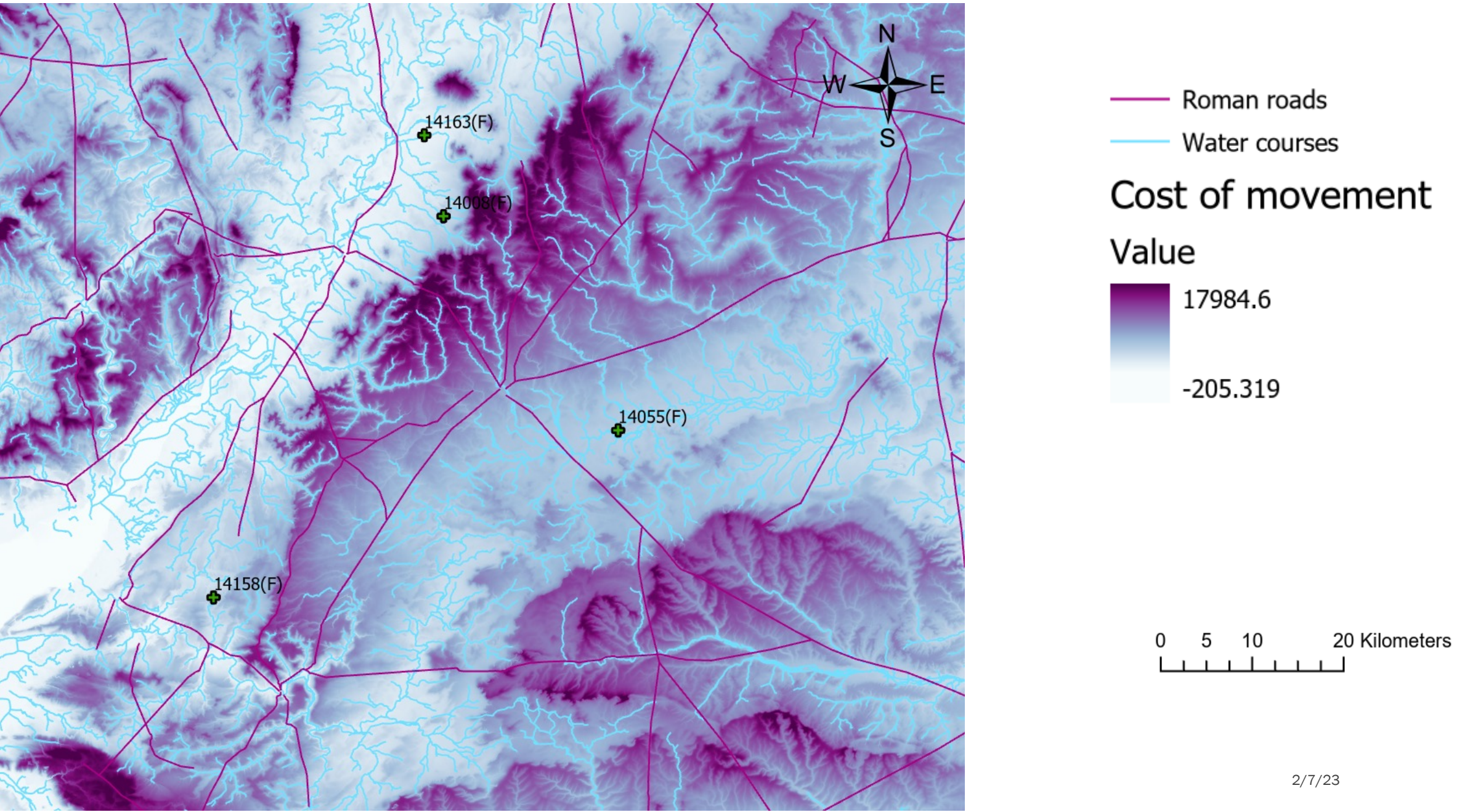
Concentric buffers: radius of 3 and 5 kilometers

0 5 10 20 Kilometers

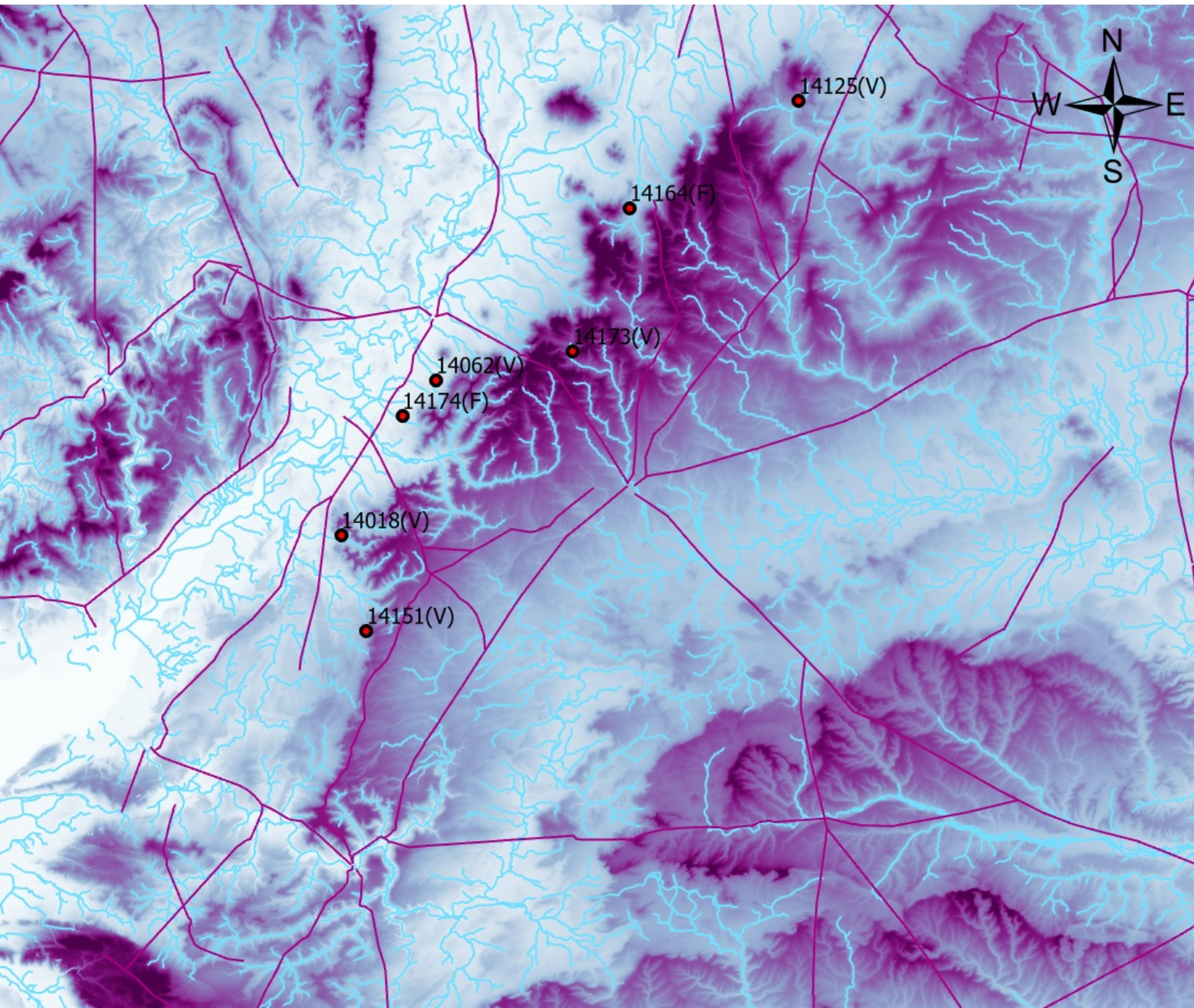
3. COST OF MOVEMENT ON LAND (GREEN CIRCLE)



3. COST OF MOVEMENT ON LAND (GREEN CROSS)



3. COST OF MOVEMENT ON LAND (RED CIRCLE)



— Roman roads
— Water courses

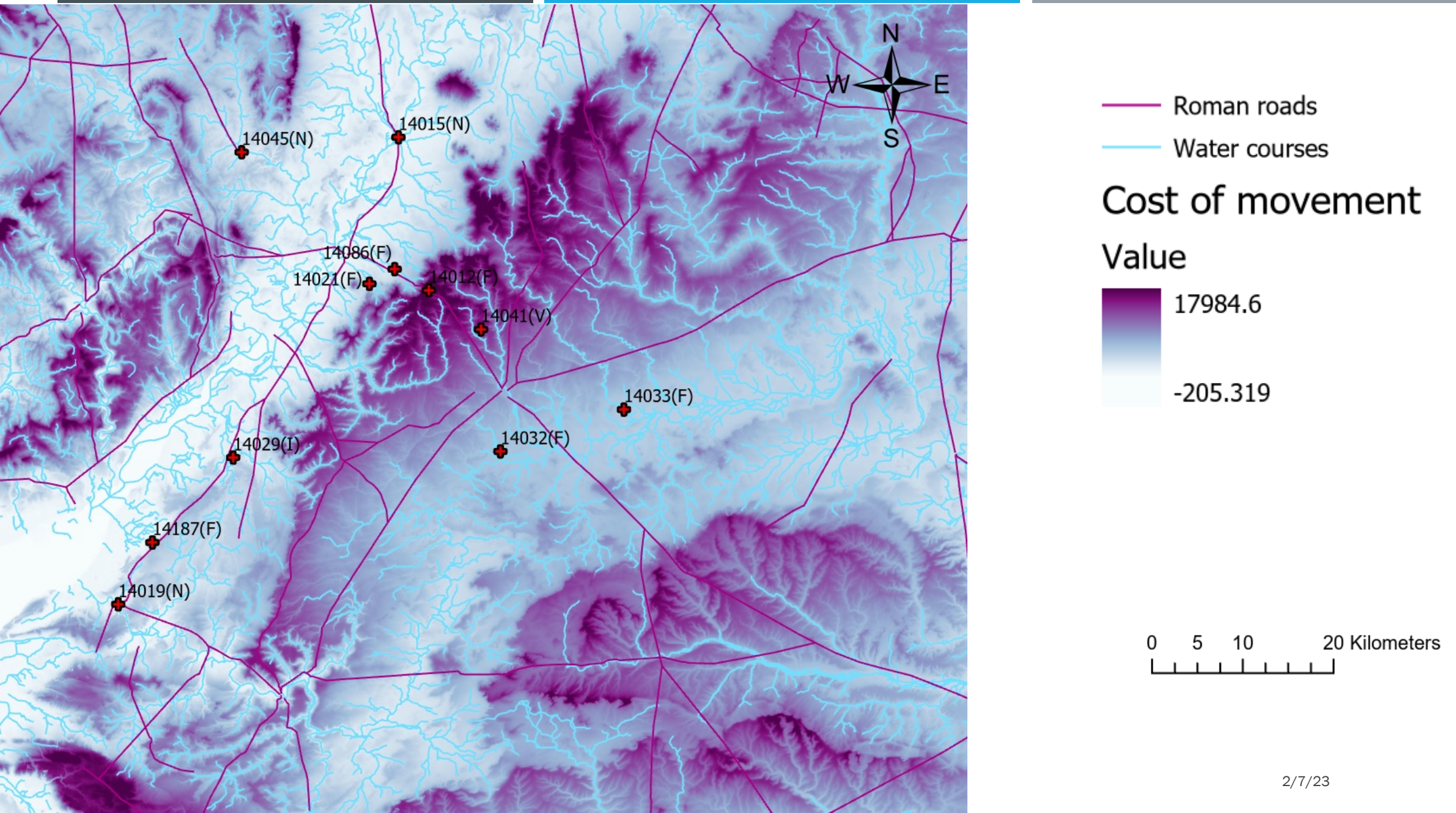
Cost of movement

Value

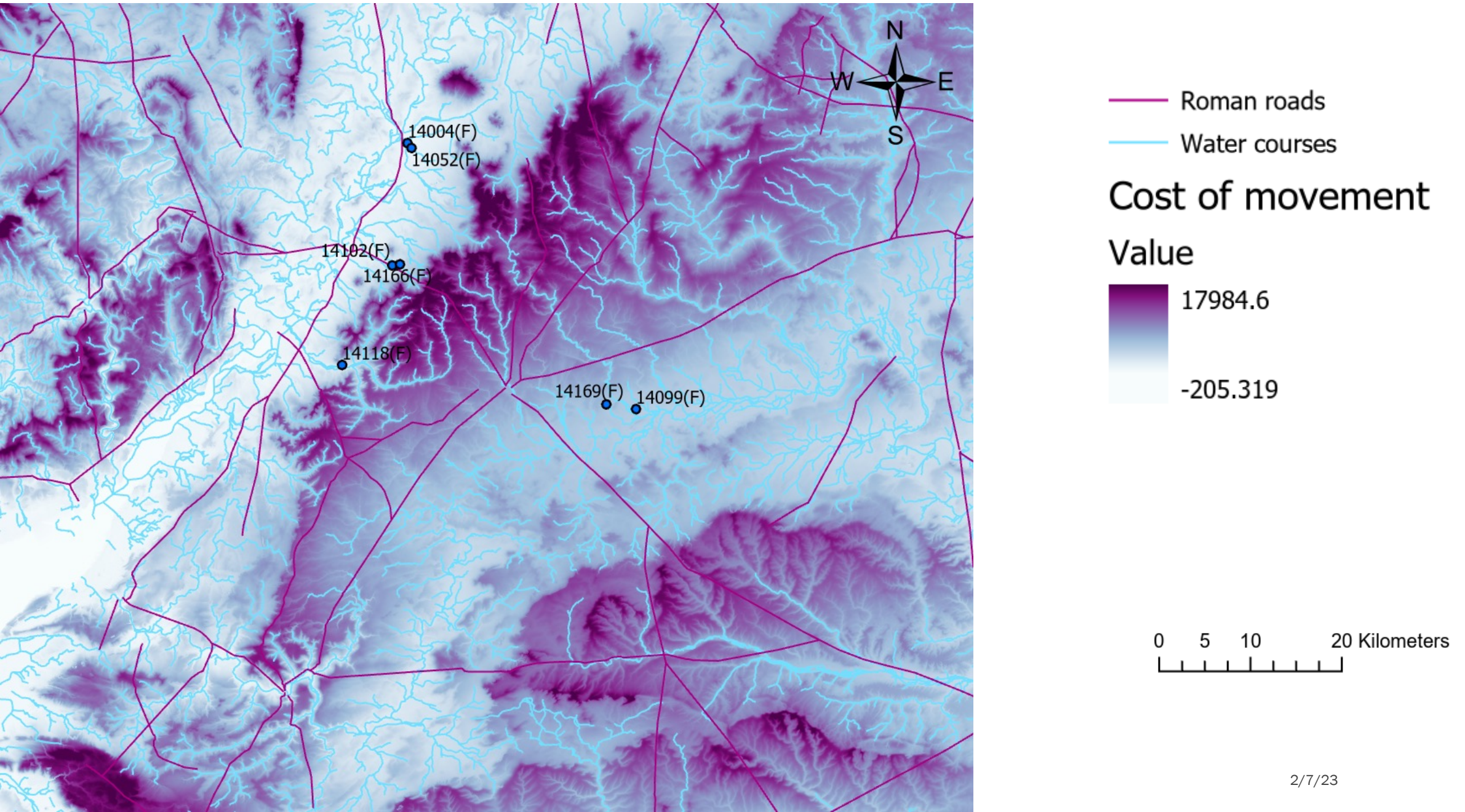


0 5 10 20 Kilometers
| | | | |

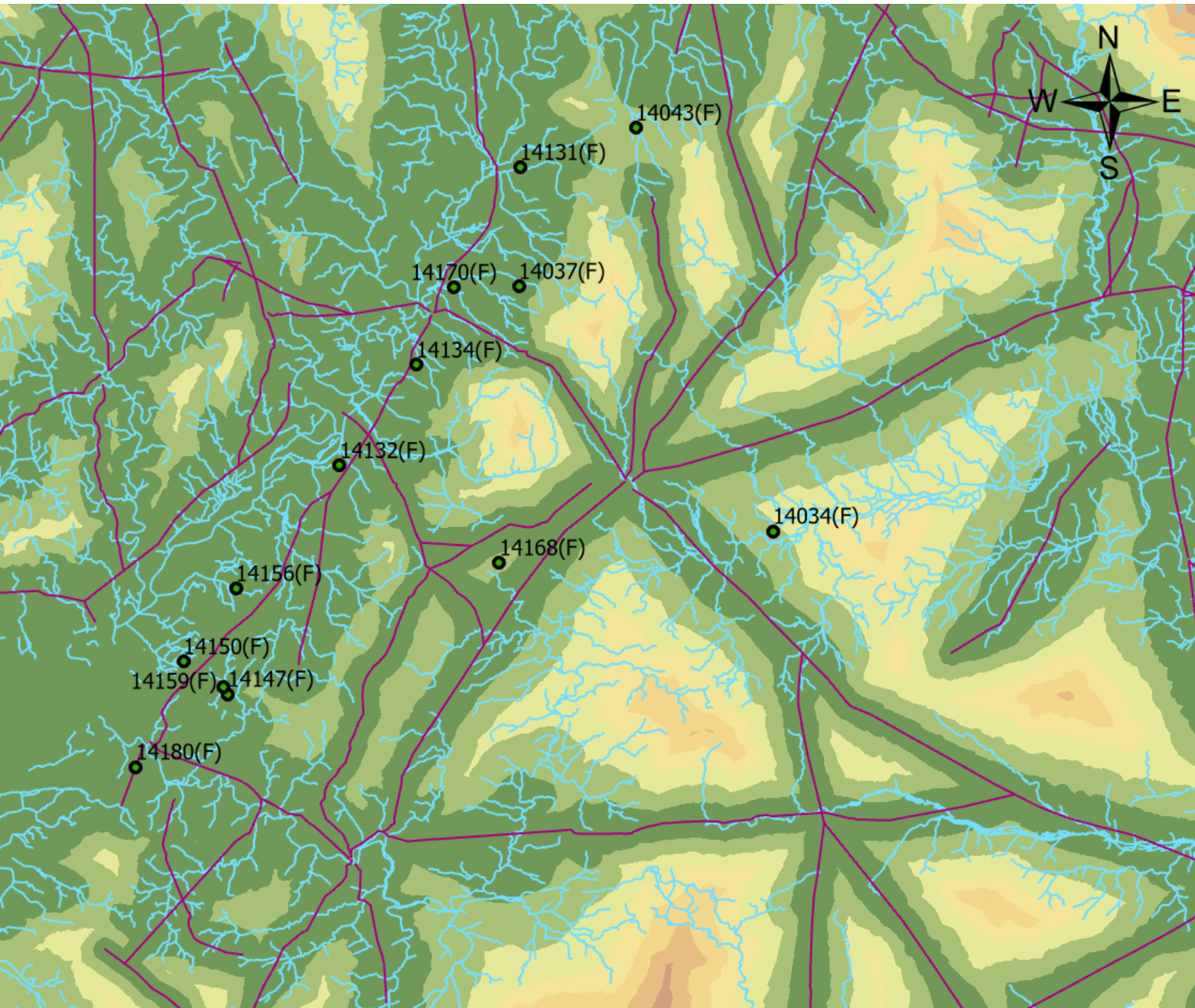
3. COST OF MOVEMENT ON LAND (RED CROSS)



3. COST OF MOVEMENT ON LAND (BLUE CIRCLE)



4. LEAST COST PATH FROM ROMAN ROADS (GREEN CIRCLE)



— Roman roads
— Water courses

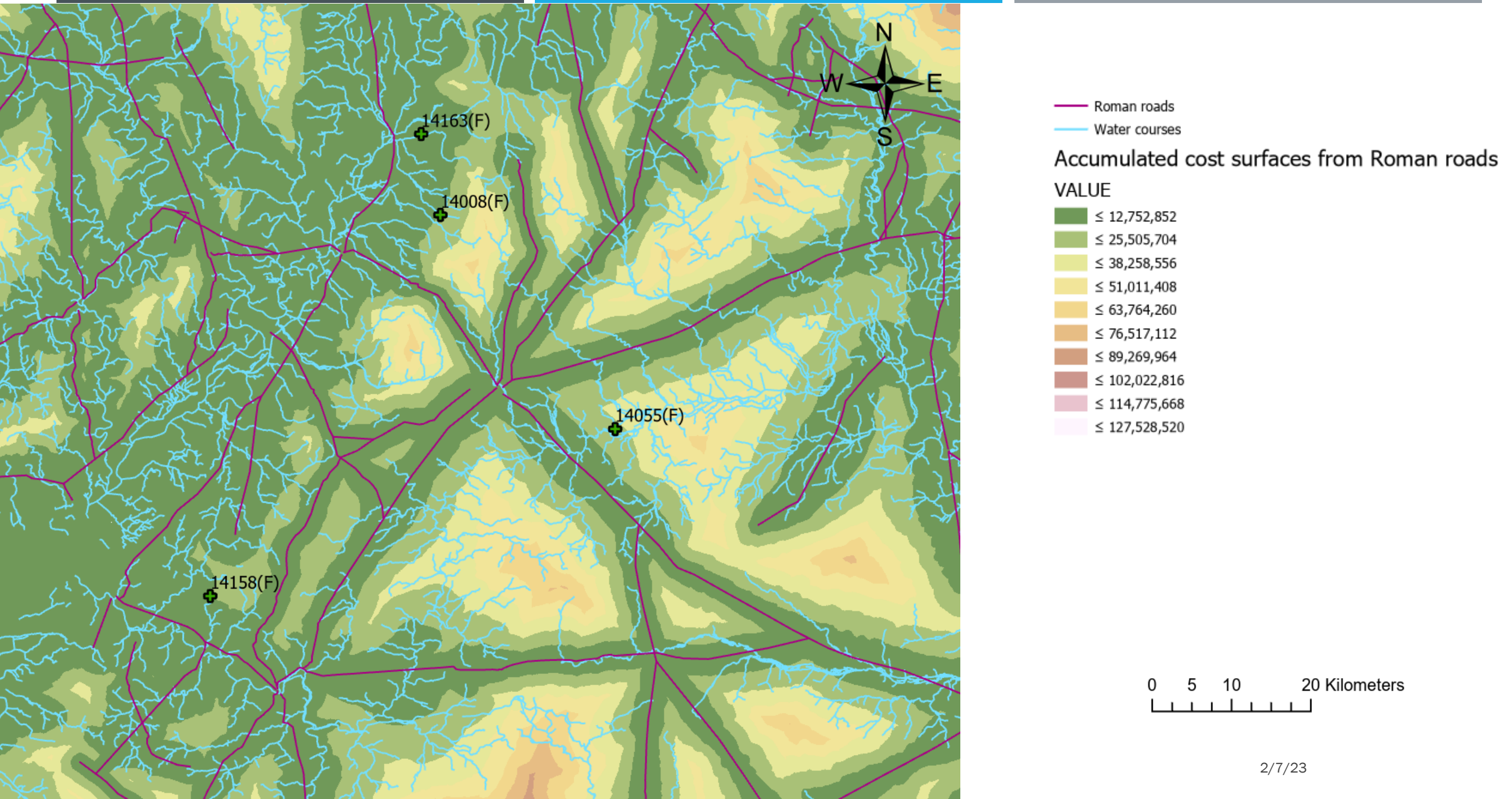
Accumulated cost surfaces from Roman roads

VALUE

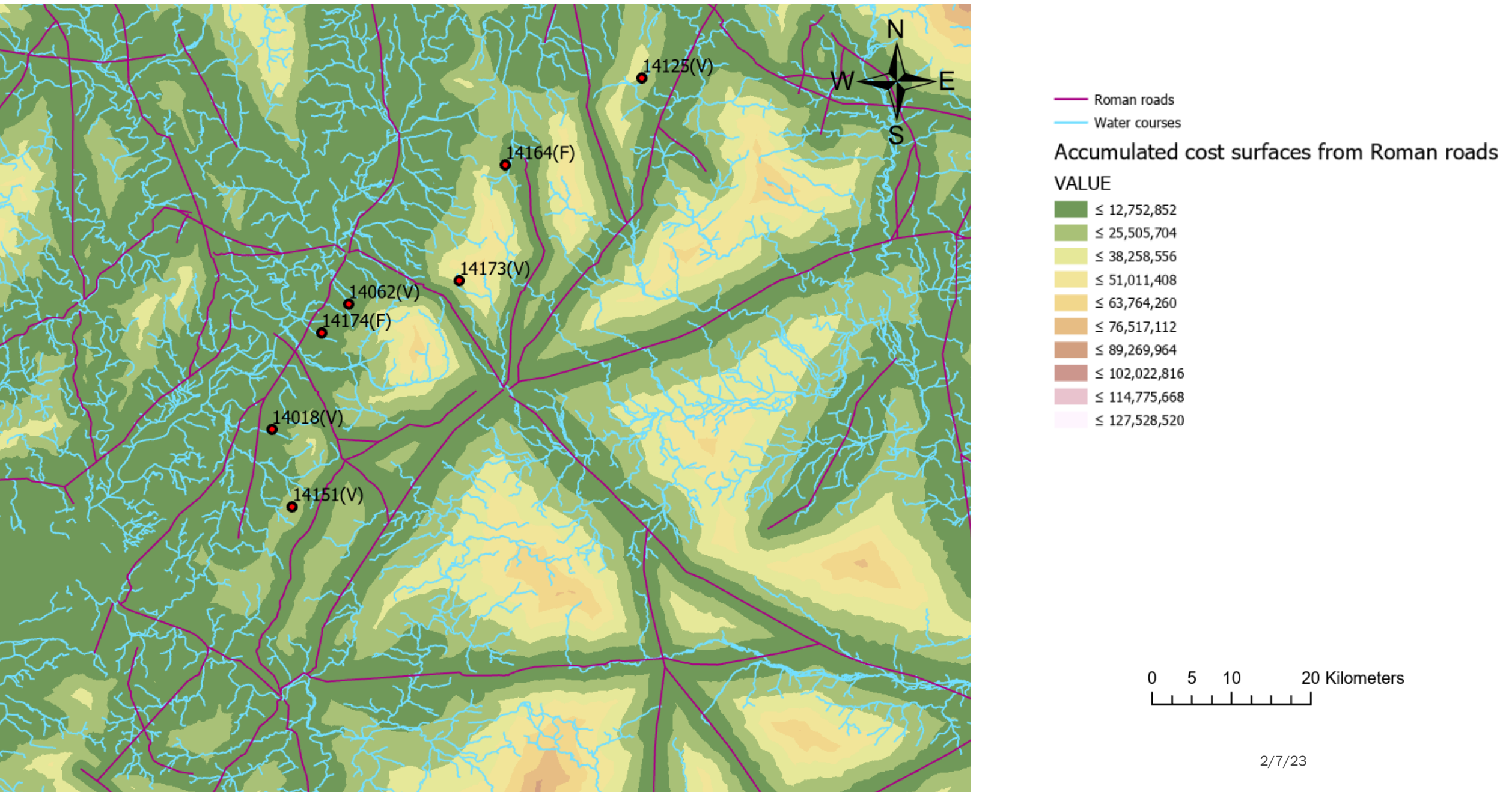
≤ 12,752,852
≤ 25,505,704
≤ 38,258,556
≤ 51,011,408
≤ 63,764,260
≤ 76,517,112
≤ 89,269,964
≤ 102,022,816
≤ 114,775,668
≤ 127,528,520

0 5 10 20 Kilometers

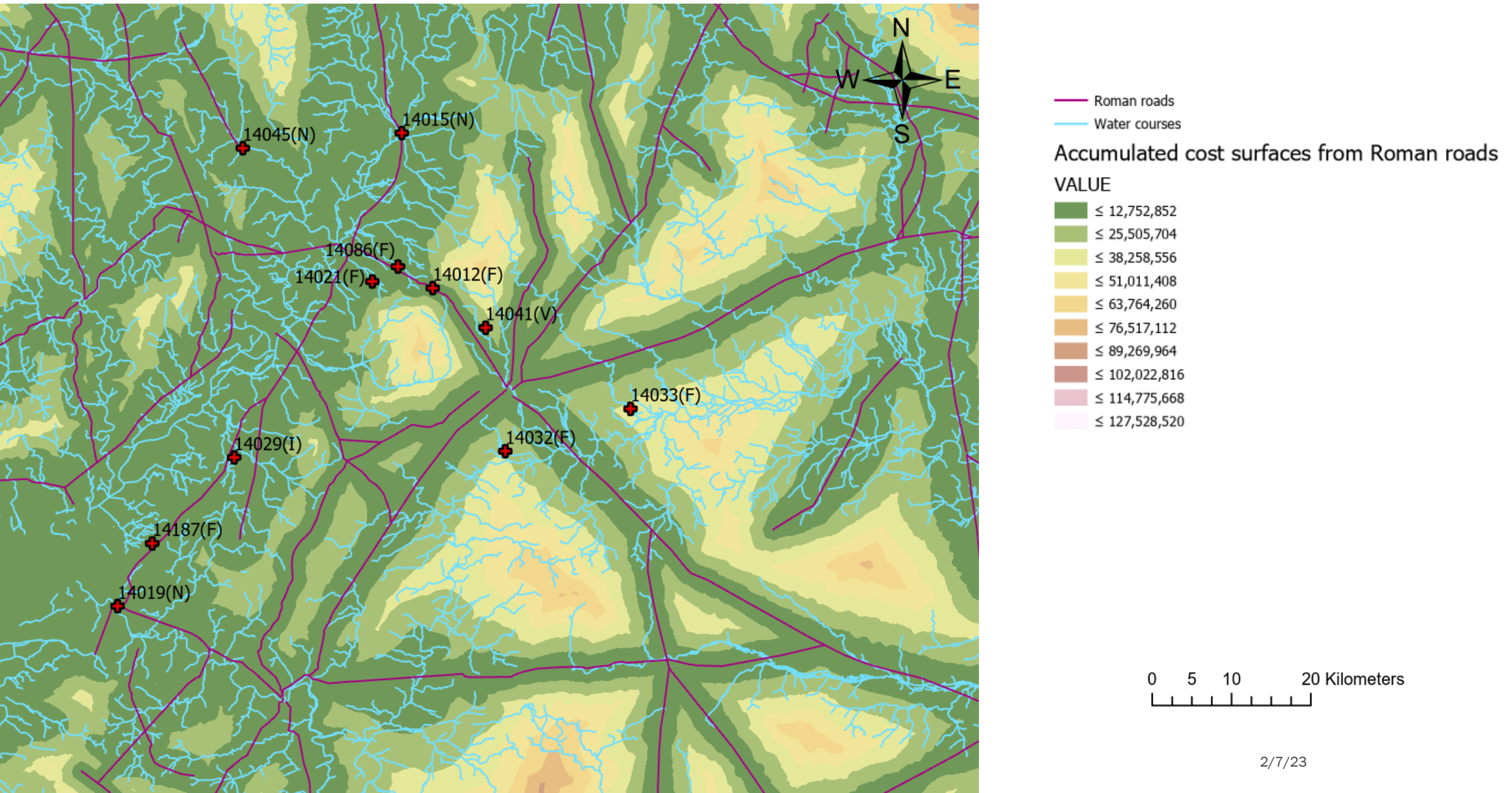
4. LEAST COST PATH FROM ROMAN ROADS (GREEN CROSS)



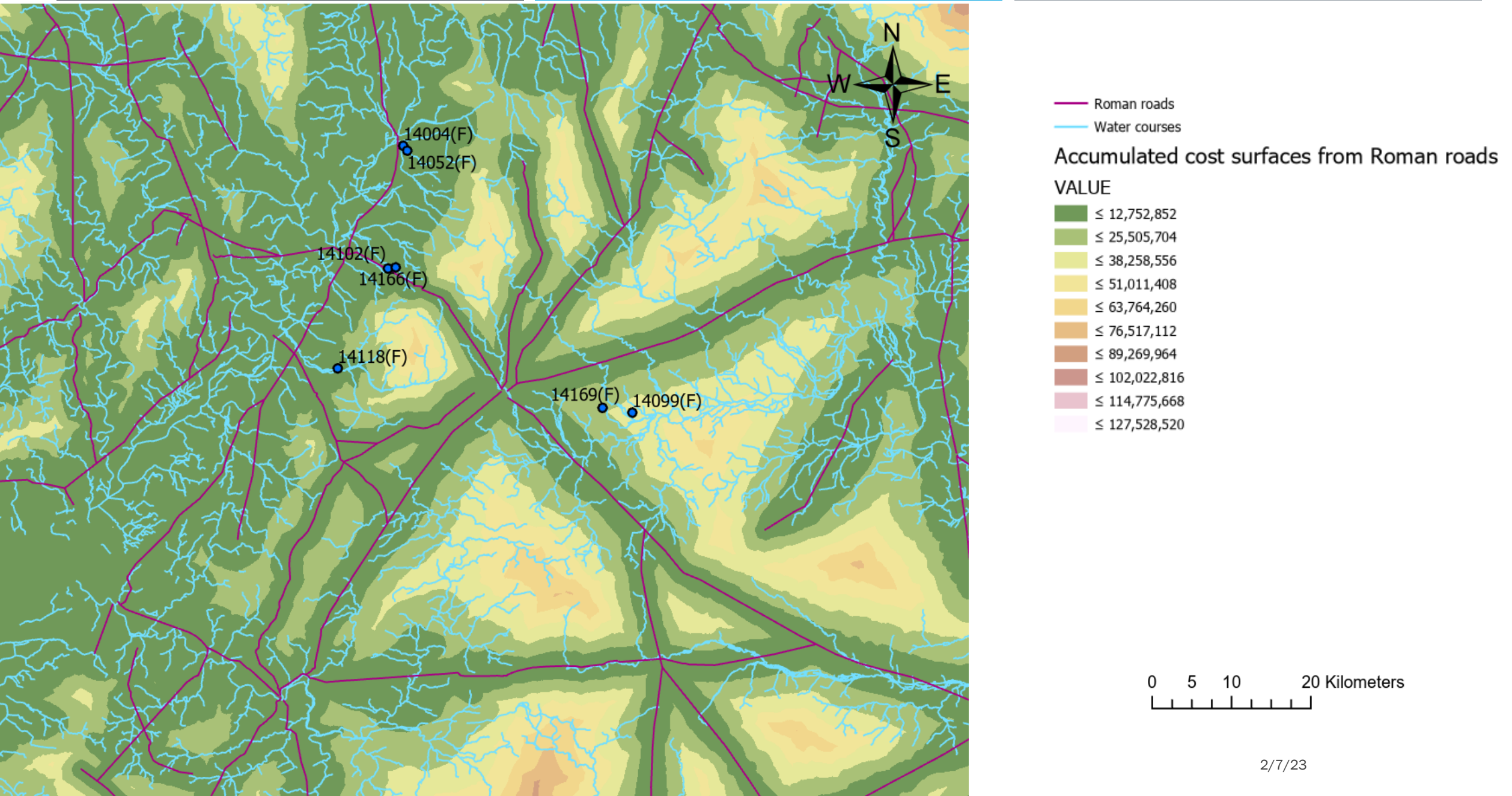
4. LEAST COST PATH FROM ROMAN ROADS (RED CIRCLE)



4. LEAST COST PATH FROM ROMAN ROADS (RED CROSS)



4. LEAST COST PATH FROM ROMAN ROADS (BLUE CIRCLE)



CONCLUSIONS

- Different identities in Roman-Britain developed different economic activities
- However, they all developed their activities near water courses and roman roads (within 5-10 km)
- They also placed their settlements in areas with low cost of movement and low cost paths to Roman roads
- This means that proximity to roads was a key aspect of ancient societies
- This suggests that a network of trade coexisted between different identities in Roman-Britain

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Entrepreneurship & International Business**

Venue: LMH, University of Oxford, United Kingdom

Date: February 1st, 2023.