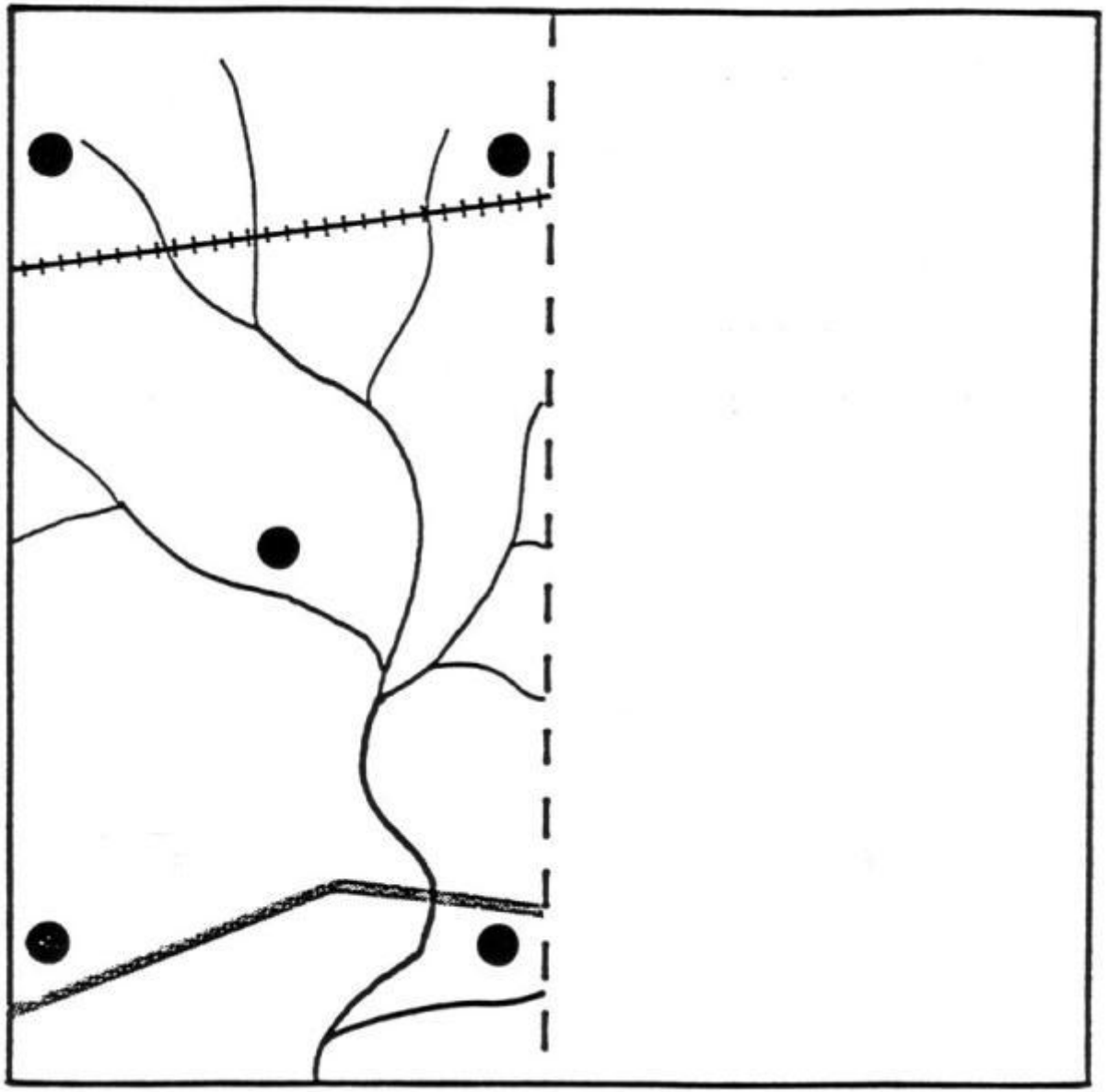


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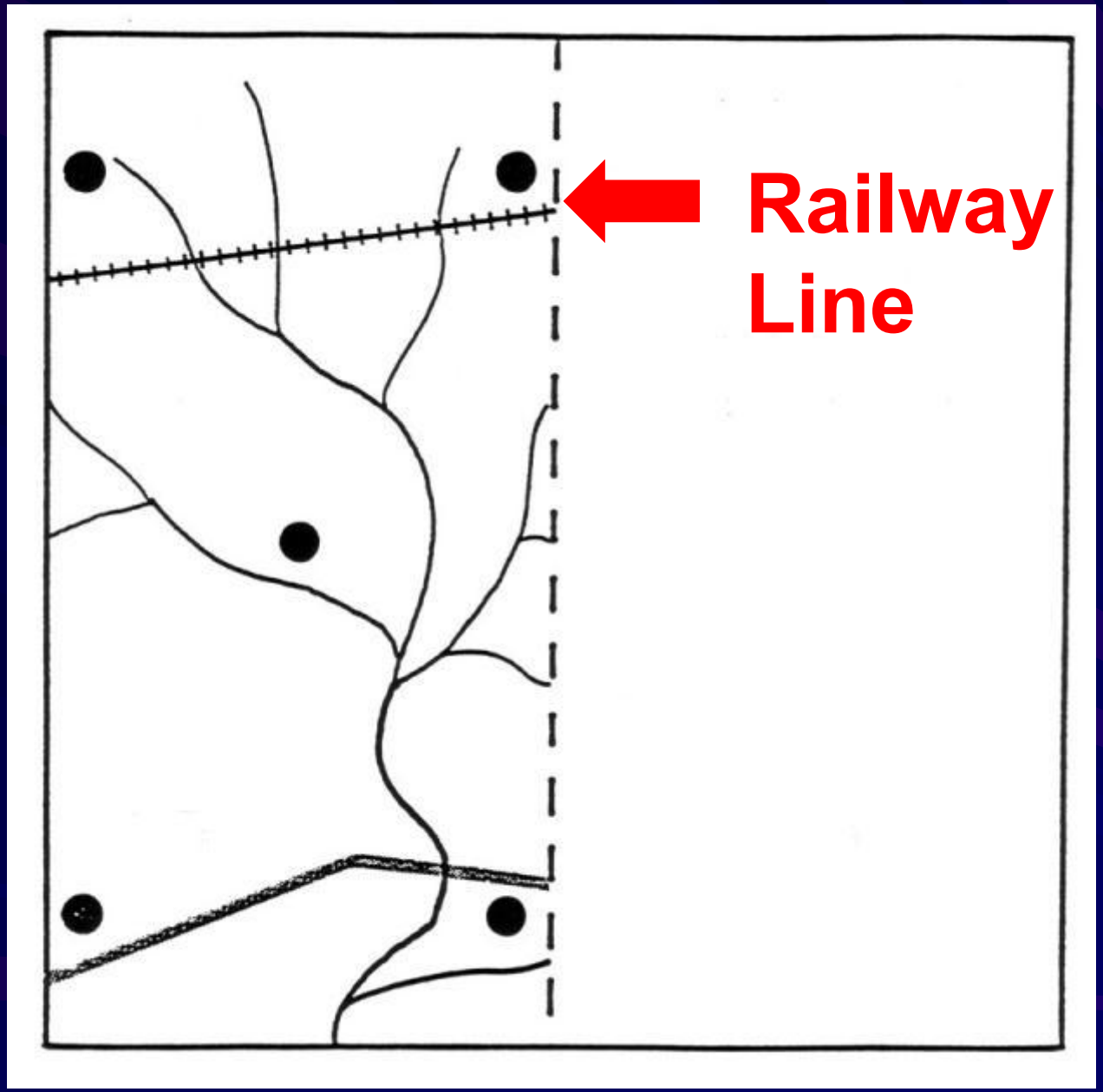
railroad

river

road

village

City



The key to the map is:

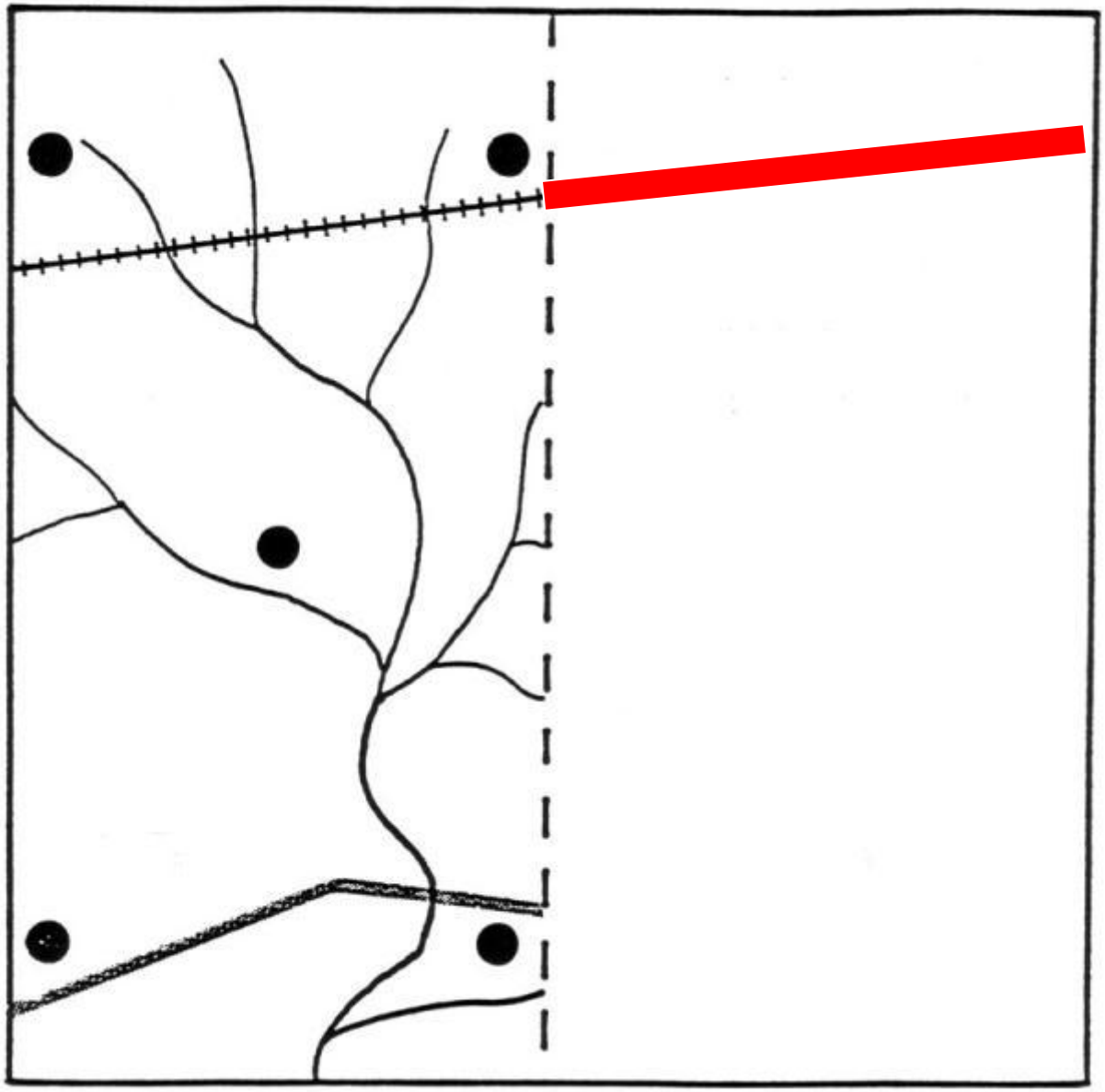
railroad

river

road

village

City



The key to the map is:

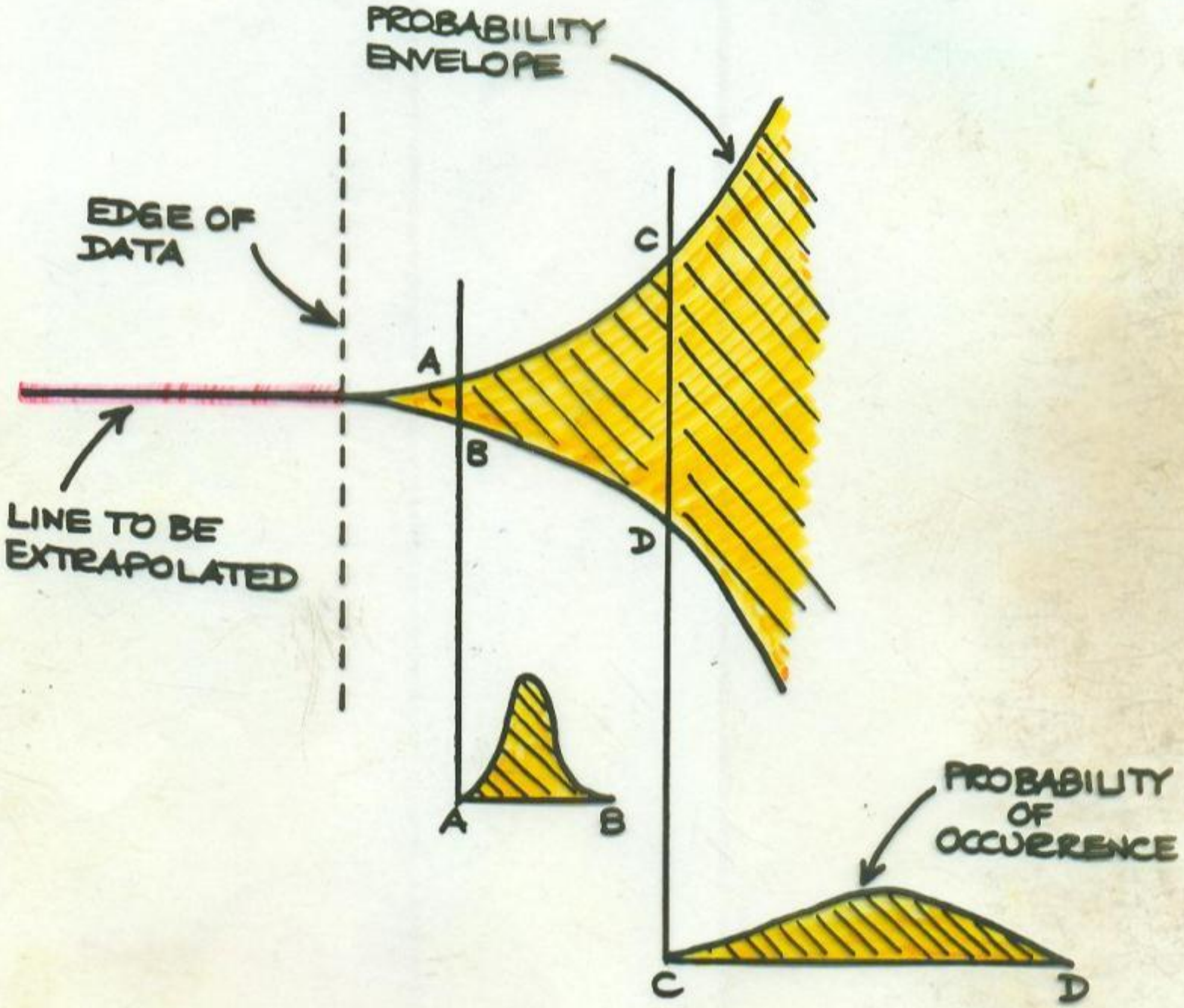
railroad

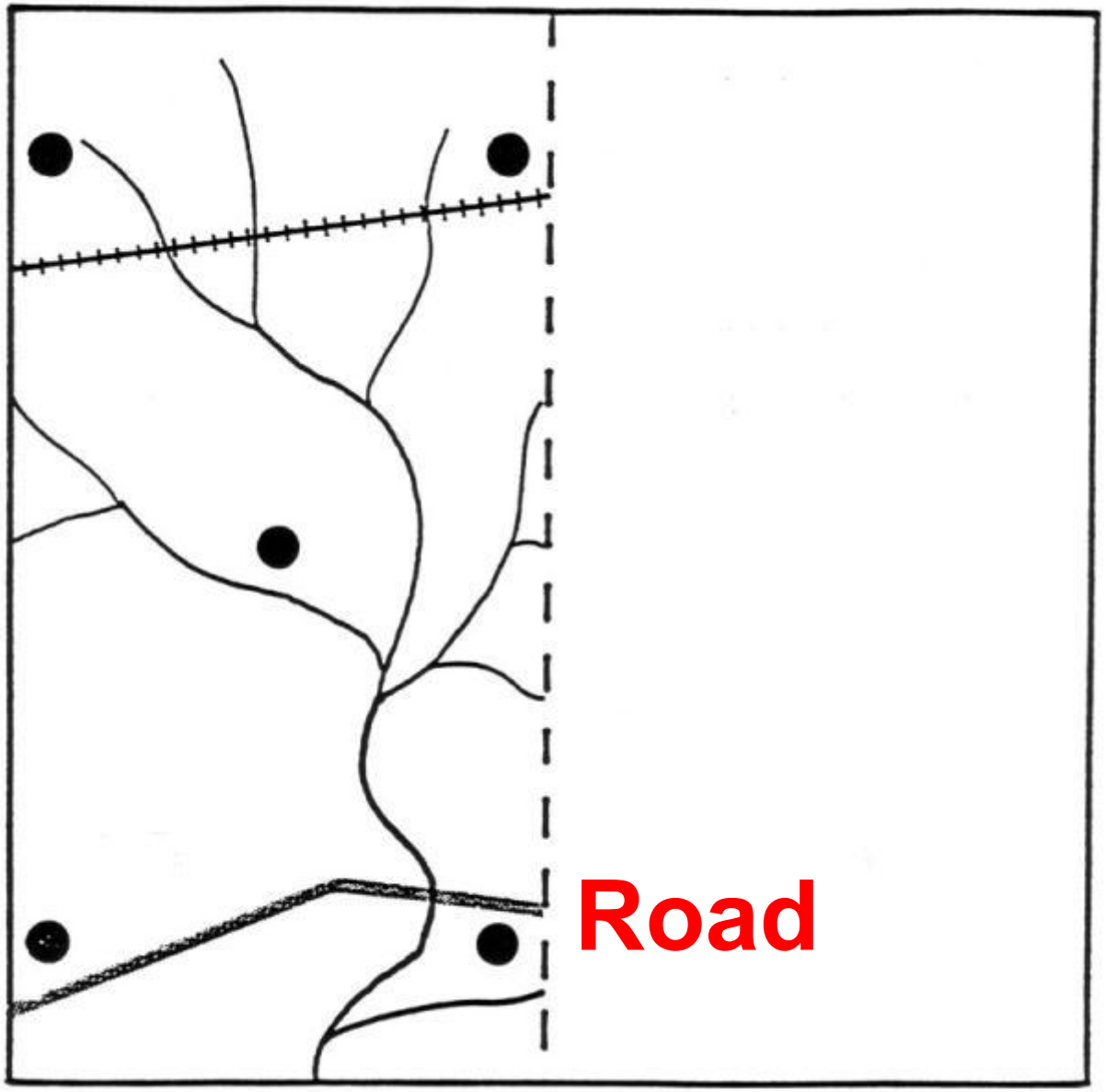
river

road

village

City


PROBABILITY ENVELOPE
EDGE OF DATA
LINE TO BE EXTRAPOLATED
A
B
C
D
A
B
PROBABILITY OF OCCURRENCE
C
D



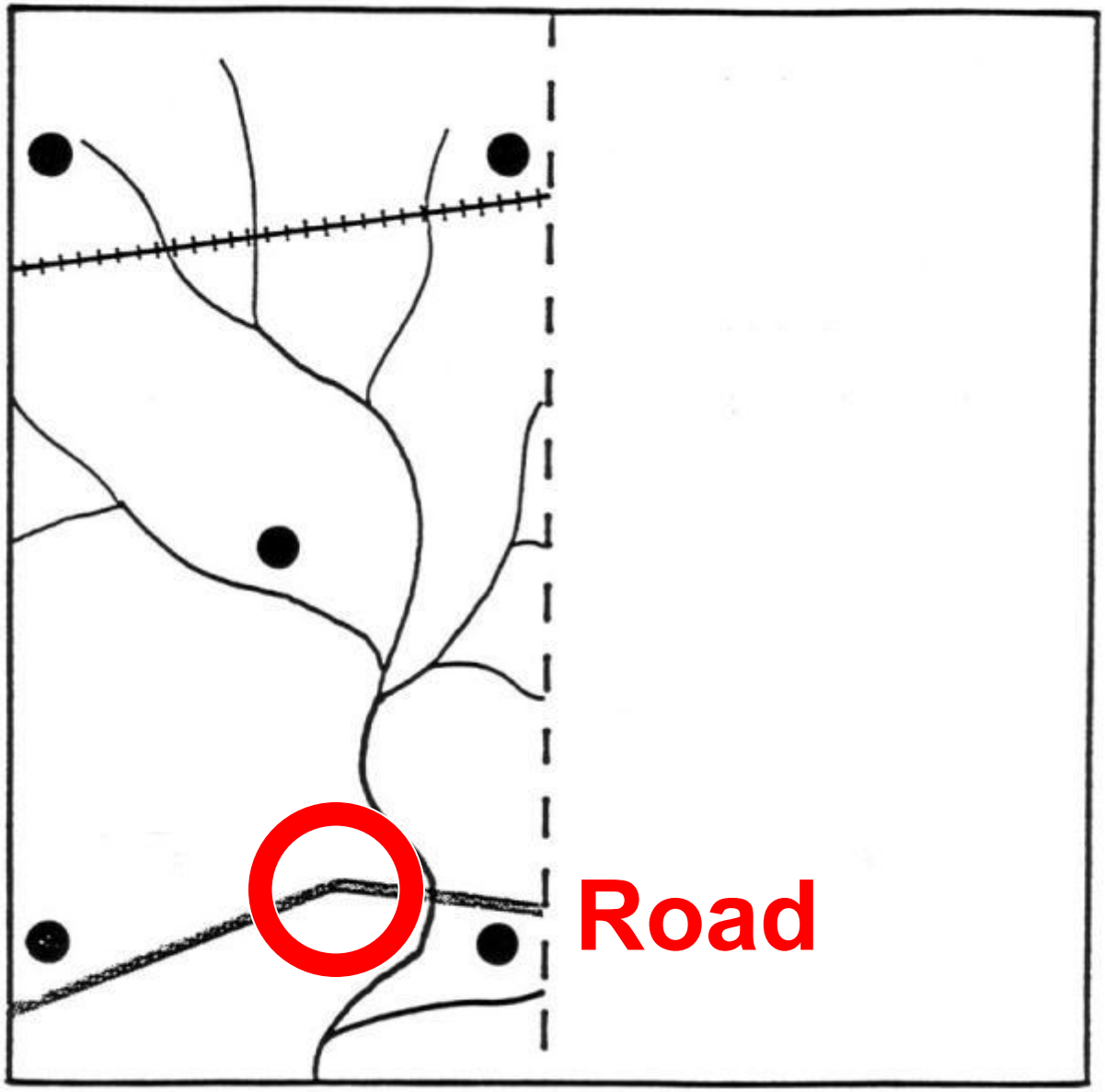
The key to the map is:

railroad

river

road

village



The key to the map is:

railroad

river

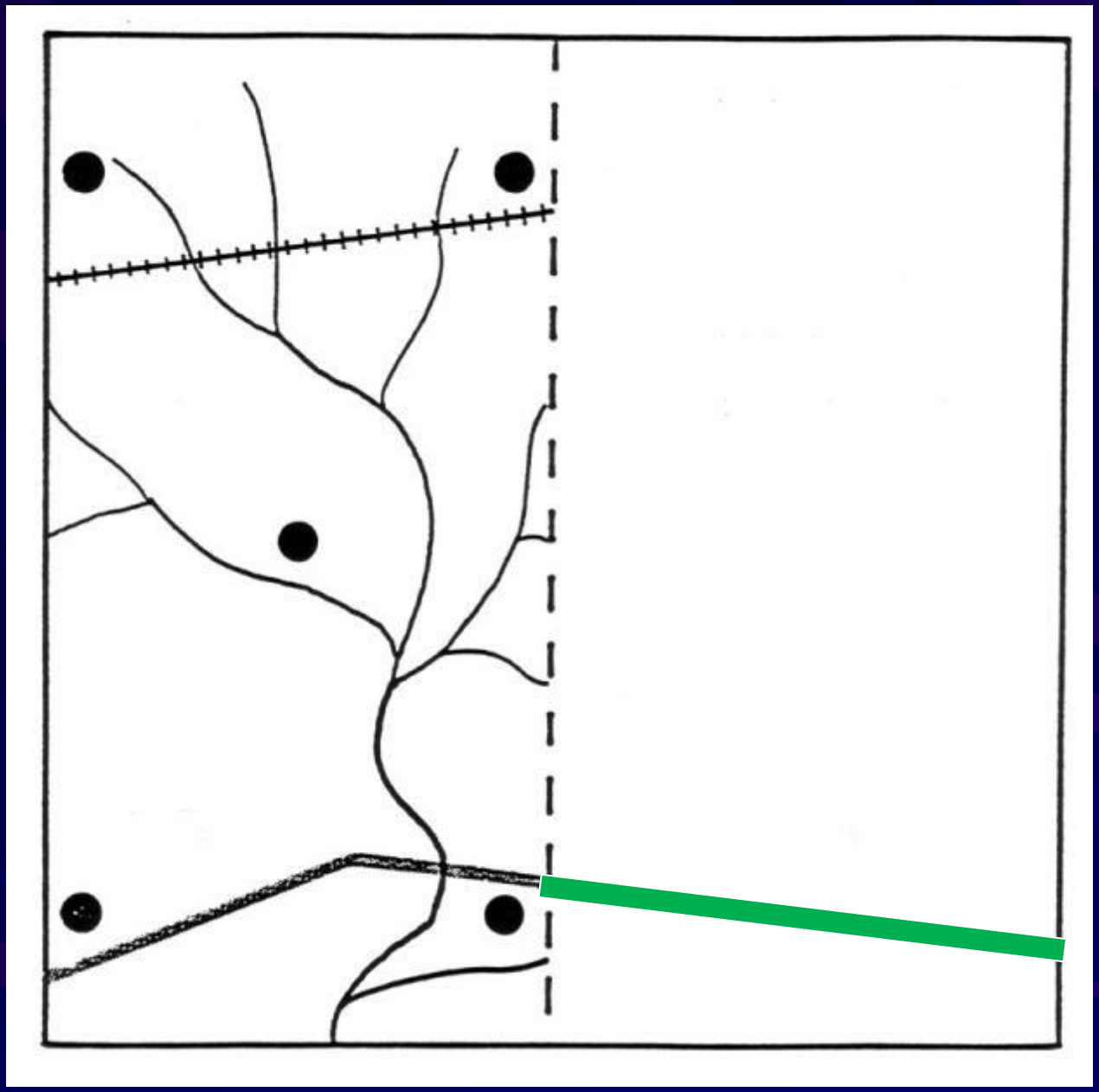
road

village

City

Kink in the Road

--*if* unique & therefore not repeated,
then road continues in straight line



The key to the map is:

railroad

river

road

village

City

Kink in the Road

--*if* unique & therefore not repeated, *then* road continues in straight line

--*if* recurring & therefore repeated property of space, *then* road will not continue in straight line


OXFORD
UNIVERSITY PRESS
OXFORD
UNIVERSITY PRESS
NORTH OXFORD
JERICHO
University Parks
Oxford University Museum of Natural...
The Randolph Hotel Oxford, a Graduate by H...
Old Bank Hotel, by The Oxford Collection
Oxford
Botley Rd
Botley Rd
OSNEY
River Thames
A420
A420
A4144
A4144
B4150
B480
Oxford Botanic Garden
ST CLEMENT'S
South Pa
The Head of the River, Oxford
Iffley Road Sports Centre
Antep Kitchen
Grandpont
Google
voco Oxford Spires,
Iffley Rd
Map data ©

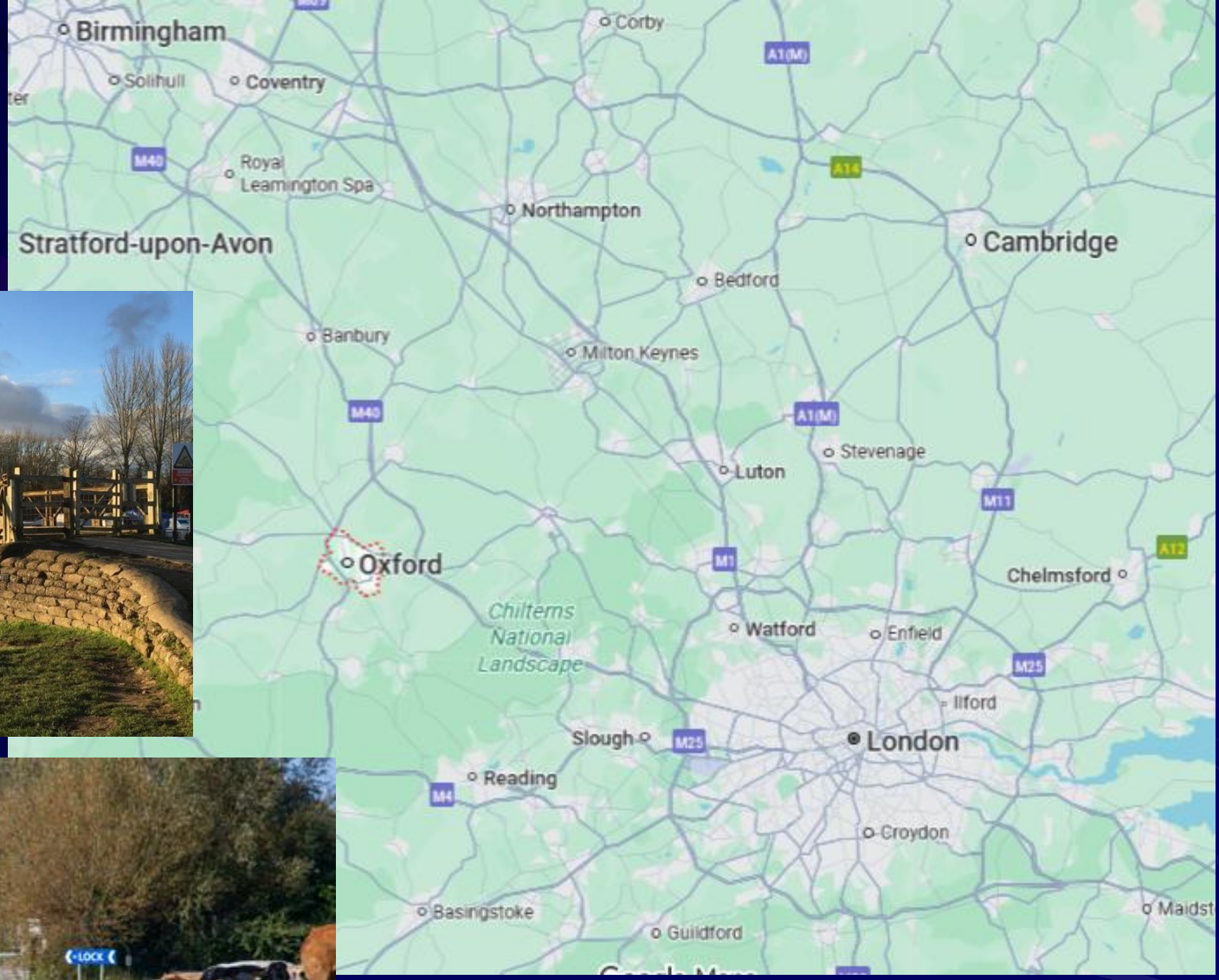


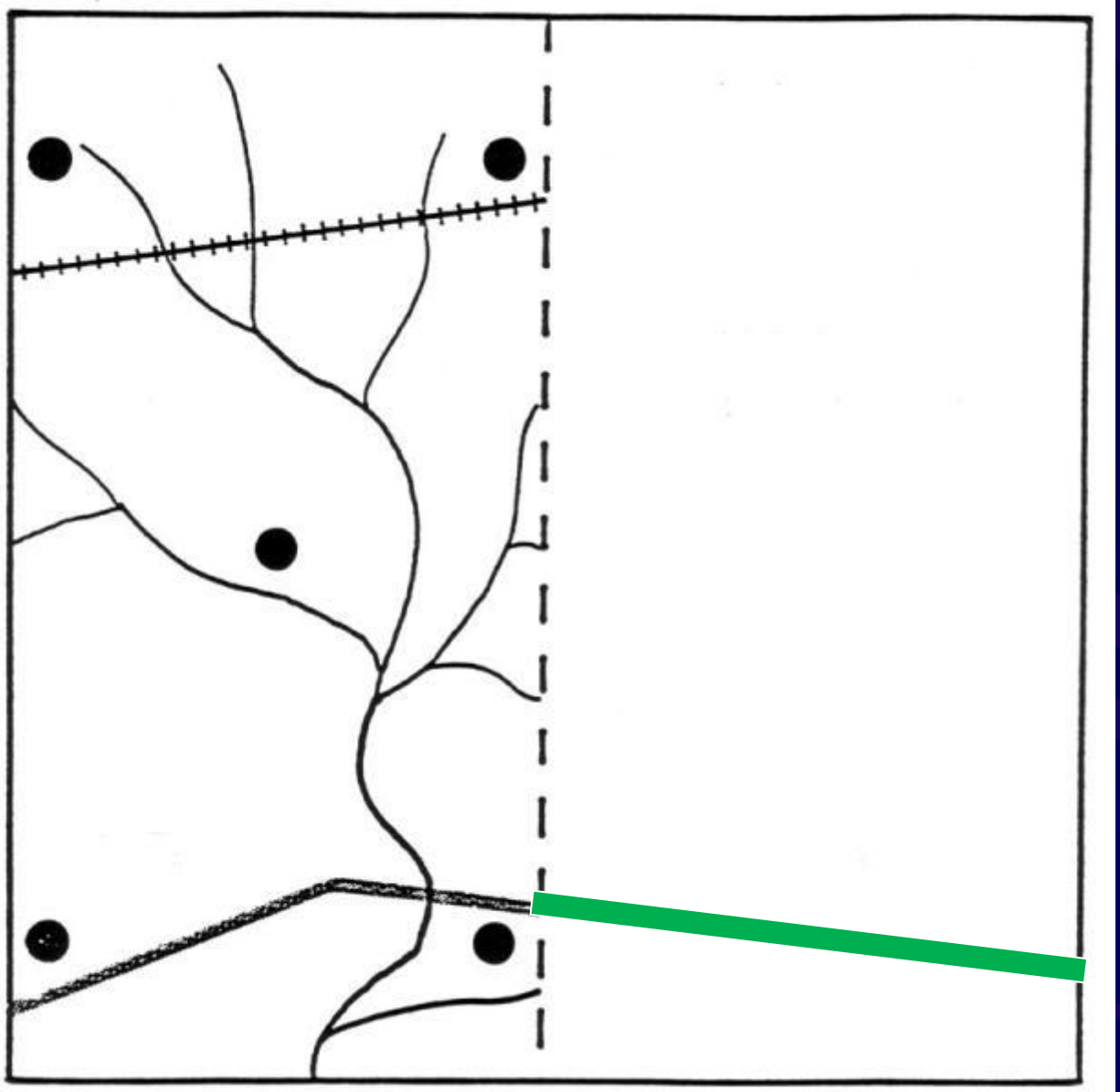

A34
Kidlington
Boarstall
Brill
M40
Yarnton
A40
A34
Worminghall
HEADINGTON
A40
Oxford
Wheatley
A420
A4142
M40
LITTLEMORE
A34
Stadhampton
Abingdon






LOCK


Birmingham
Solihull
Coventry
Corby
A1(M)
M40
Royal Leamington Spa
A14
Northampton
Stratford-upon-Avon
Cambridge
Bedford
Banbury
Milton Keynes
M40
A1(M)
Stevenage
Luton
M11
Oxford
M1
A12
Chelmsford
Chilterns National Landscape
Watford
Enfield
M25
Ilford
Slough
M25
London
Reading
M4
Croydon
Basingstoke
Guildford



The key to the map is:

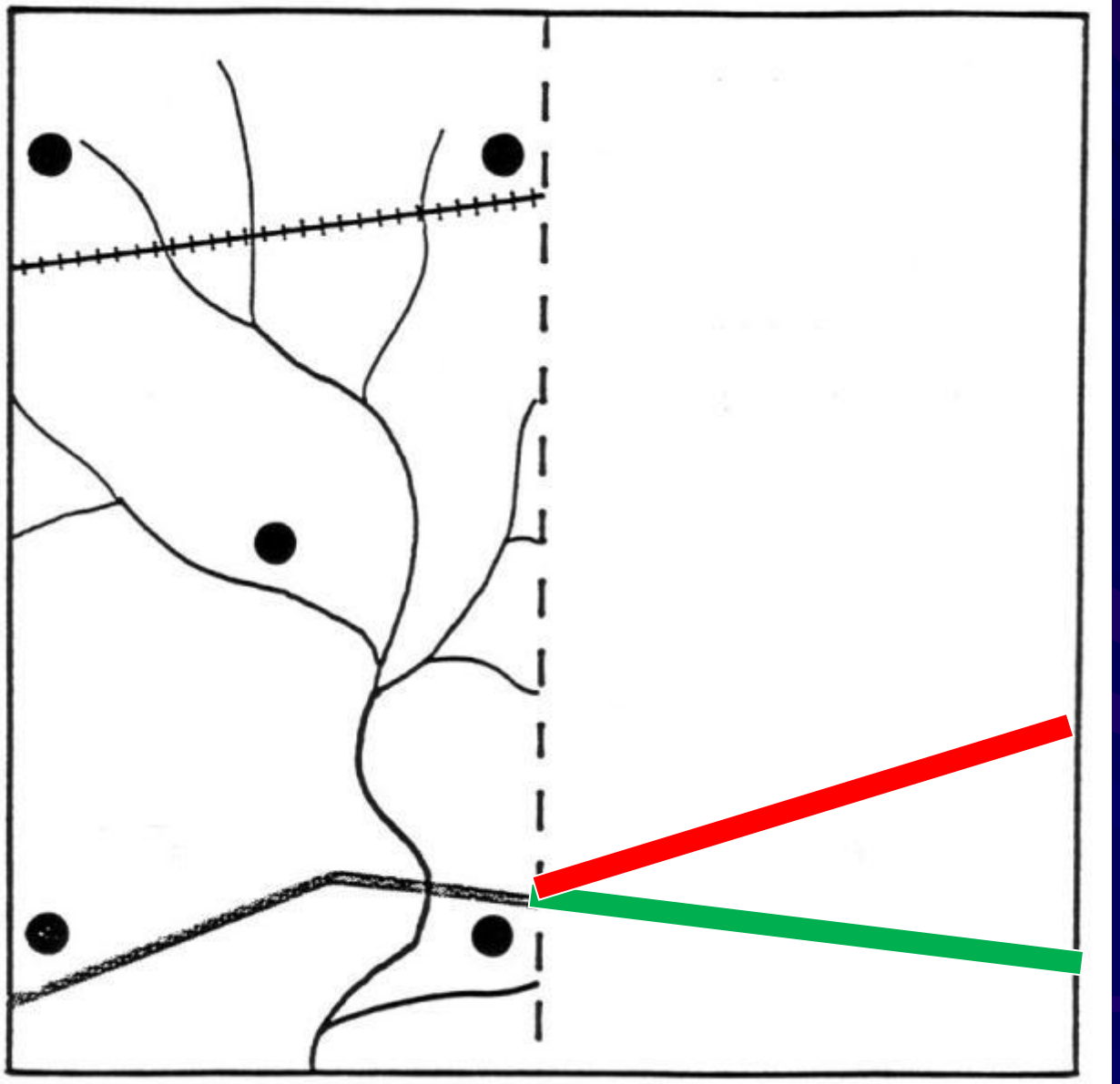
railroad

river

road

village

City



The key to the map is:

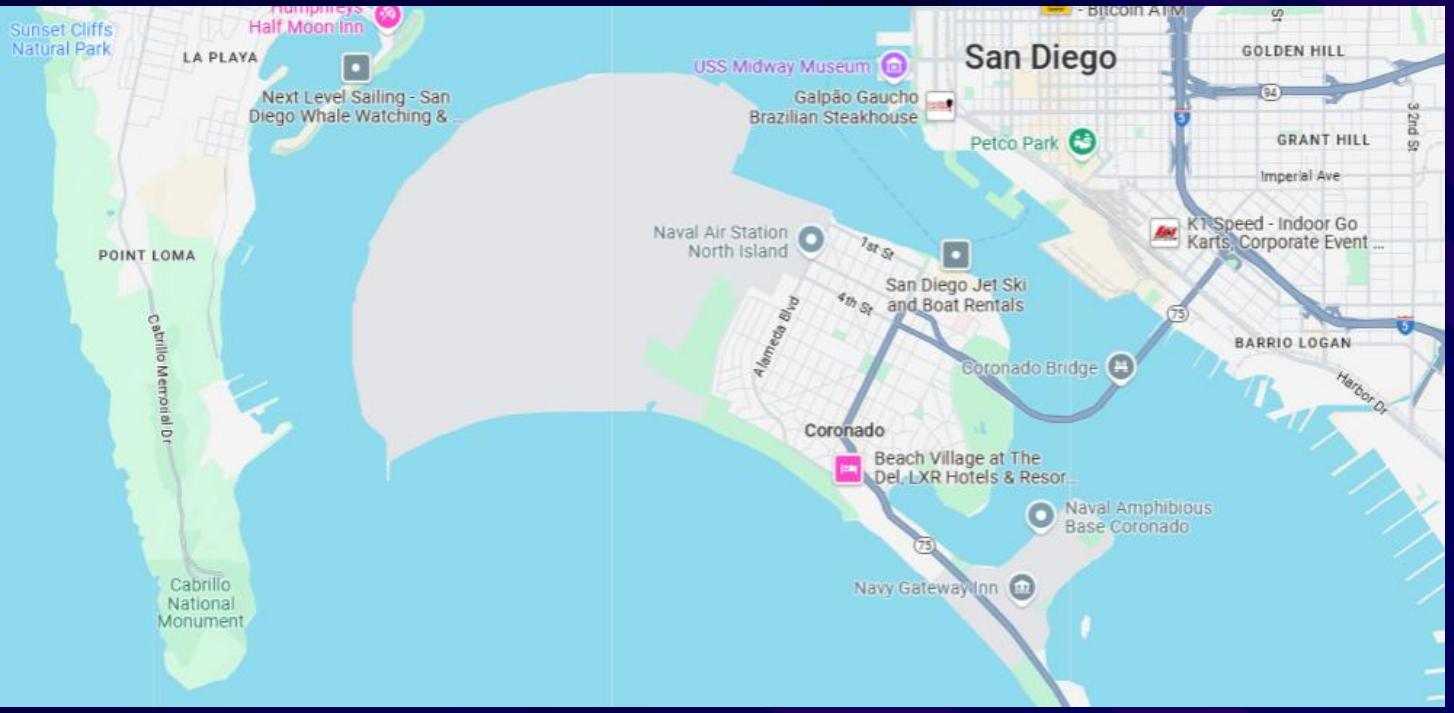
railroad

river

road

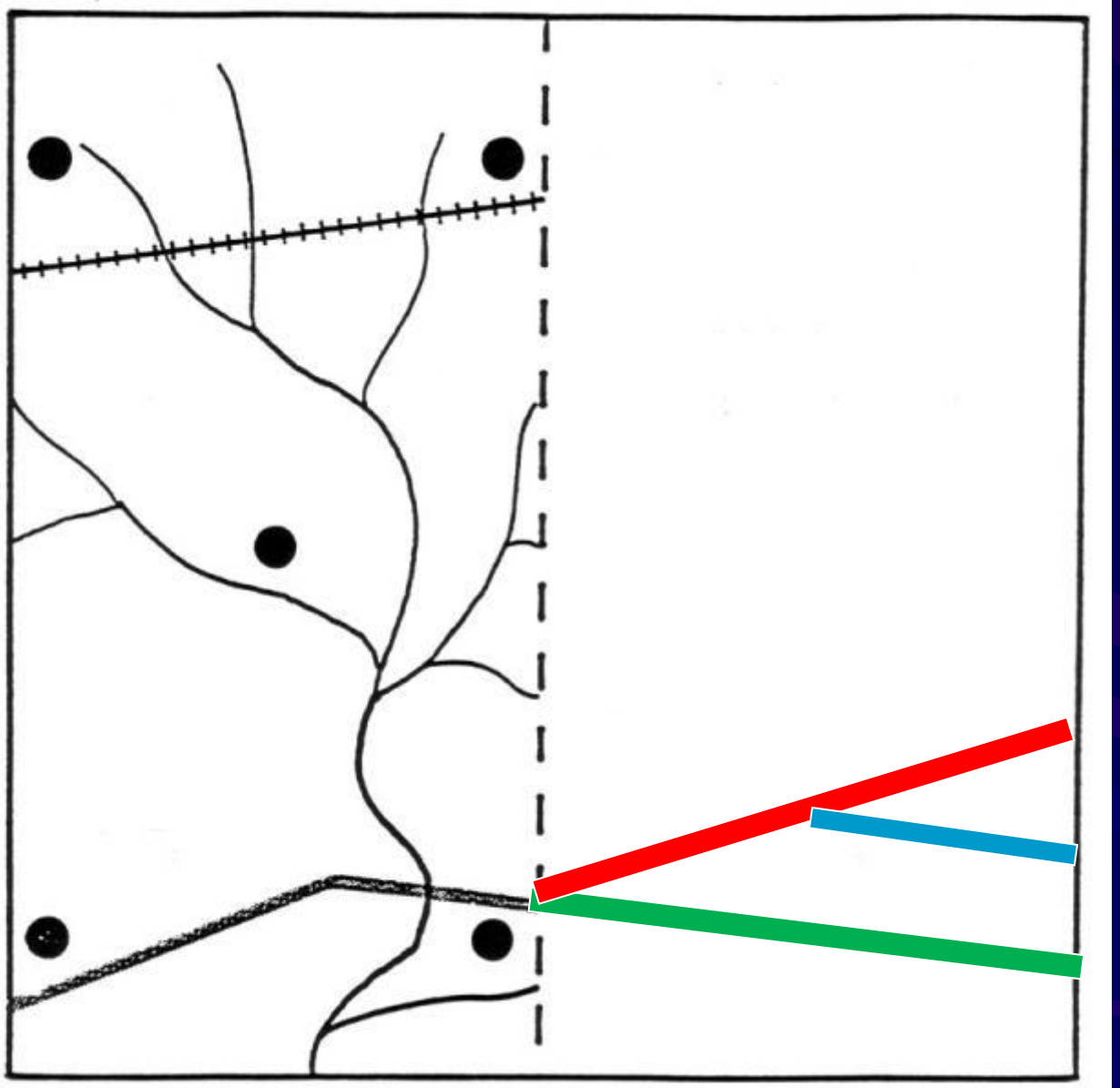
village

City


Sunset Cliffs Natural Park
LA PLAYA
Humphreys Half Moon Inn
Next Level Sailing - San Diego Whale Watching &...
POINT LOMA
Cabrillo Memorial Dr
Cabrillo National Monument
USS Midway Museum
Galpão Gaucho Brazilian Steakhouse
San Diego
GOLDEN HILL
Petco Park
GRANT HILL
Imperial Ave
32nd St
Naval Air Station North Island
1st St
4th St
Alameda Blvd
San Diego Jet Ski and Boat Rentals
KT Speed - Indoor Go Karts, Corporate Event ...
BARRIO LOGAN
Harbor Dr
Coronado Bridge
Coronado
Beach Village at The Del, LXR Hotels & Resor...
Naval Amphibious Base Coronado
Navy Gateway Inn







The key to the map is:

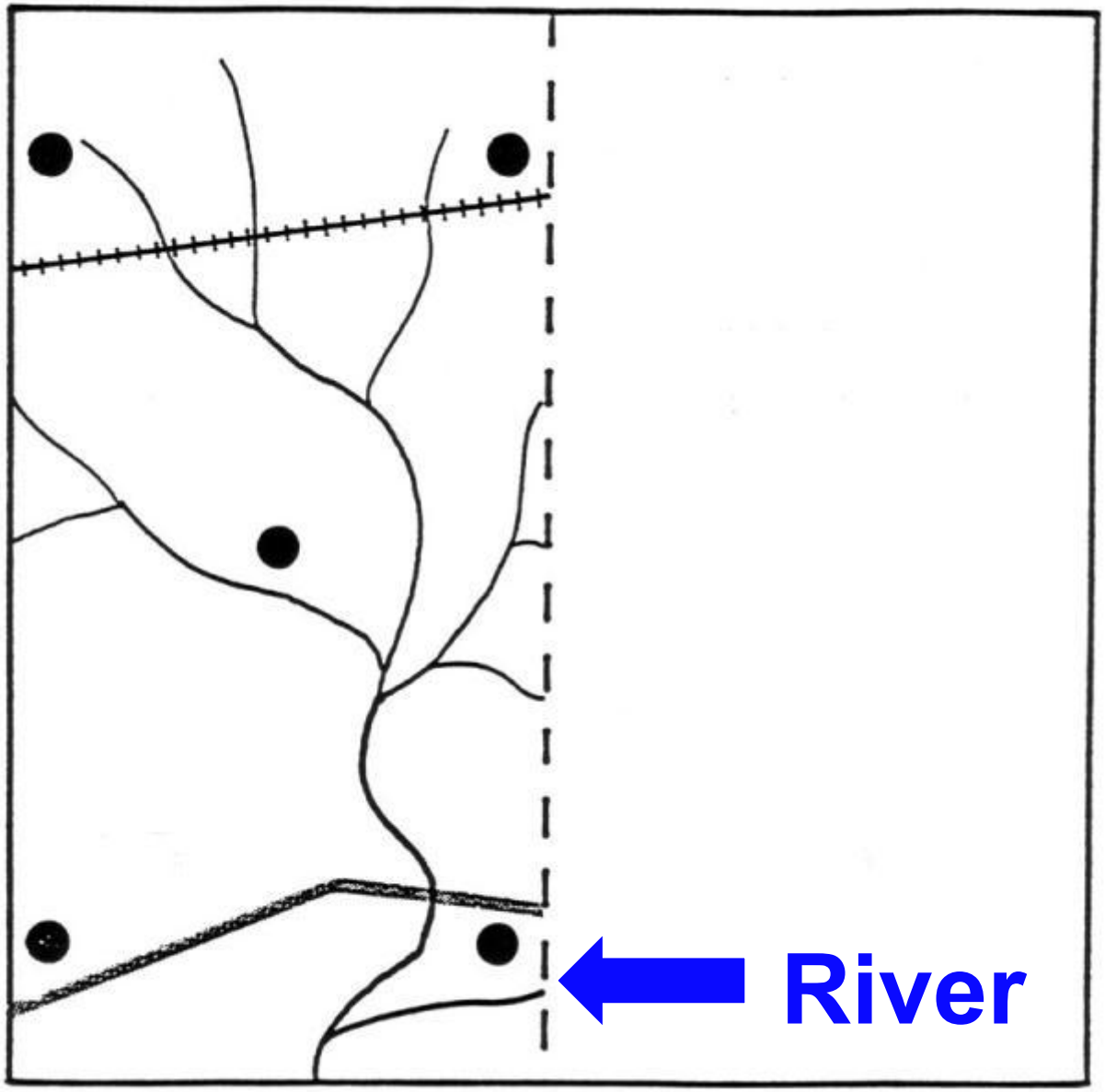
railroad

river

road

village

City



The key to the map is:

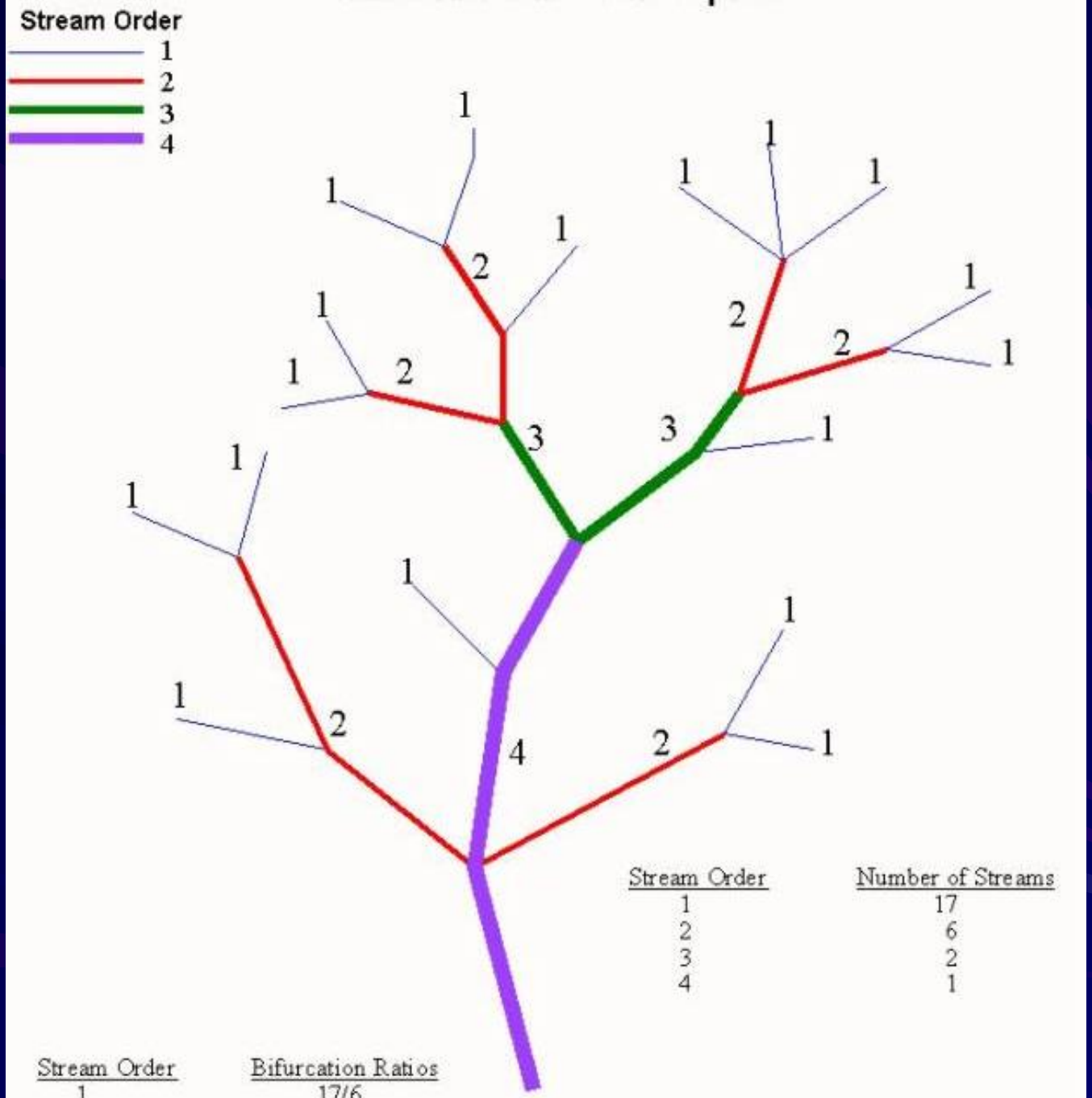
railroad

river

road

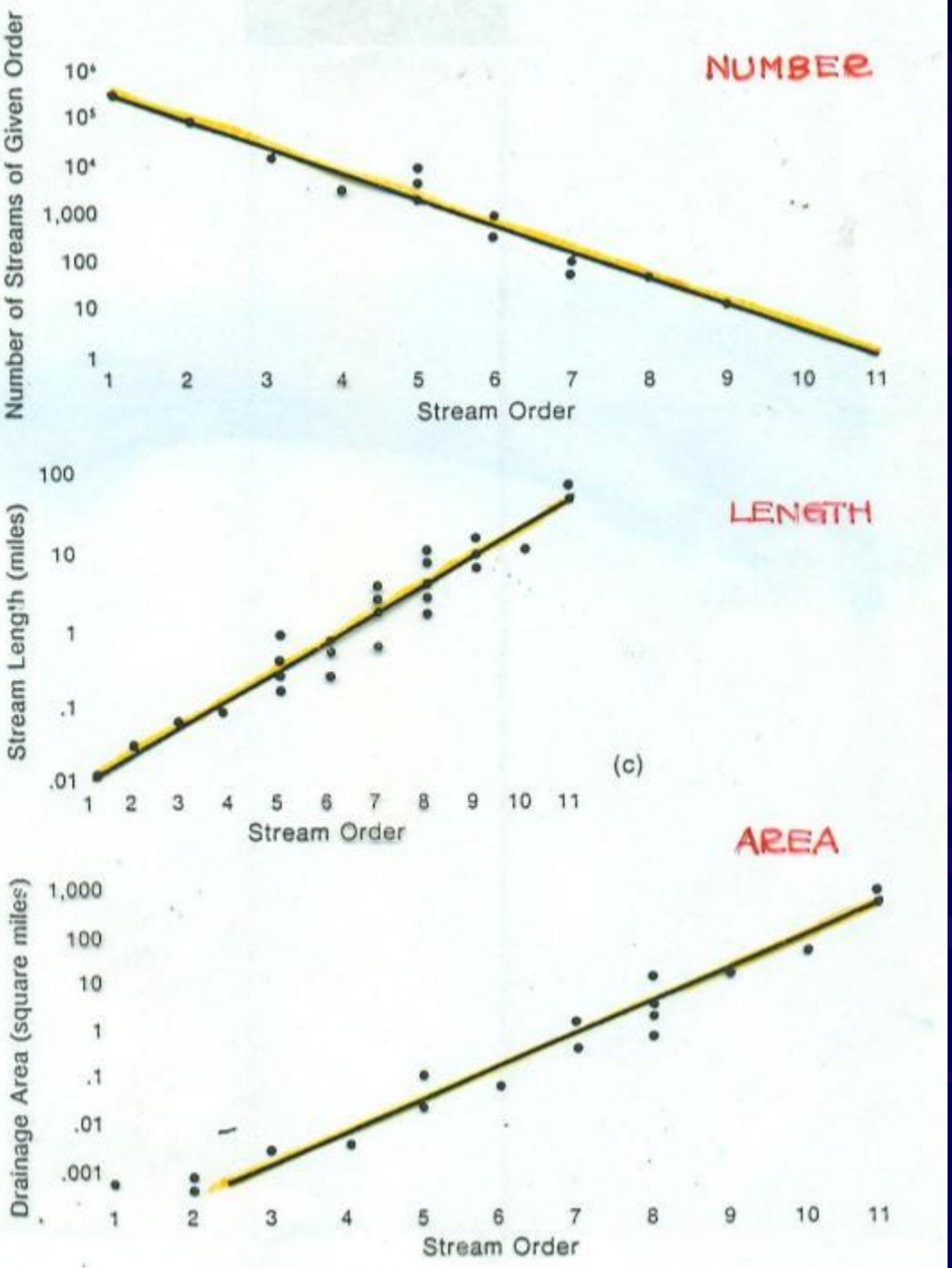
village

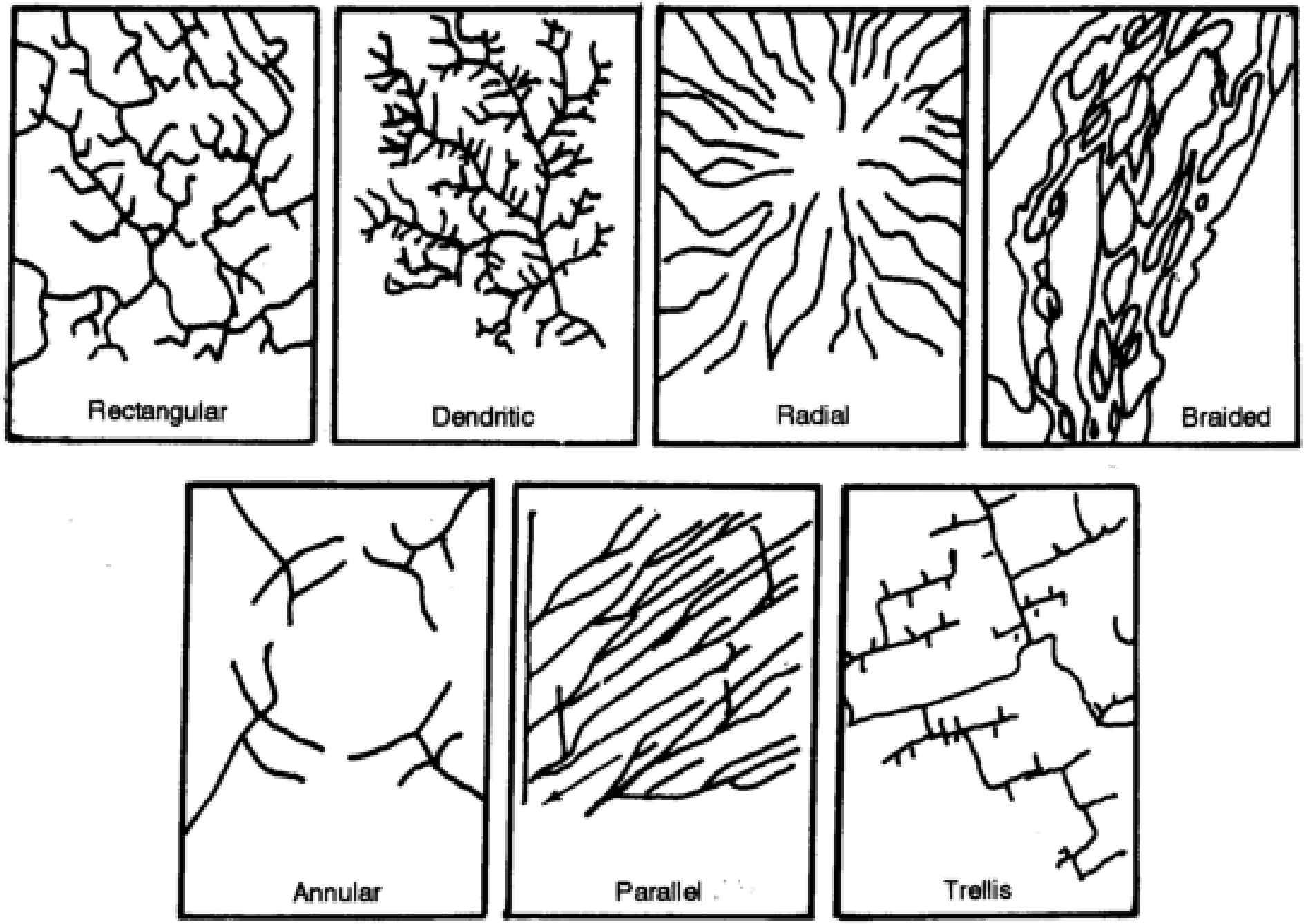
City

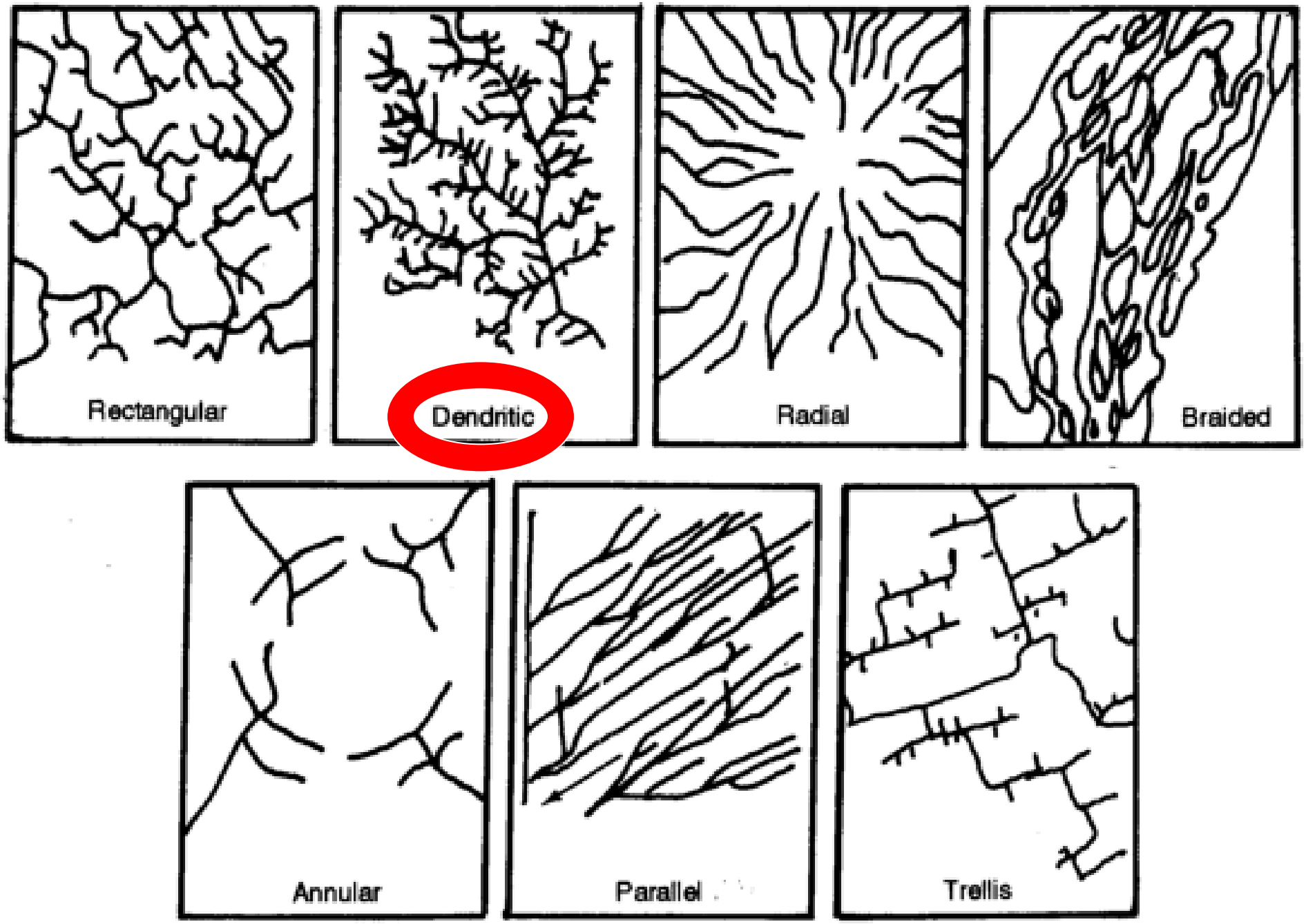


Stream Order	Number of Streams
1	17
2	6
3	2
4	1

Stream Order	Bifurcation Ratios
1	17/6
2	6/2
3	2/1


NUMBER
Number of Streams of Given Order
10⁶
10⁵
10⁴
1,000
100
10
1
1 2 3 4 5 6 7 8 9 10 11
Stream Order
LENGTH
Stream Length (miles)
100
10
1
.1
.01
1 2 3 4 5 6 7 8 9 10 11
Stream Order
(c)
AREA
Drainage Area (square miles)
1,000
100
10
1
.1
.01
.001
1 2 3 4 5 6 7 8 9 10 11
Stream Order


Rectangular
Dendritic
Radial
Braided
Annular
Parallel
Trellis


Rectangular
Dendritic
Radial
Braided
Annular
Parallel
Trellis

Dendritic patterns are found in areas that lack strong contrasts in bedrock resistance, such as flat-lying sedimentary rock or massive crystalline rock that is deeply weathered.

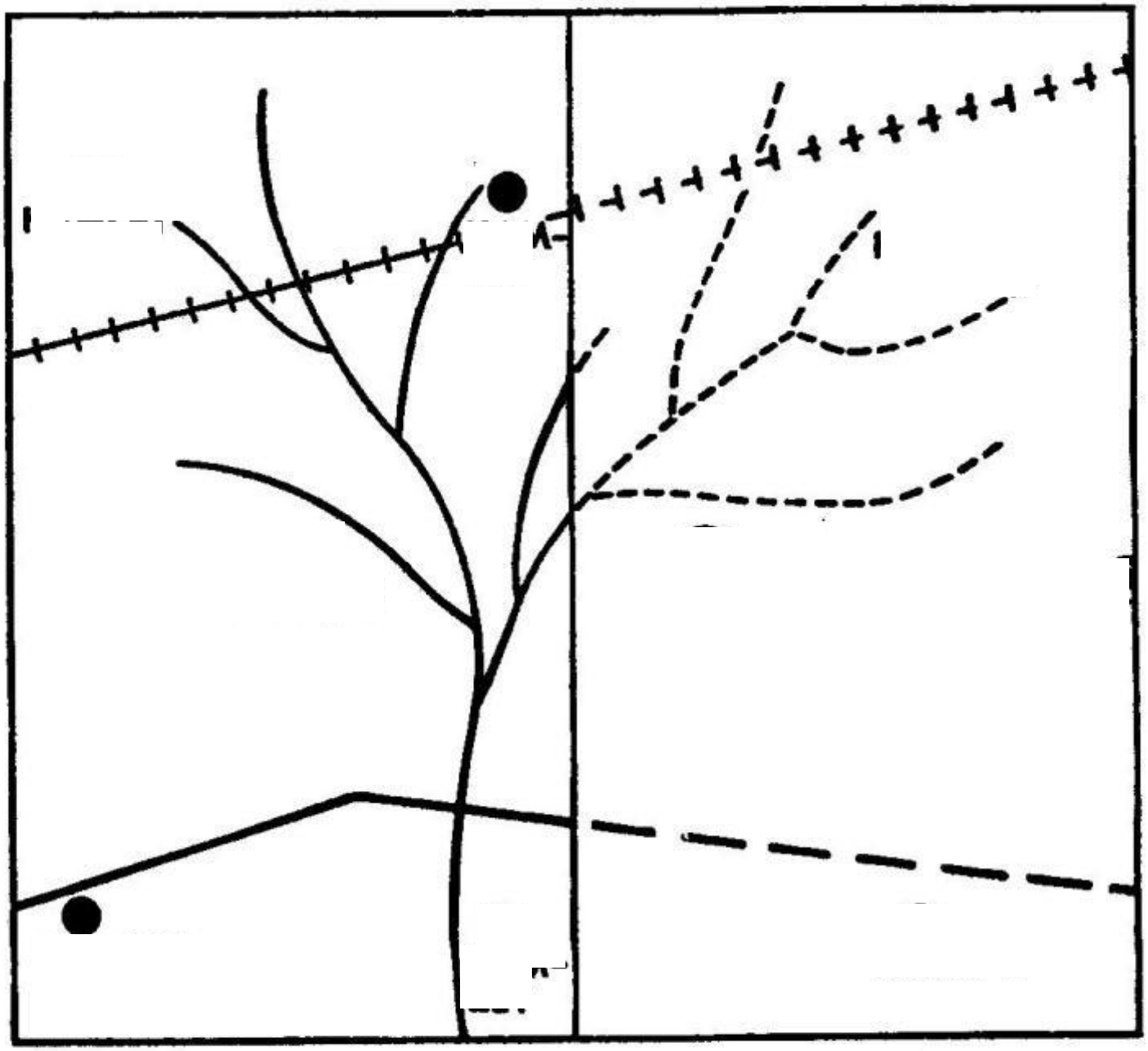
Trellis patterns develop where inclined layers of sedimentary rock of varying resistance to erosion are exposed at the surface. The parallel segments develop along the outcrops of the erodible layer of rock.

Parallel-pinnate drainage reflects a topography of long parallel ridges. The short segments drain the flanks of the ridges, and the long segments drain the troughs between.

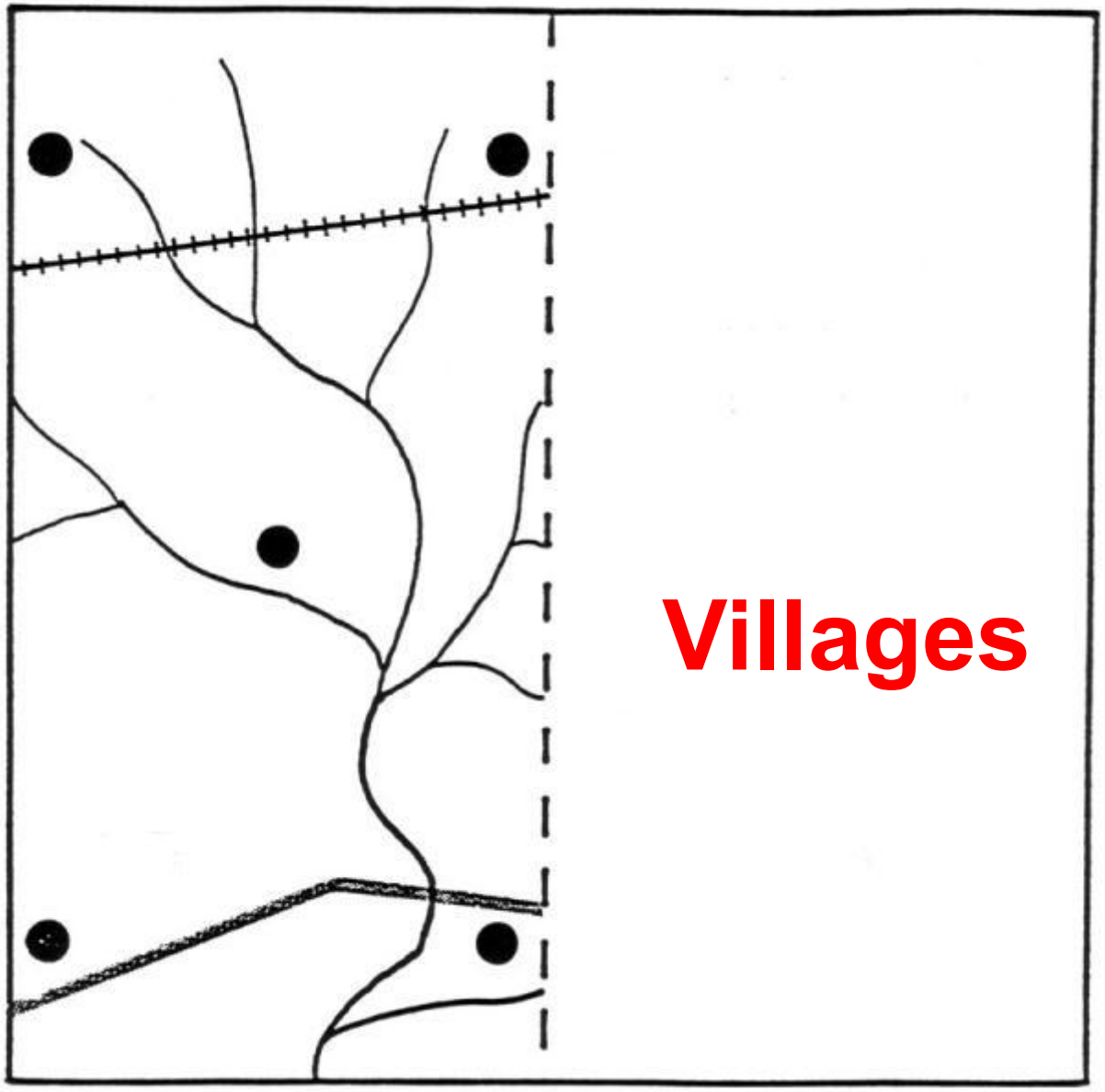
Radial drainage indicates the presence of an isolated high mountain area and is common on individual volcanoes or dome-shaped mountainous uplifts.

Rectangular patterns reflect strong jointing of resistant bedrock, with streams incising along the joint planes.

Deranged drainage shows no geometrical pattern or constant direction and usually includes numbers of lakes; this pattern indicates destruction of prior drainage by the erosive effects of continental ice sheets. Such areas lack true valleys developed by fluvial erosion.



Bunge's Actual and Predicted Map



Villages

The key to the map is:

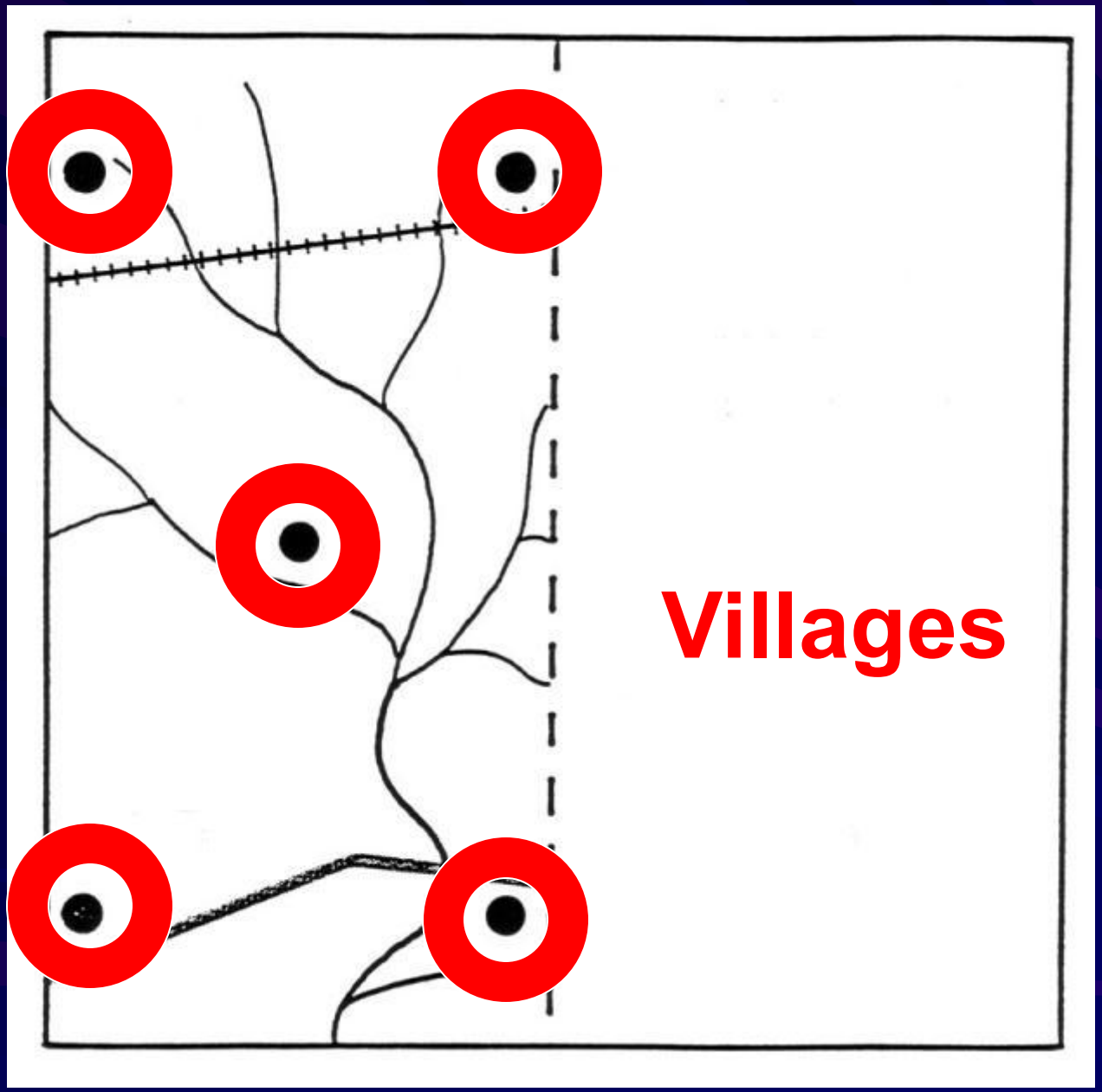
railroad

river

road

village

City



The key to the map is:

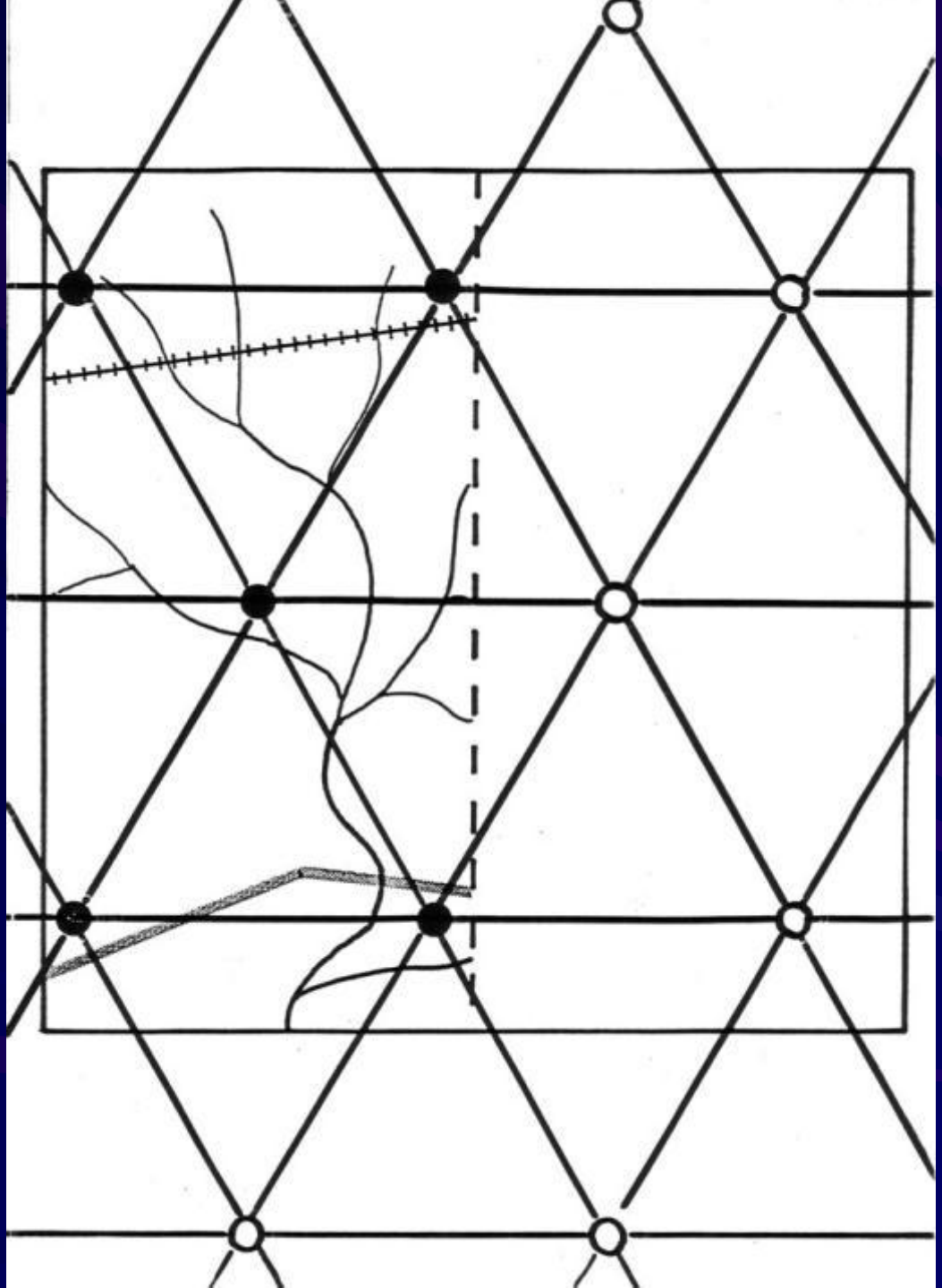
railroad

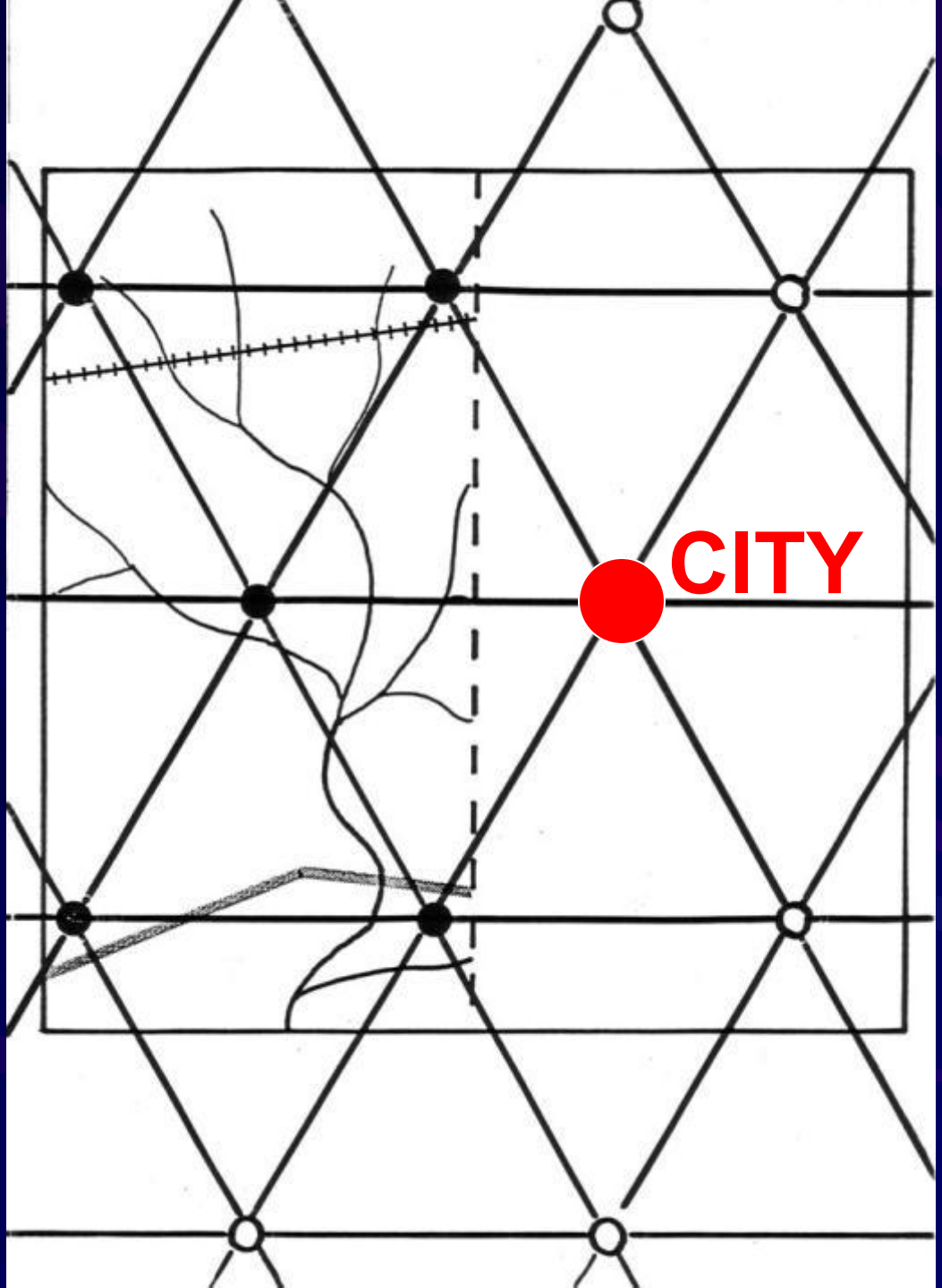
river

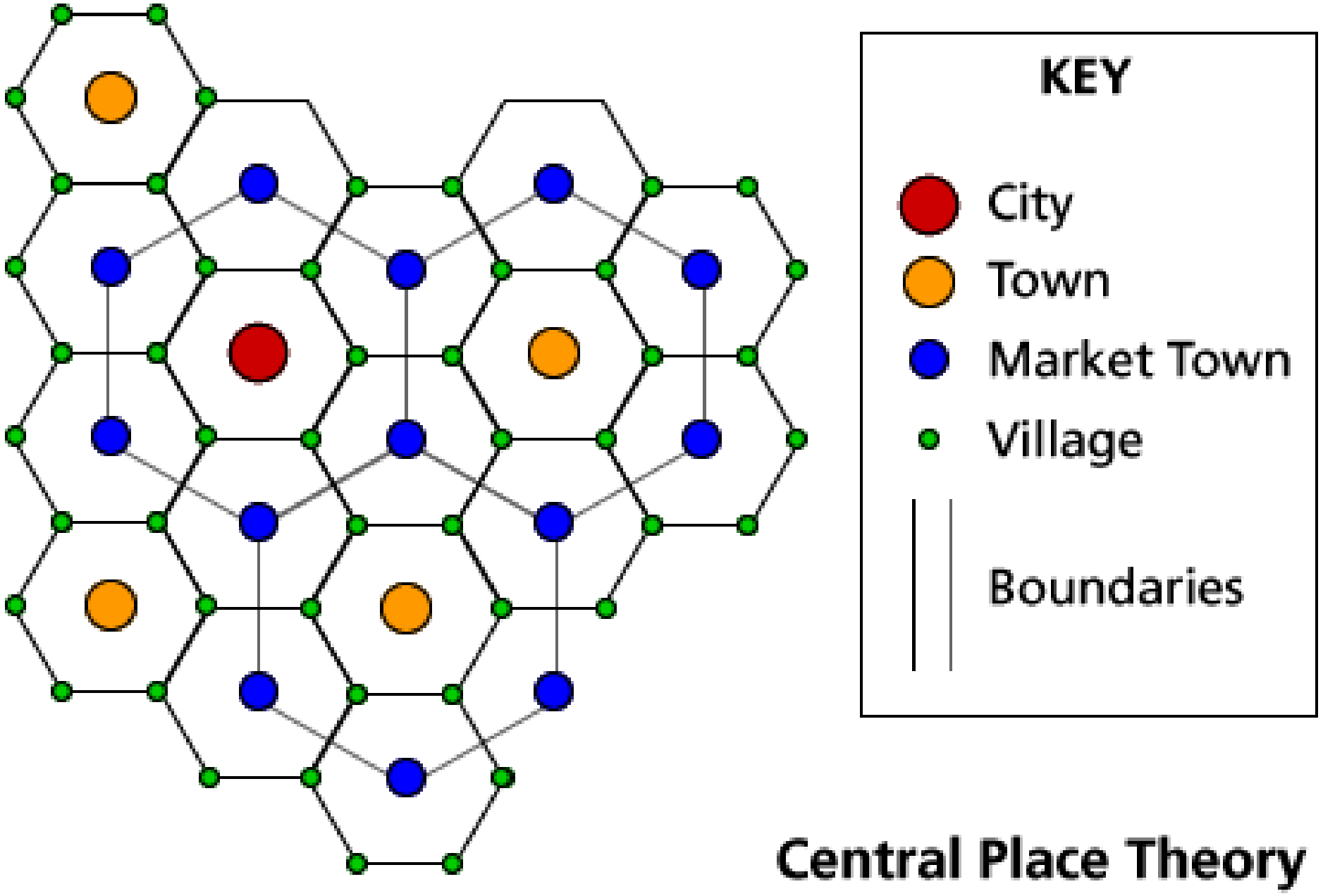
road

village

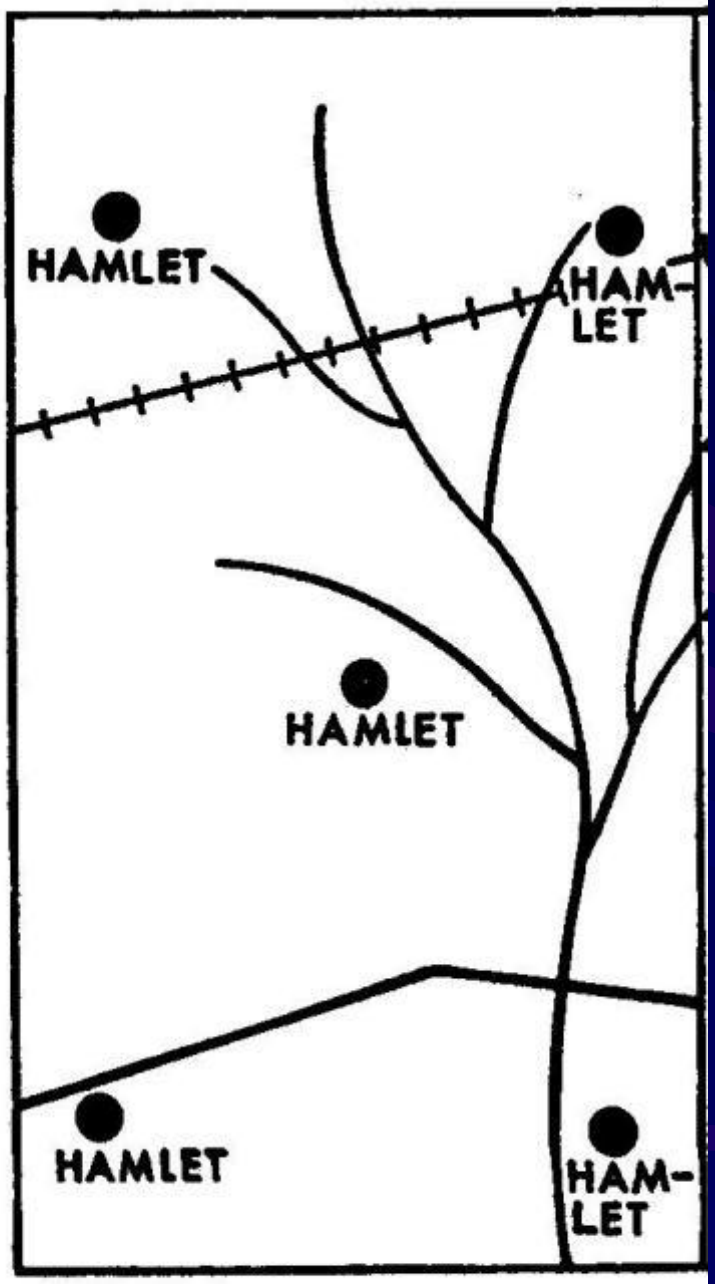
City



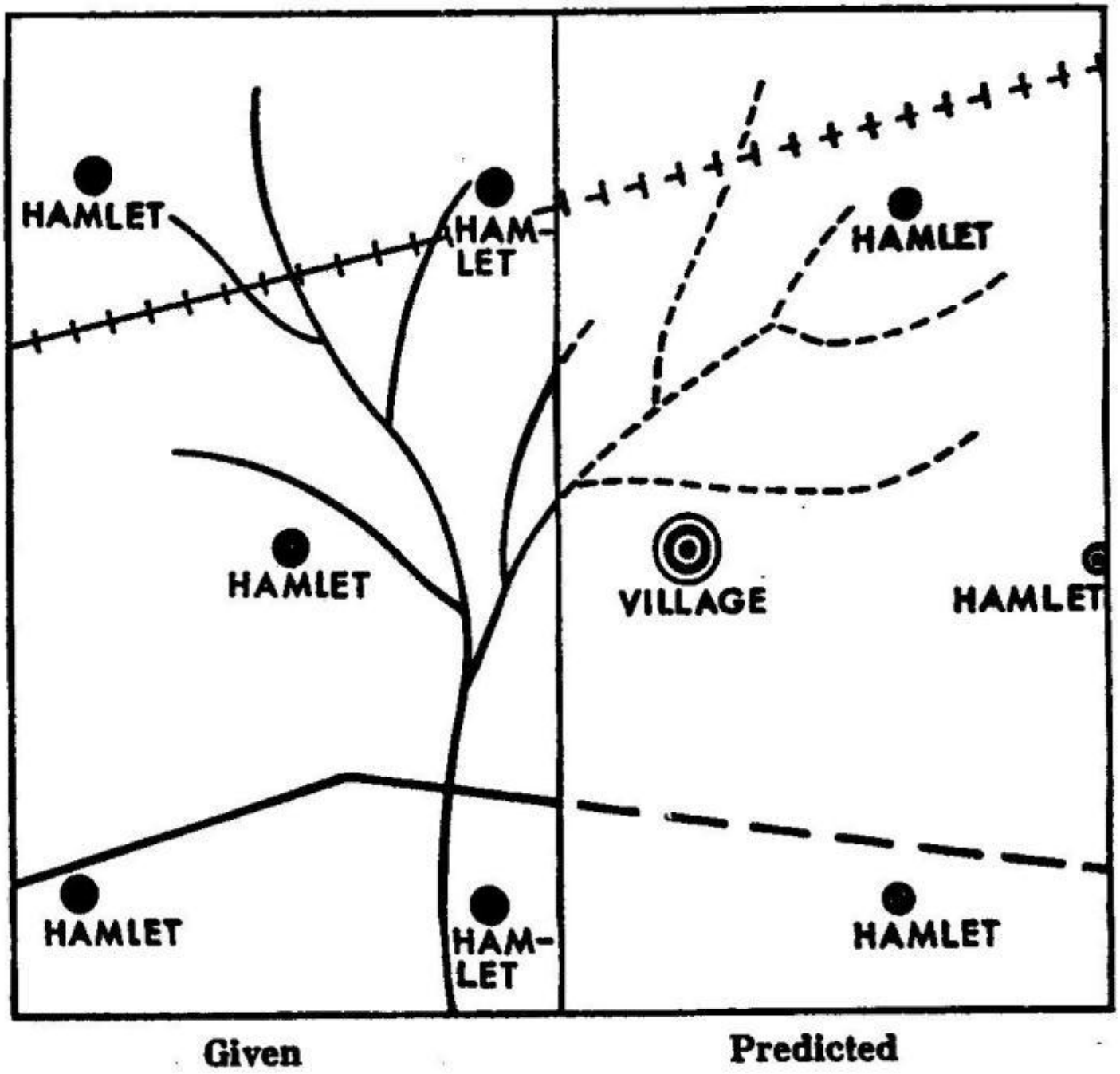

CITY



Central Place Theory

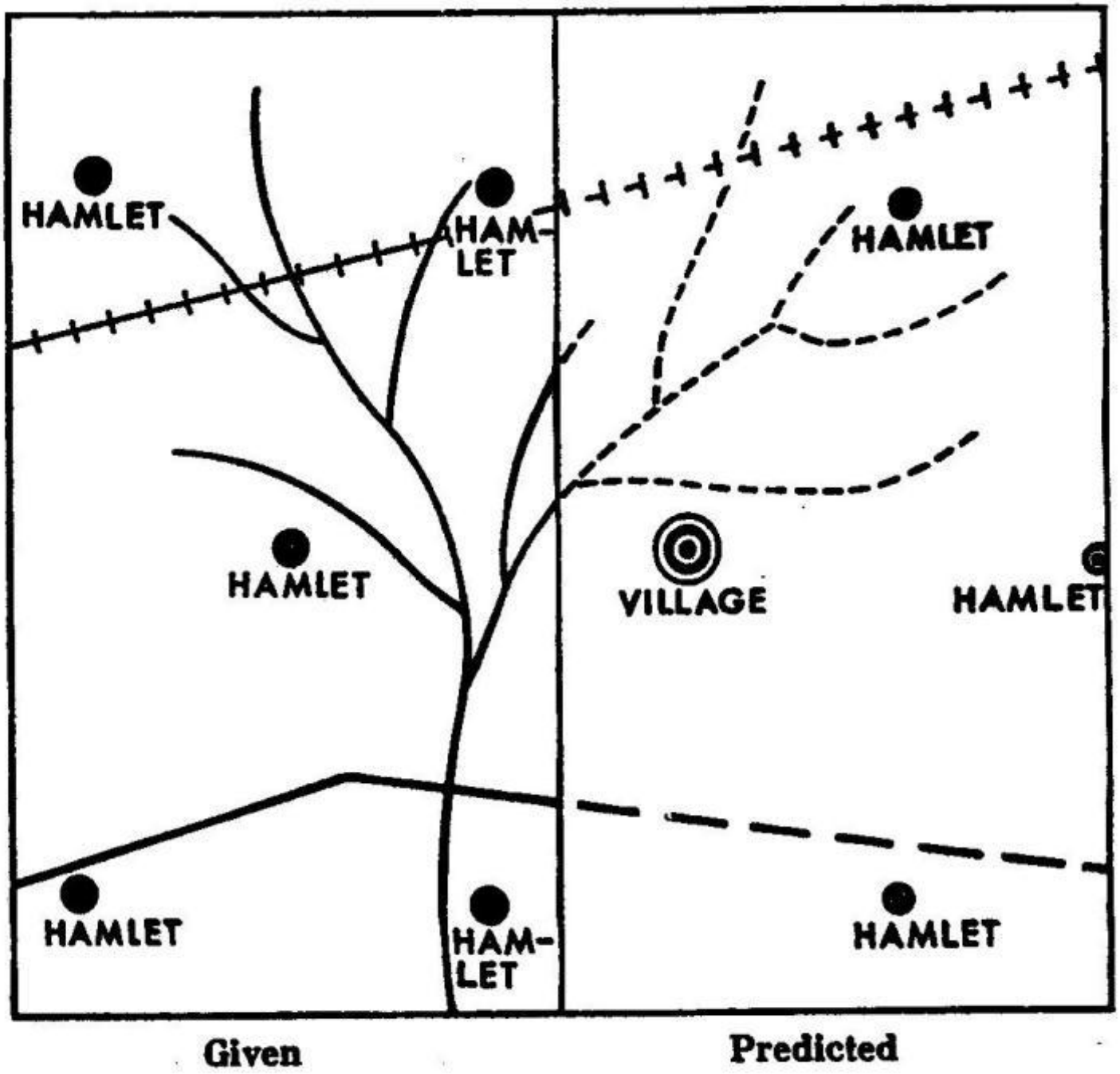


Given


HAMLET
HAM-
LET
HAMLET
HAMLET
VILLAGE
HAMLET
HAMLET
HAM-
LET
HAMLET
Given
Predicted

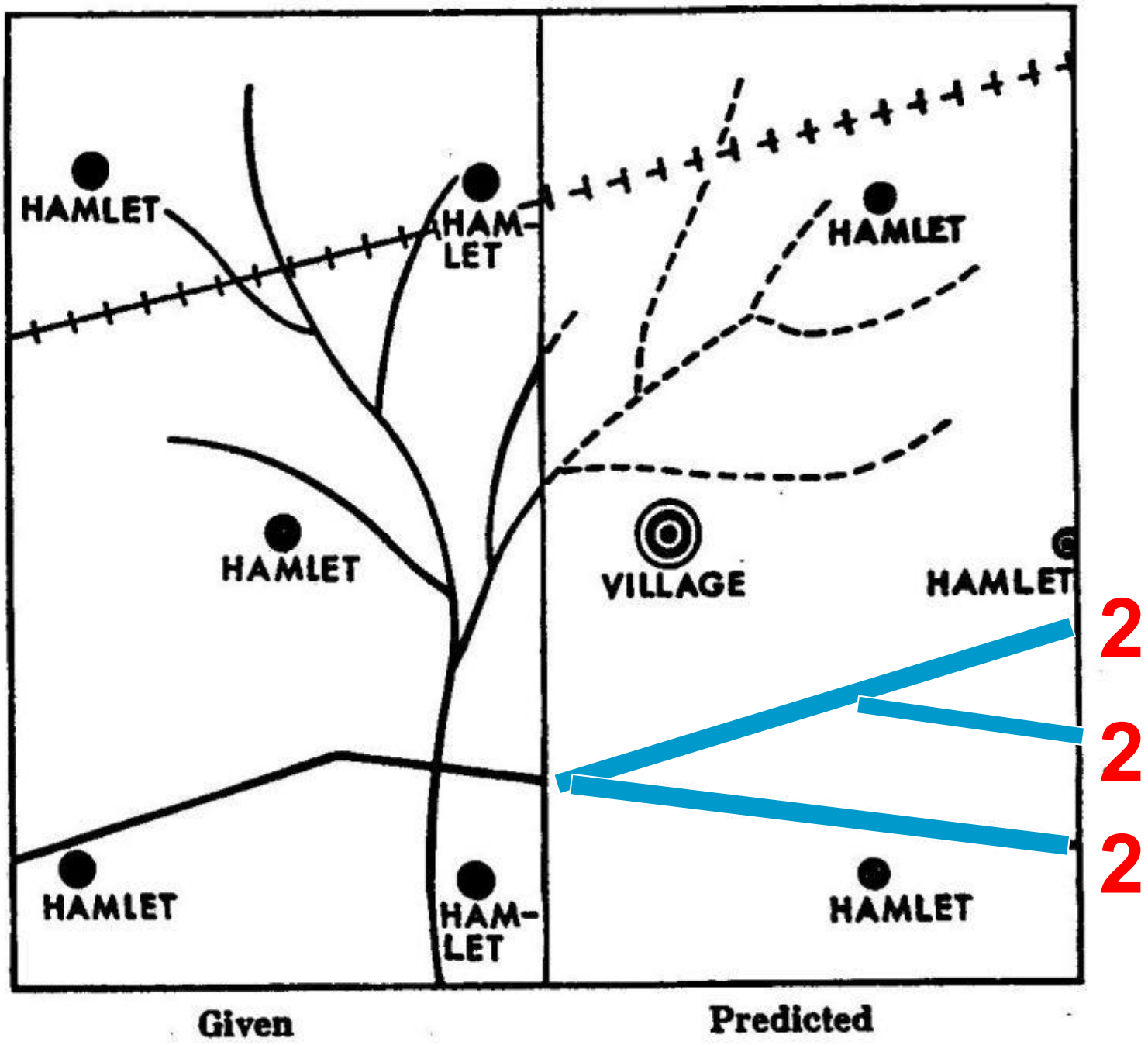
Types of Inferences & Levels of Expertise

1. ***rail line*: relatively simple**


HAMLET
HAM-
LET
HAMLET
HAMLET
VILLAGE
HAMLET
HAMLET
HAM-
LET
HAMLET
Given
Predicted

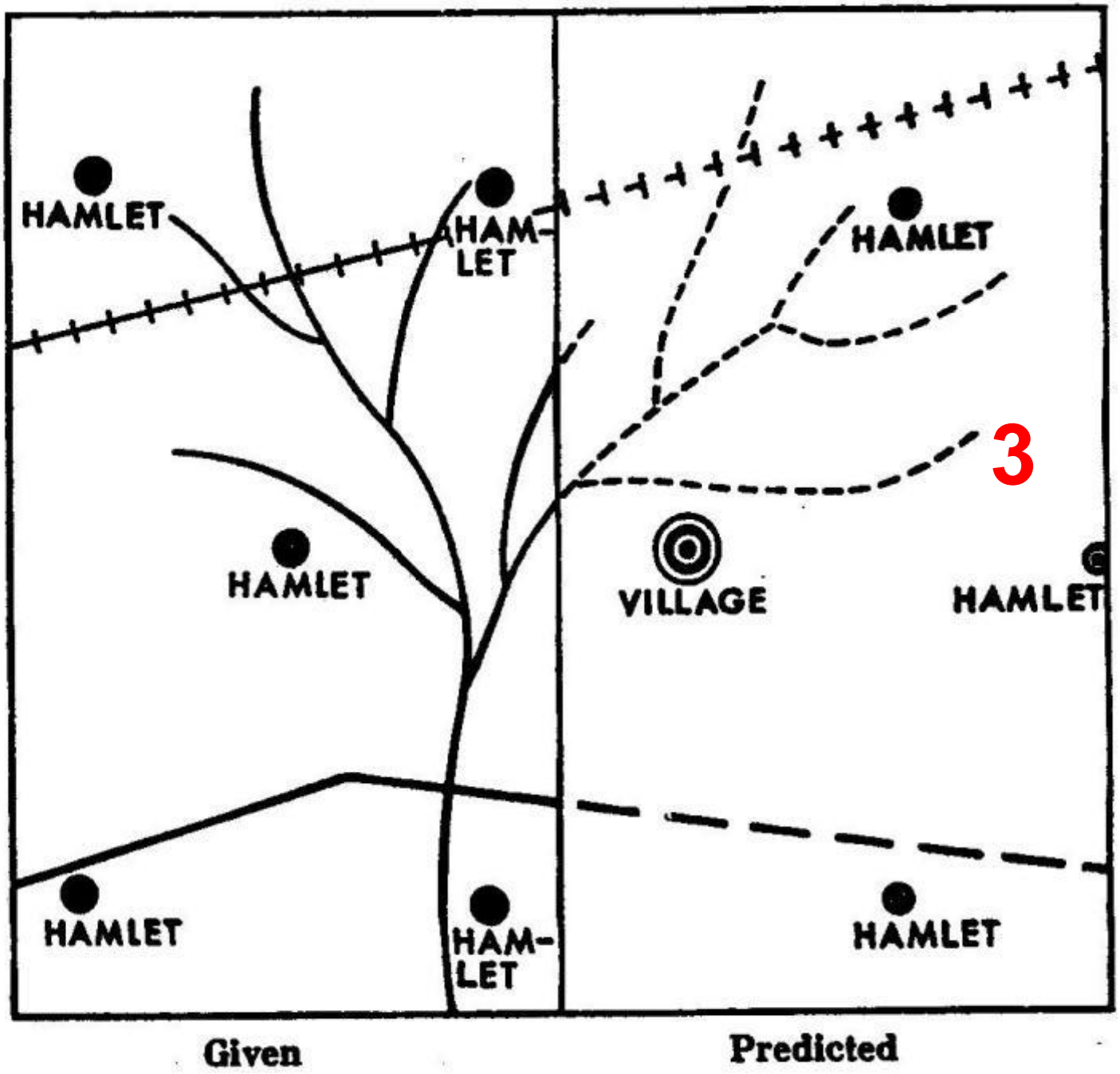
Types of Inferences & Levels of Expertise

1. *rail line*: relatively simple
2. *kink in road*: more challenging because of multiple possibilities


HAMLET
HAM-
LET
HAMLET
HAMLET
VILLAGE
HAMLET
2
2
2
HAMLET
HAM-
LET
HAMLET
Given
Predicted

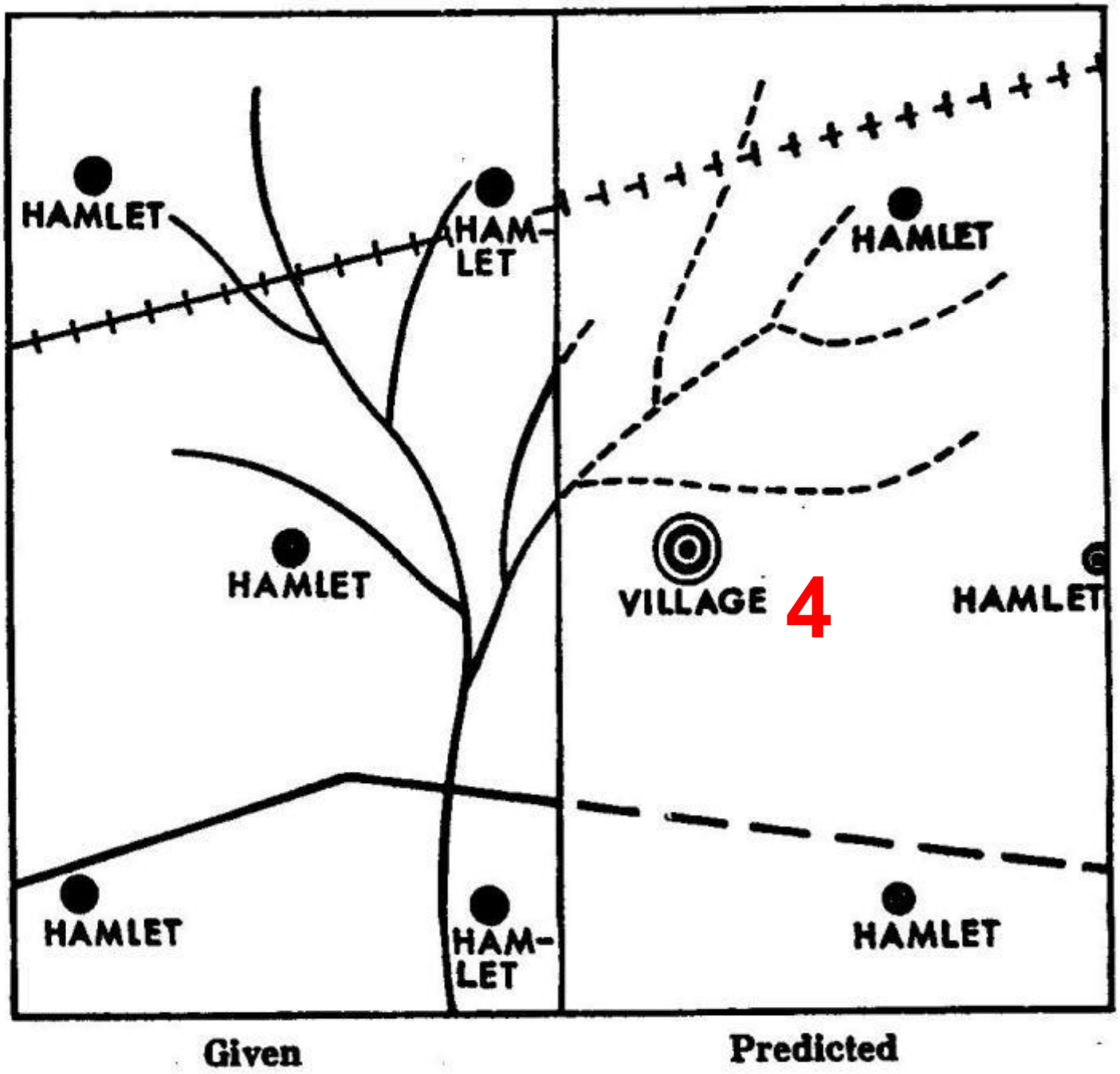
Types of Inferences & Levels of Expertise

1. *rail line*: relatively simple
2. *kink in road*: more challenging because of multiple possibilities
3. *stream system*: stream order & topography; knowledge of theory of fluvial processes


HAMLET
HAM-
LET
HAMLET
HAMLET
HAMLET
HAM-
LET
3
VILLAGE
HAMLET
HAMLET
Given
Predicted

Types of Inferences & Levels of Expertise

1. *rail line*: relatively simple
2. *kink in road*: more challenging because multiple possibilities
3. *stream system*: stream order & topography; knowledge of theory of fluvial processes
4. *villages*: lattices; knowledge of central place theory


HAMLET
HAM-
LET
HAMLET
HAMLET
HAM-
LET
HAMLET
VILLAGE
4
HAMLET
HAMLET
Given
Predicted