

Cartographic map design

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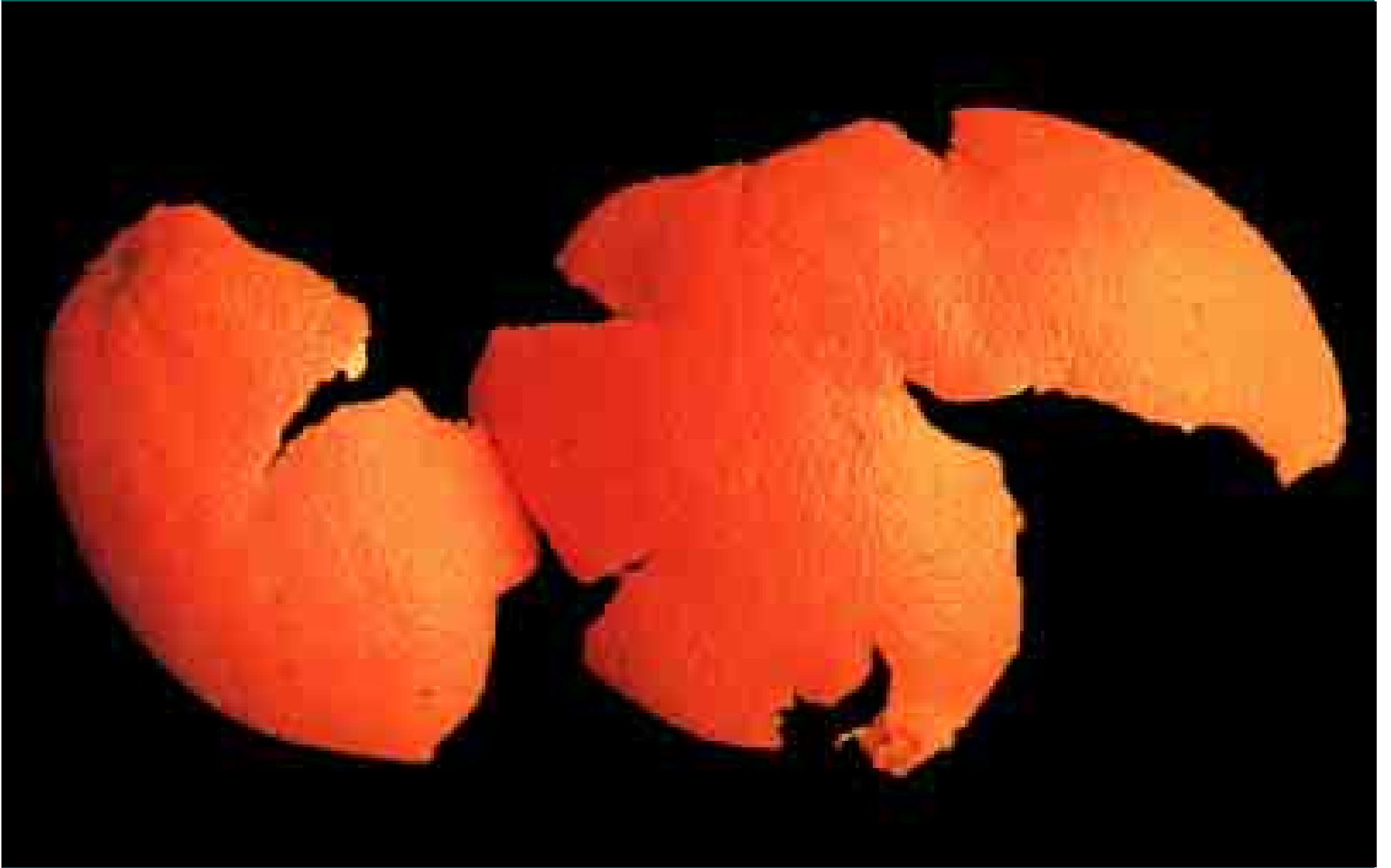


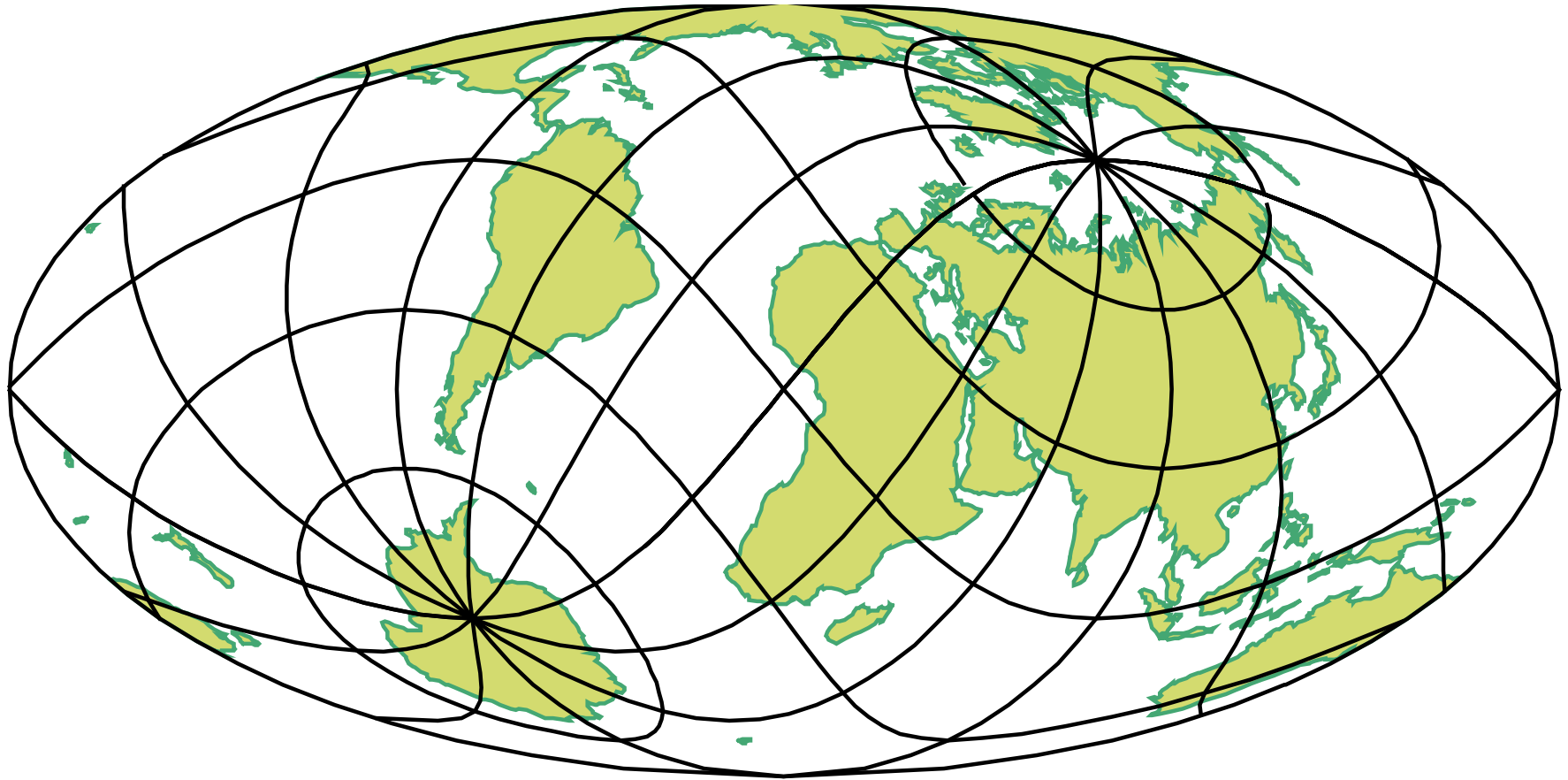
Plato's cave allegory („Höhlengleichnis“)

The „real world“



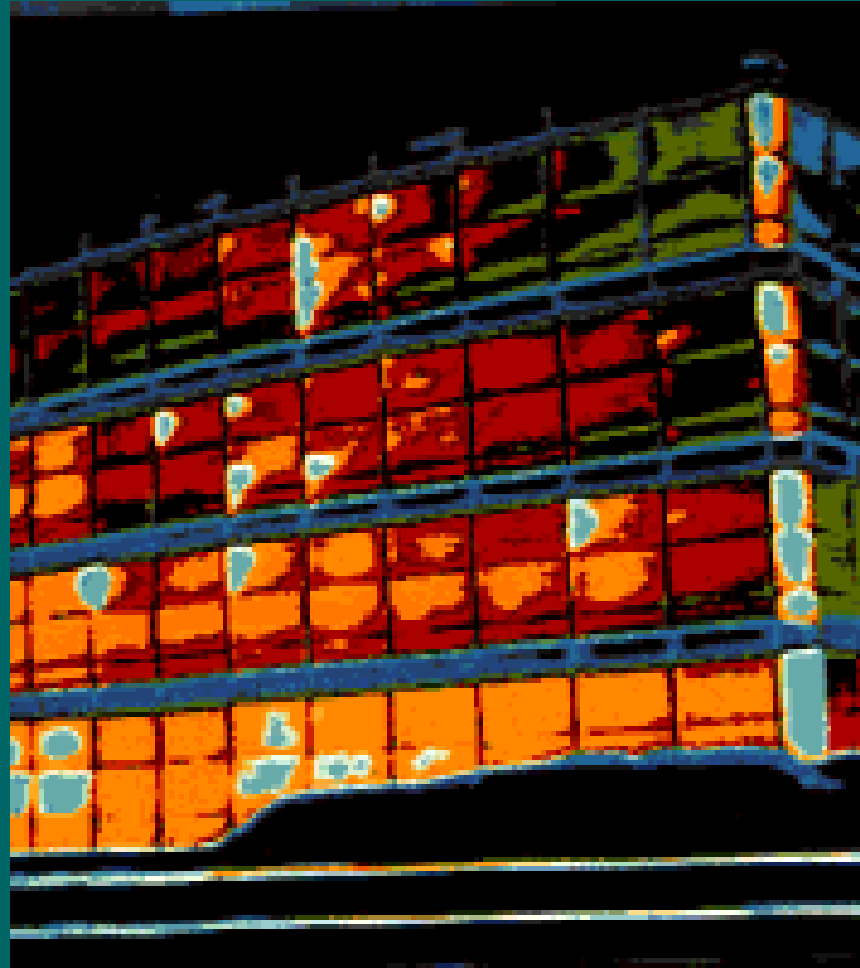






The real world?

The real world?



The real world?



What is a map?

- A map is a symbolised image of geographical reality, representing selected features or characteristics, resulting from the creative effort of its author's execution of choices, and is designed for use when spatial relationships are of primary relevance.
- Cartography is the discipline dealing with the conception, production, dissemination and study of maps.

(ICA 1995)

«Die Unterschiede zwischen Information, Meinung und Wissen – vor allem in den Massenmedien – werden immer blasser. Die modernen Informationstechnologien wie das Internet bieten zwar eine fast vollständige Enzyklopädie an, doch diese Fülle unbearbeiteter Informationen ist noch keineswegs Wissen. Es fehlt die Selektion und die Aufbereitung aufgrund kompetenter Sachkenntnis, die das Wissen kennzeichnen und das Begreifen erst ermöglichen.»

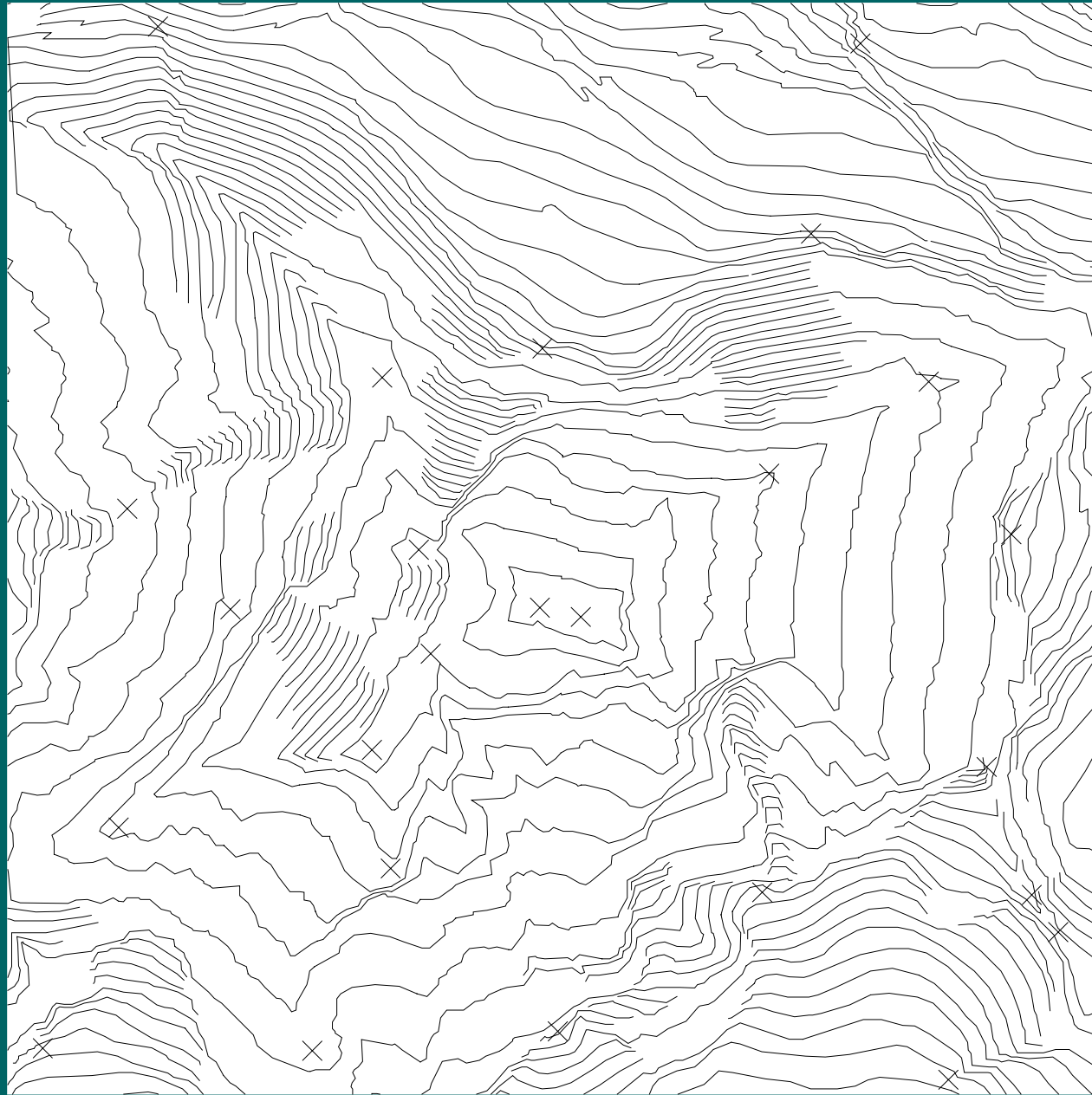
J. Mittelstrass, Universität Konstanz

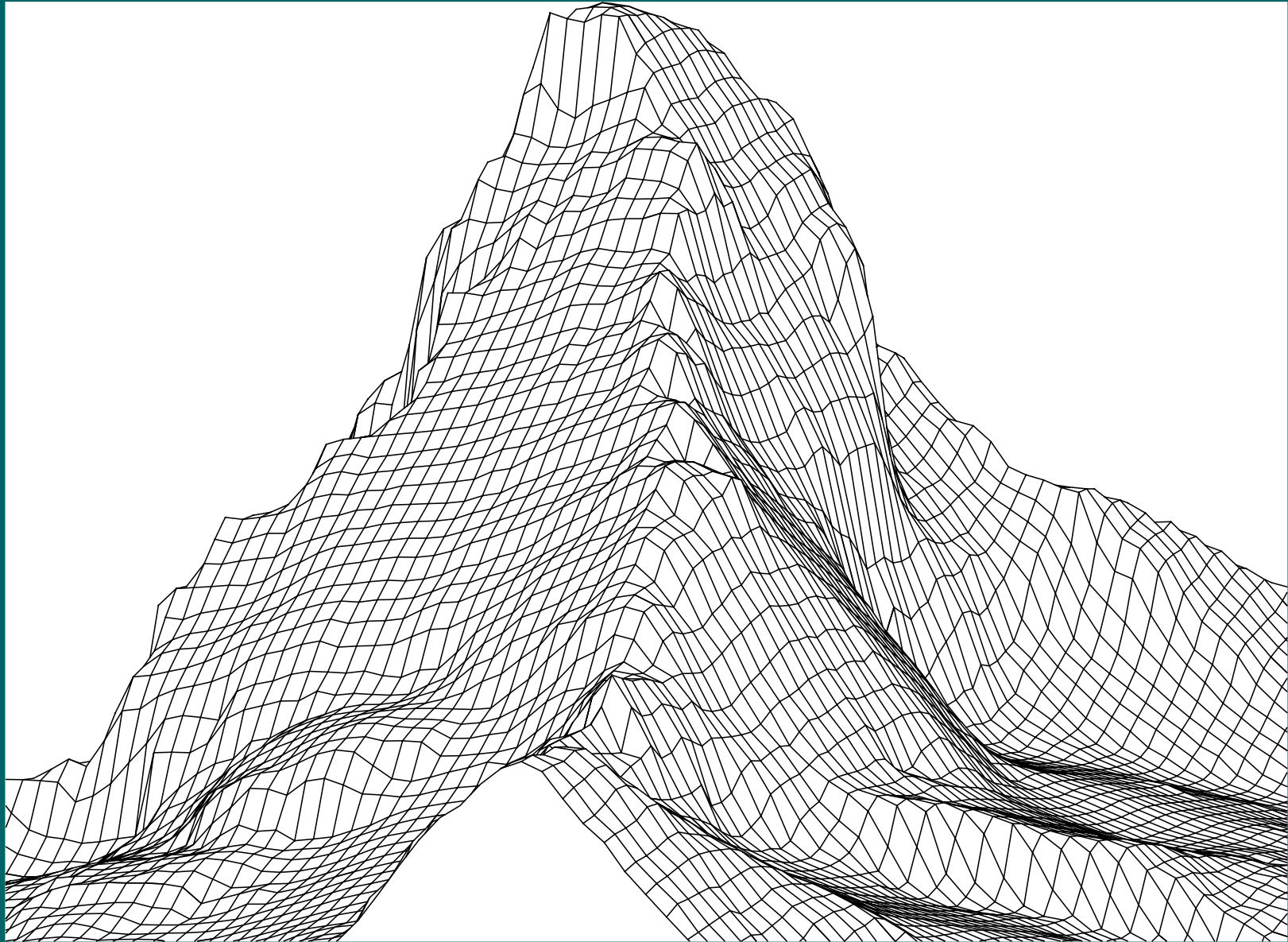
«The differences between information, opinion and knowledge are becoming less and less clear, especially with mass media. Though modern information technologies like Internet offer an almost complete encyclopaedia, this wealth of unprocessed information can by no means be considered knowledge. The selection and processing based on thematic competence which characterise knowledge and which enable understanding are missing.»

J. Mittelstrass, University of Constance

What is the purpose of the map?

- Map types
- Examples of mountain maps





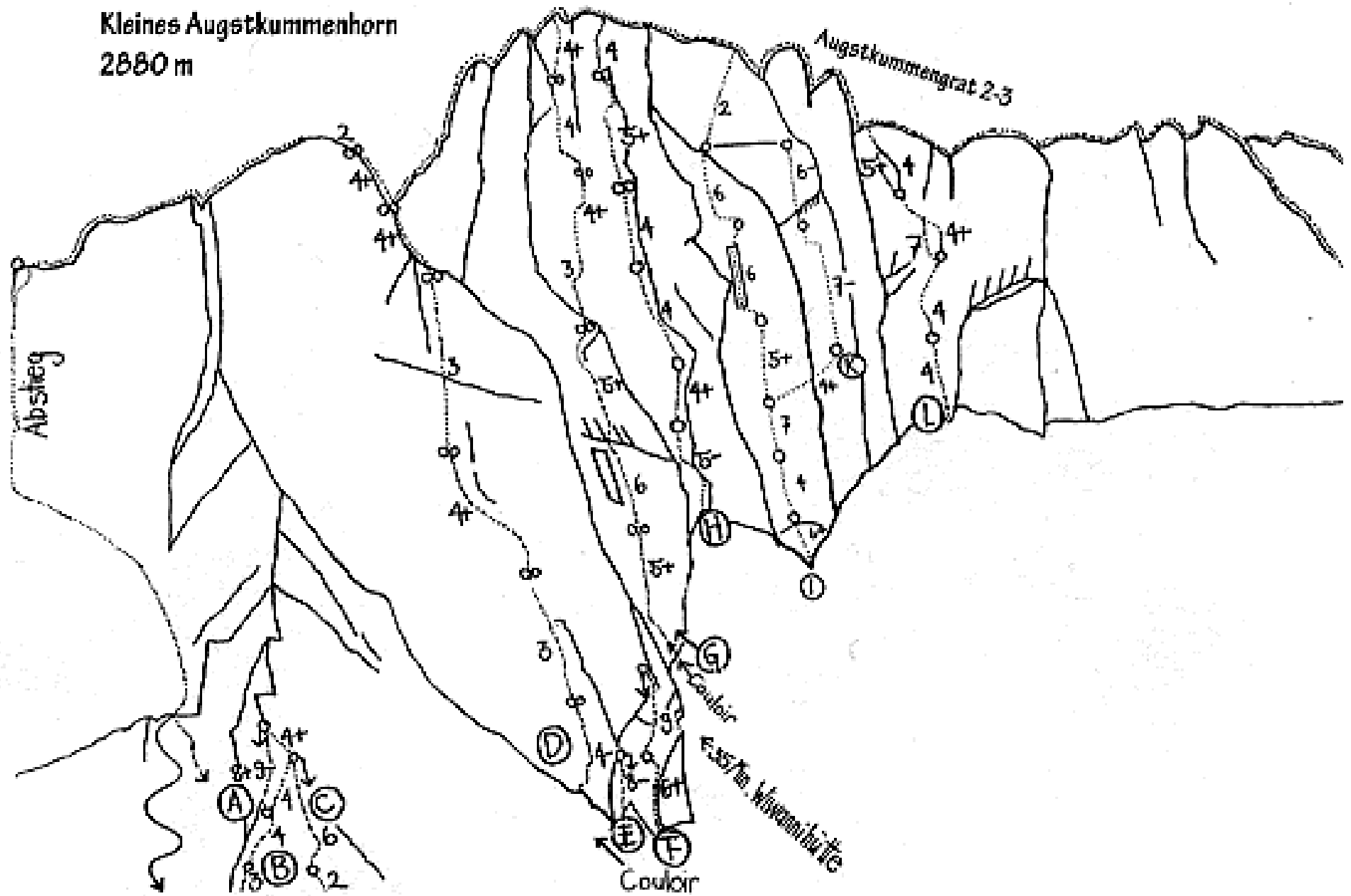


Landeskarte 1:25'000 Blatt 1347 Matterhorn

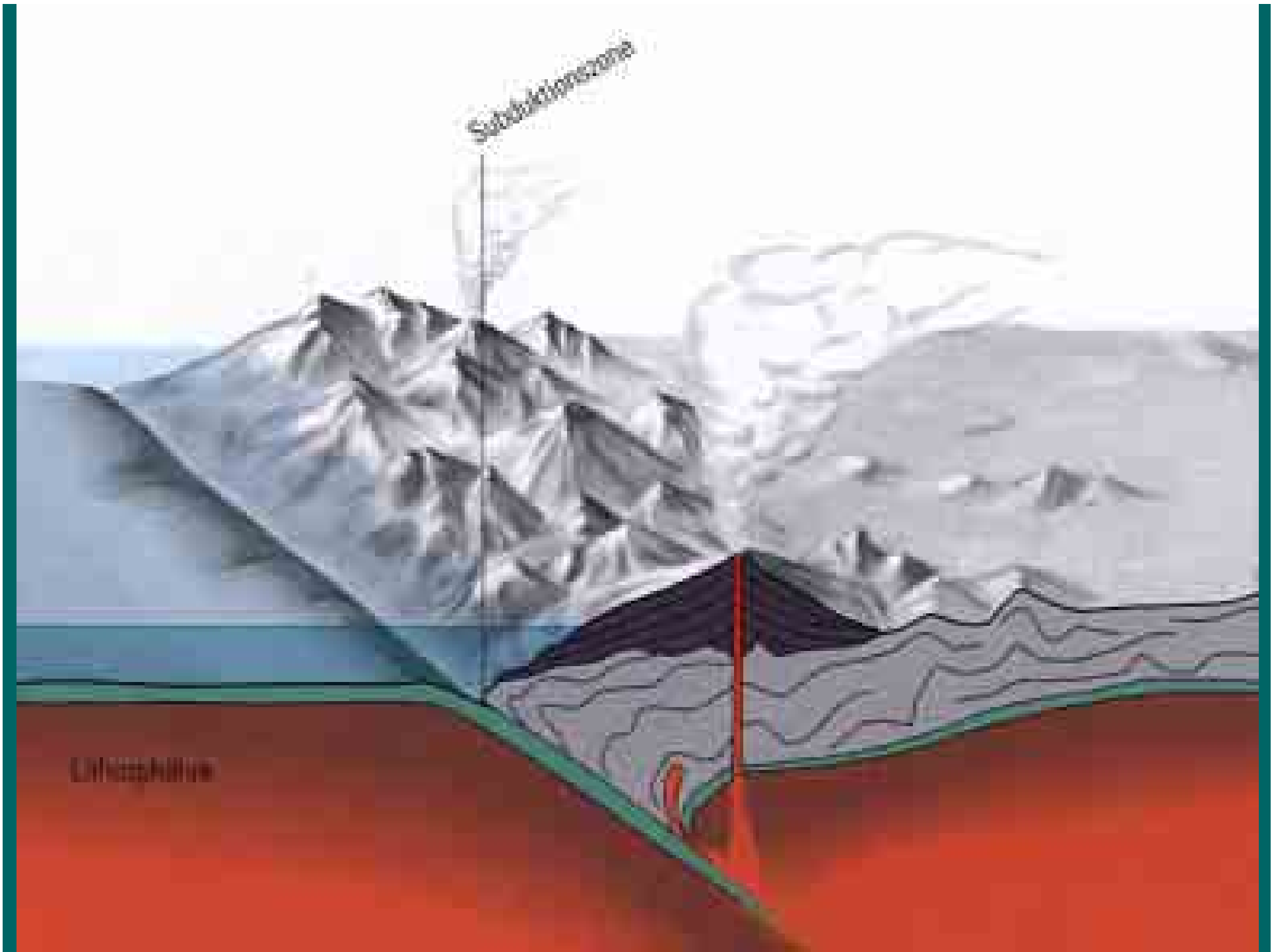


Grosses Augstkummenhorn 2924 m.

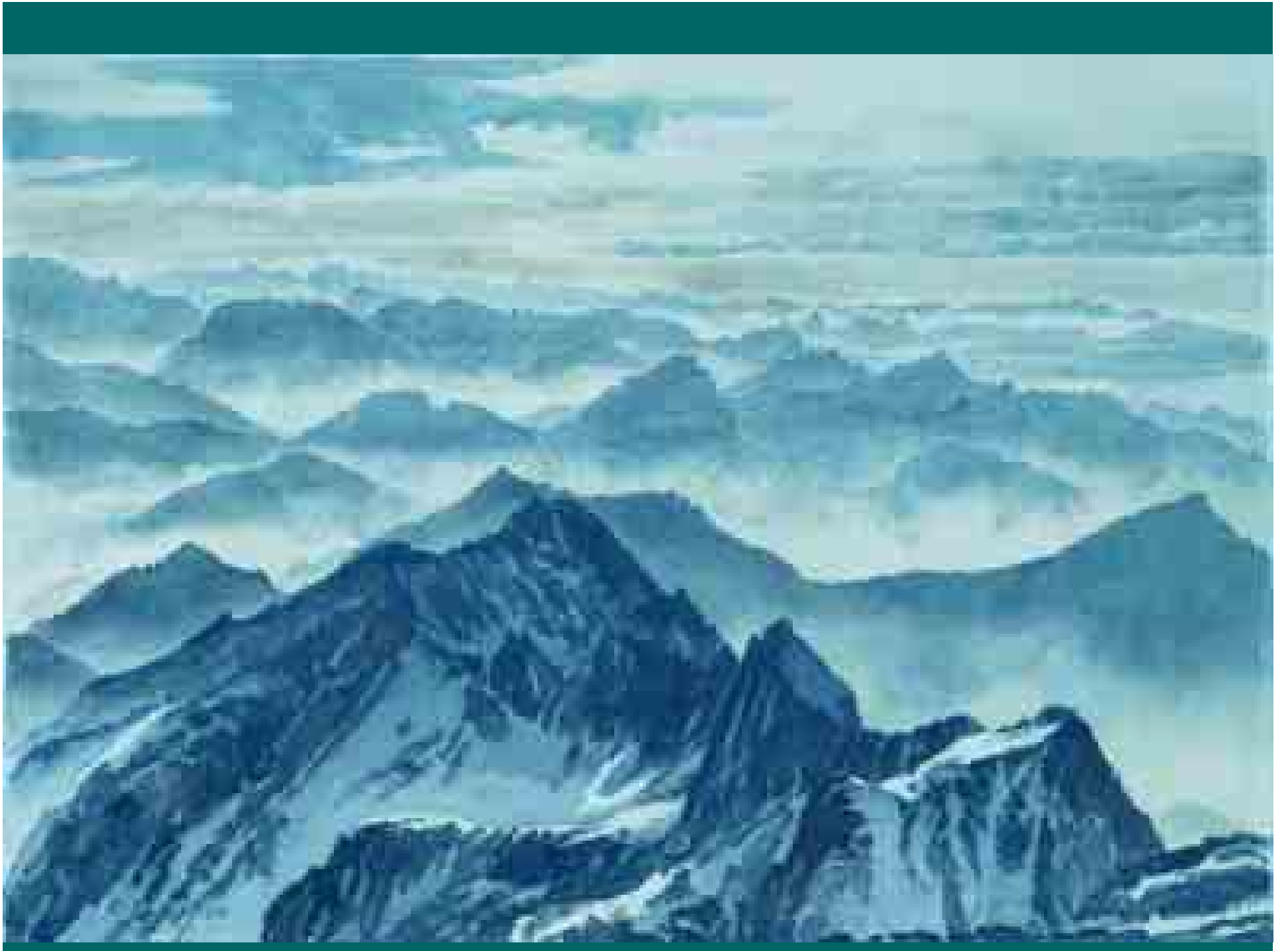
Kleines Augstkummenhorn
2880 m











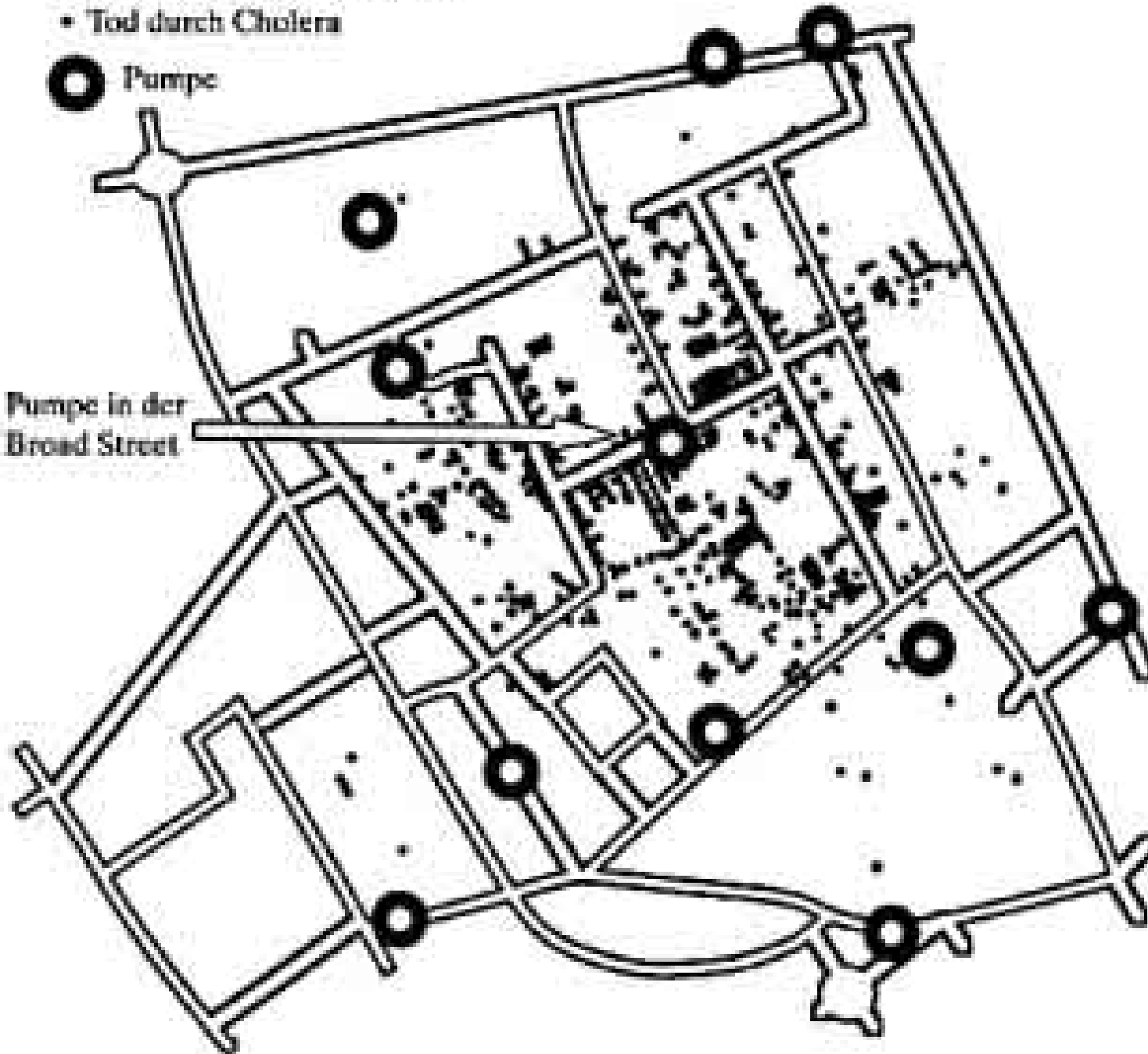


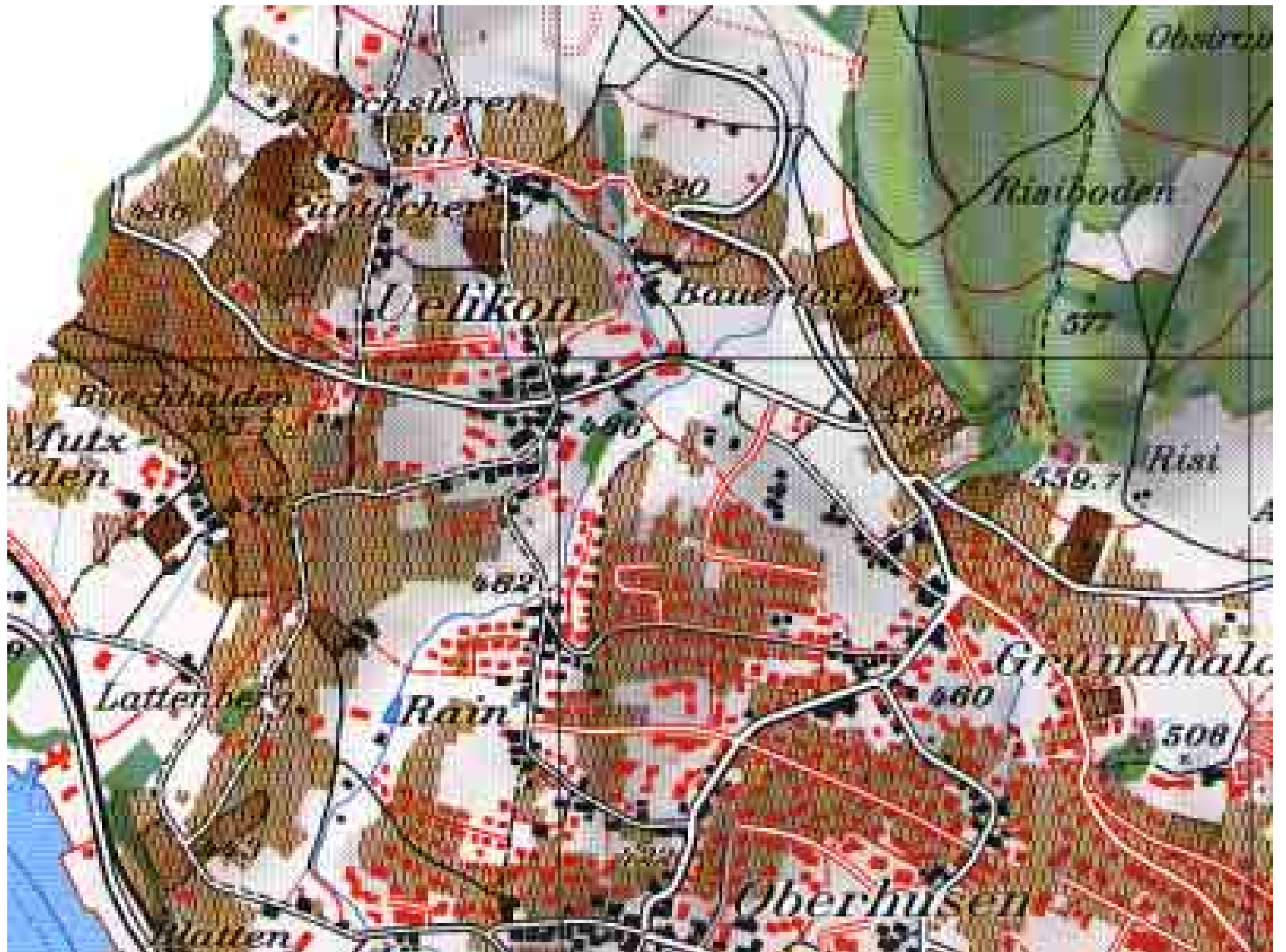
Snows Punktekarte

• Tod durch Cholera

○ Pumpe

Pumpe in der
Broad Street

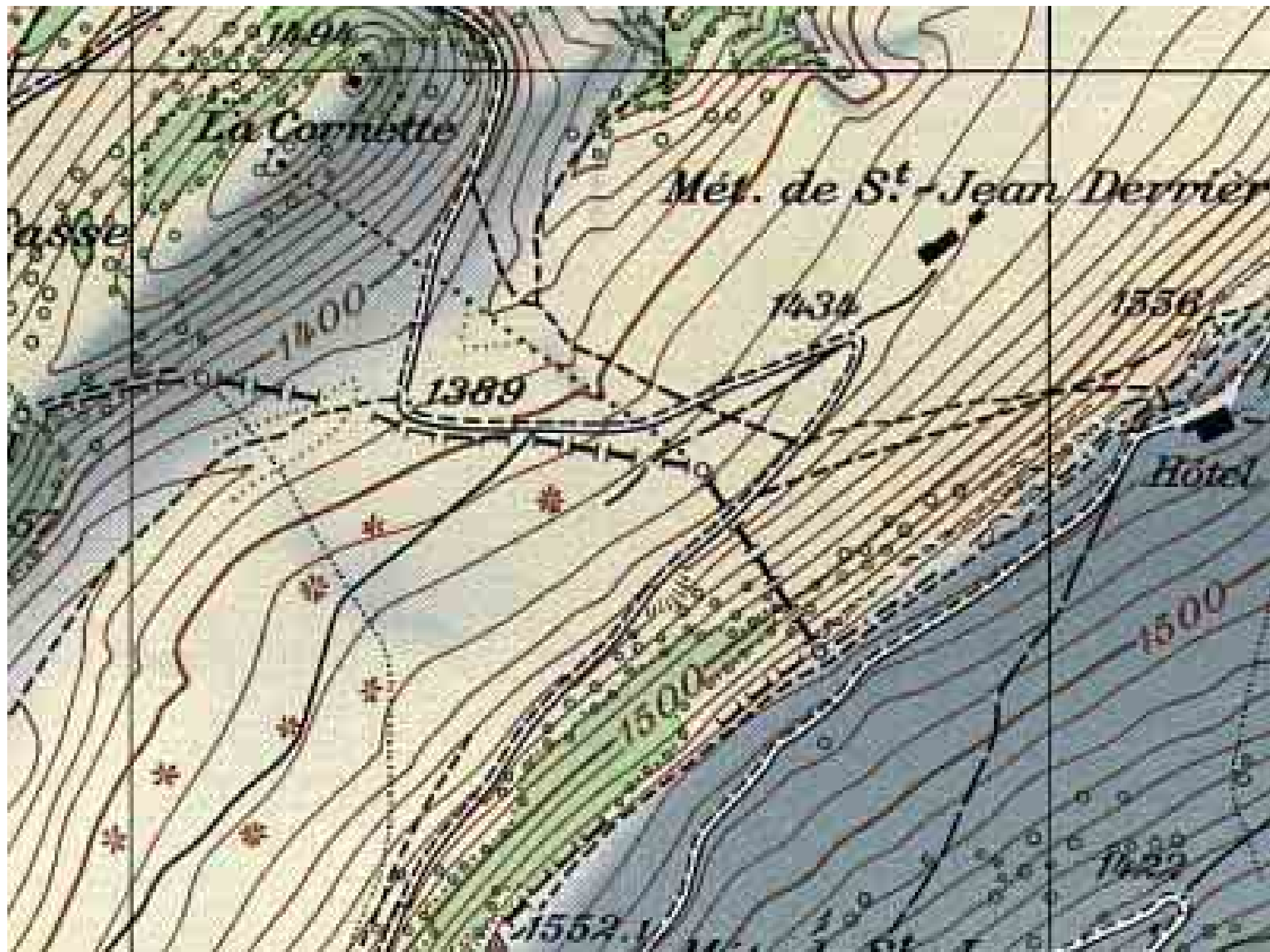




Map design

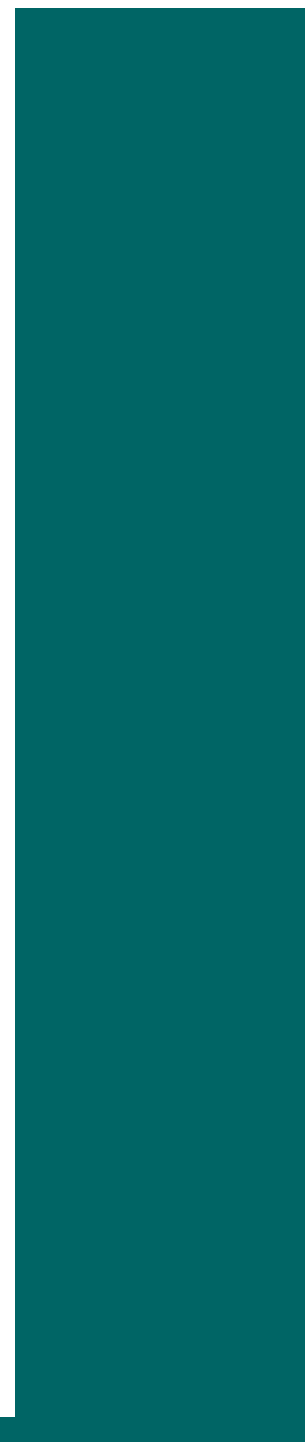
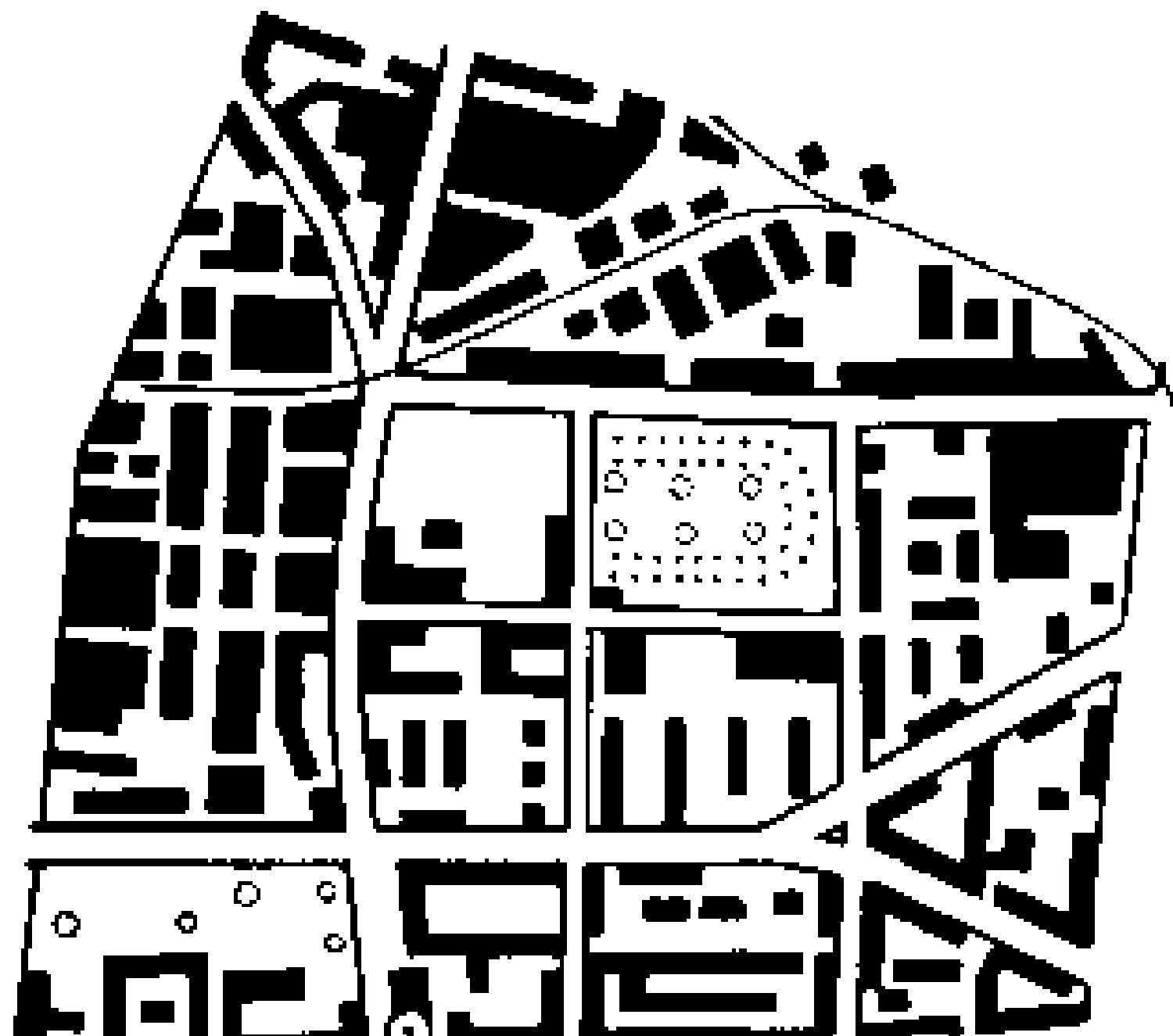
- Generalisation
- Symbolisation



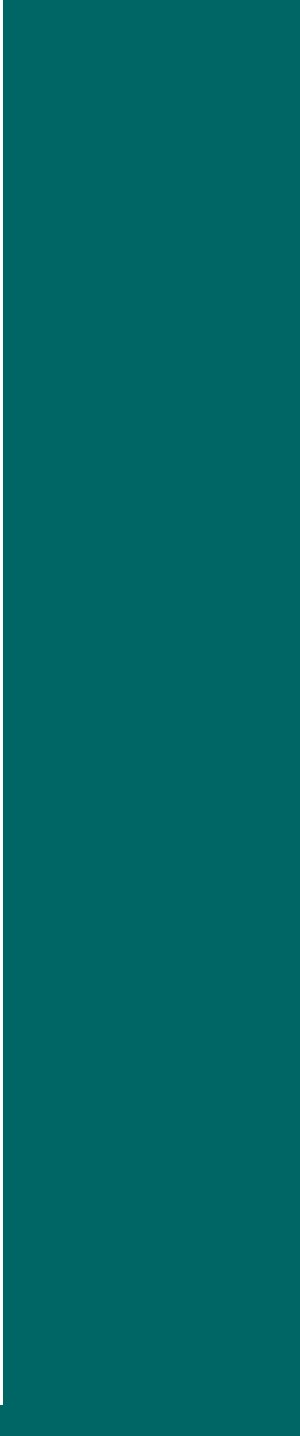
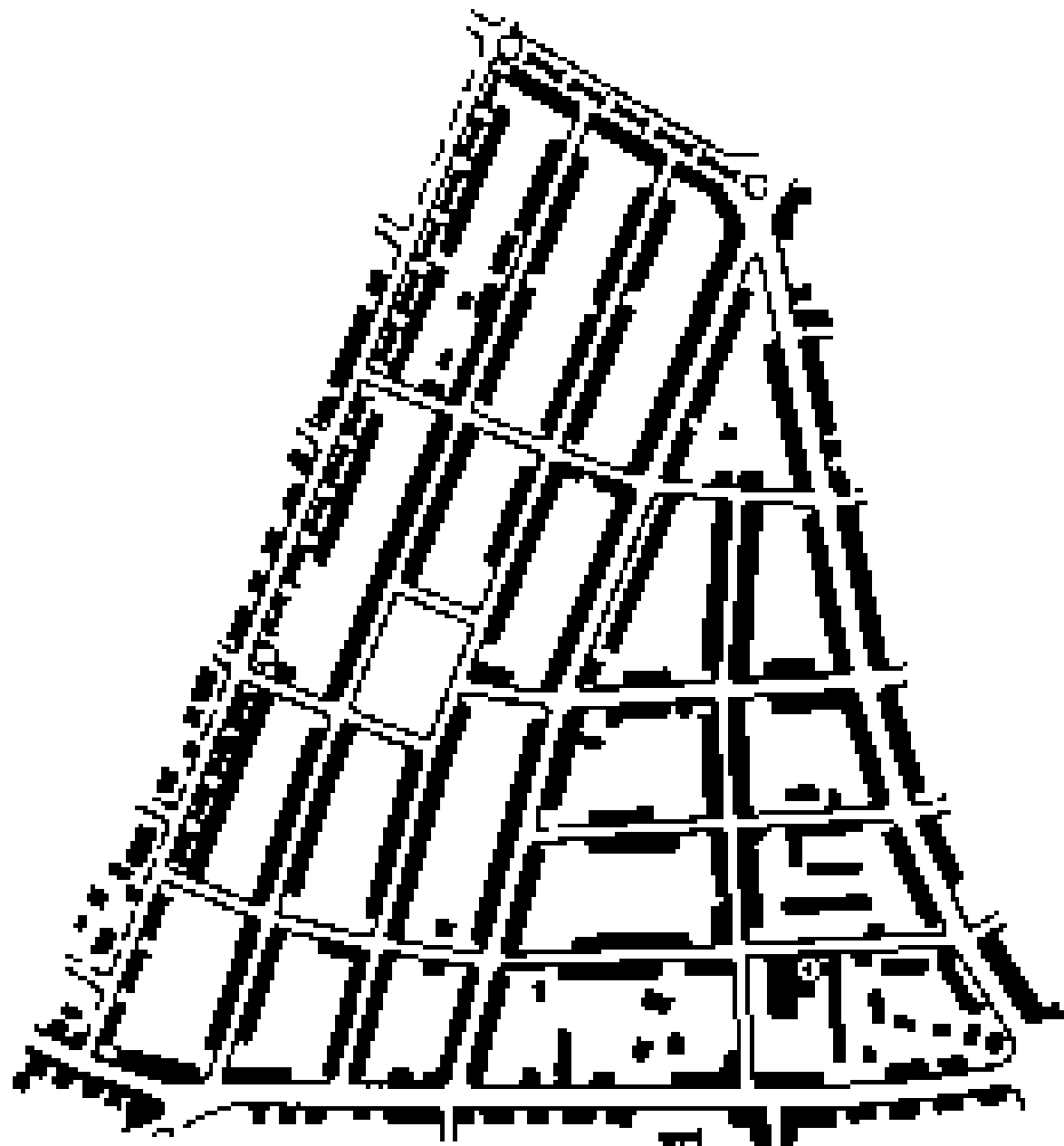


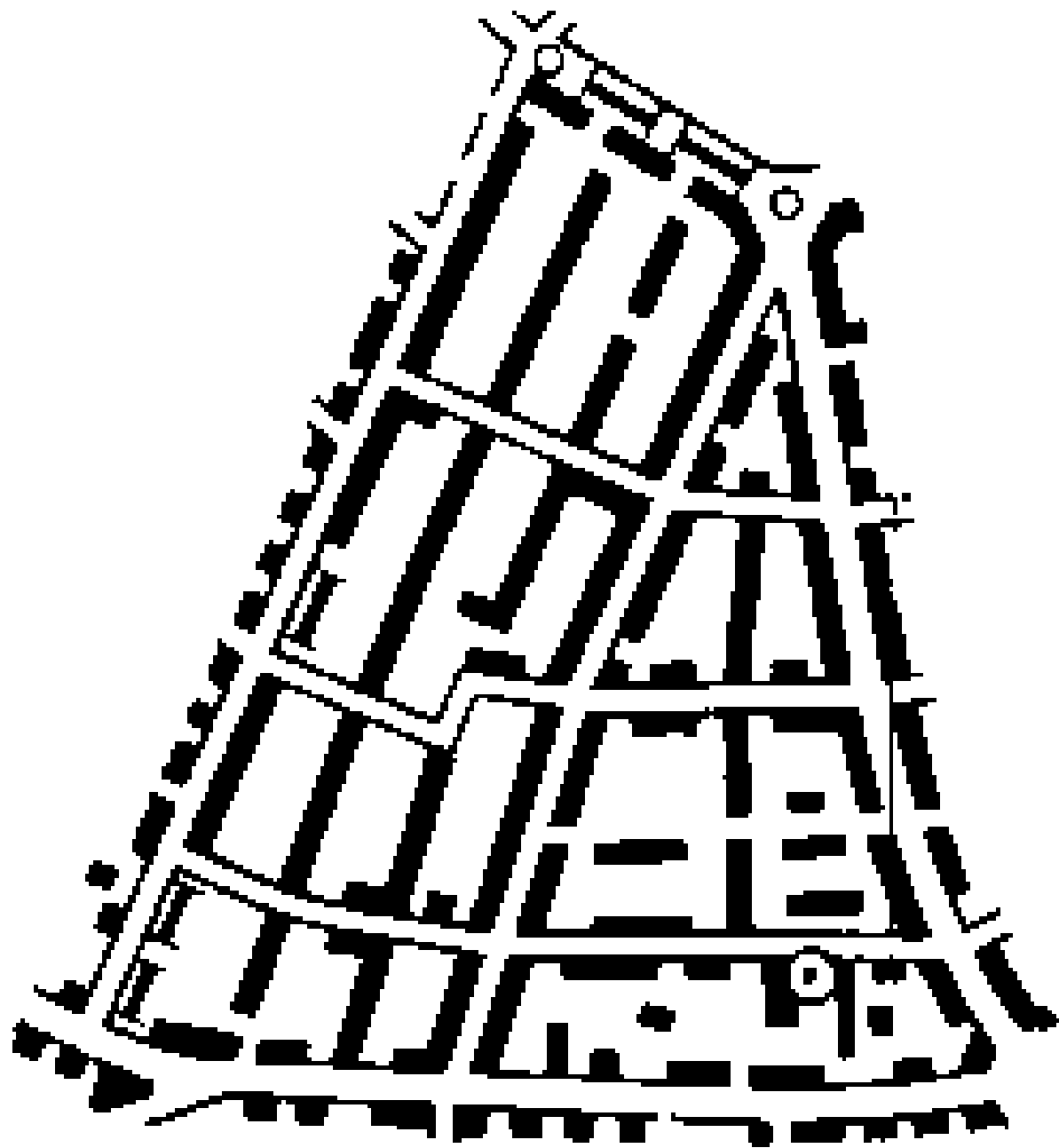
Map design and generalisation



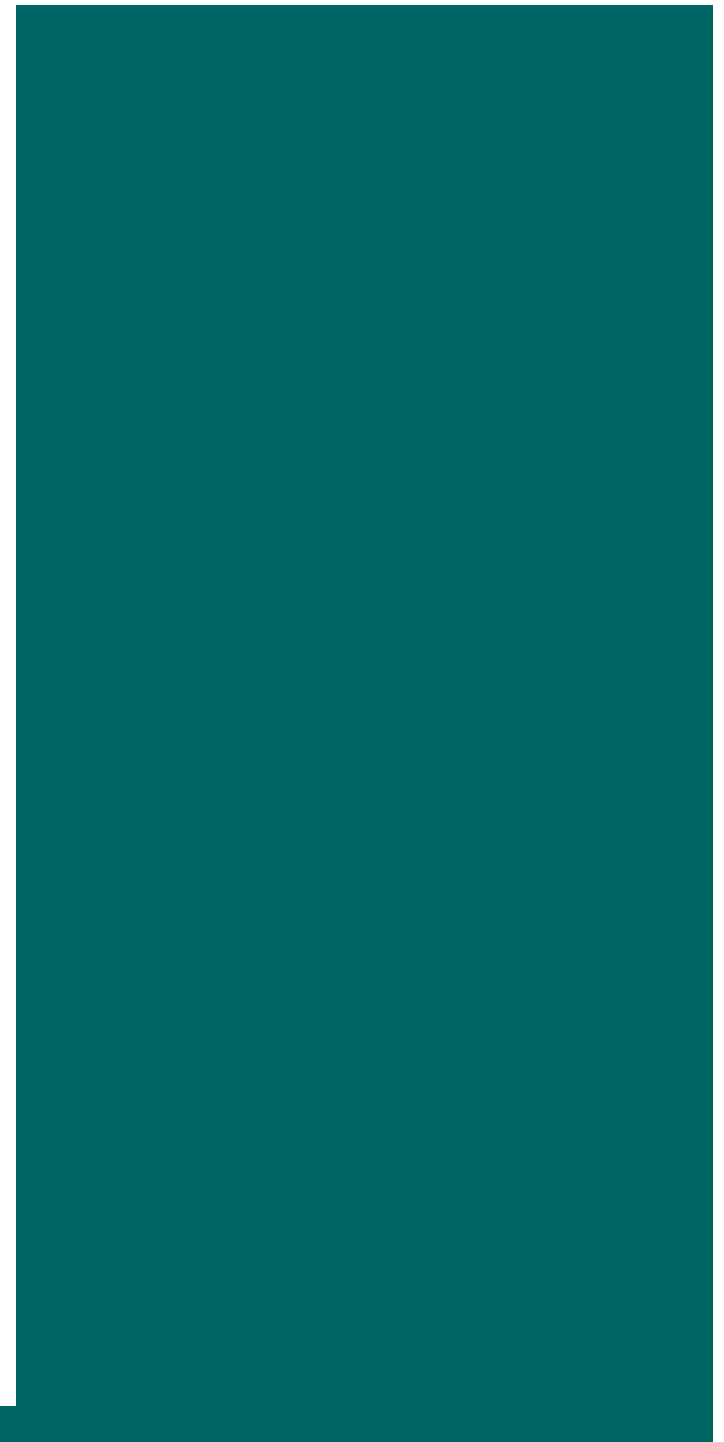
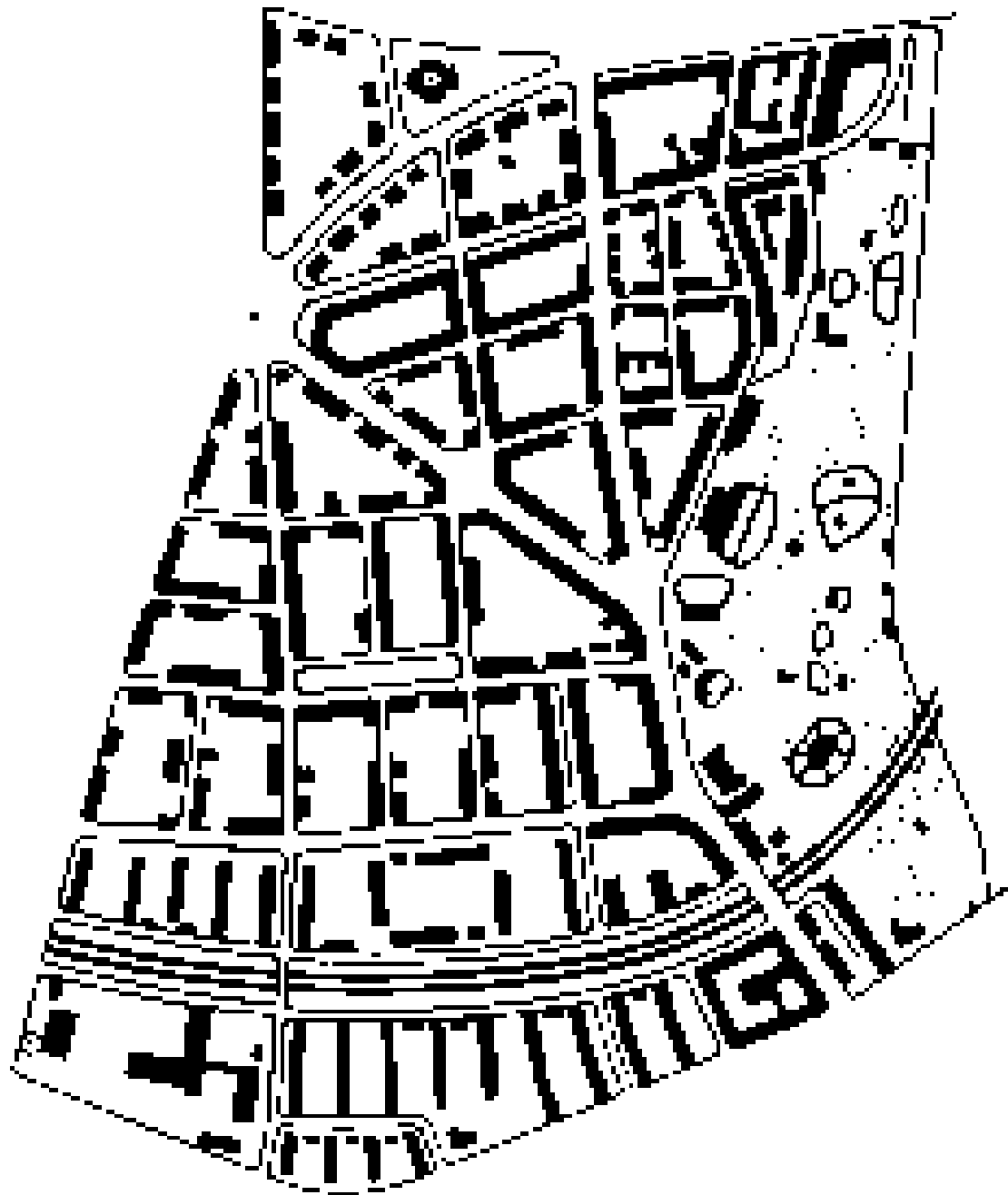


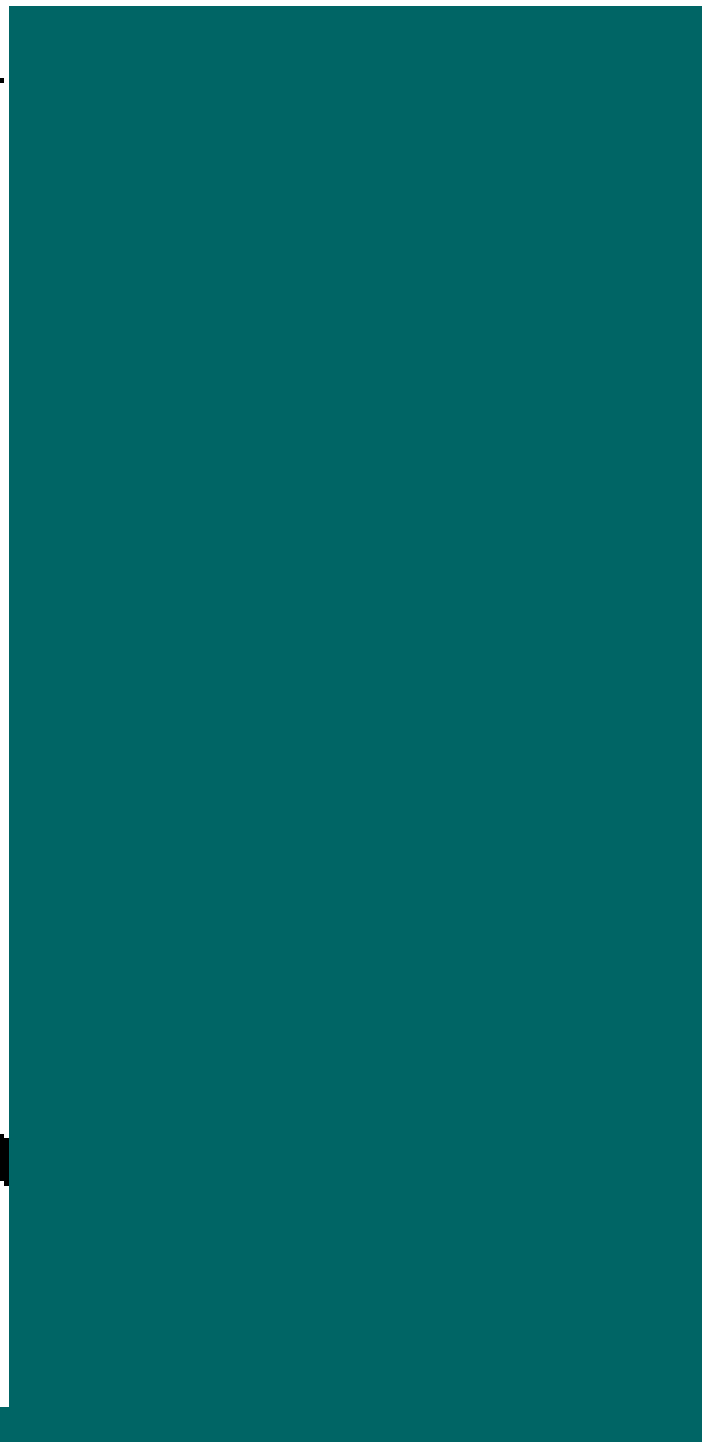
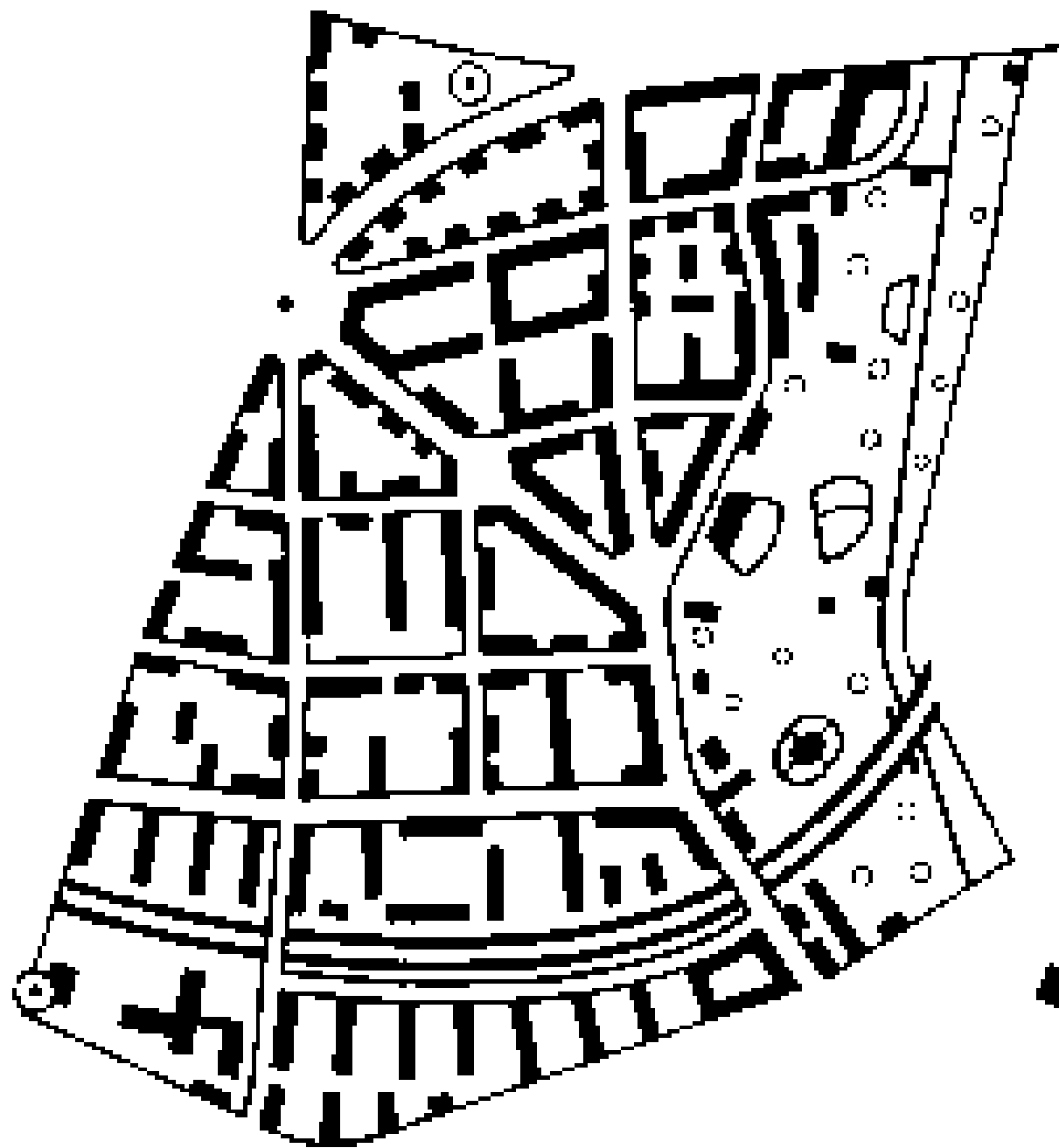


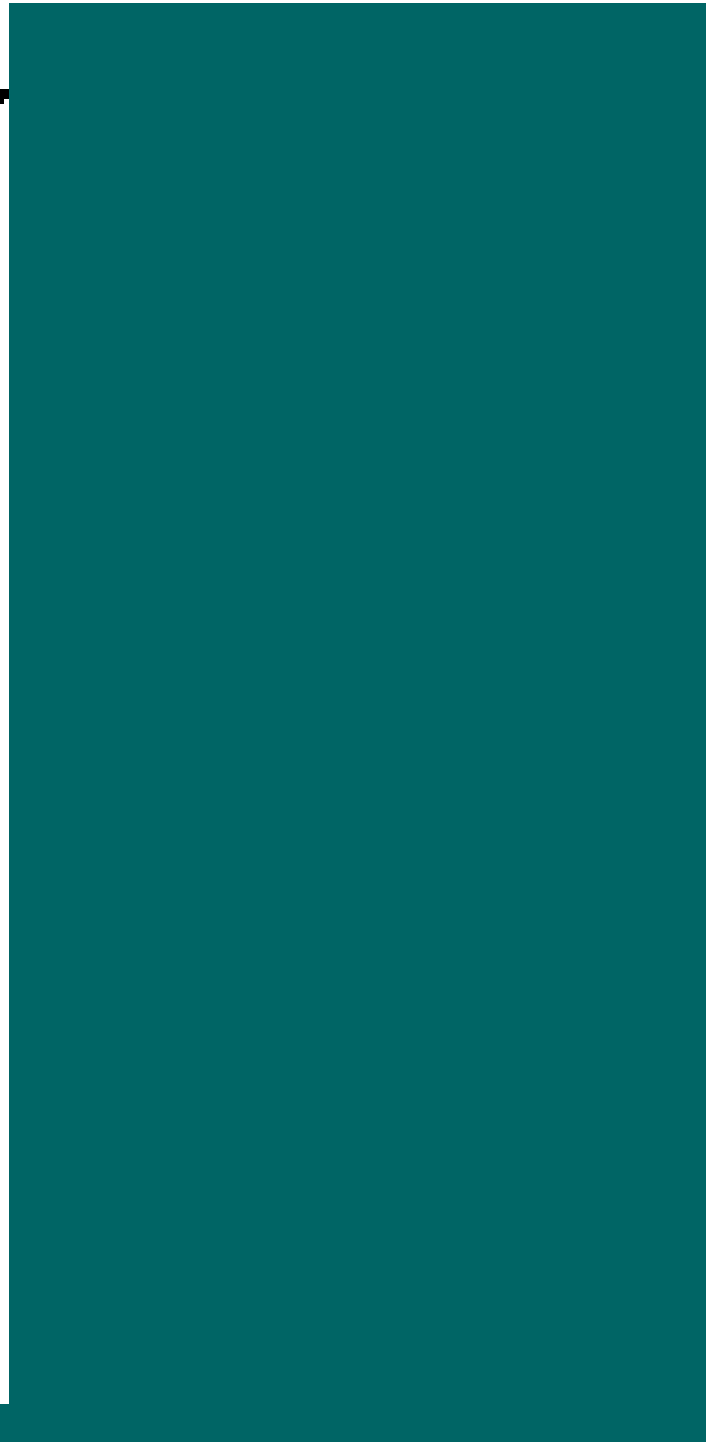
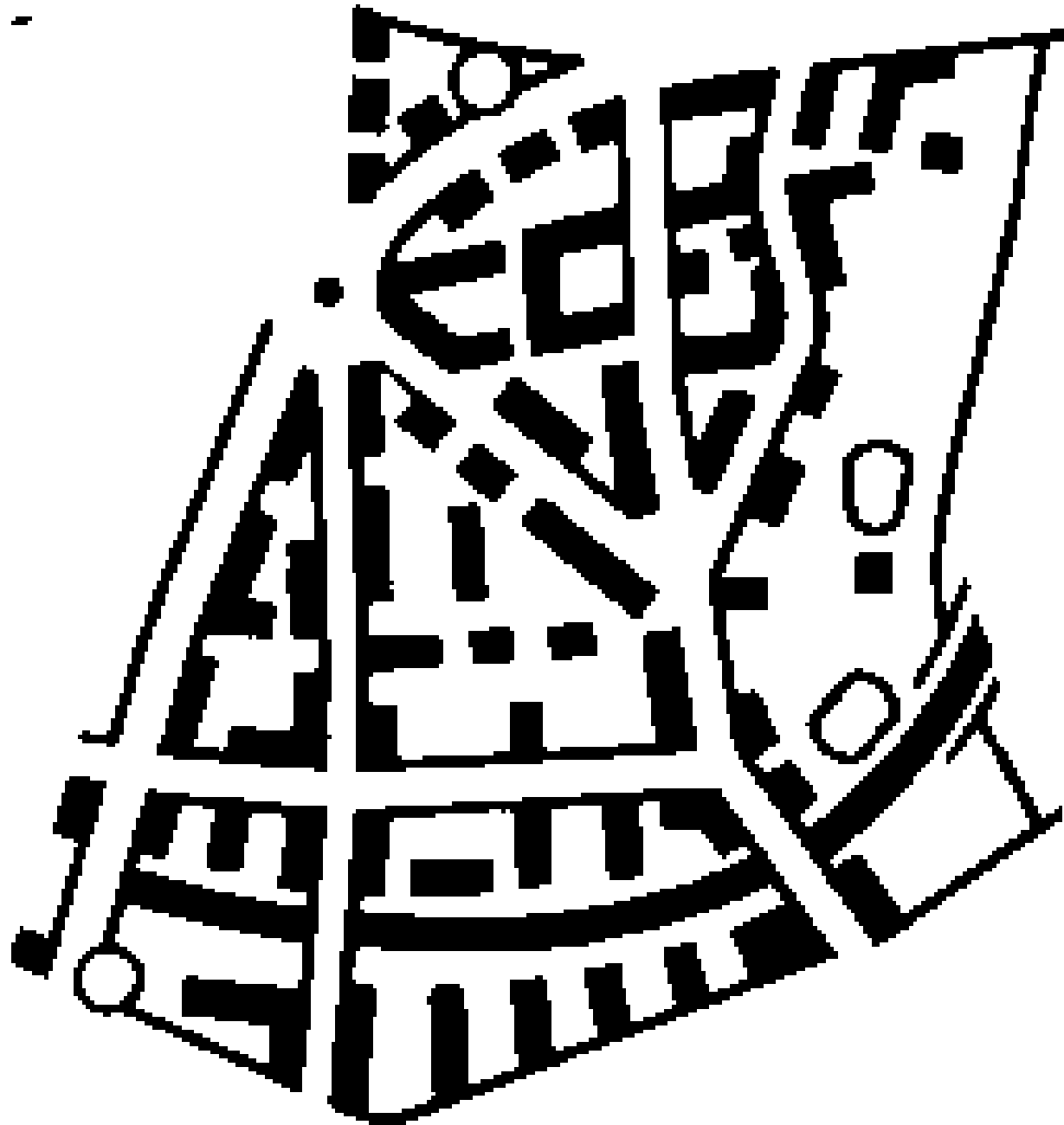






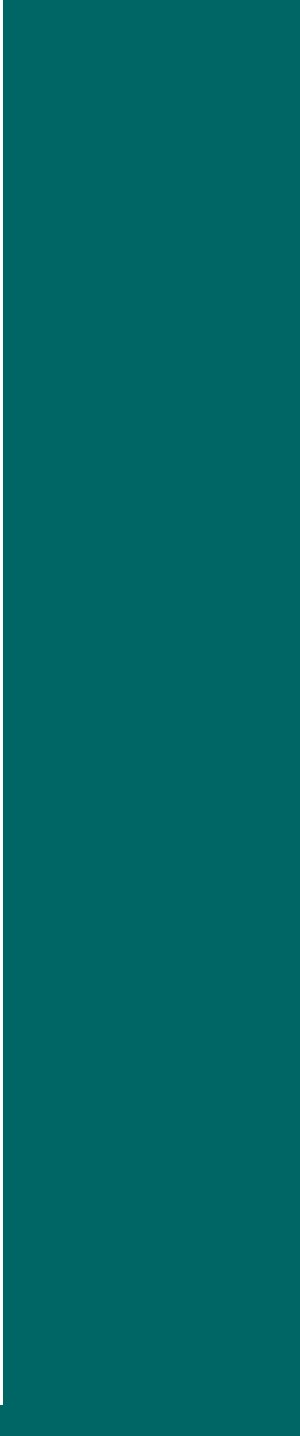


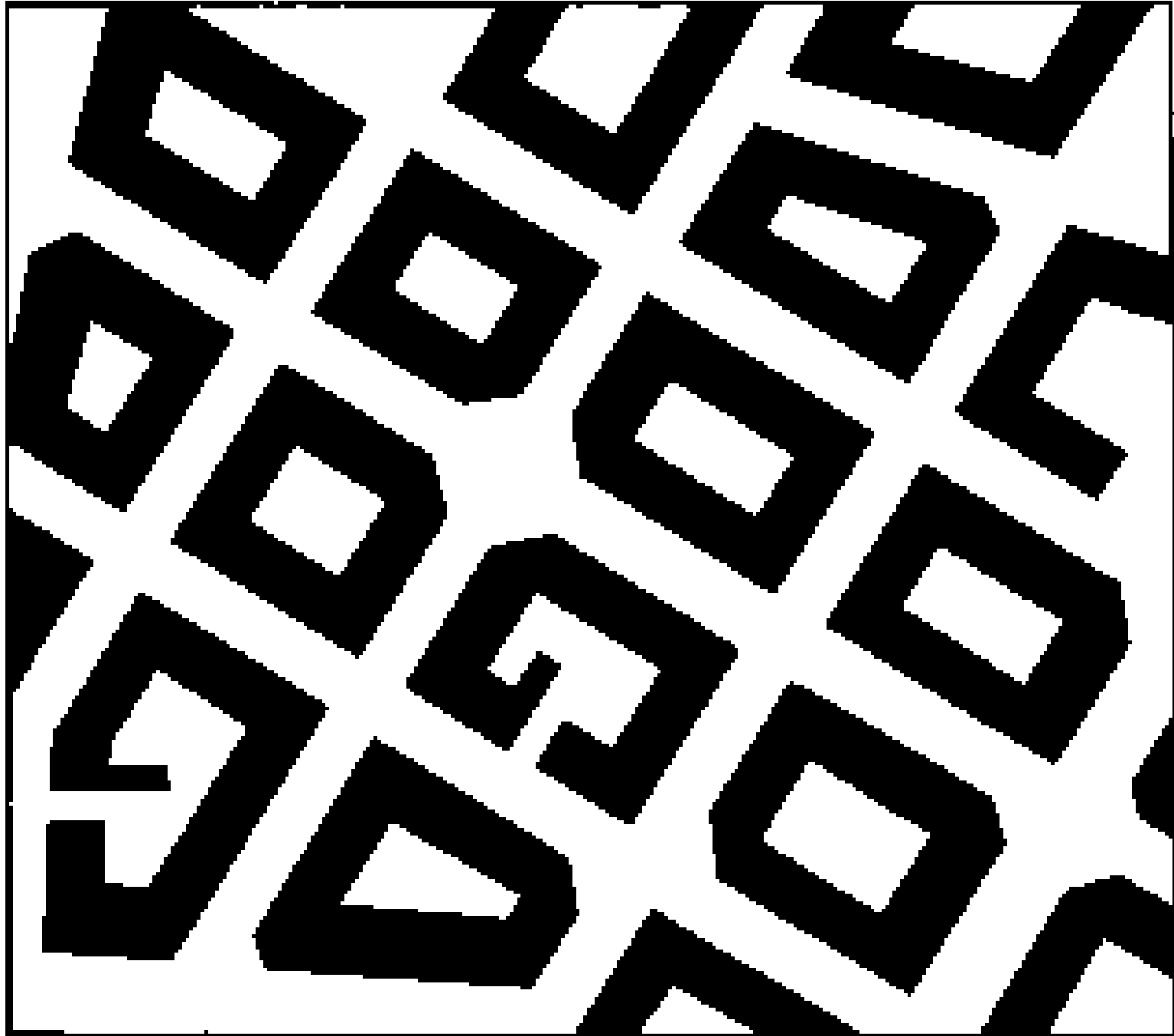


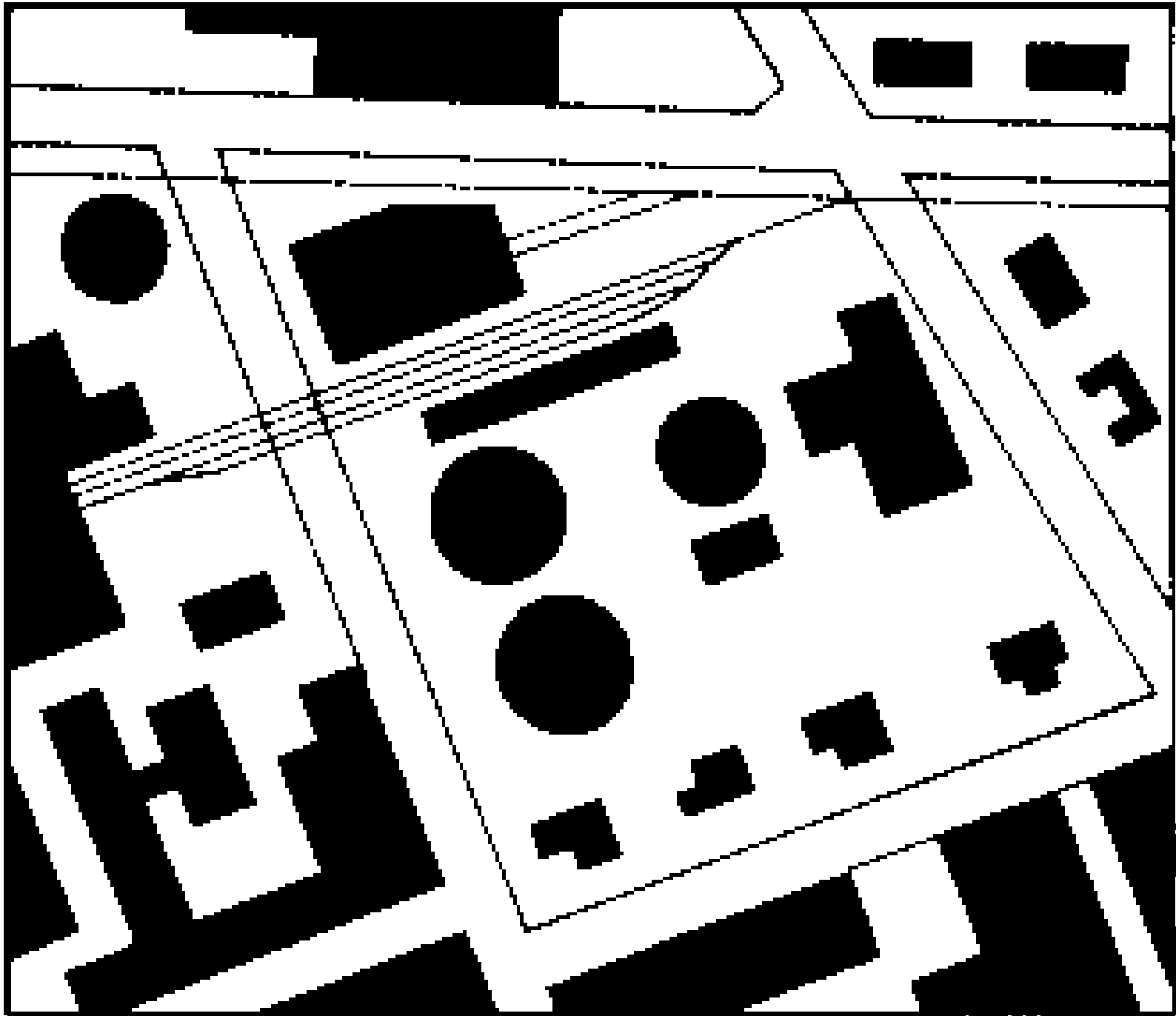




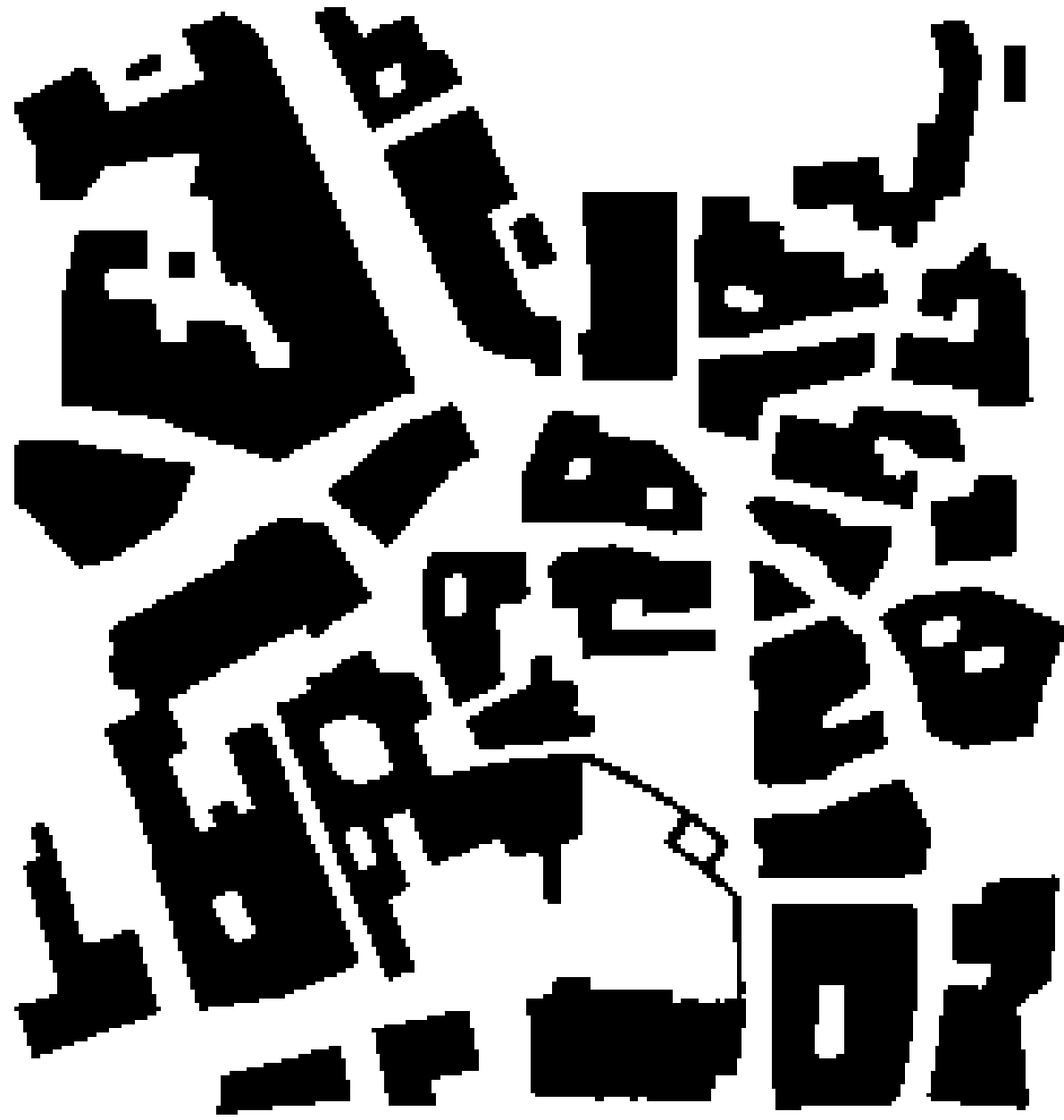


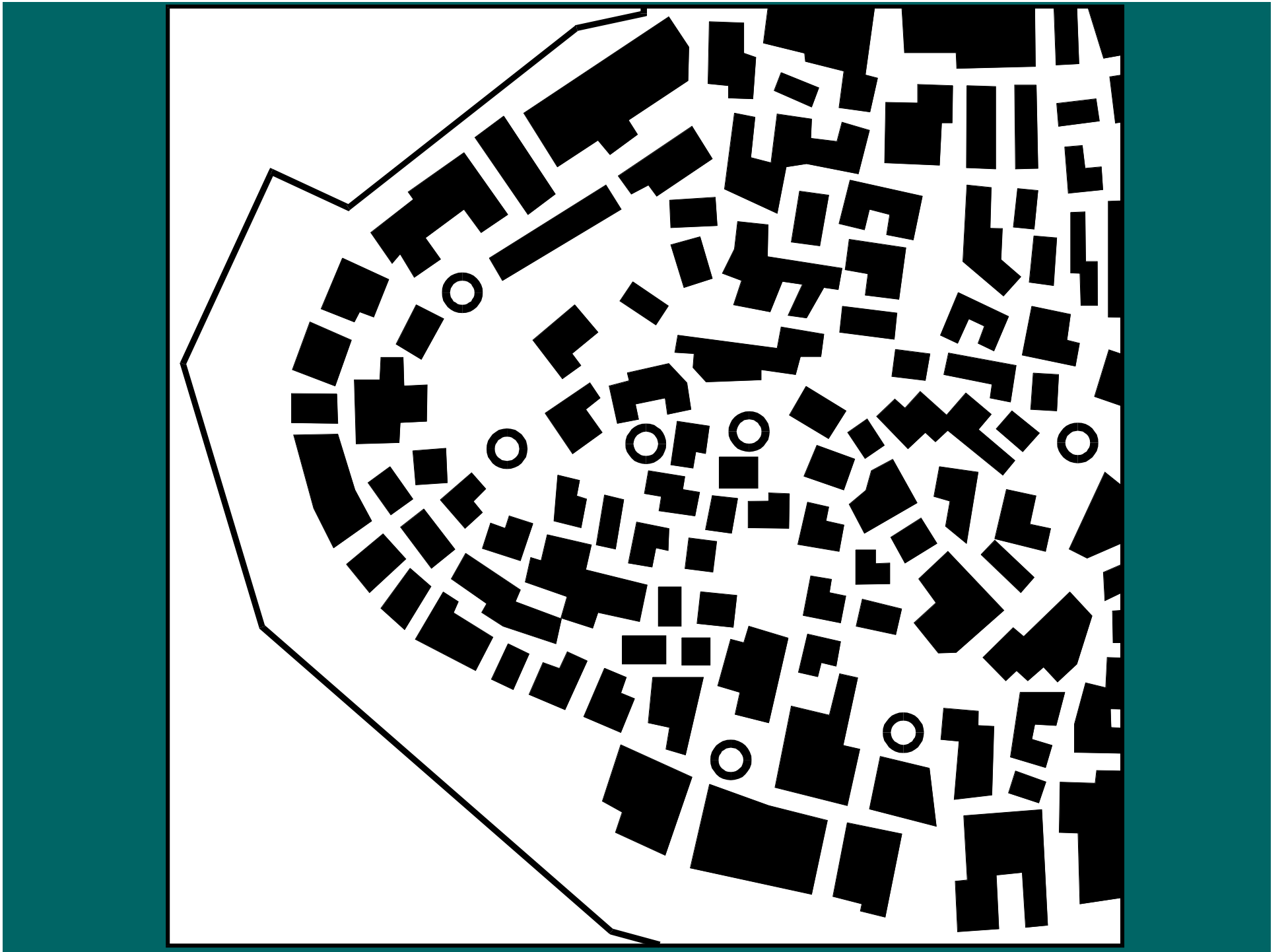


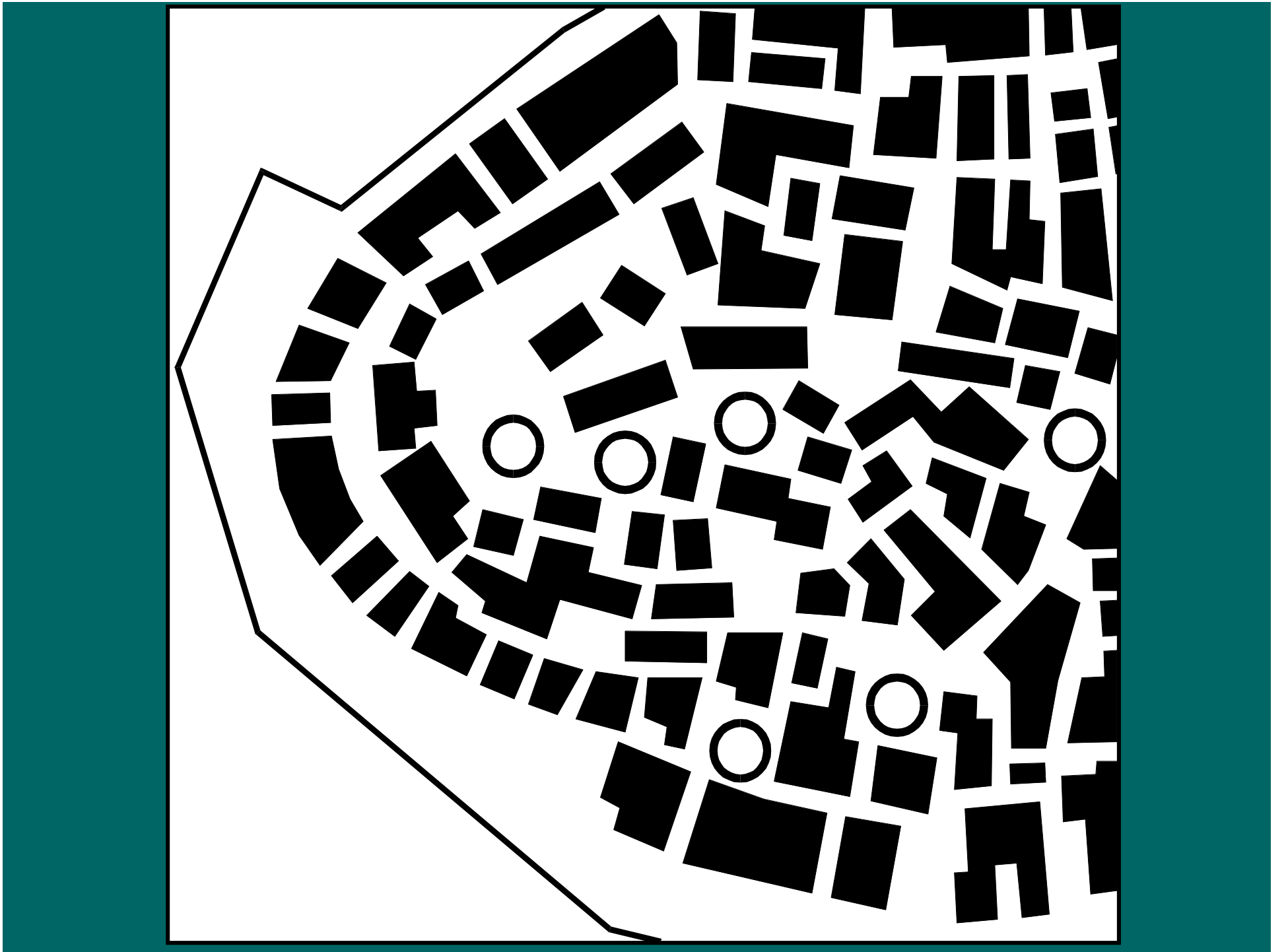


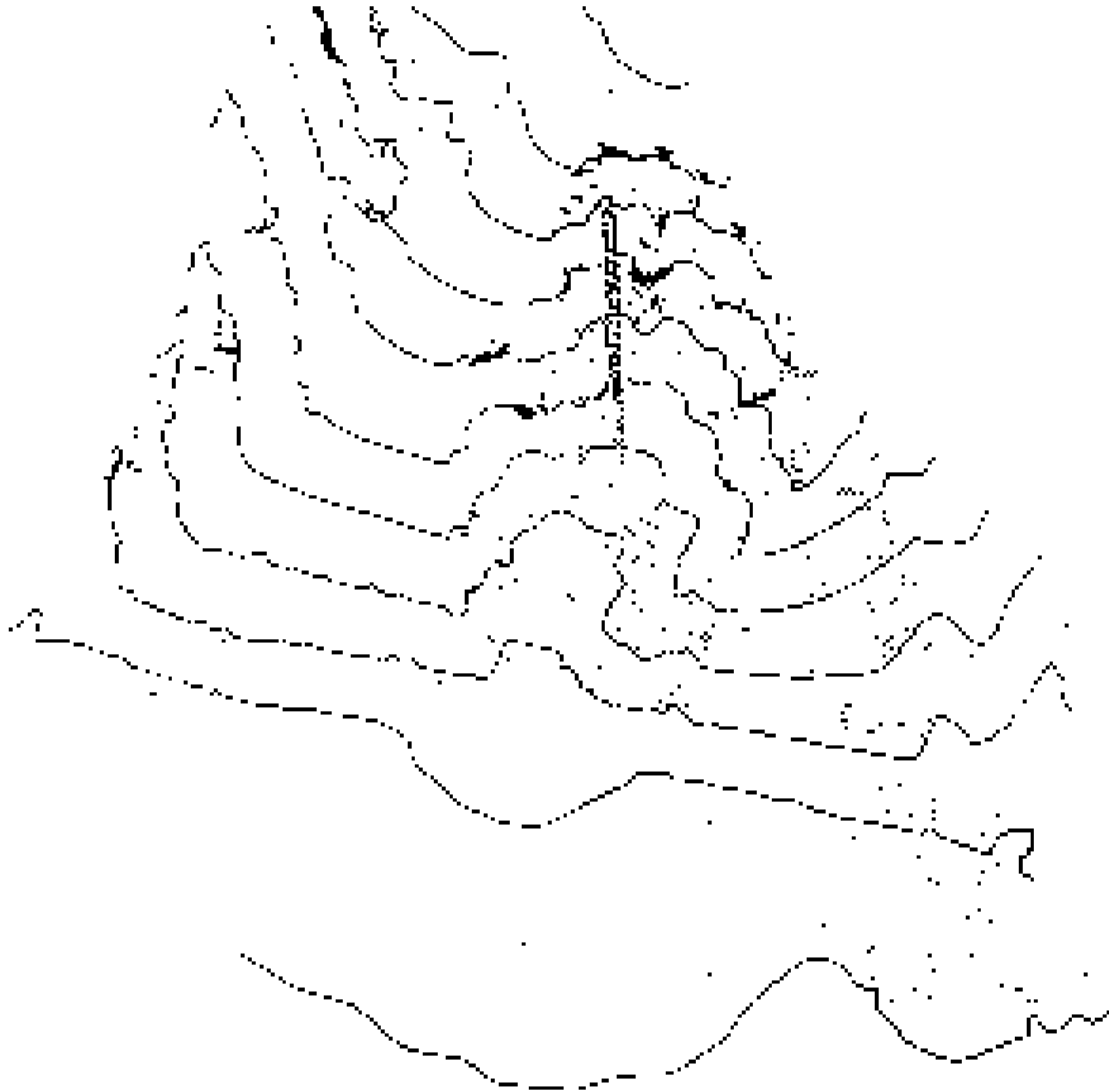


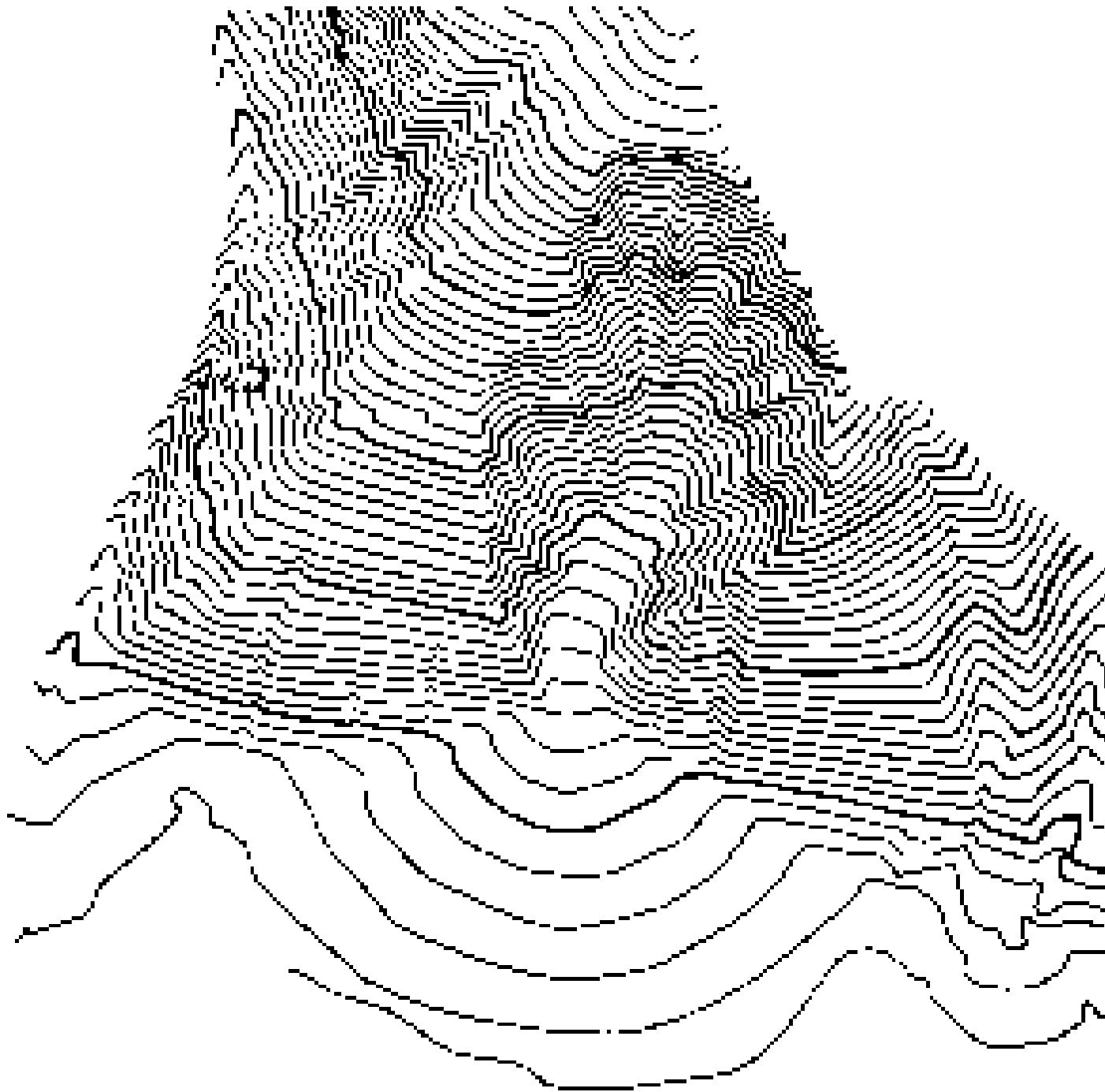


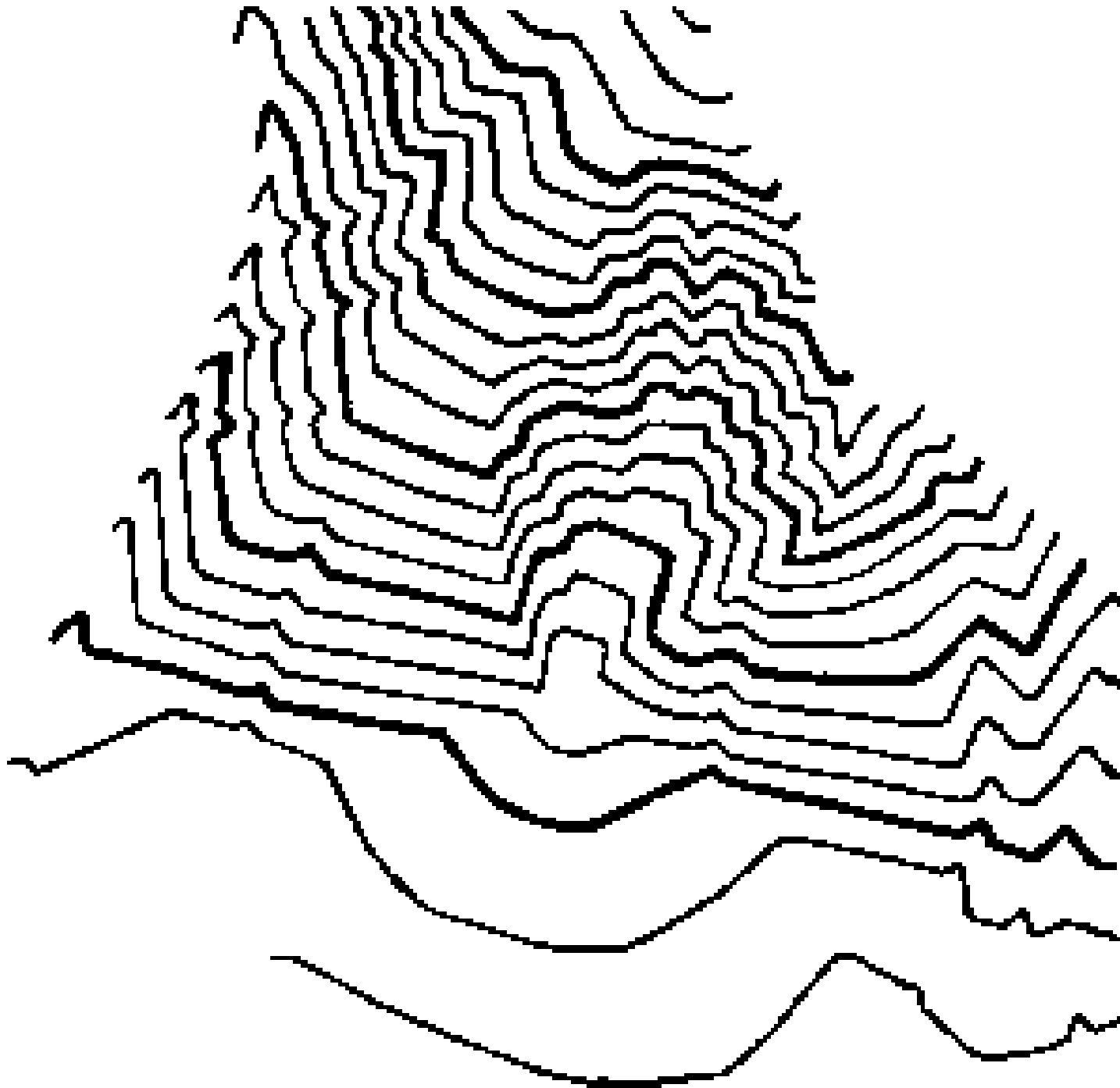






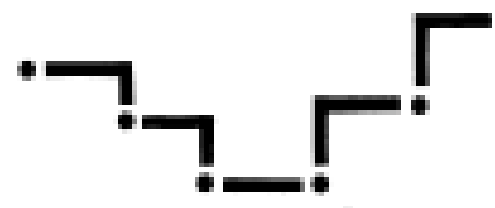






Map design and symbolisation



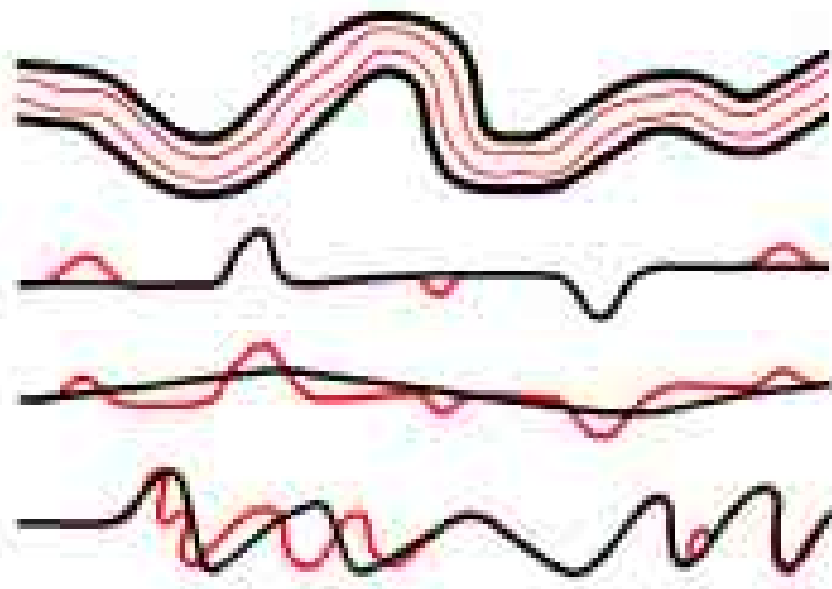


a Dôle

1677

19





1:25,000

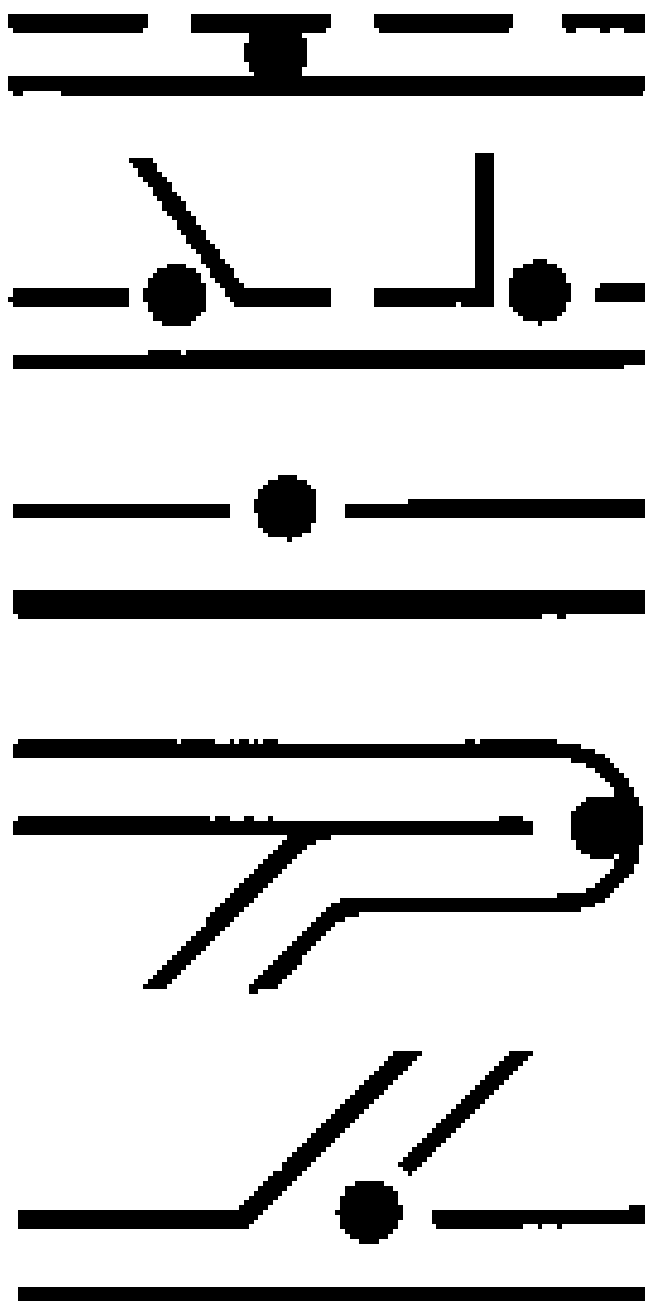


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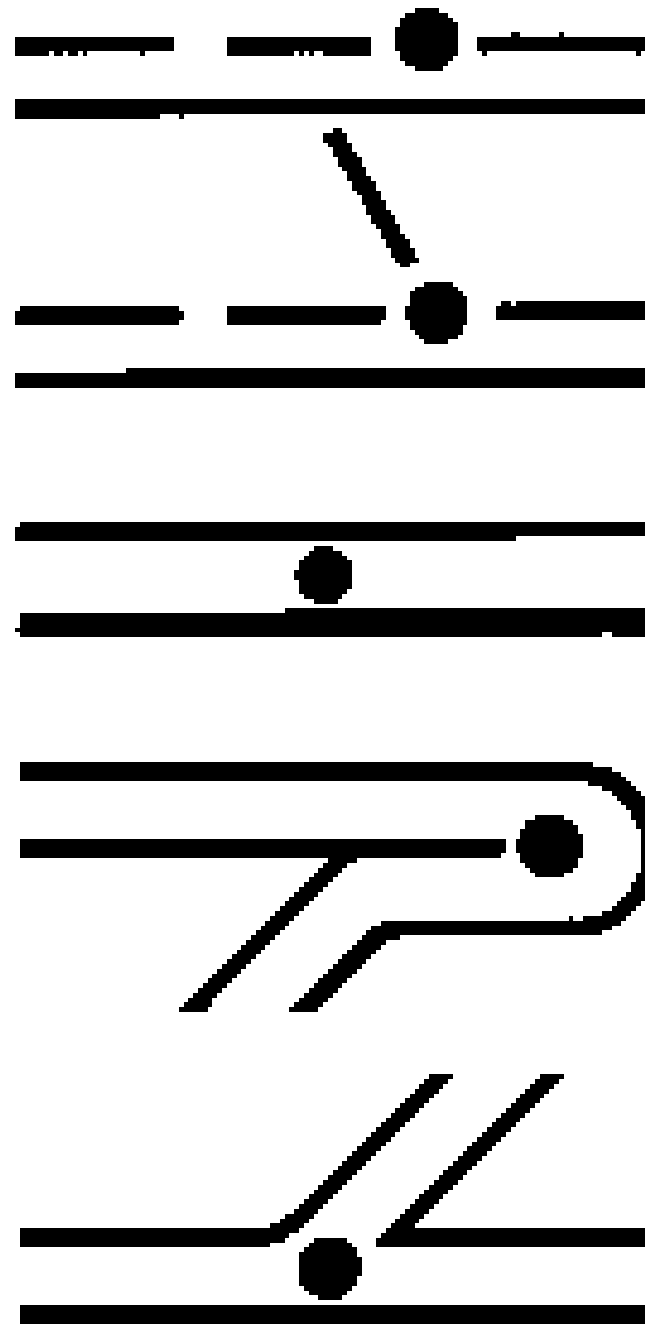


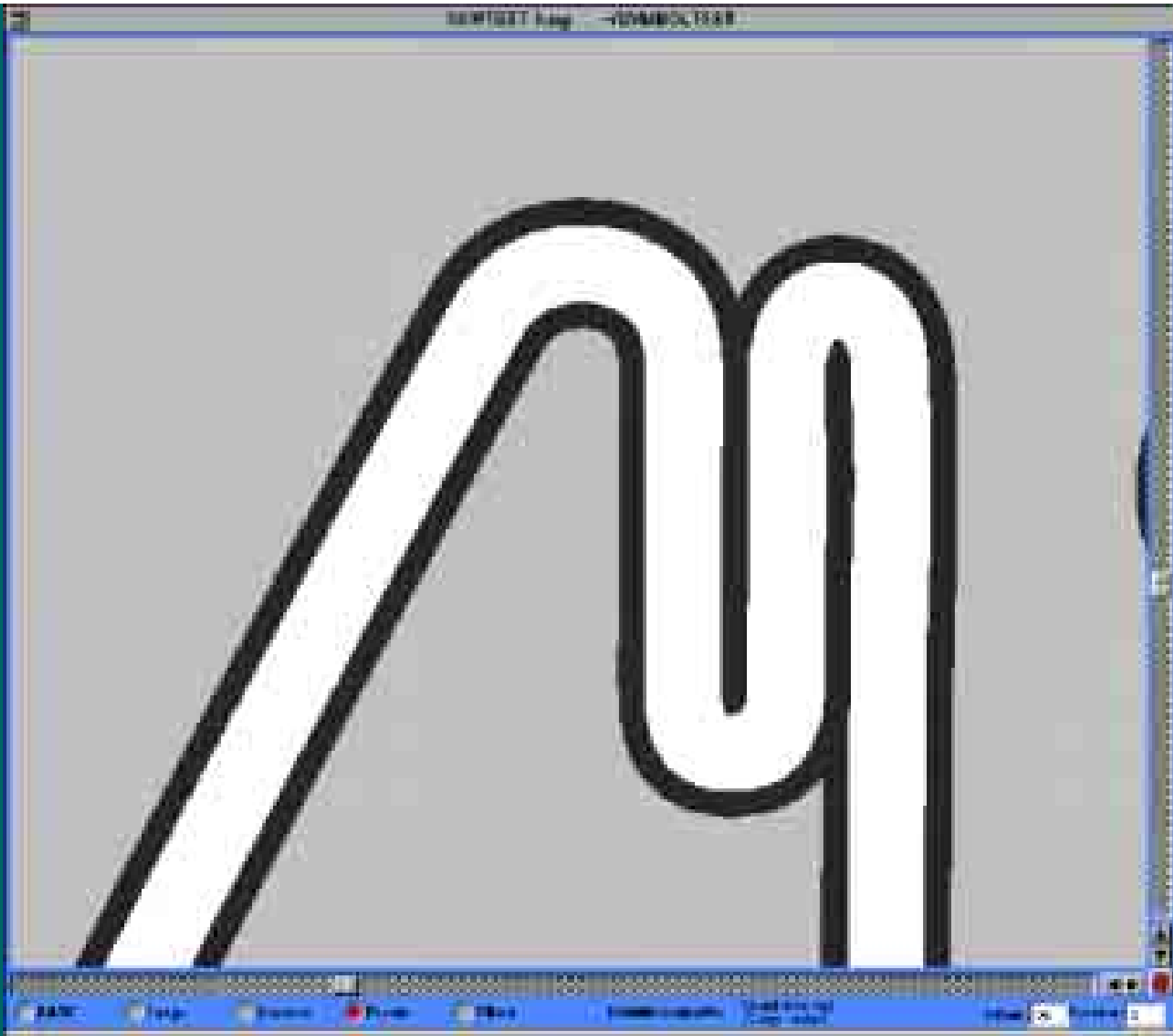
1:100,000

schlechte Darstellung



gute Darstellung











Demo

- Publication of the Swiss Society of Cartography
„Topographische Karten: Kartengrafik und
Generalisierung“
- www.cartography.ch
- Distance learning tool on cartographic generalisation

Cartographic production systems

1970

1980

1990



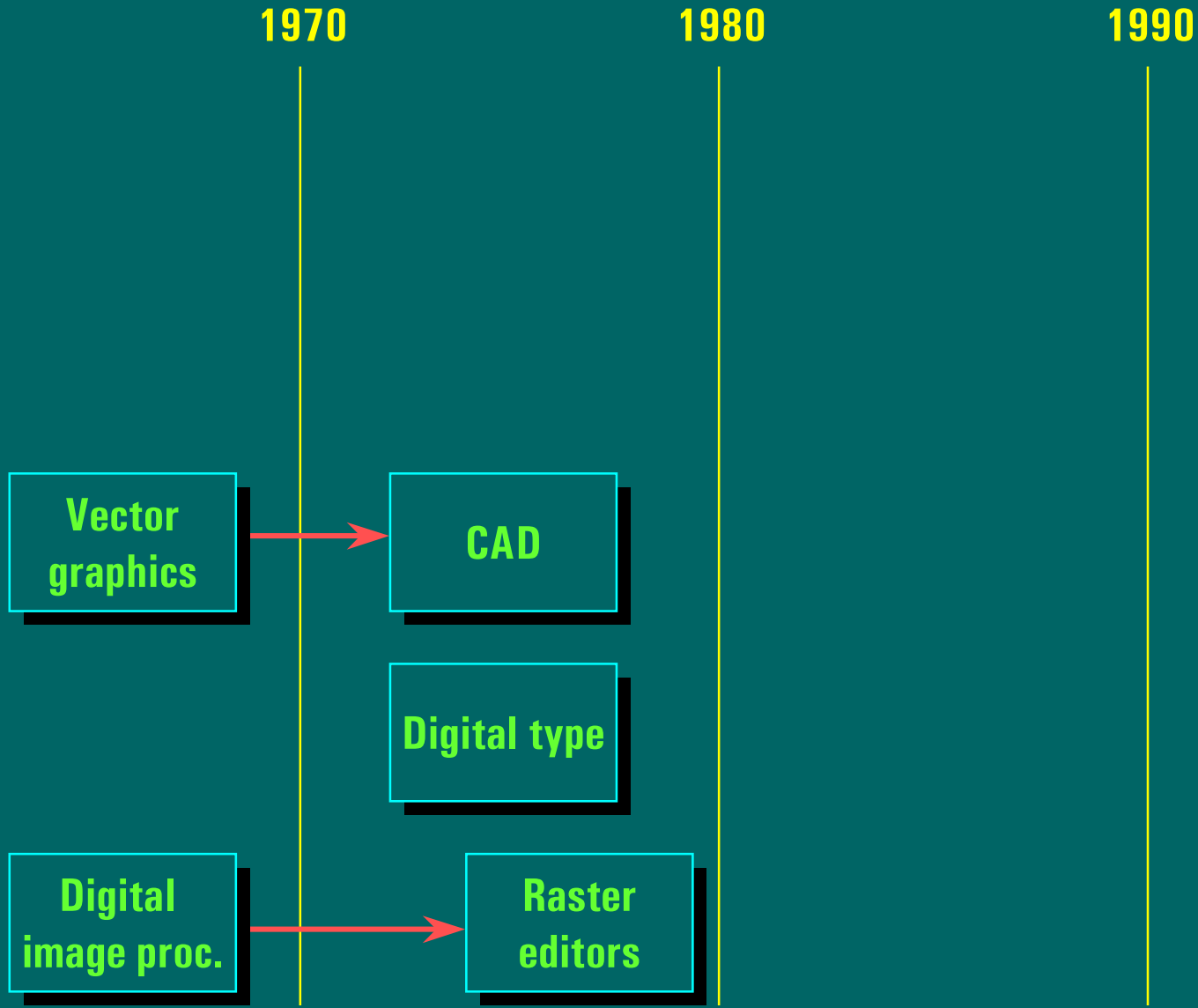
1970

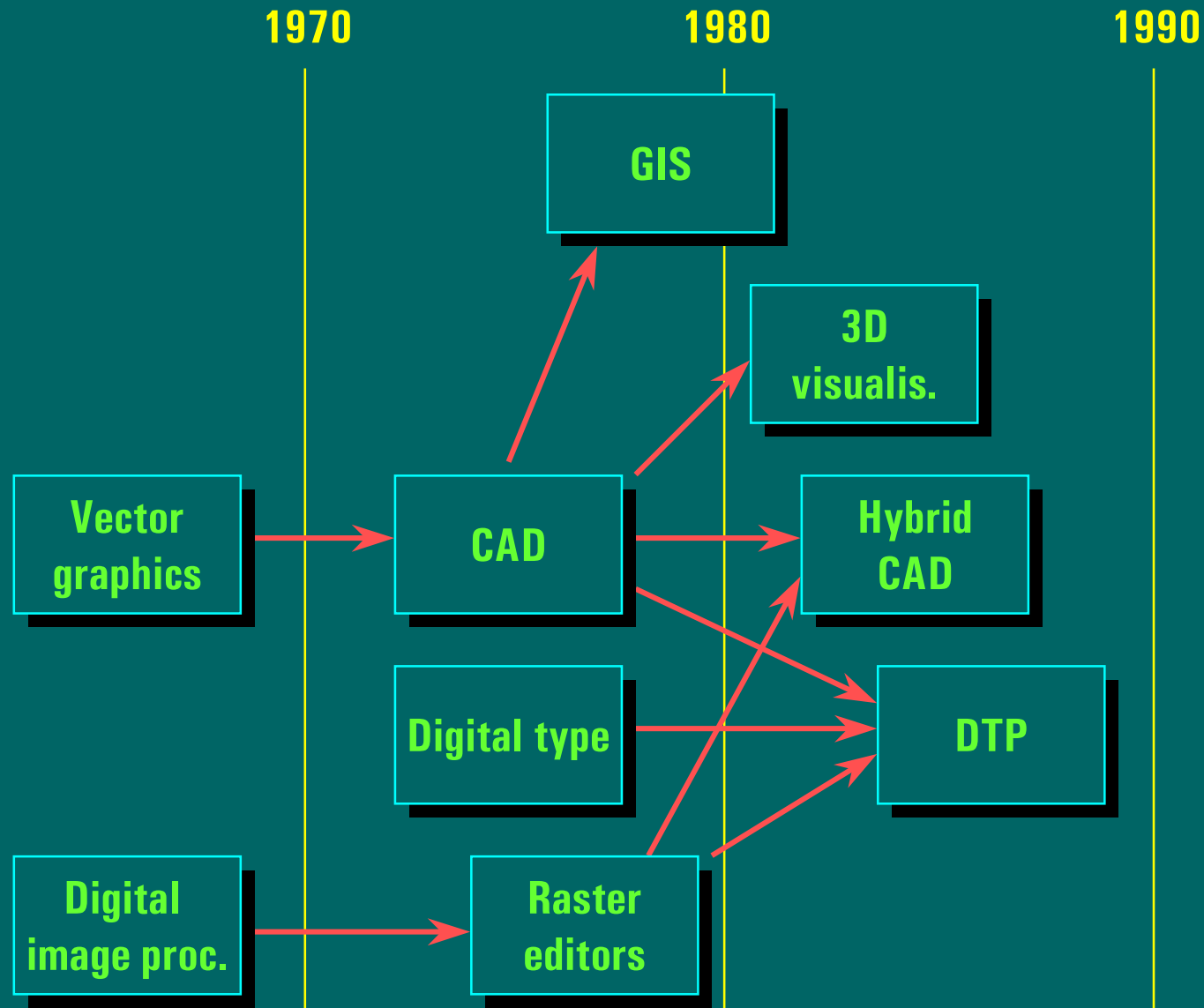
1980

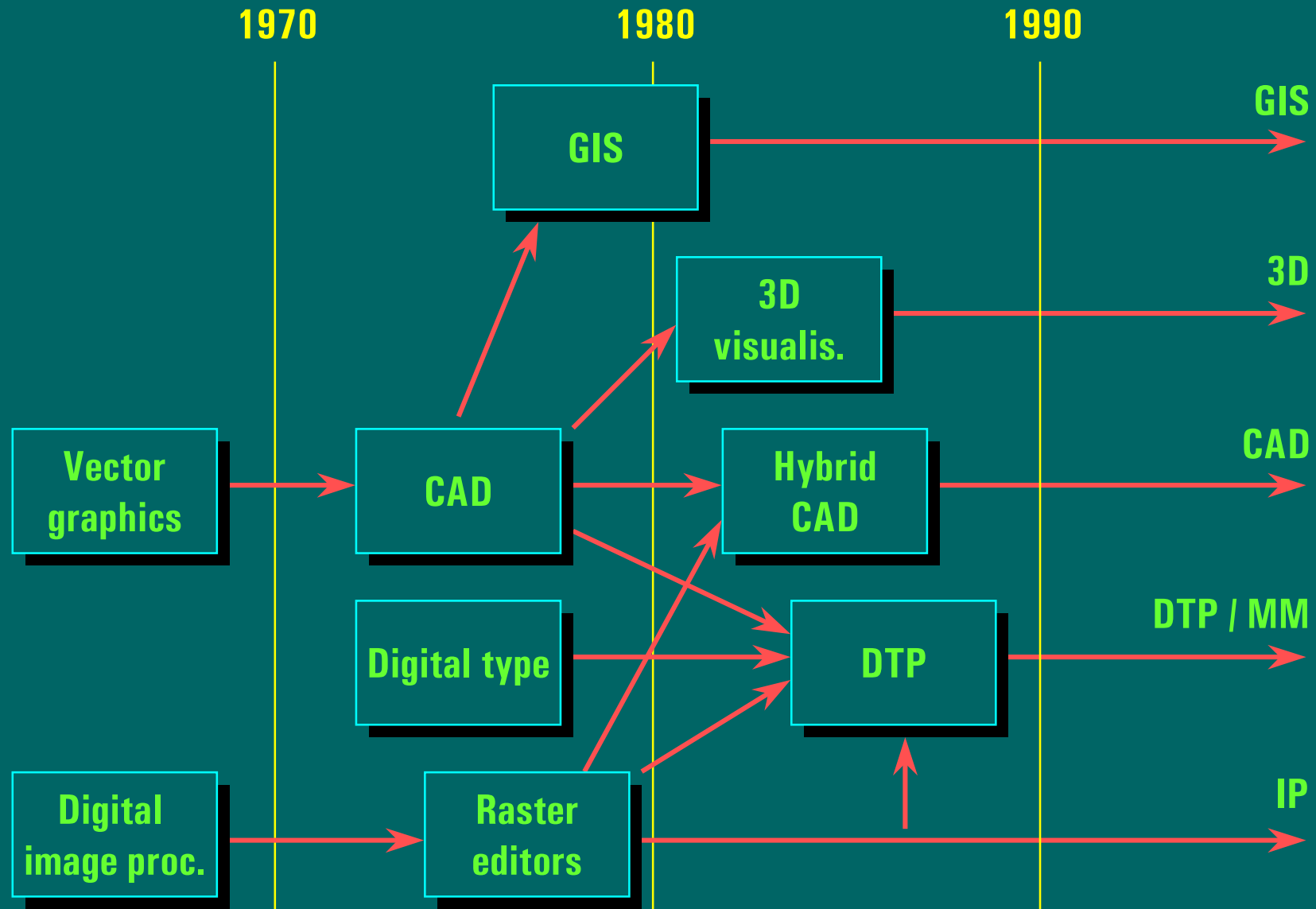
1990

Vector
graphics

Digital
image proc.

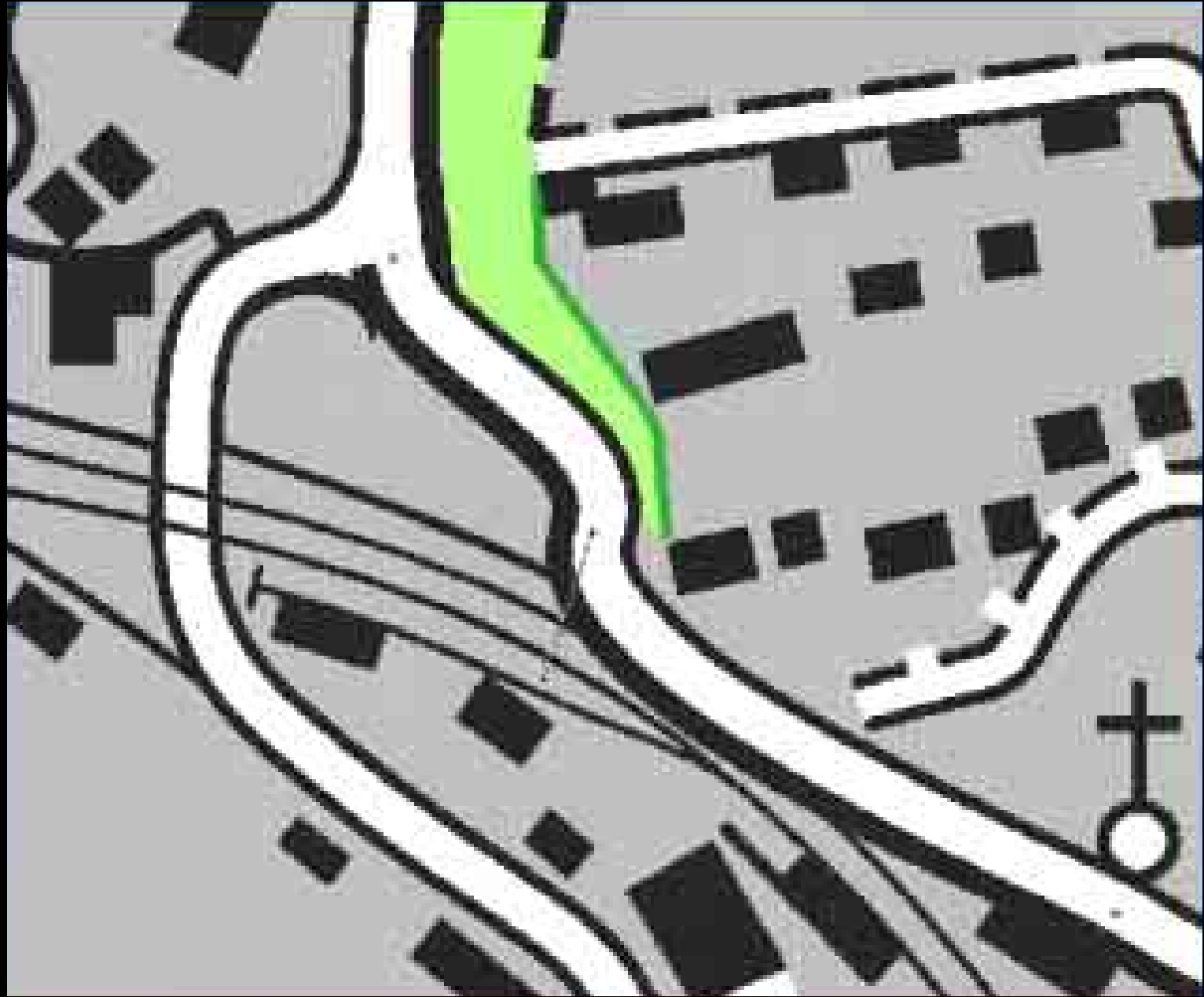


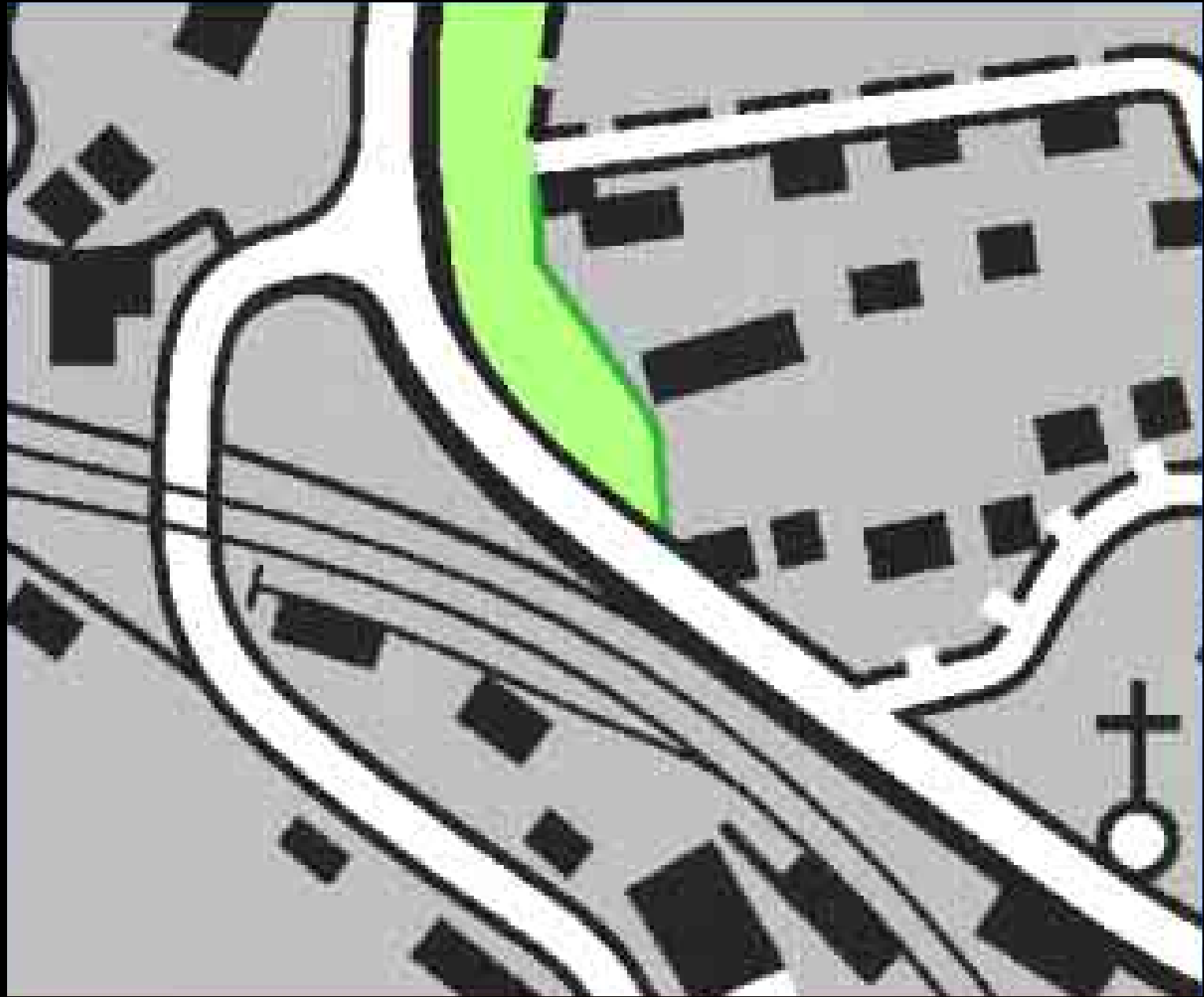


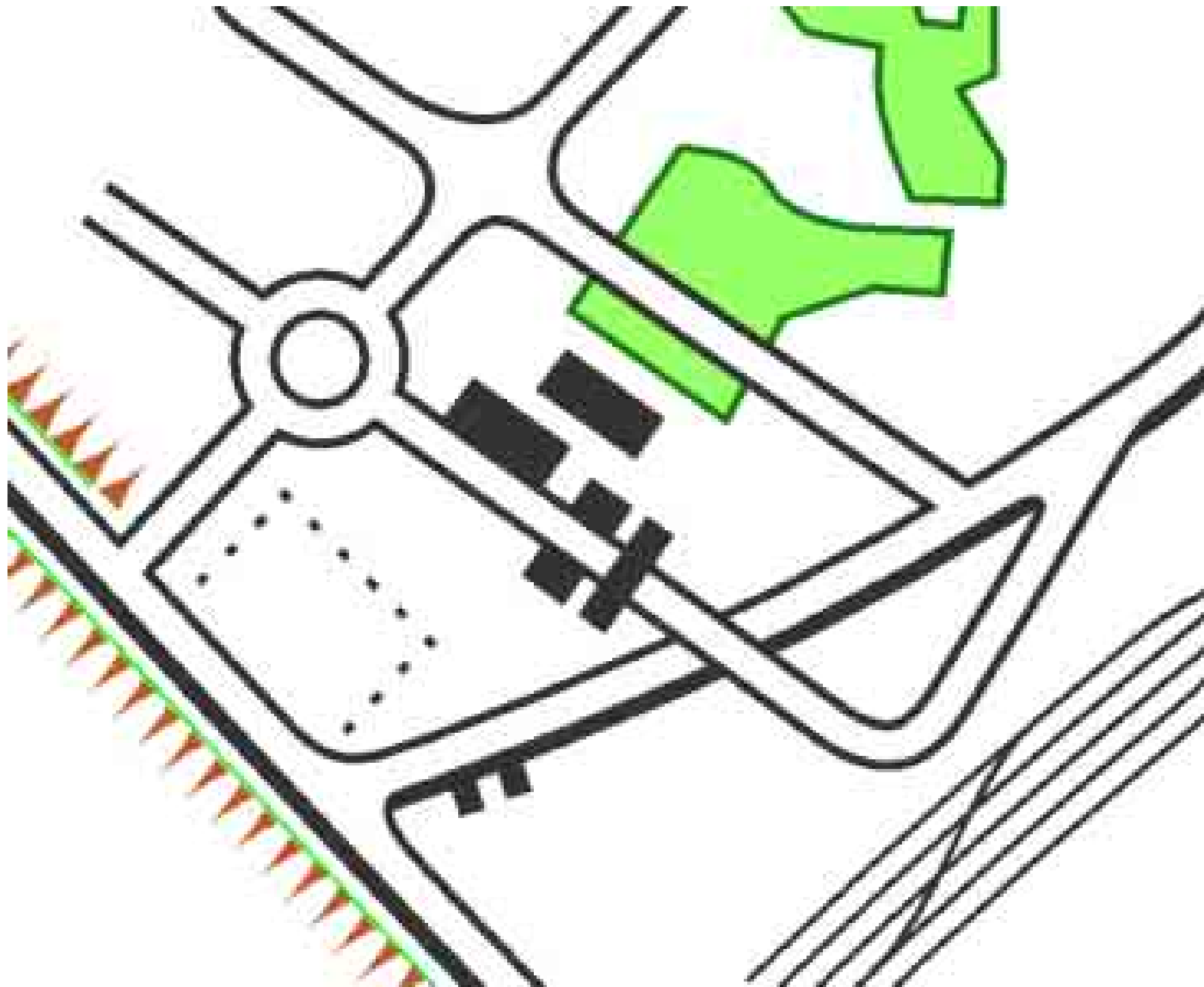


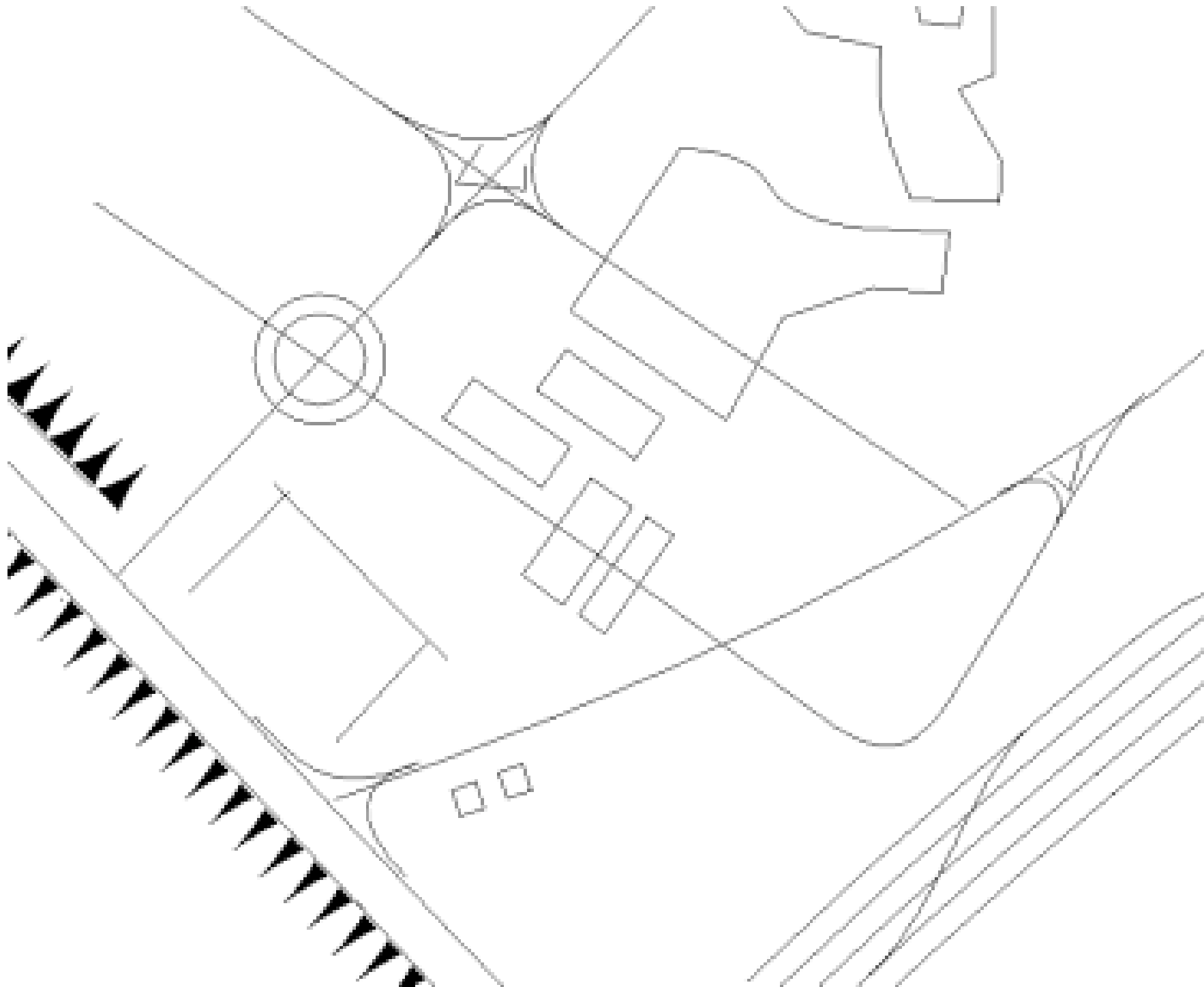
Hybrid WYSIWYG- Representation

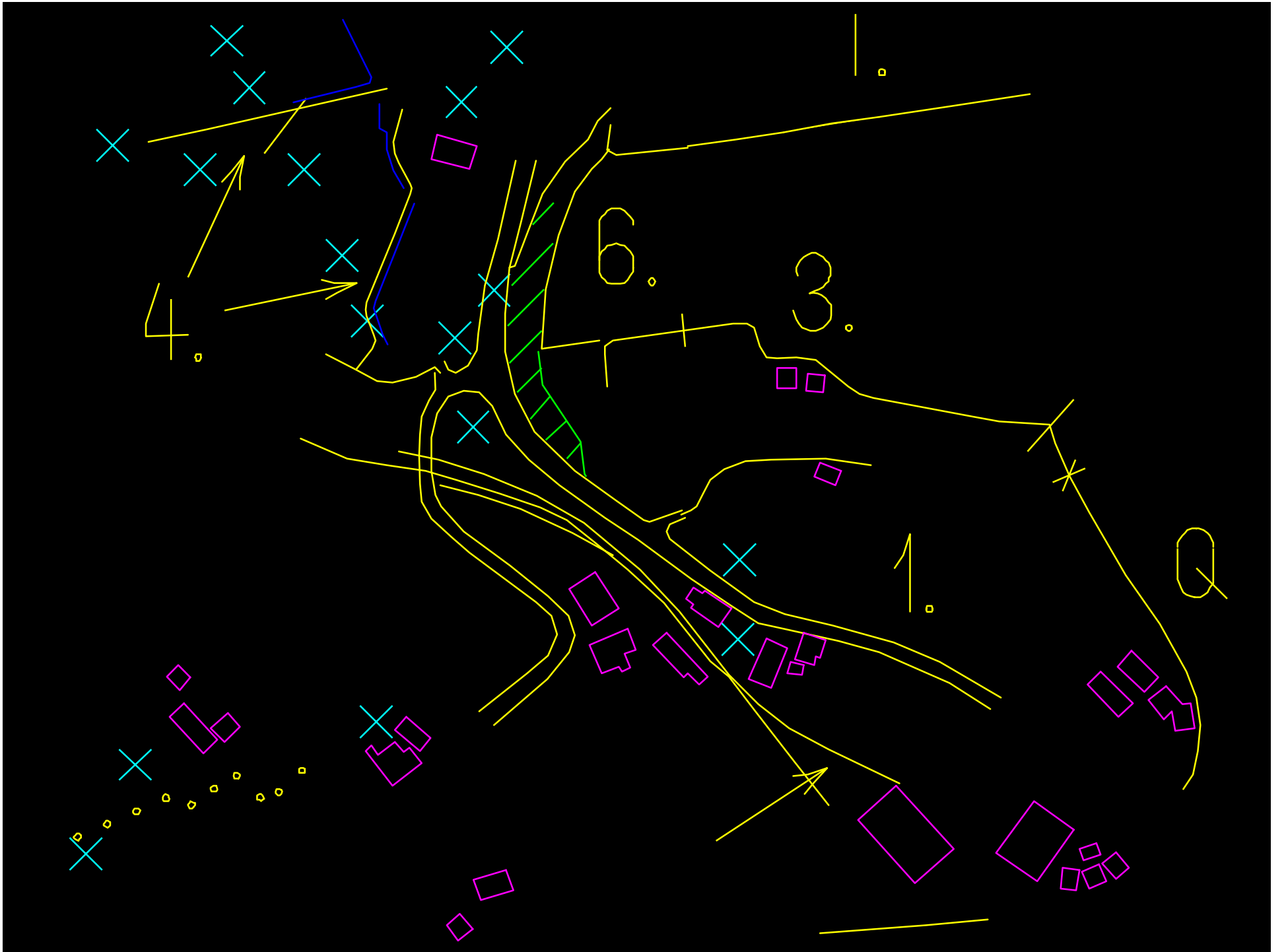
- «What You See Is What You Get»
- Symbolised Vector elements
- Simultaneous Raster/Vector representation and editing capabilities
- Visualisation of masking and overprints
- Break-up of layer structure: Bridges, underpasses
- Topology???

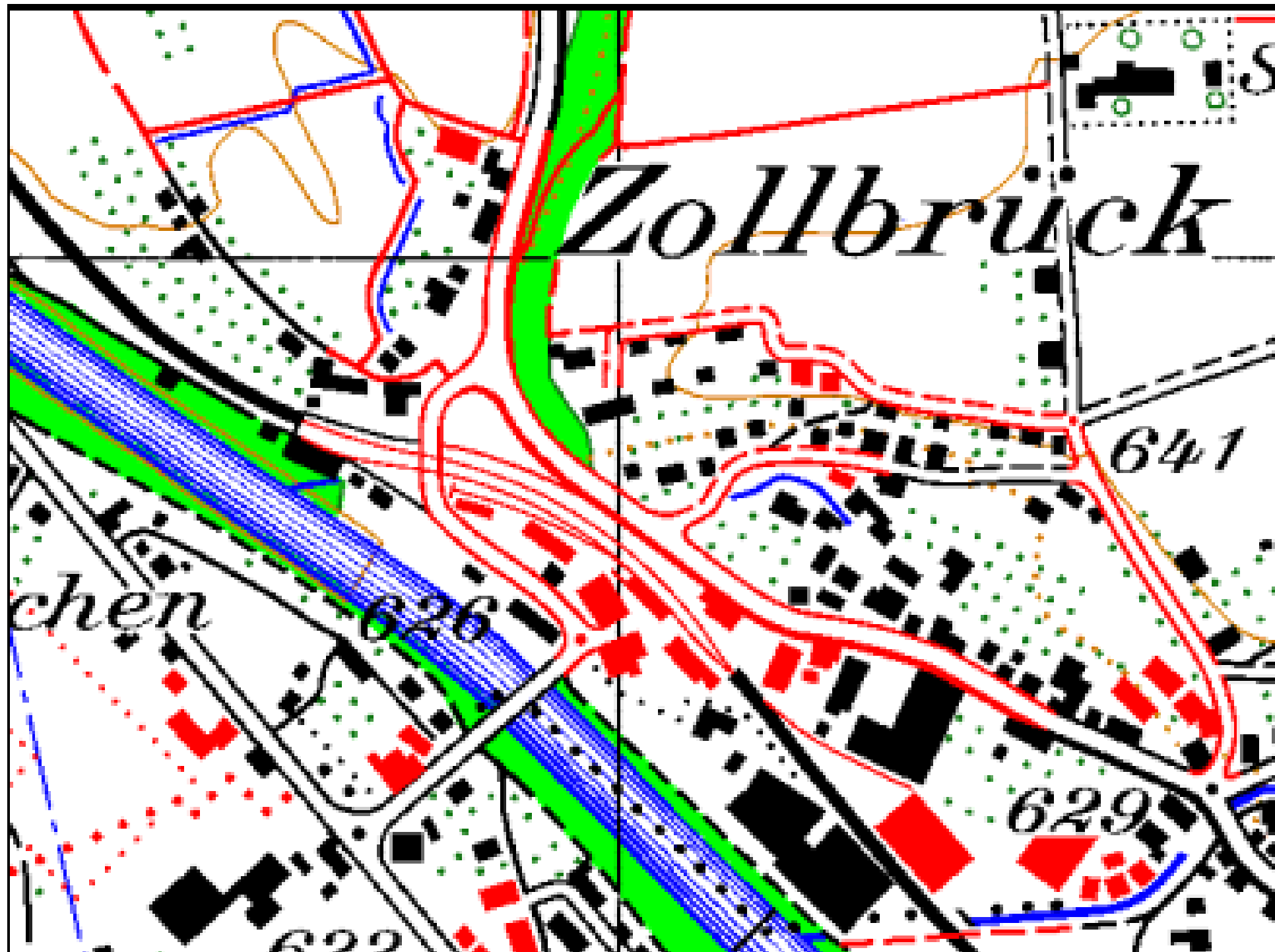


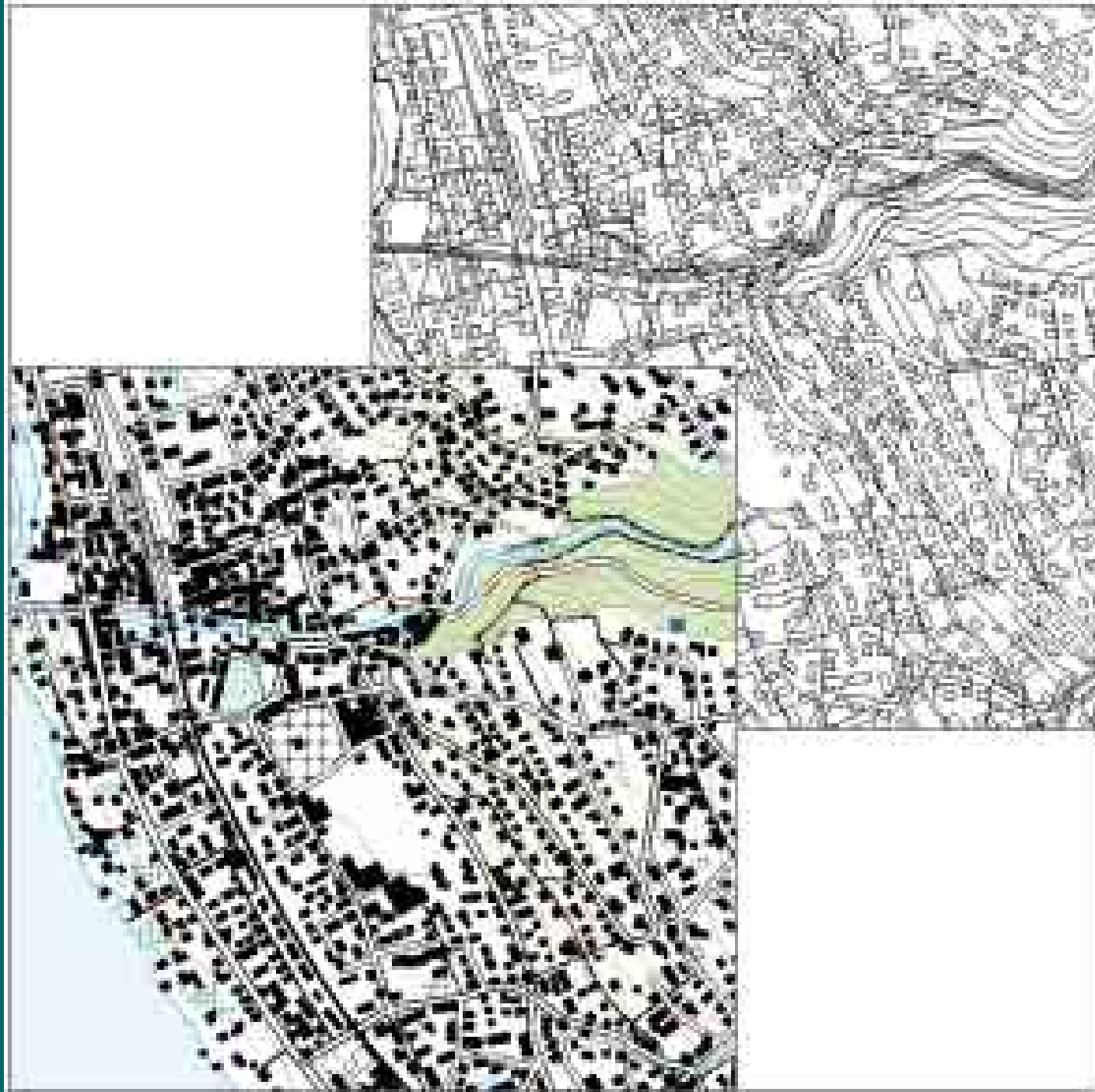


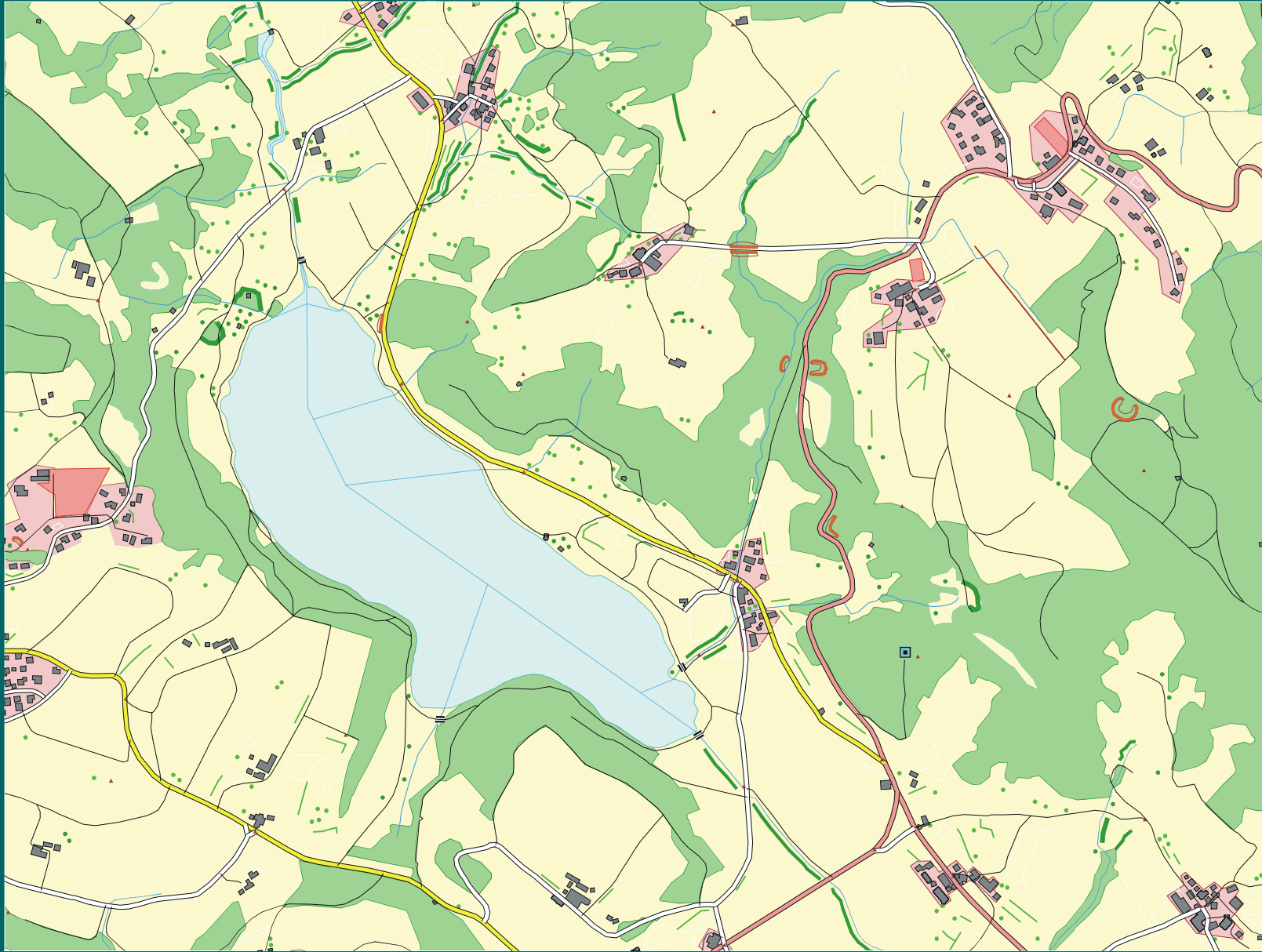




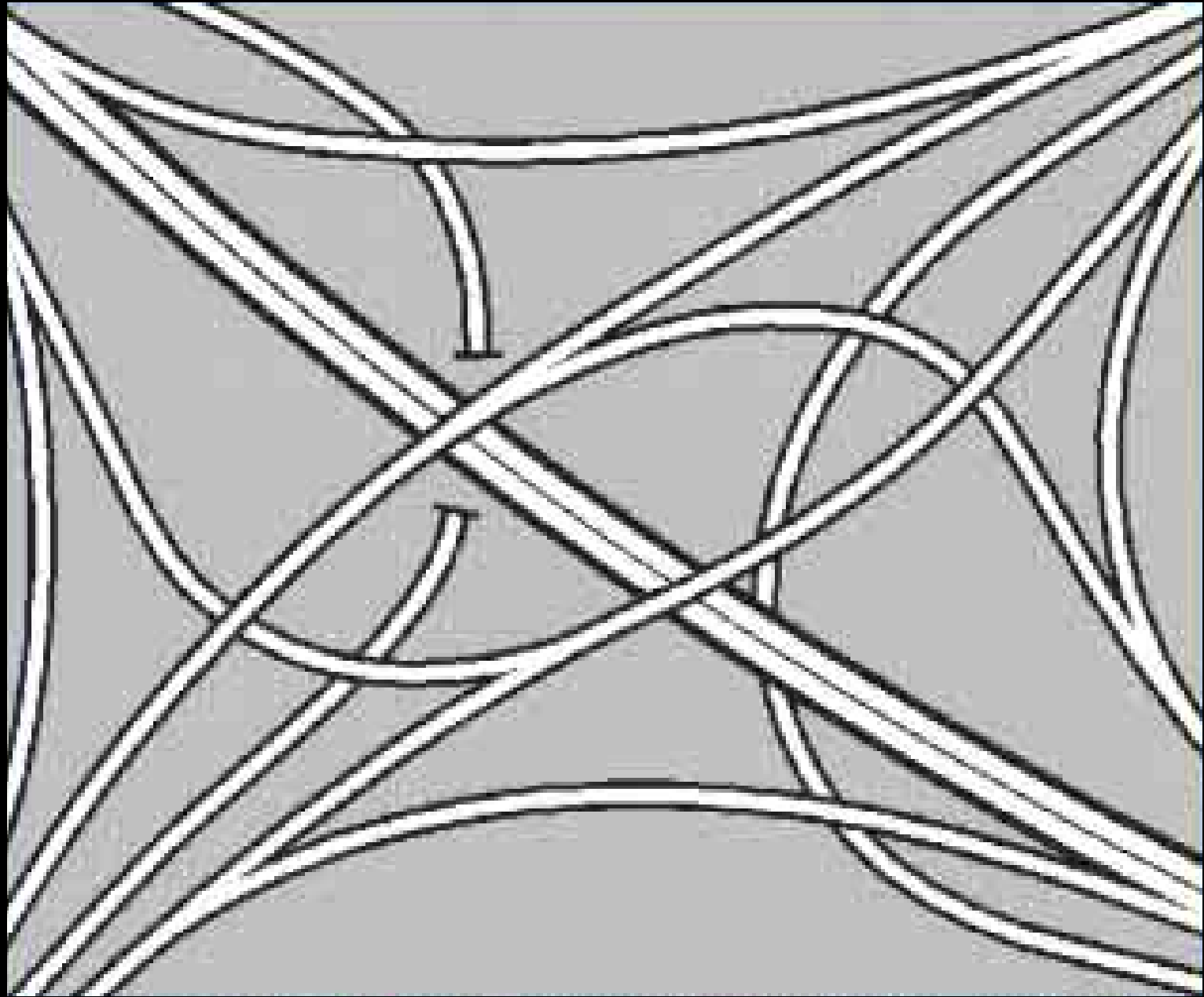








Testdatensatz Albis von VECTOR25

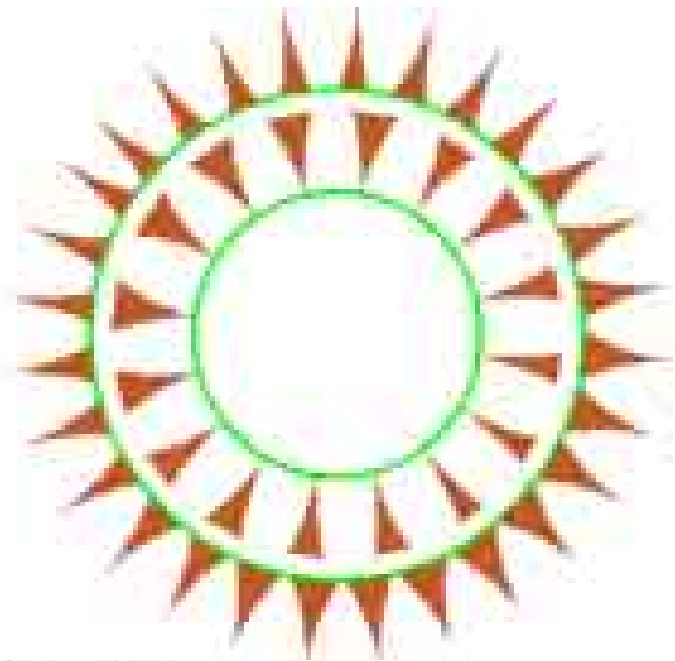




awertttrewq



ZUIOPPPPOIUZ

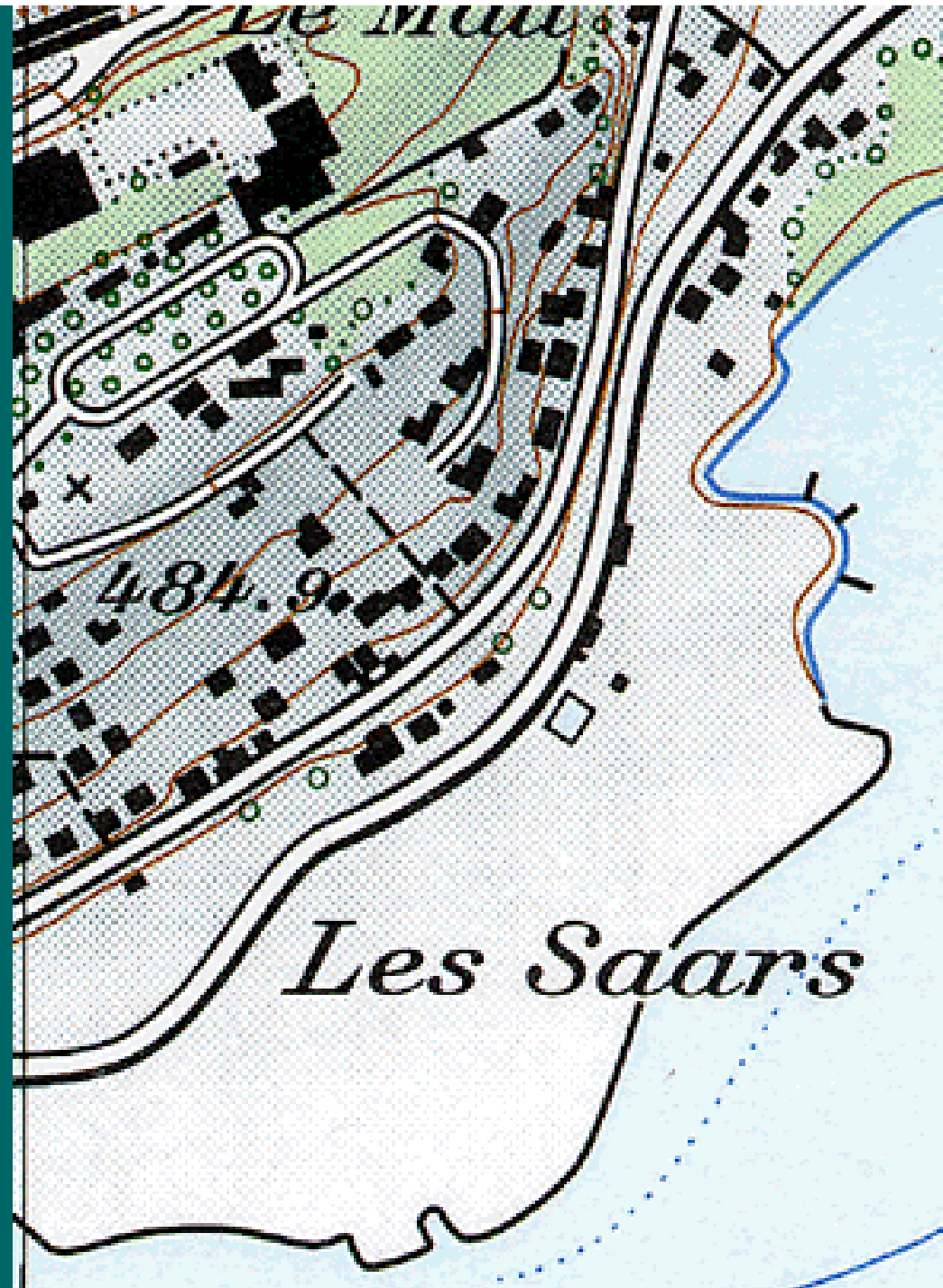


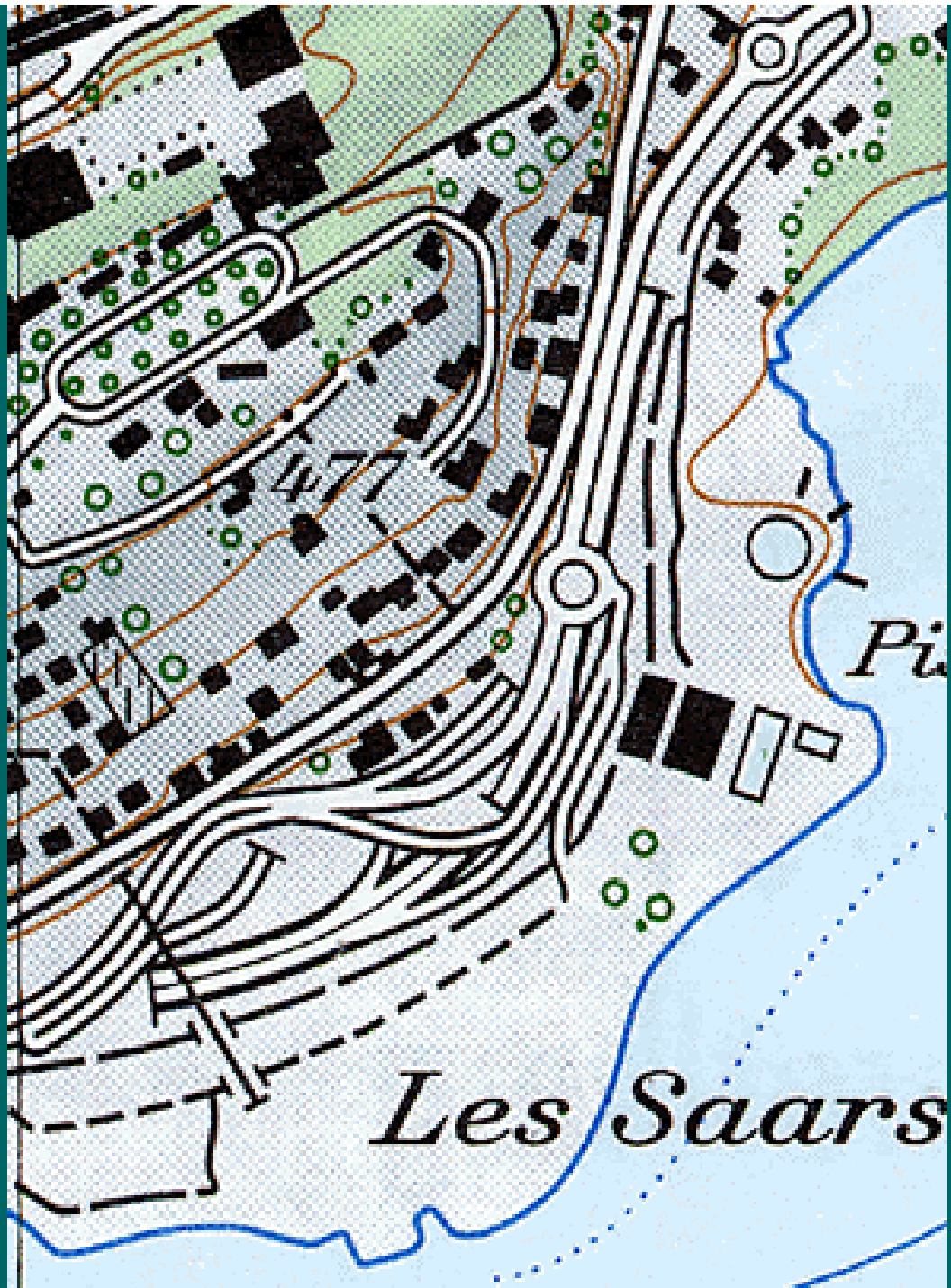
Finsternis

600

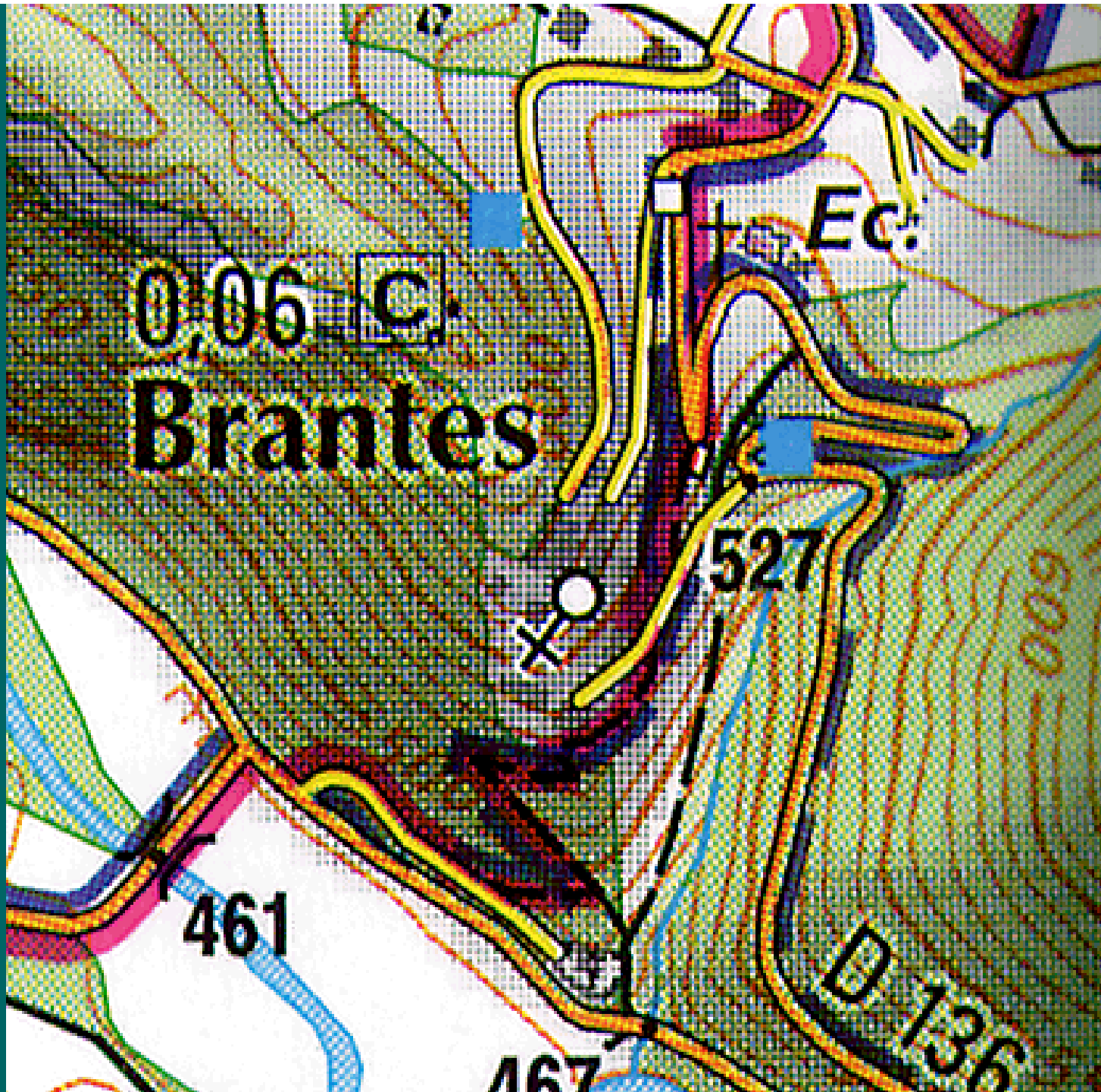
Landeskarte

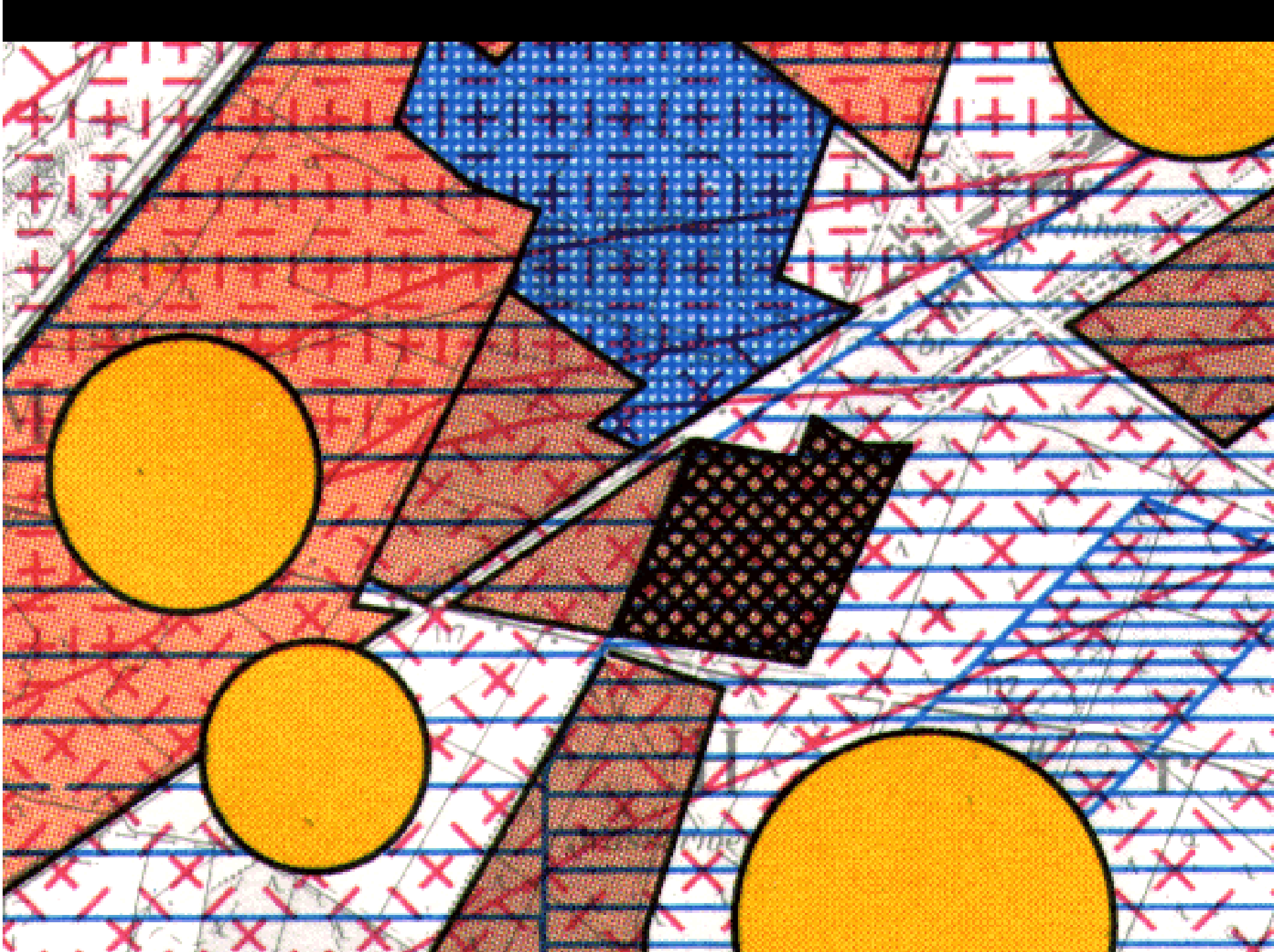


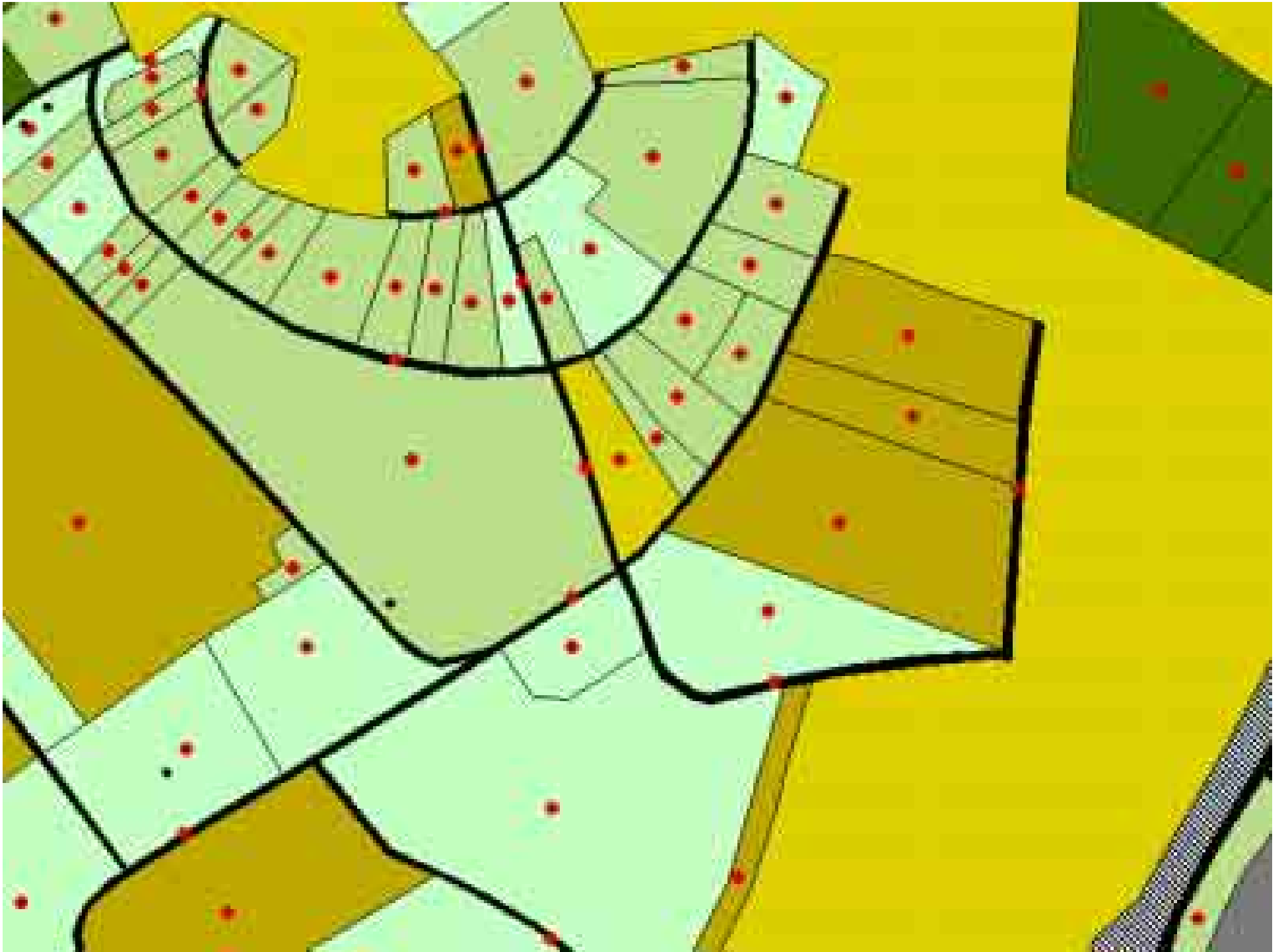


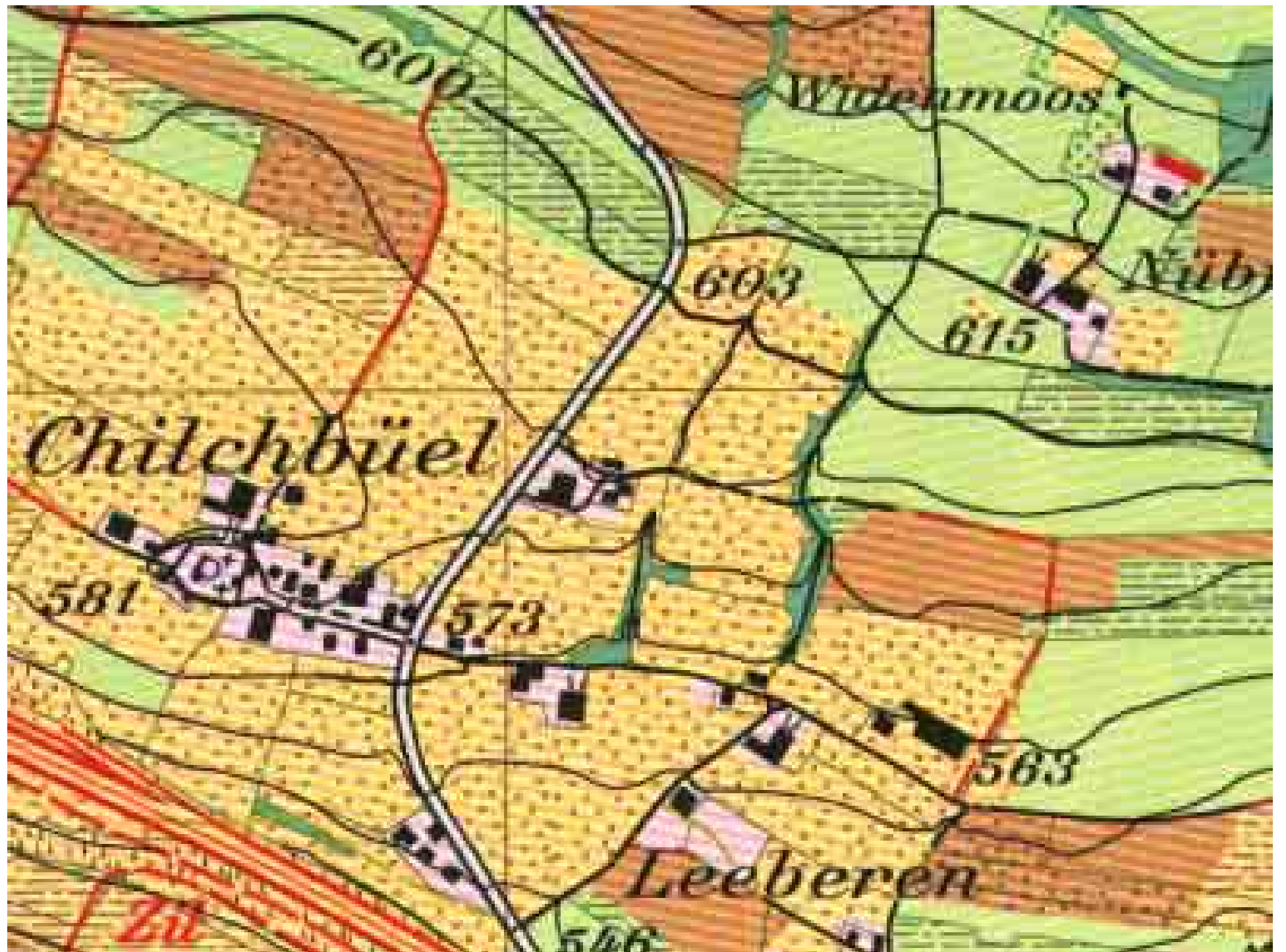






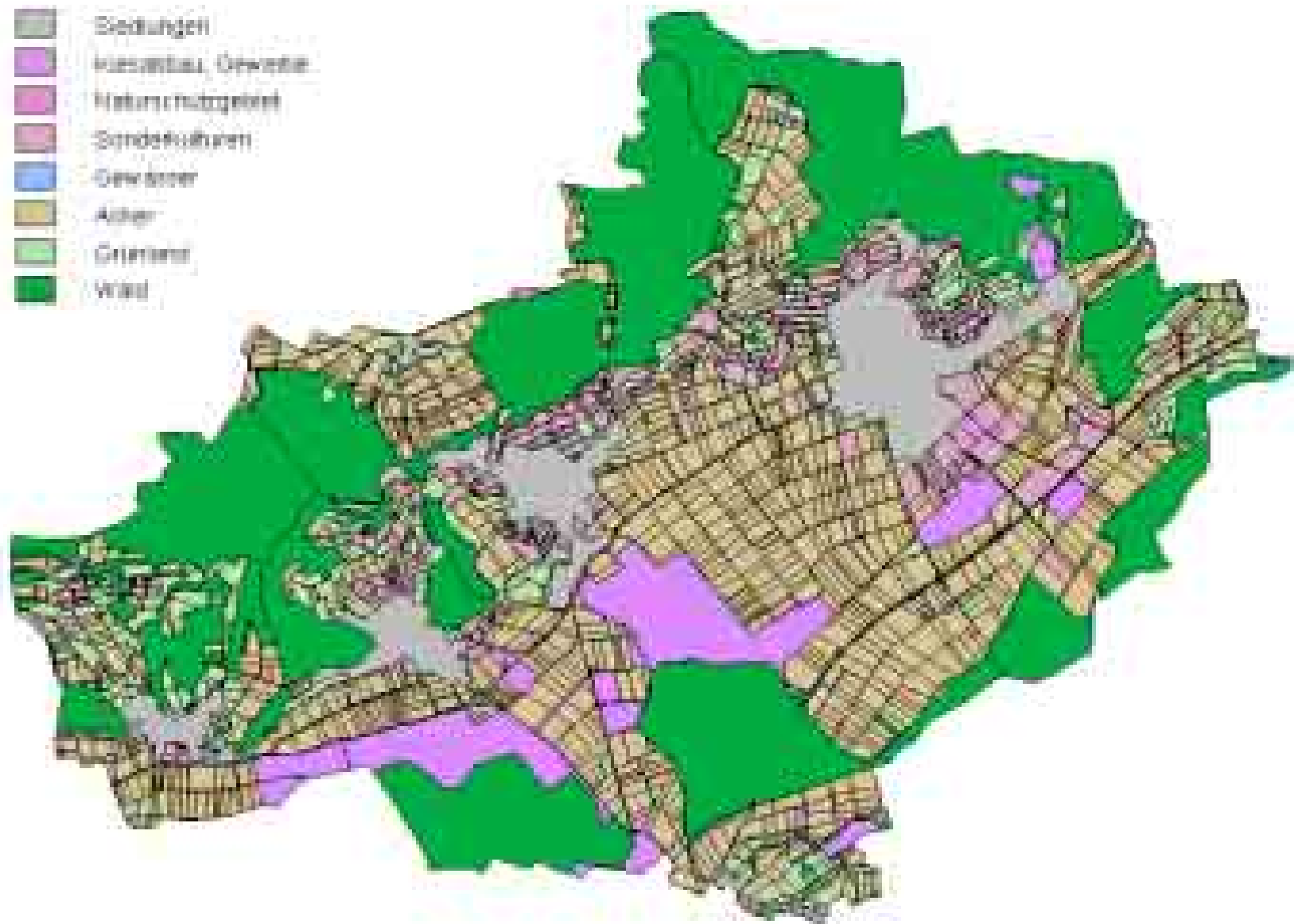






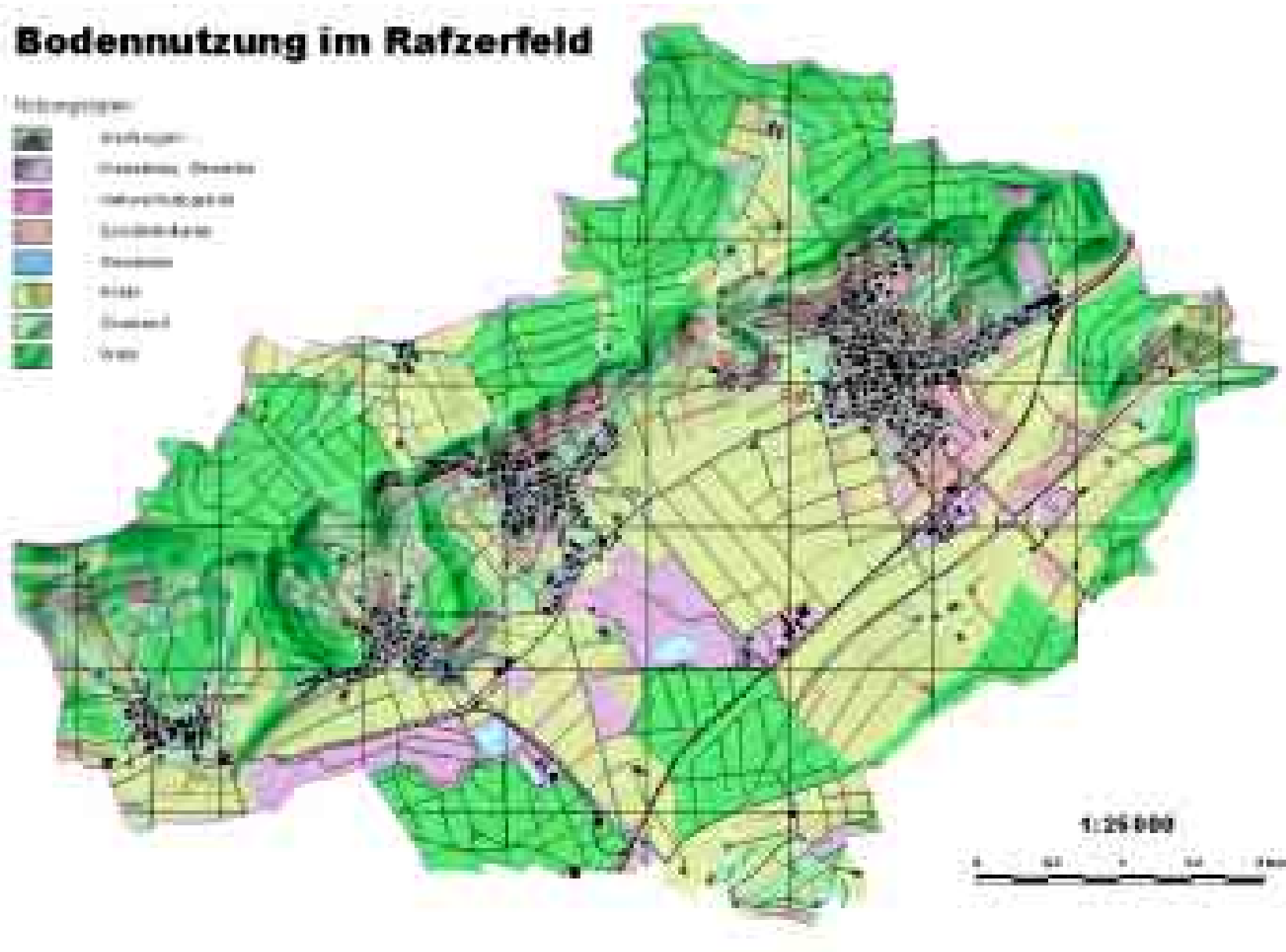
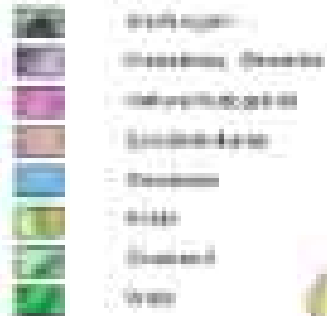




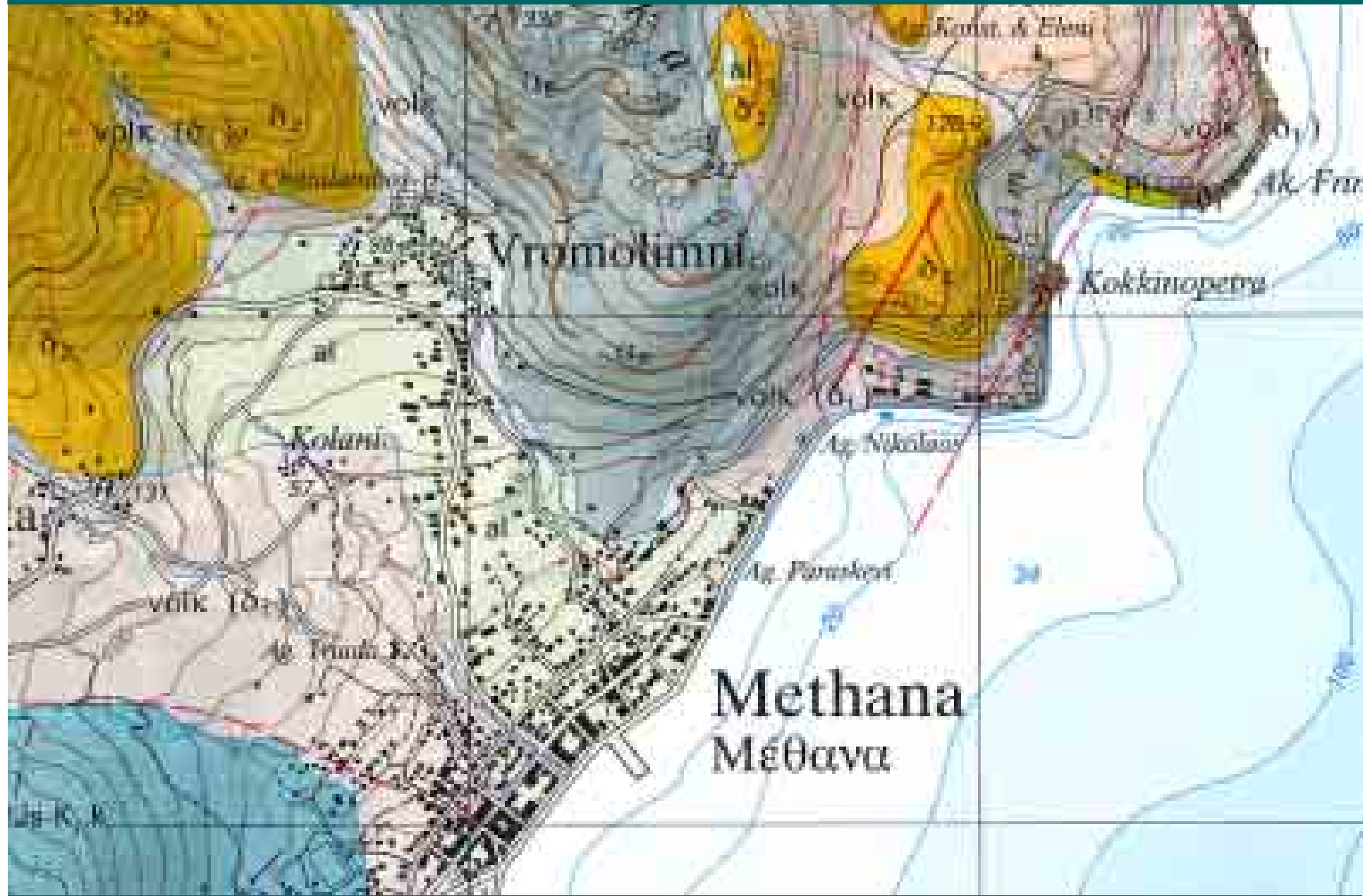


Bodennutzung im Rafzerfeld

Legende







Updating of Swiss National Map 1:25'000; Biasca sheet



Old situation: 7 raster layers



Deletion mask: contours



Deletion mask : Applied



Deletion mask : Applied & transparent



Text placement (PS fonts)



Text masks; photogrammetric compilation



Roads, symbolised



Buildings, symbols



Vineyards, spot heights, single trees (green)



Road axes turned off



Black plate (R+V)



New map elements in black (V)



Combination (R, V)











