



**An-Najah National University
Faculty of Engineering
Urban Planning Department**

**Graduation Project 2
“ Urban Transportation Planning for Jenin City “**

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The Contents

Study Area Diagnosis

- Jenin city importance: "Why Jenin city for the project"
- Historical expansion of the city of Jenin
- Jenin city expansion during the years

Jenin City Roads Diagnosis

Analysis & Strategic Planning

- SWOT Analysis
- Strength Map
- Weaknesses map: (Main Goals, Main needs, Vision statement)

Planning Preparation & detailed Planning

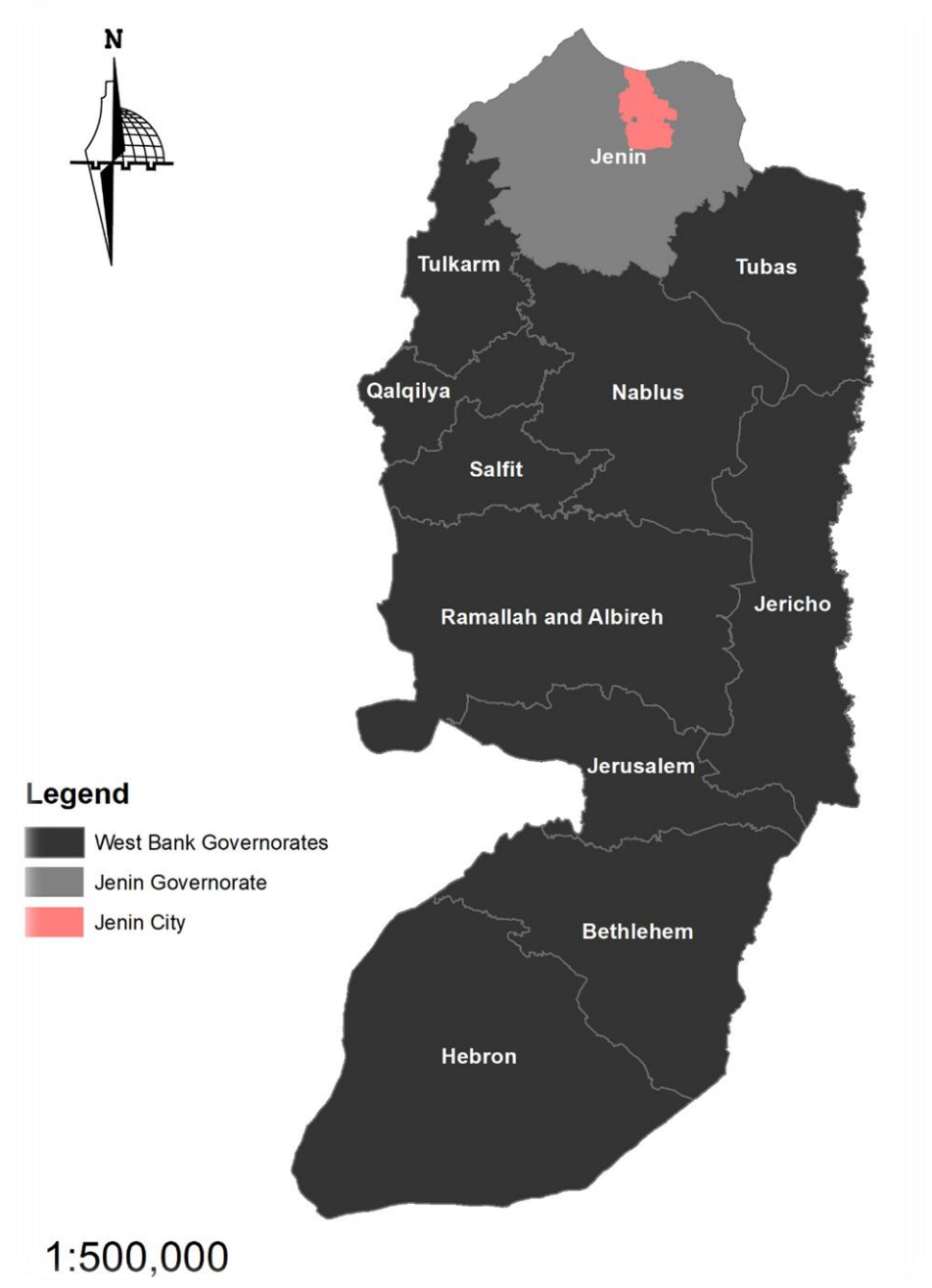
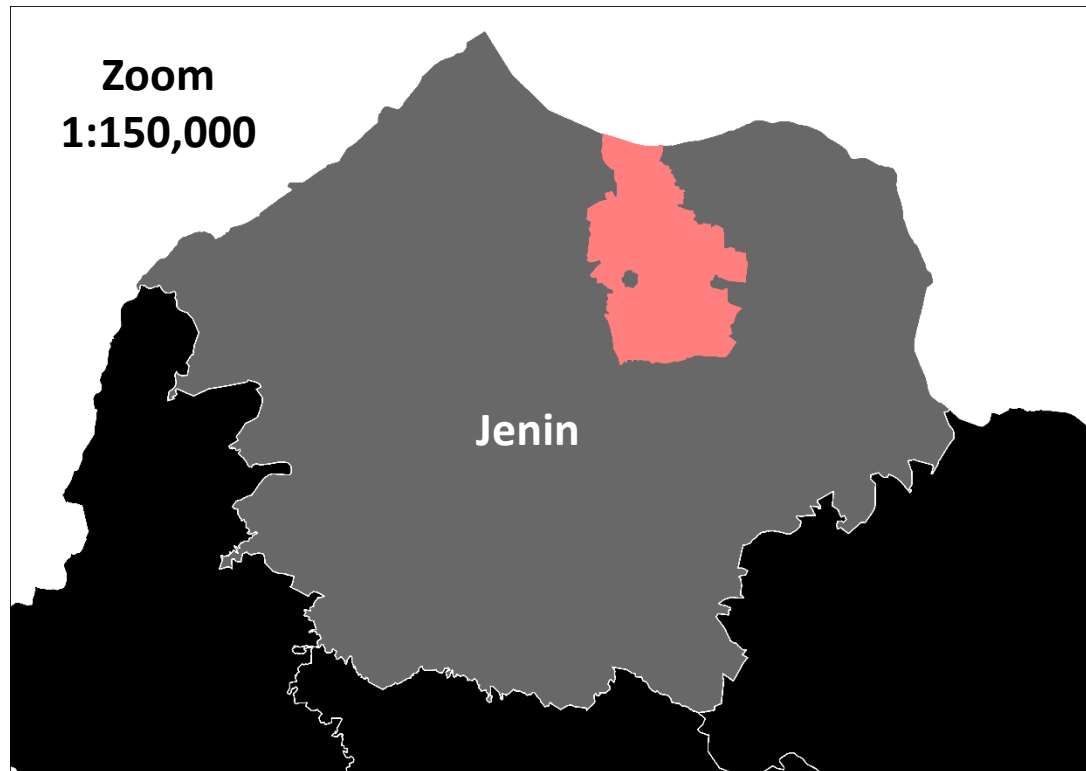
Conclusion & Recommendations



Study Area Diagnosis

Jenin city importance: "Why Jenin city for the project"

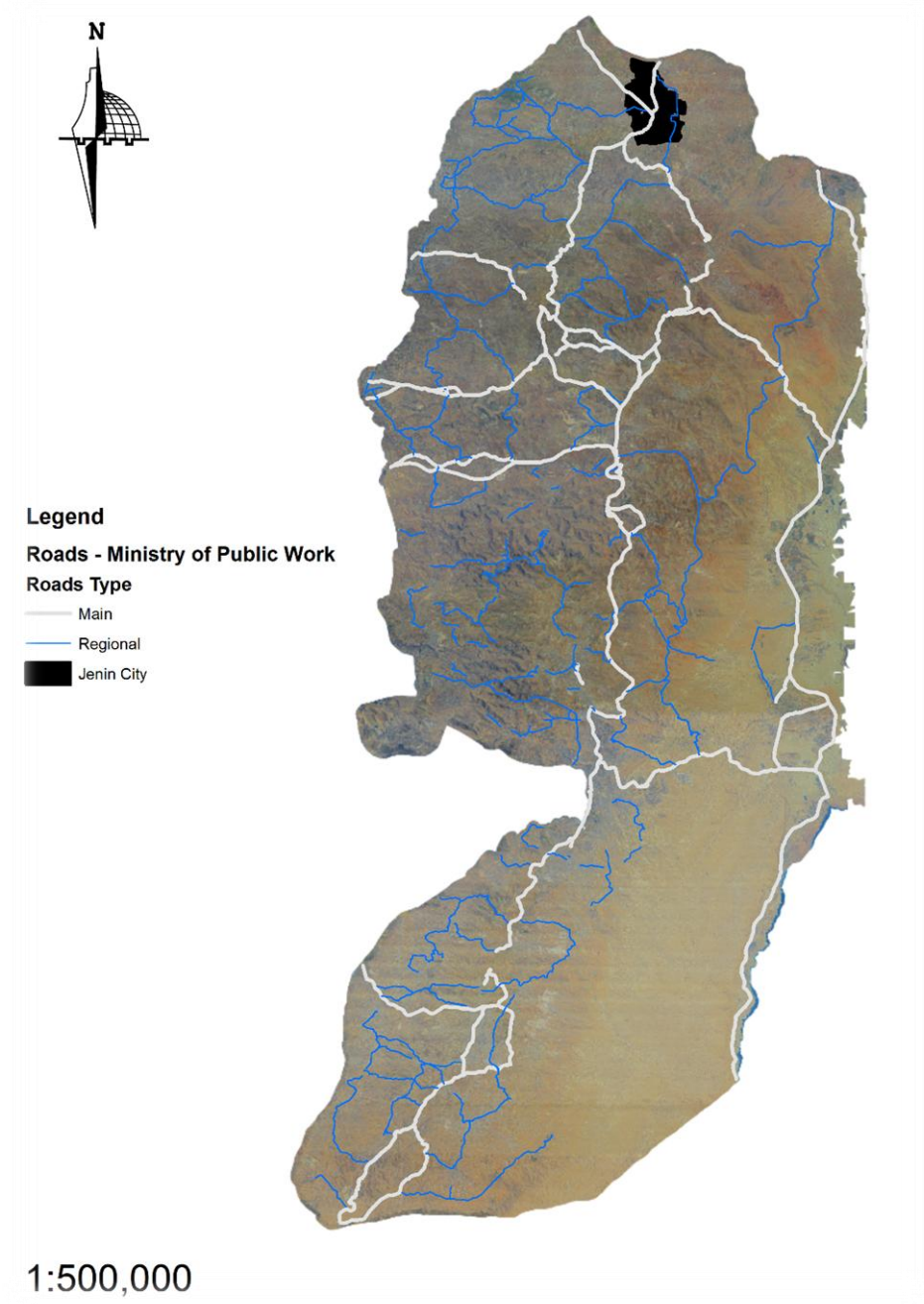
Jenin governorate & city location according to other West Bank governorates



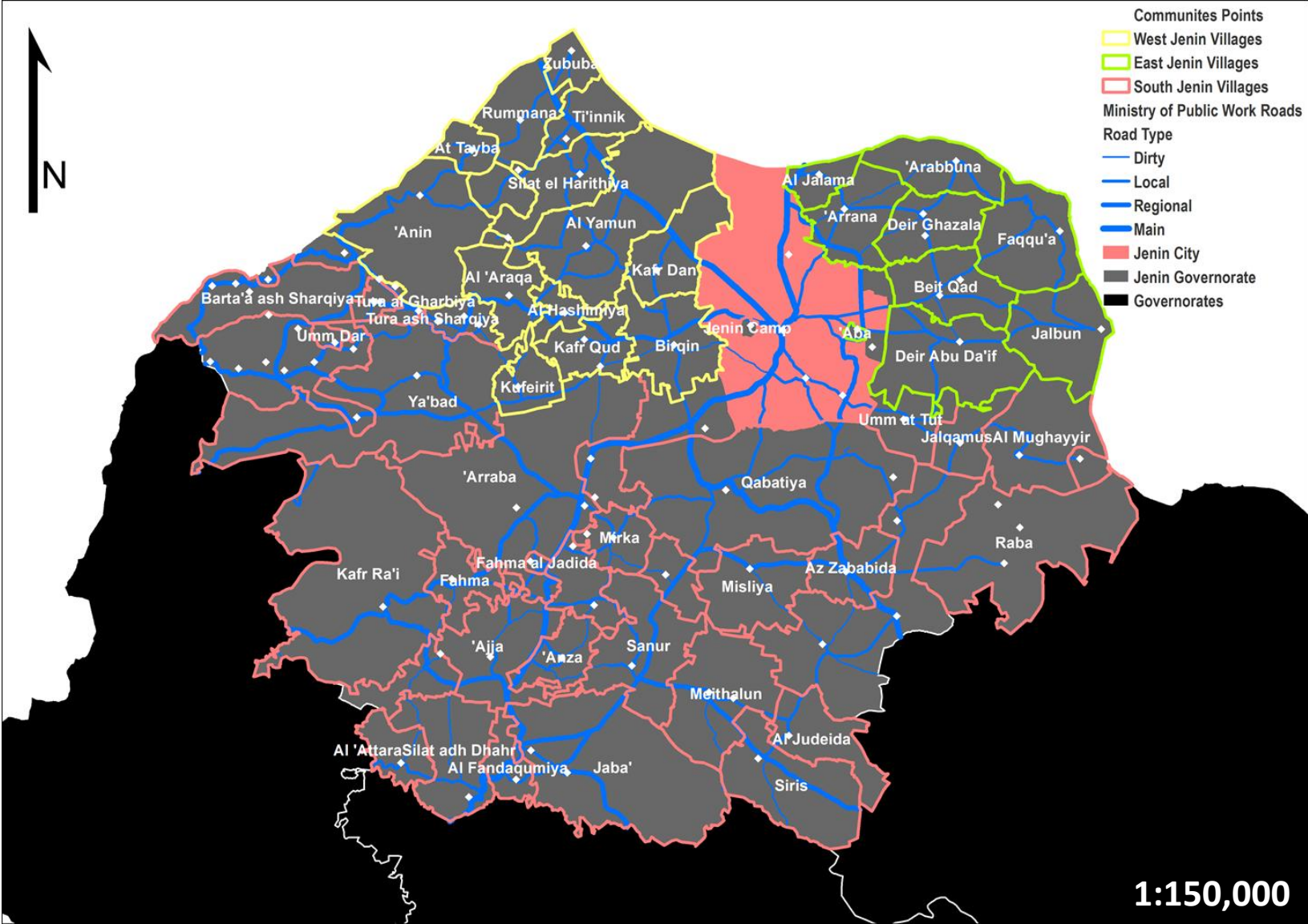
West bank governorates connected by main and regional roads " Jenin City location "

**There is a main road linking Jenin city with Nablus city
This is a positive point for the governorate, where it is
easy to reach the regional center for the northern West
Bank**

Note: This Classification by Ministry of Public Work



Communities that connected to Jenin city

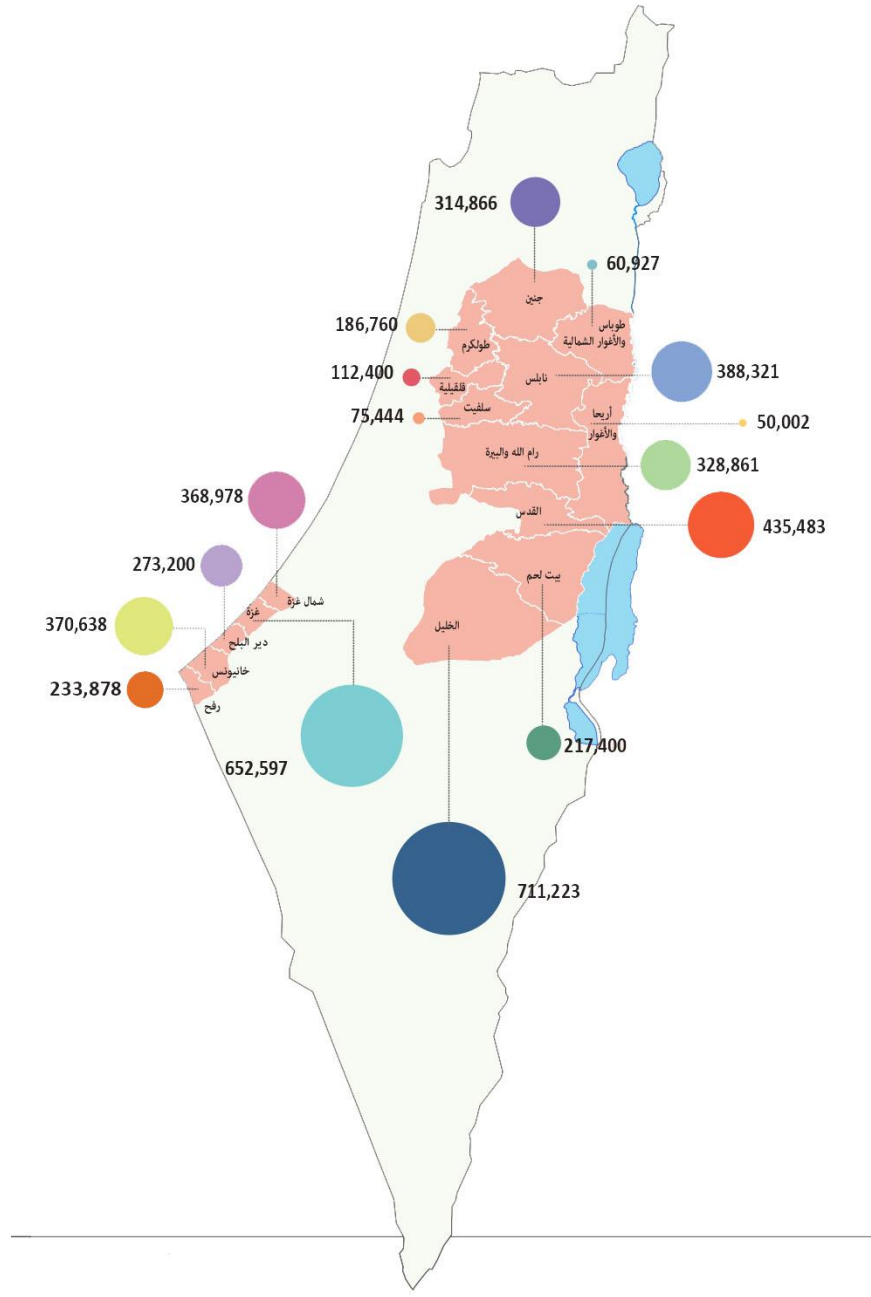


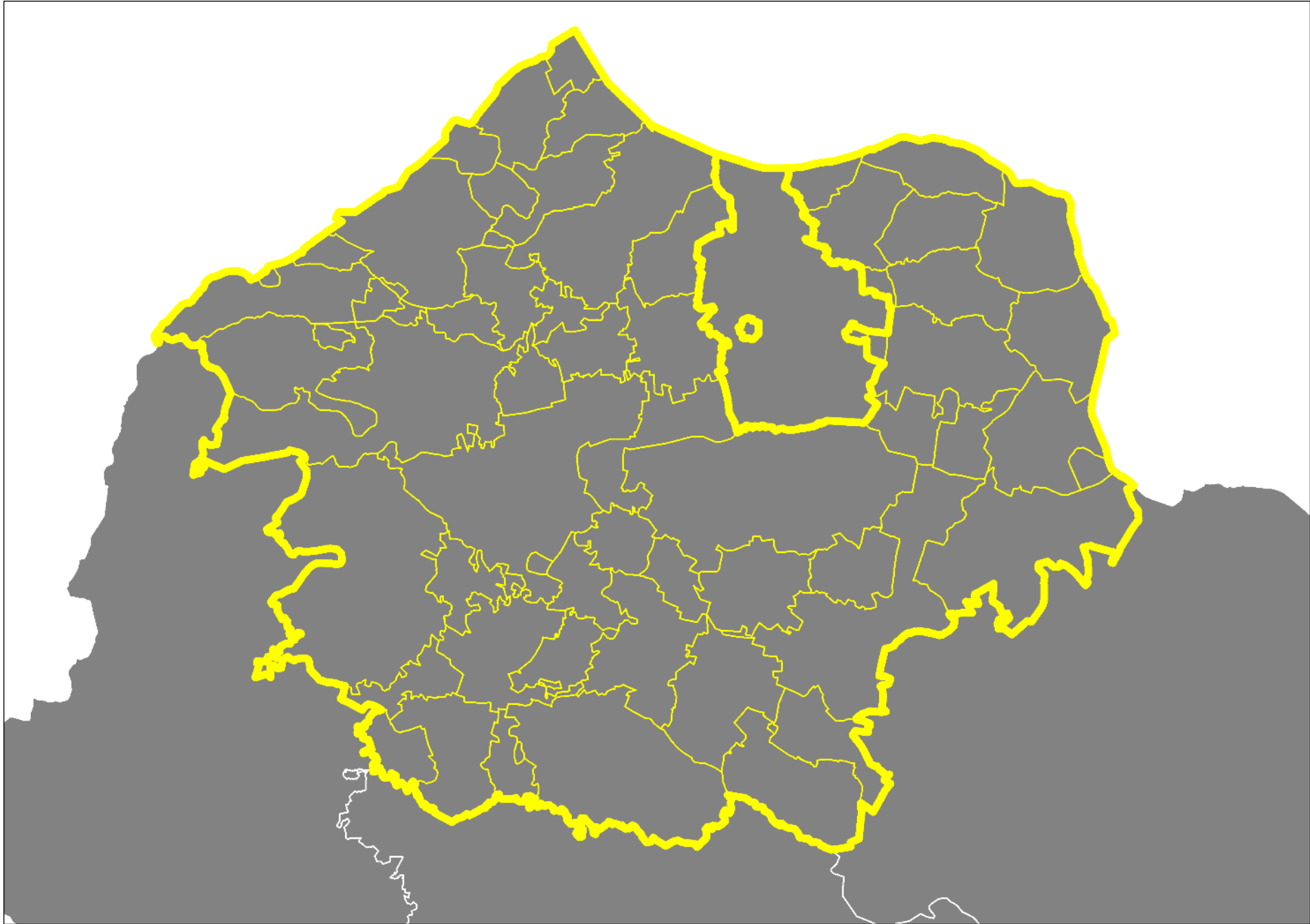


Why Jenin City for the Project

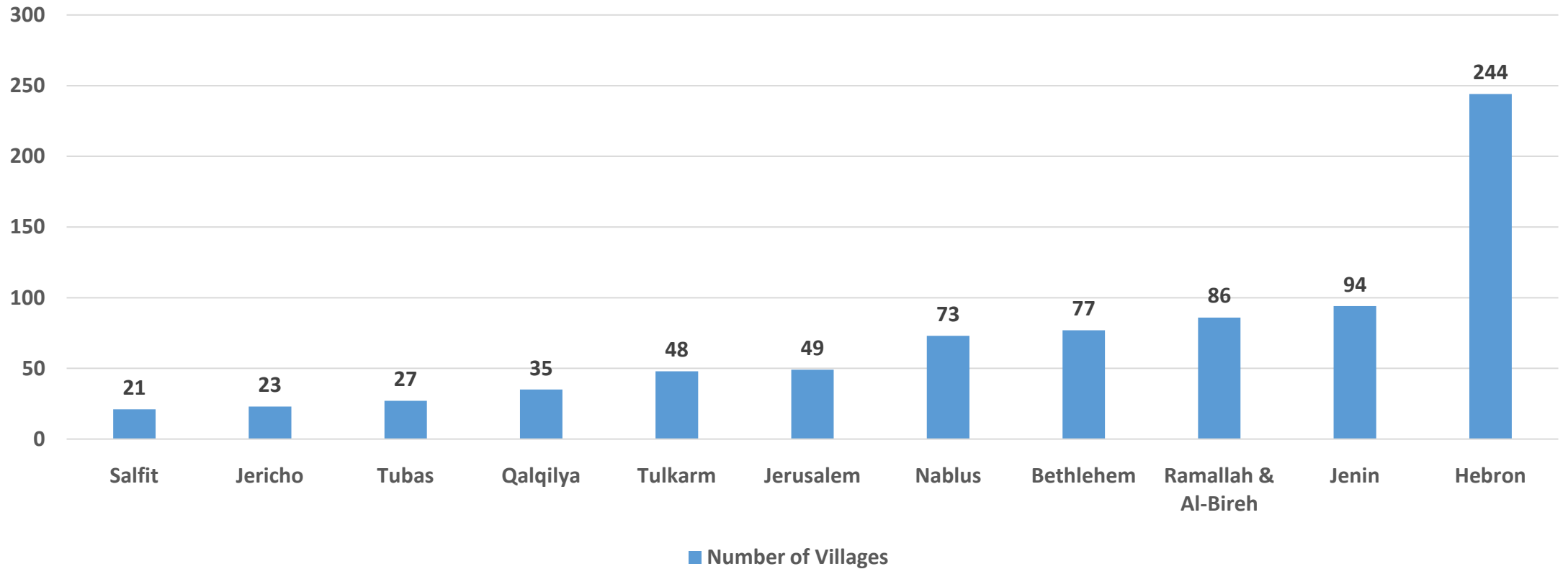


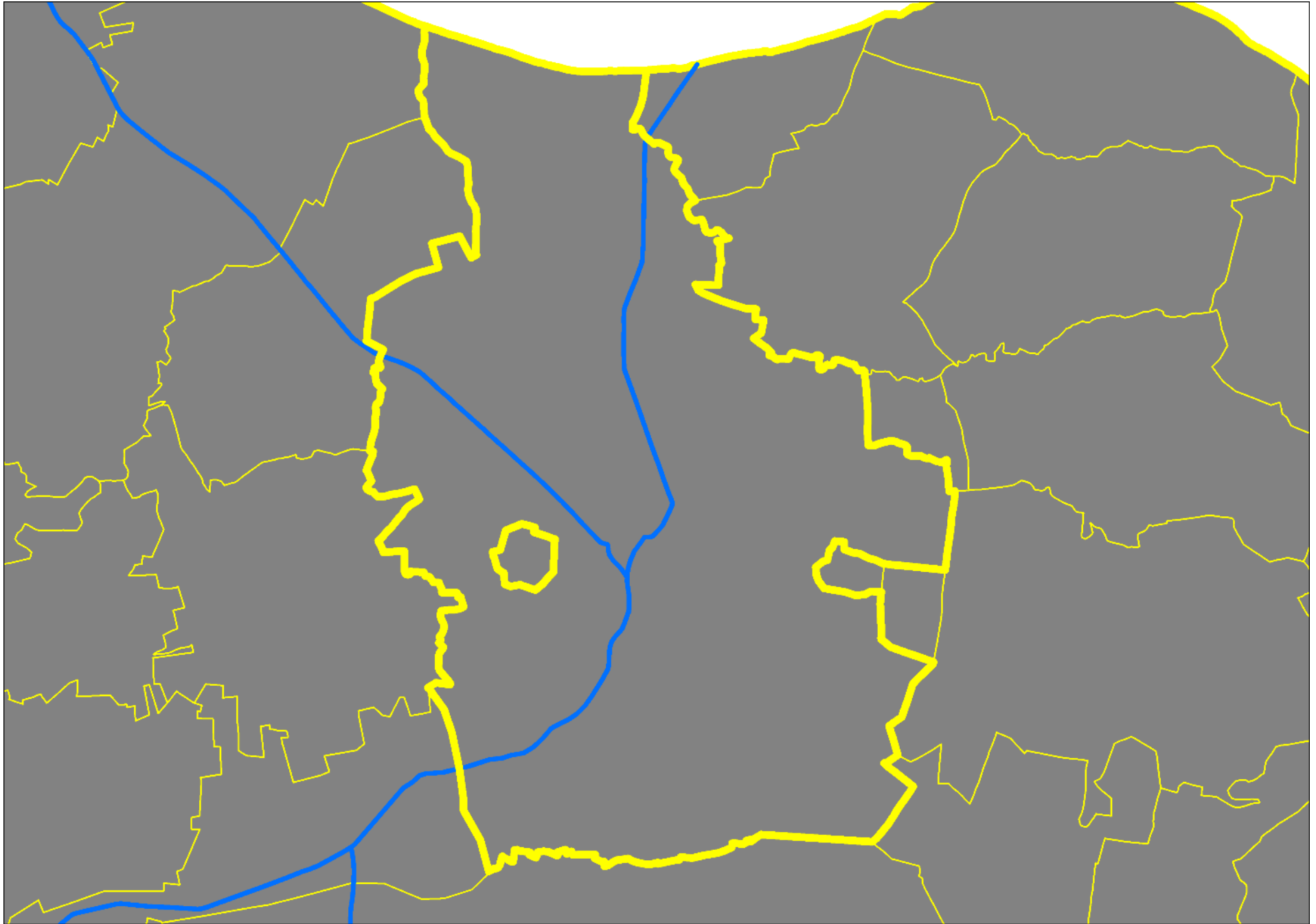
1. The importance of the geographical location of the city of Jenin

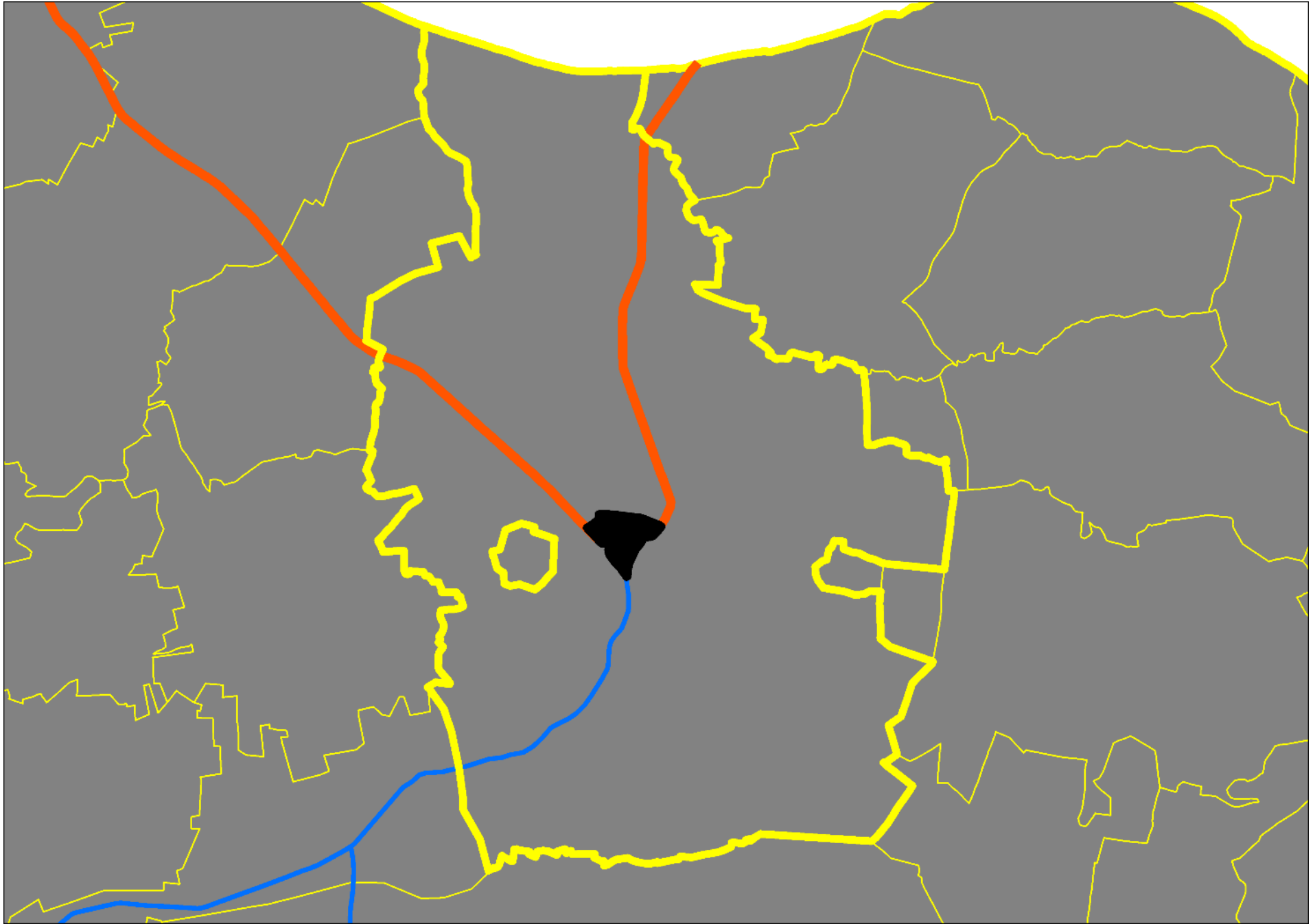


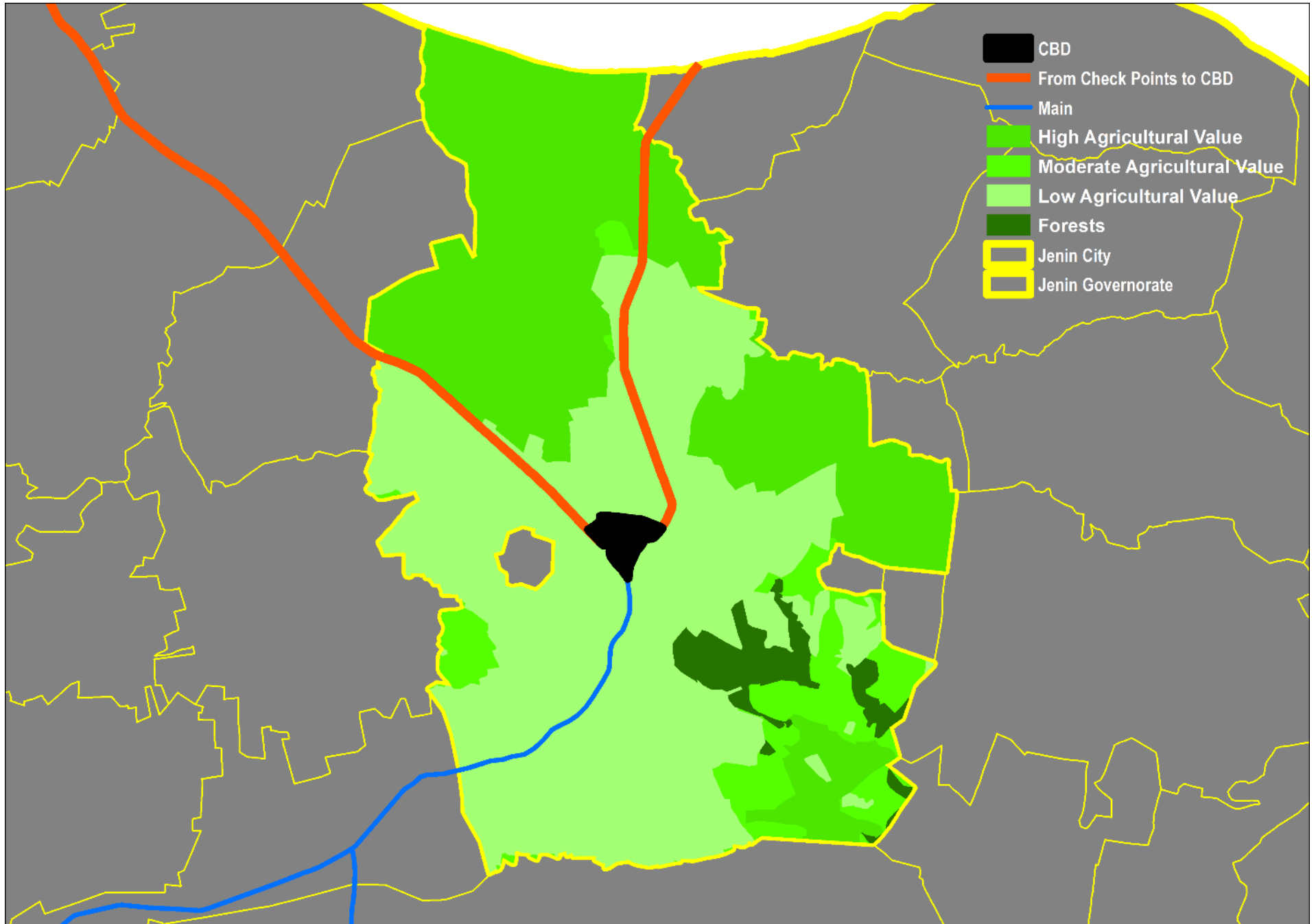


Number of Villages









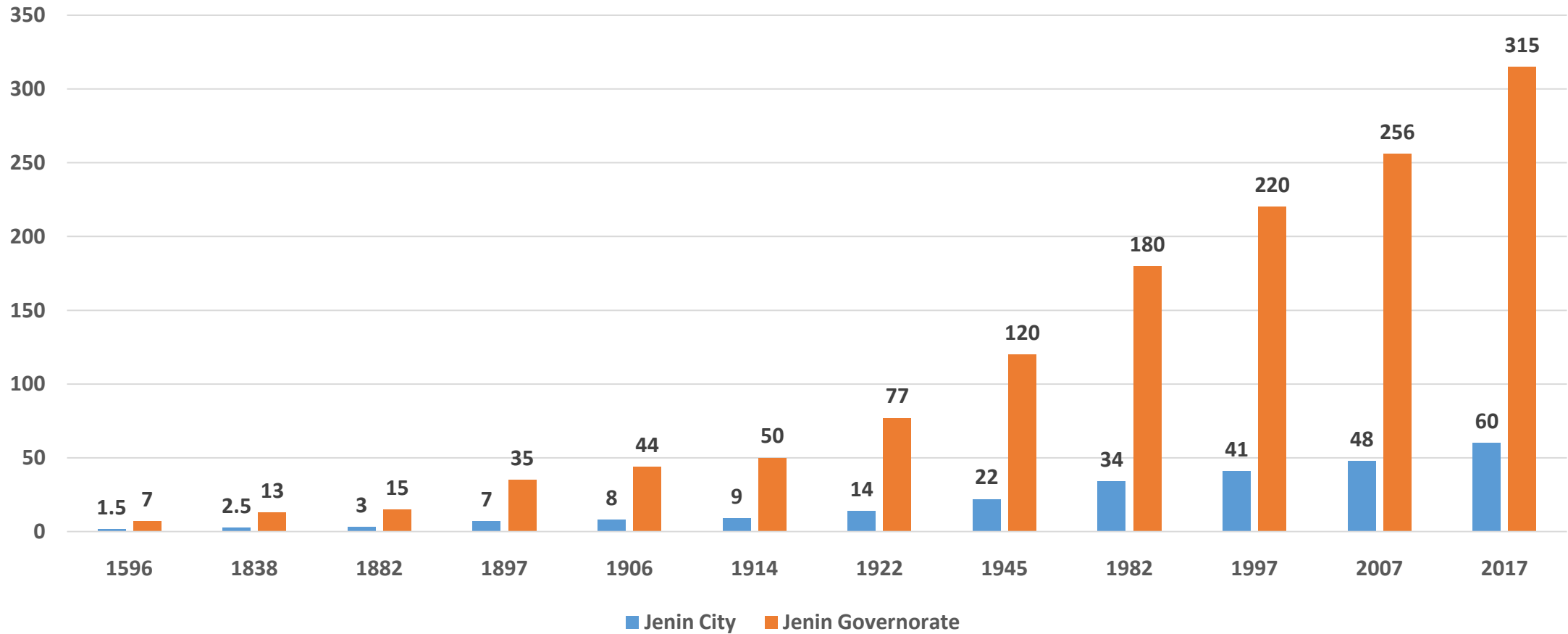
Population growth rate: 2.5%

Average size of the family:

1997= 6.1

2007= 5.5

2017= 5.1



Population density and construction is increasing dramatically

Urban Sprawl of Jenin City





Al-Sibat (Old Town) 1800

West Neighborhood 1920

Jenin Camp 1948

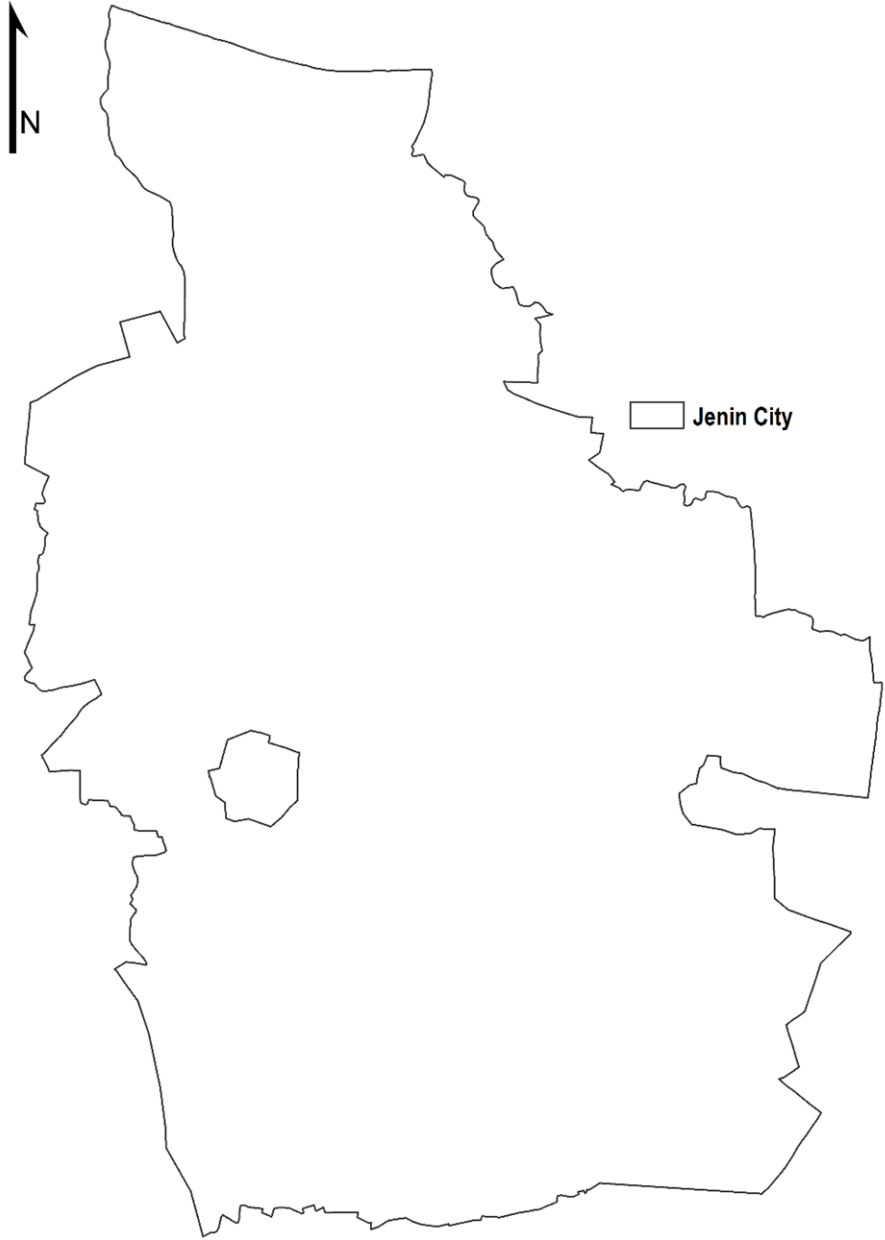
East Neighborhood 1950

German Neighborhood & Wad Burqin 1960

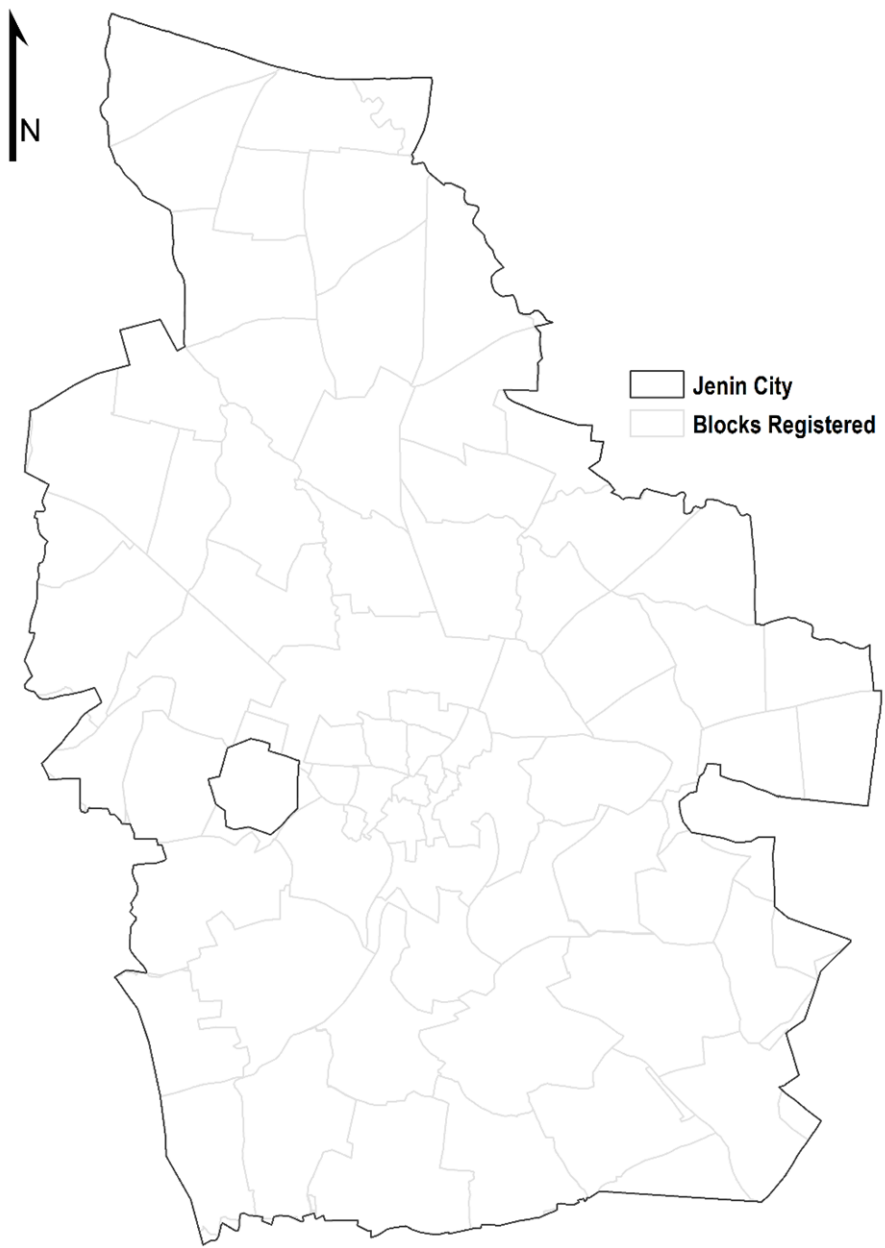
Al-Zahra Neighborhood & Al-Bsatin Neighborhood

Kharouba Neighborhood & Aljabriat Neighborhood & Al-Switat Neighborhood & Sabah Al-khair Neighborhood

Qabatya Blocks & 3 Main Roads Sprawl

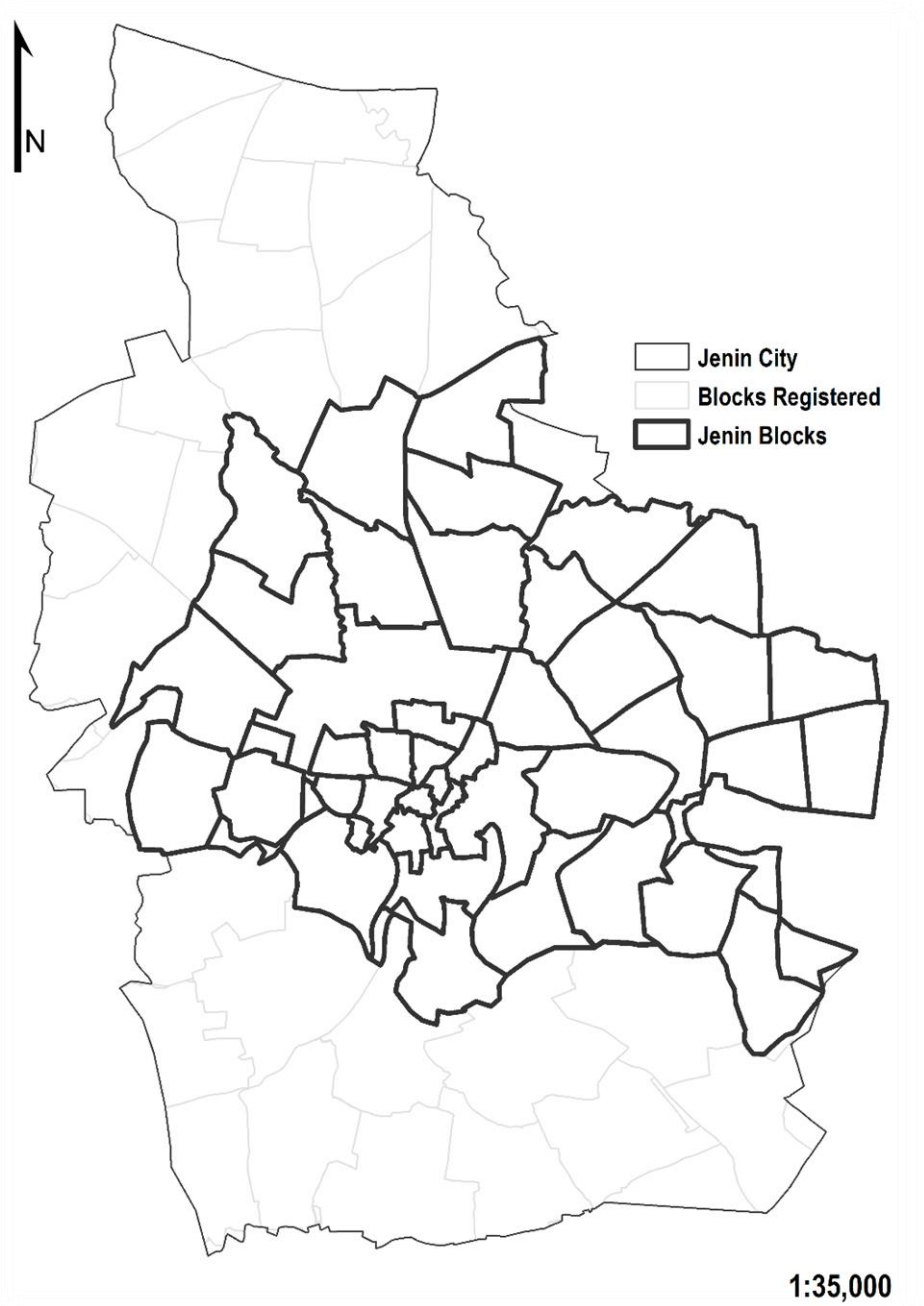


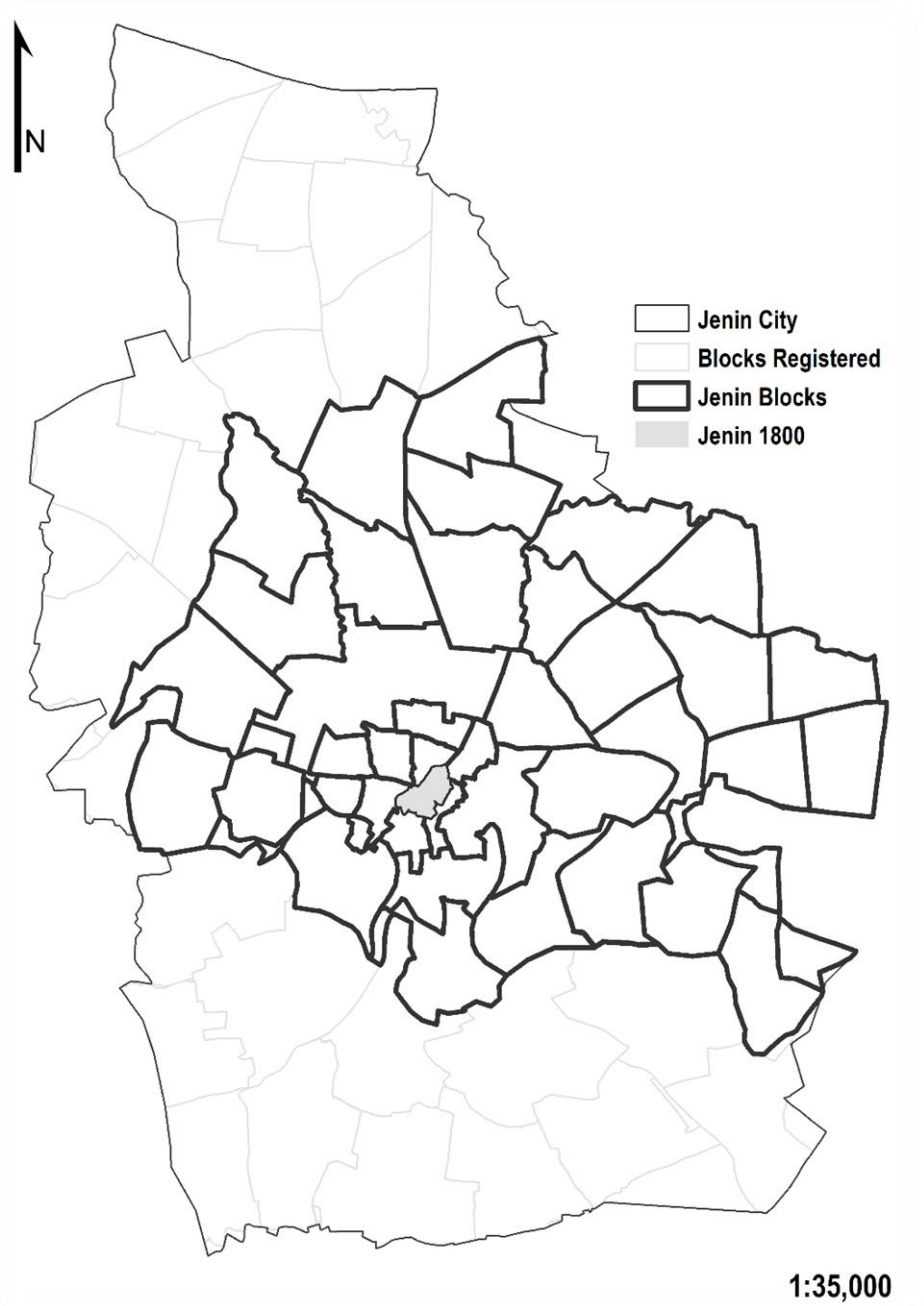
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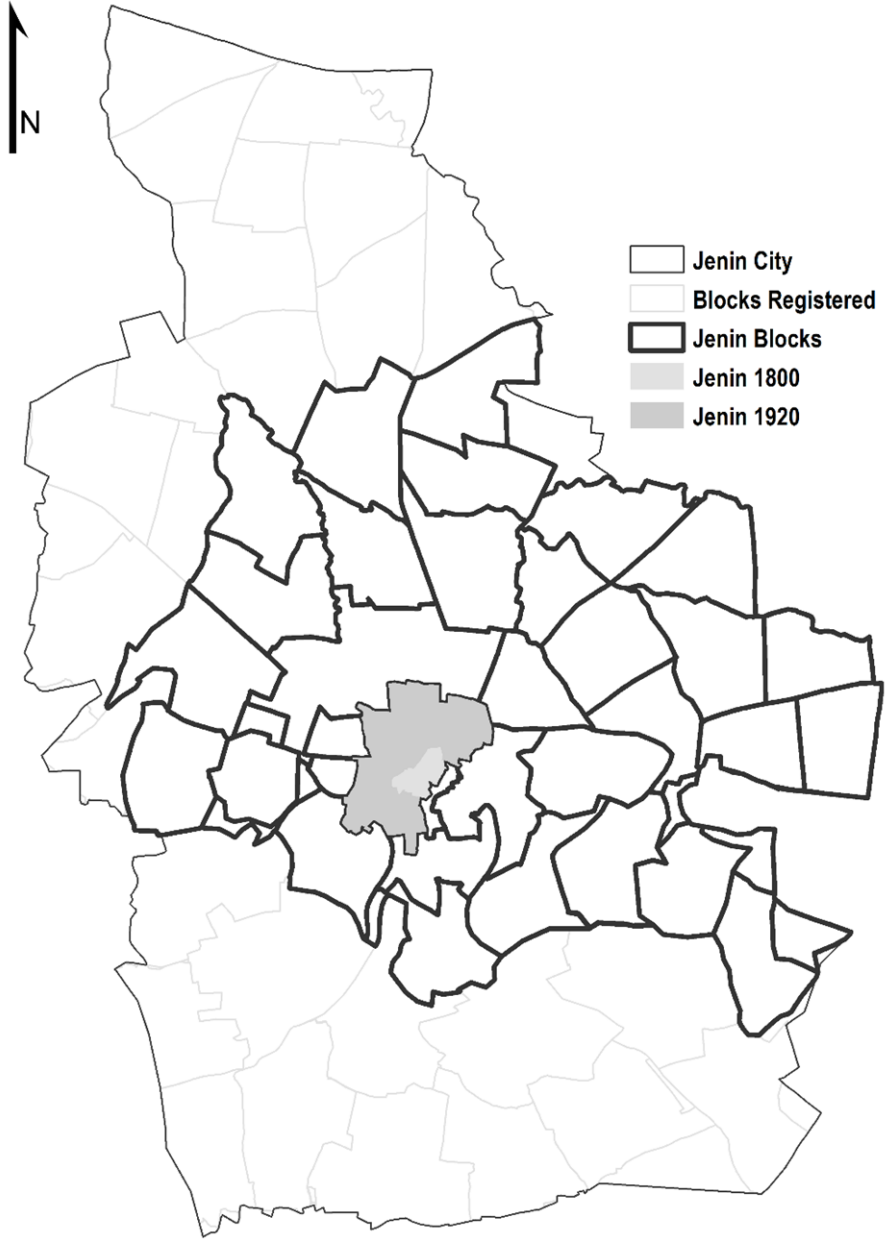
Jenin City
Blocks Registered

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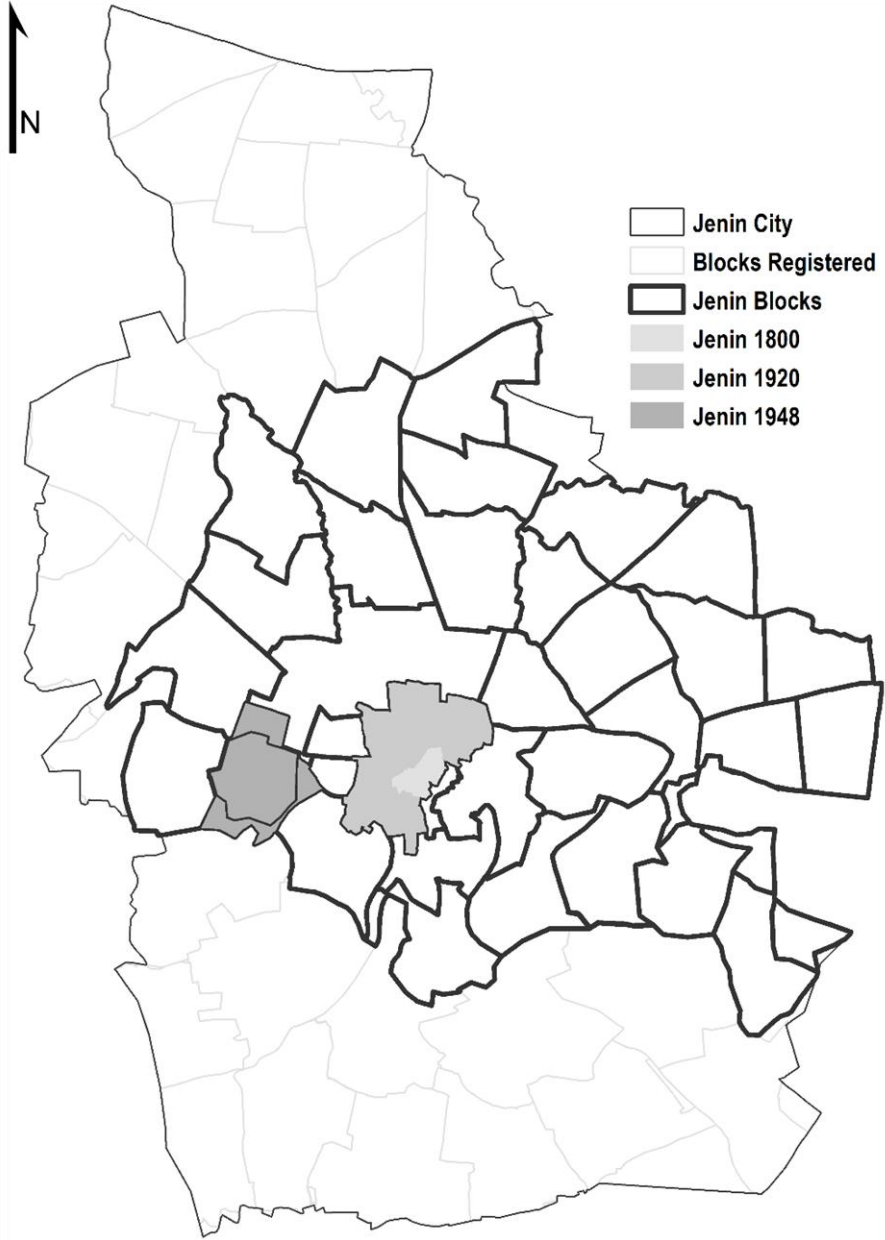




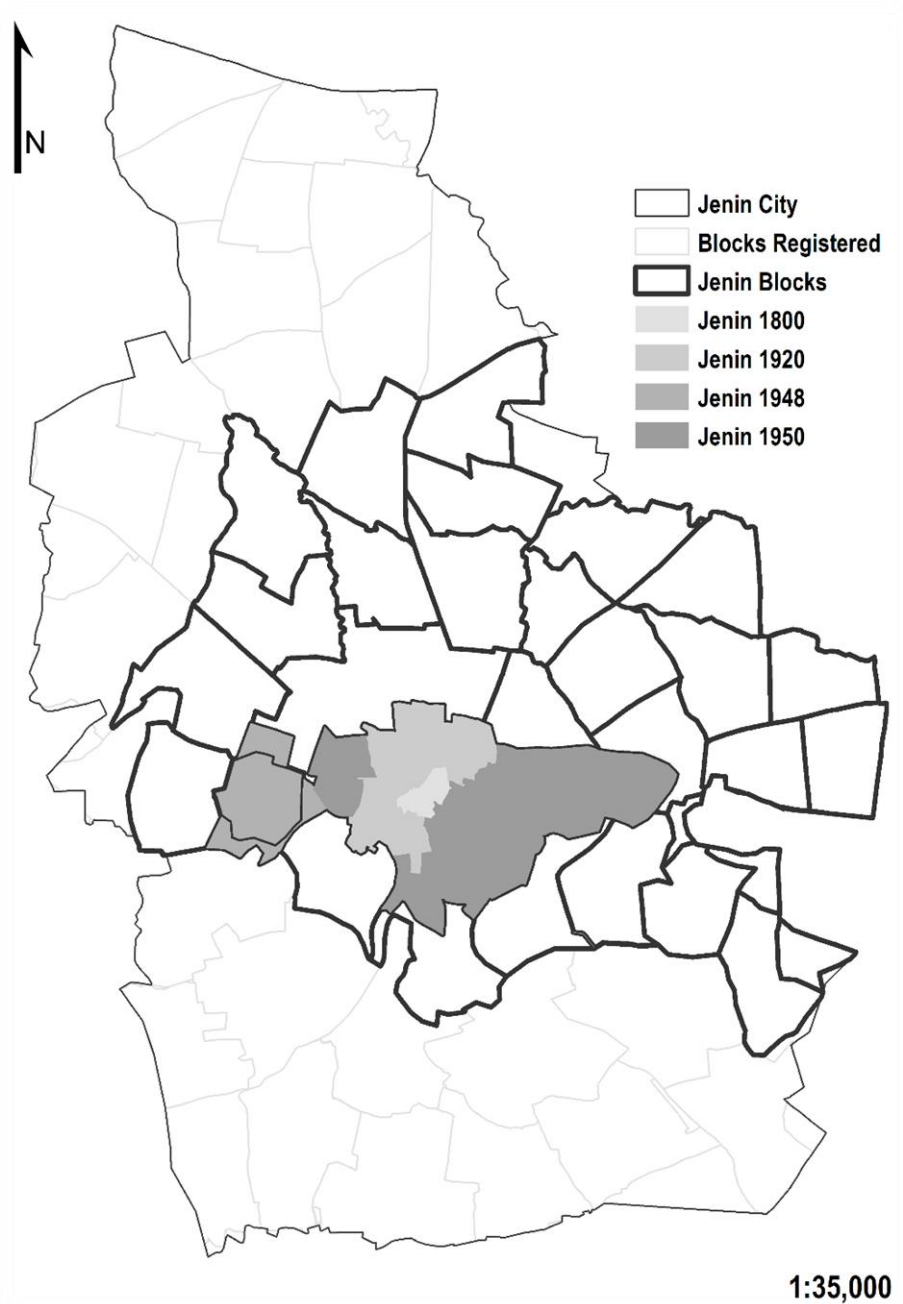
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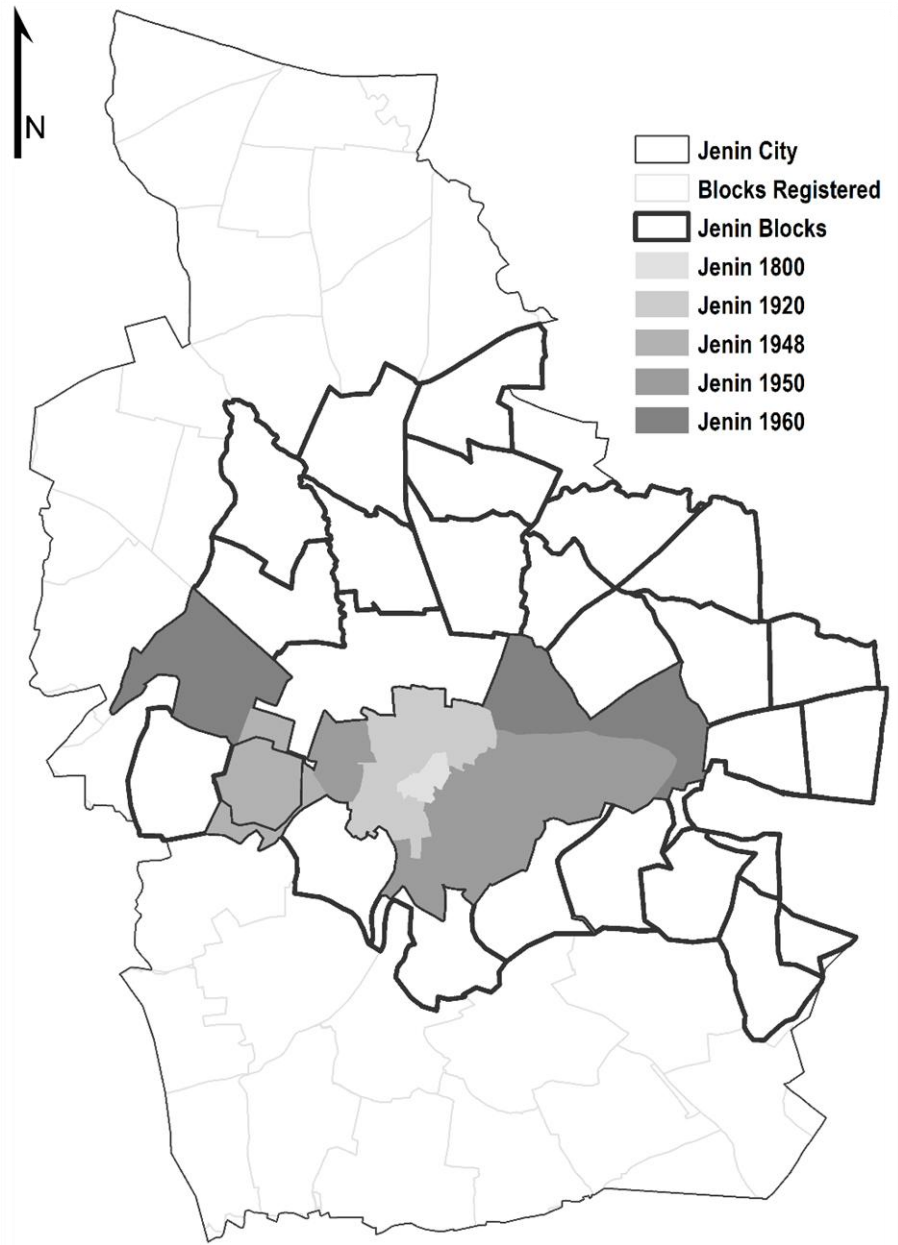
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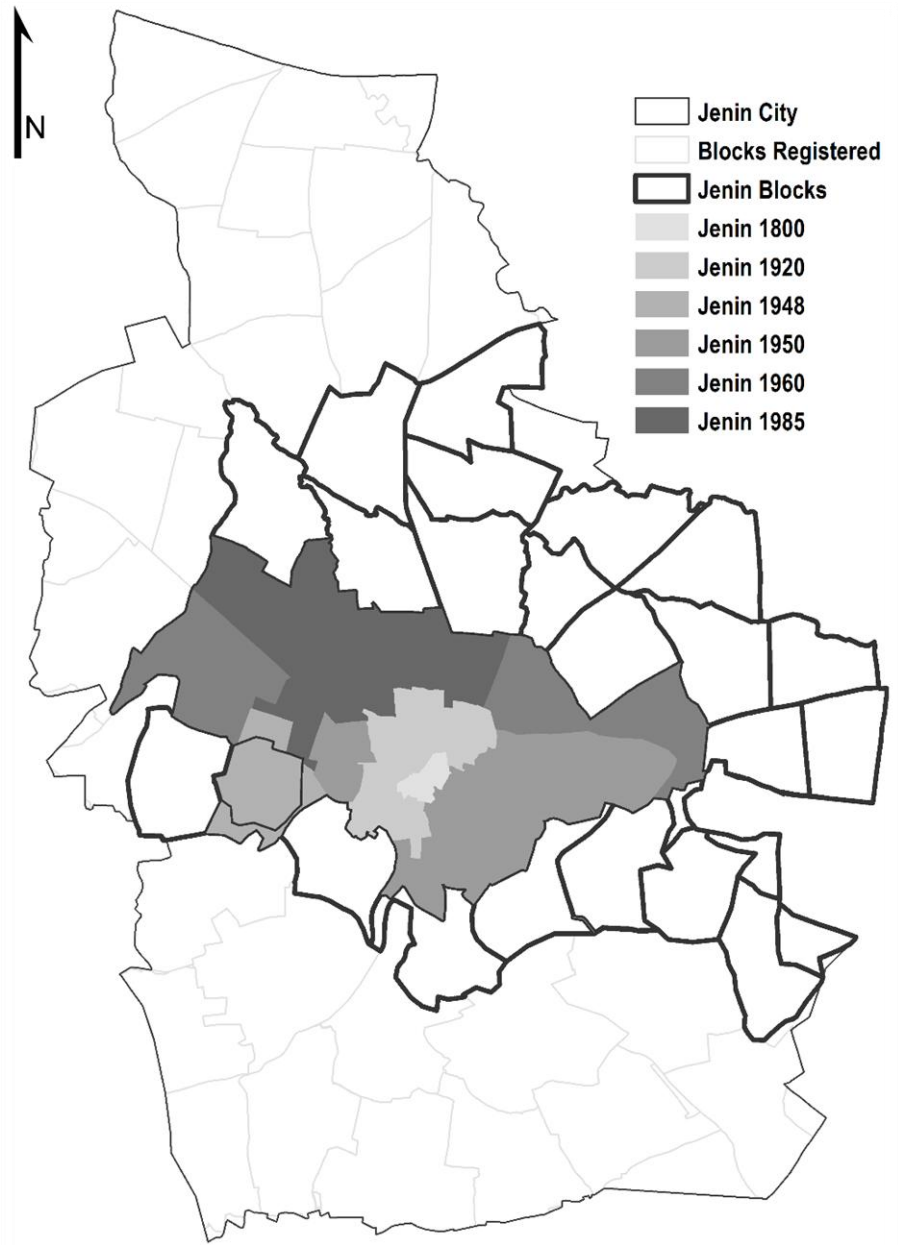
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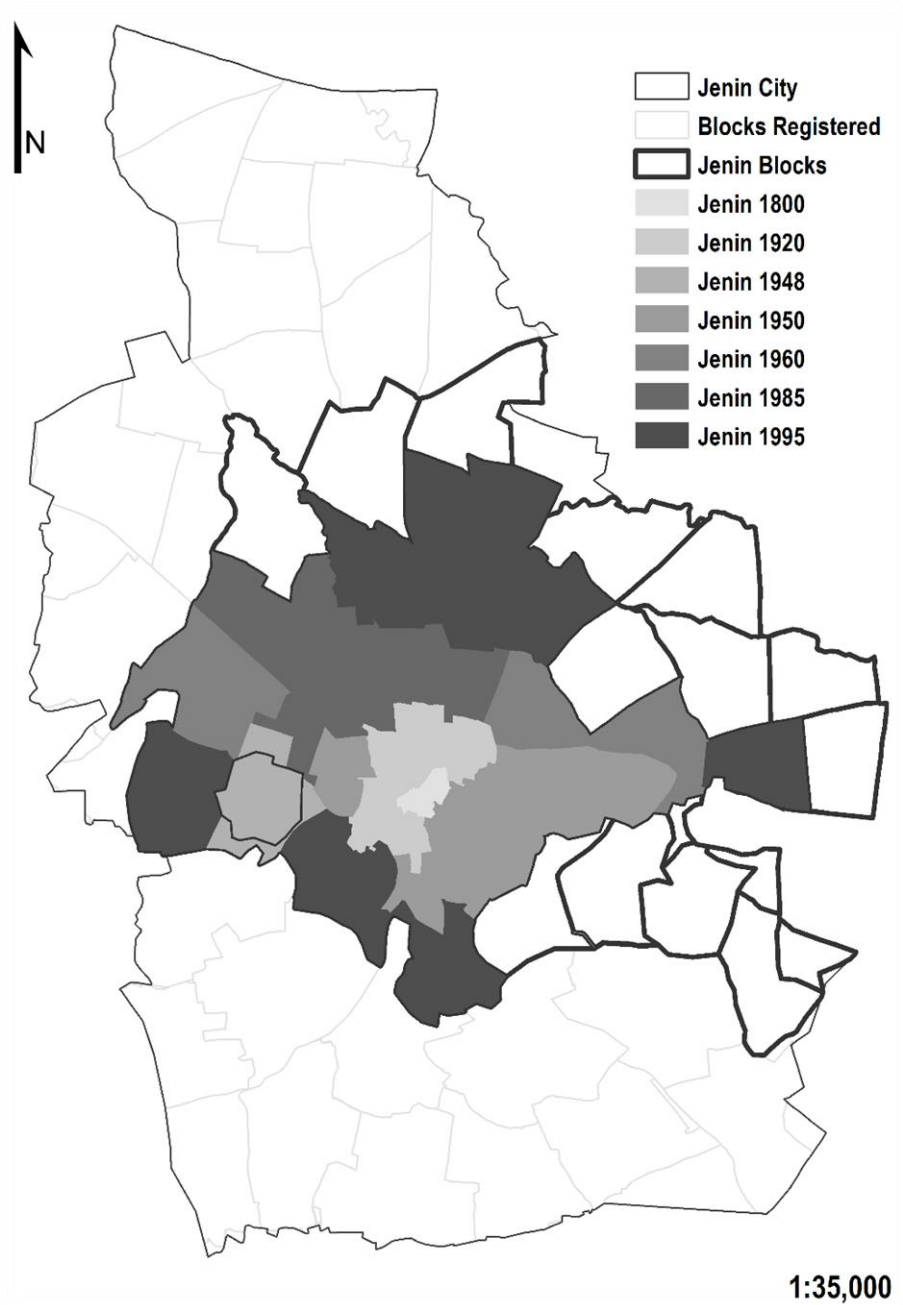
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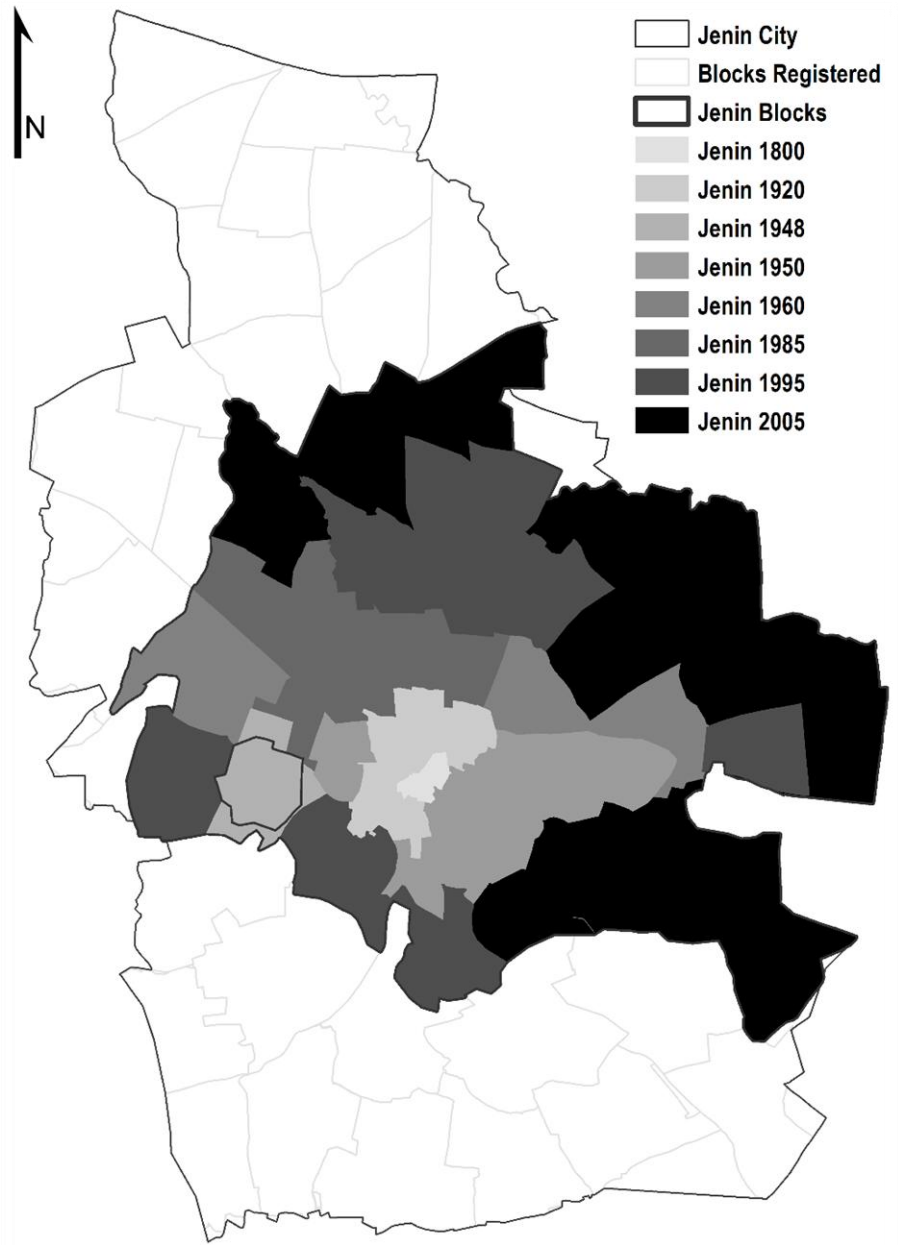
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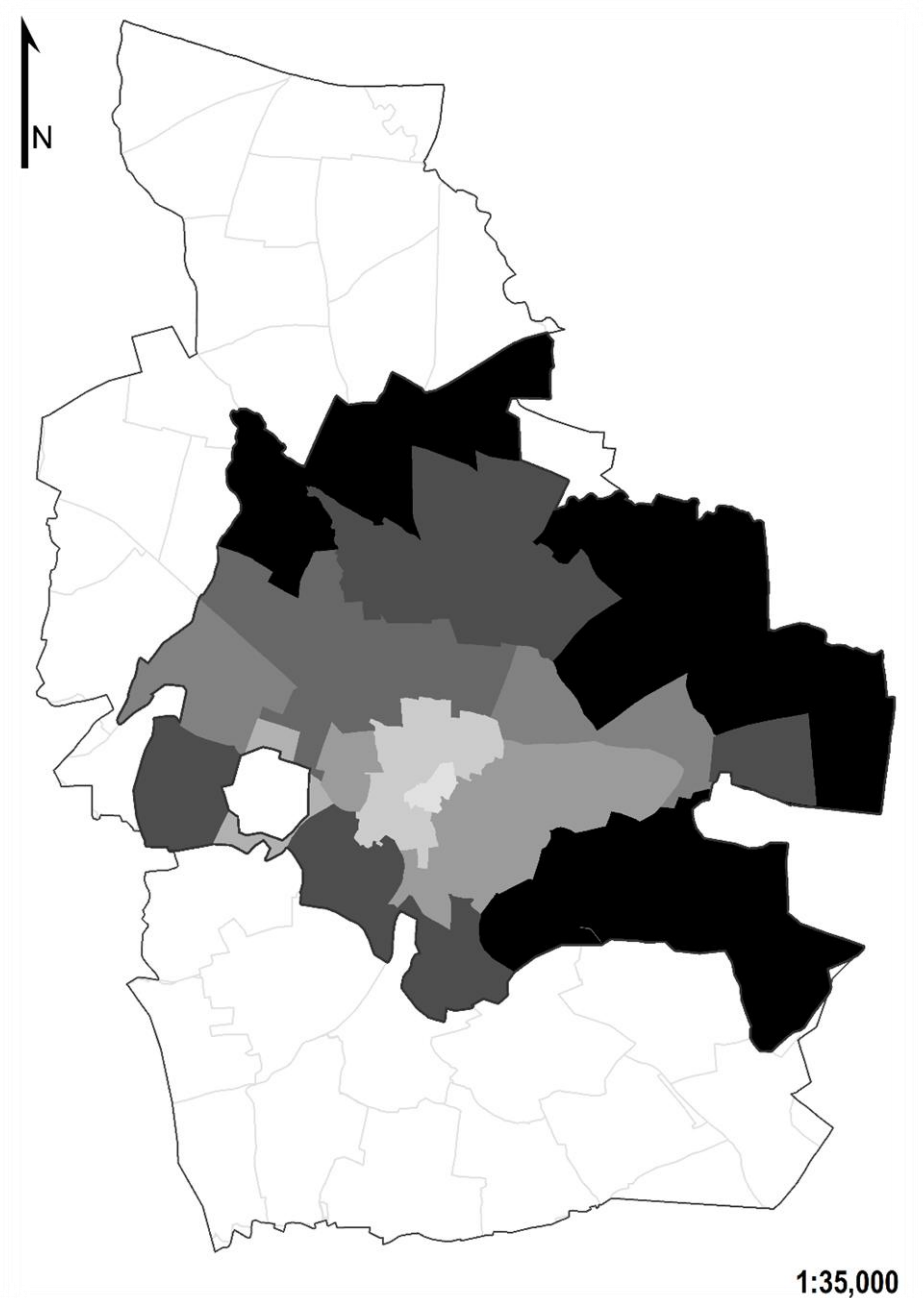


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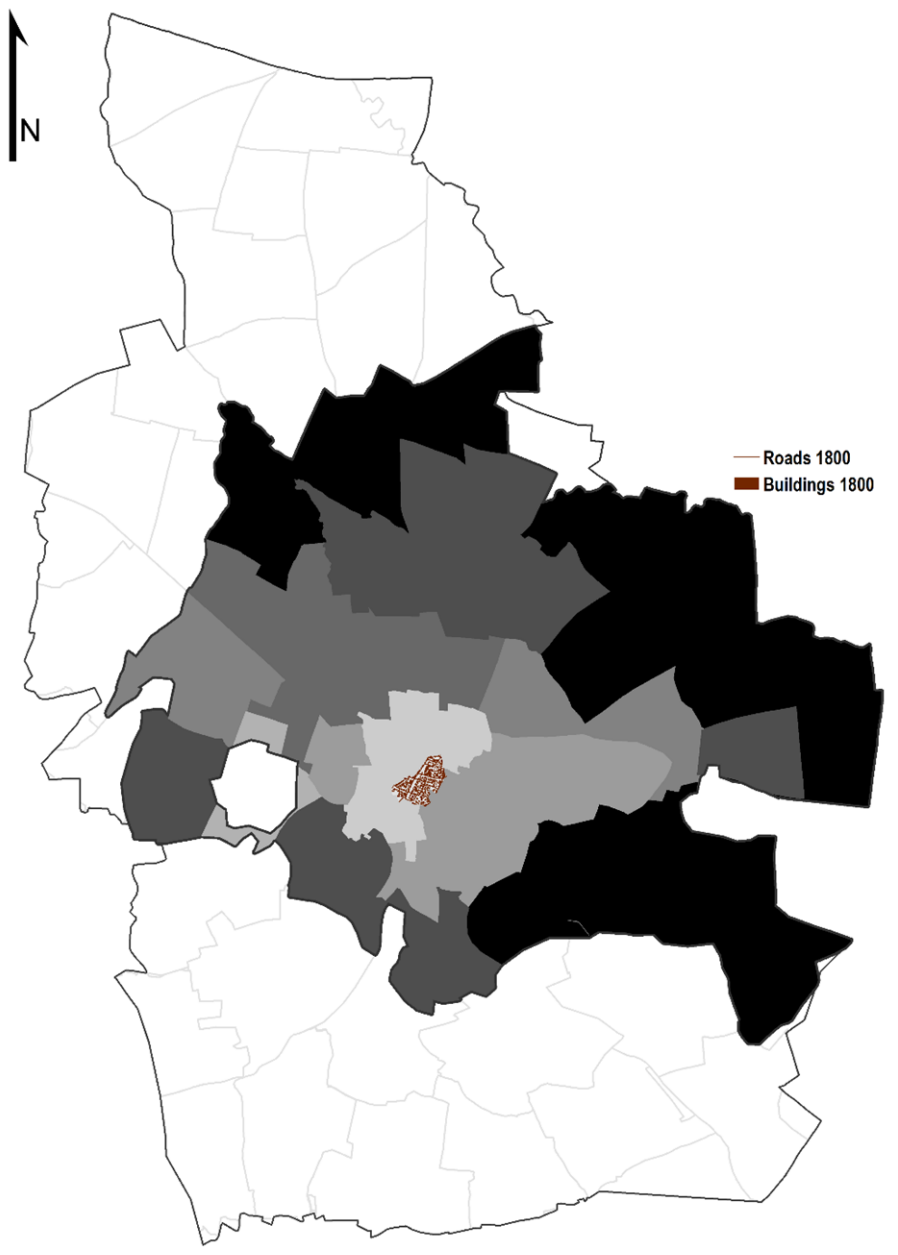


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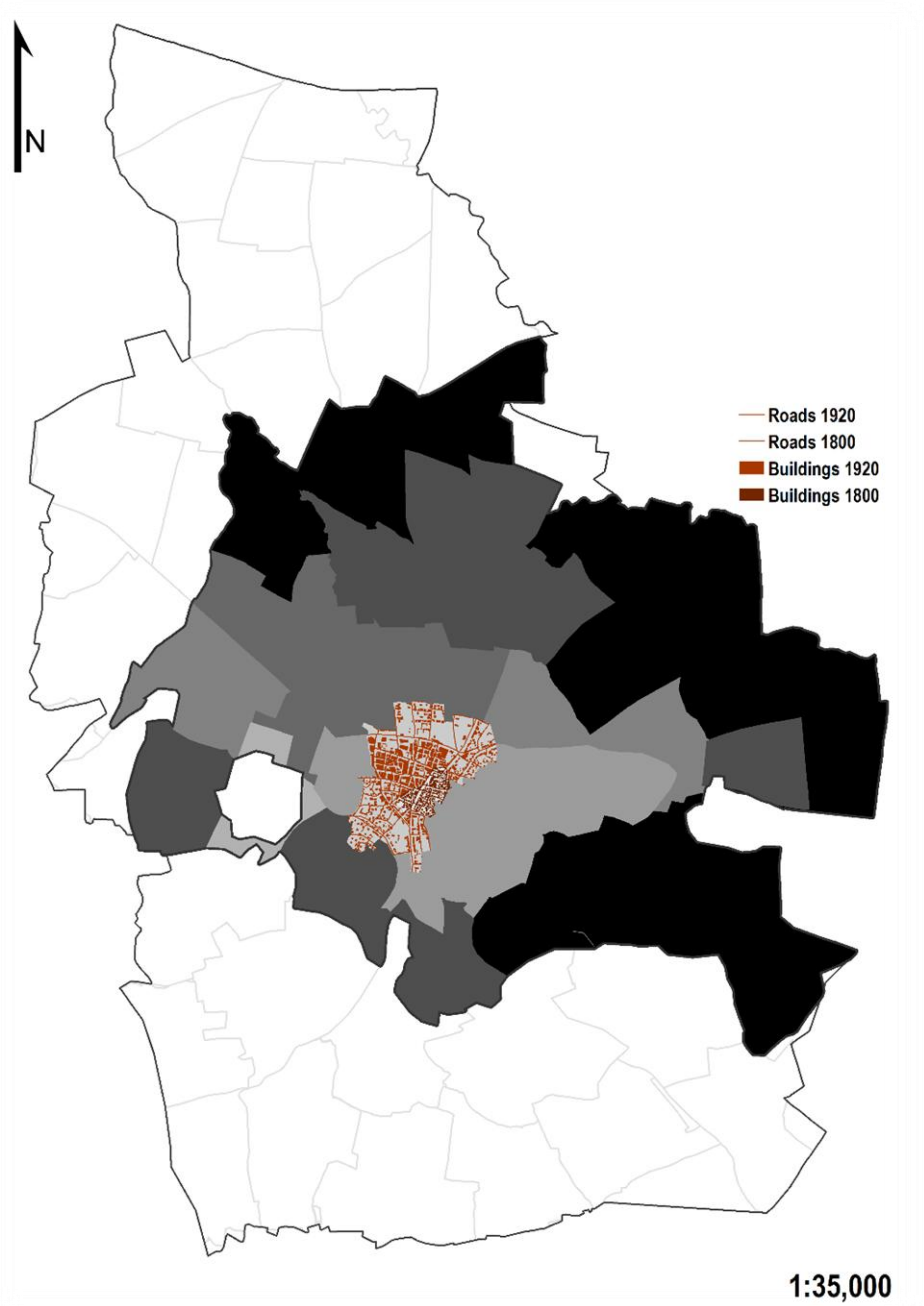
Historical development of streets and buildings

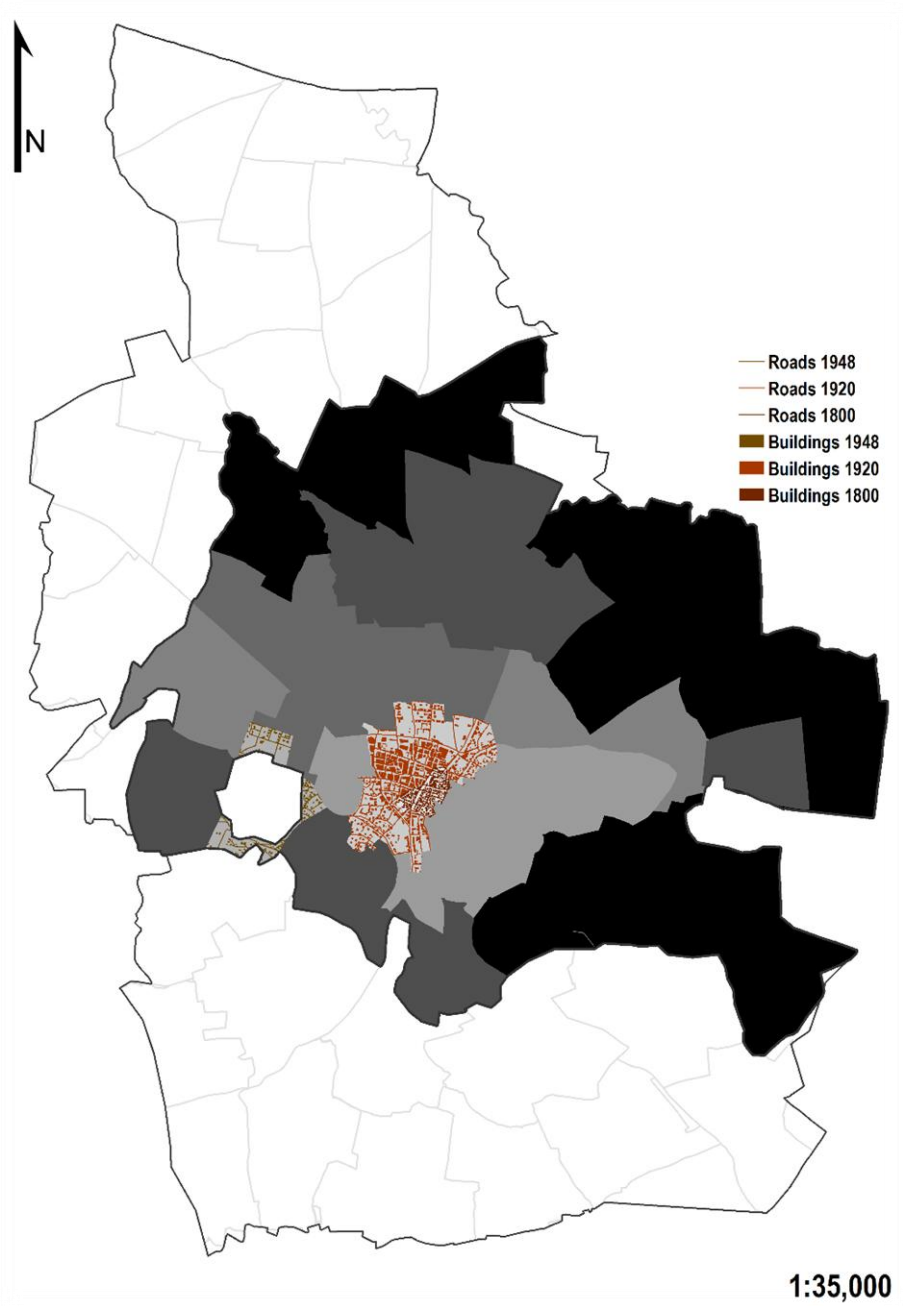


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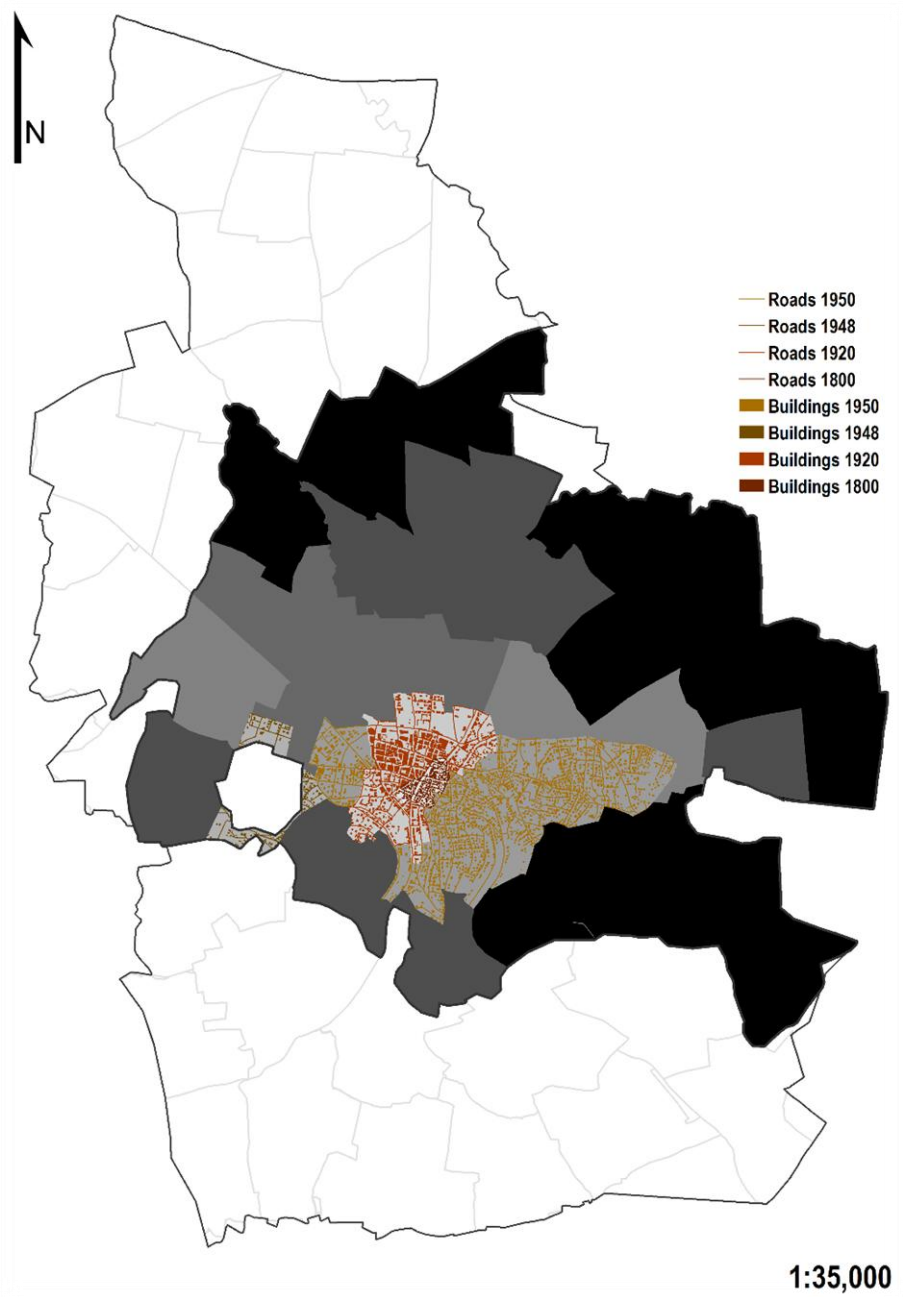


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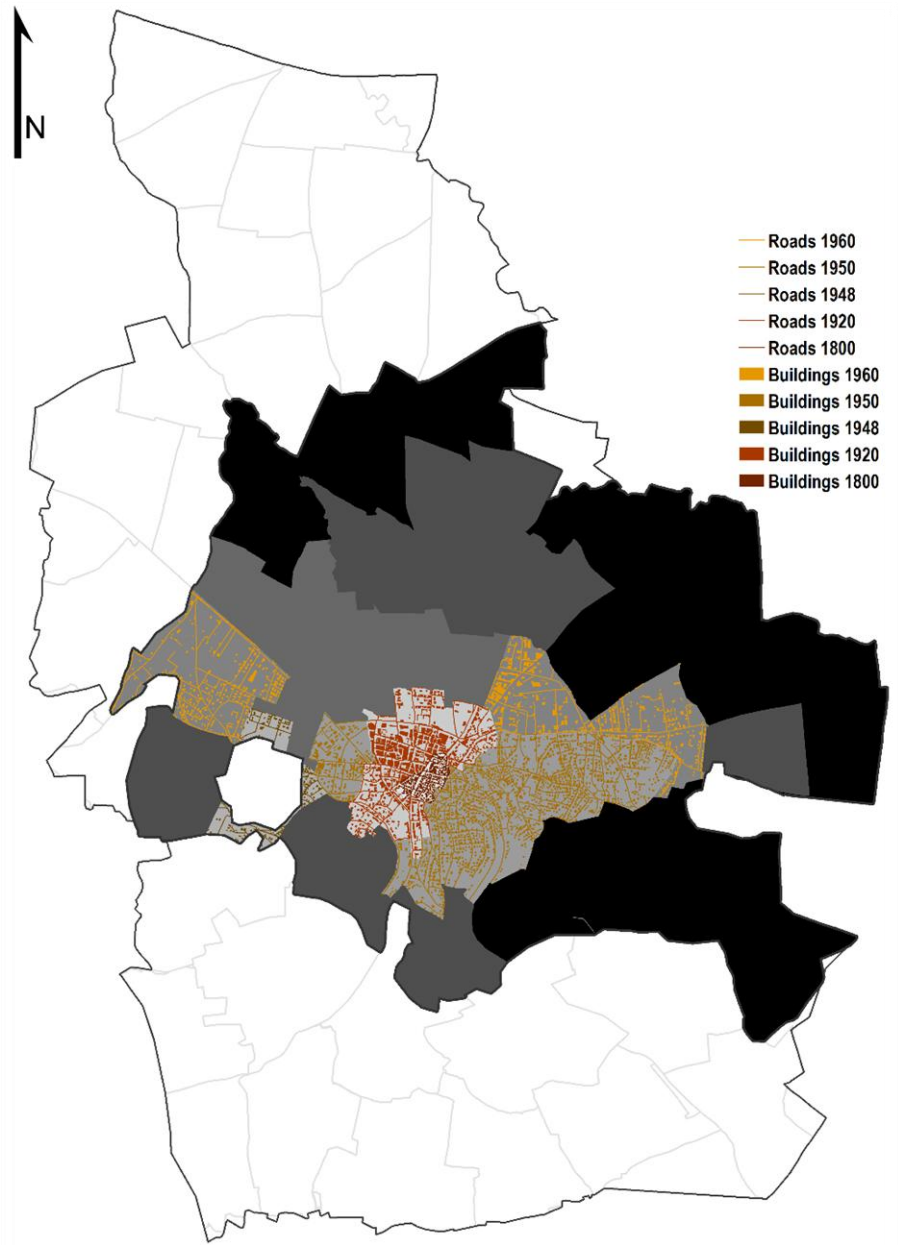




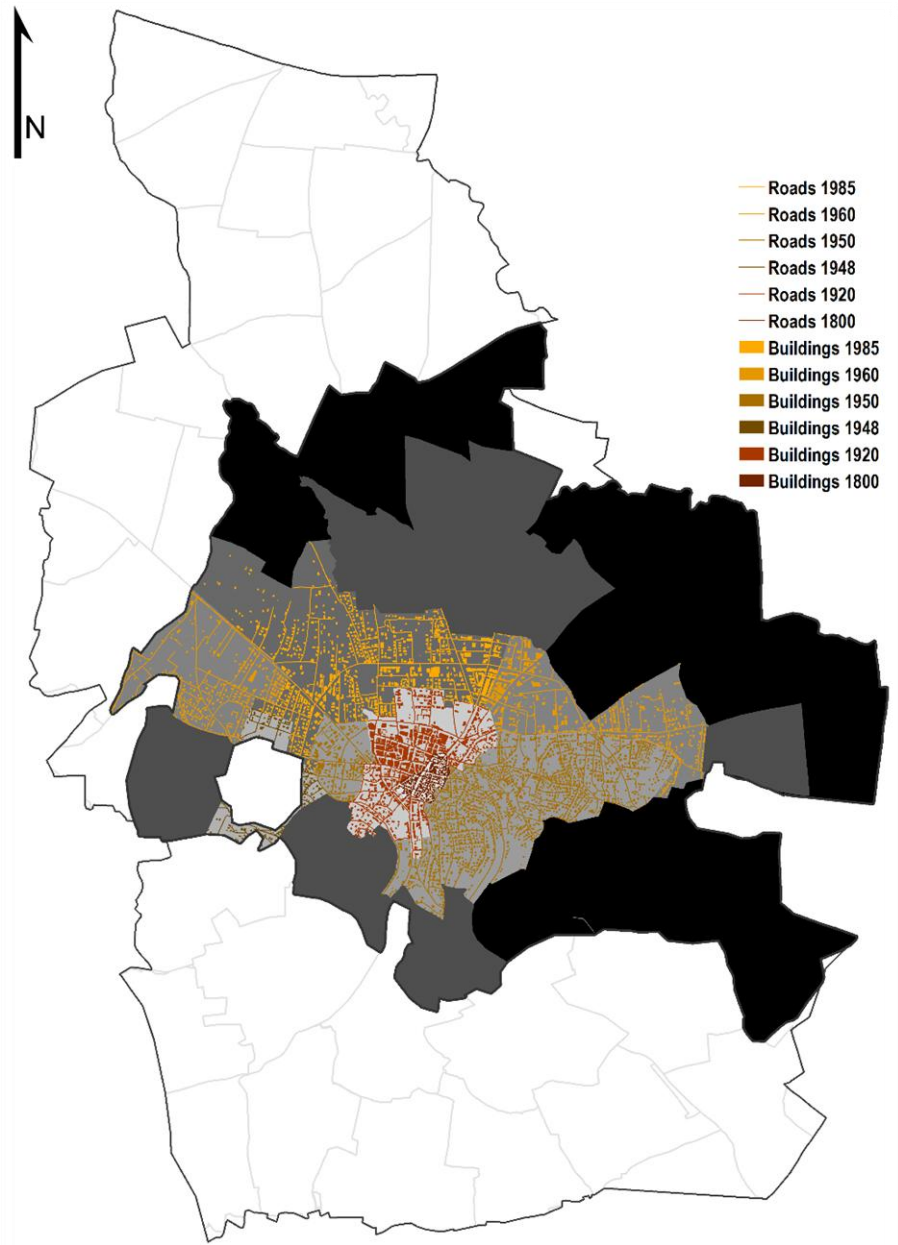
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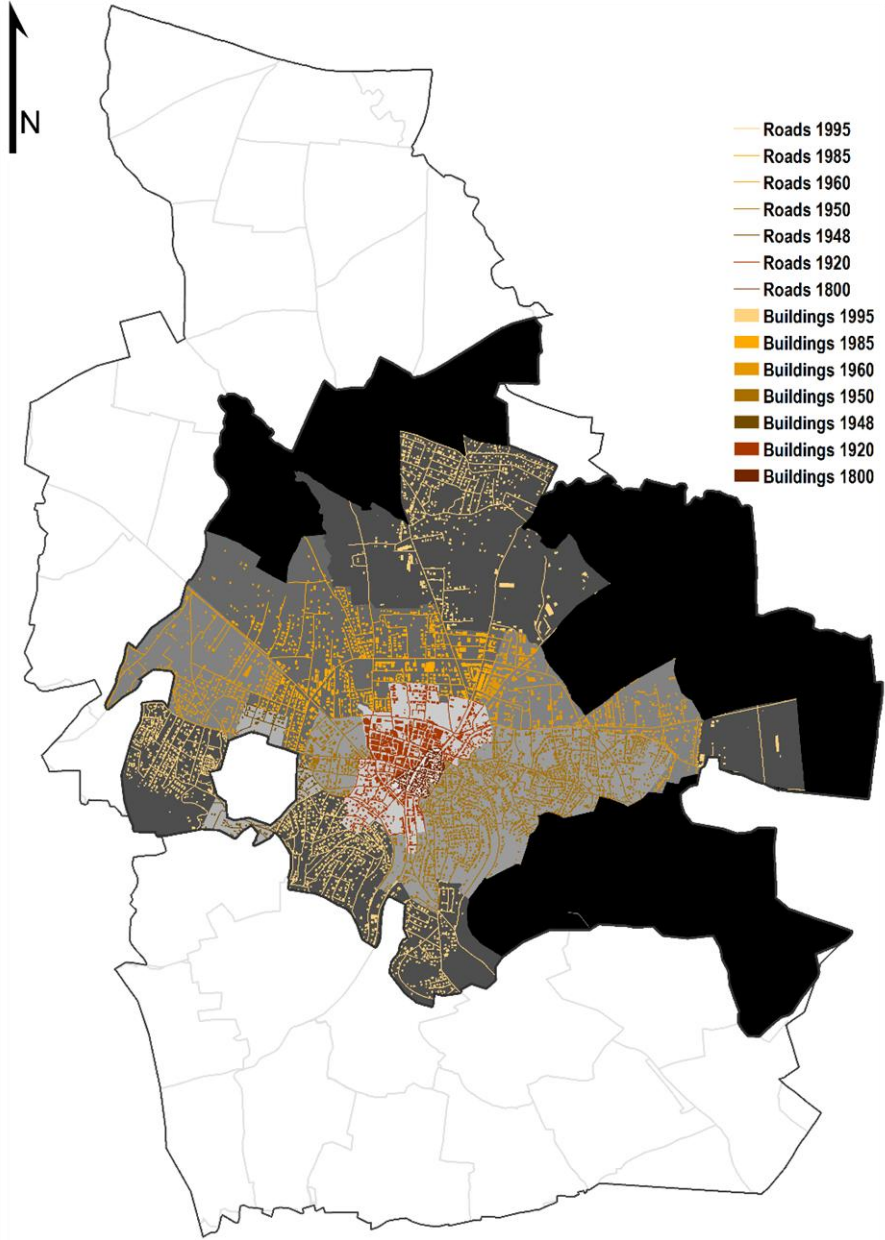
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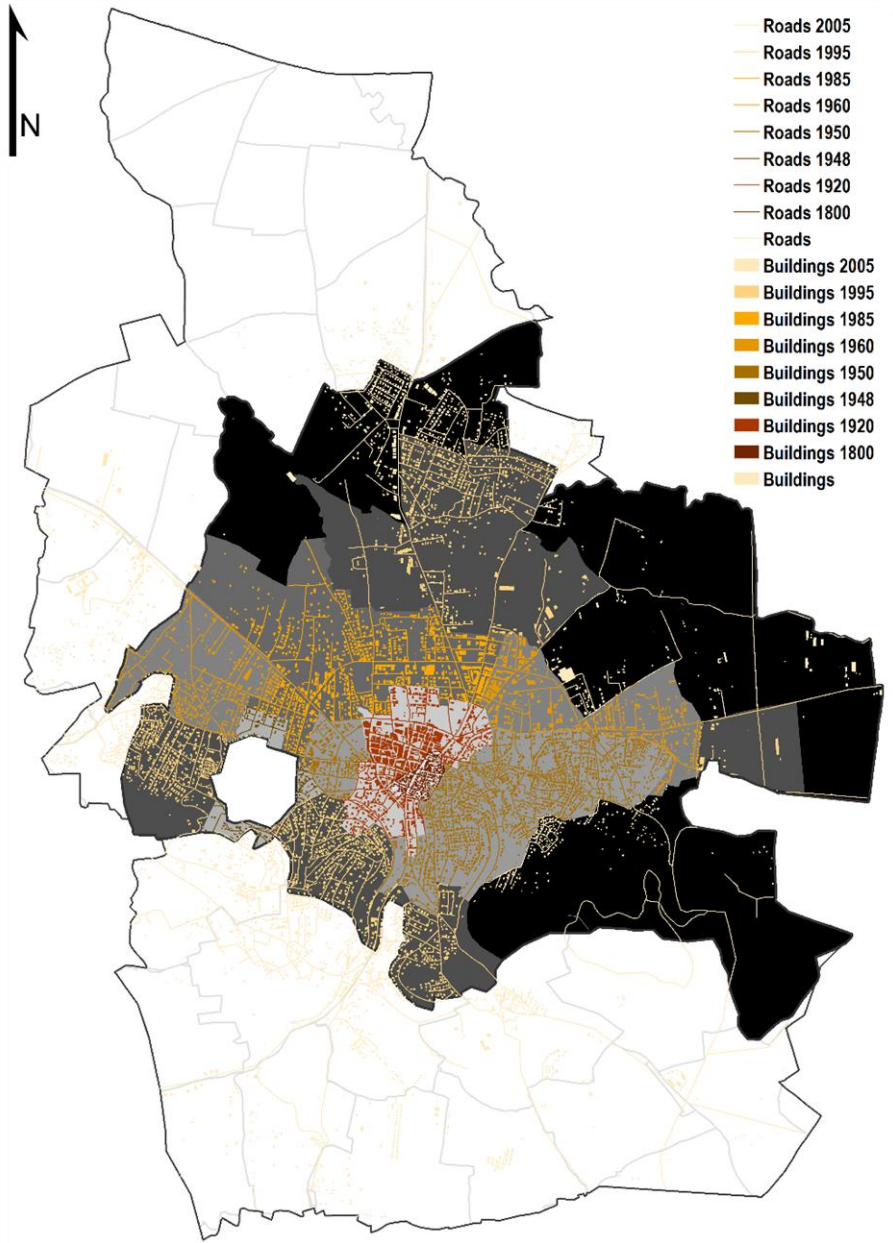
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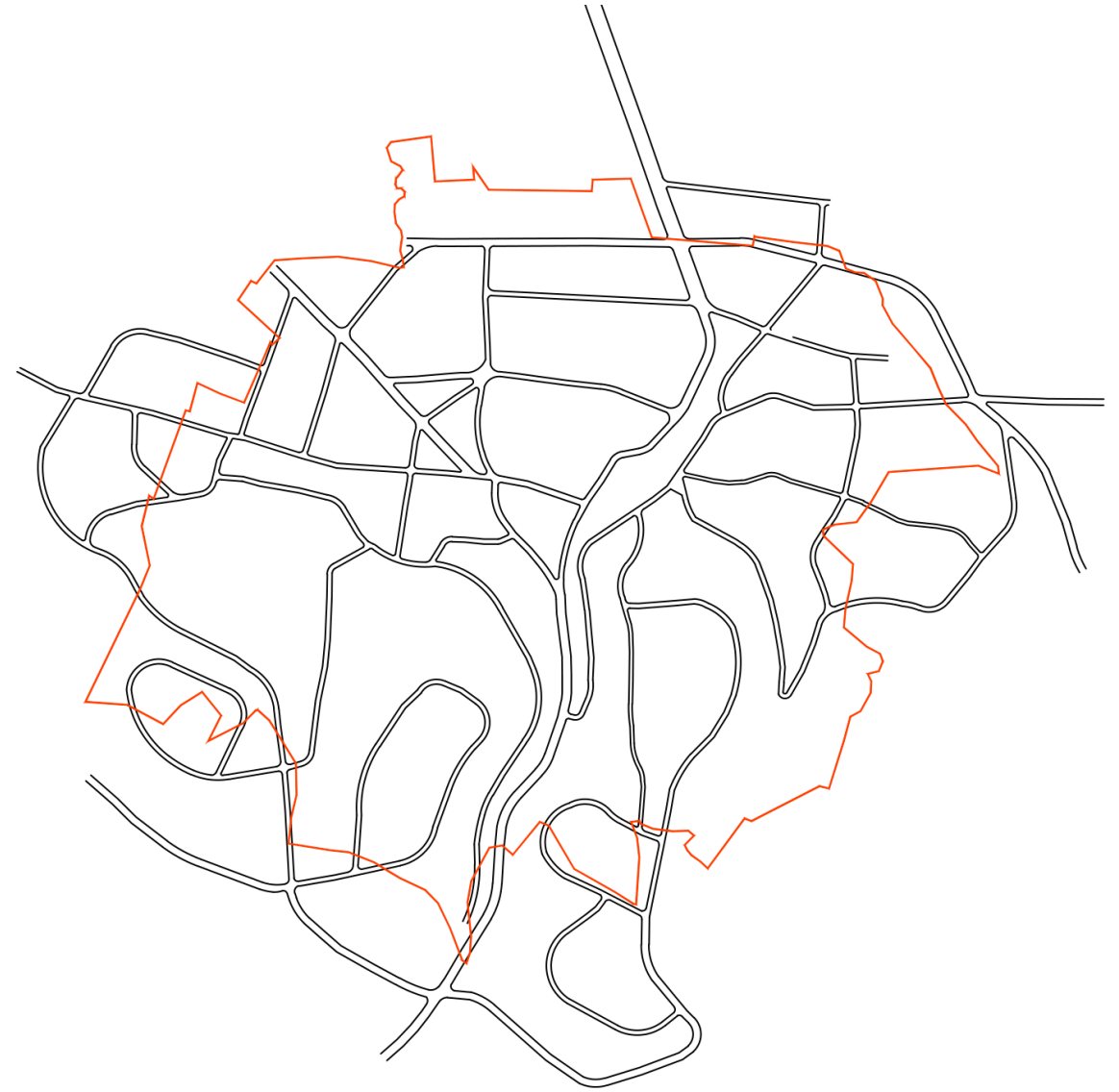
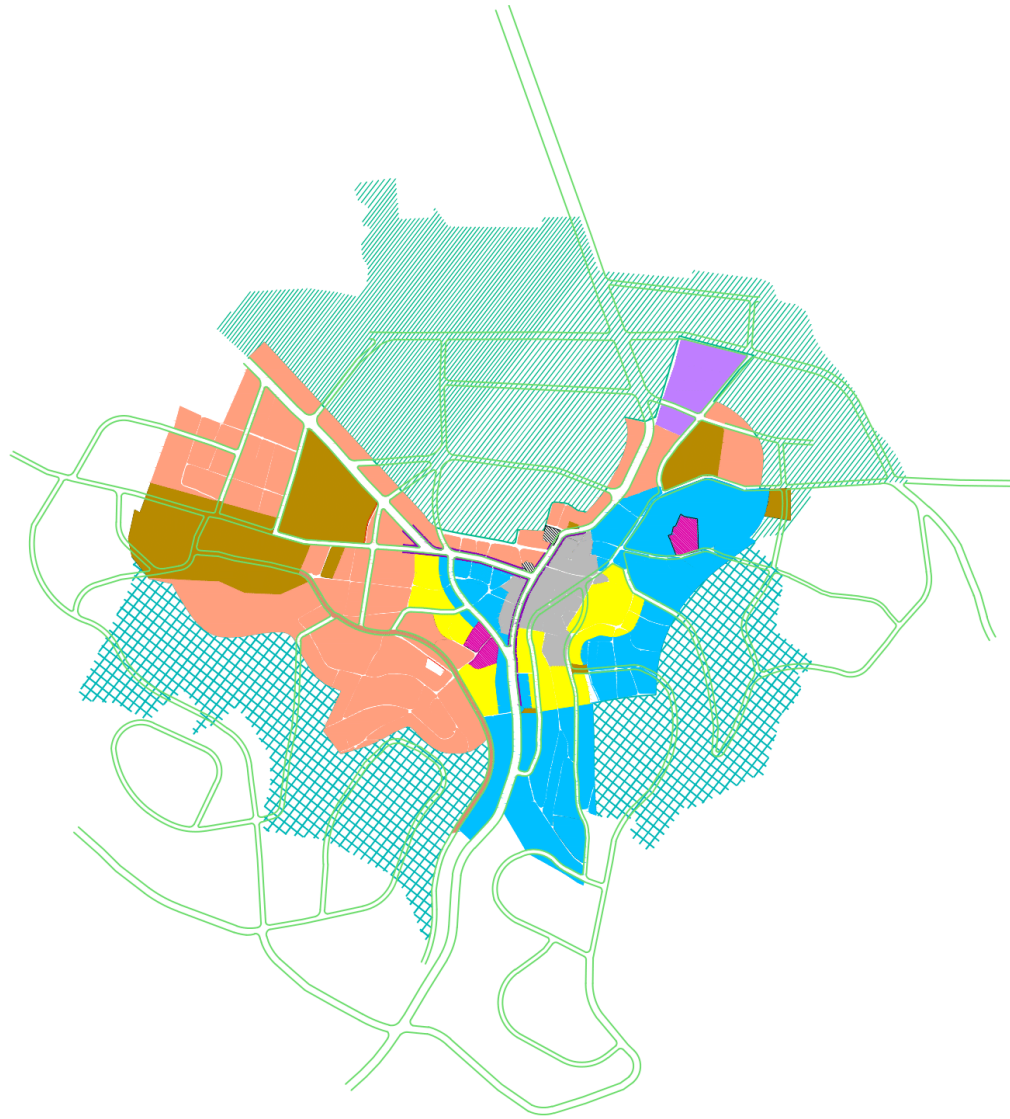


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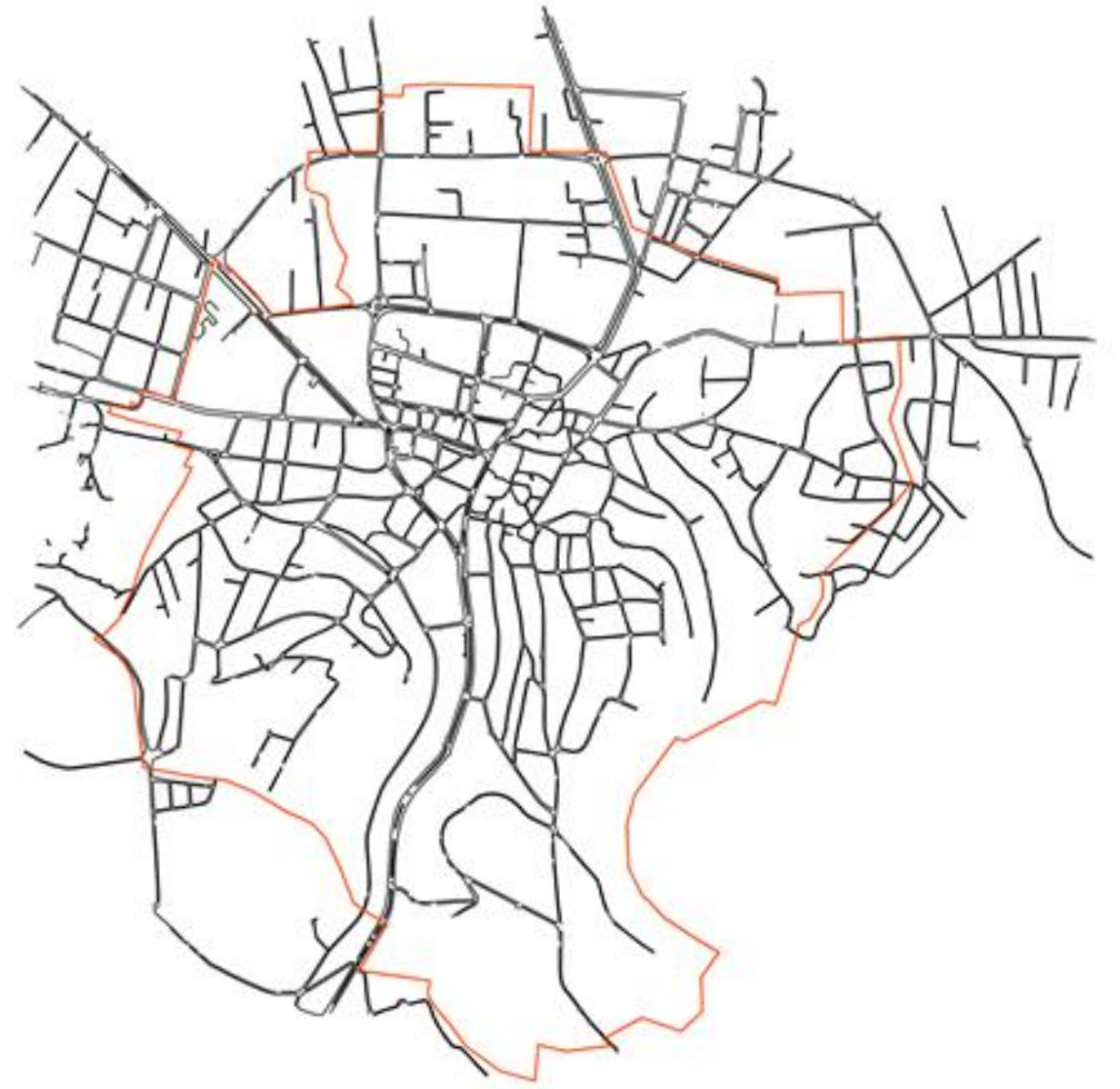
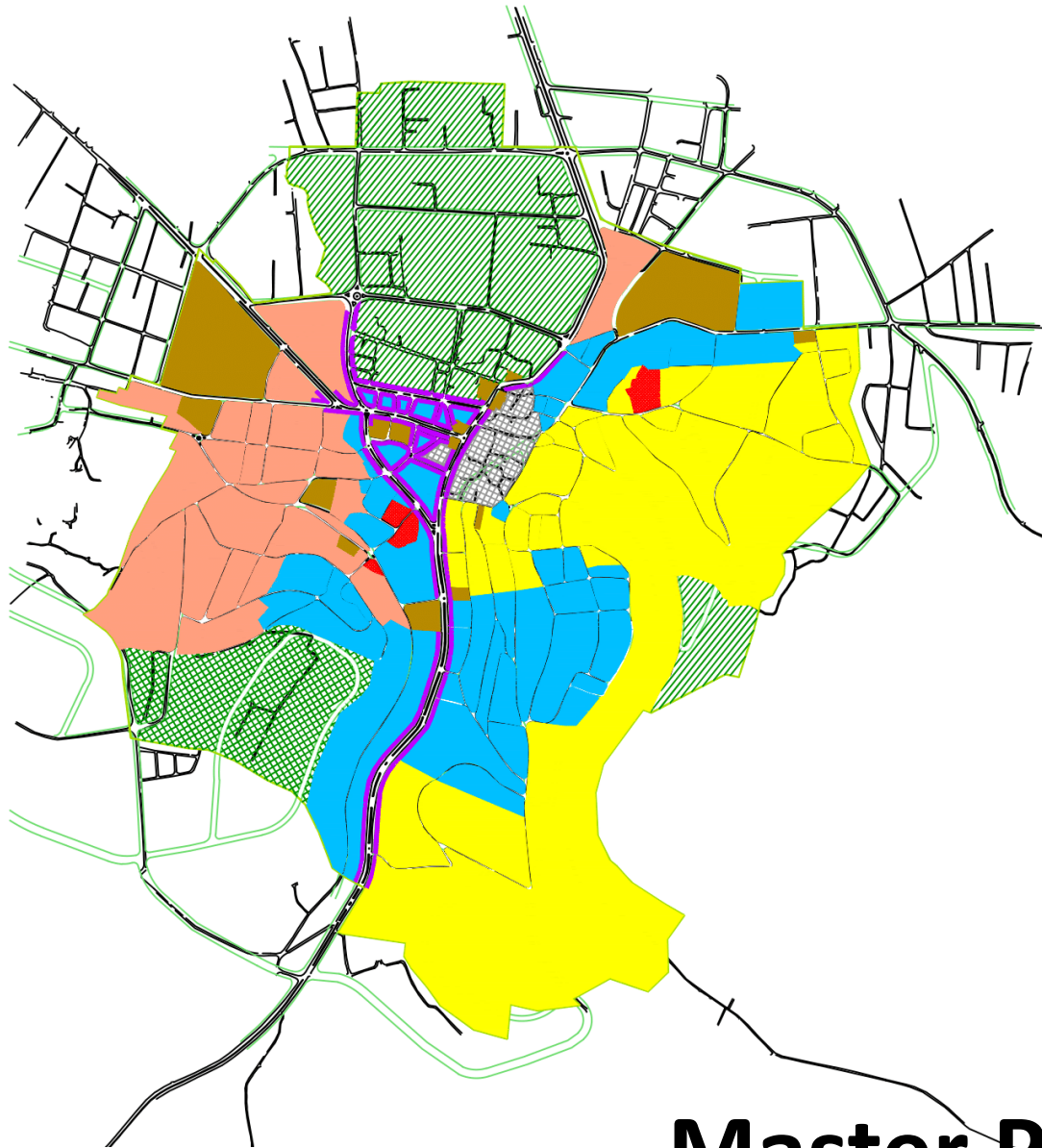


- Roads 2005
- Roads 1995
- Roads 1985
- Roads 1960
- Roads 1950
- Roads 1948
- Roads 1920
- Roads 1800
- Roads
- Buildings 2005
- Buildings 1995
- Buildings 1985
- Buildings 1960
- Buildings 1950
- Buildings 1948
- Buildings 1920
- Buildings 1800
- Buildings

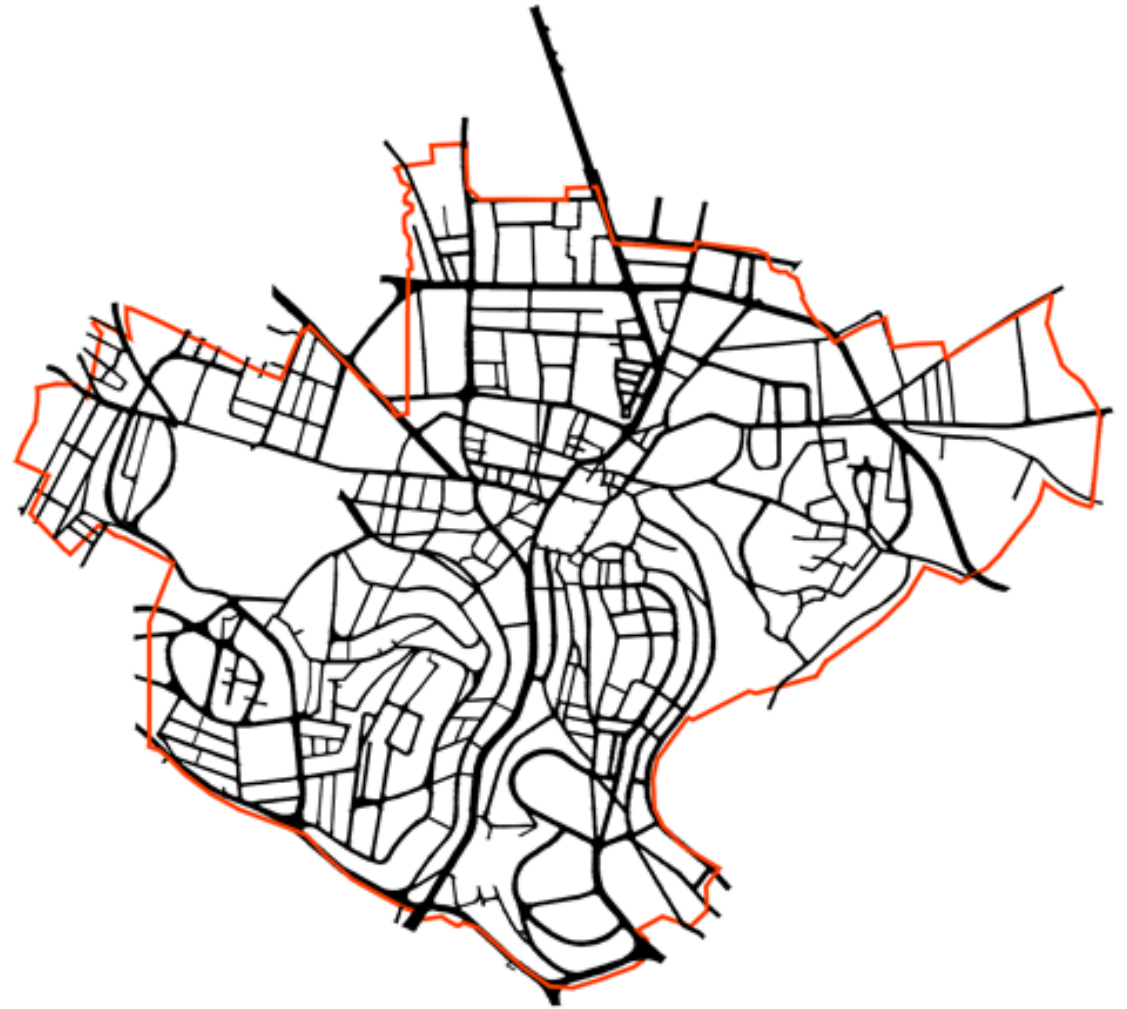
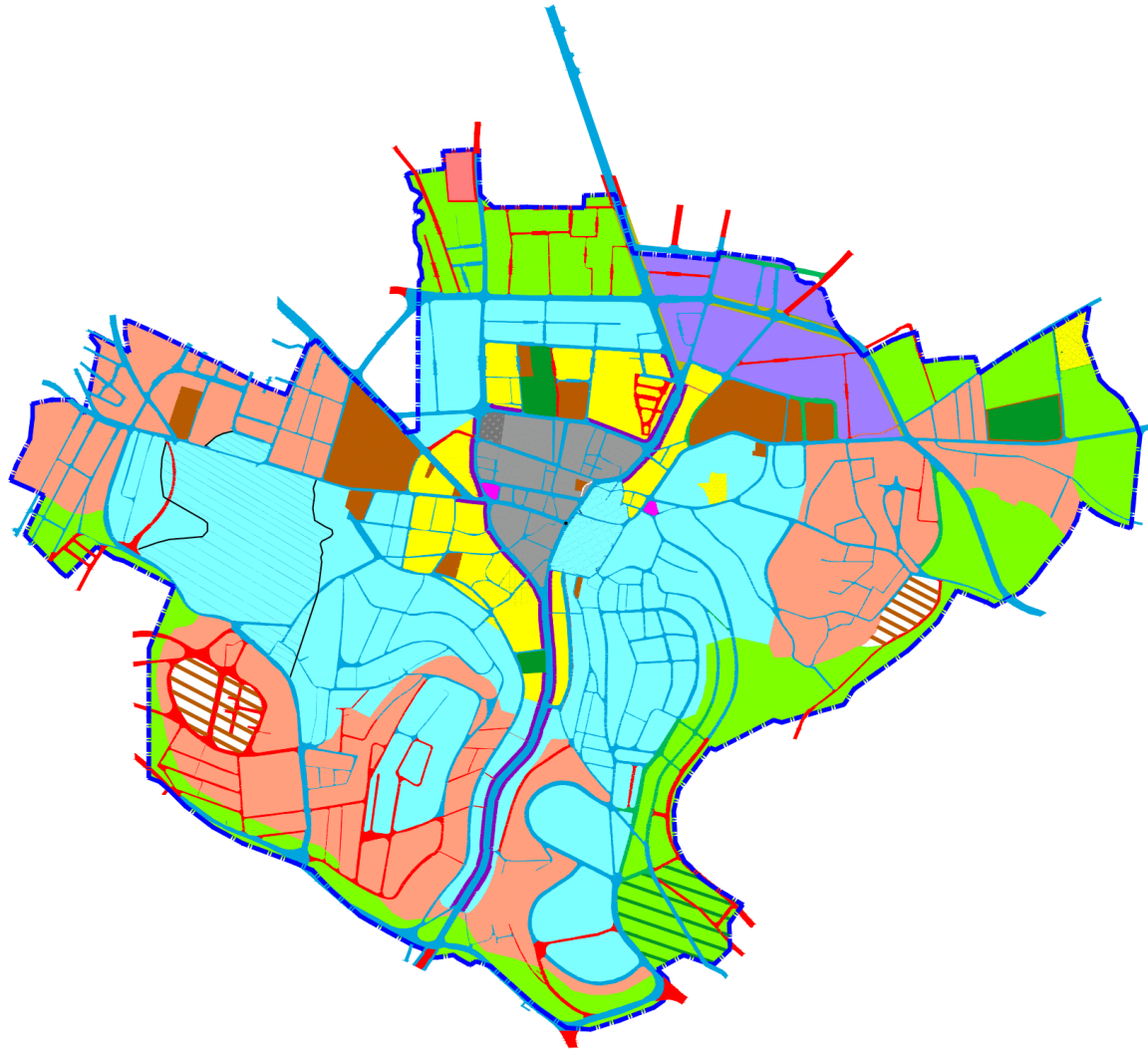
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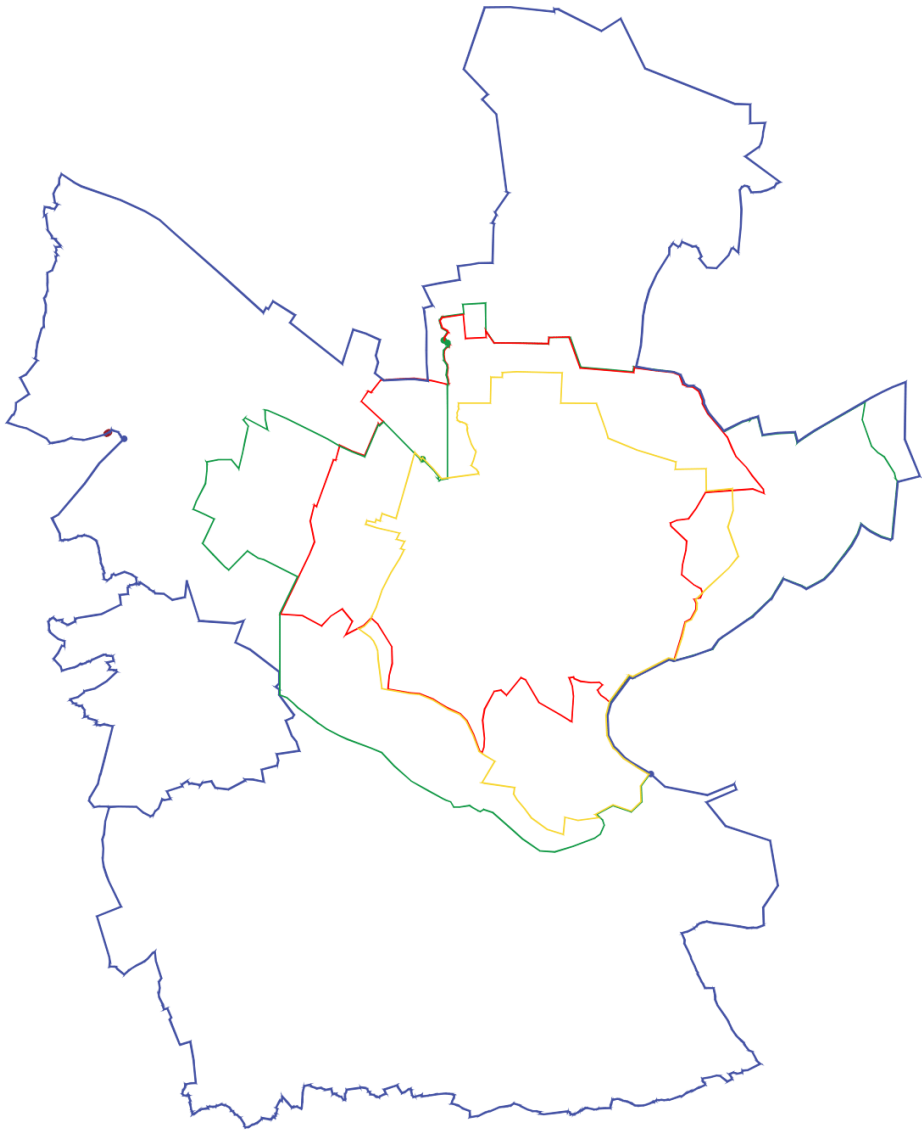
Master Plan 1947



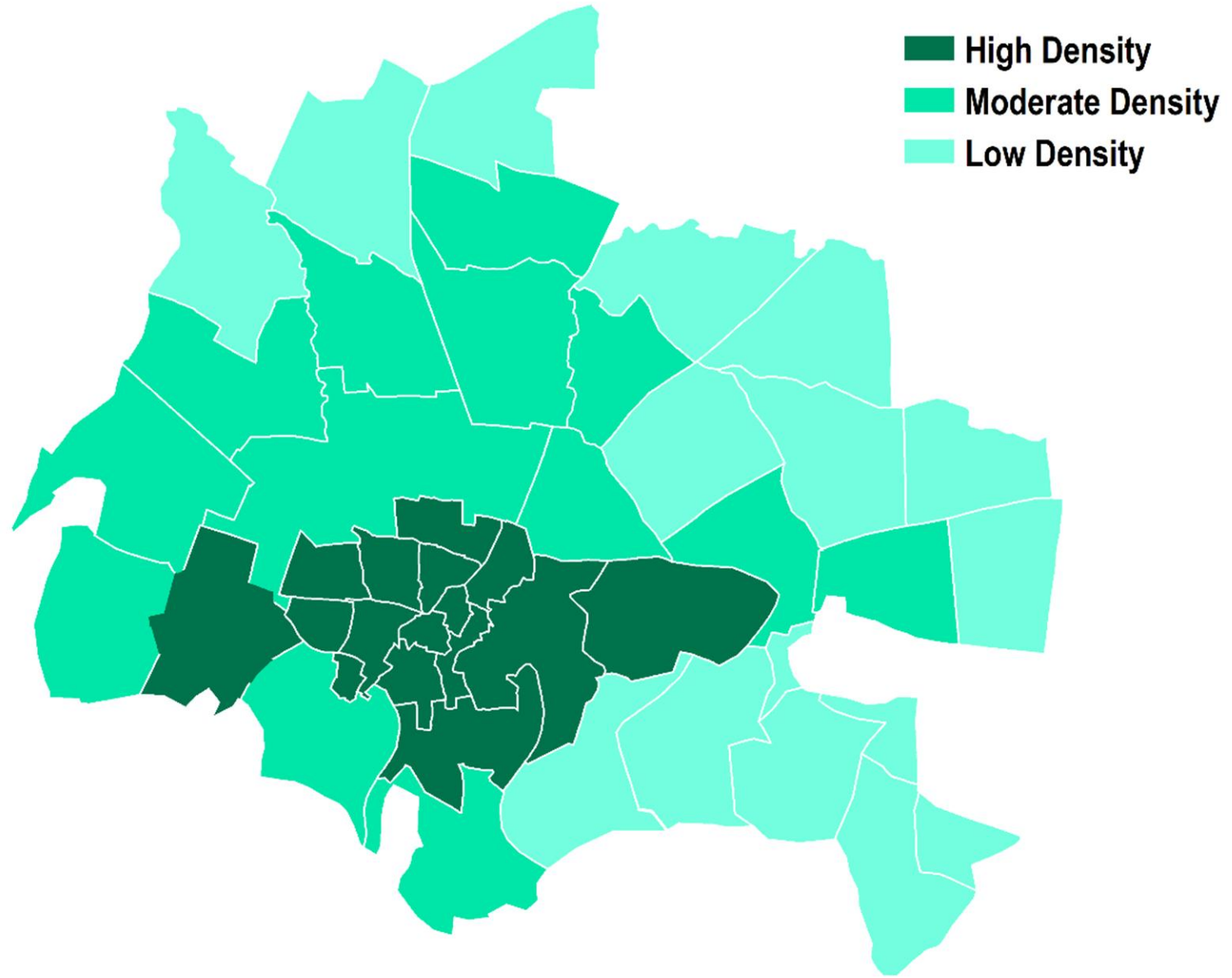
Master Plan 1962



Master Plan 1993



Master Plan 2017

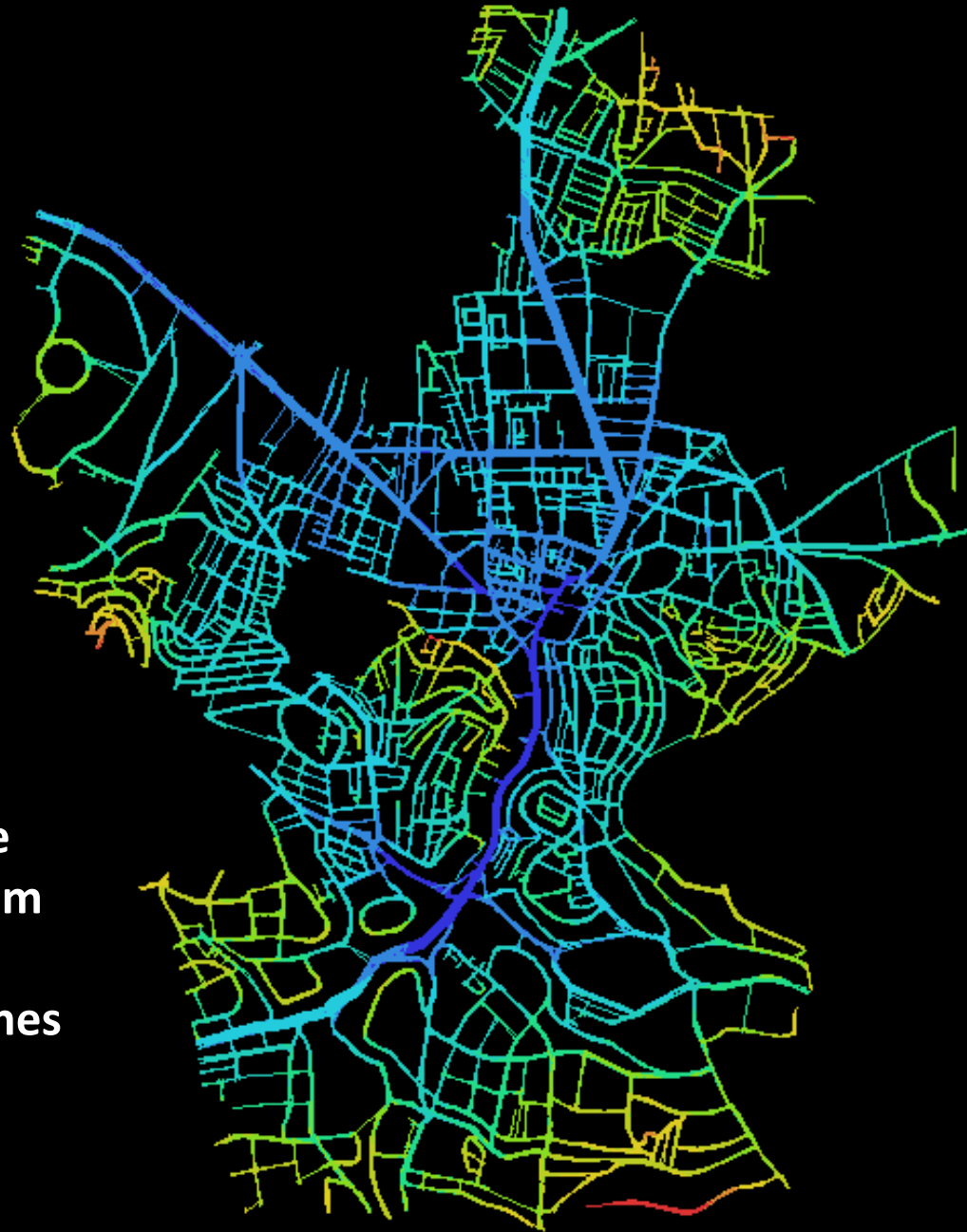


Space Syntax Analysis “ Depth Map ”

Axial map

Mean Depth

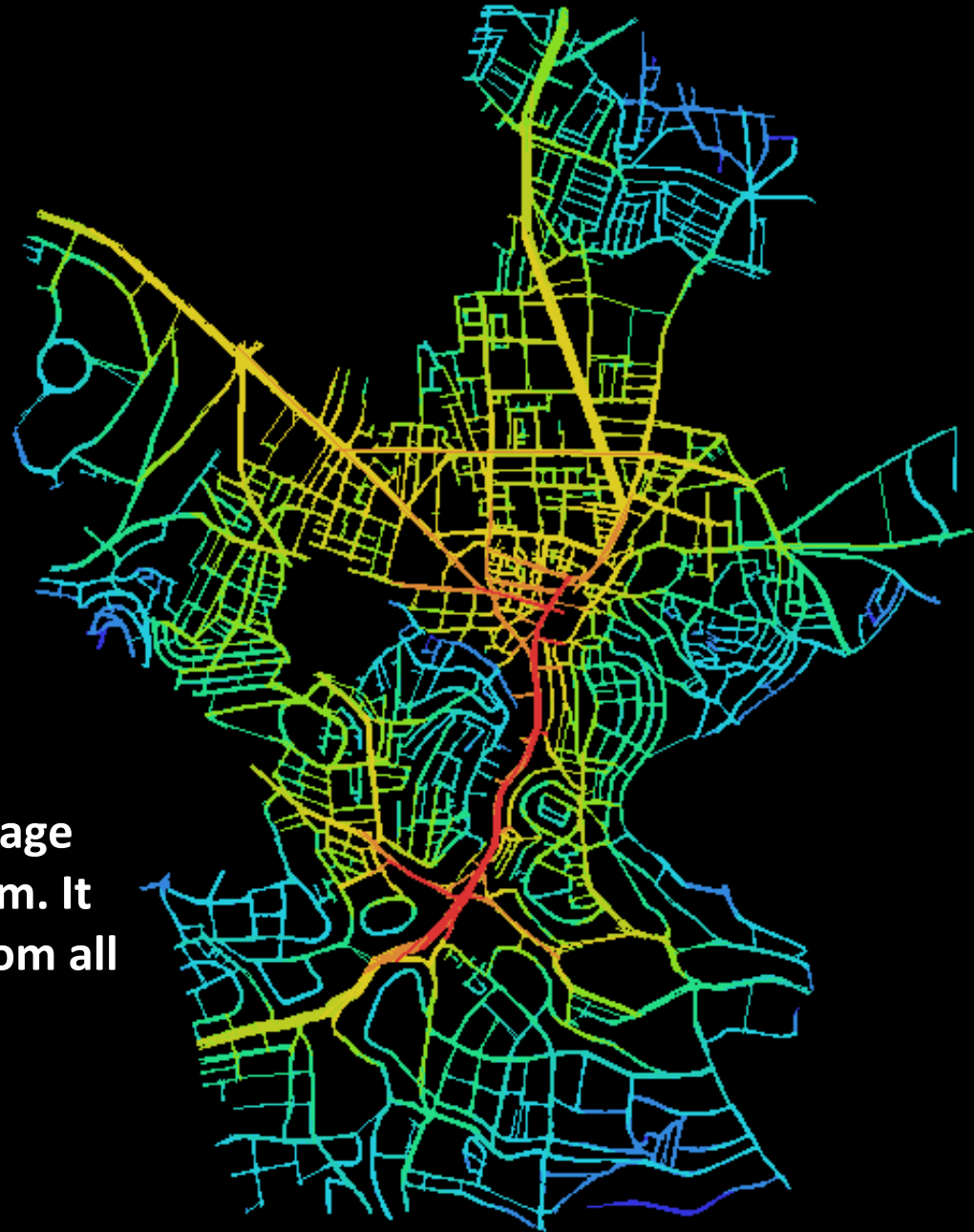
Mean Depth:
means number of intervening lines that must be crossed to get from space to another, the minimum number of steps means shallowness (integration), whereas the maximum number of ones means segregation.



Integration

Integration:

is a static global measure. It describes the average depth of a space to all other spaces in the system. It describes how easy it is to get to one segment from all other segments



Connectivity

Connectivity:

measures the number of immediate neighbors that are directly connected to a space.
This is a static local measure



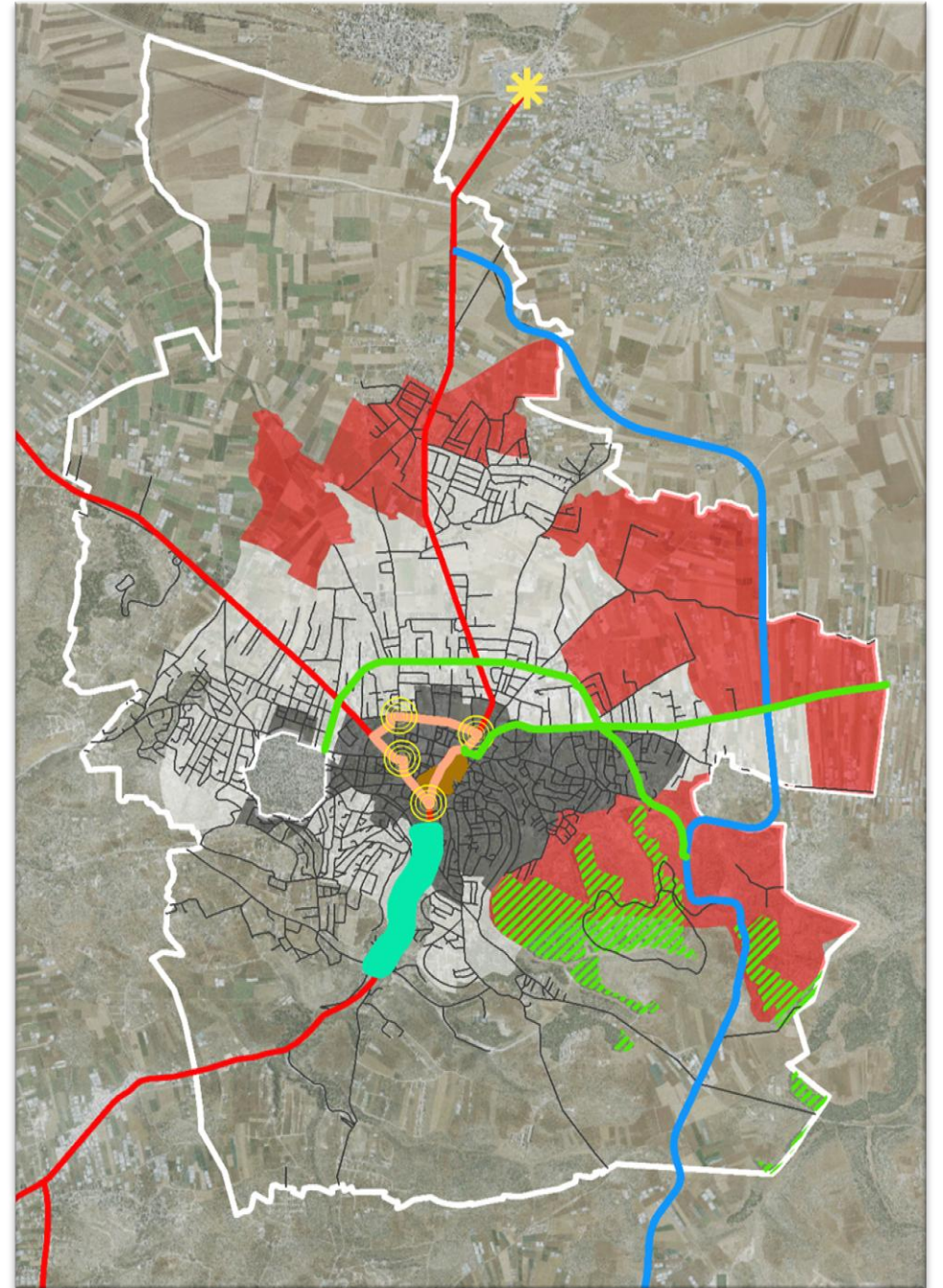
Choice

Choice:

is a dynamic global measure of the “flow” through a space. A space has a strong choice value when many of the shortest paths, connecting all spaces to all spaces of a system, passes through it.



Problems in Jenin City



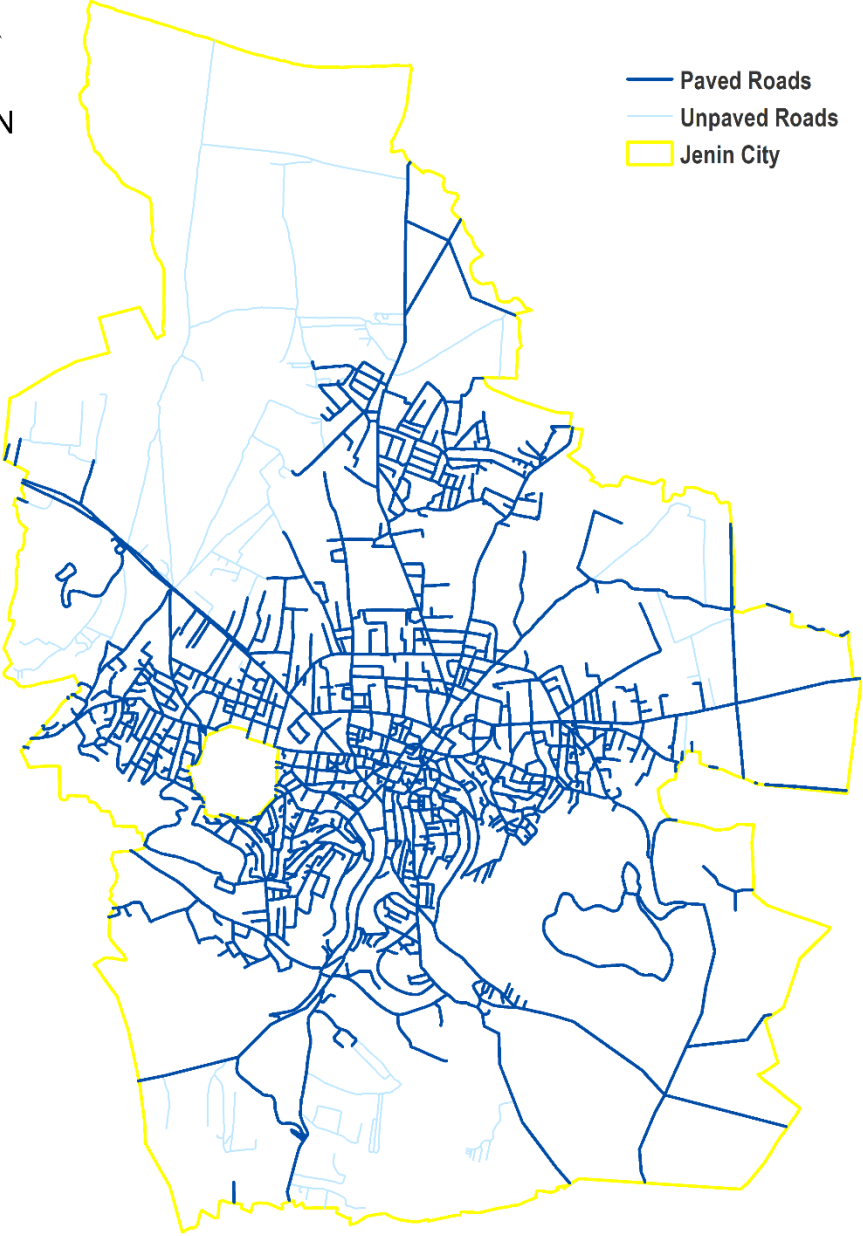
Jenin City Roads Diagnosis

- **Roads Width**
- **Roads Surface**
- **Roads Classification**
- **Roads Use**
- **Roads Direction**
- **Service**

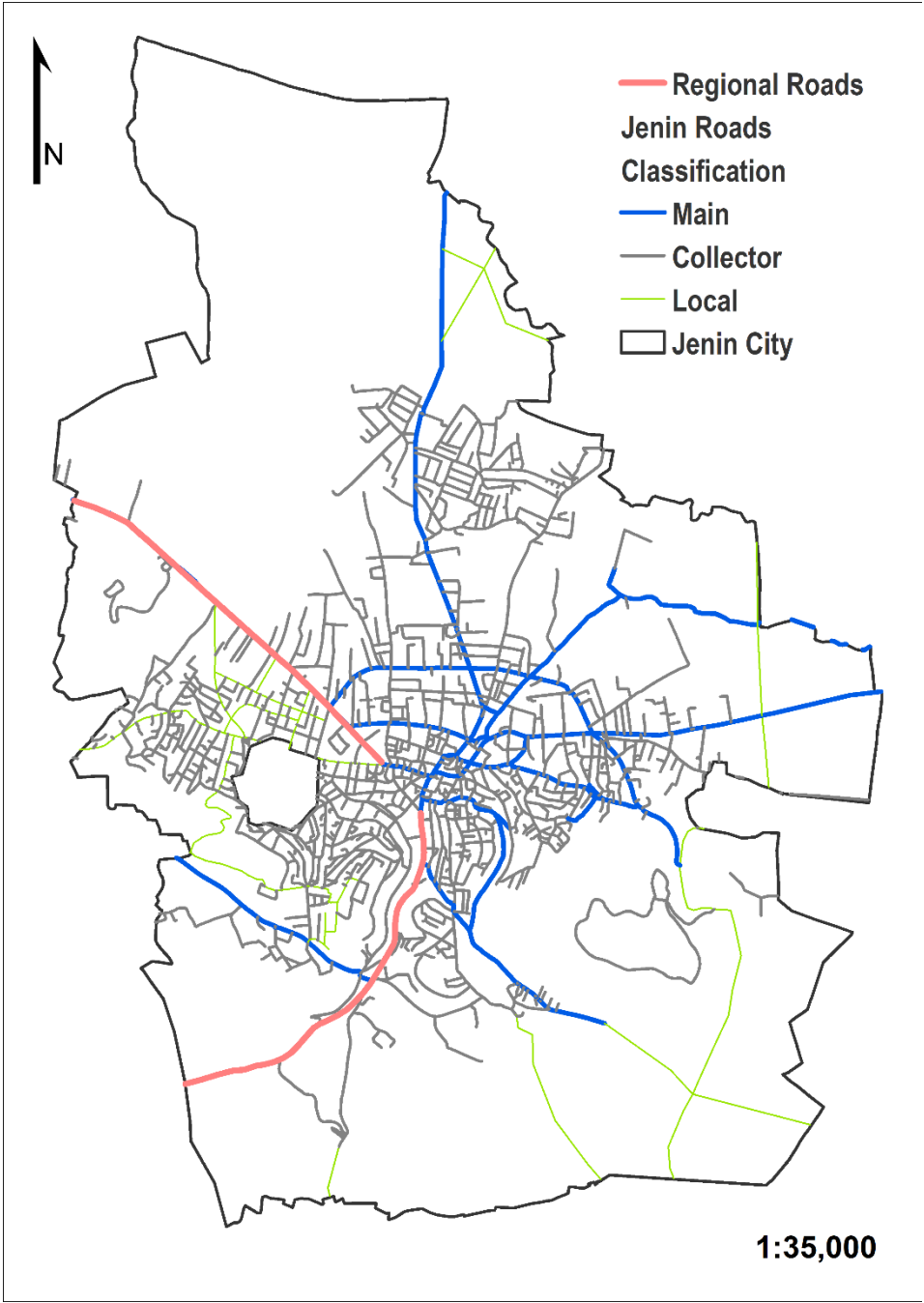




- Paved Roads
- Unpaved Roads
- Jenin City

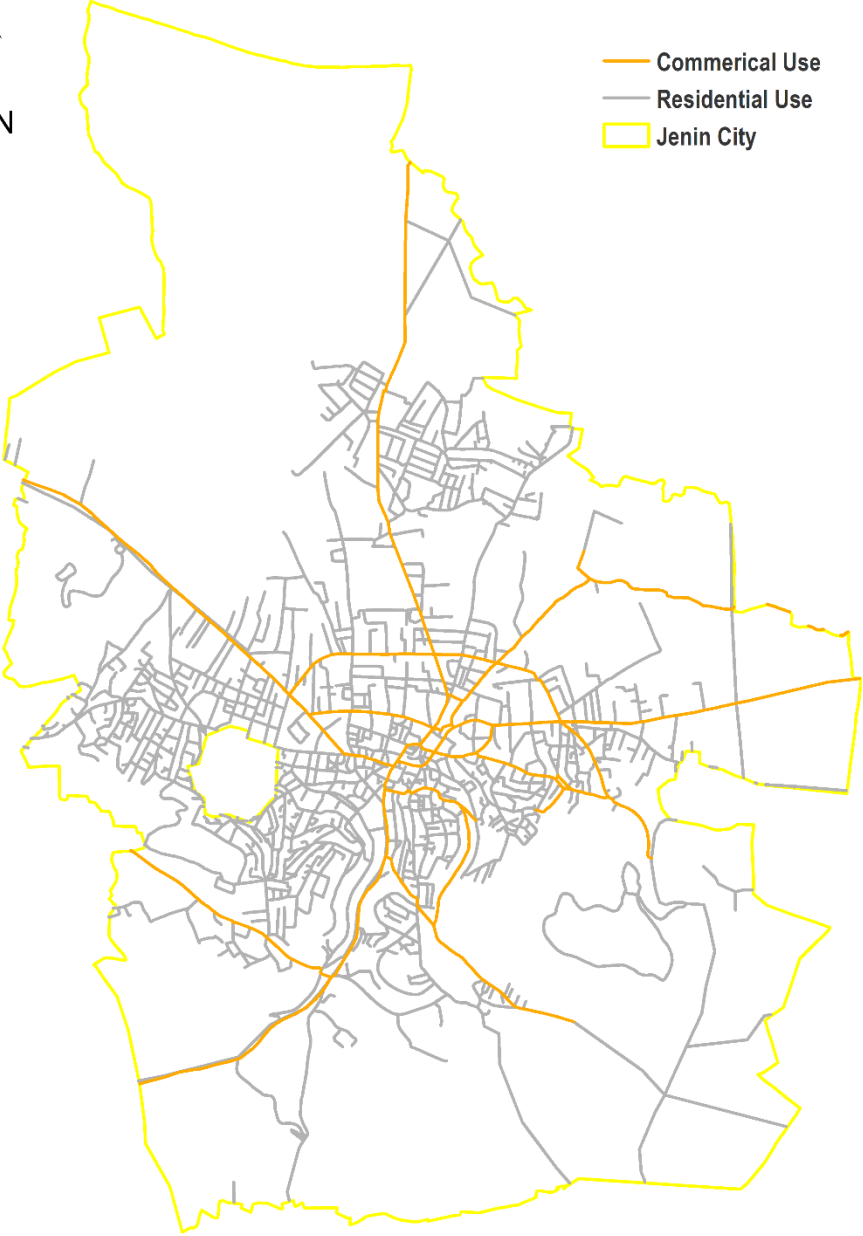


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- Commercial Use
- Residential Use
- Jenin City



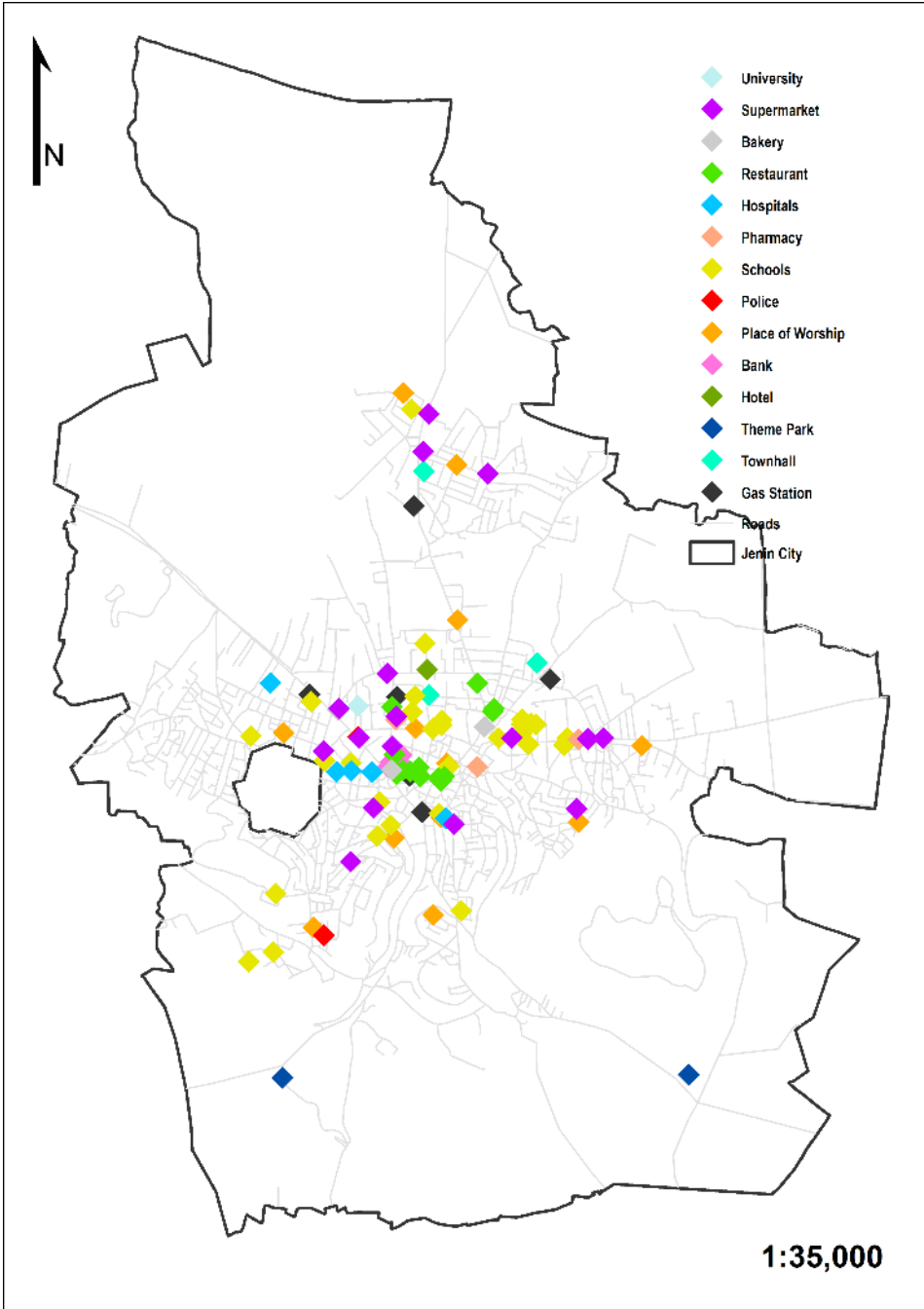
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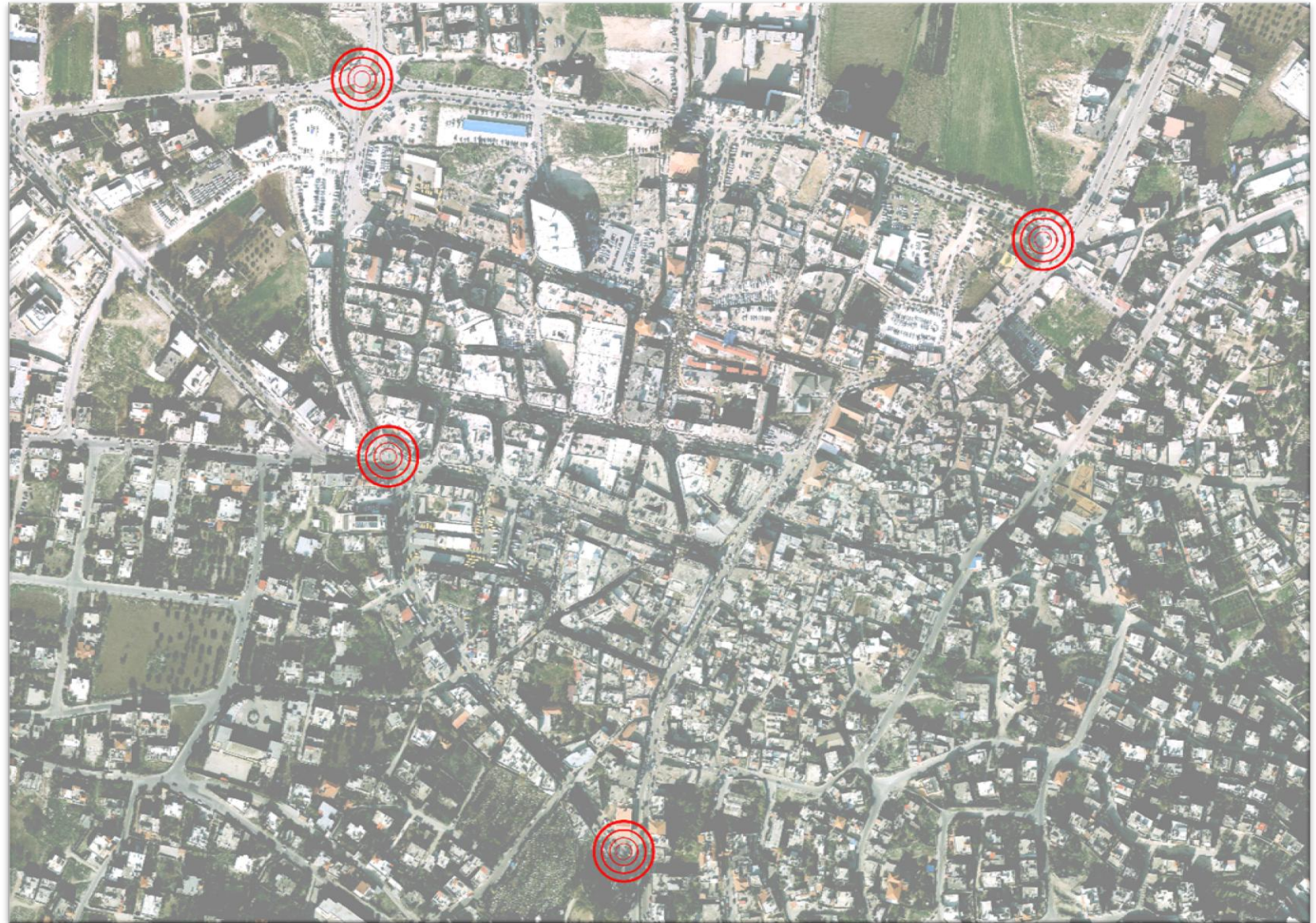
- One Way
- Two Ways
- Jenin City

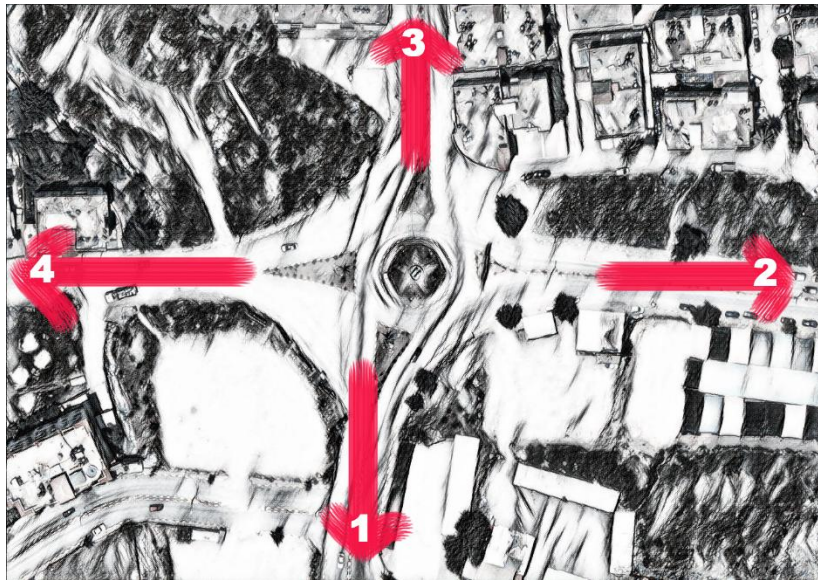
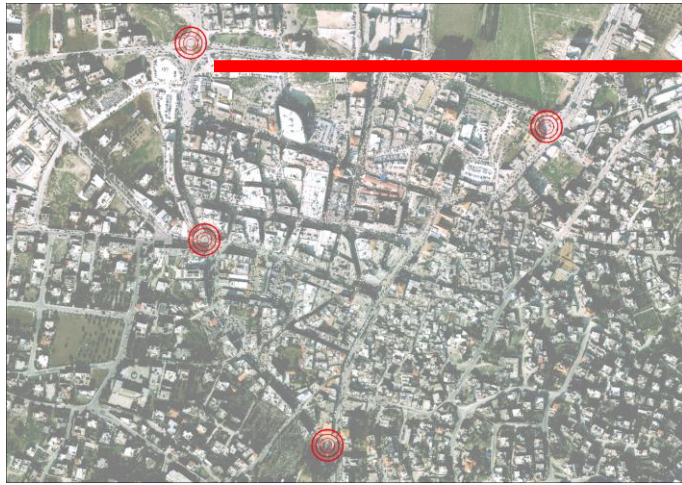


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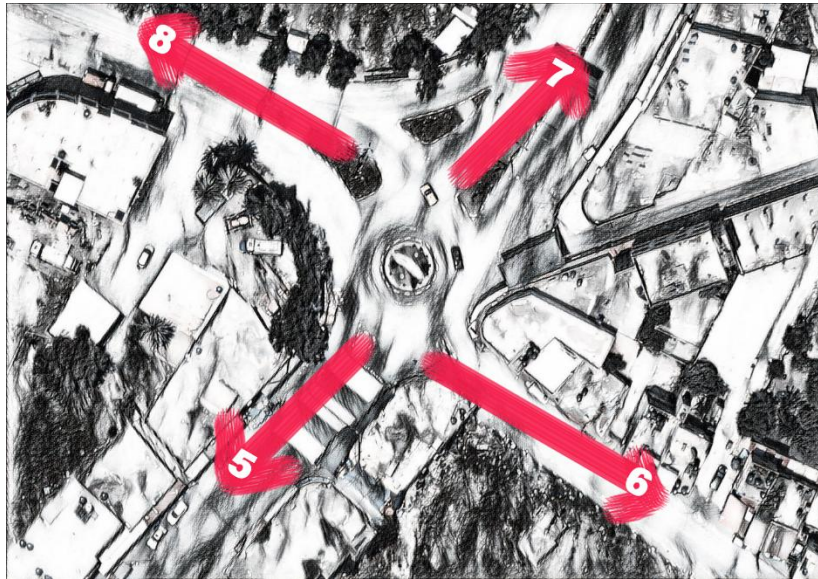
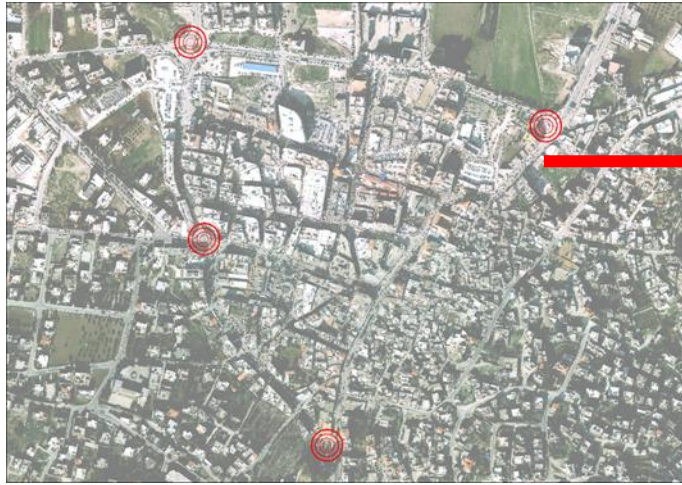


Traffic Volume Counts

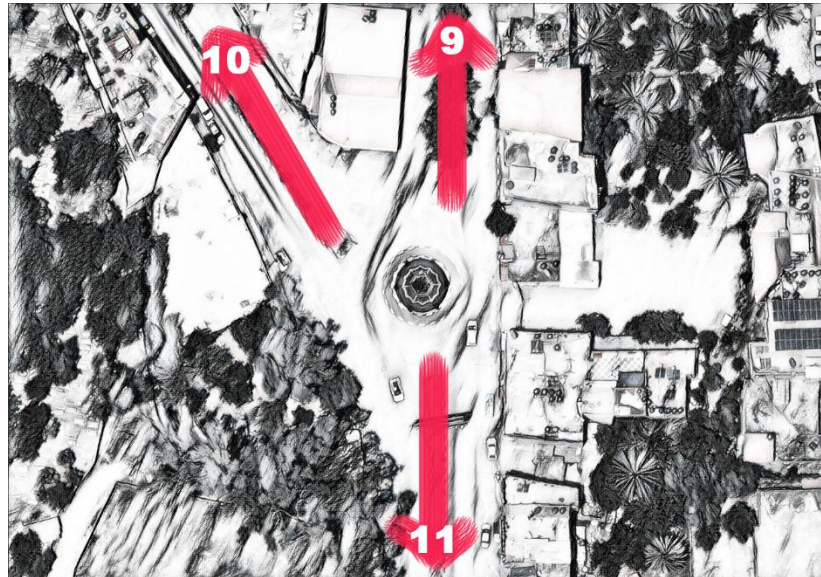




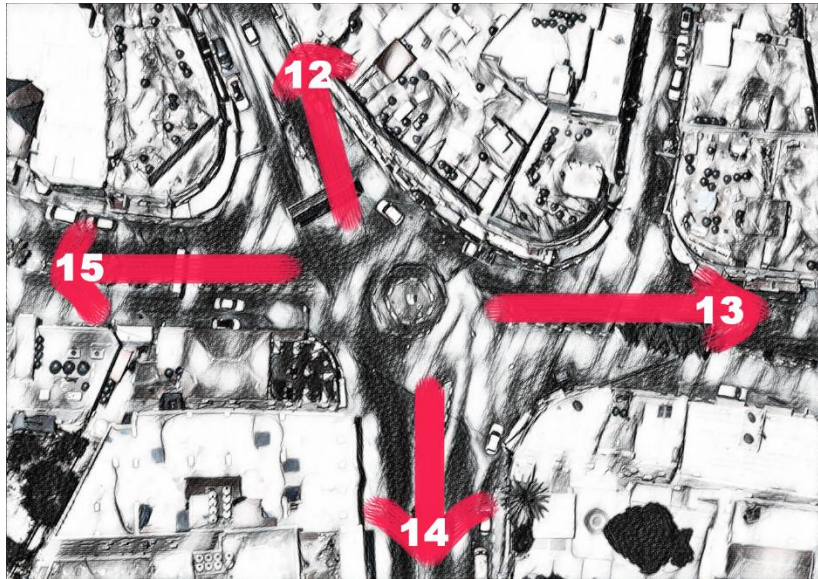
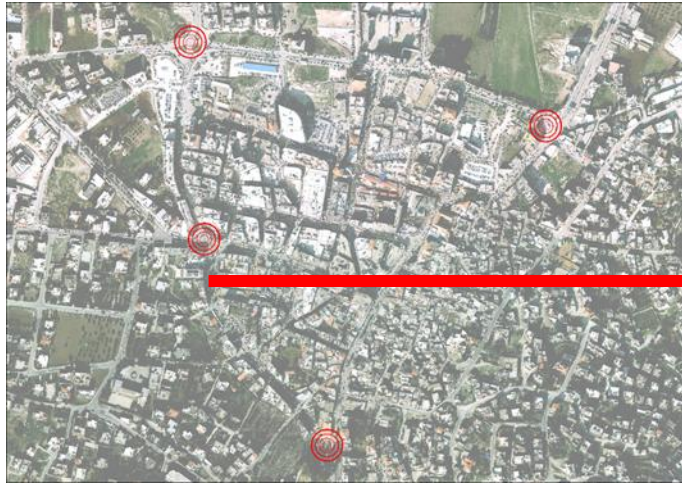
Yahya Ayyash	PH	PHV	Pedestrian
North Approach	12:00 PM – 1:00 PM	842	112
South Approach	12:00 PM – 1:00 PM	833	219
East Approach	12:00 PM – 1:00 PM	1576	119
West Approach	12:00 PM – 1:00 PM	487	150



Zayed	PH	PHV	Pedestrian
North Approach	1:15 PM – 2:15 PM	908	175
South Approach	1:15 PM – 2:15 PM	472	189
East Approach	1:15 PM – 2:15 PM	329	476
West Approach	1:15 PM – 2:15 PM	574	148

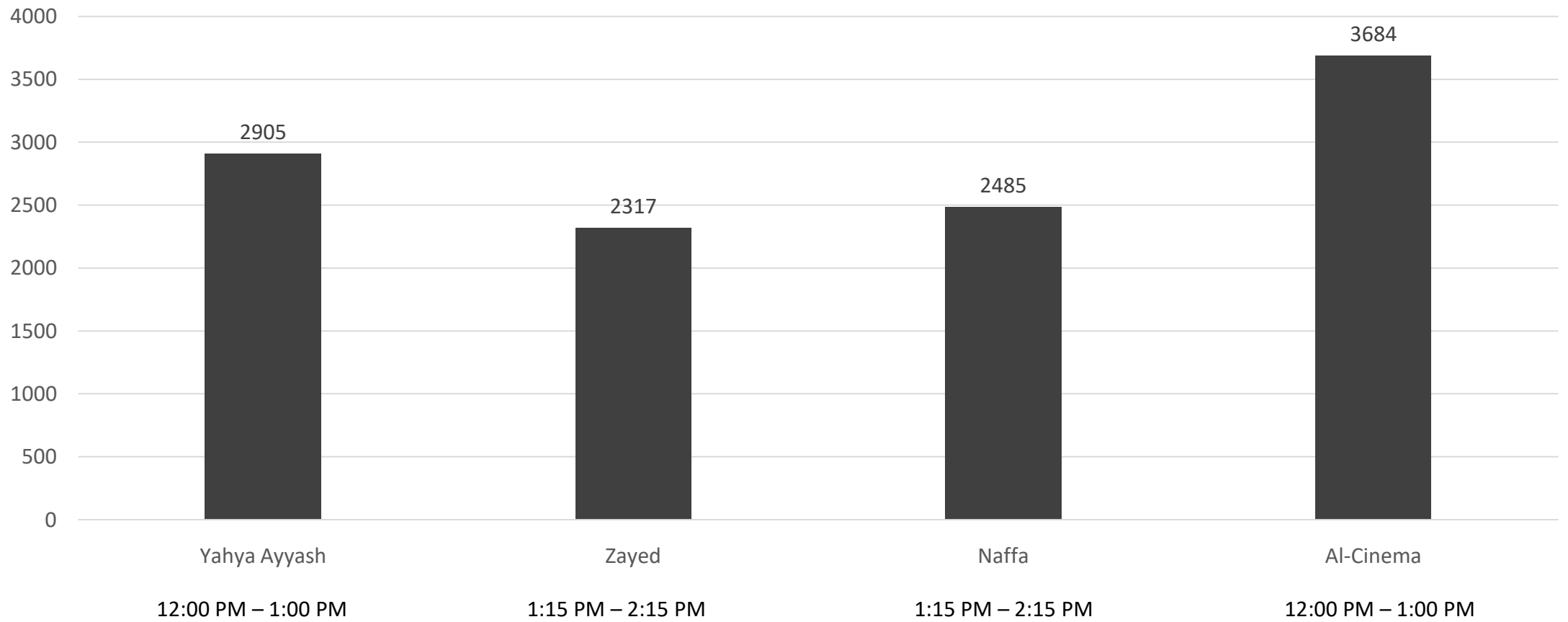


Naffa	PH	PHV	Pedestrian
North Approach	1:30 PM – 2:30 PM	614	49
South Approach	1:30 PM – 2:30 PM	817	22
West Approach	1:30 PM – 2:30 PM	1054	87



Al-Cinema	PH	PHV	Pedestrian
North Approach	12:00 PM – 1:00 PM	776	568
South Approach	12:00 PM – 1:00 PM	1121	837
East Approach	12:00 PM – 1:00 PM	777	350
West Approach	12:00 PM – 1:00 PM	883	219

Peak Hour



ANALYSIS AND STRATEGIC PLANNING

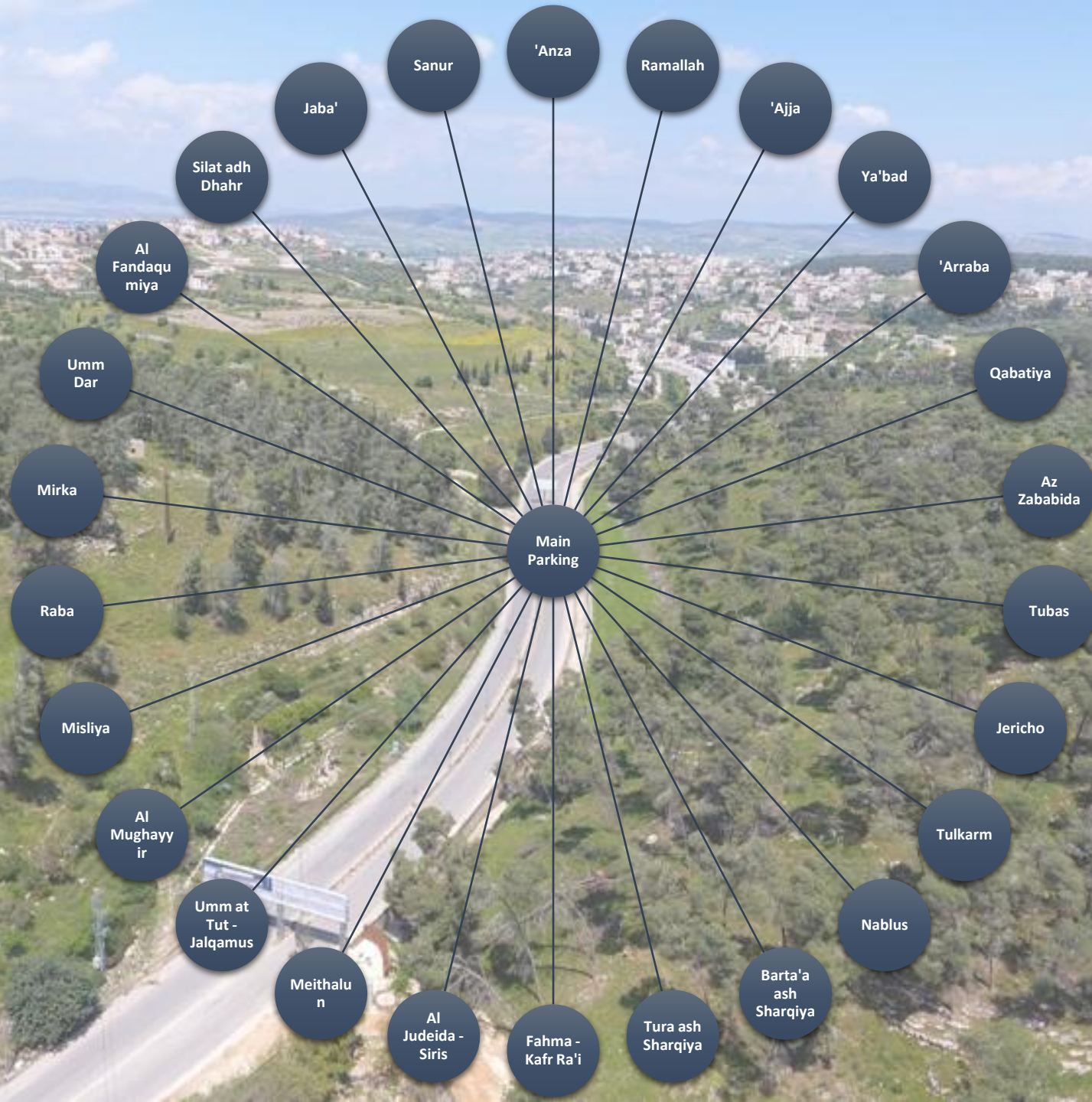
SWOT Analysis

Positive Map

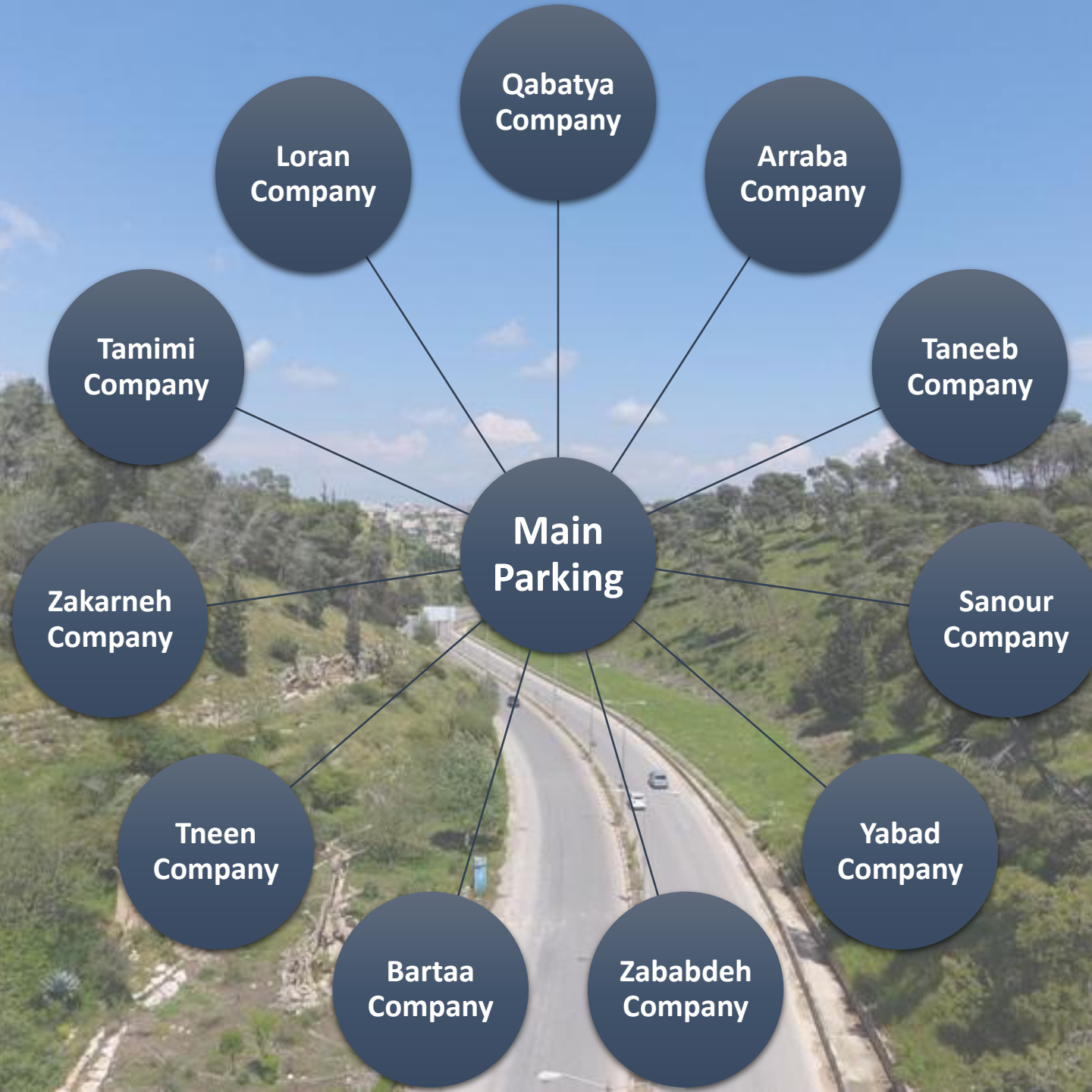
Negative map

- Routes for taxis
- Location and preparation of taxi serving area

421 Vehicle



**109
Vehicle**



**56
Vehicle**



Faqqu'a

Beit Qad

**Deir Abu
Da'if**

**Deir
Ghazala**

Jalbun

Al Jalama

'Arrana

'Arabbuna

'Aba

**Eastern
Parking**

**18
Vehicle**

**Abu
Farha
Company**

**Eastern
Parking**

**Raba
Company**

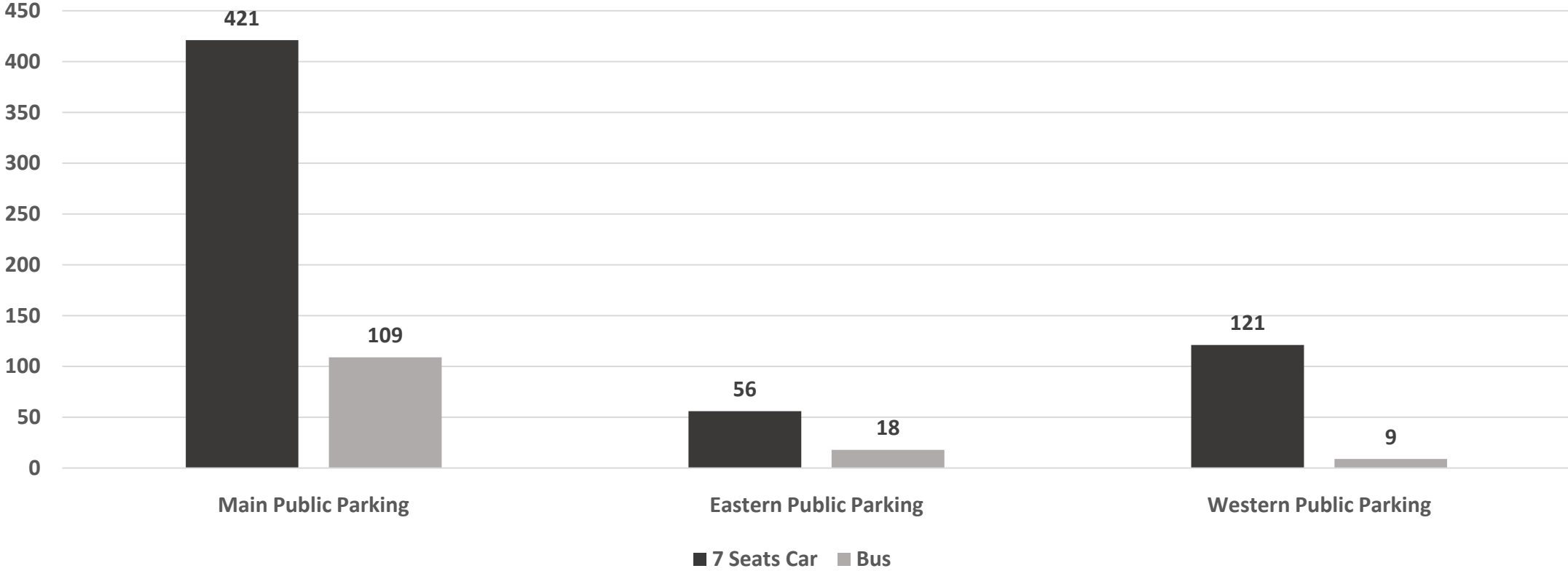
**Burin
Company**

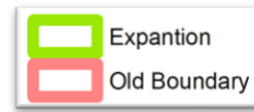
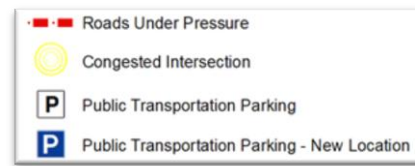
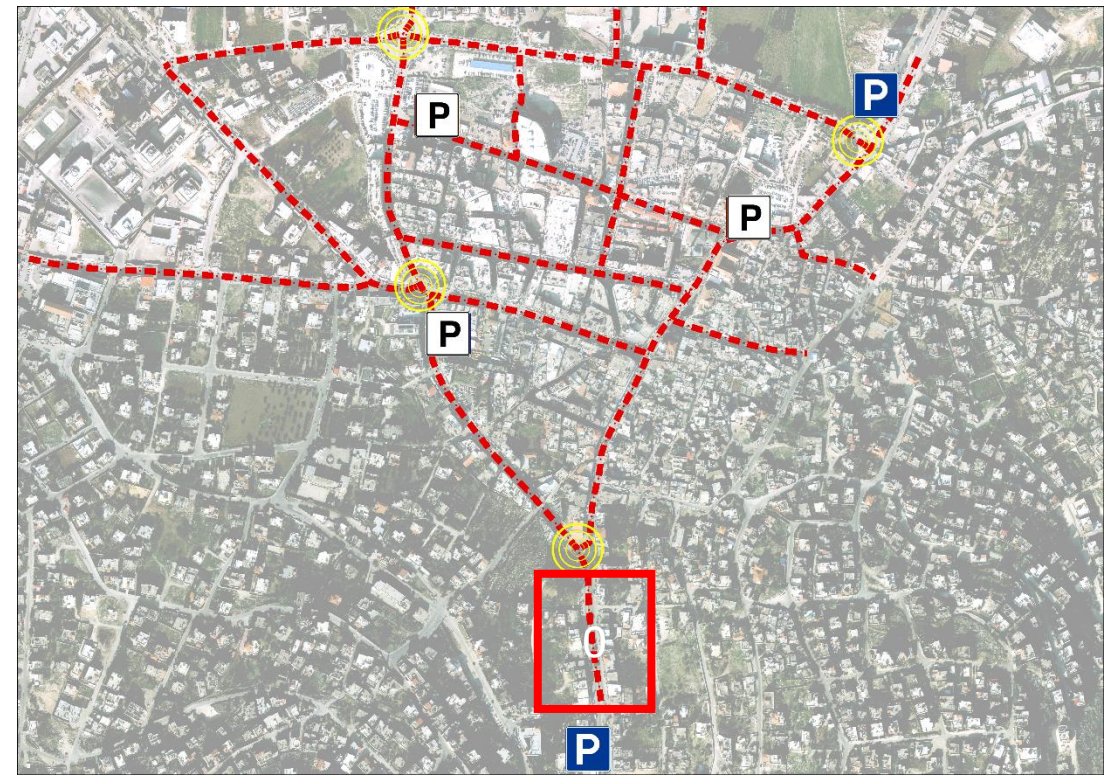
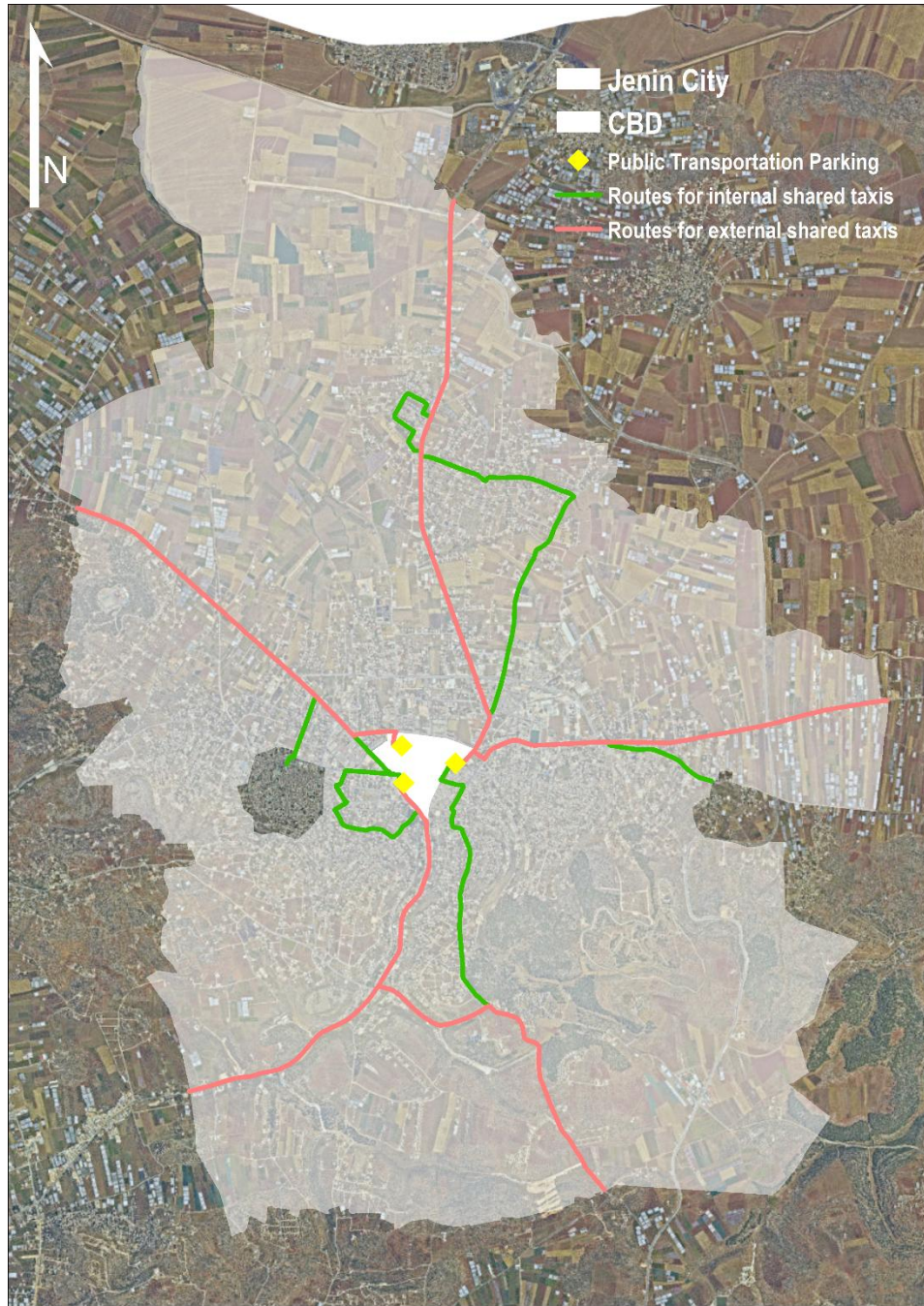


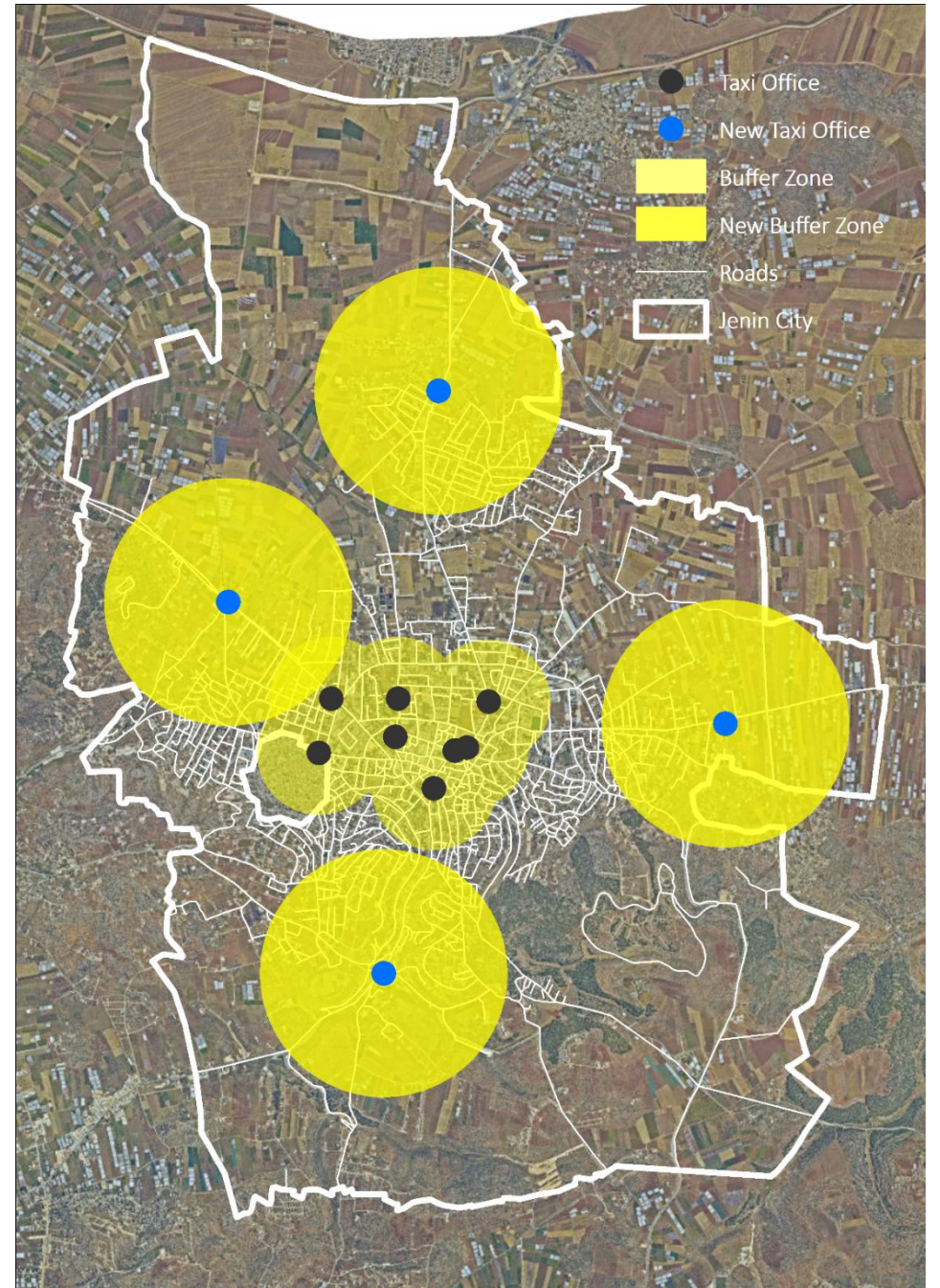
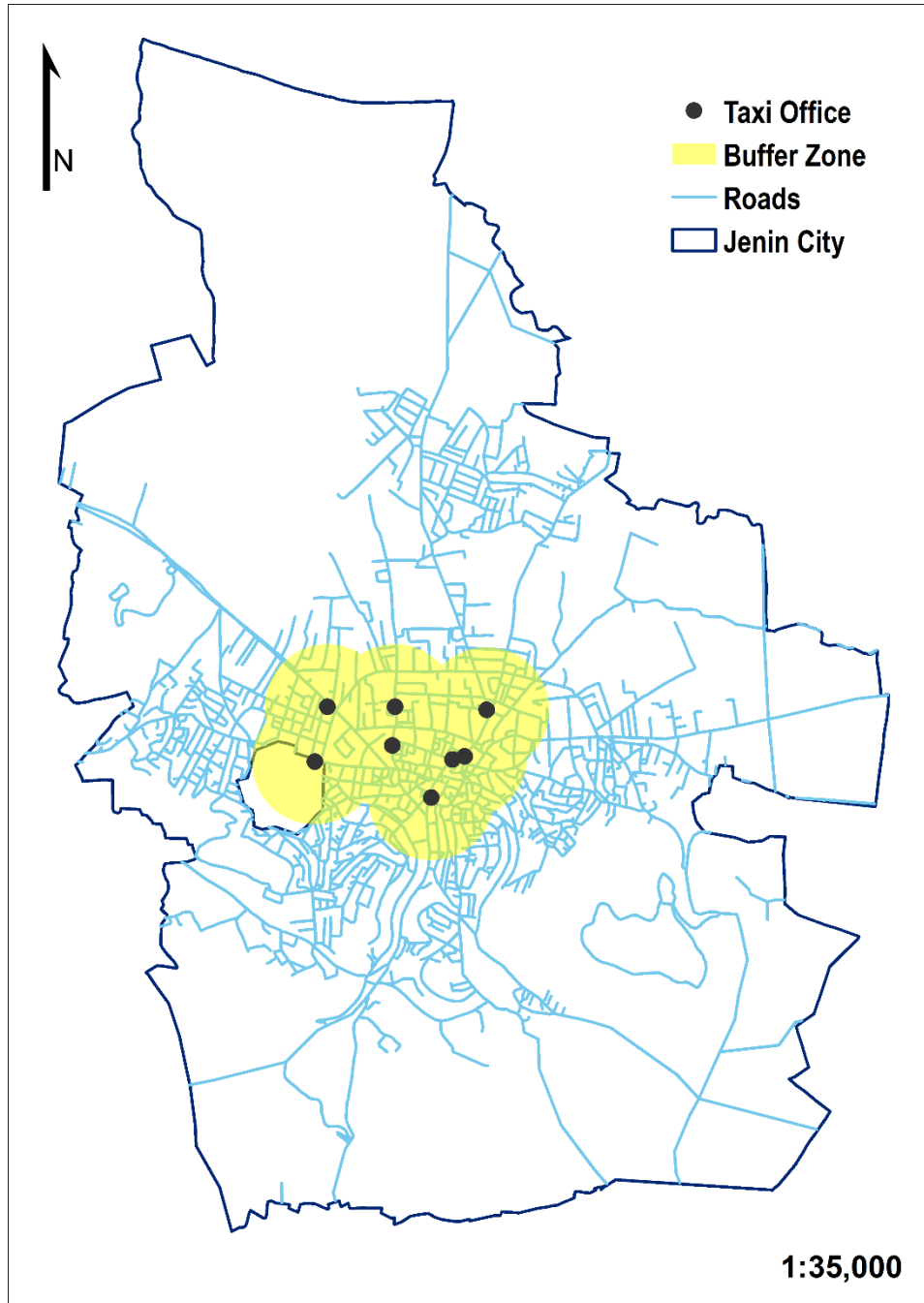
**121
Vehicle**

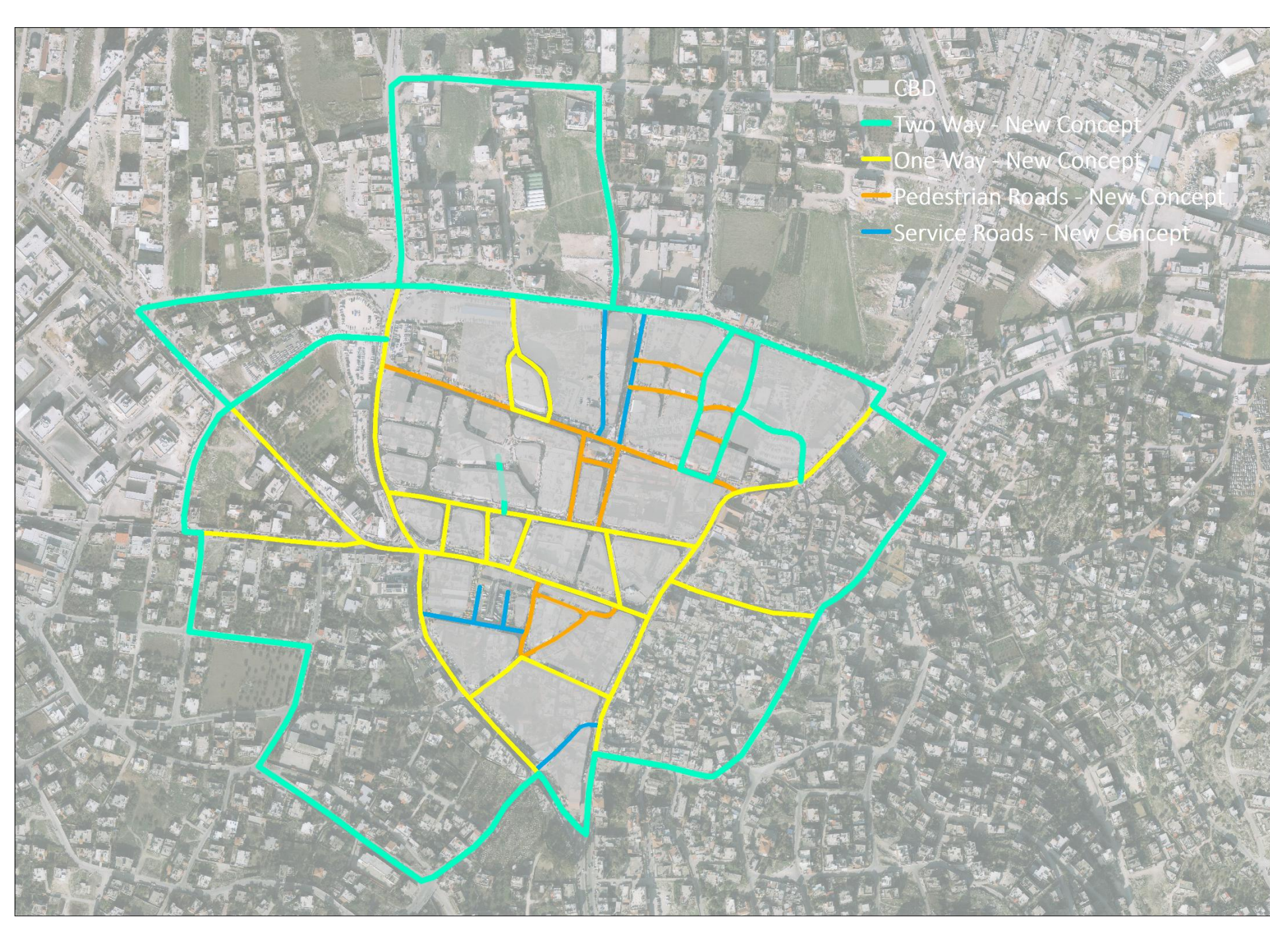


Number of Vehicle Operated by Public Transportation Parking









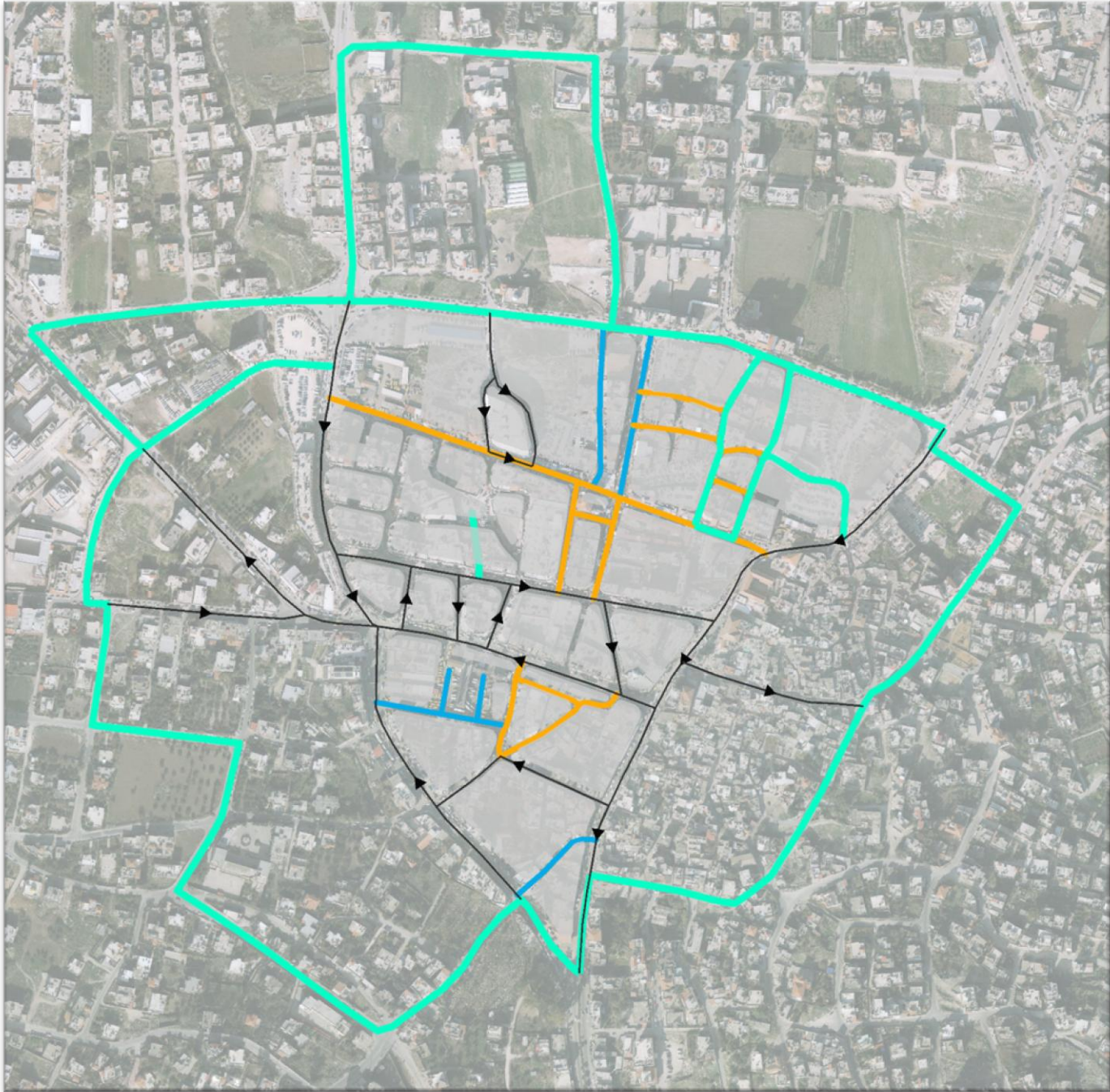
CBD

Two Way - New Concept

One Way - New Concept

Pedestrian Roads - New Concept

Service Roads - New Concept



Governorate: Jenin

City: Jenin

Location: To the west of the CBD

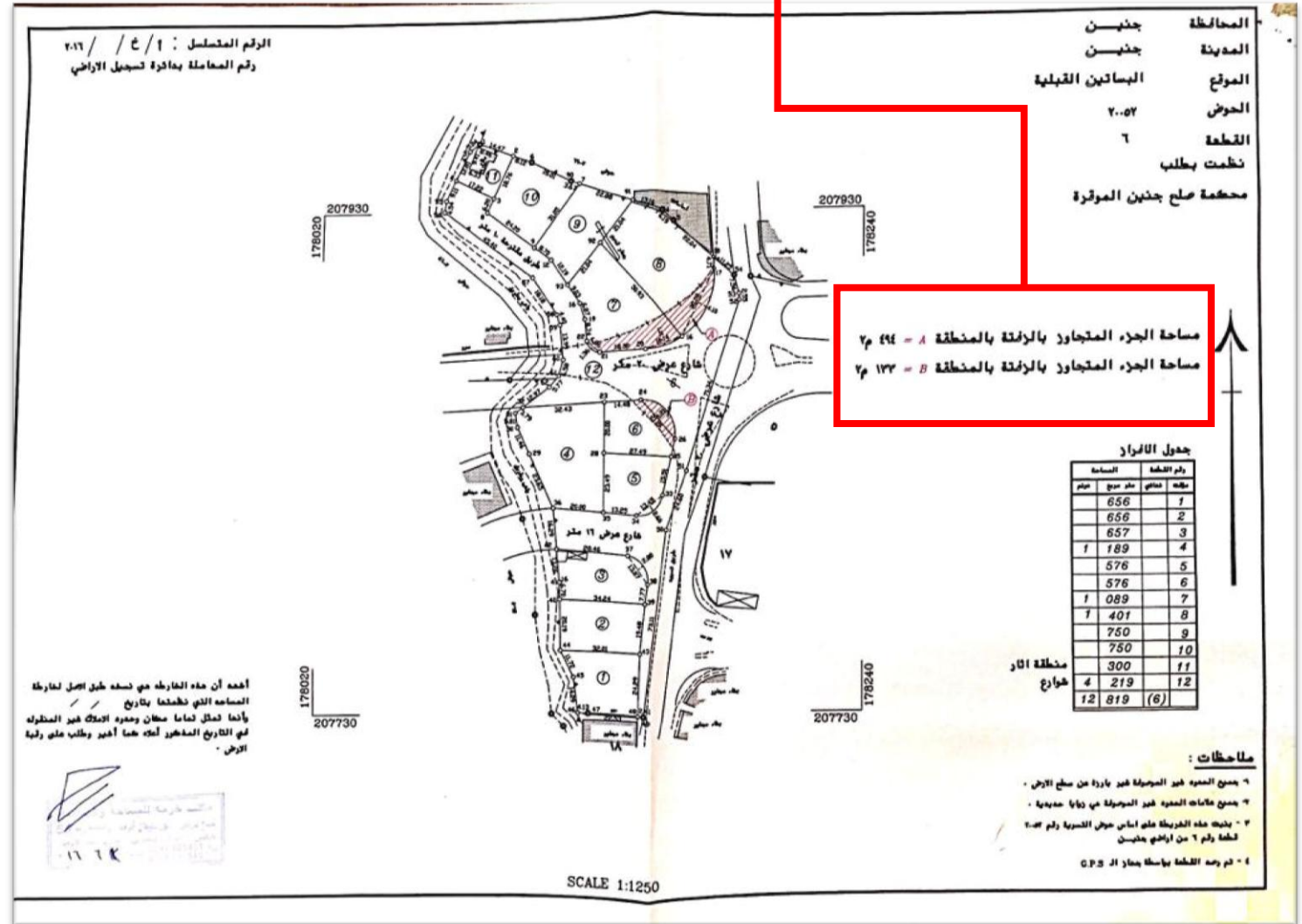
Block: 20052

Parcel: 6

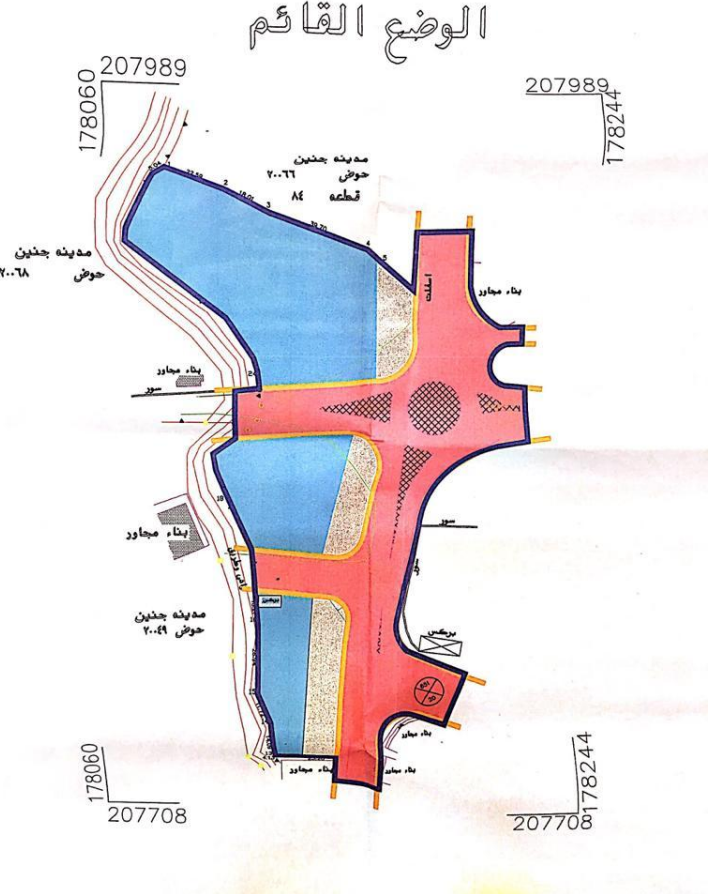
Design problems



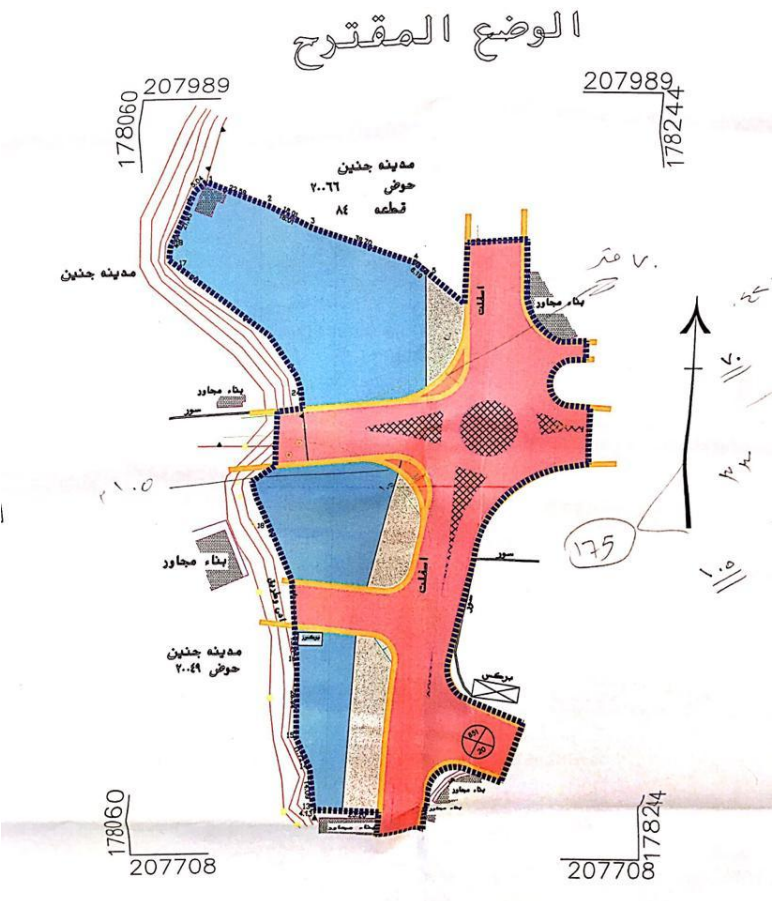
Area of deduction = 627 Square Meter!

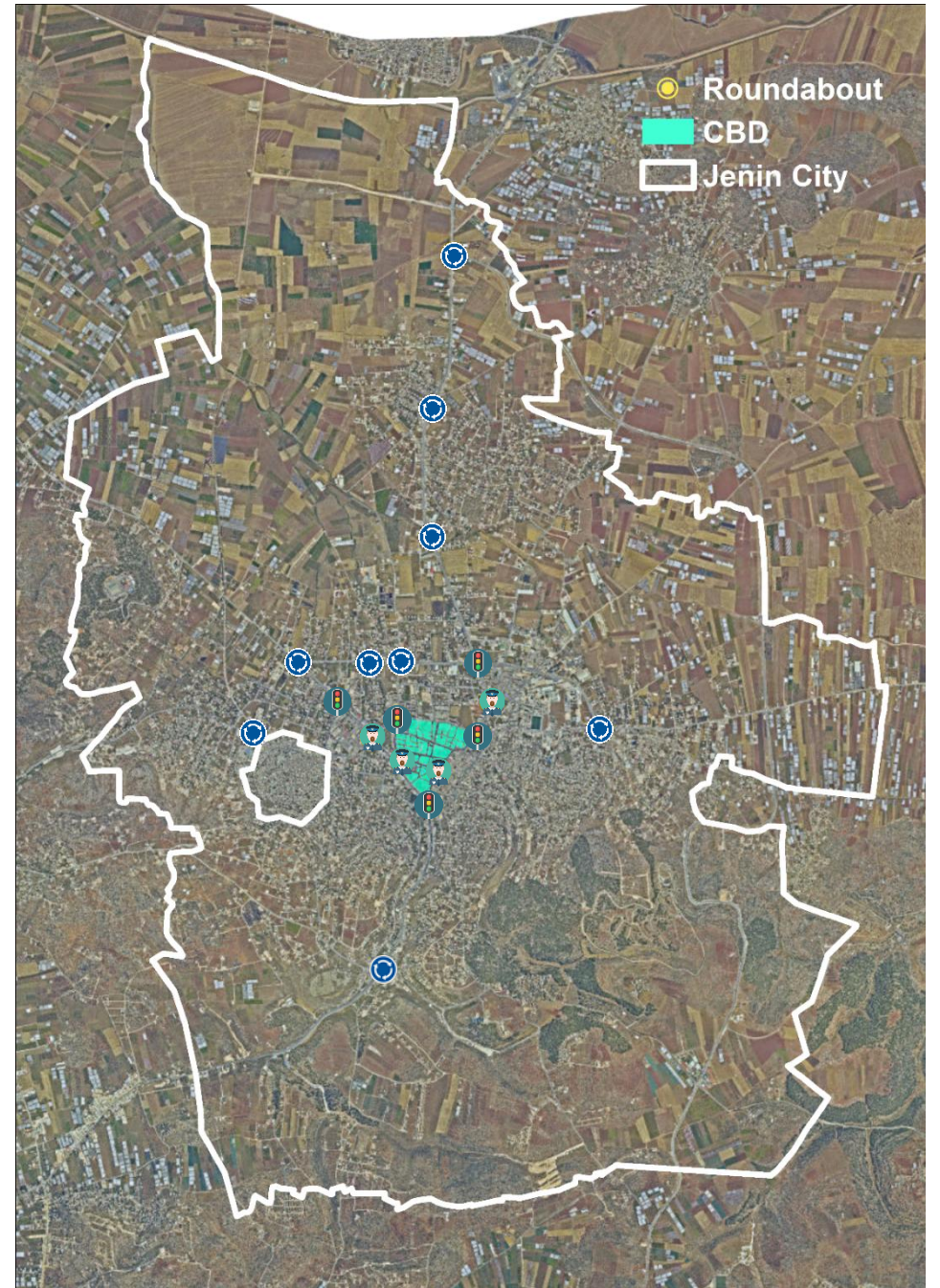
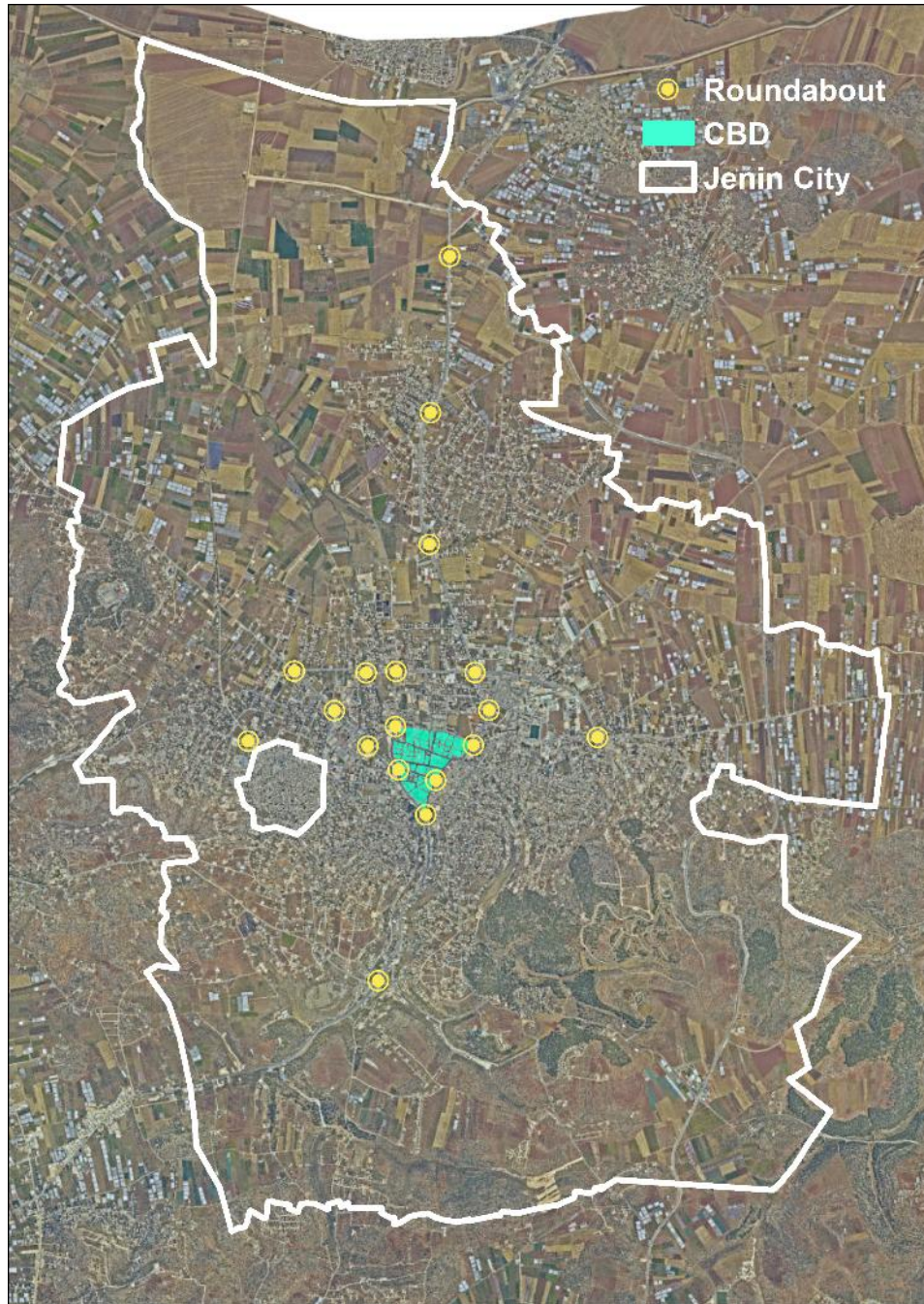


Jenin municipality didn't allow a soft copy

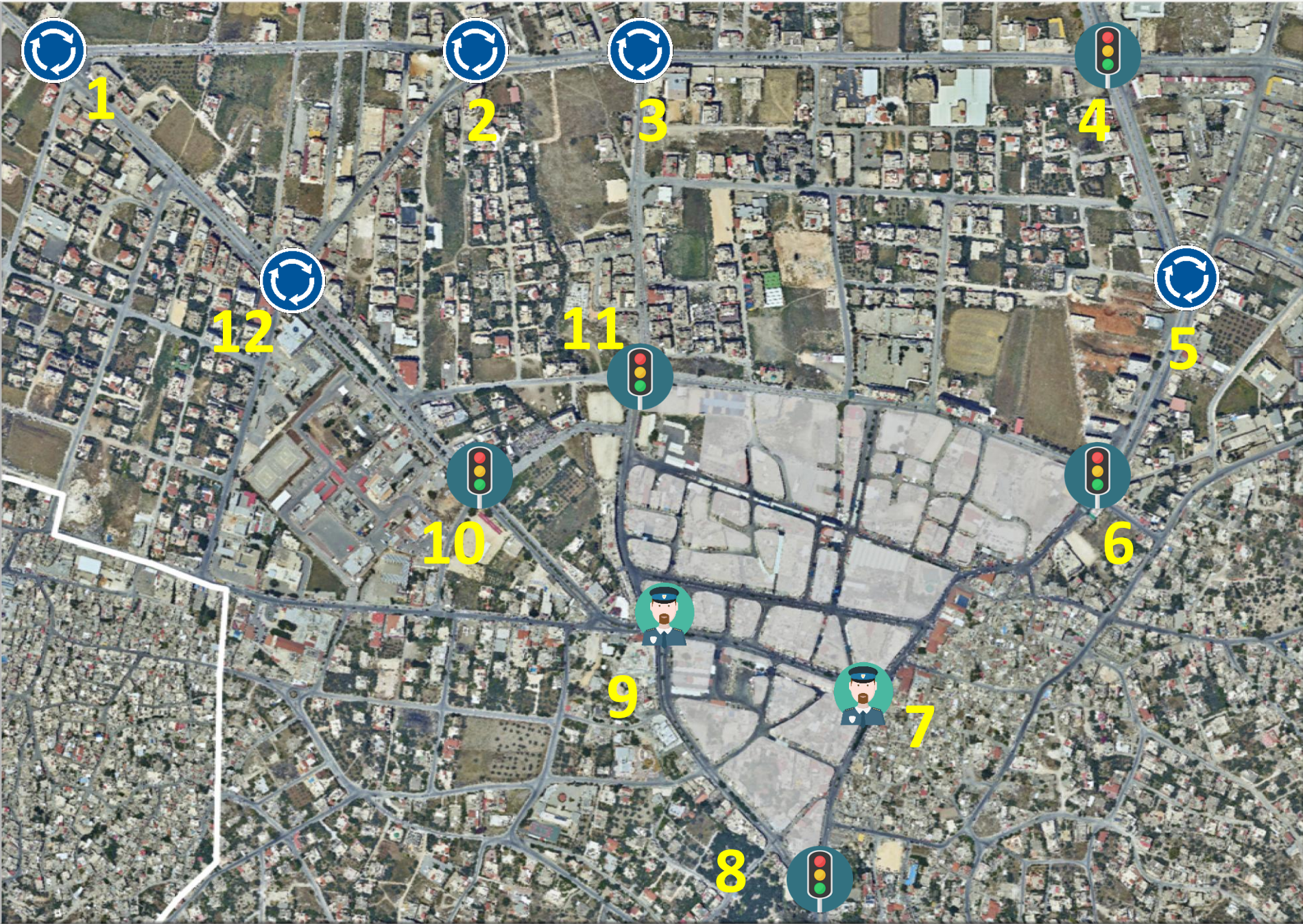


Violated legally



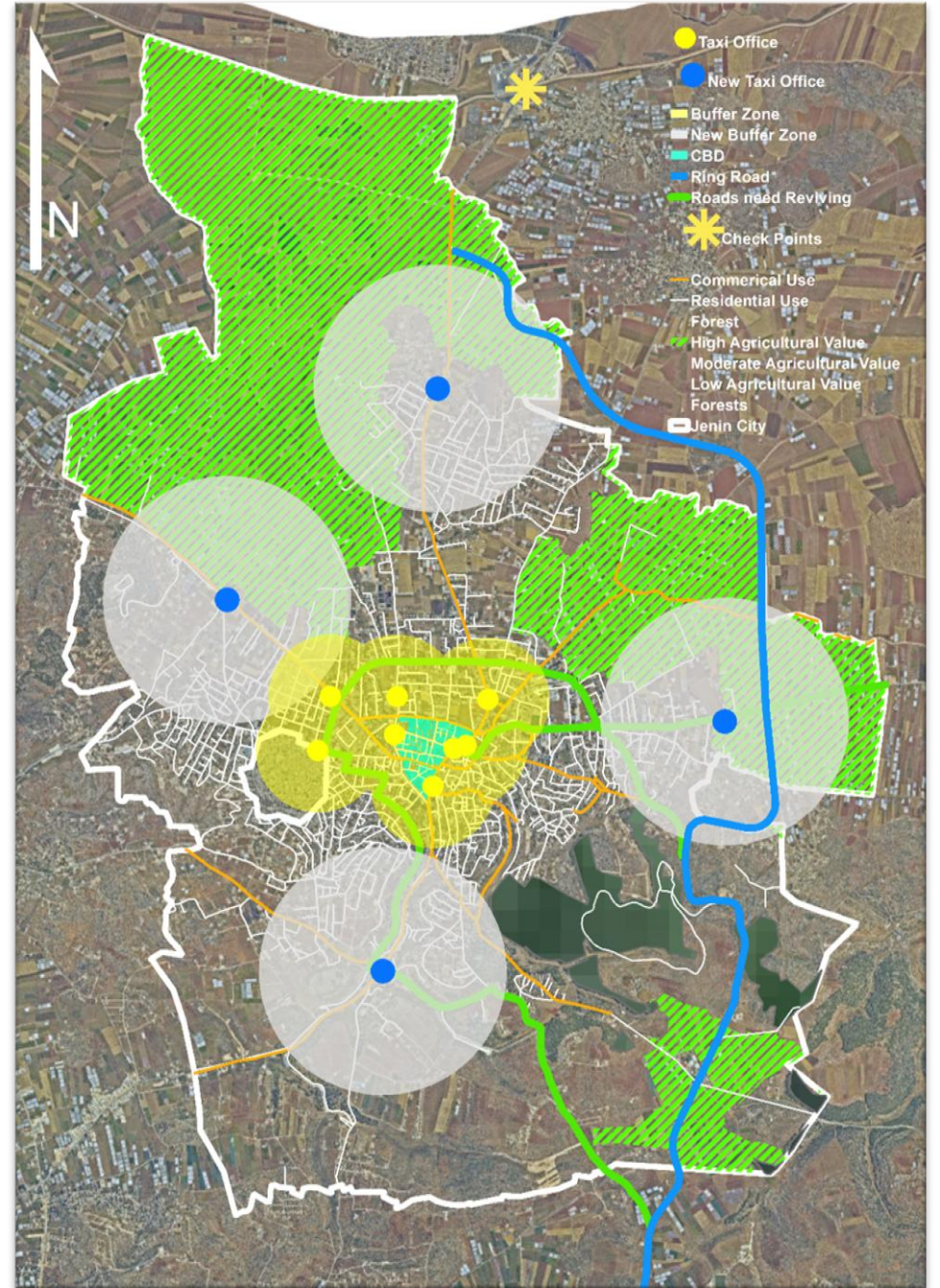
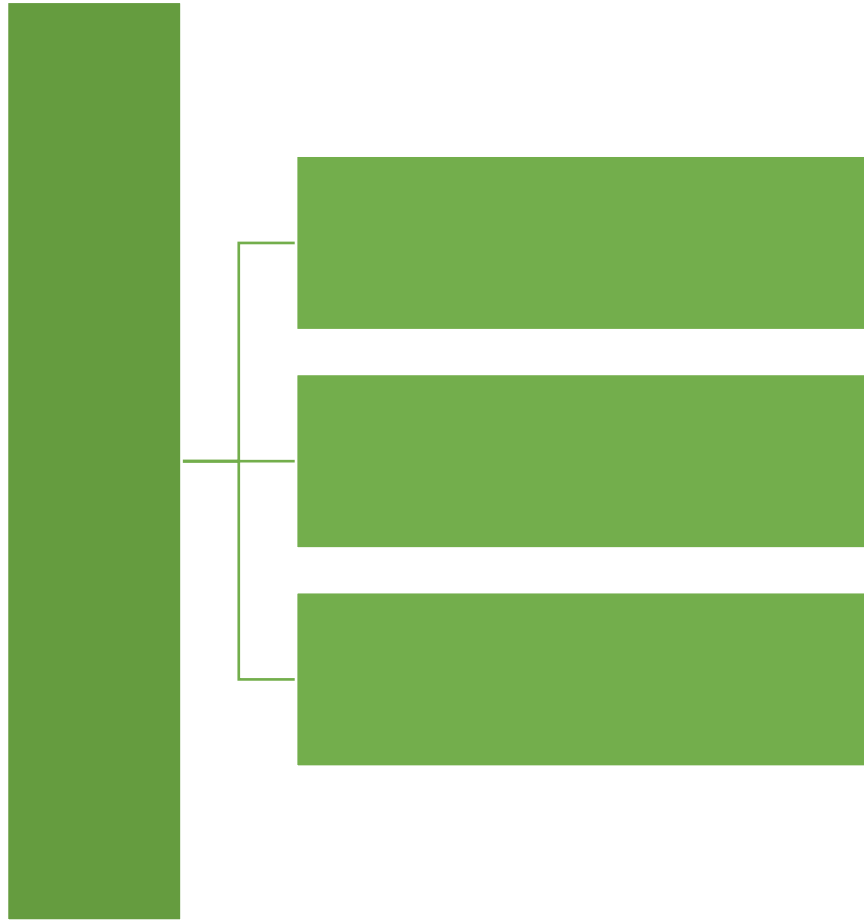


This map is due

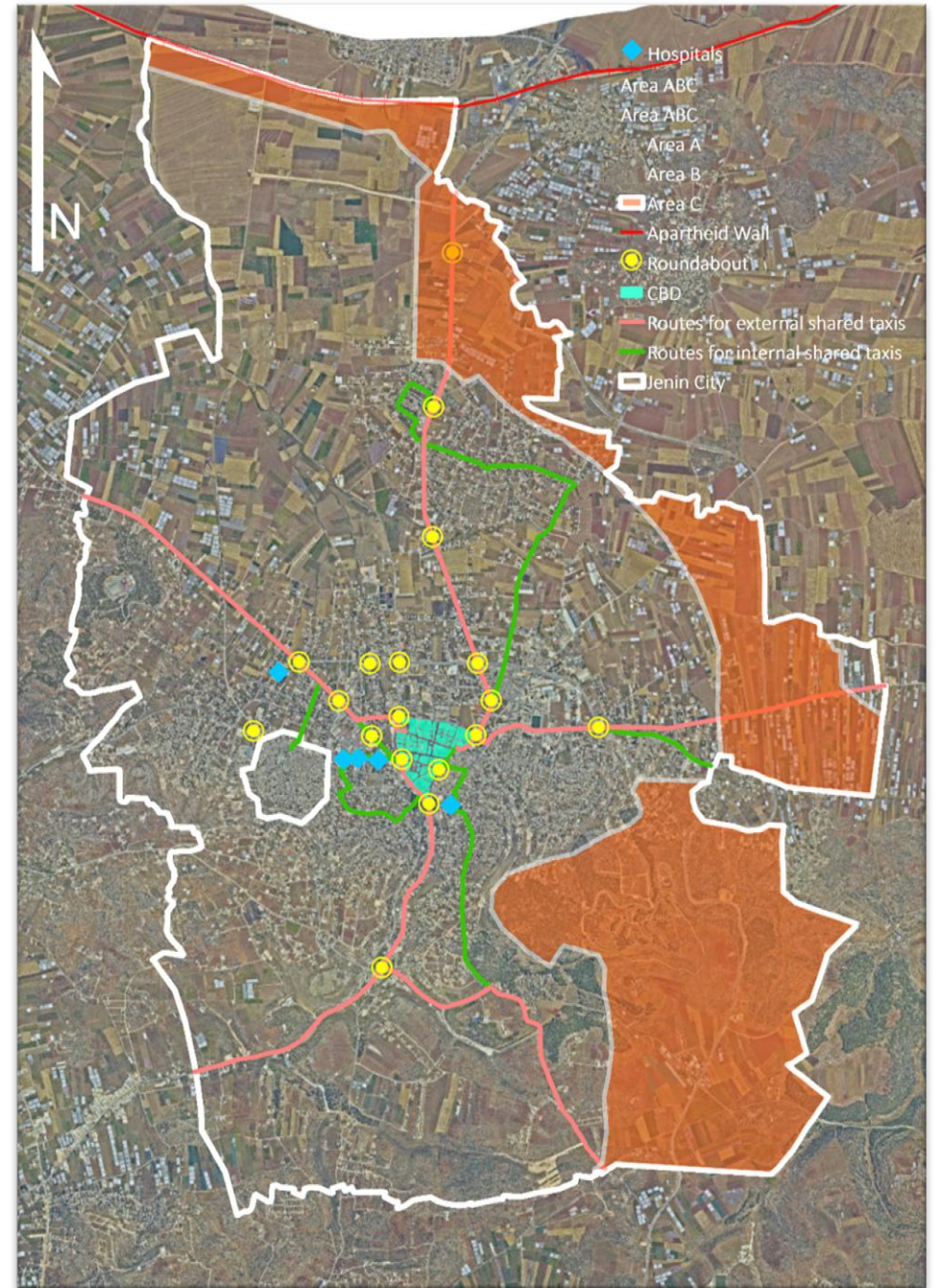
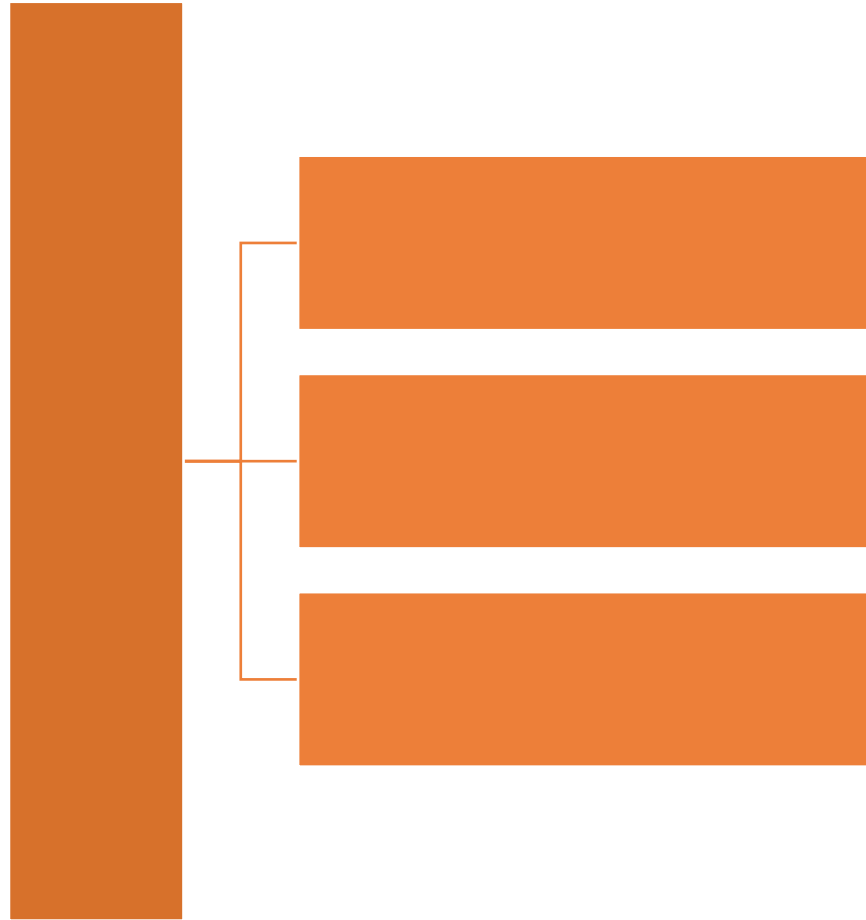


Intersection Number	Level of Service
1	C
2	C
3	C
4	D
5	C
6	F
7	F
8	F
9	F
10	D
11	F
12	C

Positive Map



Negative Map



Main Goals

Economic Benefits	Social Benefits	Environmental Benefits
Savings in transportation costs	Improved transportation options and choices	Green space
Increasing the demand for public services	Community cohesion	Reduced air pollution
Transfer more efficient	Increased physical activity and health	Reduced resource consumption
	Congestion reduction	Reduced water pollution
		Reduced “heat Island” effect

**Issues
(Strengths & Weaknesses)**

Need to reduce traffic in residential areas

Provide service lines to serve the city

Low accessibility levels

Reviving traffic on several streets

Air and noise pollution on main roads

Streets landscaping needs

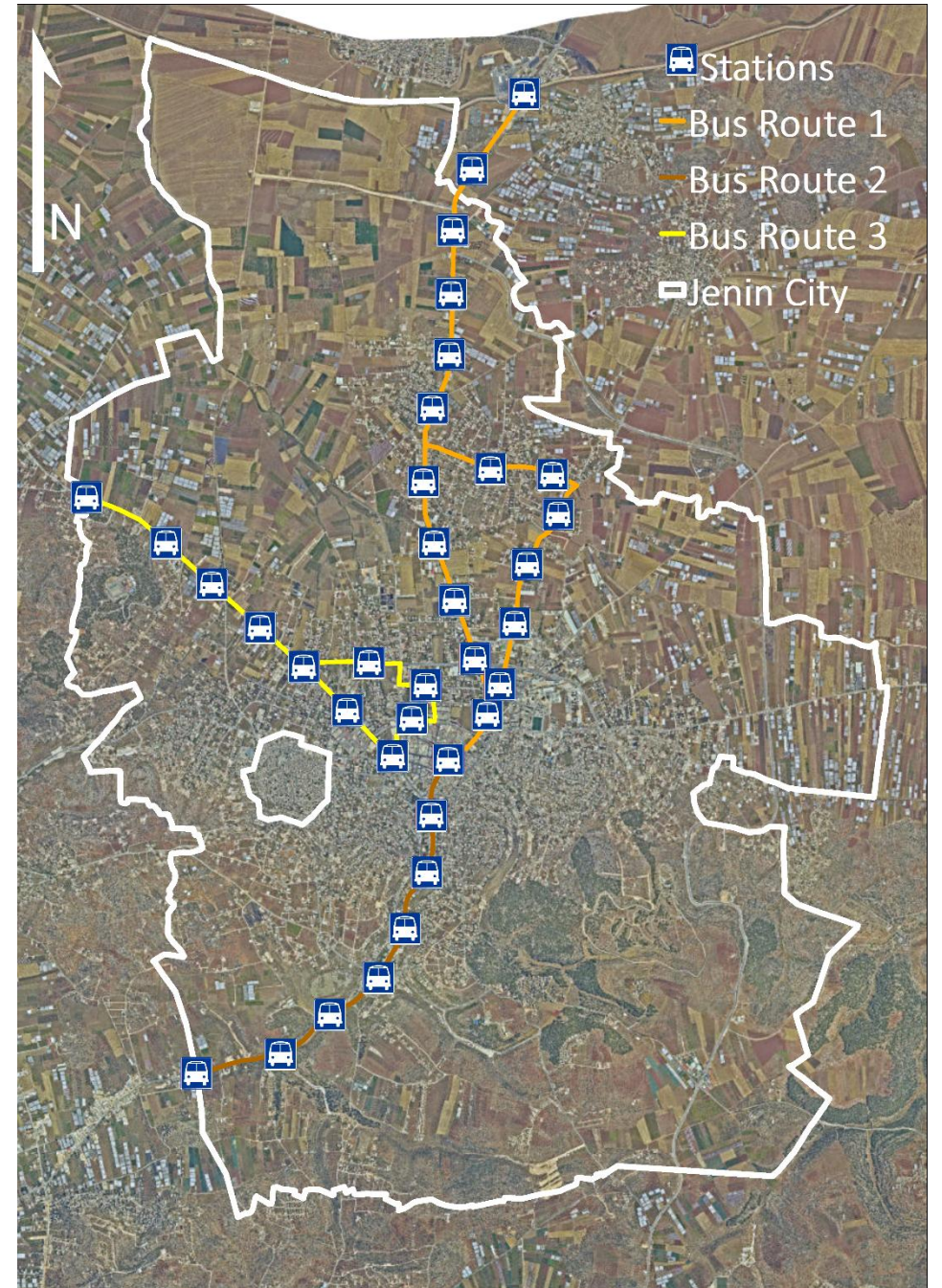
High traffic congestion on main connecting roads

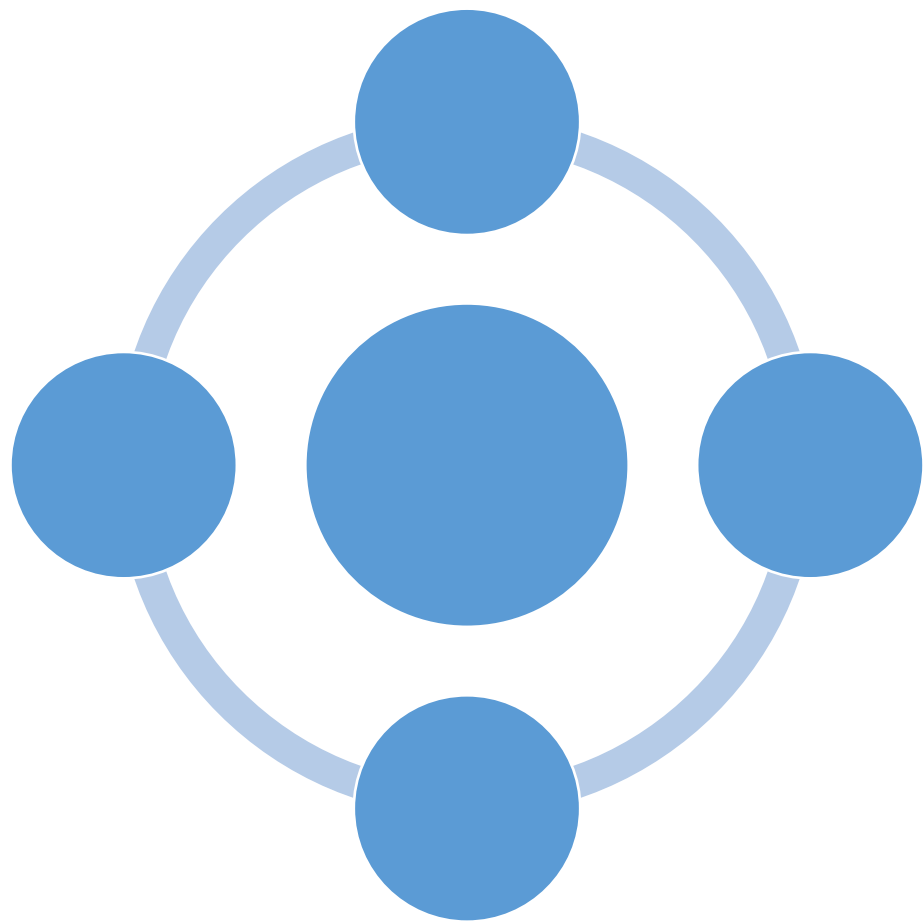
Safety requirements

Prevent horizontal height in the center area

Plan Preparation and Detailed Planning

	Route 1	Route 2	Route 3
Length	9 Km	4 Km	5 Km
Speed	40 Km/h	40 Km/h	40 Km/h
Trip Length	45 Min	20 Min	25 Min





Thank you

- هل شبكة الشوارع تطورت مع تطور المدينة؟
- هل هذه الشوارع تم فتحها؟ .. يجب ان تعرف تاريخ الشبكة كيف تم فتحها
- اسقاط المخططات القديمة مع التصوير الجوي
- كثافة المرور ..
- الشبكة، الوسيلة، الخدمات
- جنين بحاجة الى إدارة مرور اكثر من الحلول الجذرية
- العابر والقاصد