



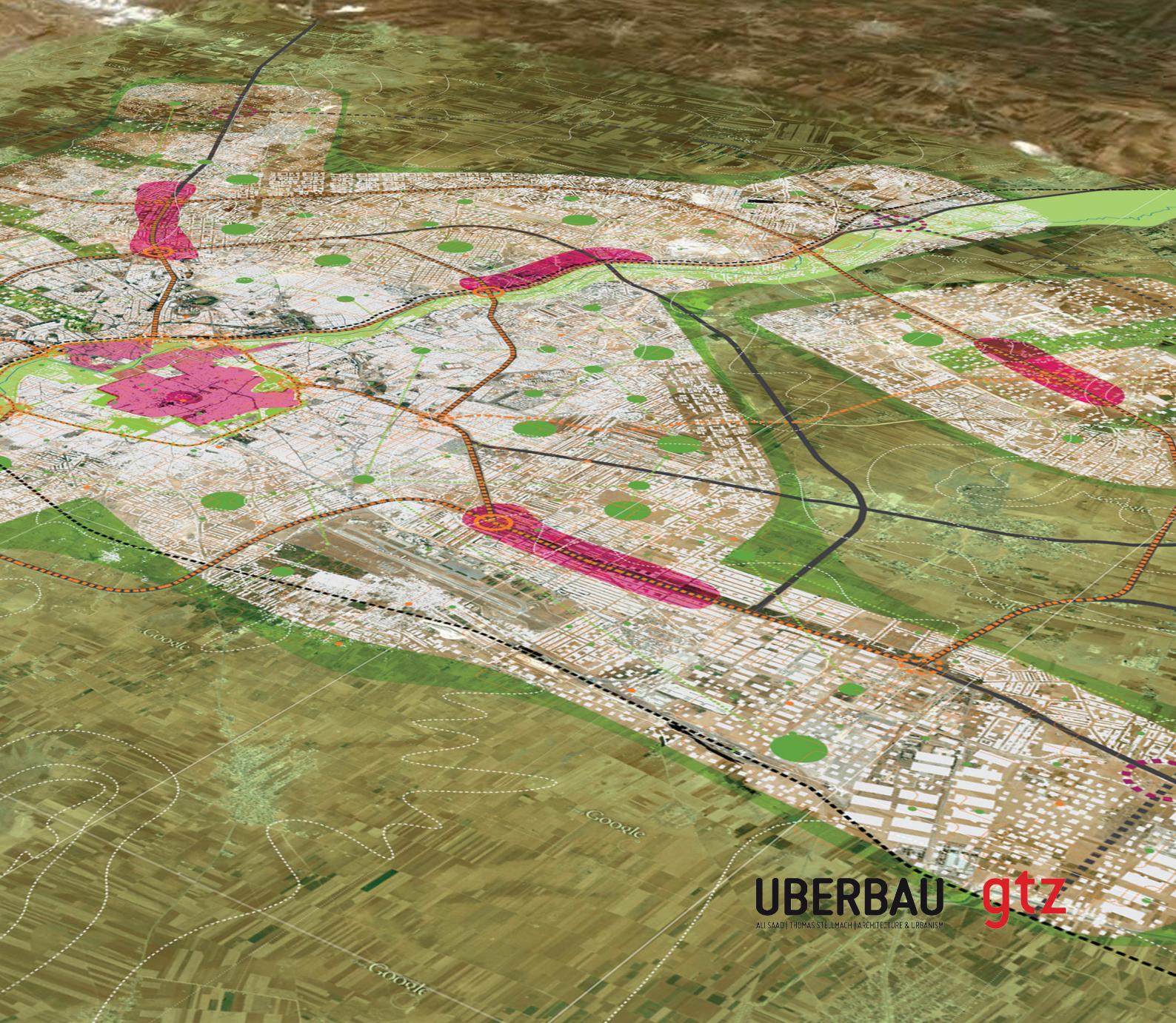
ALEPOO DIVERSE | OPEN CITY

An Urban Vision for the Year 2025

FINAL REPORT, 5.02.2010

Syrian-German Technical Cooperation GTZ
Sustainable Urban Development Programme UDP
Aleppo Urban Development Project

UBERBAU | Architecture & Urbanism



UBERBAU **gtz**
ALI SAADI | THOMAS STELLMACH | ARCHITECTURE & URBANISM

CONTENTS

Vision	7
Introduction.....	11
1 Aleppo Diverse City.....	15
1.1 The Situation Today	19
1.2 The Masterplan 2004 – 2010	29
2 Aleppo Open City	41
2.1 Introduction.....	45
2.2 Strategy.....	49
2.3 Phasing	51
2.4 Multifunctional Open Spaces.....	55
2.5 Accessible Centres	63
2.6 Integrated Urban Mobility	69
2.7 Evolving Neighbourhood Identities.....	75
2.8 Conclusions & Actions	85
3 Appendix.....	93
3.1 City Today, Layer by Layer	95
3.2 2010 Masterplan, Layer by Layer.....	109
3.3 Recommendations for Masterplan Revision, Layer by Layer	133
3.4 Bibliography & Image Credits	141
3.5 Acknowledgements.....	143



Aleppo from the citadel (Thomas Stellmach, 2008)

Vision

We imagine Aleppo as a place that displays the authenticity of a contemporary Middle Eastern city, a place where modernity and a rich cultural heritage do not conflict with each other, but merge into a mutually enriching relationship. The unbowed tradition of openness and coexistence of the local people, to be witnessed all over the city — be it in its exceptional medieval city centre or in its various modern subcentres — makes Aleppo a place of true authenticity. It is this authenticity combined with Aleppo's manifold historical and cultural attractions, that are well connected by public transport and embedded in a network of high-quality public spaces, that will attract foreigners to the city and fuel local economies. We imagine Aleppo to be a place that provides as much opportunities for self-actualisation as basic human needs to its citizens, a place where private initiative and state share the vision of an evolving, diverse and open city.

The traditional city centre, with its focus on tourism and cultural activities, is one of a range of various economic centres that mutually support each other. Organised around transport hubs that facilitate easy access to various modes of traffic, centres and sub-centres are well connected to each other by a modern, fast and affordable public transport system. The dense subcentres will have distinct characters — shopping and entertainment, knowledge and services or agricultural trade and logistics, each with its own appearance. Housing a mix of different programmes they stimulate old and new forms of urban work-life. Being in permanent evolution, they are the places where innovations and new opportunities can be tested and new businesses develop.

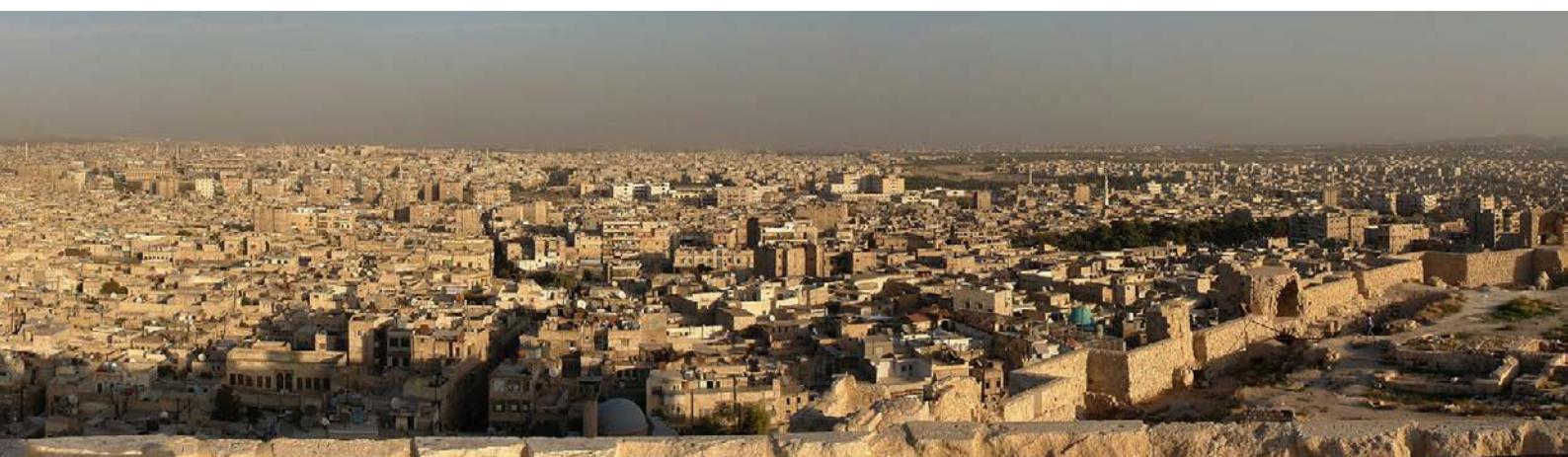




Aleppo from the citadel (Thomas Stellmach, 2008)

Around the centres lie Aleppo's neighbourhoods. New urban forms harness the potentials of local conditions and encourage engagement and interaction among the citizens. Consisting of different urban characters — from the garden villa to the dense city block, from self-built settlements, to new, locally adapted building typologies — they display the richness of Aleppo's lifestyles. The neighbourhoods offer services of proximity for the citizens' daily needs and are well connected to the centres through flexible microbus systems that heavily reduce private car use. These neighbourhoods of Aleppo are the foundations of a safe and open society.

The city is embedded within a rich cultural and productive landscape free of sprawl, with a distinct city edge. Green fingers reach deep into the urban fabric of Aleppo, transporting fresh air into the city and offering a hiatus from the intensity of urban life to the citizens. City centre, subcentres and neighbourhoods are linked to each other by a green network of strong and differentiated public spaces that unfold Aleppo's urbanity — this is where people meet for business or a chat, where people can exercise or stroll. Its most prominent part, River Quweik Park, is a large multifunctional city park along the renaturalized riverbed. Connecting East and West and linking the city with its surrounding historical landscape, it is the social interface for all of Aleppo's citizens and contributes to their collective identity.



Introduction

1 The Aleppo Urban Development Project is a joint undertaking by both the Municipality of Aleppo and the German Technical Cooperation (GTZ / BMZ), and part of the Syrian-German Program for Sustainable Urban Development (UDP). The project supports, inter alia, the preparation of a city development strategy (CDS) in Aleppo, and it promotes capacities for sustainable urban management and development. The CDS development process is co-funded by the Cities Alliance (CA), the German Technical Cooperation, and the City of Aleppo. The goal of this project is to enhance the development of Aleppo in a way that is consistent with the modernization and reform program of the Tenth 5-Year Plan and in a manner that generates sustainable, long-term benefits for Aleppo's residents. Reform projects are currently being defined by the State Planning Commission, and these will shed further light on which of the many Plan objectives are likely to be realized.

In early 2009 the gtz (Gesellschaft für Technische Zusammenarbeit) invited Thomas Stellmach to join the working team devising a City Development Strategy (CDS) for Aleppo as a part of the Aleppo Urban Development Project ¹. The scope of this report entails the urban spatial aspects of the city with the aim of formulating a long-term strategy for sustainable development.

This report can't stand by itself, and should be read within the context of its peers, namely the studies being done by the groups working on Local Economic Development, Urban Service Delivery and Disaster Management, Urban Environment and Ecology, Administrative and Financial Modernization as well as the Informal Settlements.



View of the city taken from the Ansari road (Jean Sauvaget, 1935)

OVERVIEW & METHODOLOGY

The first chapter of this report — *Aleppo Diverse City* — is an analysis of the current situation of the city and its planning efforts.

The first part of this chapter presents a brief analysis of the existing physical situation and has been approached from two sides. On the one hand via close collaboration with the local expert consultant Lamis Herbly and multiple visits to the city as well as via using data from existing surveys and reports from local sources (see bibliography at the end of this report). On the other hand, we compared key indicators and aspects of Aleppo's spatial structure with selected international references. This juxtaposition reveals similarities and differences to the current state and ongoing development of these cities. It embeds the study into a context that facilitates understanding where Aleppo stands out.

The second part of the analysis relates to the planning structure, and the concepts inherent in the 2004 masterplan and its actual work-in-progress version, to be ratified some time in early 2010. As the plan has progressed considerably since 2004, we focus on the 2010 iteration, even though it has no legal status yet. Our task here is not to minutely discuss technical details, but rather assess the plan from a holistic point of view, especially with respect to the existing physical condition of the city, planning procedures, as well as time and budget constraints.

The second chapter – *Aleppo Open City* – draws conclusions from this survey to identify five urbanistic key topics that shape our vision of Aleppo in 2025. With the help of international references each topic illustrates a set of principles of a desirable urban (re-)organisation and describes the strategies to apply in the specific context of Aleppo. As much as a *city vision* needs a *city development strategy* to show the way to achieve it, a strategy needs specific *kick-off projects* which can be implemented rapidly and set the bar for subsequent developments. Therefore we define focus areas in the city and describe exemplary inception projects where appropriate, to root our common dream of Aleppo firmly in the ground of Aleppo's present reality.

The Appendix presents a set of analytical plans dissecting the 2010 masterplan in discrete layers with comments. We included this narrow method of visualizing the attributes of the plan, because it facilitates the understanding of the overall concepts and issues of the masterplan. We also include an overview of the existing city in maps and the layers of a plan with conclusions and recommendations for a revision of the masterplan resulting from the urban vision, to establish a more comprehensive catalogue of the state of planning. Besides that, the Appendix includes the bibliography of references used for this report and gives credit to the generous support of the many people who helped us with this report.

² see: *Le Grand Pari de l'agglomeration parisienne*, <http://www.legrandparis.culture.gouv.fr/>.



Think Big - Vision Plan for Paris, France (LIN Finn Geipel + Giulia Andi, Berlin, D, 2009)

Grand Paris

Initiated by the French President Nicolas Sarkozy ten international transdisciplinary teams led by architects were invited to draw a vision of the future development of Paris and its metropolitan area². The developed concepts are used for political discussion and developed further into prototypical projects and, as a next step, urban plans: The vision drives the plan. Note the structure of the planning process of the Grand Paris project:

- 2008–2009: visioning (2 years)
- 2010–2011: development of prototype projects to trigger imitation (2 years)
- 2012 onwards: planning implementation

The report is accompanied by a set of four maps which were made available to the gtz and city council as high-resolution A0 format pdf files at a scale of 1:40.000. The four maps are namely:

- an aerial view showing the current physical situation,
- an instance of the 2010 masterplan,
- the *Aleppo Vision Plan*,
- and the *Recommendations for Masterplan Revision* plan indicating how certain aspects of the Vision Plan could manifest immediately in the 2010 masterplan.

WHY A VISION?

A vision is a mental image of what the future could be like - a desirable, possibly abstract idea of a future state which might never be achieved precisely as imagined. Nonetheless, the vision is a powerful tool, as it is a clear idea, that can be shared, discussed, and fought for. With the Aleppo Vision Plan we will introduce such an idea to spark discussion and create an instrument which can be used by the city council of Aleppo to unite disparate interests for a common goal. Moreover, a city with a vision has proven to have economic advantages, and can attract capital more easily.

"The capital available to any given city is also highly elastic and only flows to cities that show potential and have well-thought-out urban futures."

The Cities Alliance. 2006. Guide to City Development Strategies: Improving Urban Performance

³ from Stellmach, Thomas. 2007. Power, Optimism, and Social Consciousness. In *dysturb.net*, 29 May 2007, <http://www.dysturb.net/2007/power-optimism-and-social-consciousness/>.

Painted Houses in Tirana

The painted houses are an urban improvement project with considerable social and economic side effects, born out of a lack of funding. It is an initiative by the then newly inaugurated mayor of Tirana, AL, Edi Rama:

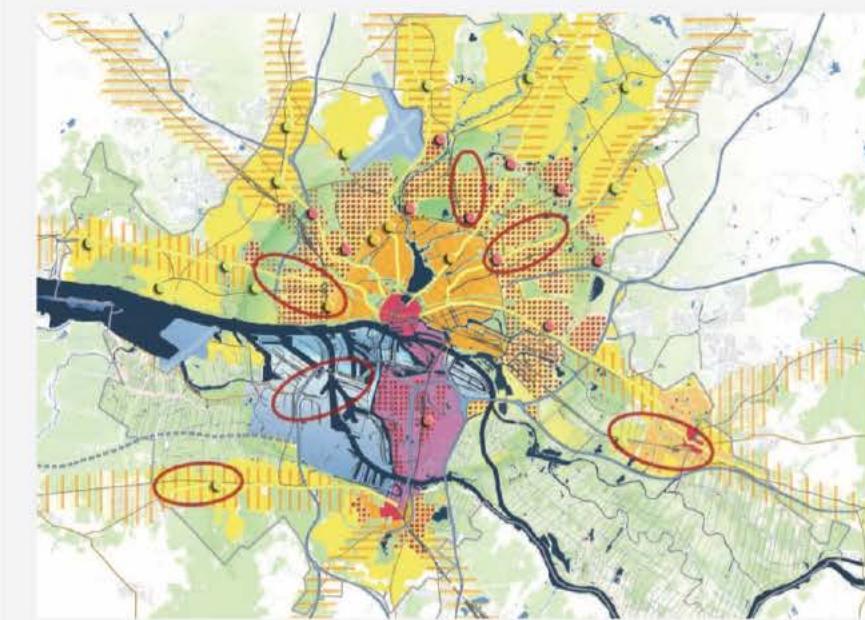
"And when we painted the first building – purple, and orange – I received a call: there are hundreds of people on the street, it is a traffic chaos. And everybody started to talk about colours – it was the first time that people debated about something which was there, instead of debating what the quickest way out of the country is."

Edi Rama at the opening speech of the International Architecture Biennale Rotterdam, 2007³

Despite certain criticism – investing in urban beautification instead of upgrading basic infrastructure – the colour project attracted new businesses, land values increased, and a new collective attention and care for the shared public areas emerged.



Colourfully painted façades of residential buildings, Tirana, AL (immu, flickr.com, 2006)



"Leitbild Hamburg", Vision Plan for the City of Hamburg, D (Macheleidt + Partner, 2007)

Hamburg Vision (Leitbild Hamburg)⁴

The Vision Plan developed for Hamburg, Germany in 2007 is exemplary for a qualitative plan identifying action areas (red outlines) and centres (dots) as well as a general overview of the morphology of the city: urbanised zones, the harbour area, green spaces. This strategic vision for Hamburg is subsequently being translated into specific masterplans and projects, among them the exemplary 'Hafencity' development by KCAP⁵.

We use the term strategy frequently throughout this document. We define the strategy as the most sensible way (economically, ecologically, socially, politically) to develop the city towards the common goals laid out in the vision. The technique is to think big and small at the same time, keeping the big picture in mind, while using small implementation steps. To foster the first steps, we will propose a set of ideas for very concrete inception projects in this report.

The working groups have enumerated the critical issues Aleppo has to deal with in its near future in the Local Agenda 21. This report will not repeat these issues, but rather integrate them into a strategy aiming at implementation.

Dr. Maad, a high-ranking planning official of GCEC North-East Syria, said in one of our early interviews: "The city never stops". The city demands a flexible approach that reacts to its ever-changing conditions, as such we will not propose a 'better version' of the masterplan, but rather amend to it by introducing flexibility as a new element in Syrian planning procedure. Furthermore, the spatial development strategy has a qualitative character, whereas the masterplan has a quantitative character.

Our hope is that this strategy has the lasting power to influence revisions of Aleppo's masterplan to come. By envisioning a future for the city of Aleppo, we propose a hypothesis where the potentials for development of Aleppo lie. We hope that this hypothesis leads to an agreement what needs to be done across different interest groups and stakeholders: the vision as a collective base for a discussion on the city.

Its structural approach describes an organisational framework for Aleppo wherein key projects can induce developments and set the seeds which initiate the transformation of the city. To the same extent as "the city never stops", we see city development as an endless cyclic process of formulating visions, establishing strategies, implementing key projects that induce developments, assessing the developments and starting all over again.

To have a clear vision of the prospects of the city lays the foundation for future certainty for Aleppo's population. The Arab Human Development Report⁶ identifies

⁴ Arbeitsgemeinschaft Macheleidt + Partner et al. 2007. *Hamburg – Räumliches Leitbild, Entwurf.Hamburg: Freie Hansestadt Hamburg*.

Also compare Senatsverwaltung für Stadtentwicklung; Flicke, Dietrich et al. 2004. *Stadtentwicklungskonzept Berlin 2020 – Statusbericht und perspektivische Handlungsansätze*. Berlin: Senatsverwaltung für Stadtentwicklung.

⁵ see KCAP Architects & Planners – Hafencity (<http://www.kcap.nl/#/Hafencity>).

⁶ United Nations Development Programme, 2009, op. cit.

this certainty — a subelement of general human safety — as a key ingredient for development:

“Human security is the ‘rearguard of human development’. Whereas human development is concerned with expanding the individual’s capabilities and opportunities, human security focuses on enabling peoples to contain or avert threats to their lives, livelihoods and human dignity.”⁷

Arab Human Development Report 2009

⁷ United Nations Development Programme, *ibid.*, p. 2.



Sunset over Sabeel, Aleppo, SY (Thomas Stellmach, 2007)

TARGETS

The targets of all these efforts are simple — to achieve prosperity for Aleppo’s citizens in a livable and secure environment, and thereby improve the attractiveness and image of the city.

⁸ The Agenda 21 is an action programme for the environment presented at the Earth Summit held 1992 in Rio de Janeiro by the UN. The implementation of Agenda 21 was intended to involve action at international, national, regional and local levels. Some local authorities have taken steps to implement the plan locally, as recommended in Chapter 28 of the document. The Local Agenda 21 is such a locally adapted set of goals formulated by the Aleppo city council’s working groups (Municipality of Aleppo, 2009). Also see the Agenda 21 website of the United Nations <http://www.un.org/esa/dsd/agenda21/>.

Local Agenda 21⁸ Targets

- Green atmosphere, sustainable clean air preserved by a conscious society
- Reaching a sustainable economically developed society
- Preserving the heritage and revive it to consolidate the individuals’ belonging to the environmental and cultural surrounding
- Organizing illegal settlement to be well-serviced residential areas
- Preventing the emergence of new illegal settlements
- Ideal social and economical status for better life with identity
- Solid Waste Management
- Water Management

We will use these general targets of the *Agenda 21* — especially the first six topics due to their urban spatial relevance — to formulate more specific strategic goals considering local conditions and urban form. As the masterplan is the planning instrument to turn the aims of the agenda into reality, we will also use the *Agenda 21* as a benchmark to evaluate the 2010 masterplan against.

ALEPPO DIVERSE CITY

An analysis of the current situation

NAMES & PLACES, METROPOLITAN SCALE

Aerial image with superposed names of boroughs and their boundaries (based on Google Earth, 2009 and Municipality of Aleppo, 2009), 1:115.000



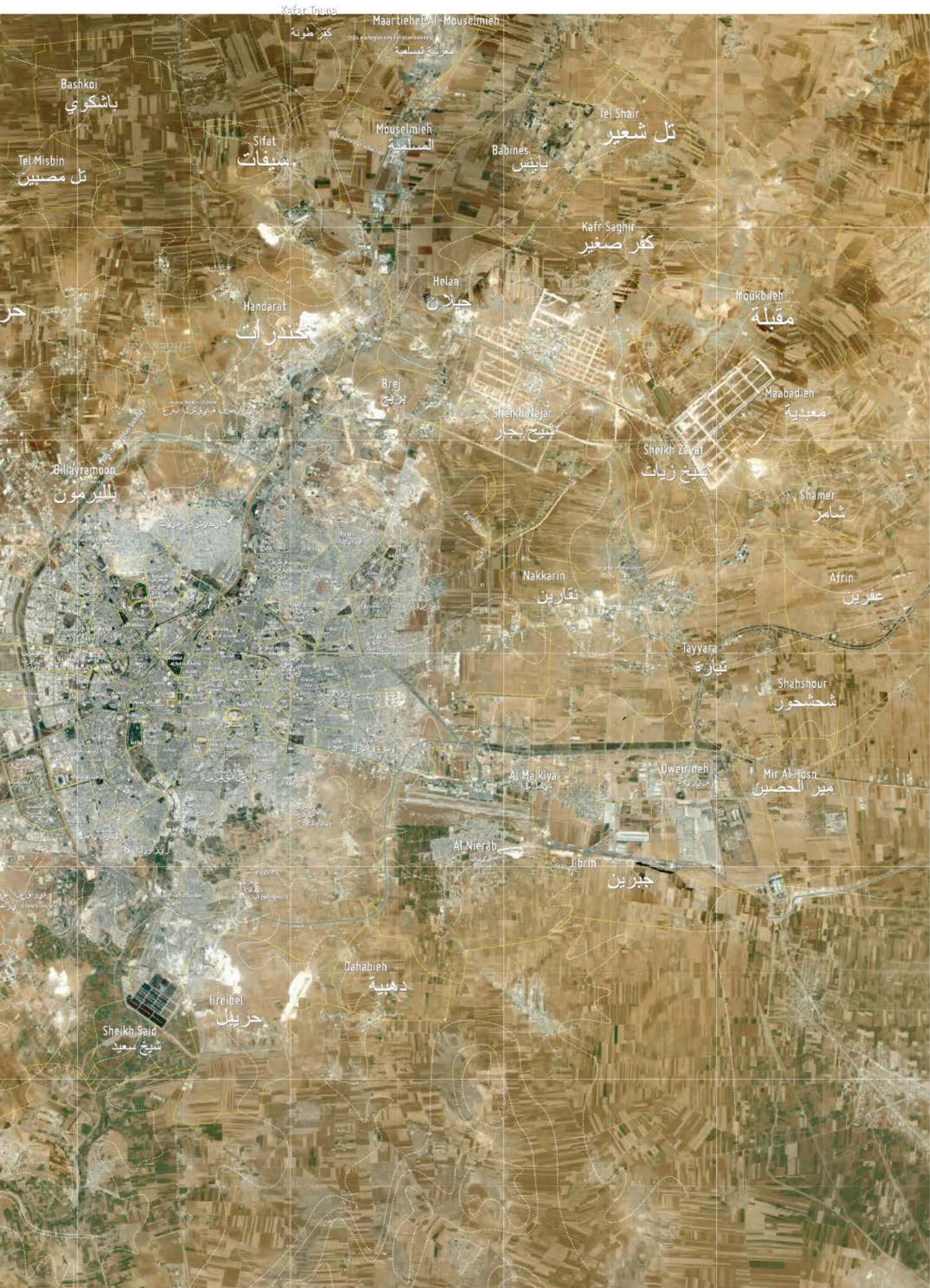
10 km

15 km

20 km

25 km

30 km



1.1. The Situation Today

Before we can introduce ideas for the future, we need to understand the past, and the situation it led to. What is particular to Aleppo? Are there any features that set it apart and can guide future developments?

CONTEXT AND TOPOGRAPHY

Aleppo is situated in northern Syria, about a hundred kilometres east of the Mediterranean coast and 50 kilometres from the Turkish border in the North. Major neighbouring Syrian cities are Hama and Latakia in the South and West, and the Turkish cities of Iskenderun and Gaziantep in the North West and North. Looking from the West, the location of Aleppo marks the beginning of the dry (with exception of the Euphrates) desert steppe towards the East. The climate is arid-continental with hot summers.

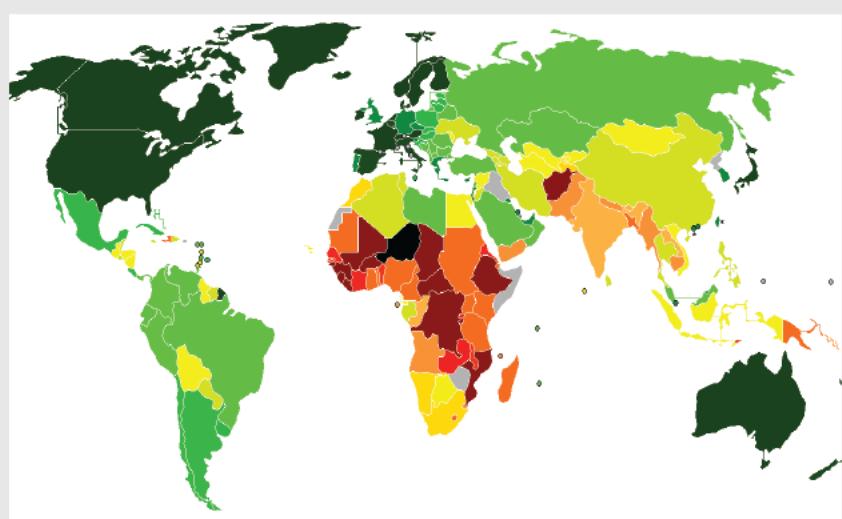
The city is located along a North South valley (the river-bed of the Quweik), with topographic high points in the North, North East, and South East. Within the city, the creek passes the old city centre on its western side, running from North to South. The river is currently a manufactured waterway in a concrete, partially tunnelled bed, fed by a pipeline carrying over water from the Euphrates. The water is used mostly for irrigation and to a smaller extent for industrial use and is depleted a few kilometres south-west of the city. In the very centre of Aleppo the citadel, built on a partly

⁹ United Nations Development Programme. 2007. *Human Development Report*. 2007/2008. New York: Palgrave Macmillan.

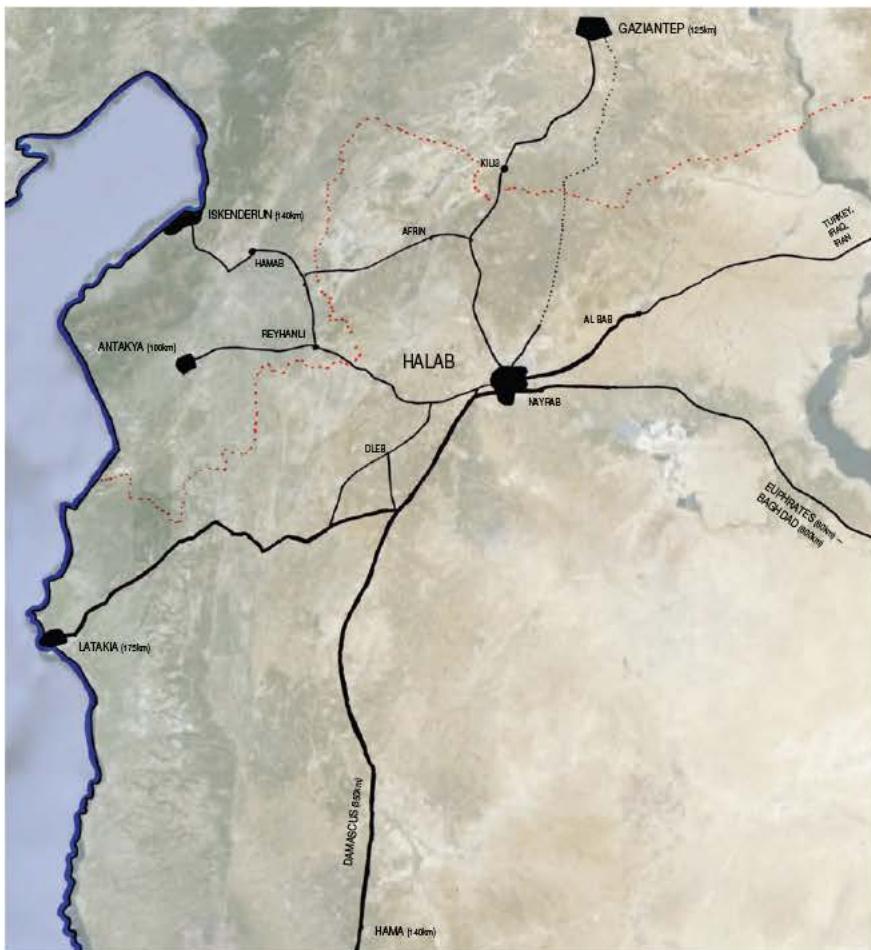
The Human Development Index (HDI)⁹ is an index used to rank countries by level of "human development". The index accounts for:

- Life expectancy at birth, as an index of population health and longevity
- Knowledge and education, as measured by the adult literacy rate (with two-thirds weighting) and the combined primary, secondary, and tertiary gross enrolment ratio (with one-third weighting).
- Standard of living, as measured by the natural logarithm of gross domestic product per capita at purchasing power parity.

Syria belongs to the developing countries.



World map indicating the Human Development Index (based on 2007 data). green: developed, yellow: developing, red: underdeveloped. (Wikimedia, 2009)

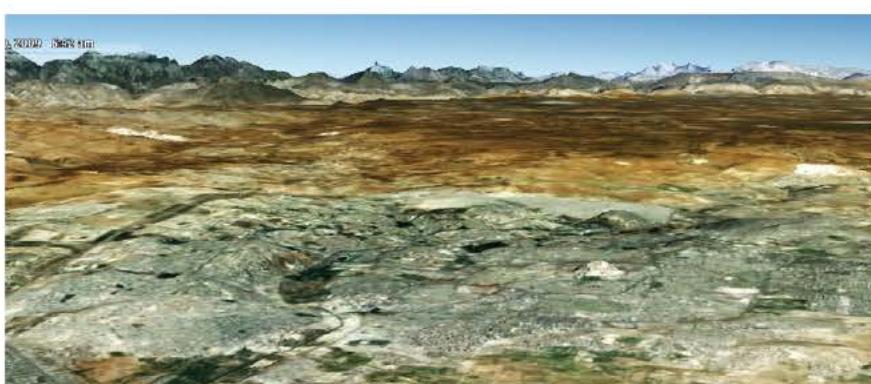


Road Infrastructure and important neighbouring cities (based on Google Earth, 2009)

artificial mound, stands out as a landmark. The topographic changes are mostly mild, but there are a few higher points in the topography of the city that allow for vistas. The ground is solid and rocky, an ideal building ground.

SPATIAL STRUCTURE

The city lies within a network of smaller settlements of mostly agricultural character. There are fertile grounds close to the city, particularly in the South along the river Quweik as well as in the North. West winds are prevalent, carrying cool air from the coast and mountains, which lead to a natural distribution of richer, mostly residential areas in the West, and poorer residential and manufacturing areas in the East.



The city of Aleppo seen from the South. The valley of river Quweik is clearly visible. Note the white mound of the citadel in the right half of the image. Elevation exaggerated by factor 2.5 (Google Earth, 2009). Also see the topography map (figure 3.1.3, Appendix p. 102)



View on Haidariyeh, an informal low income community in the North-East of Aleppo (Thomas Stellmach, 2010)

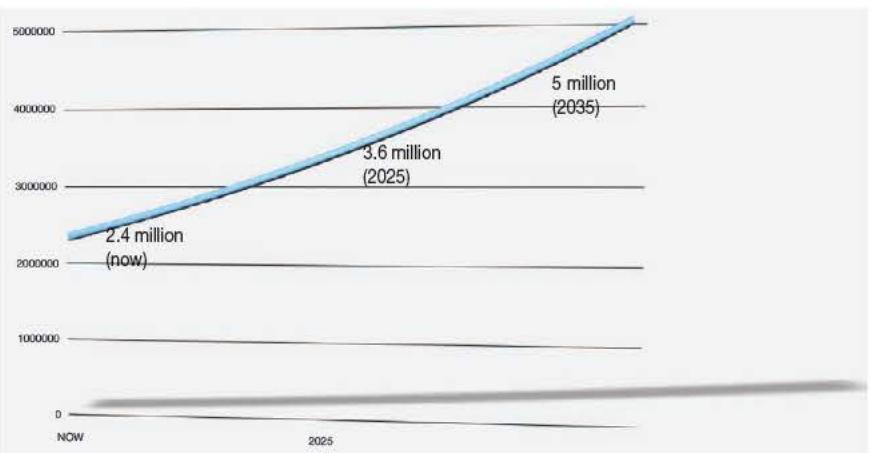
The riverbed marks this functional and social rift that divides Aleppo in two parts: The 'good' half of the city in the West, oriented towards the coast, has direct infrastructure connections to Turkey in the North West and Damascus in the South West, the new city centre of Al Azizieh is also located here just west of the Old City, upper class residential neighbourhoods are found further out towards the boundaries of the city. The Nejrab airport is located east of the city, less than 5 km from the centre. Large parts of the industry, and a majority of the informal settlements are located in the East, which hence shows additional structural deficits, e. g. lack of green spaces.

A new industrial area – Sheikh Najjar Industrial City – is being laid out at a distance of approximately 6 km from the centre in the North East of the city. The north-south rail tracks running on a approximately 4 m high bank aggravate the East West separation (see "Names & Places" maps, figure 3.1.1 and 3.1.2, Appendix p. 98ff).

From a planner's point of view, the city stands out in three particular ways. Firstly, The high population growth rate (estimated annual growth projected over the next ten years is about 2.7% annually) will add an additional 1.2 Million people to Aleppo's population, making for a total of 3.6 Million. This population increase is the fundamental challenge any city development strategy for Aleppo has to face – infrastructurally, socially, ecologically. But the growth of the city, both through rural exodus and large family sizes¹⁰ also opens up an opportunity for the city. Aleppo is – regarding the population profile – a *young city*. Change and renewal processes can happen rapidly, workforce is available.

¹⁰ Aleppo's city planning regulations use an average number of 5 people per household. For comparison: Germany has an average household size of 2.11 in 2005, down from average of 4.6 in 1871.

See: Schäfers, Bernhard. 2002. *Sozialstruktur und sozialer Wandel in Deutschland*. 7. Auflage. Stuttgart: Lucius und Lucius. p. 125ff. See also: Statistisches Bundesamt, 2007: *Statistisches Jahrbuch 2007 für die Bundesrepublik Deutschland*. Wiesbaden: Statistisches Bundesamt. p. 46.



Projected Population Growth of Aleppo. 2.6% growth rate. (Municipality of Aleppo)



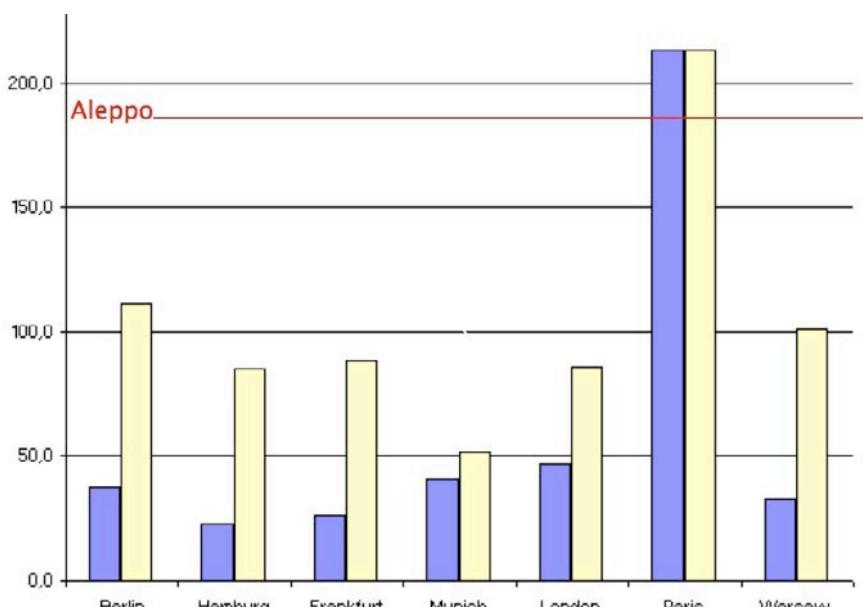
Compact and mixed urban structure - Al Aziziye, Aleppo (Thomas Stellmach, 2009)

Secondly, despite its rapid growth in recent history, Aleppo is a surprisingly compact city. Tradition, social coherence and governmental control led to a city with virtually no sprawl, despite the fact that 40% of today's population lives in informal settlements with varying degrees of legality, and despite the fact that buildable (that is flat) land is widely available. This results in a city with a clearly recognisable boundary, a readable transition from what is 'countryside' to what is 'city'. This is a particular quality which is worth to maintain and develop further.

Even though we can observe first non-rural developments of low density (\pm 5 units per hectare) communities, including gated communities which are in planning stage¹¹, areas which are individually walled ('vilat' or in local English 'farms'), the city's density is relatively high: Aleppo is a *compact city*. This inherent structure of Aleppo opens up a wide range of opportunities for future sustainable development regarding transport, infrastructure, and integration of living and working.

¹¹ For example the 'Cordoba Hills' development. See: <http://www.cordobahills.com/>.

Thirdly, Aleppo is a *mixed city*. Many areas of the city feature a dense combination of functions – work and live, production and consumption, service and leisure – in an very well working, integrated and unspectacular way. This mix is caused rather



Density of Aleppo in comparison to European cities. The Y-Axis denotes people per hectare, the blue bar indicates the density of the entire city area, the yellow bar indicates the density of the inner city (Data from 2000-2005)¹².

¹² See: Senat für Stadtentwicklung. 2009. Berlin Digital Environmental Atlas – Population Density. Berlin: Senat für Stadtentwicklung. http://www.stadtentwicklung.berlin.de/umwelt/umweltatlas/ede606_01.htm.



Density & Mix - Al Jdeideh (Thomas Stellmach, 2009)

13 For example a vegetable corner shop with no license, street trading or offices in residential areas which obtain the license for commercial use through intransperent ways.

by economical factors than by regulations, in fact, often in spite of regulations¹³. This dense offering of diverse uses is very positive and something which many western cities are striving for, and should be maintained and encouraged, especially in recent and future developments.

Self-estimation

During our first visit to Aleppo in Summer 2009 we invited the local working group members¹⁴ to identify the assets of their city intuitively. The results correspond largely with our first observations then. Nonetheless we noticed an overestimation of the economic power of the city. The identified strengths and weaknesses are:

General

- + Diversity
- Marketing
- Transport

Culture

- + Heritage (in City and Region)
- Cultural Events, Services, Venues

Economy

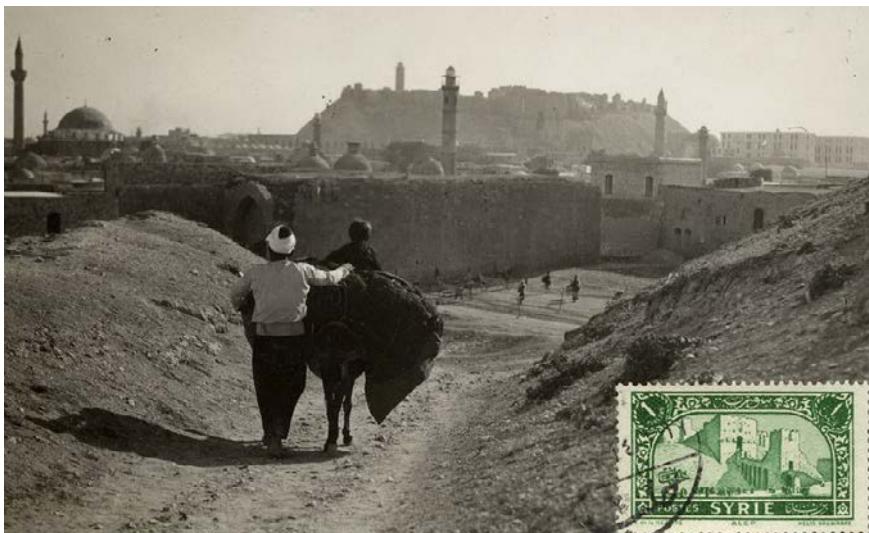
- + Manufacturing (Textile, Pharmaceutics)
- + Trade
- + Agriculture
- Service Industries (Creative, IT)

14 Ayman Chihabi (Local Economic Development), Abed Kawahati (Urban Service Delivery), Botros Merjaneh (Urban Environment), Eng. Wadah Katmawi (Urban Spatial Development), Eng. Yaman Razouk (Urban Spatial Development, Informal Settlements), Dalia Mokayed (Urban Spatial Development, Informal Settlements), Ghada Rifai (Urban Spatial Development), Bassem Olabi (Administration & Finance).

15 Occupied from around 5000 BC, as excavations in Tallet Alsauda show. See: Wikipedia. <http://en.wikipedia.org/wiki/Aleppo> as of 15.1.2010.

HISTORY

Historically, Aleppo has been influenced by an extraordinary amount of outside forces. Aleppo is one of the oldest continually inhabited towns¹⁵ on the planet, and there are few cities which have seen as many cultures pass (Assyrians, Persians, Greeks, Romans, Arabs, Mongols, Ottomans, French). Its position had been determined by agricultural conditions and traffic routes which do not play a role anymore. When the historic trade routes have shifted and the Europeans began to use the Cape route to India and later to utilize the route through Egypt to the Red Sea, Aleppo became detached. The silk road shifted northwards to Smyrna (Izmir), then the access to the Gulf of Iskenderun – important for Mediterranean sea trade – was cut off during the French mandate in 1938 in the west by handing the area over to Turkey, at last the wars in Iraq in 1990 and 2003 further impaired Aleppo's market in the east. In this day and age Aleppo is more disconnected than ever. Nonetheless the city maintains a strong role as import hub from where goods are nationally distributed. This historic culture of trade is still alive in the attitude of the open minded population.

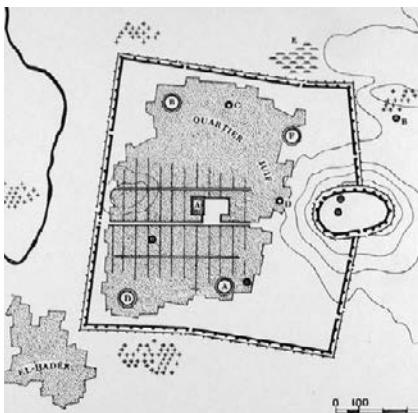


View on the citadel from Bab Kinnisrin, around. 1925 (image source unknown)

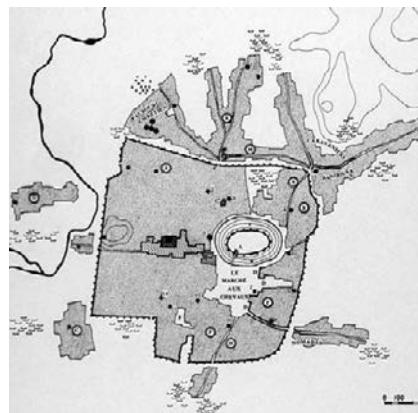
HERITAGE, SOCIETY & CULTURE TODAY

From a social point of view, Aleppo is strikingly multifaceted, a result of its history. Nearly three quarters, or 70%, of Aleppo's inhabitants are Sunni Muslims, mainly Arabs, but also Kurds, and other ethnicities, including Assyrians/Syriacs, Bosnians, Bulgarians, Chechens, Circassians, Kabardins and Turkmen. Aleppo has the largest Christian community in the Middle East after Beirut (Lebanon), and the most diverse Christian community in the Orient.¹⁶ Even though only a handful Jewish citizens still live in Aleppo, the properties and houses of the Jewish families which were not sold after the migration remain under protection by the Syrian Government.

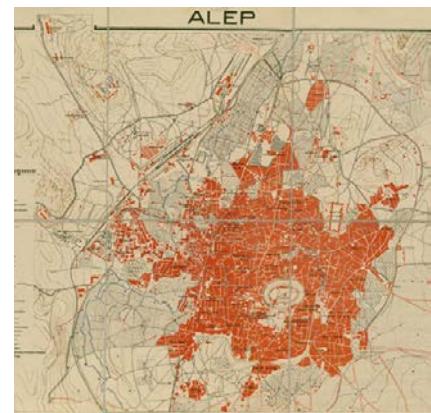
¹⁶ See: Wikipedia. <http://en.wikipedia.org/wiki/Aleppo> as of 15.9.2009.



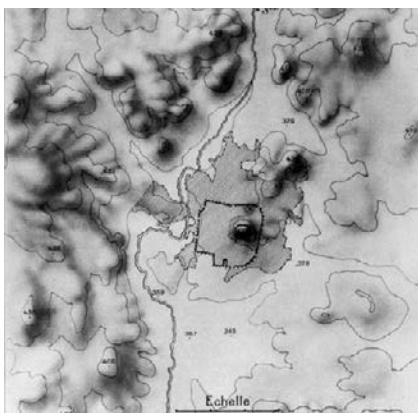
Byzantine period (Jean Sauvaget, 1935)



Early 16th century (Jean Sauvaget, 1935)



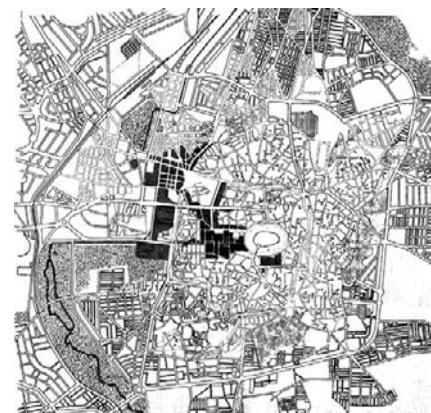
1929 (image source unknown)



1935 (image source unknown)



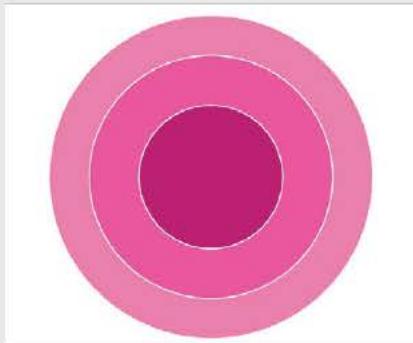
1954 Gutton Plan (Stefano Bianca, 1980)



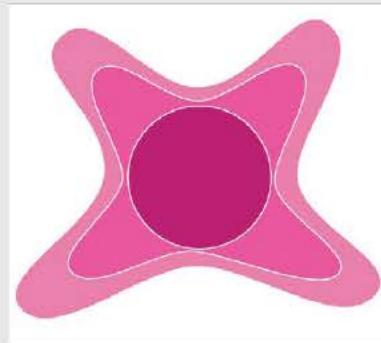
1980 (Stefano Bianca, 1980)

Models of urban spatial development

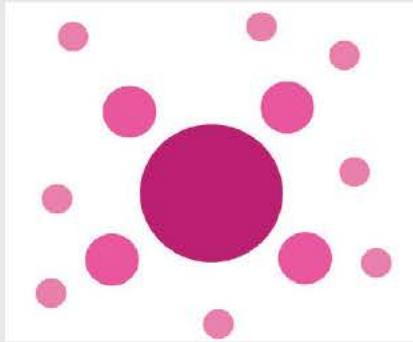
We can recognise three basic spatial expansion patterns in Aleppo's urban form. The concentric model features a single main core with secondary areas in equal distances to the centre resulting in a compact city. The radial model which extends into the environment, often result of topography or infrastructure conditions. The satellite model interprets the city as a graduated set of centres and subcentres.¹⁷



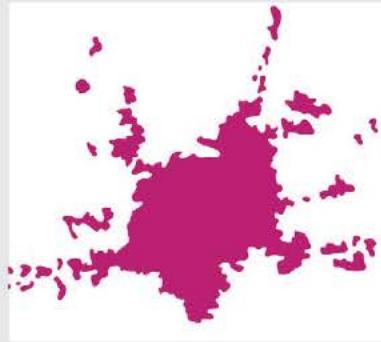
Concentric model



Radial (finger) model



Satellite model



Aleppo as a mix of all models

¹⁷ On the concentric model see Burgess, Ernest W. 1925. *The Growth of the City: An Introduction to a Research Project*. In: *The trend of population*. Vol XVIII. Chicago: Publications of the American Sociological Society.

On the radial or sector model see Hoyt, Homer. 1939. *The Structure and Growth of Residential Neighbourhoods in American Cities*. Washington: Federal Housing Administration.

On the satellite or multiple nuclei model see Harris, Chauncy; Ullman, Edward. 1945. *The Nature of Cities*. In: *Annals of the American Academy of Political and Social Science: Building the Future City*. Vol. 242. Chicago: University of Chicago Press, pp. 7-17.

Also see: Brunn, Stanley D.; Williams, Jack Francis; Zeigler, Donald J. 2003. *Cities of the world: world regional urban development*. 3rd Edition. Oxford: Rowman & Littlefield.

¹⁸ See: Wikipedia. <http://en.wikipedia.org/wiki/Aleppo> as of 15/1/2010.

"Syria's Grand Mufti Sheikh Ahmad Hassoun said that Aleppo witnesses a unique coexistence and tolerance among different Islamic and Christian sects, adding that citizens in the city have lived within this atmosphere throughout history." Arabic News (9/5/2005)

The variety of civilizations led to a highly organized social, religious and economical structure early on in history. The constant invasions and political instability forced the inhabitants of the city to build cell-like quarters and districts that were socially and economically independent. Each district was characterized by the religious and ethnic characteristics of its inhabitants.¹⁸ This ethnic, religious and social plurality is experienced in the city structure until today — each city quarter has a distinct role and quality. Despite being relatively homogeneous typologically, the functions and atmosphere vary widely — Al Khaldiye as the food centre, Christian Al Azizieh with its cafeterias and restaurants, Al M'dine, the old city centre with the historic monuments, being clearly separated from the newer parts of the city. Aleppo is a Diverse City.

ALEPPO DIVERSE CITY

We believe that this diversity opens up multiple opportunities for the development of the city, economically, spatially, politically and socially which are currently unexploited. Aleppo has the ingredients to become a true emblem for the coexistence and prosperity. What is missing is a coherent structure, that makes these potentials perceivable and accessible and needs to be implemented. The spirit of diversity needs to be maintained throughout the future development of the city, and technocratic tendencies towards homogenization need to be thwarted.

SUMMARY: STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS

	BENEFICIAL	DETՐIMENTAL
INTRINSIC FACTORS	<p><i>Strengths:</i></p> <ul style="list-style-type: none"> • Spatial Structure: clear city boundary, diverse city structure, rich and solid building types • Density: short walkable distances, modest land consumption • Demography: cultural diversity, young city • Regulations & Policy Making: strong leadership • Informal Settlements: strong local identity, self-organised housing provision • Green Space: fertile ground with productive landscape around Aleppo, available water (river Kweik) • Urban Mobility: proximity, high density increases feasibility and profitability of public transport • Heritage: strong local identity, touristic attractor 	<p><i>Weaknesses:</i></p> <ul style="list-style-type: none"> • Spatial Structure: east-west disparity, highways separating neighbourhoods • Density: lack of public space, social tensions, construction quality • Demography: poverty • Regulations & Policy Making: rigidity, deep hierarchies • Informal Settlements: weak infrastructure, lack of communal public space, weak building quality, unclear legal status • Green Space: overall lack of green space, discontinuous distribution • Urban Mobility: lack of public transport, individual car use • Heritage: lack of services and infrastructure, no integrated touristic concept applied
EXOGENOUS FACTORS	<p><i>Opportunities:</i></p> <ul style="list-style-type: none"> • Spatial Structure: continue the tradition of density and diversity, upgrade existing areas • Density: new typologies with private-public support, sustainable transport • Demography: new market opportunities due to cultural mix and growth • Regulations & Policy Making: using test cases for more flexibility, using existing local informal structures • Informal Settlements: establishment and upgrade by legalisation and provision of public space, education and community facilities • Green Space: create continuous green spaces or bands, create green ‘fingers’ to link to landscape, maintain productive landscape as multifunctional area • Urban Mobility: implementation of high capacity public transport (BRT), modernisation of mini-buses, creation of multifunctional transport hubs • Heritage: asset in city marketing, maintaining the authenticity, cultural tourism 	<p><i>Threats:</i></p> <ul style="list-style-type: none"> • Spatial Structure: private interests undermining the clear land-city distinction, ‘sprawlification’ • Density: low densities proposed in masterplan, massive designation of buildable due to land speculation • Demography: growth despite limited resources, cultural conflicts • Regulations & Policy Making: monotonous developments, ignorance of local conditions and opportunities, policy cannot keep up with rapid growth and change • Informal Settlements: social unrest through increased poverty, lacking health and education, collapsing buildings, unregulated growth due to population increase • Green Space: landscape is converted to building land, pollution, overuse, fragmentation • Urban Mobility: simple-minded upgrading of road infrastructure, highways separating neighbourhoods • Heritage: modernisation degrading authenticity and cultural heritage

1.2. The Masterplan 2004 – 2010

19 See: Vanstiphout, Wouter. 2008. *Social Engineering of the City and Urban Design: Ideology as an Achilles Heel*. In. *Open - Cahier on Art and the Public Domain*. No. 15. Rotterdam: NAI Publishers. pp. 65 - 80.

20 Le Corbusier in 'The City of Tomorrow (1924): "The city must be planned as an organic whole and designed in spatial terms to support the functions of living, work, recreation, education and transport. One important goal was to separate work and relaxation into spaces that would be experienced separately."

To establish the play field for the following discussion on Aleppo we first need to position the project in the context of planning practice. After the failures of modern town planning became obvious in the sixties and seventies of the last century¹⁹, a paradigm shift in planning theory occurred. Whereas the basic theories of modernist urbanism certainly weren't wrong²⁰ — their spatial manifestation under the directive of separation of functions lead to a multitude of problems: disengagement and long travel distances, empty city centres and lifeless housing areas, and thus social problems and anonymity. This led to a rethinking of urban planning principles. Consequently, the contemporary planning discourse revolves around the principles of:

- Density: for a city of short distances and low energy consumption
- Functional mix: for a lively and tolerant city
- Proximity: for economic efficiency and energy savings
- Balance of bottom-up and top-down organisation: for a responsible society within a solid framework

AGENDA 21 TARGETS & THE 2009 MASTERPLAN

As laid out in the previous chapter, Aleppo's main challenge is the population growth and its implications. We have also seen that the city features valuable assets as mix, density and diversity. The targets which are necessary to achieve have been laid out well in the Agenda 21, albeit in rather general manner. Nonetheless they cover all essential thematic areas. We will build upon them to formulate specific proposals considering local conditions and urban form in Part 2 of this report. As the city already has an instrument in place to turn the listed targets into reality — the masterplan — we will first describe its general layout and then evaluate the plan against the listed objectives:

- Green atmosphere, sustainable clean air preserved by a conscious society
- Reaching a sustainable economically developed society
- Preserving the heritage and revive it to consolidate the individuals' belonging to the environmental and cultural surrounding
- Organizing illegal settlement to be well-serviced residential areas
- Preventing the emergence of new illegal settlements
- Ideal social and economical status for better life with identity

EXISTING AND PLANNED CITY

Masterplan and aerial of contemporary Aleppo. The superposition shows the enormous scope of the planned project. The built city surface will more than triple until 2025 according to the plan (Google Earth, 2009 and Municipality of Aleppo, 2010), ca. 1: 115.000

CENTRES

- Old city
- Subcentre, Housing with 1/3 of commerce
- District centres

HOUSING PROGRAMME

- First housing, Traditional housing
- Public, Labour, First and Second modern housing
- Existing villages
- New housing with 350 - 300 persons/ha
- New housing with 250 persons/ha
- New housing with 200 persons/ha
- New housing with 100 persons/ha
- New housing with 60 persons/ha

OTHER PROGRAMME

- Public and Sector services
- University and Scientific research
- Industry, Investment, Cattle trade
- Non-polluting industry, Craft areas
- Business events / Commerce
- Golf

ROAD DEVELOPMENT

- Ribbon investment level 1
- Ribbon investment level 2
- Shopping at ground floor
- Mixed use A
- Mixed use B

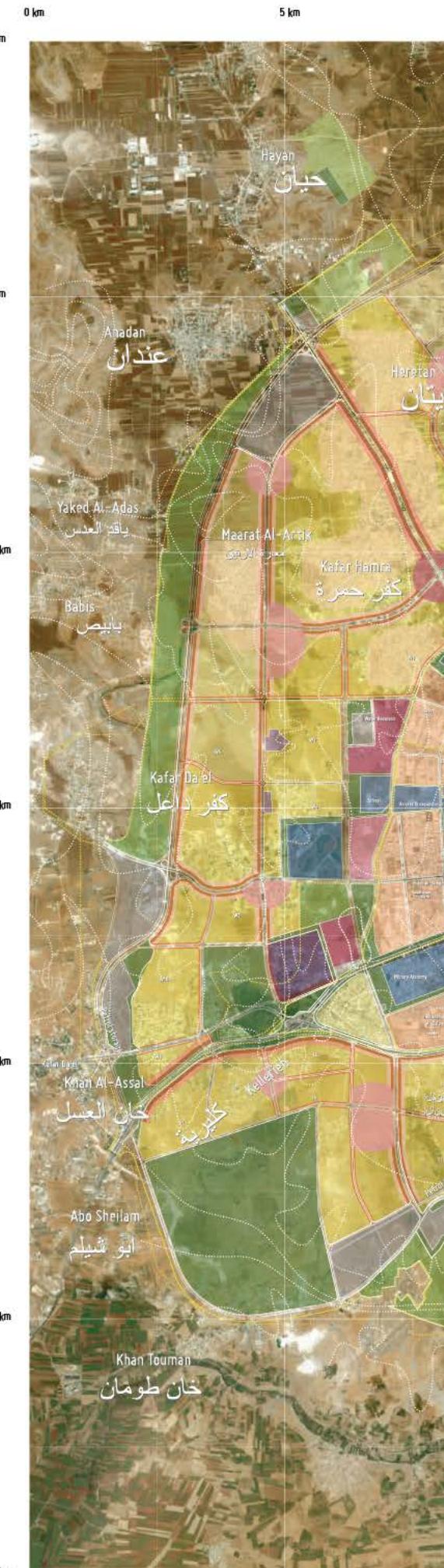
TRANSPORT AND INFRASTRUCTURE

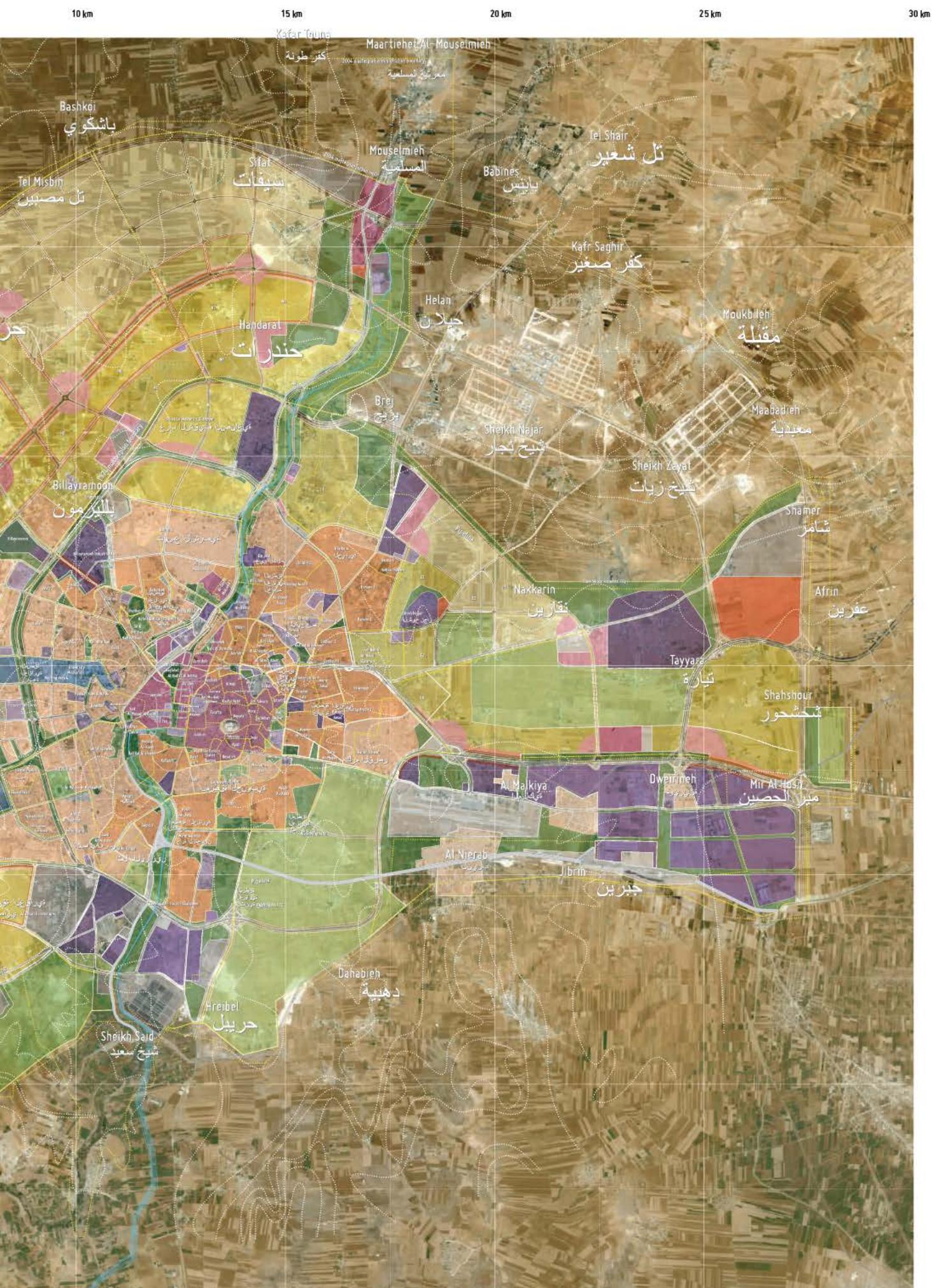
- Bus and Train stations, Driving test centre, Airport
- Infrastructure (Water treatment, tanks, power plants etc.)
- Rail tracks
- Pipelines

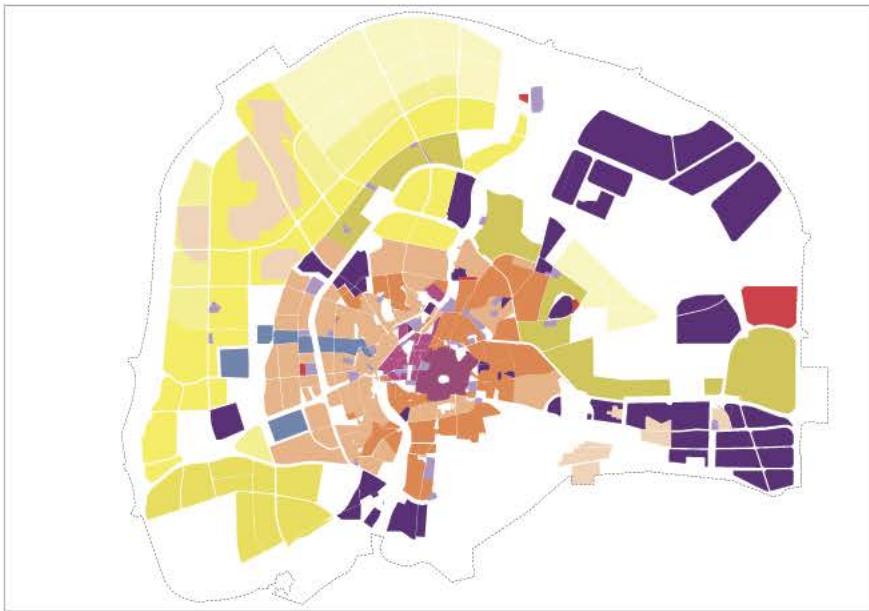
GREEN AREAS

- River Quweik
- Green areas, forest
- Tourism areas, parks
- Cemeteries, Vineyards and Orchards
- Topography

■ Administrative boundaries







Masterplan Area and existing City. Existing Residential: Orange, Planned Residential: Yellow, Industry: Purple. (based on 2010 Masterplan, Municipality of Aleppo)

OUTLINE & BASIC LAYOUT

Looking at the numbers, the current masterplan of Aleppo is ambitious. Ratified in 2004 and being revised currently with an expected ratified update early 2010, it more than triples Aleppo's urbanised area to a total of 463 km². The plan aims to be implemented until 2025. The basic structure of the plan is radial, consisting of 5 highway rings. The two outer rings have not been realised yet. The radial figure is not complete, its southern / south-eastern part is missing due to agricultural land use and the political delimitations of the municipality. The political boundary also defines the masterplan boundary. The riverbed is clearly visible in the layout though, which opens up a wide range of chances and challenges.



Planned Residential Areas: East-West Disparity (based on 2010 Masterplan, Municipality of Aleppo)

SPATIAL STRUCTURE

The Agenda 21 names "Reaching a sustainable economically developed society" as one of the key objectives. If we look at the spatial distribution of the new neighbourhoods to be developed, we can observe a clear disparity between the west and east of the city. We see medium to very low density residential developments



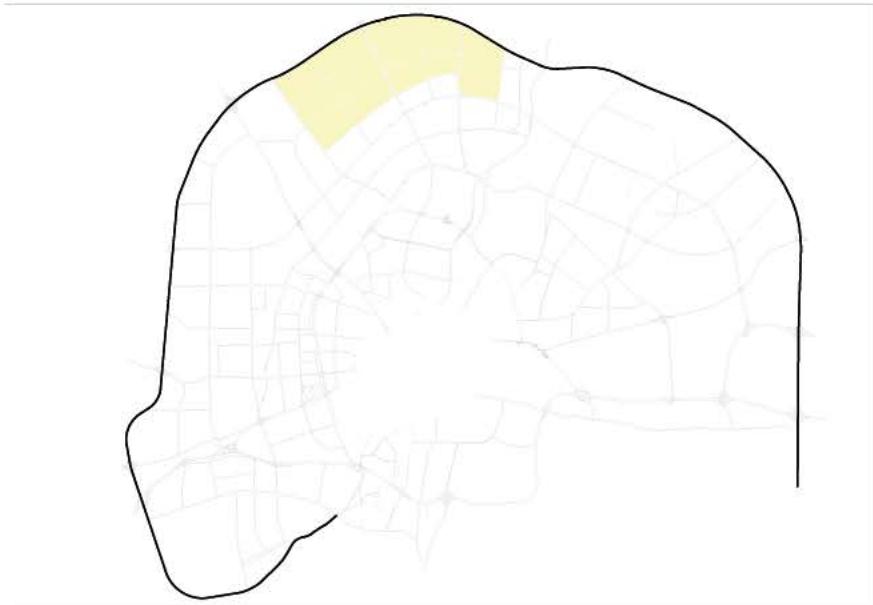
Street in the Western Expansion Area Halab Al-Jadideh (Thomas Stellmach, 2010)



Street in Haidariyeh, an informal community in the North-East (Thomas Stellmach, 2010)

extending towards the north-west and west, with hardly any city expansion east of the river.

The largest project in the east is the industrial city, which aims at relocating polluting industries from the existing city as well as boosting the production sector. As it stands, the plan rather reinforces the existing — physical as well as mental — imbalance between west and east, exacerbating the existing divide. The area to be developed in the West of the city is much larger, albeit at a lower density than the planned neighbourhoods in the East — in other words, large areas for the rich, and few areas for the poor. The large areas designated as buildable land often lie in areas of productive agricultural use. The distribution of green areas and services mirrors the East-West gap, despite the higher densities in the east less parks and service areas are provided.



The 5th Ring on the edge of the planned city. (based on 2010 Masterplan, Municipality of Aleppo)

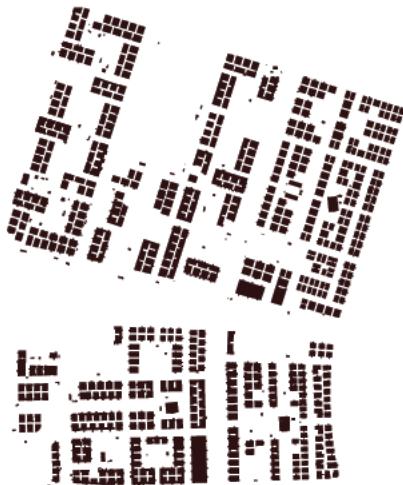
This layout clearly does not appear in line with the goal of achieving a sustainable society. We regard the improvement of the existing structure as well as establishing high quality developments also in the East as a priority of the plan, as well as a re-evaluation of the planned densities.

INFORMAL SETTLEMENTS

Agenda 21: “Organizing illegal settlement to be well-serviced residential areas” and “Preventing the emergence of new illegal settlements”. The masterplan does not indicate the status of existing settlements in any way. Despite the intense efforts of the informal settlement working group and despite the large amount of informal settlements (~50% of Aleppo’s population live in informal settlements)²¹ it is not visible how the masterplan can improve services particularly in the informal areas.

21 Wakely, op. cit. p.8.

While we have learned that the areas declared as low density buildable land have mainly been designated as such to avoid illegal building in there, we consider the proposed 5th ring road on the city edge an invitation for illegal building activity: main infrastructure with adjacent open land, possibly outside Aleppo’s municipal boundaries, will inevitably lead to construction activity.

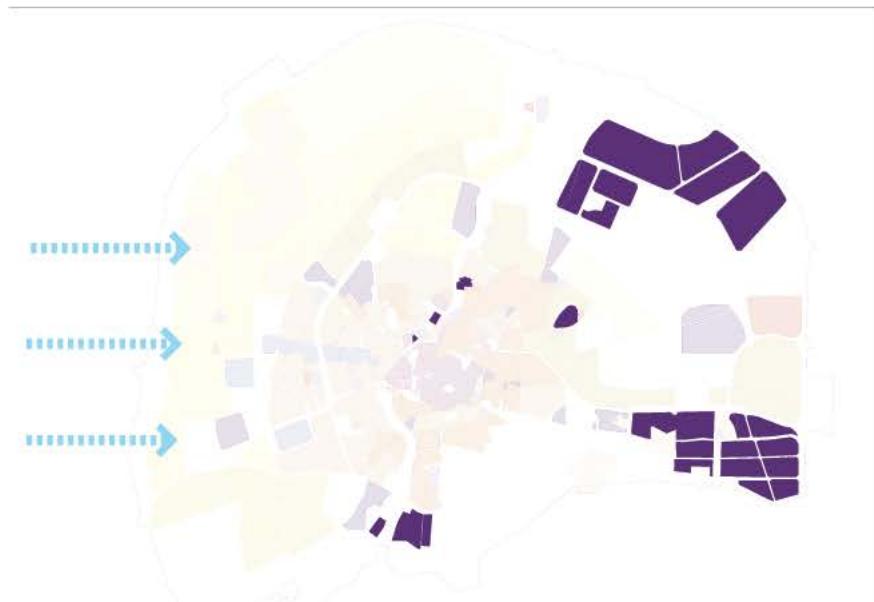


Generic or Specific – Recently developed residential neighbourhood in the western expansion area (based on GIS Model, Municipality of Aleppo, 2009)

IDENTITY AND URBAN SPACE

Agenda 21: “Preserving the heritage and revive it to consolidate the individuals’ belonging to the environmental and cultural surrounding” and “Ideal social and economical status for better life with identity.” The old city is indisputably one of the great assets Aleppo has to offer, and the municipality as well as the gtz and Aga Khan Fund have gone to great lengths to preserve the historical substance, certainly creating a sense of belonging for its citizens as well as a unique identity for the city itself. Nonetheless should the same specificity be upheld when it comes to more recent developments. The typical plan of a western extension area certainly consists of a solid urban housing block, a typology with adequate density and high flexibility in itself, which can be observed at the many ground floor conversion projects for shops in e.g. Mokambo or Shabah.

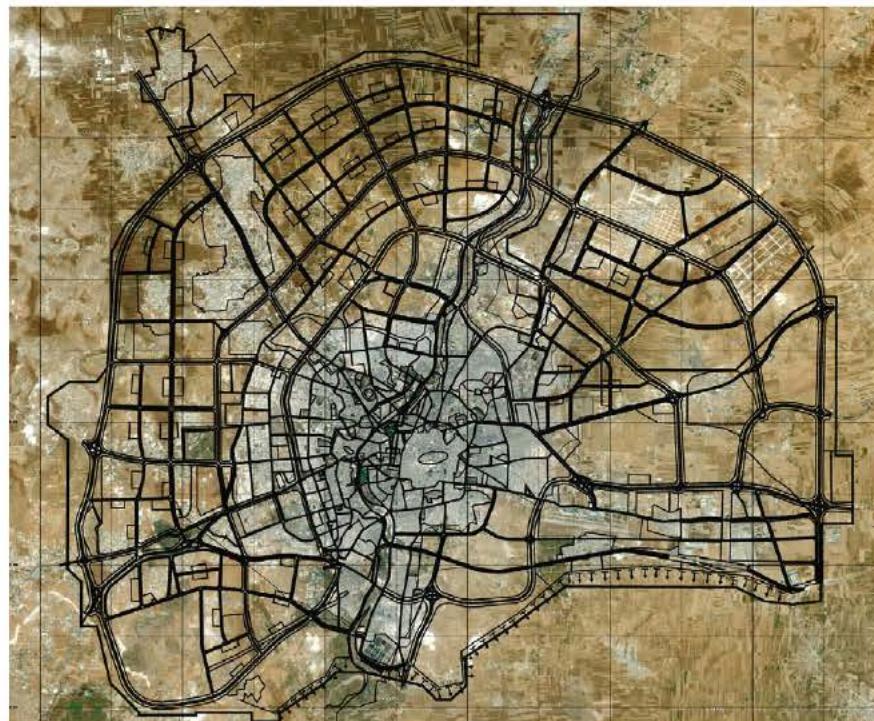
Unfortunately does the urban layout hardly consider specific local conditions as topography, context as much as the emergence of new life forms – for example changing family sizes. Also do we observe a decrease in mix in the more recent developments. While we believe that there is nothing wrong with the standard 5-level residential block, it certainly shouldn’t be built everywhere: if it is, one city quarter will resemble another, at the expense of identity.



Wind from the West, Industry in the East (based on 2010 Masterplan, Municipality of Aleppo).

ENVIRONMENTAL QUALITY

Agenda 21: “*Green atmosphere, sustainable clean air preserved by a conscious society*”. As mentioned in the previous chapter do wind directions have an immediate effect on the city layout. While it thus makes sense to concentrate polluting industries in the east of the city, we think that more can be done. The masterplan shows no effort in creating ventilation corridors or green bio-corridors within the city, and does little to preserve existing fertile areas within the masterplan boundary.

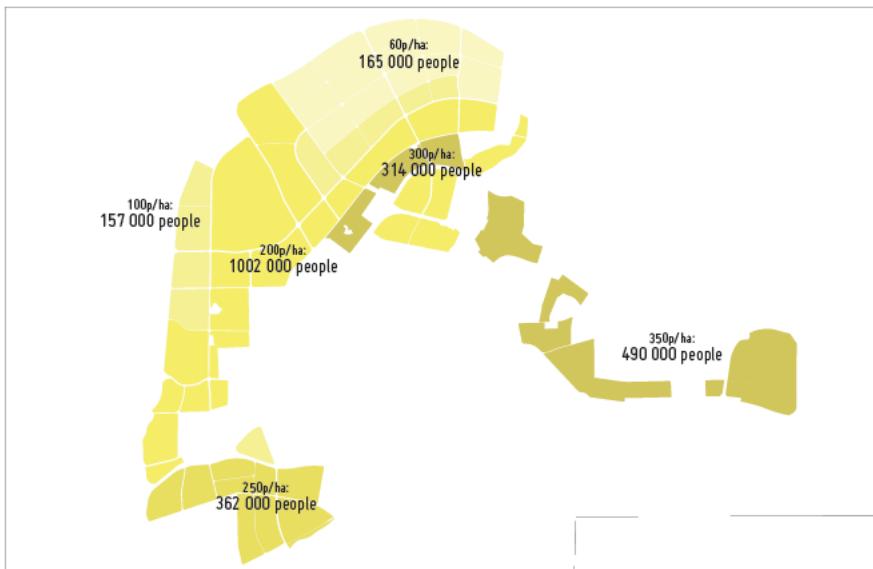


Projection of Aleppo Masterplan 2004 Revision road layout on actual site (based on 2004 Masterplan, Municipality of Aleppo and Google Earth, 2009)

URBAN TRANSPORT

Whereas the applied basic road grid with a spacing of around 700m has proven flexible for developments of various densities, we recommend to further investigate

the possibilities to relate to topography and the desired character of the new neighbourhoods. To have the fifth ring as a new boundary for the city seems questionable as well. For a city ring road the costly infrastructure seems under-used with developments just on one side, for a free flow ring highway the connections to the city grid are too frequent. We encourage a resumption of the infrastructural conceptual work especially with regards to phasing and a strengthened public transport concept.



Residential areas of the 2010 masterplan. Total amount of people: 2,515,000. Expected population growth: 1,200,000. (based on 2010 Masterplan, Municipality of Aleppo)

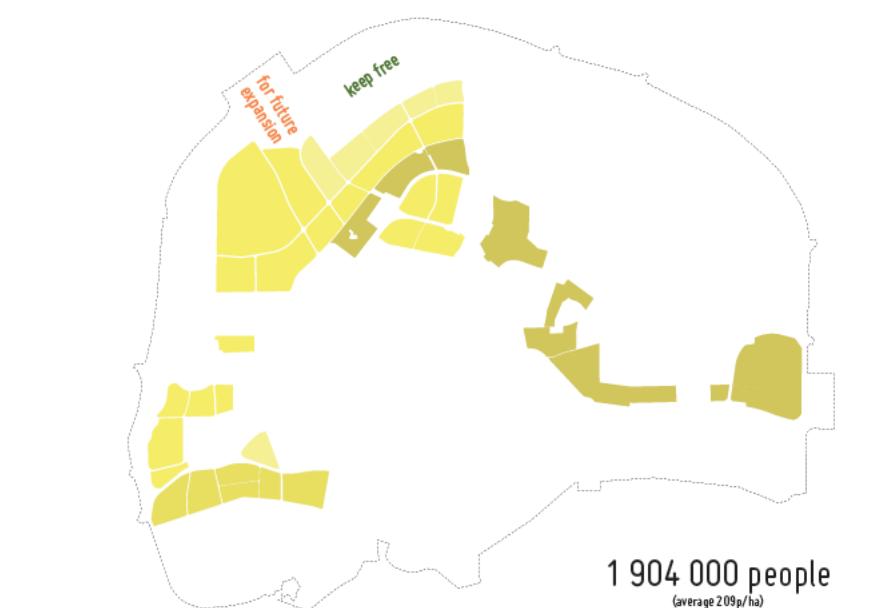


In fact, this area would be sufficient. High and medium-high residential areas only. (based on 2010 Masterplan, Municipality of Aleppo)

PLANNING PROCESS

If we have a closer look at the proposed residential areas and tally the proposed developable areas considering their respective densities, we see that the plan proposes dwellings for 2,515,000 citizens until 2025. Bearing in mind that the expected population increase during that period totals 1.2 million people, this number appears far too large. Even if we factor in second homes, decrease of family size, and further fluctuations, to our opinion the extent of the planned area is largely oversized. The vast available building areas – land speculation certainly plays a role in the bloated numbers – will lead inevitably to dispersed, possibly uncontrolled building activity.

The outcome is a belt of sprawl in the North and West of the city, a characterless area, neither nature, nor city. The distances will make car use necessary and thus increase the amount of road infrastructure per person and maintenance cost for the city government. A city which is neither affordable for the government nor for the majority of its citizens; not to forget the destruction of productive agricultural landscape.



A feasible middle ground. Varied densities, reasonable developable area sizes. Some areas are reserved for later building phases or designated no-build areas. (based on 2010 Masterplan, Municipality of Aleppo)

In fact, the high and medium density areas alone would be enough to accommodate the expected population growth, if we ignore the different income groups and their expectations for a moment (see p. 36). Above a more realistic option, taking into account varied densities.

But in the end, there is no need for a static development model. We can reserve spaces for later development and designate no-build areas to flexibly deal with future growth. This does also make investments of the public hand overseable and budgetable. We strongly recommend that the city undertakes a phasing study and protects areas within the masterplan maintaining their status as agricultural land. Existing infrastructure should be employed where possible, distances should be minimised, smart phasing should be applied to minimise investments which can be put to better use.

CONCLUSION

While the quality of the masterplan has made significant progress in comparison with the 2004 masterplan (see Appendix p.112f figure 3.2.1 and figure 3.2.2), there is need to rectify it. This is not because of detailed land use issues, which we sense the planning institutions can handle very well, but rather because of a lack of vision. We need the masterplan to be a proactive tool steering the development of Aleppo rather than a reactive instrument trying to keep up with the fast-paced reality.

To achieve this, the plan needs to incorporate a less rigid, more strategic approach. This approach is especially necessary in the light of continuous population growth and the need for a step-by-step development. A re-evaluation of the densities hand in hand with an investigation in development phases is imperative.

The overall area and the outer form of the city are driven mainly by bureaucratic factors. It should be based on the rationale of the real existing situation and numbers in combination with the idea what the future Aleppo should be like. We observe large discrepancies between the objectives laid out in the Agenda 21 and the Masterplan. The overall planned areas are too large for the time frame and budget of the plan, the fact that the outer limit of the development coincides largely with the political boundary of the municipality deserves further attention and analysis.

We will discuss in the next chapter how we can mitigate this gap. The spatial vision which we will propose is supposed to serve as a decision making tool, which feeds further masterplan iterations. As such, it is an instrument to gather political will and a base for discussion to re-evaluate priorities. The question is not how to integrate all mentioned issues into the masterplan, but rather which tools are suited best for which task. Aleppo needs an integrated urban spatial vision, a plan that is flexible and steers the existing forces of the city to achieve quality, not quantity.

ALEPPO OPEN CITY

An Urban Vision for the Year 2025

VISION

1:115.000

GENERAL

-  Topography (25 m steps)
-  River Quweik

PHASING

-  Space reservation zones

MULTIFUNCTIONAL OPEN SPACES

-  River Quweik Park
-  Bab Ring
-  Network of Parks & renaturated quarries
-  Local public spaces
-  Urban city edge & Green character areas

INTEGRATED URBAN MOBILITY

-  Bus Rapid Transit lines
-  Multimodal stations
-  Microbuses
-  Services of proximity
-  Train
-  Urban boulevards

ACCESSIBLE CENTRES

-  Old City and Modern Centre
-  Proposed subcentres
-  Strategic locations for future subcentres

EVOLVING NEIGHBOURHOODS IDENTITIES

-  Old City
-  Modern Centre
-  Informal settlements
-  Industrial areas
-  Exemplary typologies: high to medium density
-  Exemplary typologies: high to medium density
-  Exemplary typologies: high to medium density
-  Exemplary typologies: medium to low density

0 km 5 km

0 km



5 km

10 km

15 km

20 km

25 km

30 km

10 km

15 km

20 km

25 km

30 km



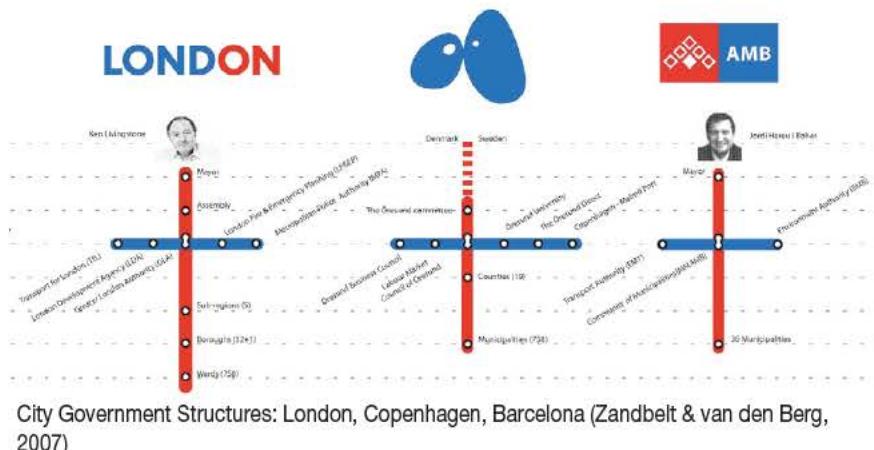
2.1. Preconditions

In the following chapters we will delineate a spatial framework that uses the previously described diversity of the city as a potential for an open and flexible urban development of Aleppo. But first of all, let us point out certain preconditions, that we consider as crucial for the success of such an endeavour.

Deregulation & Policy Making

As of now, Aleppo's building code tightly governs the existing typologies: Buildings built in the period after the French mandate fall into the categories of five level housing blocks constructed by housing associations, privately built two-level townhouses or villas and social housing slabs built by the public or military housing association. But these types only comprise about 60% of the building mass of the city, whereas the other 40% are comprised of informal settlements. The informally built types range from a two- to seven-level, continuous city fabric, only partially complying with the building code, many of the higher buildings being in a precarious state²².

²² see Wakely, *ibid.*



We think that careful deregulation could open the market and make it possible that the housing needs are satisfied within legality. In the current situation the entire planning process lies in the hand of a few small working groups within the municipality, which try to deal with the fast growth of the city, juggling with various problems at once. Often have real-world changes overruled decisions of the planning groups, for example by squatting agricultural land. We believe a more flexible, phased planning procedure has to be implemented. A procedure which relies not only on hard building code, but also on soft guidelines, which allow projects to be drafted and implemented in steps at different scales with involvement of non-governmental

knowledge. This strategy aims at reconciling the, often efficient, illegal building industry with the official housing strategy. In a nutshell: There need to be less rules and the rules need to be enforced transparently.

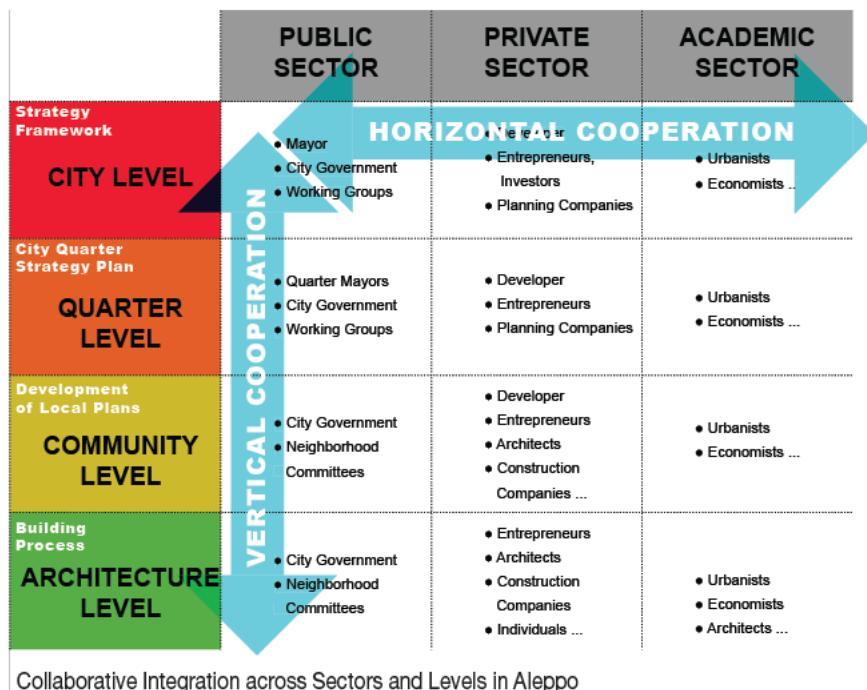
“Livable downtown neighbourhoods: proximity to downtown employment; high net, medium-gross project density; social mix: 25% family housing, 20% social housing; livability: quiet, private, safe; offering views and amenities; providing the public amenity of a seawall linking to a system of parks.” Vancouver Design Guideline²³

This can only be achieved in an environment of flat hierarchies and fast, open and transparent communication, within the Aleppo Urban Planning Department and the Ministry of Environment and Urban Planning.

²³ Originally published in Sandercock, Leonie: *An Anatomy of Civic Ambition in Vancouver – Toward Humane Density*. Spring/Summer 2005. Harvard Design Magazine, *Urban Planning Now – What Works, What Doesn’t?* Cambridge: Harvard Graduate University of Design.

GOVERNANCE, PARTICIPATION AND RESPONSIBLE SOCIETY

Nonetheless are the vision for a city, its spatial form and its civic society intrinsically linked. For example a plan to reduce investments in heavy infrastructure and redirect funds from road building to public transport is ill-fated as long as the citizens are either too poor to use the new system or consider below their social level to use it, not to speak of bicycles, energy consumption, waste disposal. Therefore the spatial



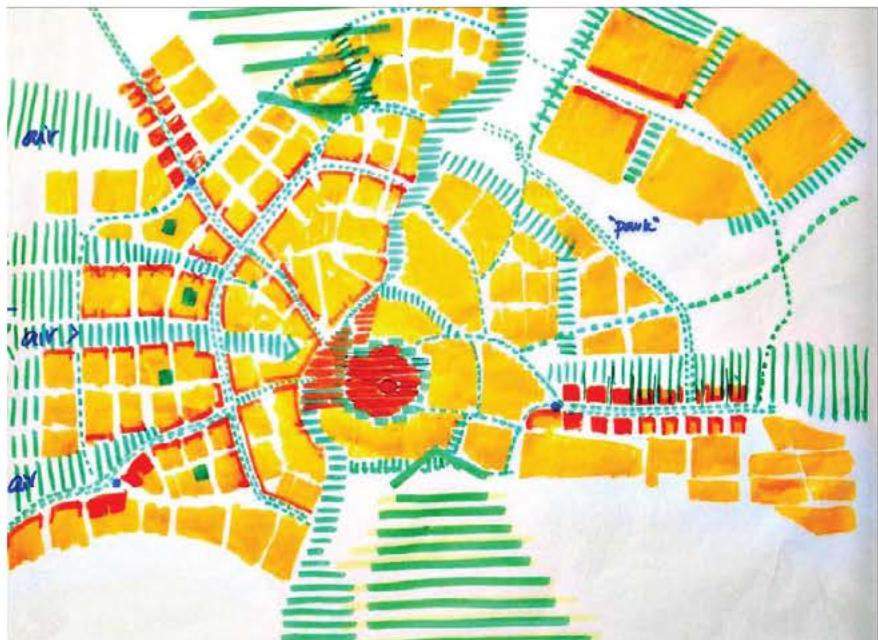
strategy needs to go hand in hand with programmes to raise the awareness for these issues in the general public. This can start at an early age, through education, as well as via the media, public events, and policy changes.

A responsible society can only thrive in an environment of openness. We consider the involvement of the public in the planning process on different levels, coupled with the strong leadership of a figure all parties can relate to, usually being the mayor, a key to project success, as proven by the examples of Barcelona or Vancouver. If the development is in accordance with economic, private, public and political parties and aims, failures of the past — unfinished structures, delays in progress — can be avoided. The success story of Vancouver, where the different parties gathered in an Urban Design Advisory Panel approved by the city's planning council is a good

example. The panel was made up of two representatives each from the development industry, the design professions, and the general public and was considered an important move to create a more open and participatory process.

PROCESS-ORIENTED APPROACH

This shift from classical planning to more open planning procedures is also reflected in the current trend of city development strategies worldwide. Cities like Vancouver, Barcelona, Hamburg, London or Paris have opened up rigid planning procedures towards process-oriented development strategies. These strategies lay out a vision rather than a detailed masterplan, as the previously mentioned example of Paris shows. They do not deal with quantities at first place, but rather serve as tools that initiate and steer discussion and a decision making process among the different stakeholders on the qualitative aspects of future city development. This should not mean that masterplans became obsolete, but that they are very specific tools, that become useful once the direction of city development is clear and accepted by all stakeholders.

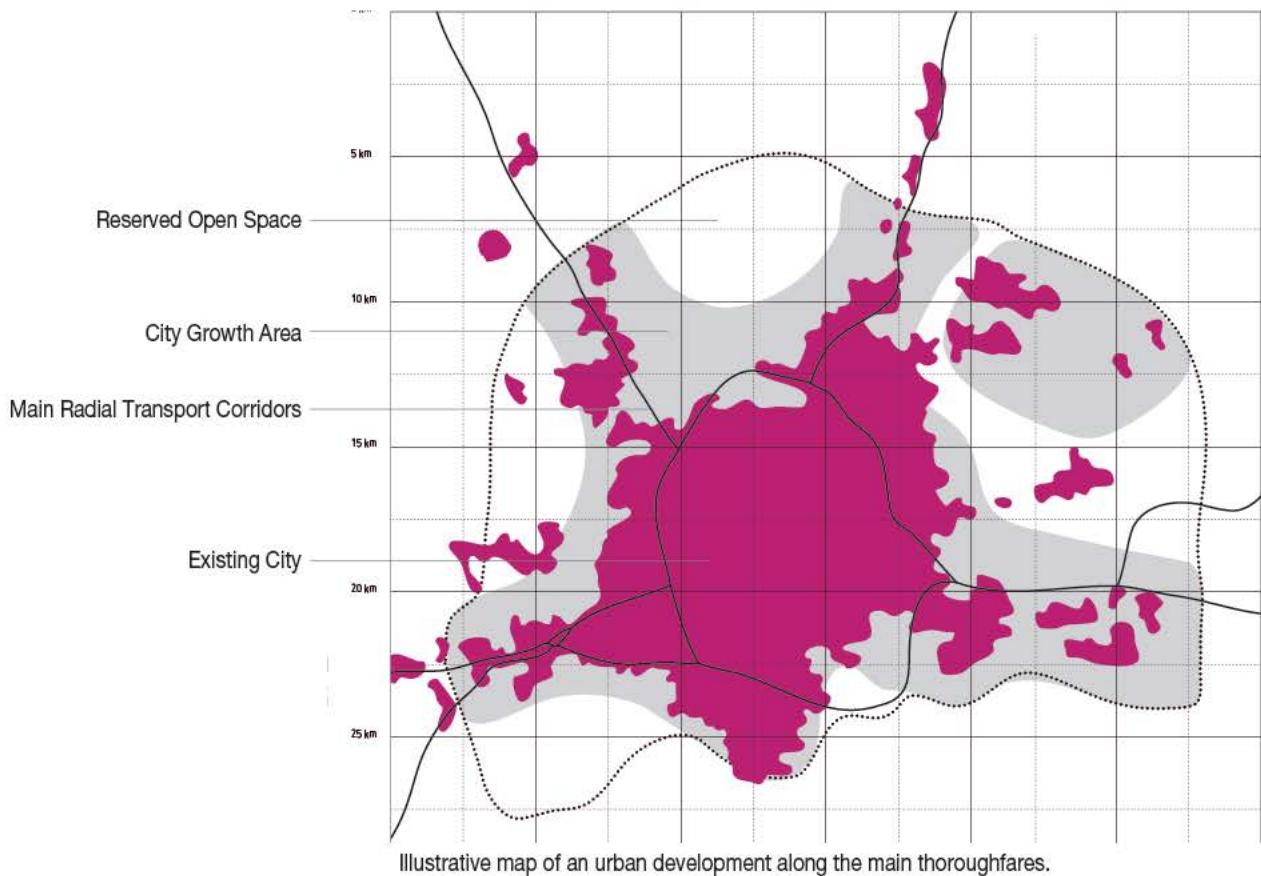


Illustrative map of the spatial concept (Sketch: Martin Schirmer, 2009)

Any strategy will remain meaningless, if it does not go hand in hand with a general evolution of these practises, processes and tools that influence urban development. Only if regulations, models of governance and planning procedures evolve with the development of city and society, this transformation will succeed.

2.2. Strategy

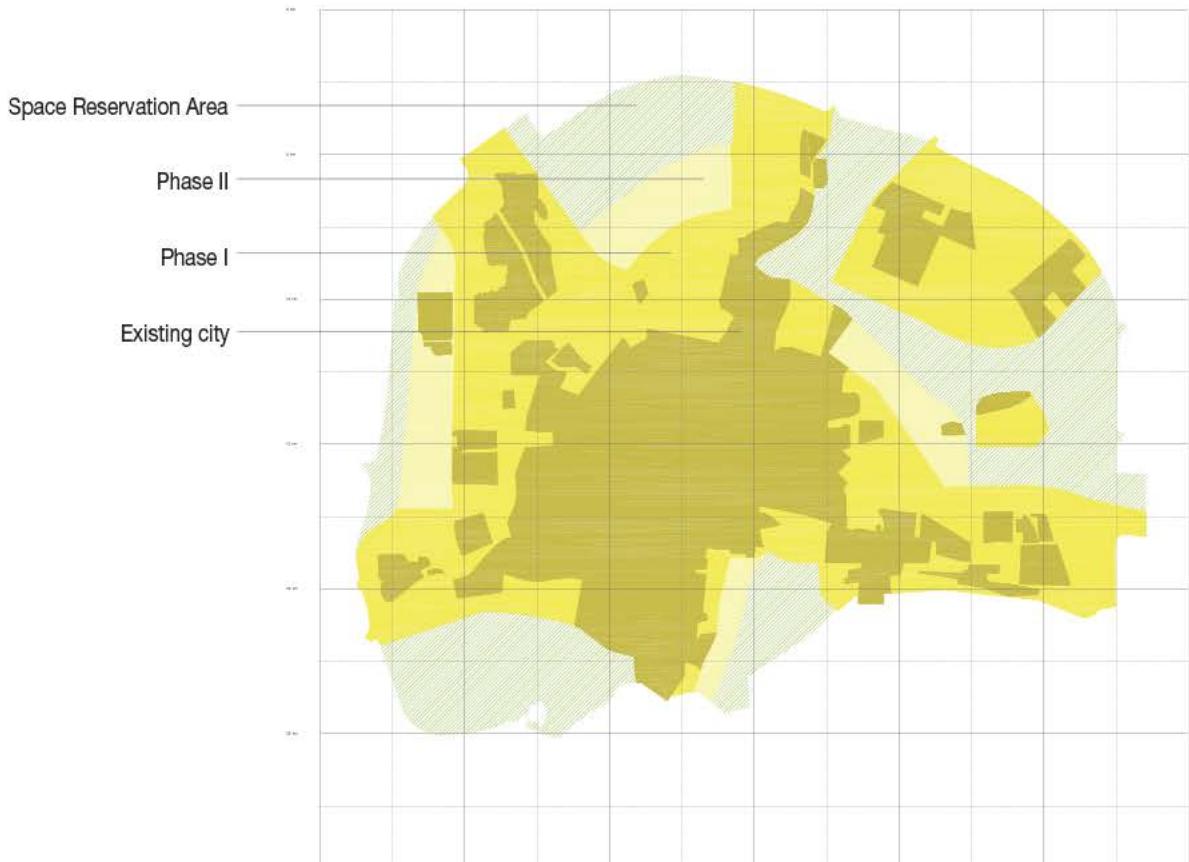
Our strategy sketches out the conceptual framework that reflects the city, its skills, mechanisms and potentials, and outlines a robust urban structure, in which they can flourish and evolve. In contrast to the existing culture of over-regulation, that proves to be relatively useless given the informal character of much of Aleppo's urban development, it accepts the existing forces of the city and steers them to secure future qualities, instead of working against them.



Consequently we propose to support Aleppo's growth along the main thoroughfares, that are the backbone of the cities' current, urban development. Along them higher density and programmatic mix should be concentrated, whereas green pockets away from the thoroughfares are pulled into the city and kept free from sprawl, preserving the scarce and precious landscape, and offering flexibility for future transformations of the city.

2.3. Phasing

To ensure flexibility in response to unforeseeable social, demographic, political, legal or economic developments and to avoid the loss of currently existing qualities of public interest, we propose a step-by-step development of Aleppo. The masterplan cannot solely describe a desired ‘finished’ state for the year 2025. It also needs to address how Aleppo is to evolve towards this state.



Illustrative map of proposed phasing and space reservation from the “Recommendations for Masterplan Revision”

Many masterplans proved, when implemented, to create an urban development that is lacking balance and facilities for certain population groups. A masterplan of the size of a city cannot be created at once, and zones that are developed first — because

of better infrastructural provision, lower real estate prices, higher value etc. — have usually better chances of developing, while later areas often do not catch up.²⁴

In the case of Aleppo we see this danger in a pervasive existing culture of market-driven opportunistic and hazardous development. This kind of development usually gives priority to the exploitation of potentially valuable sites, regardless of the value of their development for the city as a whole. These are mainly sites that are far from the existing city edge next to the fifth ring, the areas to the north-west of the city and the sites along river Quweik.

Regarding the weak implementation of past masterplans, we regard it as very dangerous that mainly these sites get developed in an uncontrolled manner, while what is in between becomes a sort of fragmented rest space with no quality at all, the result being urban sprawl that sacrifices the scarce natural and recreational resources of the city for some private interests. Areas in the current masterplan also only designate land uses, but do not indicate whether they are supposed to be developed instantly or to a later date within the period of the next 15 years. This implies the danger of the continuation of the described random development with costly underused infrastructure and encouragement of illegal land occupation.

To ensure qualities for the future, we believe that steering the market and prioritising developments of public interest is the only way to avoid this collapse of urbanity. The legal instruments are already in place, it is time to act before it is too late.²⁵

PHASING

To steer and better control its urban development, we propose that the city should grow in at least two consecutive phases within the time scope of the masterplan, possibly — given enough development pressure — followed by a third one. Further investigation is needed which areas are most feasible to develop first, next, and last. The ‘Recommendations for Masterplan Revision Plan’ shows a first proposal. In line with Aleppo’s exceptional existing qualities of compactness, urban density

24 The case of the masterplan of Pakistan’s capital Islamabad from 1960 is one of the many examples that illustrate this. Although the masterplan foresaw a set of various, decentrally organized centres, the centre that was built first became far more dominant as it had more time to develop and to become present in the citizens minds. Today this turned the whole decentral organisation of the plan upside down leading to weak or nonexistent subcentres and creating large travel distances to, and big congestion around, the dominant centre. See: Mahsud, Ahmed Zaib Khan. 2004. *Dynapolis and the Cultural Aftershocks: Historical development of Islamabad and the reality today*, in: *Ekistics - The problems and science of human settlements*, Issue May/June.

For another example see: Saad, Ali. 2007. *Rourkela - Das Doppel Leben einer indischen New Town*, in: *archplus - Zeitschrift für Architektur und Städtebau*, no. 186.

25 According to an informal query Syrian planning legislation makes the implementation of phasing as a planning tool possible. This needs further verification.

26 maxwan architects and urbanists, Project a101, 2006. <http://www.maxwan.com/project/max127/>



Generous amount of green space serves as space reserve for future developments , “Project A101”, 2006, Moscow, RUS (maxwan architects & urbanists, 2006)

Space reservation

“Project A101” by maxwan architects & urbanists is a masterplan for a New Town of 300 000 inhabitants at the fringes of Moscow, RUS²⁶. The plan incorporates a surplus of green open spaces that are corridors along highways as well as existing forests. Well connected to transport facilities they initially serve as recreational or agricultural zones, that can be built up with light, temporary constructions in times of low development pressure. In the moment a need occurs, building on them can be allowed under specific circumstances. Their good accessibility guarantees the mobility of the new users giving the plan flexibility to keep up with the development of the city.

and programmatic mixture, these phases should extend the city from the inside to the outside, thus always ensuring compactness, density and a clear edge and accessibility to the surrounding landscape. Giving priority to the development along the main thoroughfares, they tear the landscape into the city, maximizing its contact with the city and adding quality to the city edge.

The first phases' point of departure is the outline of the existing city. It includes the main thoroughfares and goes slightly beyond the existing third ring to avoid the emergence of informal settlements along it. The second phase extends from the first phases' outline slightly beyond the fourth ring.

Given Aleppo's huge population pressure, the two phases should roughly span 15 years. They should be continuously evaluated after five years according to the existing rhythm of masterplan implementation, leading to more precision and adaptation to changing numbers. The size of the areas in each of the development steps should be consistent with the expected population growth over time and the planned/expected masterplan densities. Building should only be allowed within the current phase and any violations need to be severely prosecuted. The provision of each phases infrastructure - i.e. schools, roads, electricity, water, sewage etc. - should accompany each phase and should be provided prior to the development of the plots.

SPACE RESERVATION

Beyond phasing we propose to initially exclude large parts of the existing masterplan from development and maintain their current land use that is in most cases agricultural. Further investigation is needed which areas are most feasible to do this, the 'Recommendations for Masterplan Revision Plan' proposes some. Also here the amount of reserved space should be consistent with the expected population growth and the planned/expected masterplan densities.

This space should preserve land of a high agricultural, natural and climatic value, and thus guarantee the access to large recreational or productive areas. In case more space for city development is needed in the future, it could possibly serve after careful evaluation for a possible third city expansion in the long run.

We propose this measure of space reservation in the North where intact productive agricultural areas should be maintained, in the West and in the South – where the gentle agricultural landscape close to the Jouh valley and the river Quweik should be preserved – and in the East where a green zone between Sheikh Najjar industrial city and Aleppo should serve as a green buffer equally adding quality to city edge as well as industrial zone.

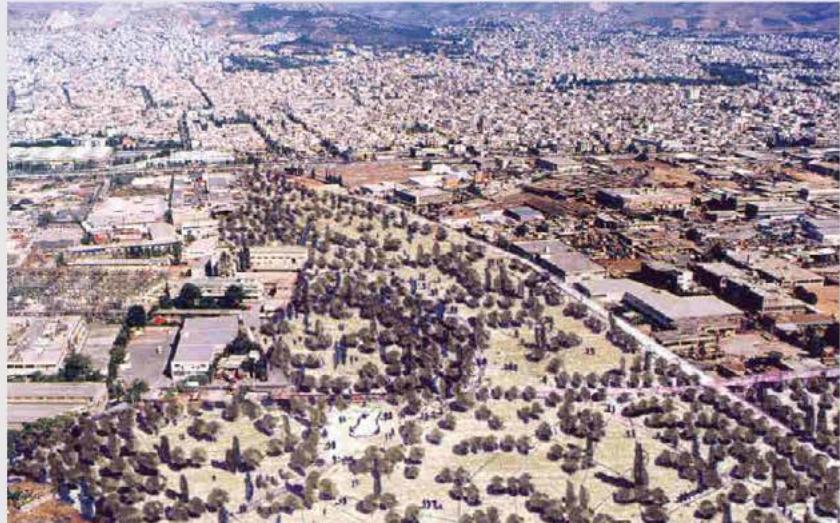
2.4. Multifunctional Open Spaces

Good open spaces severely lack in Aleppo today. Although there are punctually good examples of public open spaces of different types and scales - i.e. around the citadel, the city park, in Azizieh and in the newly planned neighbourhoods - it lacks a necessary systematic distribution in the whole city.

Multifunctional open spaces

The "Eleonas" project in Athens, GR, is an industrial regeneration project that should integrate agricultural, light industrial, service and recreational functions.

Existing and newly planted olive groves should form the main vegetation of the area and should be integrated into public parks. Adjoining light manufacturing and food processing factories can process the olives, giving the area a multifunctional aspect and its high level of sustainability. Unfortunately, little of this smart project was achieved so far due to political mismanagement.²⁷



Visualisation of a public park with olive groves and adjoining light and food processing industries in the Eleonas Area, Athens, GR (Greek Ministry of Environment and Planning, 1997)

²⁷ see Patargias, P. A.; Pouloudis, A.X. 2002. *The restoration of the area of 'Eleonas' and its contribution to the upgrading of the environment of Attiki*. http://www.isocarp.net/Data/case_studies/141.pdf.

Here huge investments have to be done in the next years given the strategic importance of public space for the cities' urban, social and economic development. Regarding tourism the city needs a system of recognizable public spaces that give orientation and guide to the visitor from one point to the other and invite him to take a rest on his trip in a nice environment. The same goes for the citizens. Here public space has an additional role as a social interface where neighbours meet and communicate. Finally, if executed well, it is very influential on the character, appearance and climate of neighbourhoods and has fundamental effects on the development of real estate prices.

Public space always fulfils various functions — among them transport, representation, recreation, air cleaning, rest, communication. As such it has always to be regarded as a multifunctional entity, serving many needs at the same time, although often having a focus on a specific function (e.g. a park's main purpose would be recreation, but

would also have positive effects on local climate). Depending on their main purpose a variety of different types and sizes of public spaces is needed.

ACTIVE URBAN EDGE

The current compactness of Aleppo, its mainly clear edge to nature, is an asset that should be guarded. In fact we can imagine a strategy of urban and natural densification of Aleppo's city edge to even enforce this contrast. The transitions to nature could be transformed into public park-like zones with leisure activities, that would serve as a recreational buffer to the countryside and its agriculture, offering urban services like kiosks and integrating existing agriculture, like the olive grove areas in the south east of Aleppo. These built edges could be densified with prototypes of new building types resulting out of this transitory position, like housing and farms for urban agriculture.

GREEN FINGERS

To achieve a good ventilation and keep larger recreational areas close to the citizens we propose transversal green corridors, that connect the city with the countryside. They are mainly located in the west and in the industrial zone, taking up the wind from its main direction and distributing it up to the city centre. These green fingers should always have a strong green character and only incorporate medium to low building densities of solitary buildings, special programmes like the Aleppo University Campus or existing villages.



River Quweik wetlands in 1890, Aleppo, SYR (Stefano Bianca, 1980)

QUWEIK PARK

The city currently lacks a city park that can contribute to a common identity for all citizens. For that reason we propose the renaturation of the green corridor that was once created by river Quweik and its transformation into a new multifunctional city park. This linear park would integrate most of the existing programmes (rail tracks, existing parks, the main city square, urban agriculture, housing, industry etc), but cover them with a continuous band of vegetation and paths, that would theoretically enable a visitor to cross the whole city from north to south. Given the relatively little amount of water running through river Quweik the emphasis of this project should lie on the green aspect and not so much on the water.

The park would turn the current mental and physical border between East and West, manifested by rail tracks and riverbed, into a social interface for all citizens. Well connected to public transport it would symbolically reconnect the city with its countryside and would raise the living quality along its fringes, besides its effect on

²⁸ Beriatos, Elias. 2006. *Athens: The transformation of a Mediterranean Metropolis: problems and perspectives after Olympics 2004*, paper presented at 42nd ISoCaRP Congress. http://www.isocarp.net/Data/case_studies/797.pdf. See also: Wikipedia. http://en.wikipedia.org/wiki/2004_Summer_Olympics#Legacy. See also: Greek Ministry of Environment and Planning, <http://www.minenv.gr/441/4401/440102/44010202/e44010202.html>. See also: EAXA website, <http://www.astynet.gr/static.php?c=1/>

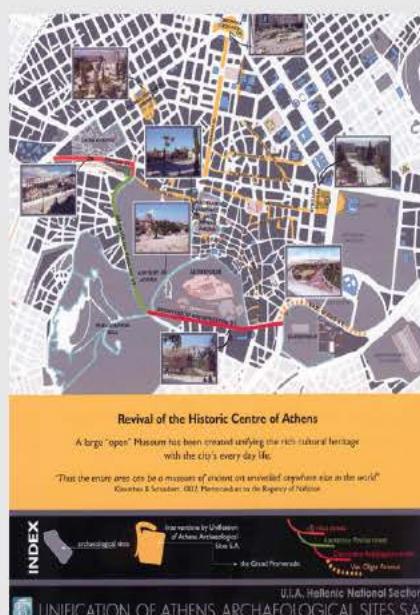


Illustrative map of the proposed Bab Ring Park following the fortifications of the Old City.



Current situation in front of Bab Antakya (Thomas Stellmach, 2009)

tourism. Additionally it would serve an ecological function by ensuring biodiversity, a good air quality and collecting the rain water that often leads to destructive floods in spring, and could integrate the many impressive quarries around Aleppo into a green network.



Map of unification of archeological sites project, Athens, GR (EAXA, 2002)



Unification of archeological sites project, Athens, GR (top and bottom EAXA, 2009)

BAB RING

To create an entrance to the Old City as well as an active public transition zone between Old City and the rest of Aleppo, we propose to turn the currently weak situation around the old city gates into a green ring of attractive public spaces. The ring should consist of a sequence of small parks, squares and green boulevards and also integrate the cemeteries around the Old City as well as the new Park next to Bab Quinesrin developed by the Aga Khan Fund.



Public space initiatives for "New York 2030", New York City, USA (Plan NYC, 2007)

Graduated open space network

The "New York 2030" project is an initiative by the mayor of New York City, USA, that encourages local communities to implement a large variety of new open spaces into the city. This should fight against the general lack of public space and contribute positively to the city's ecological balance. The aim is that by the year 2030 no place inside Municipal New York is further than 500m from a green recreational space. To achieve this a series of regional parks, local playgrounds, squares, sports fields etc. should be integrated until 2030.²⁹

This new public space will also have strong effects on tourism as the example of Athens' unification of archeological sites (see p. 57) as well as the major transformation of Barcelona for the Olympic Games in 1992 illustrate. Both projects prove that public space is not only important for the cities' atmosphere, but is a key to its prosperity and attractivity.

GRADUATED OPEN SPACE NETWORK

There is a severe lack of public spaces, on a city as well as on a neighbourhood level. On the city level a sequence of bigger squares and streets linked to specific programmes should be placed on strategic locations to underline the main functions of the city (i.e. wider square in front of museum or park etc.) and lead to the recognizability in the minds of citizens and visitors.

On the level of the neighbourhoods the lack mainly addresses the eastern part of the city. Here major efforts on the implementation of local public spaces are an imperative, given the fact that public spaces on a neighbourhood scale predominantly serve social functions. Their character should be more intimate, but linked to a network of larger public spaces. These could be smaller squares or streets positioned at strategic locations (i.e. next to a school building or leading to a main junction).

Although of far lower priority, and despite the fact that the West already features a relatively good provision of public spaces, here public space seems undifferentiated to serve multifunctionality and at times over-dimensioned to create intimacy. Here at a later stage strategy of reorganisation could be developed.

²⁹ See: City of New York. 2007. Plan NYC - A greener, greater New York. http://www.nyc.gov/html/planycc2030/downloads/pdf/full_report.pdf/.

OPEN SPACE NETWORK

1:115.00



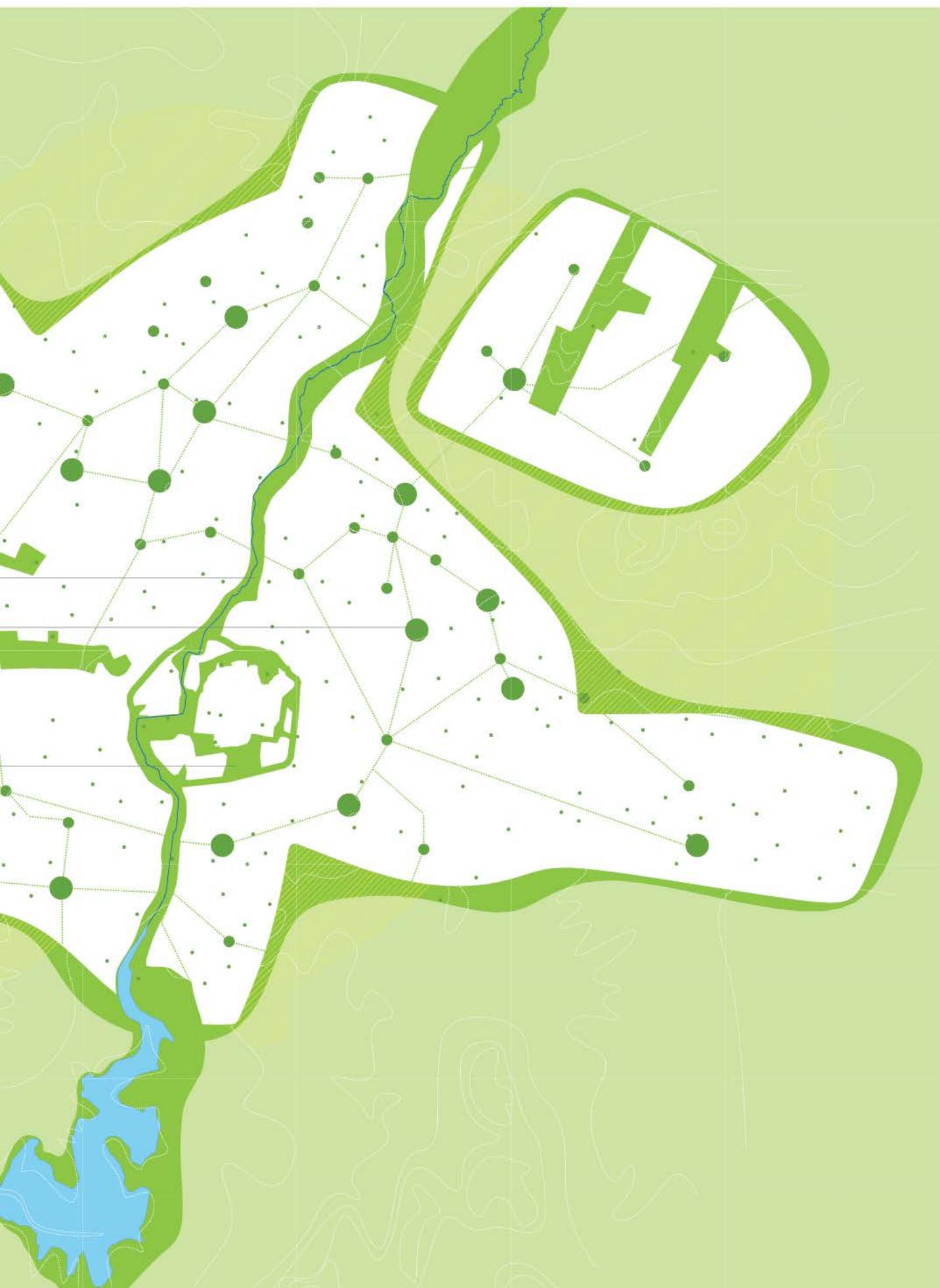
10 km

15 km

20 km

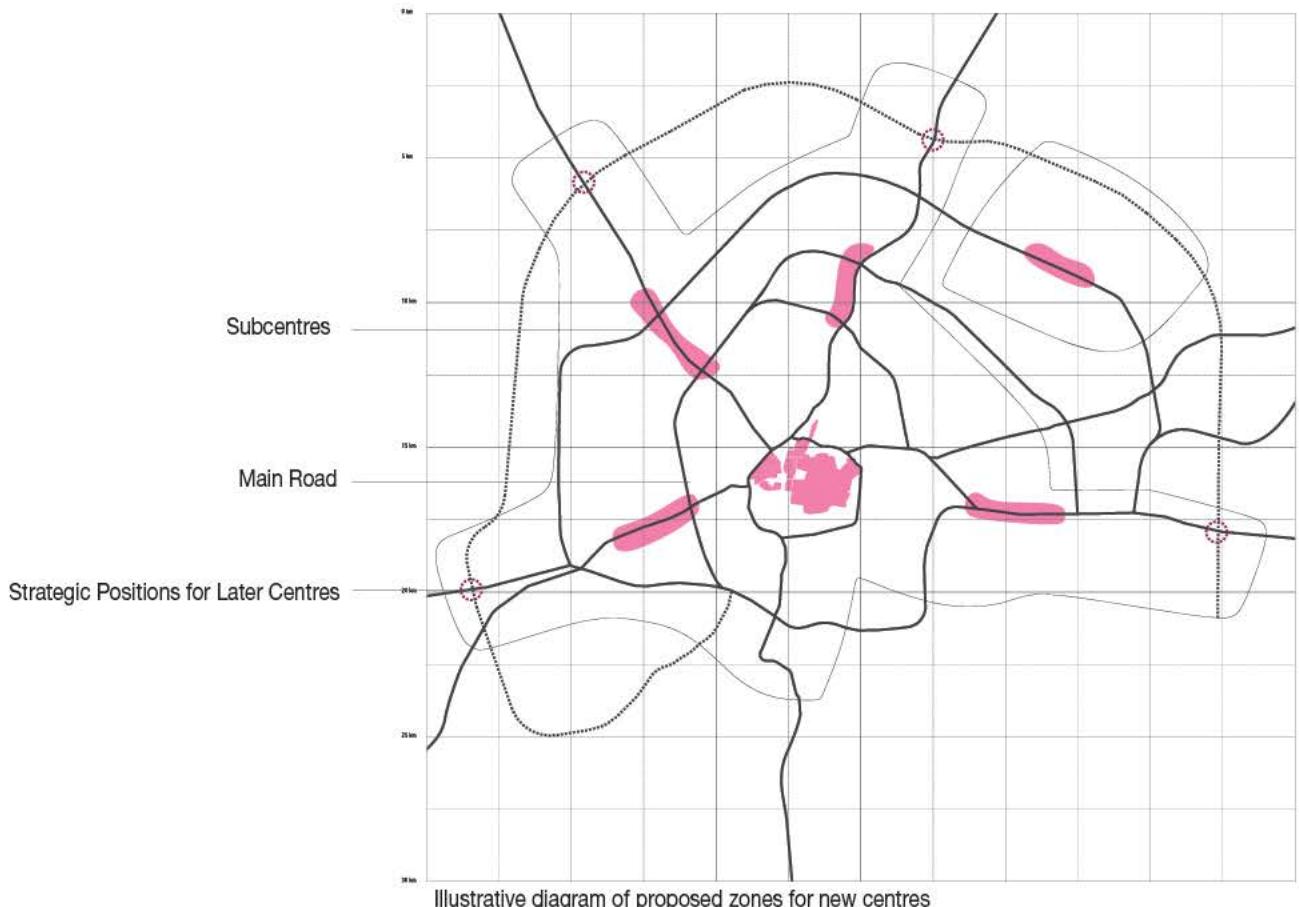
25 km

30 km



2.5. Accessible Centres

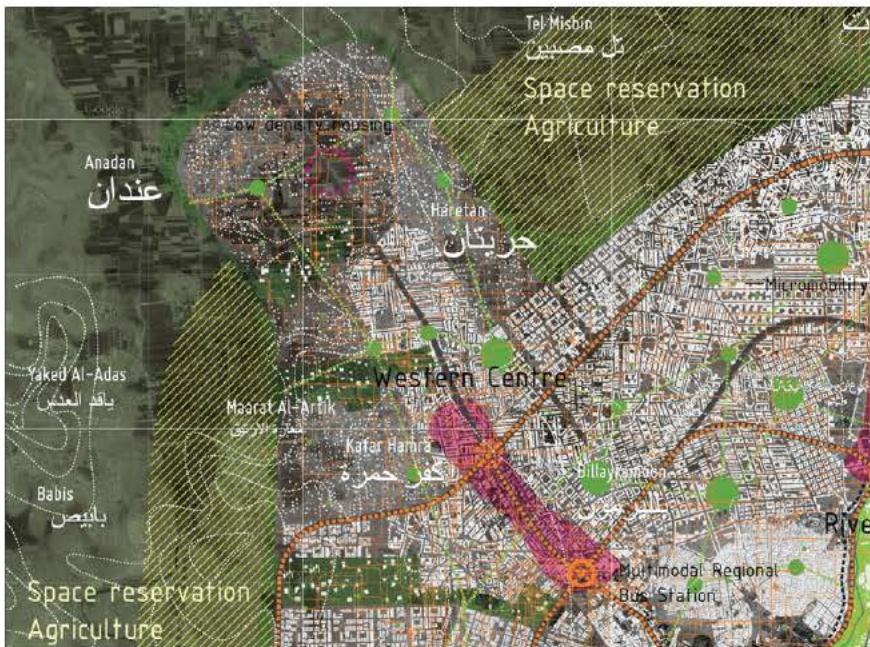
The prospects of population growth — predicting for Aleppo 3.5 million inhabitants by the year 2025 — raise the question of the kind of spatial structure that can accommodate such fast growth. The current spatial model of one centre hosting all administrative, economic and cultural services of the city has reached its limits, leading to congestion and high real estate prices. The 2009 revision of the masterplan acknowledges this by proposing various new subcentres surrounding Modern Centre and Old City.



This move towards polycentrality is certainly the right direction. It relieves the current centre from its pressure and distributes the development forces, reducing the wide span in ground prices. We would like to highlight a few factors necessary for the success of the polycentral model.

ACCESSIBILITY

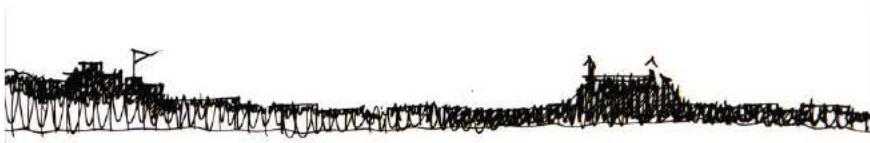
For the new centres one important aspect is the extent to which each centre can be accessed. Density and mixture favour pedestrian movements inside the centres, but only if the centres are well and quickly accessible among each other they can profit from their complementarity. Consequently we propose to locate the new centres in direct vicinity to currently underexploited or new transport infrastructures, i.e. main thoroughfares, external bus stations, train stations, airport etc.



Illustrative map of the emerging Centre in the North-West of Aleppo.

Here our proposal identifies a set of strategic locations on the intersections of the ring roads with and along the main thoroughfares. This allocation in proximity to transport infrastructures and hubs would support the densification and development of the new centres like in the case of Curitiba or Tokyo (see chapter 2.6, p.71ff).

This can be reached through special building laws around the transport hubs that allow higher buildings with higher densities and high programmatic mixture. Once a critical density is reached the necessary public transport could be provided. A first testing ground for this strategy could be the intersection of the road to Gaziantep and the fourth ring in the North West, where currently a hazardous urbanization takes place and where a concept reasonable urban densification is urgently needed.



Idea on possible spatial structure of Aleppo with centres emerging out of the neighbourhoods
(Sketch: Martin Schirmer, 2009)

SELF-SUFFICIENCY

To support this urban densification and to guarantee flexibility it is important that the new centres are self-sufficient and can function independently from each other. Although focussing on a predominant specialization they have to avoid monofunctionality and require a high proximity and mixture of basic services and programmes (offices, housing, schools, religious buildings, health centres, shops,

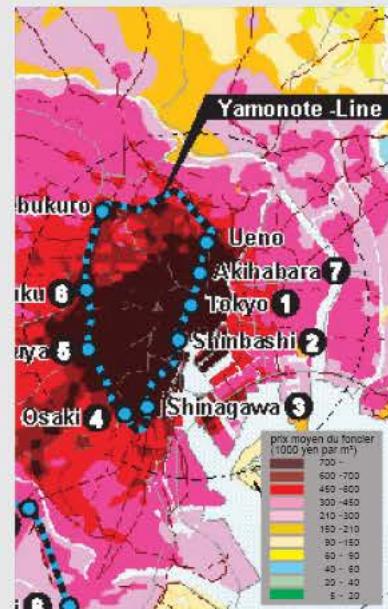
etc.), to an extent that a person who lives and/or works in a subcentre would not have to leave it for his daily needs. The resulting density of mixed-use — that is one of the key factor for a centres sustainability — will create specific building typologies that suit each quarters economic activities and will strengthen its respective appearance and identity. This process of hybridization will lead to a clear recognizability of the centres inside the urban fabric.

Public transport and centres

The example of Tokyo³⁰, but also Curitiba³¹ (see also p. 74), show hows public transport systems have positive effects on the emergence of new centres. In both cases the implementation of a fast public transport system of a high passenger capacity — in Curitiba a Bus Rapid Transit System, in Tokyo a metropolitan train — led to the emergence of centres with high urban densities and programmatic mixture, as well as high land values along the public transport lines. The good accessibility was a key factor for this success. and led to three key principles of sustainability, namely density, proximity and mix.



Higher densities along public transport routes, Curitiba, BR (Google Earth, 2009)



Higher land value along public transport routes, Yamamote metro line, Tokyo, J (L'AUC, 2009)

³⁰ L'AUC et al. 2009. "Le diagnostic prospectif de l'agglomération parisienne", *Le grand pari de l'agglomération parisienne, Consultation internationale pour l'avenir du Paris métropolitain*. http://www.legrandparis.culture.gouv.fr/documents/AUC_Livret_chantier_2.pdf. p. 103ff.

³¹ Goodman, Joseph; Laube, Melissa; Schwenk, Judith. 2005. *Curitiba's Bus System is Model for Rapid Transit*. In: *Race, Poverty & the Environment*, winter 2005/2006. p. 75f.

SPECIALISATION & COMPLEMENTARITY

Aleppo already features various small centralities with an individual character, that are often linked to a major economic base unique to the city. All citizens know about the food market in Khaldiye, the place to shop for electronics is Jamilieh and cafeterias and a cluster of restaurants are to be found in Azizieh.

These existing, emerging or still dormant specialized centralities may not yet have developed such a strong identity as the Old City, but opening up a process of development and modernization could help them unfold and consolidate their characters. This would lead to variety of subcentres with specialized programmes that are important for the whole city and generate new seeds for decentral economic development.

The Old City would be the focal area of tourism and culture, the Modern Centre could become even more the pivot of commerce and entertainment, the university campus area could become the hub of a new knowledge and service economy, Sheikh Najjar Industrial City could become the focus of production and industry, and the area around the airport could become a centre of agricultural trade and logistics. These contrasting new centres with their respective economic specialization and identity would all find their place in the area of Greater Aleppo and stand in a complementary relationship to each other. At the same time this polycentric configuration would assure the flexibility of Aleppo's future development due to the plurality of the economic activities.

AUTHENTICITY

When talking of polycentrality and a favourable configuration of new centres, it is first of all necessary to understand the importance of the existing centre to the future development of Aleppo. Although new centres will appear, the focal cultural and touristic activity will remain in the centre, with the new centres supporting it. Considering this potentially high development pressure on the centre and its cultural heritage the question is how to balance between modernization and the conservation of its exceptional historic treasures.

The Old City of Aleppo is not a museum, exhibiting remnants of ancient times. To the contrary, it is a living and inhabited organism. Walking through the Old City one can observe how thousand year old production techniques, traditional habits and ways of life are still being applied. And one can visit the many religious places of the Medina, physical proof of the peaceful coexistence of different beliefs in the ancient Arabic city. It is this quality of exceptional pieces of Arabic Cultural Heritage combined with living local traditions and patterns of life, that makes Aleppo a living icon of Arab culture.



Merchants in the souq of Aleppo (Martin Schirmer, 2009).

But authenticity is a sensitive issue threatened by either musealisation or 'disneyfication'. Through the process of renovation, rise of real estate prices and fading local economies, traditional ways to live and work and established forms of social organisation are threatened. This kind of disconnection of city substance and society can be seen in the above mentioned cases of Beirut or Dubai. This should not mean that the city has to stand still, conserve its substance and heavily subsidize its local economies. On the contrary, to maintain its social and physical heritage Aleppo has to evolve by carefully balancing between modernization and conservation, and local economies have to adapt to new times and opportunities.

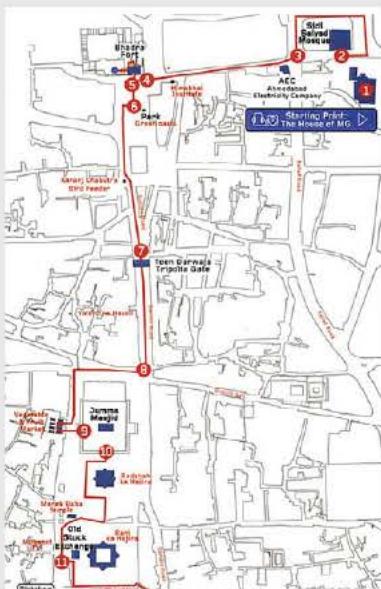
CULTURAL TOURISM

For Modern Centre and Old City we see these opportunities in soft, cultural tourism which is based on the authenticity of the city and supports existing micro-economies. The culturally interested tourist is in particular attracted by the above mentioned mix of living history, continuity and variety Aleppo has to offer.

The Citadel of Aleppo, the neighbouring souq and the surrounding areas of the Al M'dine and Jdeideh are excellent points of attraction and can serve as a basis to

explore the surrounding cultural landscape. But to accommodate cultural tourism Old City and Modern Centres have to be embedded into a larger touristic network, that offers:

- Easy connections of all points of interest through public transport (see chapter 2.6, p.71ff.)
- High-quality public spaces (see chapter 2.4, p.55ff.)
- Signage systems linking the points of interest and transport hubs (airport, train station, bus stations) as well as touristic urban guidance systems (see Ahmedabad example)
- good access to tourist information in the places where tourists stay and commute (i.e. high-speed Internet in the Old City, points of tourist information at transport hubs, etc.).



D-tours heritage walk route, Walled City, Ahmedabad, IND (House of the MG, 2007)



Wooden heritage building on the route, Walled City, Ahmedabad, IND (Ali Saad, 2007)

Urban guidance systems

The "D-Tours heritage walk"³² makes the precious medieval Walled City of Ahmedabad accessible to visitors and connects it to touristic amenities. This is done by minimal means. The visitor rents an mp3 player and a map at a hotel and a voice guides him in 80 minutes through the Walled City. The spots are a mixture of prominent and hidden historic buildings and public spaces, like the central mosque, wooden heritage buildings or little squares, as well as public spaces and squares. The striking strength of this tool for soft tourism is the great flexibility of the route layout and its very low level of disturbance to the local people.

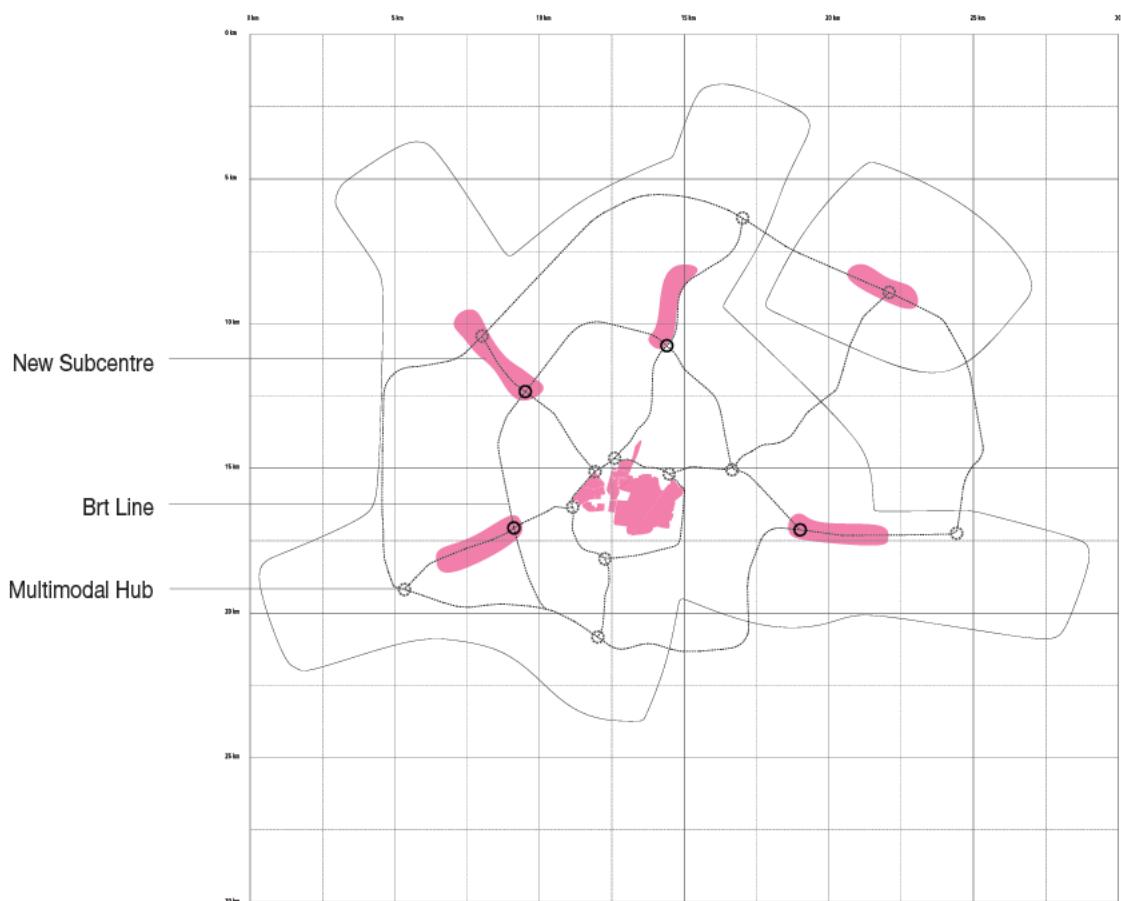
³² see: *House of the MG Heritage Walk*, http://www.houseofmg.com/heritage_walk_intro.php?topid=NA==

Besides this network, a range of touristic amenities should be introduced. Cultural activities and programmes, as museums, galleries, theatres or bookstores are absent or hard to find. Famous for its food, a wider variety of restaurants, cafés and possibly night clubs of different atmospheres is desirable for Aleppo. Also a whole range of touristic services are required that take care of the tourist's daily needs, for example laundries or agencies that organise travels to the secondary attractions nearby. These additional programmes would complete the needs of a cultural tourist — to not only have him stop over, but to stay a bit longer.

It has to be underlined that all these transformations should be made mainly with and for the communities that live in the Old City. By creating and implementing policies that support all these investments, the city administration could contribute to extend and consolidate their economic bases, while keeping control on larger scale enterprises, in order to avoid an unbalanced development in favour of massive commercialisation and loss of authenticity. By improving the economic situation of the local population segregation can be dampened.

2.6. Integrated Urban Mobility

Making the city accessible at multiple scales and speeds for all citizens is the ultimate goal of any good urban mobility system. In reality this hardly comes true as many constraints of non-infrastructure nature (income, security etc.) impede to attain that ideal. Nevertheless, for the infrastructural part, we can envision the main principles that an efficient mobility strategy for Aleppo would have to incorporate.



Illustrative diagram of proposed BRT lines and multimodal hubs.

In Aleppo the dominance of the individual car as the main mode of traffic is obvious. Although its bad effects are well known (congestion, pollution, urban fragmentation etc.) it is difficult to imagine any mobility system for Aleppo in the next 15 years without the car as a prominent part of it. In that sense our proposal first of all focuses on reorganising the current public transport system, to relieve the city from its dependency on individual transport. Only after this has been achieved (that is as soon as a bus would bring a citizen faster to his work place than his car) one could



BRT station, Curitiba, BR (image source unknown)

Bus Rapid Transit Systems

BRT systems are busses for mass transit that run on higher speeds on dedicated roads. If configured well their capacity is comparable to average metro, heavy rail (HRT) or light rail (LRT) systems³³.

In contrast to them the advantage of BRT lies in easier and more cost-efficient implementation and maintenance with relatively low environmental pollution.

Comparing for example a BRT system and a HRT system of similar length in Los Angeles, USA, the BRT system's costs per mile are 7% of the HRT systems costs per mile.³⁴

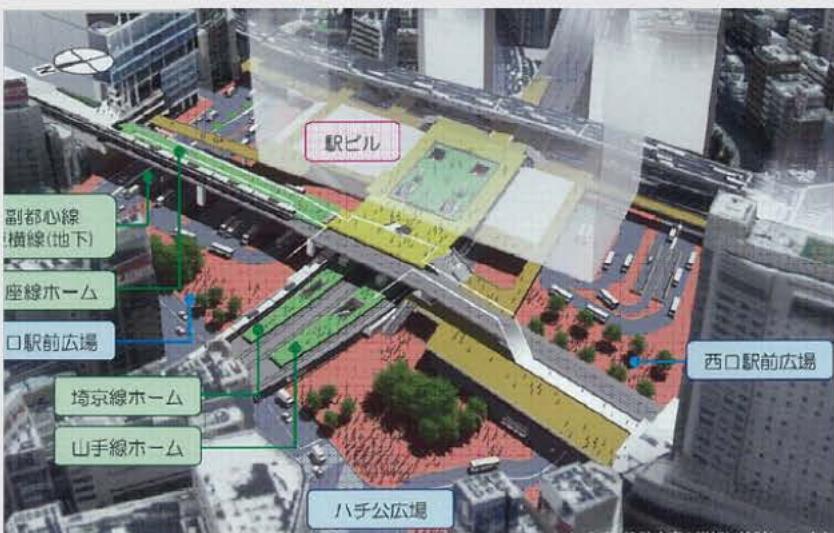
As BRT's are built on existing roads they have a high level of flexibility and can be adapted to new demands.

think of the slow introduction of new modes of traffic, like trams or bicycles, as being currently done in other cities in the world.

To be efficient Aleppo's current system has to be graduated in terms of the scale of accessibility it allows. The mode of transport should depend on where a commuter would want to go and should be optimised for that purpose. At the moment most of Aleppo's citizens use their individual car to go anywhere: to the city centre, to a picnic outside the city or to pick up their children, regardless if their target is far or close or the area they visit is densely populated or hardly populated. The success of this single approach lies in its great individuality, but leads to the collapse of the densely populated central parts of the city besides its air polluting effects.

³³ Equipe LIN Finn Geipel + Giulia Andl. 2009. *Grand Paris Métropole Douce*. Paris: JMP Beauchesne, p. 80ff.

³⁴ The Orange Line BRT system in Los Angeles has a length of 14 miles and capital costs \$23.07 per mile, while the Red Line HRT system in Los Angeles has capital costs of \$337.60 per mile and a length of 16,5 miles. See: United States Department of Transportation. 2006. *Bus Rapid Transit: Elements, Performance, Benefits*. Washington D.C.: Federal Transit Administration.



Multimodal station, Shibuya, Tokyo, J (Shibuya ward, 2008)

Multimodal stations

Multimodal Stations like the one in Shibuya, Tokyo, J, are transport hubs that integrate local, metropolitan, regional and sometimes international modes of public and individual transport. The direct vicinity and overlap of these modes combined with park & ride facilities enables the quick transition from one mode to the other and is a key factor for any efficient transport system reducing travel times considerably.³⁵

Here an integrated public transport system that is adapted to the scale of accessibility (local, metropolitan, regional etc.) would be a good alternative. For the metropolitan area of Aleppo we see two main scales of mobility: The “macromobility” on the one hand, which connects the centralities with each other, and the “micromobility” on the other hand, which rather acts on the neighbourhood level. Both systems would be integrated by stations, that would facilitate the transition from one mode of traffic to the other.

MULTIMODAL BUS RAPID TRANSIT

The macromobility is a public high-speed Bus Rapid Transit (BRT) system that connects the parts where the majority of the population lives and/or works to each other (Old City, Modern Centre, new centres, unique recreational spaces) as well

Integrated Urban Boulevards

Designing roads often poses the question of prioritising urban quality, continuity and pedestrian movements or private and public traffic flow. A good solution that takes into account both concerns are integrated urban boulevards, as is very well demonstrated in the cases of Paris as well as in Barcelona. Here different lanes of private and public transport are introduced, that reduce speeds towards the road edges. This makes green sidewalks with clear building edges possible generating an urban atmosphere and creating new opportunities for commerce and investment.



Integrated Urban boulevard, Champs Elysses, Paris, FR (image source unknown)

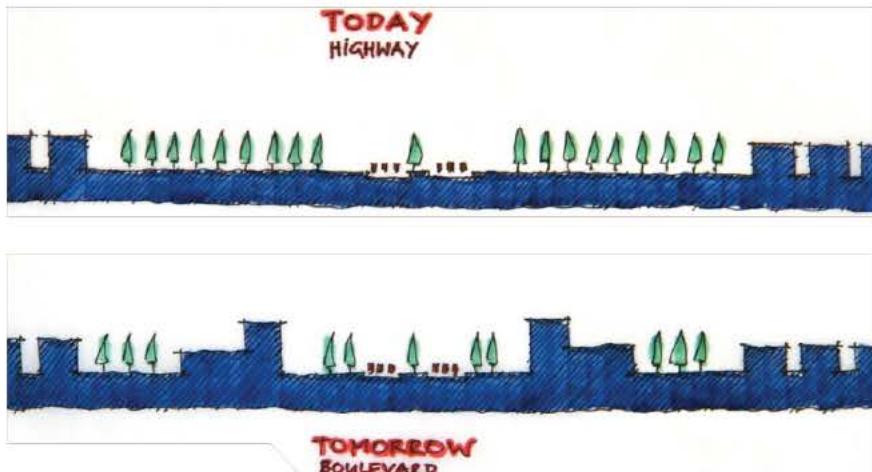
³⁵ Equipe LIN, op. cit, p. 80ff. See also:
L'AUC, op. cit.

³⁶ assumed, needs further study

as the main entrances to the city (airport, train station, external bus stations). Given this purpose it should be able to transport large amounts of people in short time to these main points of metropolitan activity. The wideness of main roads allocated in the 2010 masterplan makes a BRT system like implemented in Curitiba (Brazil) or Bogota (Columbia) imaginable and has advantages for the context of Aleppo in terms of relatively low maintenance costs, easy implementation and experience of public transport personnel with busses.³⁶

The stations of this system have to have a good integration with other modes of traffic. This multimodality is of fundamental importance. It enables the citizens to combine different modes of traffic in order to use the system more efficiently. For example one should have the possibility to leave his car there to access the BRT for one of the new centres or one should arrive there by air plane and have a quick access to public transport that would bring him to the Old City. Proximity and ease of these transitions is crucial. This is why we propose to shift the planned external bus stations in direction of the strategic junctions of the main thoroughfares so that the new centres could integrate both and incorporate real multimodal transition points.

This combination of high-speed transport and density would not only lead to a greater efficiency of the transport system, but could also have positive effects on buildings densities and real estate prices in the vicinity of the multimodal train stations as shows the example of Tokyo's Yamamote Line (see p. 67). A higher density around the stations also contributes to the financial viability of the transport system.



Illustrative section of highway transformation into proposed urban boulevard (Sketch: Martin Schirmer, 2009)

INTEGRATED BOULEVARDS

As already mentioned the existing road profiles in Aleppo are in general wide enough to accommodate an extended BRT system with dedicated lanes. Their current configuration as simple highways separates city quarters, causes long distances and disrupts the urban fabric. Here we propose the reconfiguration of these roads into urban boulevards with integrated public transport. Boulevards maintain density and proximity and can be flexibly configured to allow urban character as well as good traffic flows. Here for example we propose to built upon the large green corridors that flank the existing western city highway on both sides. Considering their potentially high value for commercial or office buildings they could be densified, especially on major junctions, while some parts of them could be maintained.

37 LIN, op. cit., p. 80f.



Microbus, Rome, I (image source unknown)



Rental bikes, Hamburg, D (adpropaganda.de, 2009)

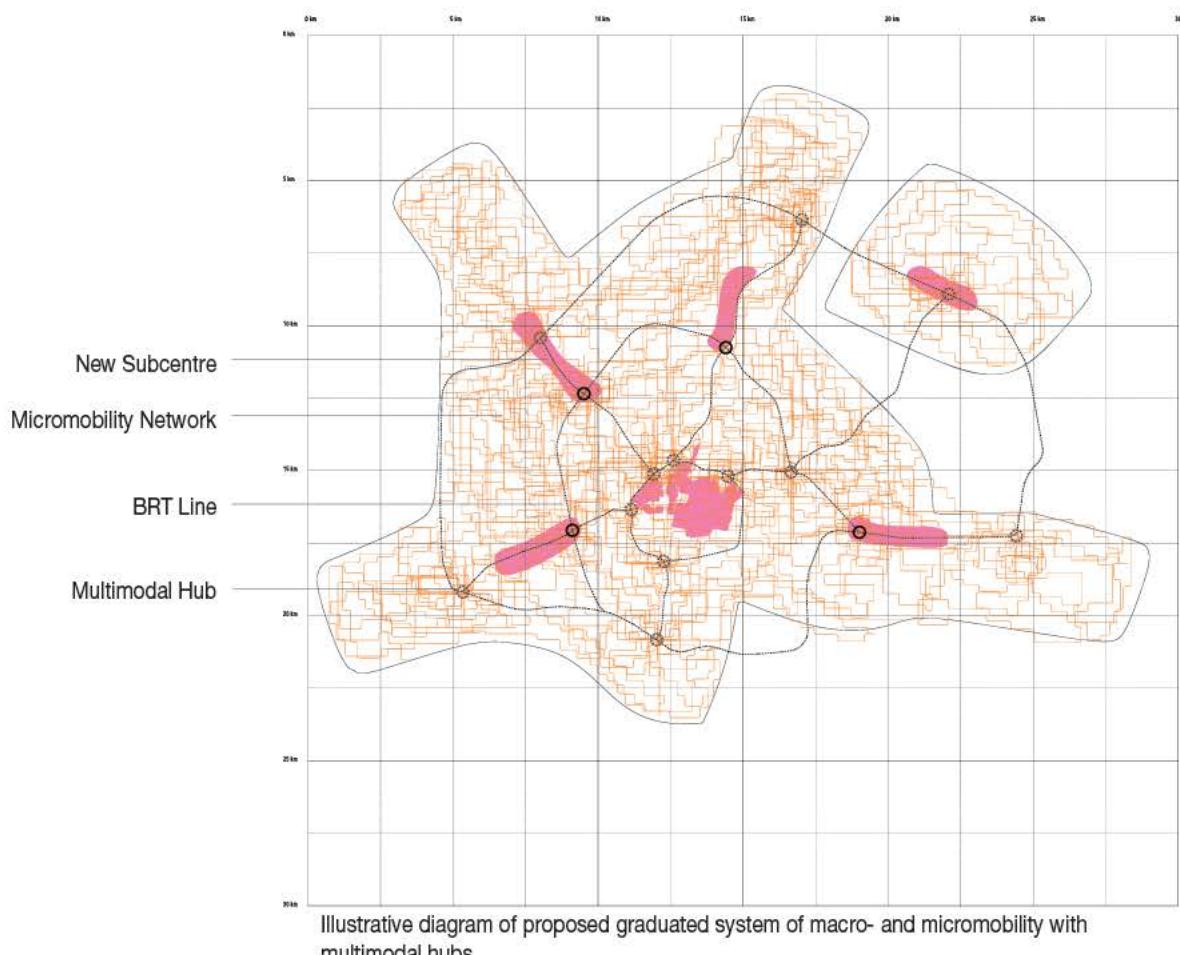
Micromobility systems

Micromobility systems bring passengers from the mass transit stations to collection points in walkable distance from their home or vice versa. Collective in form of microbuses-on-demand or individual in form of rentable bikes, electronic scooters or cars they have very positive effects on CO₂ reduction and are currently applied in a range of large cities, like Hamburg or Paris, worldwide. Implementation of these systems is surely difficult to imagine for Aleppo at the moment, but should be part of a long-term strategy.³⁷

NEIGHBOURHOOD MOBILITY

To relieve the middle and low density neighbourhoods from their dependency on individual transport a sort of micromobility system is needed. It works much more on a local level and links the commuters to the next BRT station. Here the transport system would have to operate much more in a dispersed environment where there are hardly peaks of population densities, making a BRT system inefficient as it would hardly reach its capacity.

We see a potential in the existing micro buses, assuming the fleet of the buses is modernised progressively. As they are based on the road system, they are highly flexible and their small size lets them even access the narrow streets of the Old City to an extent. In combination with the macromobility system, there could be



two modes of operation for these busses: Firstly, they could continue running on fixed routes as they are doing right now, but in an upgraded route network. Some stops could be located next to smaller convenience stores, linking transport to an offer for daily needs and creating new points of local identity and social interaction (see p. 80). Secondly, they could work as pick-up busses or busses on-demand, where a citizen could call a telephone number and the bus would come to collect him/her and take up more people on the route as exists in some smaller towns in Germany. This would answer to more individual needs, for example for families or for handicapped.

Depending on the success of this reorganized public transport and the reduction of individual traffic at a later point, the offer of stations with rentable bikes as an alternative micromobility system, like being done all over Europe at the moment, could be tested.

2.7. Evolving Neighbourhood Identities

Looking at Aleppo's neighbourhoods reveals a very diverse picture. There is the recently renovated Old City with its traditional courtyard houses, the urban blocks of Azizieh, the hyper-dense and overcrowded informal settlements of Sheikh Maksoud, the upmarket areas of Shabah and Mokambo, the Villas of Hamdaniye or the modernist slabs of Hanano.

With some exceptions they all have in common that they are relatively compact and dense. The recently built city extensions in the west along the third ring are comprised of rather compact typologies as well. This tradition is an advantage that Aleppo has in comparison to many European and American cities, that currently struggle with space wasting and car-related sprawl — consequences of monofunctional low density developments.



New city quarter, Halab Al-Jadideh, Aleppo, SYR (hosambochi, panoramio.com, 2009)

Aleppo currently has a population of ±2,5 million inhabitants that live on an area of 131 km². This results in an average density of ~182 p/ha which is comparable with the density of Paris (~205 p/km²). If we take the expected amount of 3,6 million inhabitants by the 2025 and divide it by the area of the 2009 masterplan — 463 km² — we get a reduction of the current density resulting in 78 p/ha. This — certainly naive — calculation shows a general direction towards lower densities that is neither desirable nor does it accommodate or reflect the needs, life styles and social structure of Aleppo's future inhabitants.

BUILT UP SPACE WITH CENTRES

1:115.00

Compact urban tissue with a diversity of typologies

New centres



10 km

15 km

20 km

25 km

30 km



Considering the aspect of sustainability and the efficient use of space it is more advisable to work towards a vision with a higher variety of types — concentrations of higher densities with some adjacent lower density neighbourhoods, a mix of typologies that suit different lifestyles and income groups, with added generous open spaces of a high quality. In the further analysis we distinguish between planned (association-, state- or privately built) neighbourhoods and the informal settlements.



Illustrative plan of proposed new typologies in the East next to Dahabieh.

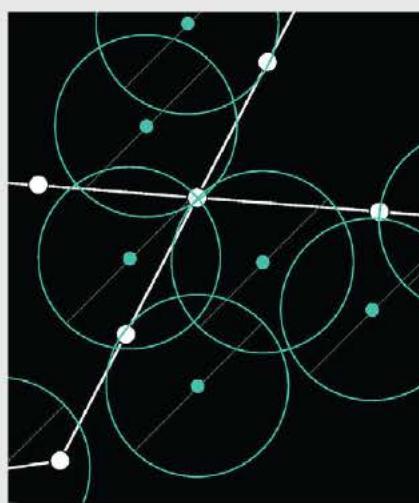
BALANCED DEVELOPMENT BETWEEN EAST AND WEST

As revealed in chapter 1.2. the masterplan proposes large areas of low density housing in the west, and smaller areas of high-density housing in the east. We strongly advise to re-evaluate this, given the much higher amount of household members among lower income levels and their higher growth expectations. Furthermore this will consolidate, if not exacerbate, the current East West divide of income groups and the precarious state of some poorer neighbourhoods. We recommend a more balanced distribution, that is more high density areas in the west as well as middle-class typologies in the east and an increase in average density, which goes hand in hand with the space reservation that mostly reduces

38 Equipe LIN, op.cit., p. 76f.



Convenience stores in Aleppo (top - The Arabist, 2009) and Tokyo, J (bottom - Bill Klauser, 2006)



Equal distribution of convenience stores (500 m) around metro stations in Tokyo, J (Bill Klauser, 2008)

Services of proximity

In Tokyo evenly distributed convenience stores in 500 m distance to each other, secure the supply of a wide range of daily needs for the neighbourhoods. Offering goods and services like copying, post, faxing or even check-in for the airport, these services of proximity become possible through a smart system of micromobility and reduce car based trips for the citizens. As interaction points they contribute to the neighbourhoods identities.³⁸ If distributed systematically, extended in their offer and connected to micromobility we see the Aleppinian convenience stores as a good tool to achieve equal qualities.

low density areas. We assume that such an intervention can instigate a long-term process to perception change of Aleppo's East as an undesirable and dangerous part of town. Also it acknowledges with optimism the fact, that new generations in the East can raise their income levels and thus would be able to live close to their families. Equally it should be possible for lower income levels to live close to potential work places in the West avoiding large travel distances (see Masdar Project below as a critical example). Maintaining some of Aleppo's key qualities - the existing high density, programmatic mix and clear city edge - will also lead to higher efficiency of infrastructure and open up the possibility of a cost-efficient public transport system (see chapter 2.6 Integrated Urban Mobility, p71ff).

Smart Typologies vs Social Inequality

The Masdar project, a proposal by Foster & Partners for a sustainable, zero carbon city in Abu Dhabi. On an ecological level Masdar is a good example for new climate sensitive typologies. The buildings react to the local conditions and lead to a considerable reduction of energy consumption.³⁹ But in total the project's sustainability fails because of its neglected social implications. Low cost housing was excluded from the plan and cheap labour force has to be brought into the city day by day, creating a large amount of travals, which was not included in the city's carbon emission balance. The example shows that real sustainability can only be achieved by considering the whole complexity of urban issues.⁴⁰



Visualization of climatically adapted medium to high density typologies, Masdar project by Foster & Partners, UAE (Foster & Partners, 2007)

TYPOLOGICAL DIVERSITY

³⁹ See: Transsolar. 2008. *The Masdar Development – Climate engineering for a carbon-neutral city.* http://www.transsolar.com/download/e/masdar_city_press_release_e.pdf.

⁴⁰ For a critical account see: Zareh, Vesta Nele. 2010. *Rückstand durch Technik.* In: Der Freitag, 20.01.2010. <http://www.freitag.de/kultur/1003-masdar-city-klimaschutz-ökologie-zukunft-stadtplanung/>.

The narrow-mindedness of the provided housing plans point towards a dangerous direction, in a social but also ecological sense. The east/west divide of income groups is being consolidated and consequently middle and low income groups have to travel long distances to get to their work place, particularly those who work in the richer neighbourhoods (i.e. gardeners, teachers, nurses, cleaning personnel). Another aspect of monotony is the homogeneous programme, with clearly zoned functional separation for residential, commercial and public use. The existing city very

visibly proves this approach wrong — even in upscale areas as Shabah or Mokambo ground and underground levels with residential plans or garages are converted to vegetable shops, boutiques, little offices, work spaces, doctors' practices or beauty salons. These businesses are generally unlicensed and tolerated, or a license is being 'bought'. It would be recommendable to integrate this flexibility into the zoning legislation and allow unobtrusive businesses in the residential areas. This would entail positive social and ecological effects — walkable distances, 'eyes on the street', a 24h city.

Deregulating and opening up the rigidity of existing typologies and floor plans, would lead to more flexibility and mixture in the use of the existing typologies and would better suit a socially balanced neighbourhood and eventually lead to specific identities that each quarter could develop with its very own mix of programme and people.

Let us take the little convenience stores that exist all over Aleppo as an example. They offer all kinds of products for the daily needs and are important anchor points of identity as they are inside the neighbourhoods and neighbours often accidentally meet there. By creating policies to promote their even distribution throughout the neighbourhoods in distances that the consumer would walk (see Tokyo diagram, p. 80) and combining them with other strategic programmes (i.e. stations for micro busses), they can become microcentralities that offer services of proximity (food, goods, copy service etc), promote social interaction as well as generate new local economies. People come to chat, have a coffee and discuss the situation of the neighbourhood.



Legalized and upgraded *geçekondu* ("built over night") settlement, Gülsu, Istanbul, TR
(Thomas Stellmach, 2008)

Legalized informal settlements: The Case of Istanbul

If citizens of Istanbul get their houses built overnight, they cannot be evicted without being taken to court, despite them not having the land title or building permit. Given that inhabitants of these so-called "*geçekondu*" settlements are voters, the municipal government does not enforce building law strictly. The authorities use a balance of prohibition, rehabilitation and legalization processes to address the growth of the city. Some settlements have been transformed into dense city fabrics with multistorey apartment buildings by now. Almost half of the citizens of Istanbul live in *geçekondus*.⁴¹

Besides the deregulation of existing buildings and the strengthening of local identities, we see a need in developing new medium to high density buildings typologies that address the aspect of mixed use. We are not suggesting mindlessly copying western types, but the development of types which do reflect local climate, tradition, and construction technology. These building prototypes developed to reduce energy waste and cost in the context of Aleppo's environmental conditions

41 see Esen, Orhan, Lanz, Stefan (Hg.), 2005, *Self Service City: Istanbul*. Berlin: b_books.

should be tested in a few selected showcase projects. This could eventually lead to buildings that reflect issues like shading, insulation, solar water heating, geothermal energy, cooling courtyards, permeable surfaces against flooding, energy savings – to create climatically adapted and thus efficient buildings (see Masdar project, p. 81).

UPGRADING OF INFORMAL SETTLEMENTS

Concerning the informal settlements we share the views of Patrick Wakely and the Informal Settlement working group, who sees no alternative than transforming the informal settlements into safe low to middle class neighbourhoods. Briefly summarized this has several reasons: Firstly, the communities living there are in general fairly intact, having developed a strong sense of community and solidarity among each other; secondly, the fact that they are mainly self-organized led to a strong identification with their built environment, and thirdly, it is impossible, and due to the previously mentioned reasons even not advisable, to provide the amount of social housing needed for relocation of the inhabitants of the informal settlements.⁴²

42 see Wakely, *op. cit.*

43 see Delijaikov, Alexandre. 2009.

Stadtarchitekturen in: archplus - Zeitschrift für Architektur und Städtebau, no. 190, p. 82f. See also: Rosa, Marcos L. 2008.

Städtische Kondensatoren. in: archplus - Zeitschrift für Architektur und Städtebau, no. 190, p. 84f.

While the planned neighbourhoods offer a good technical and civic infrastructure (e.g. schools) but often anonymous, the informal settlements face the opposite situation:

Iconic architecture in informal settlements

The CEU (Unified Educational Centres) in São Paulo are state-subsidized community schools of a multifunctional, flexible and cost-efficient type, that were implemented in various informal settlements, creating anchor points of identity and offering social and educational services to the neighbourhoods⁴³. In Medellin an ensemble of buildings that host a neighbourhood library introduces iconic architecture to informal settlements⁴⁴. The Vertical Gym by the Urban Think Tank in Caracas answers the question of how to integrate sport facilities given the scarce availability of space in informal settlements.



España library by Giancarlo Mazzanti, Medellin, CO



Vertical Gym by Urban Think Tank, Caracas, YMN (top), CEU by Alexandre Delijaikov, São Paulo, BR (bottom)

44 see Saieh, Nico. *España Library / Giancarlo Mazzanti in archdaily*, <http://www.archdaily.com/2565/espana-library-giancarlo-mazzanti/> as of 17.06.2008.

their informal character led to relatively mixed use and high identification of its users with their environment, but is lacking structure in any sense, spatial hierarchy and specifically public space (see p. 58). The retroactive establishment of a framework of policies that would generate such a technical, civic and legal structure are in our view the most important measures that have to be taken regarding informal settlements in Aleppo. This could trigger a transformation of the informal settlements towards established and integrated neighbourhoods and change their perception on a long run. This in our view is one of the most urgent tasks of urban spatial planning considering the large share they have of the total built space of Aleppo.

A major step towards this upgrading of the informal settlements is their legalization. Either built on squatted land or built without building permit, or not built up to standard, they lack legal status on various levels that is of fundamental importance for

the security of any kind of future investment. The most immediate attention needs to be given to structures which threat life and health of their inhabitants. Subsequently the complex legal issues have to be solved in a case-by-case approach.⁴⁵ This is the implementation of a technical infrastructure (solid waste, water, waste water, transport, electricity), but also the implementation of policies that support the private sector to transform the built substance into save and earthquake resistant buildings.

45 see Wakely, *op. cit.*

The severe lack of public spaces as well as public transport inside the informal settlements contributes to isolation and lacking environmental quality. This is even more severe considering that large parts of the population in the informal settlements are rather poor and do not have the means to afford private transportation. Another aspect is the one of identity and education. Resulting from their informal character



Haidariyeh, Aleppo, SYR (Google Earth, 2009)



CEU in informal settlement, Sao Paolo, BR (Goolge Earth, 2009)

most settlements lack school buildings, sport facilities, kindergartens or community centres, where the neighbours get support, meet or can exchange each other. Here the above mentioned examples of Sao Paolo, Medellin and Caracas show how educative programmes in combination with innovative, sometimes iconic, architecture can give informal settlements new anchor points of identification for the citizens. All in all we believe that there has to be a shift in thinking about informal (or self-built) settlements. If we turn from neglect to a constructive steering of the informal building activities, we have, as Patrick Wakely suggests, a cost-efficient tool to develop sustainable low income housing in our hands. Taking this idea even further would mean to reserve spaces for self-built settlements in the masterplan as is being done for other housing types.

2.8. Conclusion & Actions

46 see also the results of the Municipal Administration Modernisation Project (mam), <http://www.mam-sy.org>.

47 The RfMR Plan as well as the list below can only express a certain direction of thought and our educated belief where we consider further investigation valuable. It is a jump-start of a smart planning process for the city of Aleppo. Therefore you'll often find 'need for further study' expressed below under the 'feasibility' category. For example: we have shown that the Masterplan shows a surplus of housing area, and thus in the RfMR Plan we reduce and phase the areas to be developed - the Plan shows roughly 2060ha less in the first phase (505ha after the second phase). Much of the reduction in the northern and western areas is balanced out by an increase of areas in the south and east. On the other hand we propose to maintain high densities as much as possible throughout the new developments - which might very well lead us back to a total surplus of housing units despite the decrease in buildable land.

As described in chapter 2.1 (p.41ff) our strategy sketches out the conceptual framework that introduces certain principles of a sustainable spatial development to the discussion on Aleppo's future. This vision can only become real if the will of the different stakeholders is behind it.

This condition is based on certain methods and procedures of governance that have to be adjusted in order to achieve a sustainable urban development for Aleppo⁴⁶. The municipality and the stakeholders, within the context of Syrian society have to shift from top-down-thinking, deep hierarchies, overregulation and exploitation of short-term interest to a culture that rather steers than controls and prioritises on long-term public interests for the benefit of all. The aim is to adapt procedures of governance to this complex reality and to create an awareness of the added values that this change can generate for all. With our vision we tried to outline the benefits that this change could bear, now it is a question of will, refinement, and implementation.

This study is a very tiny first step. It is necessary to follow this step up by other immediate steps, inception projects that show commitment and progress. The fruits of our many useful discussions in Aleppo should carefully turn into documents, policies and plans in order to make our common idea sustainable beyond ad-hoc political or economic conditions. With the following chart and "Recommendations for Masterplan Revision" (RfMR) map we tried to summarize these immediate steps.⁴⁷

1. RESERVE SPACE

ACTION

- exempt certain areas from development

IMPLICATIONS

- consistency with expected population growth
- increased flexibility for future masterplan instances
- increased air quality as well as integration of nature and city
- infrastructure cost savings
- guided development
- existing productive agricultural spaces are maintained

FEASIBILITY

- possible within Syrian legislation [to be confirmed]
- difficulties due to land speculation / value changes to be expected
- dependent on a strict control of reserved spaces to avoid uncontrolled settlement

TIME HORIZON

- mid-term

2. PHASE & STEER URBAN DEVELOPMENT

ACTION

- introduce a phasing strategy

IMPLICATIONS

- consistency with expected population growth
- increased flexibility for future masterplan instances
- steer existing development forces that take place mainly along thoroughfares
- avoid sprawl
- reduce and avoid unguided / illegal developments
- infrastructure cost savings

FEASIBILITY

- possible within Syrian legislation [to be confirmed]
- difficulties due to land value changes to be expected
- dependent on a strict control to avoid illegal settlement

TIME HORIZON

- short-term

3. RE-EVALUATE MASTERPLAN DENSITIES

ACTION

- re-evaluate densities of MP, and as such mitigate west-east-divide

IMPLICATIONS

- consistency with housing demand per typology and social levels
- balanced, socially sustainable development of the west and east of Aleppo

- maintaining Aleppo's qualities - a Parisian density and Aleppian mix, and clear city edge
- higher efficiency of infrastructure, enabling cost-efficient public transport
- impulse to a process of changing current perception of East and West (East=bad, West=good)

FEASIBILITY

- study of housing demand and re-evaluation of masterplan numbers is necessary

TIME HORIZON

- short-term

4. CREATE MULTIFUNCTIONAL OPEN SPACES

ACTION

- investigate possibility of multifunctional, green character areas:
- green corridors with low built densities in the west
- river Quweik as a continuous green zone that integrates the existing manifold existing functions (housing, tourism, industry)
- public space ring around the old city that embeds the existing cemeteries into a larger green system
- special attention to the city boundary in terms of public space

IMPLICATIONS

- an integrated open space network supports social interaction and any successful tourism strategy
- increased air quality and climate
- due to the large scale of the transformation a strategic city-wide approach is necessary

FEASIBILITY

- water consumption needs to be investigated
- a city-wide, large-scale green plan needs to be commissioned and backed up politically. A piecemeal approach - study zone by study zone - is not enough.
- legislation of already sold land has to be adapted quickly to the large-scale green plan

TIME HORIZON

- long-term

5. CREATE DECENTRAL SUBCENTRES CONNECTED TO TRANSPORT HUBS

ACTION

- re-evaluate the position of the sub-centres with special attention to proximity, density and transport
- create policies that allow higher densities at centres
- ensure good accessibility via public transport

IMPLICATIONS

- existing distribution of transport multimodal hubs (e.g. external bus stations), that facilitate the transition from one mode of traffic to the other (e.g. car to bus etc) needs to be re-evaluated with respect to location of centres
- evaluate how emerging centralities (e.g. in the north-west) can be transformed into dense mixed-use centres
- building code needs to allow mixed use and higher densities and building heights in central areas

FEASIBILITY

- transformation of existing built structures into centres is expected to be difficult in certain cases due to existing low-rise buildings and ownership structure. Further study as well as quick action is necessary

TIME HORIZON

- mid-term

6. INTEGRATE ROAD INFRASTRUCTURE WITH CITY

ACTION

- investigate feasibility of turning existing motorways into urban boulevards with integrated, rapid and efficient public transport or urban highways
- investigate feasibility of urban boulevards and urban highways for future roads
- evaluate extension of public transport network

IMPLICATIONS

- extension of road infrastructure is not the only answer to congestion ('roads generate traffic')
- any extension of the current road network has to go hand in hand with the urban development and phasing to avoid sprawl or illegal settlement along roads
- an improved public transport system is as important as investments into physical infrastructure and fundamental for Aleppo's sustainability
- motorways separate city quarters, cause long distances and disrupt the urban fabric
- boulevards maintain density and proximity and open the possibility for a BRT public transport system
- urban highways like in the case of Barcelona (see Report), allow urban character as well as good traffic flows
- introduce new types of public transport that liberate neighbourhoods from car-dependency (e.g. microbuses and microbuses on demand)

FEASIBILITY

- existing road profiles in Aleppo are in general wide enough to accommodate an extended bus system with dedicated lanes
- study of transport volumes capacities, population densities and resulting road types (Where to put a boulevard? Where to put an urban highway?) is necessary
- based on this a prototypical situation should be tested

TIME HORIZON

- mid-term

7. FLEXIBLE AND DIVERSITY IN PLANNED NEIGHBOURHOODS

ACTION

- introduce diverse and flexible context-specific development processes for cooperative housing developments

IMPLICATIONS

- the rigid planning process has to be opened up (competitions, participation of private, university and publicly employed planners and stakeholders)
- implementation of a multistage design process (masterplan, urban design, architecture)
- the building code should be re-evaluated to allow a higher variety in building typologies and programmes

FEASIBILITY

- change of political processes and building law should be done carefully, requires time and will, and is not expected to happen soon.
- nonetheless, prototypical areas with special designation should be set up to test new processes, building and transport types for feasibility. We hope that exceptions to the building code are possible in unique cases. This requires further investigation.
- test of exemplary developments in a suitable area

TIME HORIZON

- mid-term

8. CREATE MICROCENTRES IN INFORMAL SETTLEMENTS

ACTION

- create neighbourhood centres for community and educational purposes in informal settlement
- offer quality public space in informal settlement areas

IMPLICATIONS

- scarce amount of space commands innovative approaches like the example of Caracas shows, where a gymnasium was organized vertically instead of horizontally (see Final Report)
- if no suitable areas are available, some buildings need to be evicted to make room for the new centres and public spaces
- added social coherence, community-building, educative and health benefits - local identity is strengthened

FEASIBILITY

- test cases can be set up relatively fast and with relatively low cost
- if necessary, expropriation tools are in place

TIME HORIZON

- mid-term

RECOMMENDATIONS FOR MASTERPLAN REVISION

1:115.00

LIMITS

- Municipal boundary
- Masterplan boundary

PHASING & SPACE RESERVATION

- Yellow: Existing city
- Light Yellow: Phase I
- Lightest Yellow: Phase II
- Green Hatching: Space reservation
- Yellow Arrows: Priority directions for future expansion

INTEGRATED URBAN MOBILITY

- Grey Line: Proposed urban boulevards with integrated Bus Rapid Transit

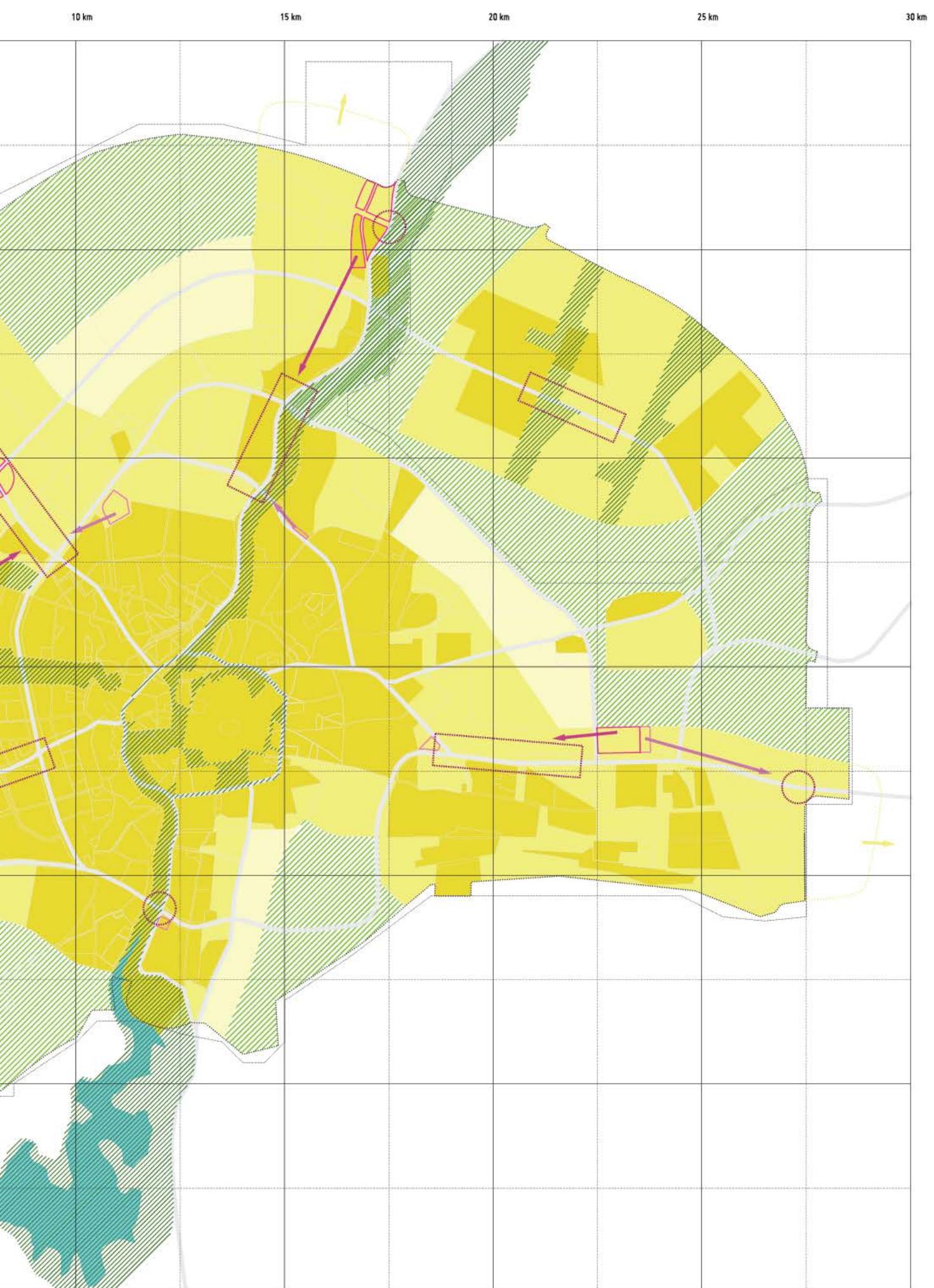
ACCESSIBLE CENTRES

- External bus stations Masterplan 2010
- Subcentres Masterplan 2010
- Dotted Box: Proposed zones for new subcentres
- Pink Circle: Strategic locations for future subcentres

MULTIFUNCTIONAL OPEN SPACES

- Green Hatching: Multifunctional green character zones
- Blue Line: River Quwaik





APPENDIX

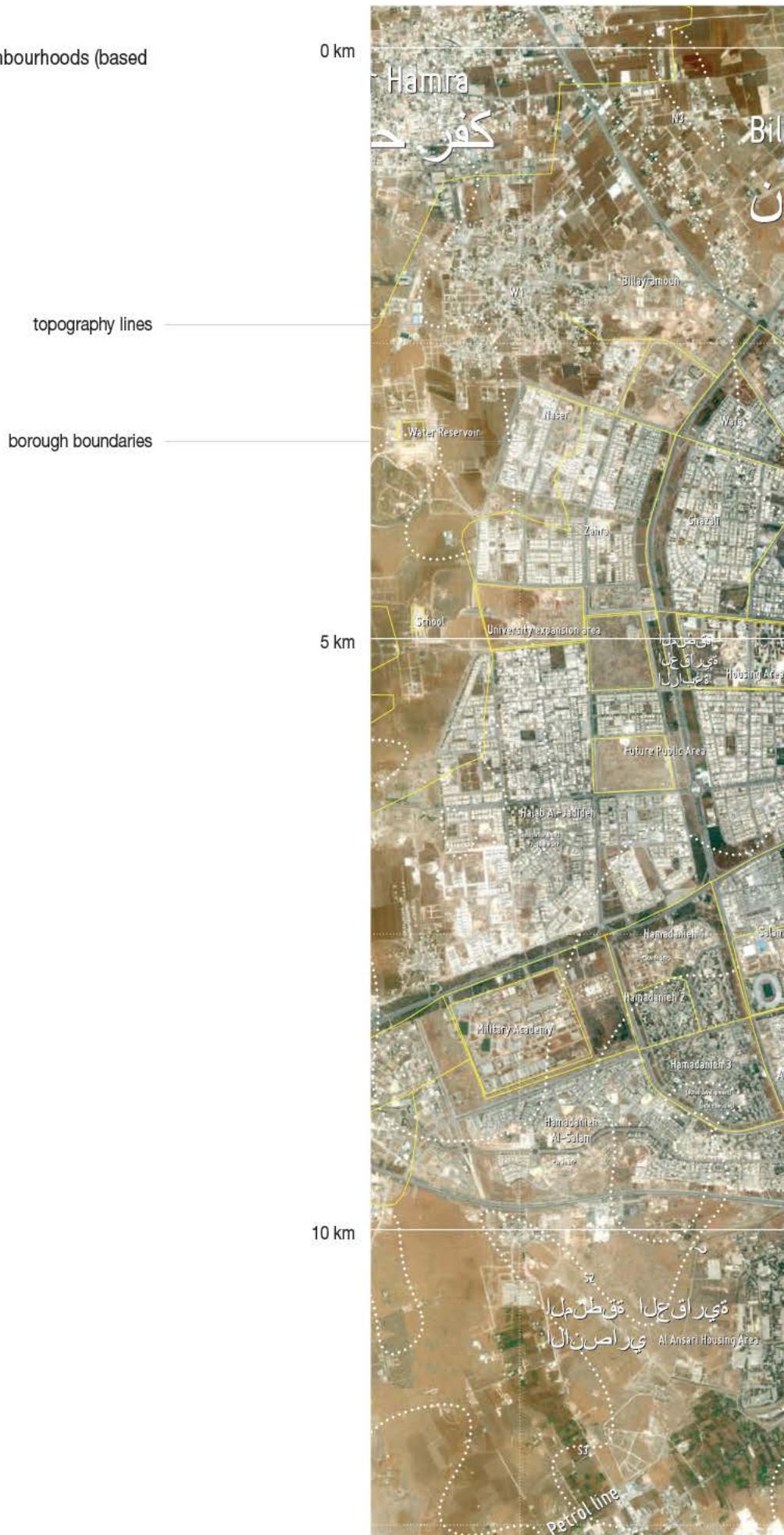
Maps, Bibliography, Credits

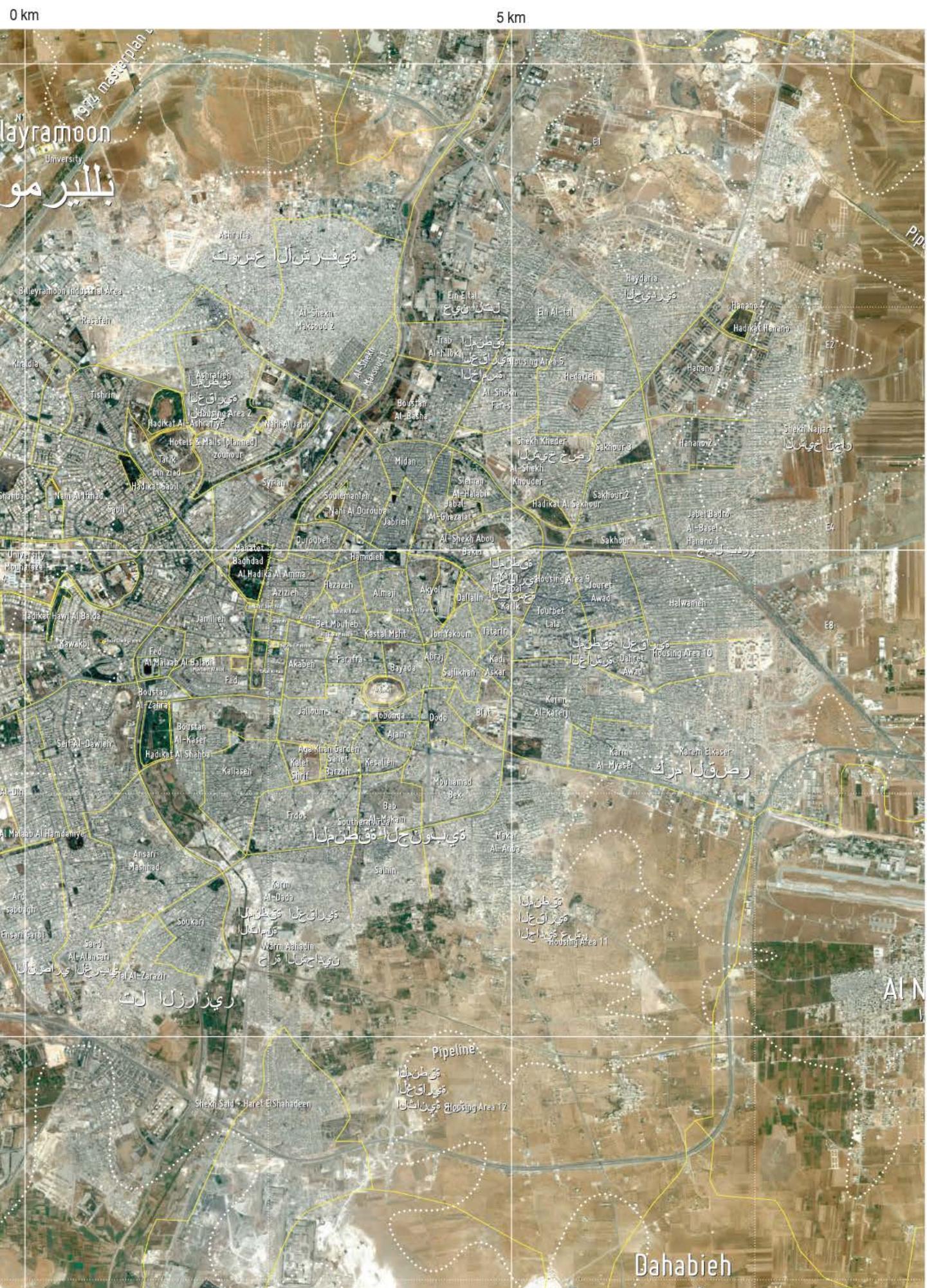
3.1. The City Today, Layer by Layer

- 3.1.1 Names & Places
- 3.1.2 Existing City
- 3.1.3 Topography
- 3.1.4 Built space
- 3.1.5 Green spaces
- 3.1.6 Informal settlements

3.1.1 NAMES & PLACES

Aerial plan of the existing city with its neighbourhoods (based on Google Earth, 2009), 1:50.000





3.1.2 EXISTING CITY

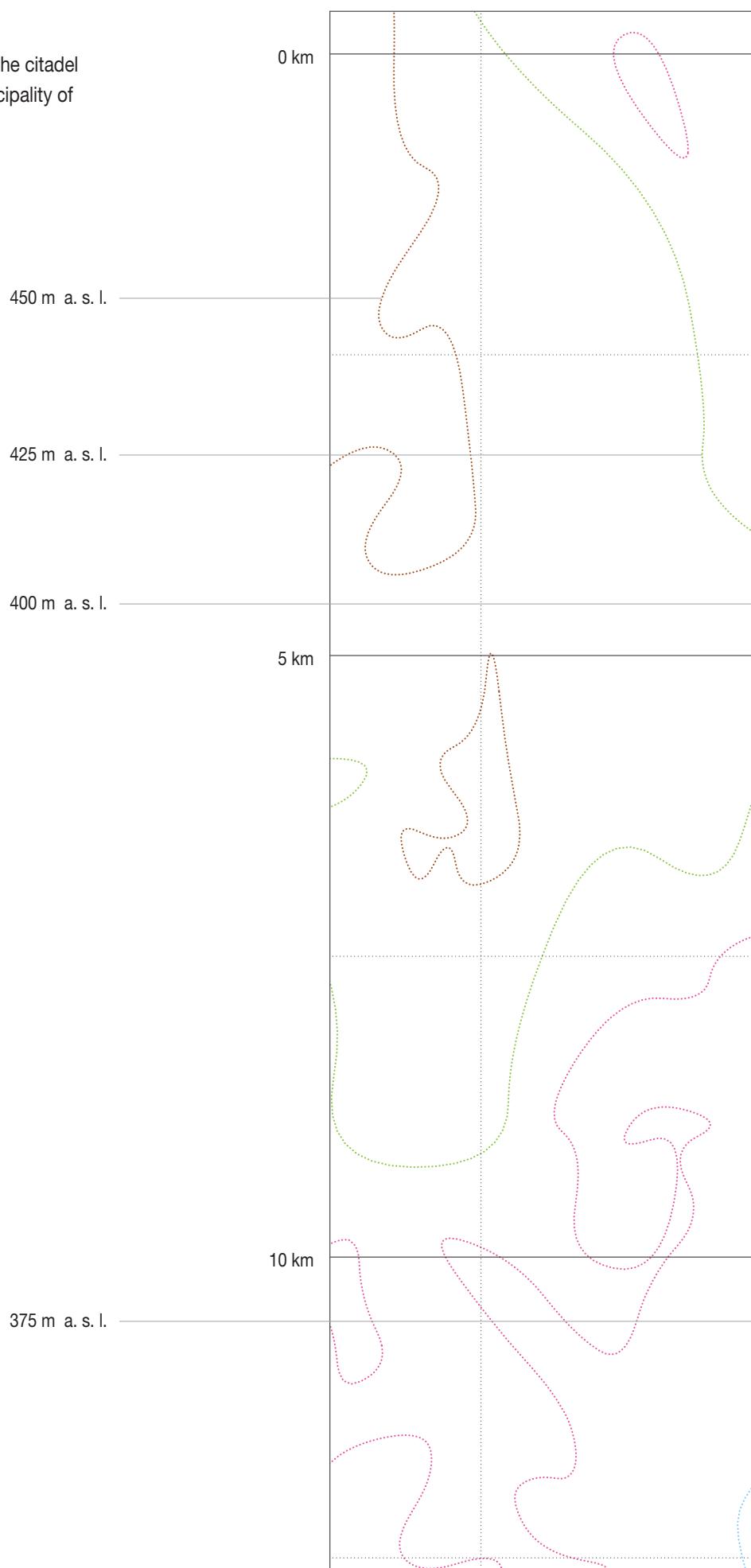
Built space, green areas, topography and informal settlements
(derived from GIS Model, Municipality of Aleppo, 2009),
1:50.000





3.1.3 TOPOGRAPHY

Topography of the Aleppo basin. The mound of the citadel is clearly visible. (derived from GIS Model, Municipality of Aleppo, 2009), 1:50.000





3.1.4 BUILT SPACE

The buildings of the existing city with its neighbourhoods.

(derived from GIS Model, Municipality of Aleppo, 2009),

1:50.000

0 km

Informal Settlement, up to 7 levels in the south,
down to one level in the north (Sheikh Maqsoud)

Modernist Housing Slabs (Hanano)

5-7 Level Blocks (Western Expansion Areas)

3-5 Level City Blocks (Shabah, Mokambo)

5 km

Medieval City Structure (Al M'dine)

Greek City Structure (Souq, Al M'dine)

6 Level Modernist Garden City (Hamdaniye)

Densified Village Structure

10 km



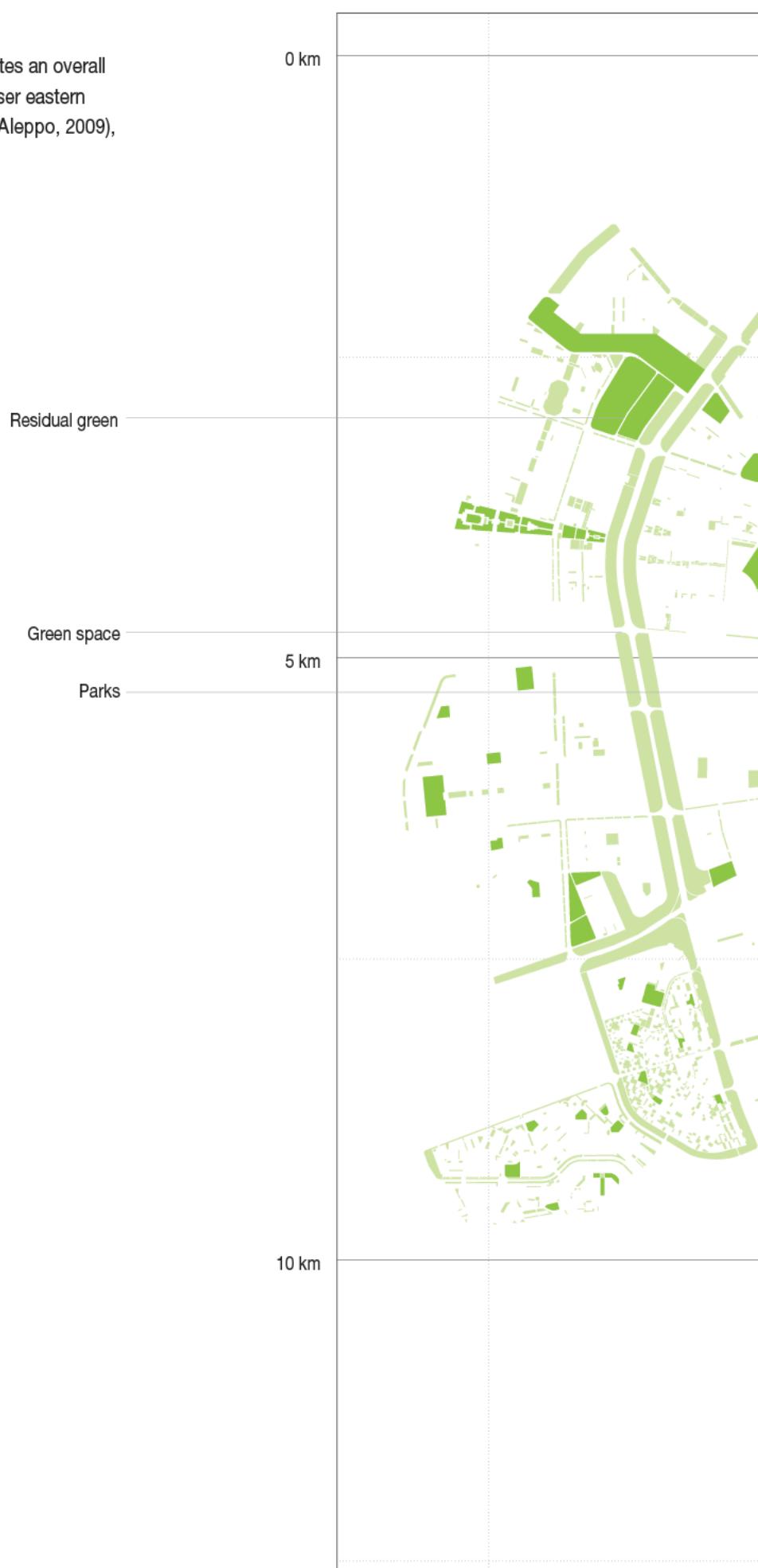
0 km

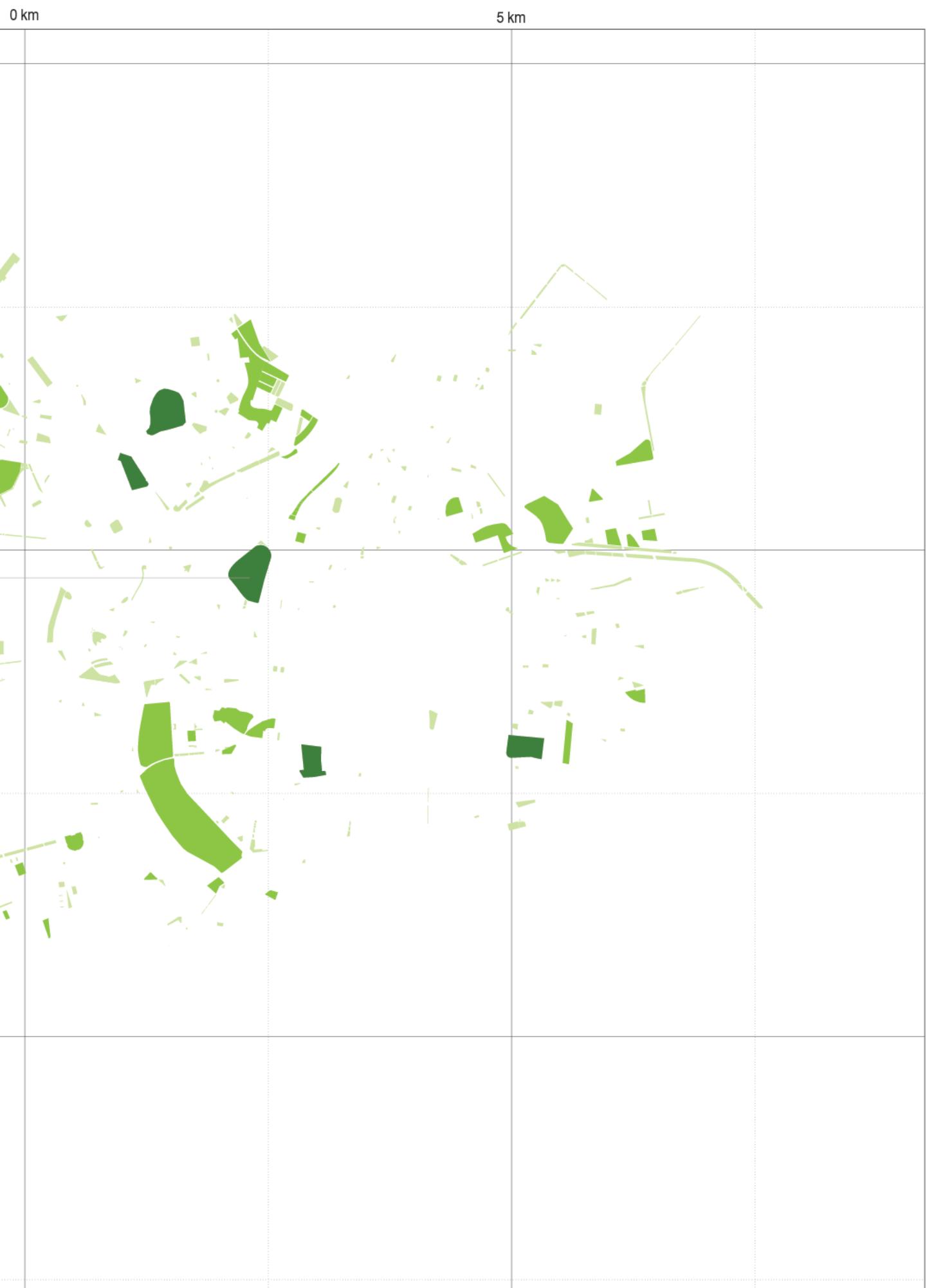
5 km



3.1.5 GREEN SPACES

The distribution of parks and green areas indicates an overall lack of recreational space, especially in the denser eastern areas. (derived from GIS Model, Municipality of Aleppo, 2009),
1 :50.000

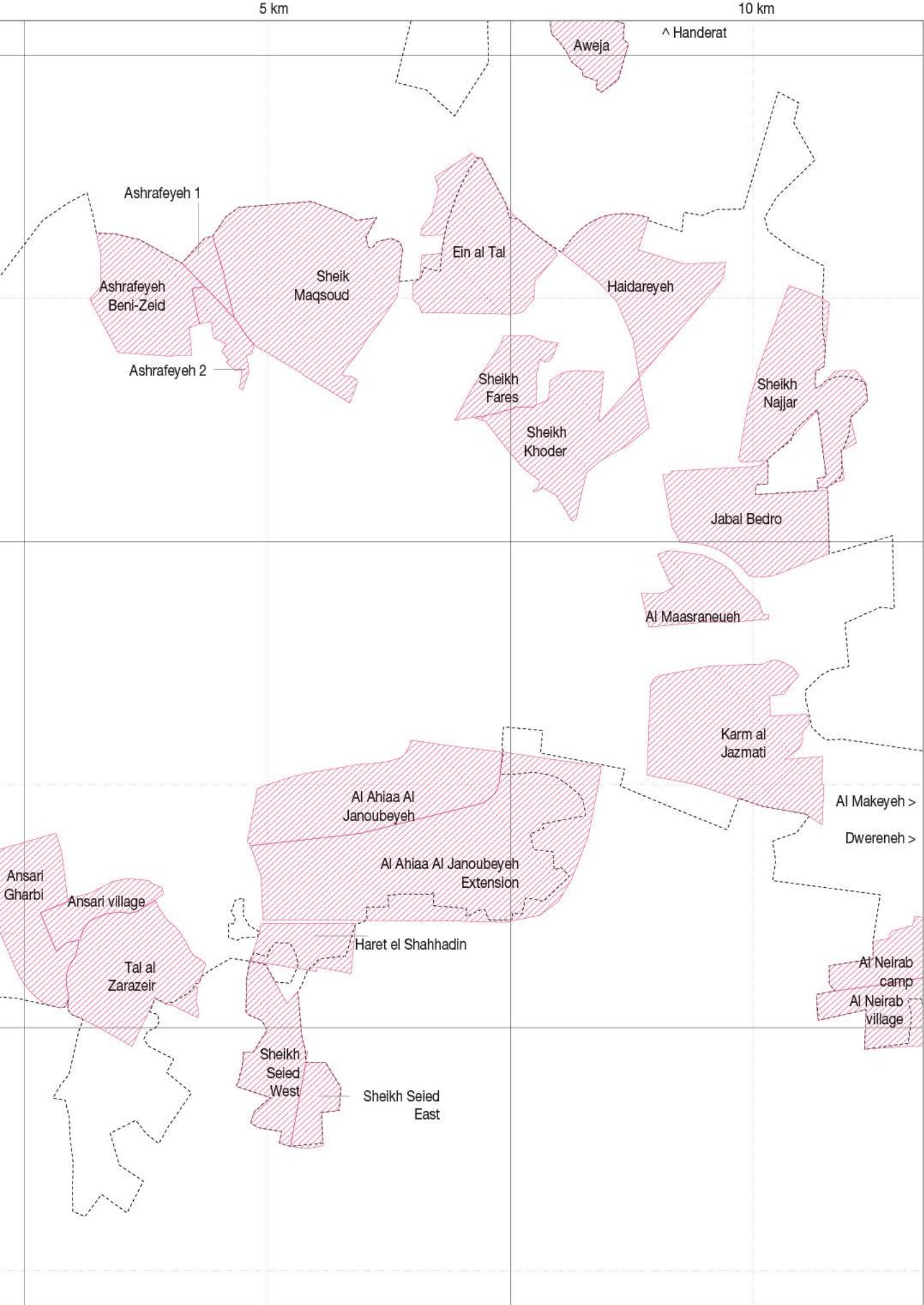




3.1.6 INFORMAL SETTLEMENTS

Map of the informal settlements within the municipal boundaries of Aleppo. The Informal settlements with varying degree of legal status and building quality make for roughly 40% of the city surface, while 50% of the population live in these areas (derived from GIS Model, Municipality of Aleppo, 2009), 1 :50.000





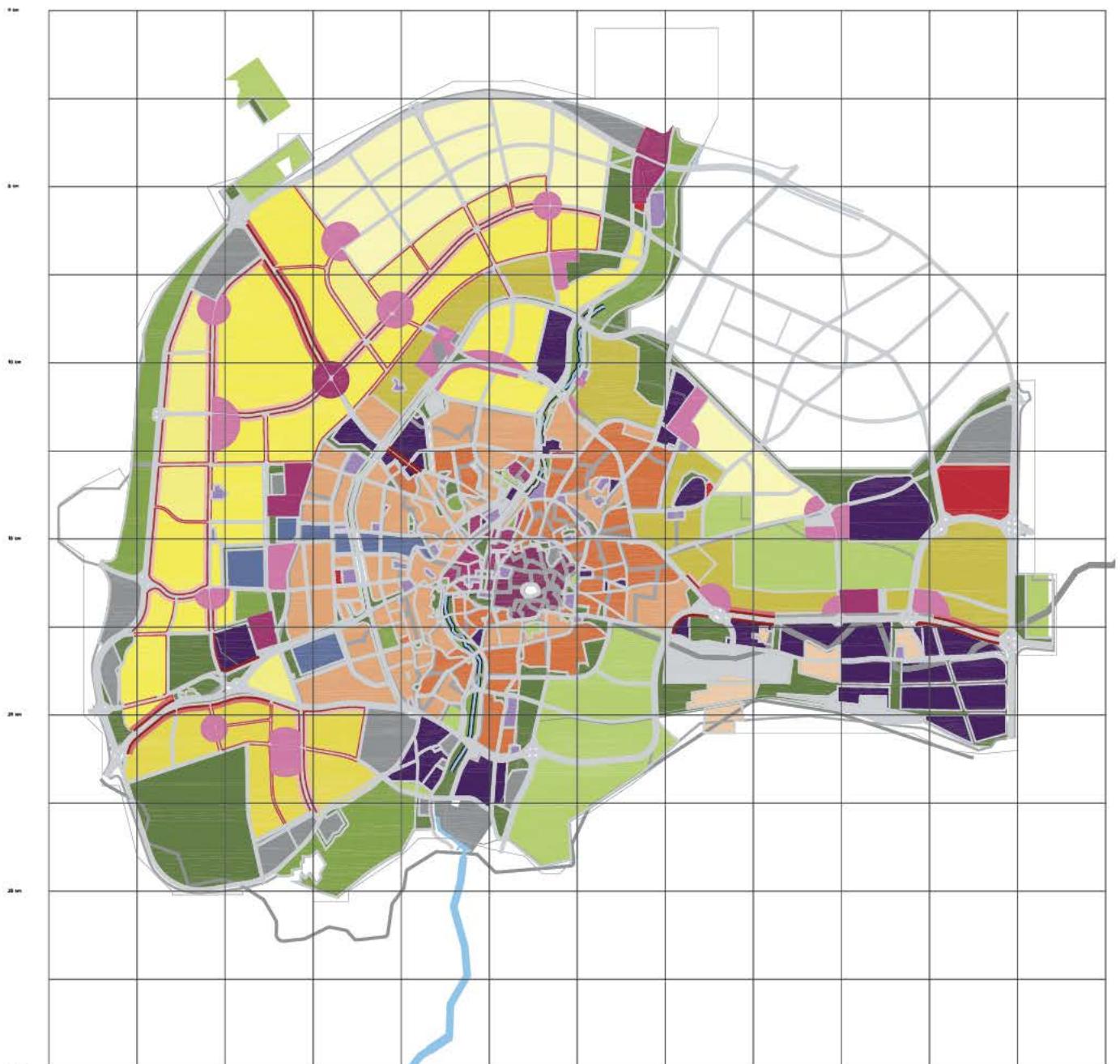
3.2. The 2010 Masterplan, Layer by Layer

- 3.2.1 Masterplan 2004 for Comparison
- 3.2.2 Masterplan 2010
- 3.2.3 Administrative Boundaries
- 3.2.4 District Boundaries
- 3.2.5 Sub- and District Centres
- 3.2.6 Existing Housing Types
- 3.2.7 New Housing Densities
- 3.2.8 Public Services
- 3.2.9 University And Science
- 3.2.10 Industry, Storage And Trade
- 3.2.11 Infrastructure
- 3.2.12 Roads
- 3.2.13 Commercial Roads
- 3.2.14 External Bus Stations
- 3.2.15 Rail and Airport
- 3.2.16 Pipelines And Channels
- 3.2.17 Green Areas
- 3.2.18 Tourism Areas
- 3.2.19 Forests
- 3.2.20 Cemeteries
- 3.2.21 Vineyards and Orchards



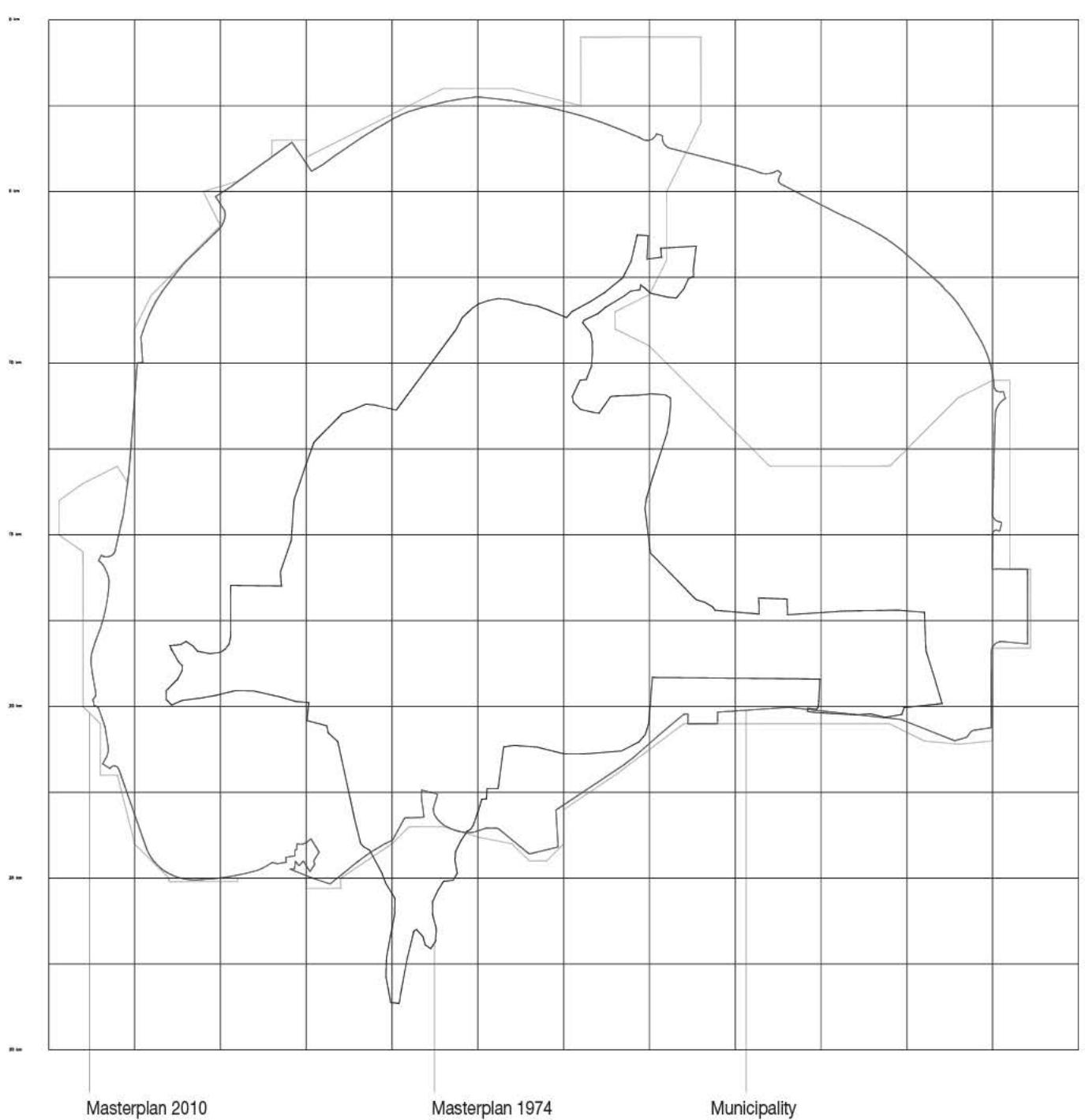
3.2.1 MASTERPLAN 2004 FOR COMPARISON, 1:230.000

The earlier 2004 Masterplan shows a more generic distribution of centres and a higher separation of functions (industry, here light blue, and residential, here light yellow).



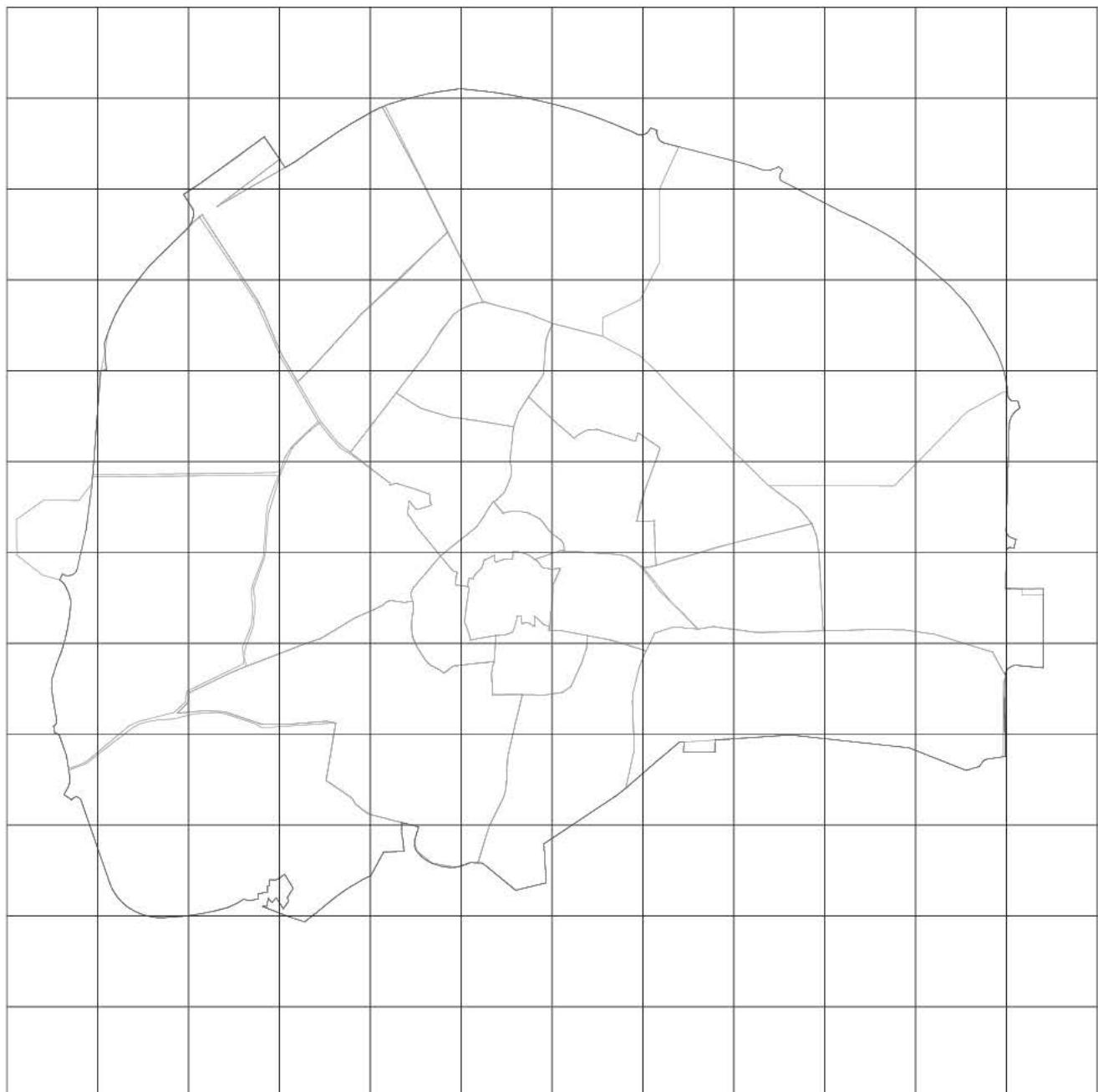
3.2.2 MASTERPLAN 2010, 1:230.000

While the general outline of the Masterplan is unchanged (besides the exclusion of the Sheikh Najjar Industrial City from the drawing), the centres align better with the main infrastructure axis and the zoning is softened.



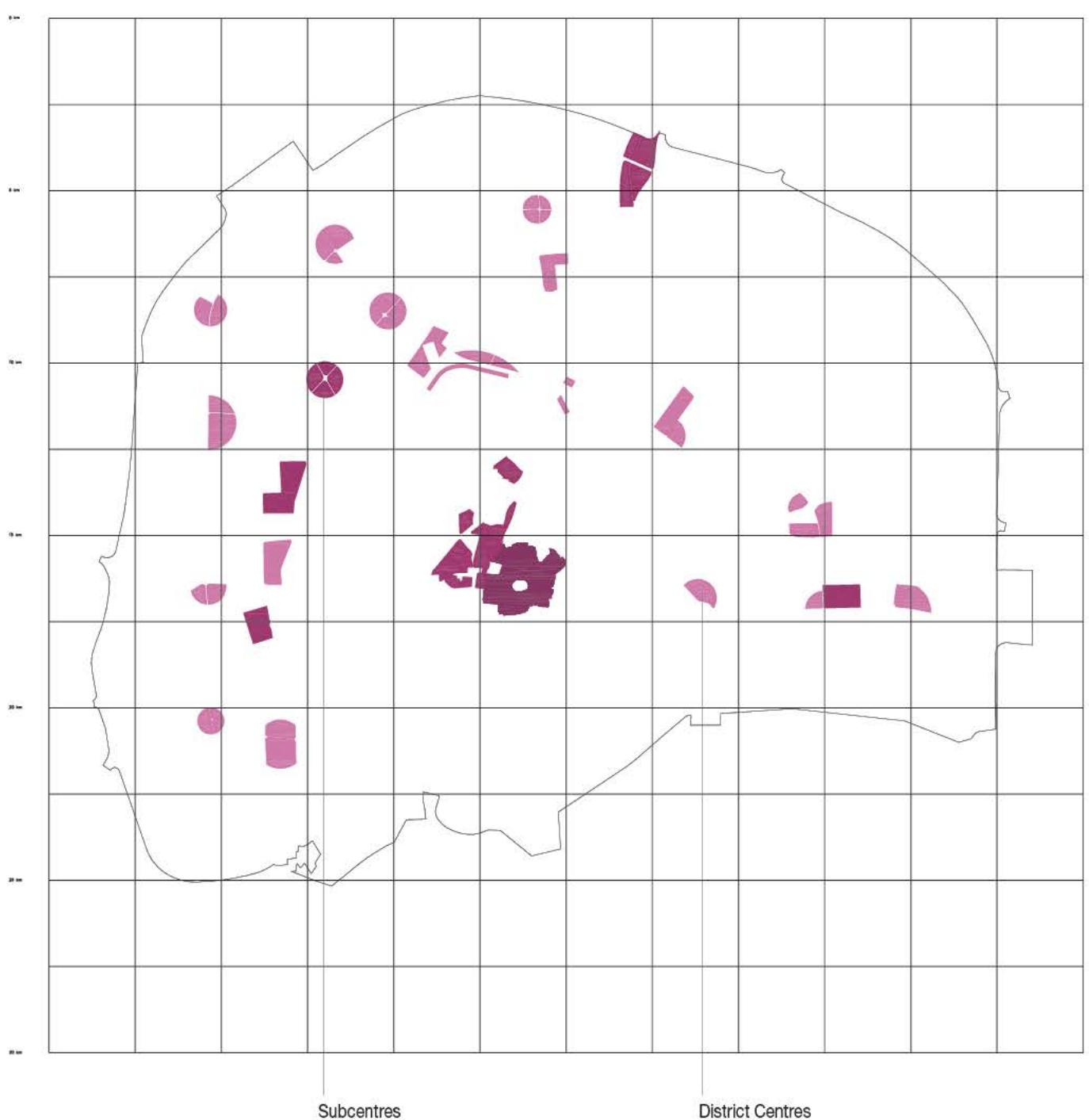
3.2.3 ADMINISTRATIVE BOUNDARIES, 1:230.000

The 2010 plan increases the city surface by a factor of 3.5 versus the 1974 area.



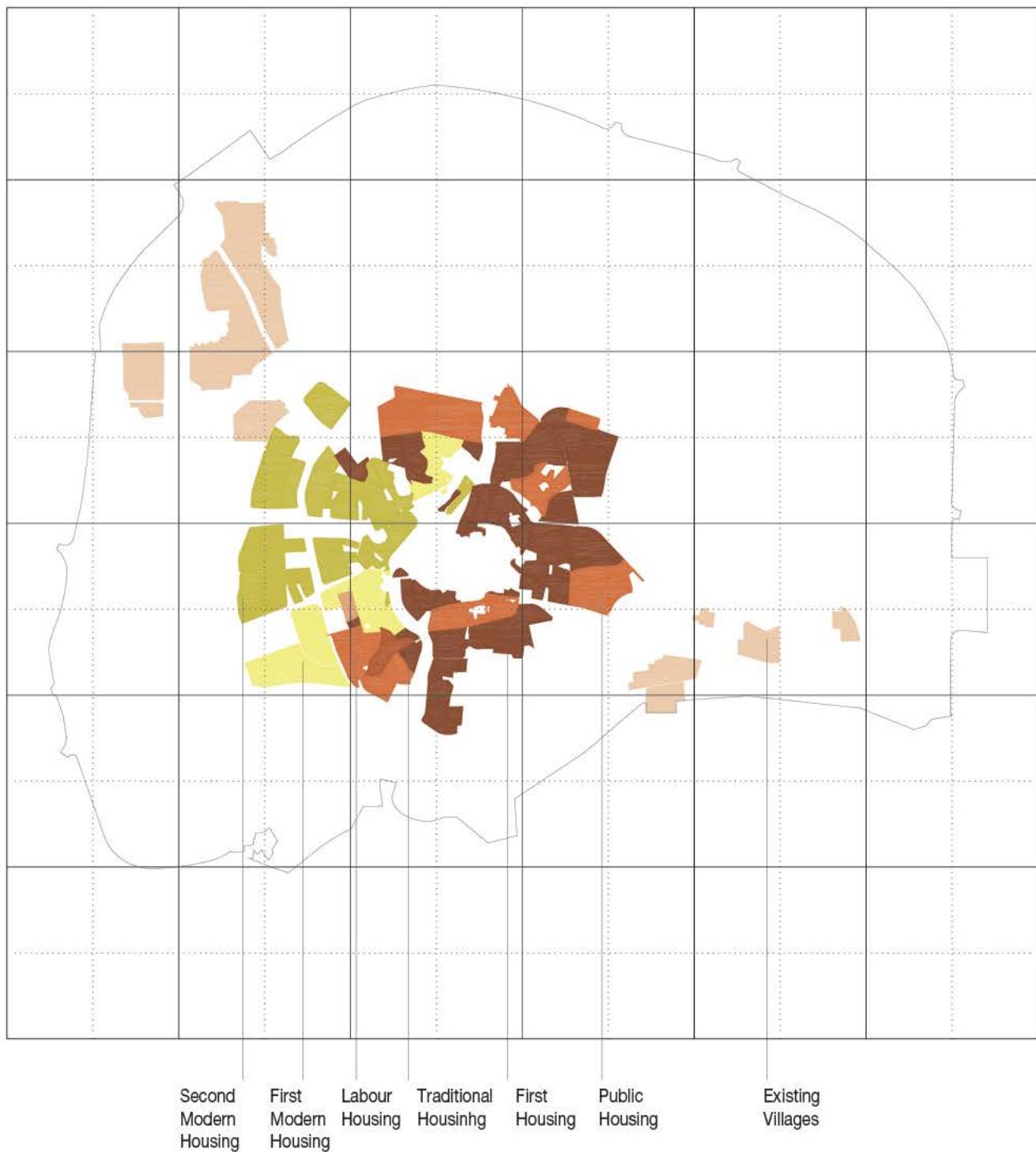
3.2.4 DISTRICT BOUNDARIES, 1:230.000

The district boundaries should not necessarily define the physical limits of the city.



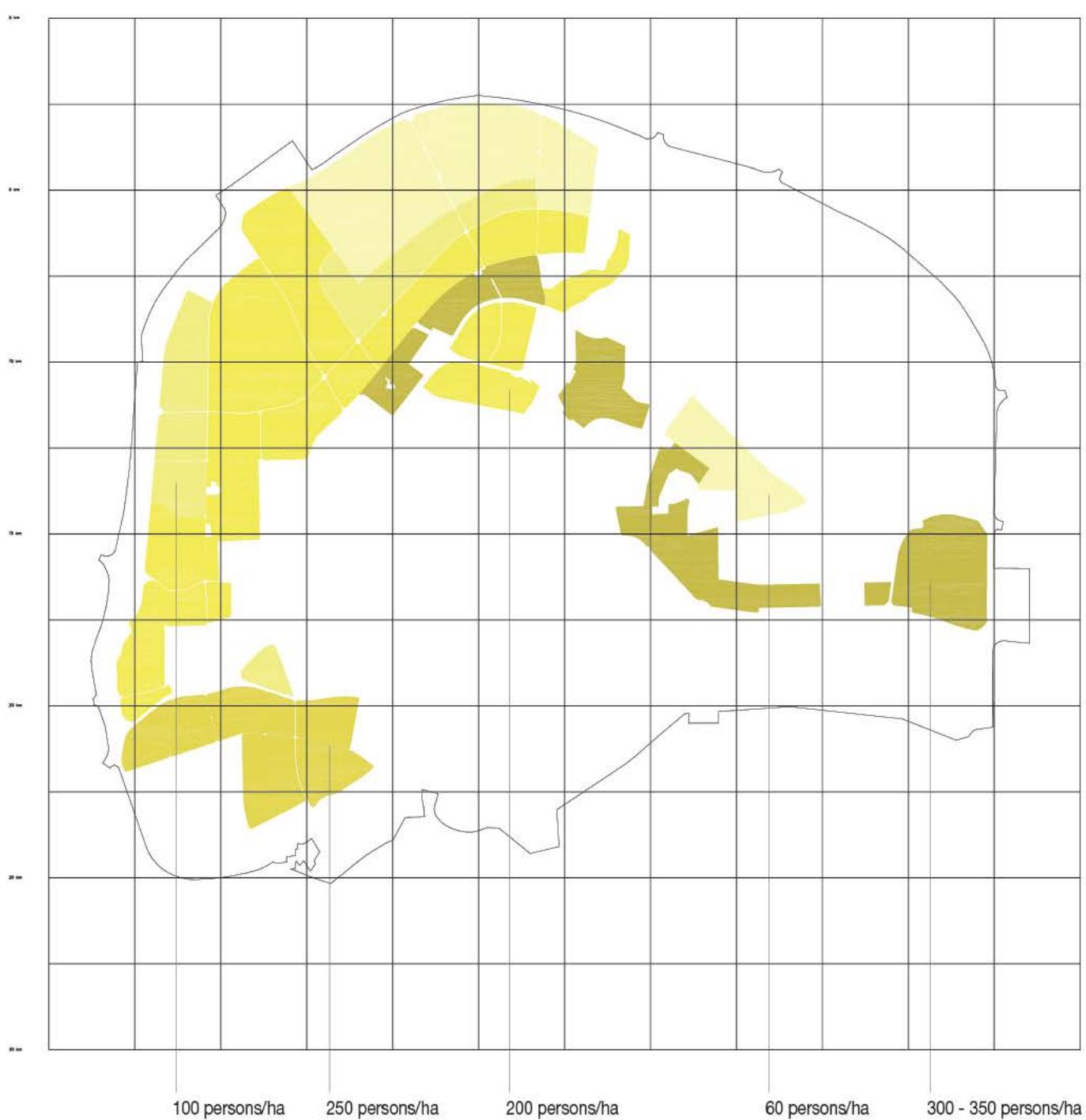
3.2.5 SUB- AND DISTRICT CENTRES, 1:230.000

New centralities are mostly planned in the west of Aleppo along infrastructural arteries.



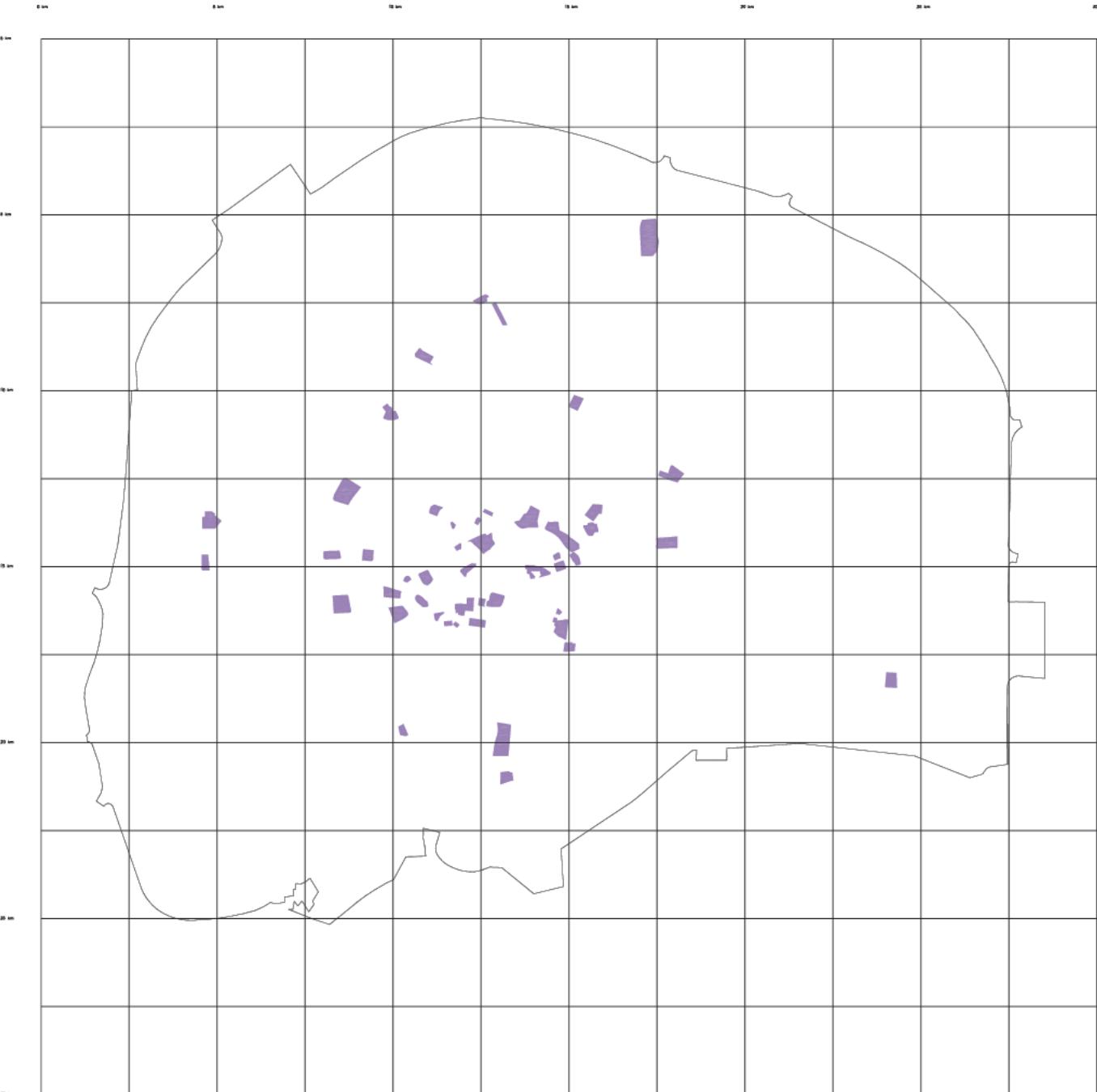
3.2.6 EXISTING HOUSING TYPES, 1:230.000

The existing residential typologies are clustered in relatively homogeneous groups.



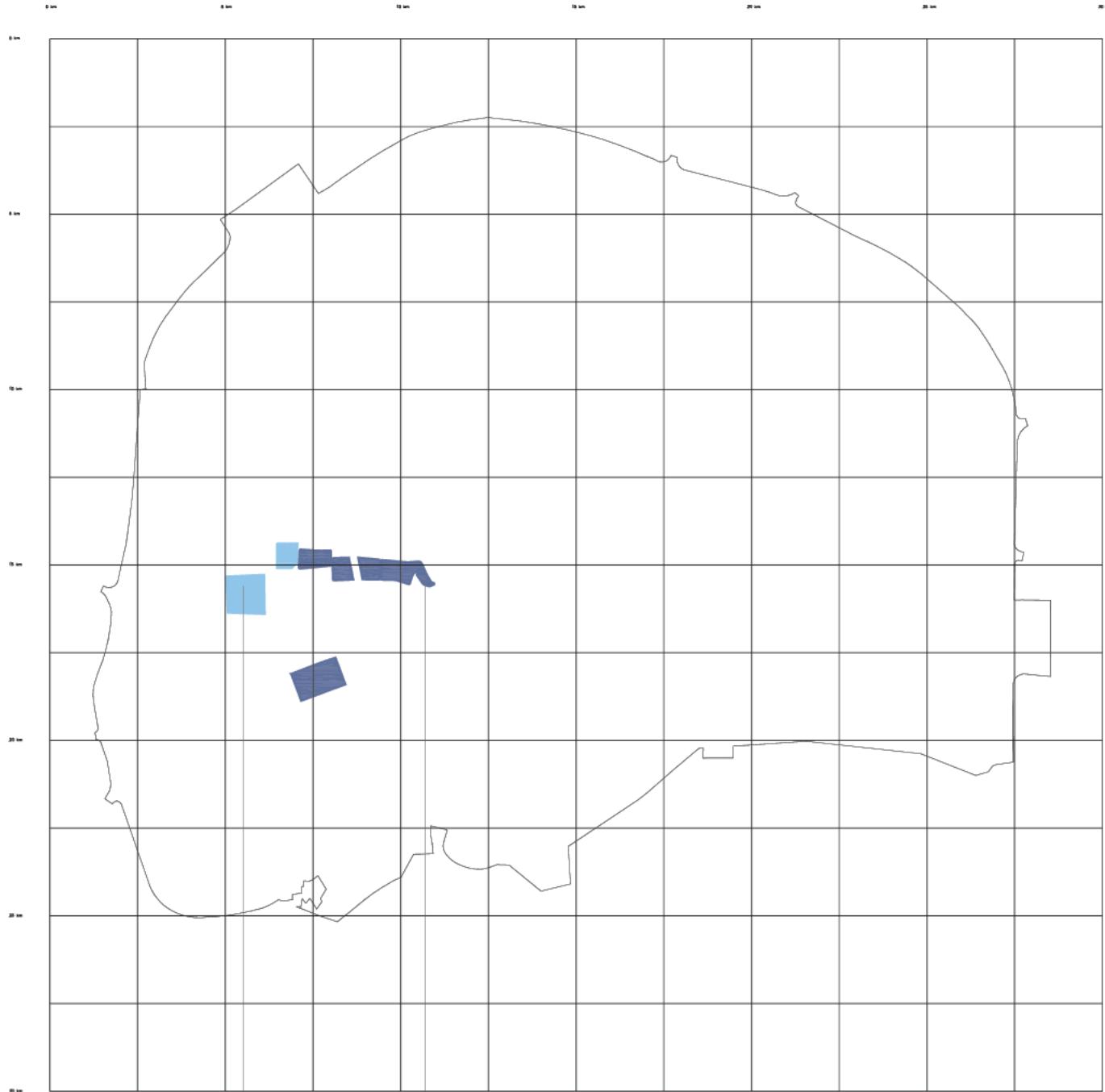
3.2.7 PLANNED RESIDENTIAL AREAS, 1:230.000

The plan shows a belt of lower density areas in the West and North West and a band of higher densities extending eastwards. The majority of new residential areas lies in the West.



3.2.8 PUBLIC SERVICES, 1:230.000

While some public functions are going to be dislocated from the centre, public services still mainly concentrate around the existing city core.



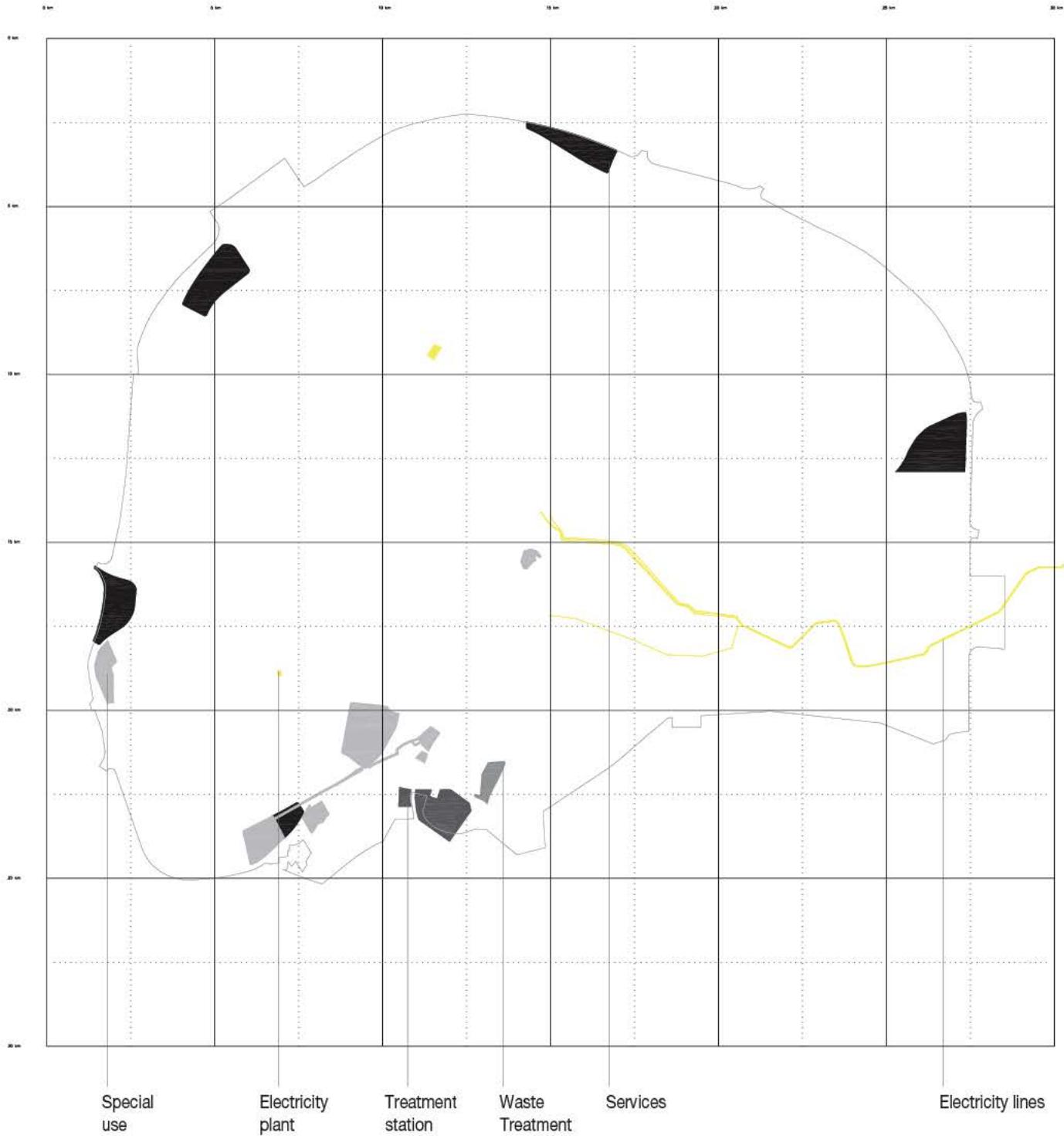
3.2.9 UNIVERSITY AND SCIENCE, 1:230.000

The University Campus is going to be extended westwards.



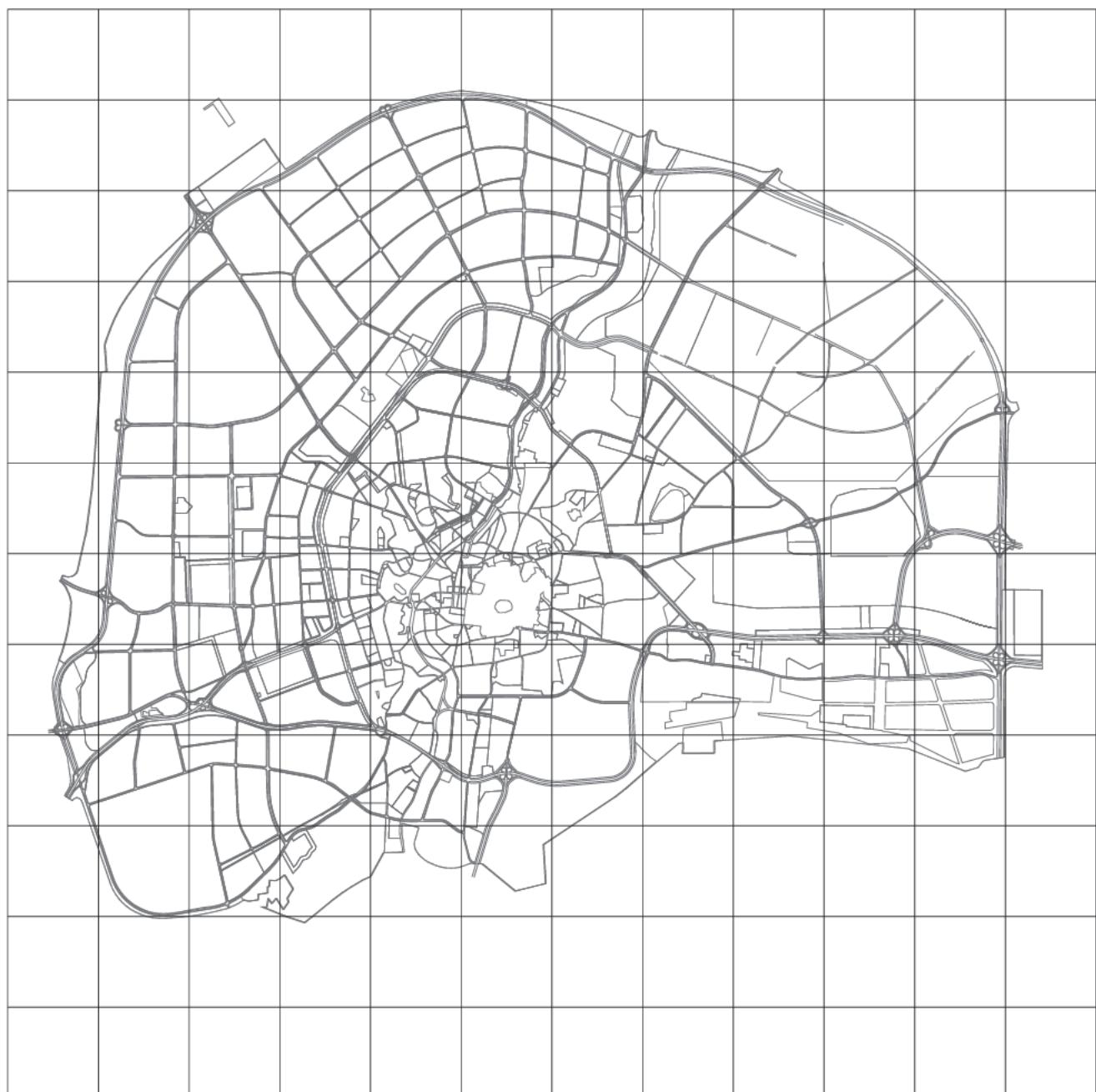
3.2.10 INDUSTRY, STORAGE AND TRADE, 1:230,000

New large industrial areas are planned in the North-East and East in proximity to the airport.



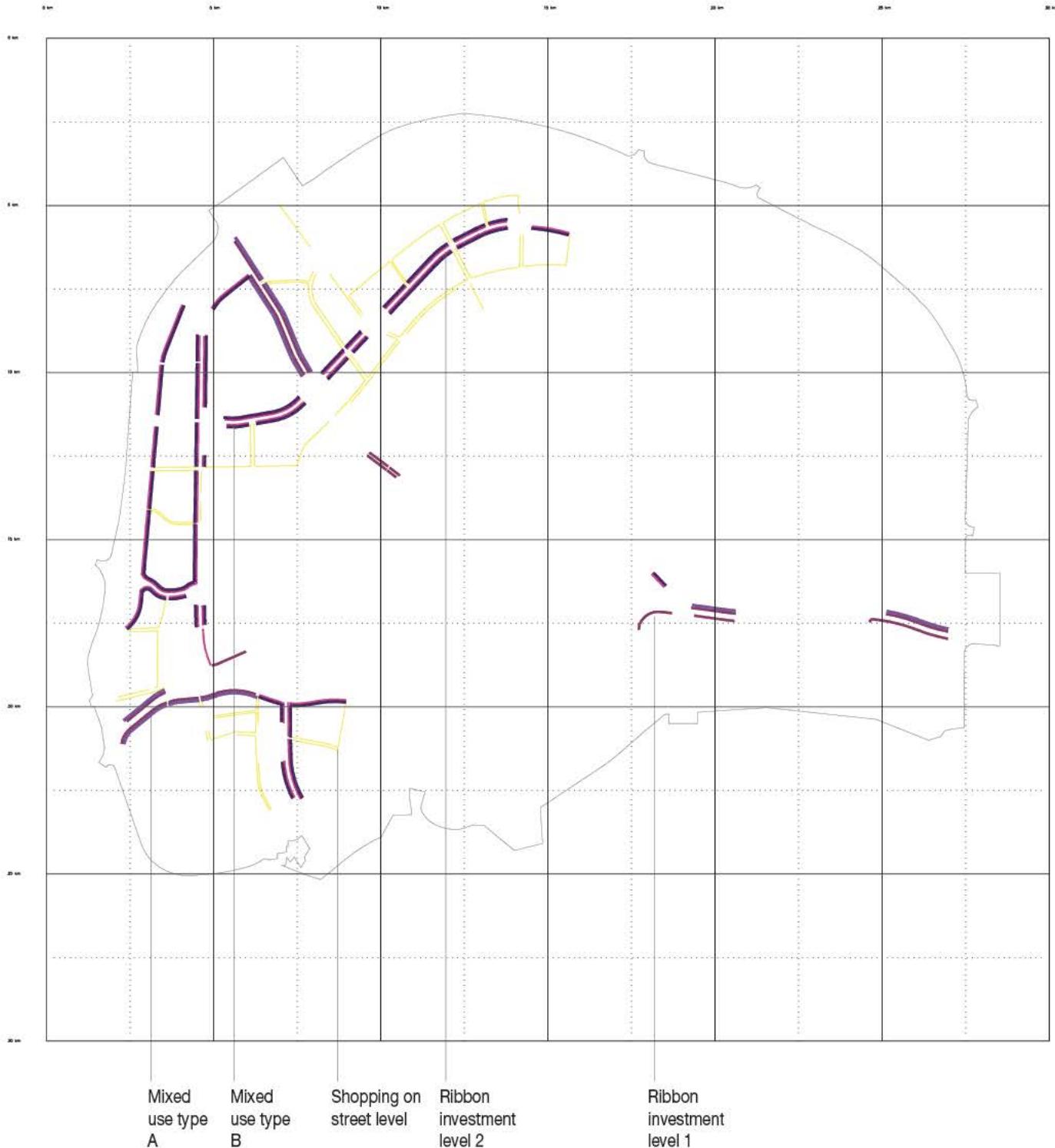
3.2.11 INFRASTRUCTURE, 1:230.000

Waste and Energy facilities are organised along the projected 2025 edge of the city.



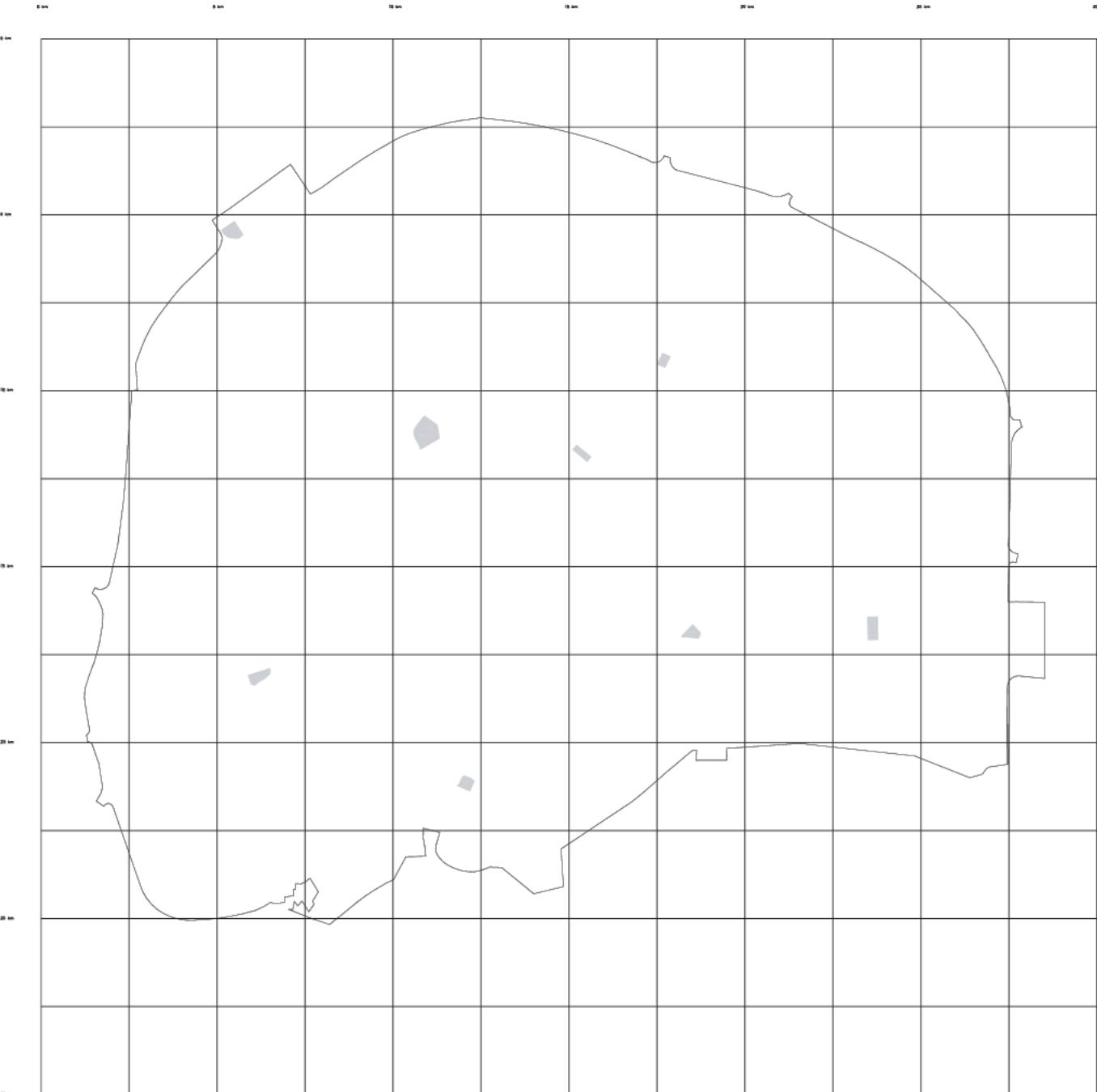
3.2.12 ROADS, 1:230.000

A forth and fifth ring road is planned. The new urbanised areas are organised by a raster of main roads.



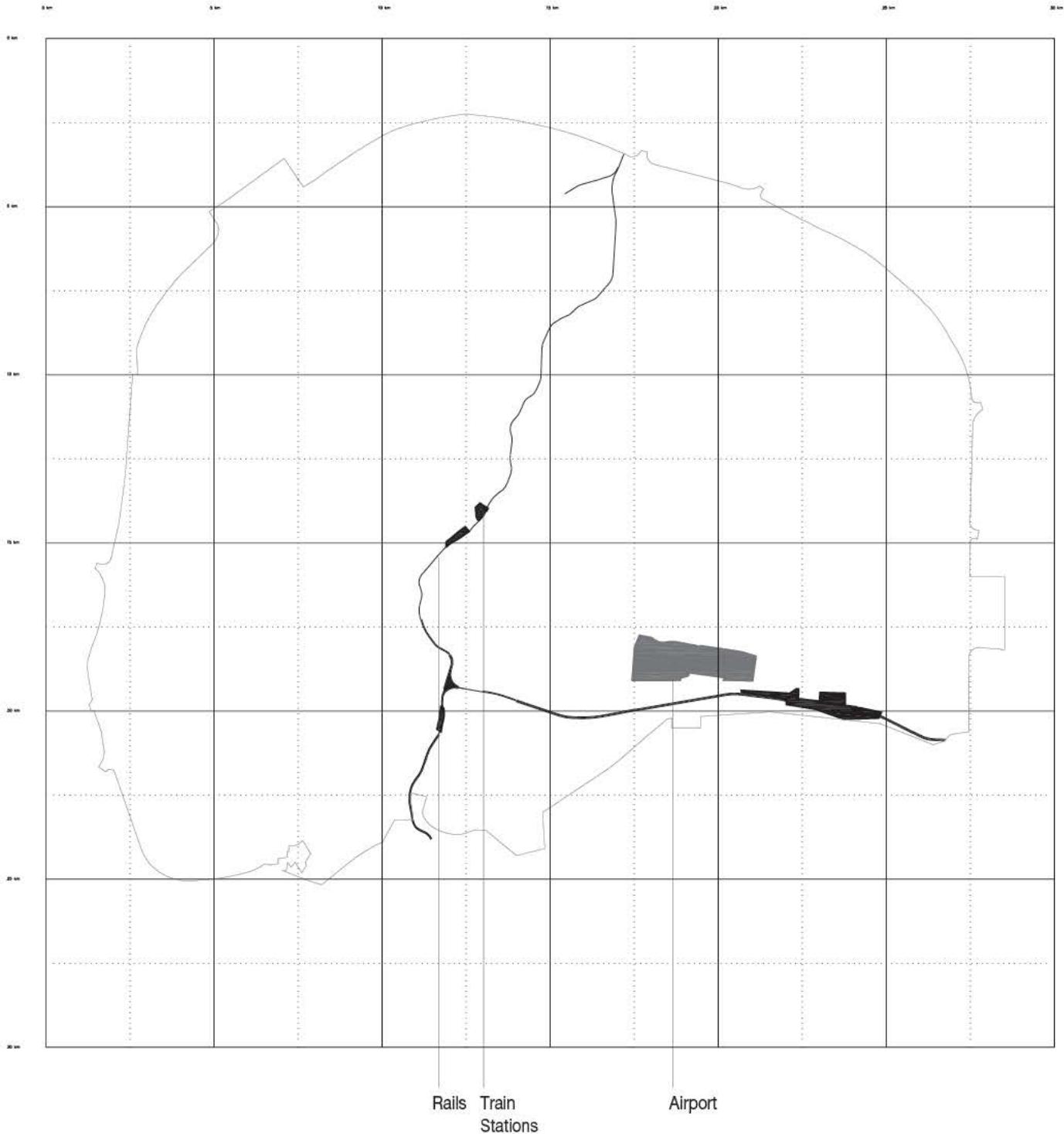
3.2.13 COMMERCIAL ROADS, 1:230.000

Shopping streets are clearly concentrated in the West and North-West, mostly along main concentric roads.



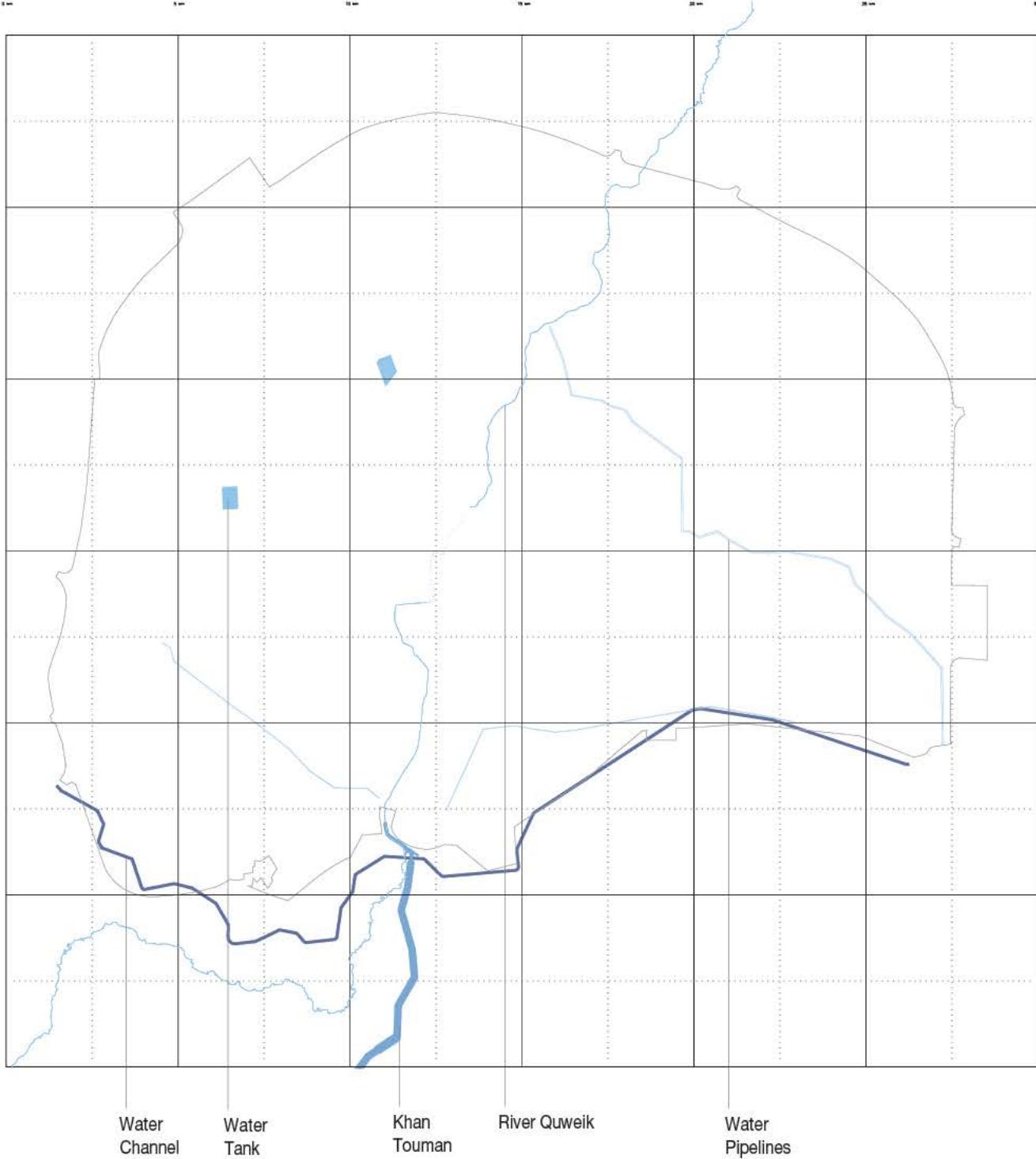
3.2.14 EXTERNAL BUS STATIONS, 1:230.000

The planned bus station for national trips are distributed evenly around the city core.



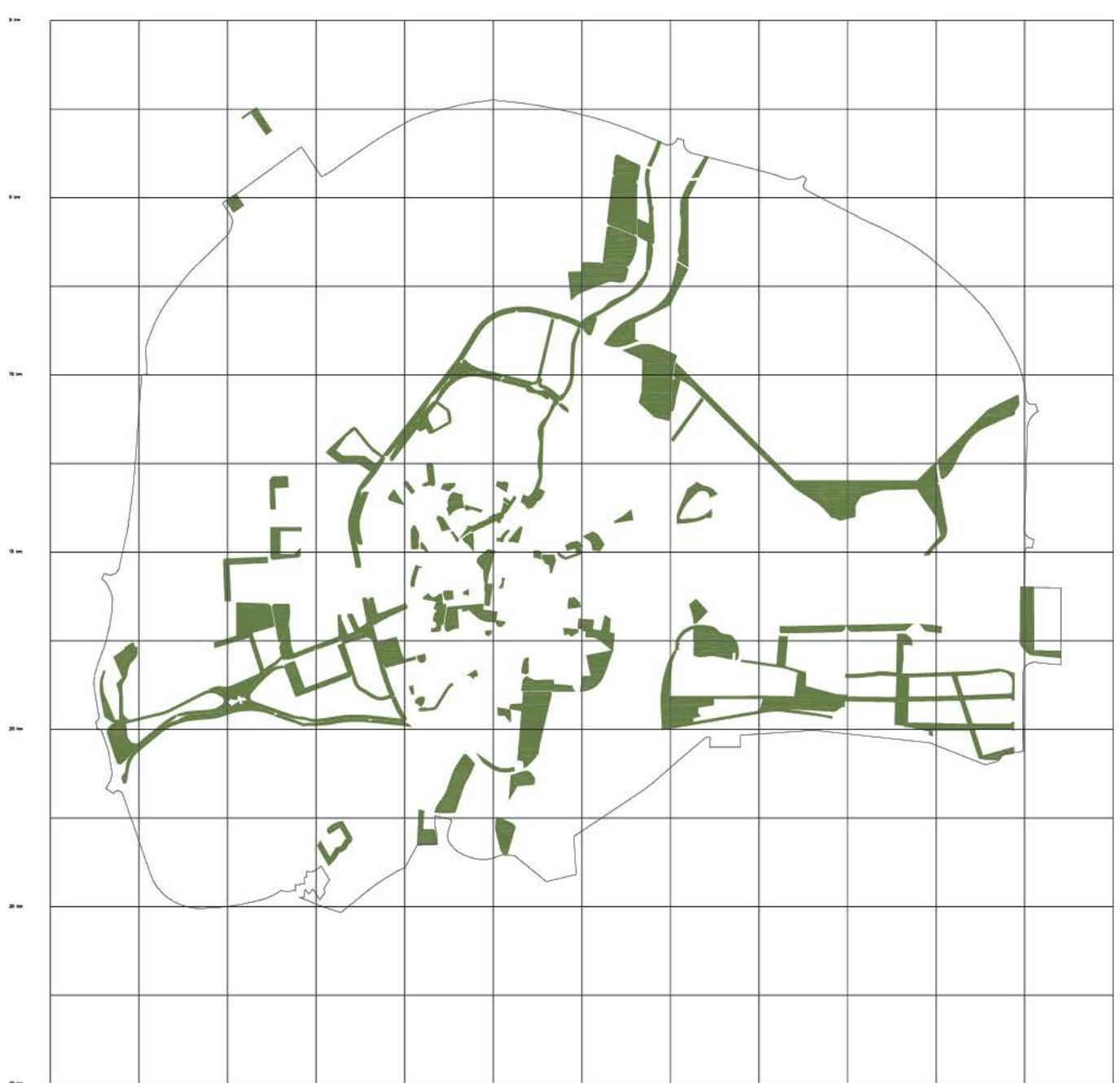
3.2.15 RAIL AND AIRPORT, 1:230.000

The T-shaped rail line follows the river basin from North to South and links to the industrial zone in the East.



3.2.16 WATER, PIPELINES AND CHANNELS, 1:230.000

River Quweik is fed by water pipelines carrying the water from the Euphrates in the East. Much of the water is used for irrigation of agricultural land in the South after it flowed through the city.



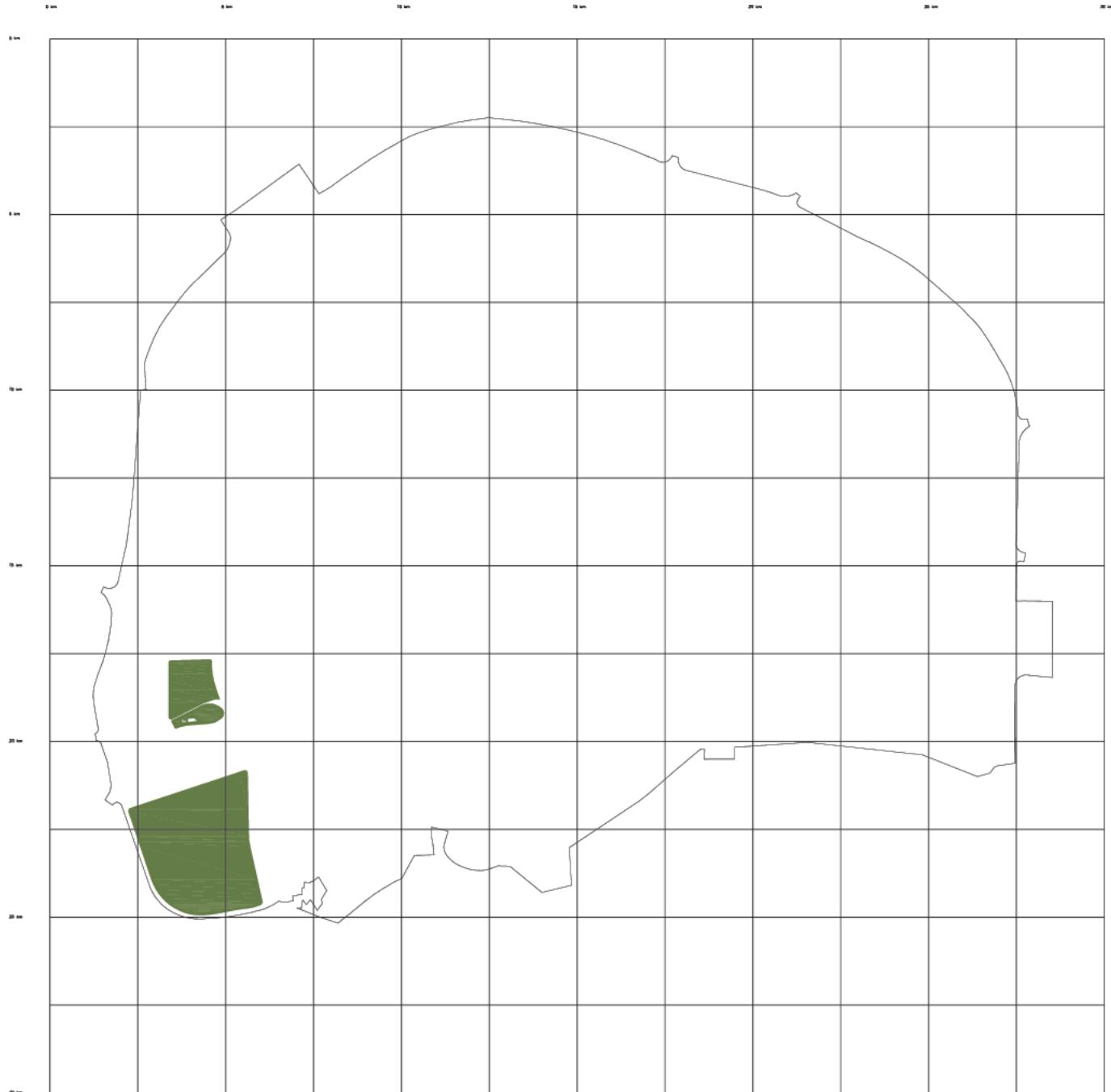
3.2.17 GREEN AREAS, 1:230.000

Much of the green areas are planted strips along the main traffic arteries.



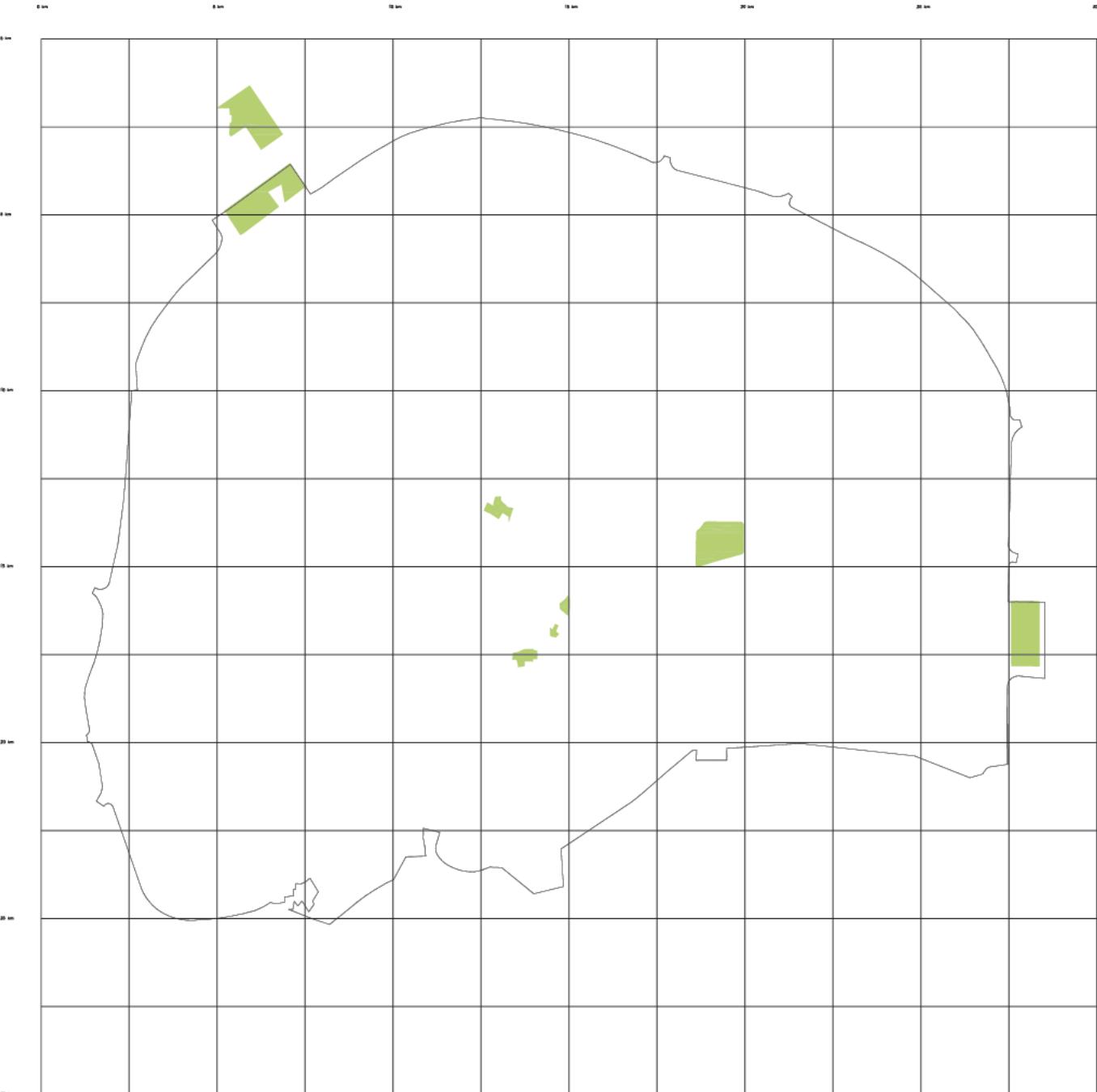
3.2.18 TOURISM AREAS, 1:230.000

These attractive green in the West and along the river bed show potential to be linked to integral green backbones.



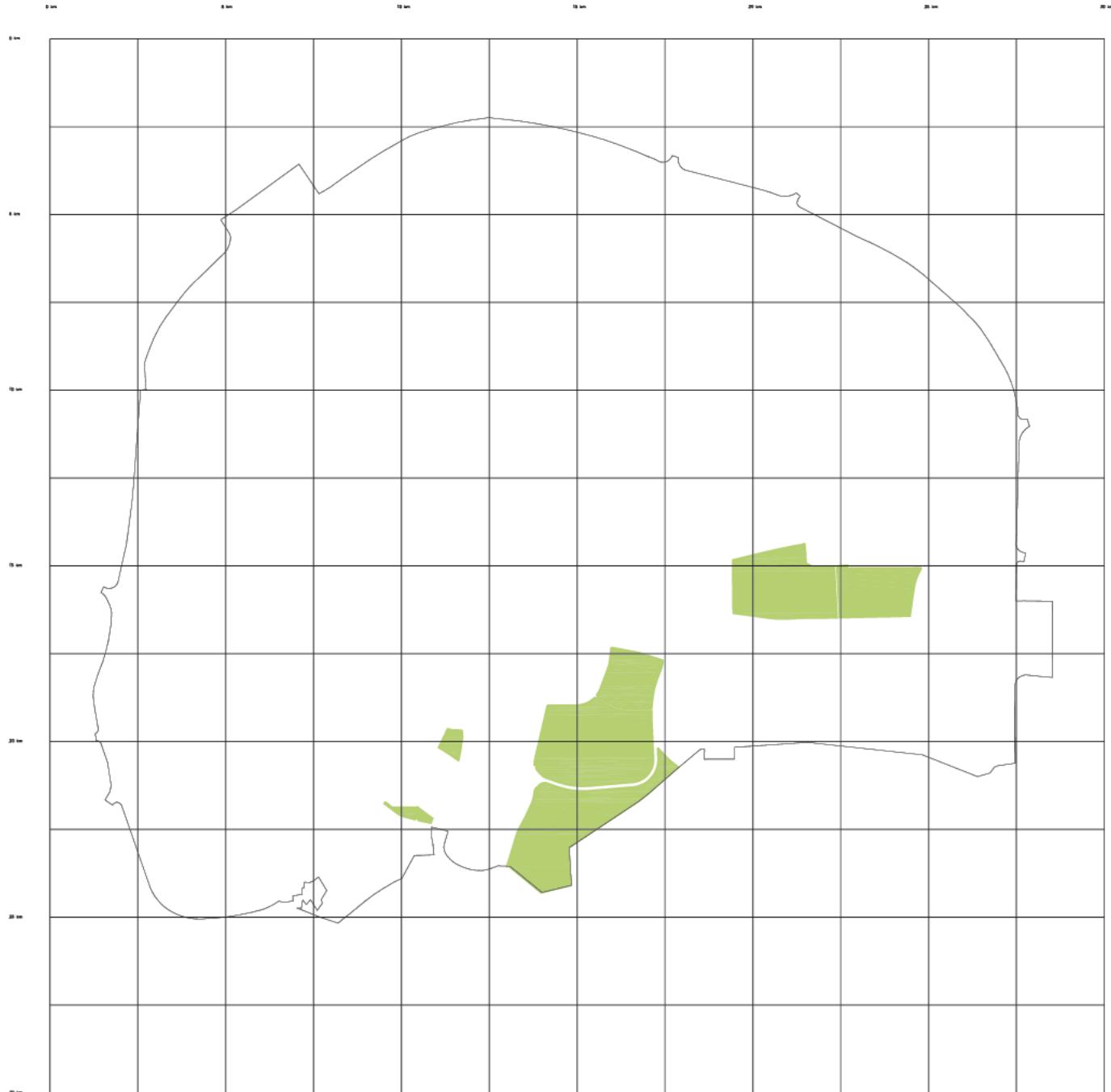
3.2.19 FORESTS, 1:230.000

Planned metropolitan park areas in the South-West of the city.



3.2.20 CEMETRIES, 1:230.000

The cemeteries, existing and new, are an opportunity to support the green structure of the city.

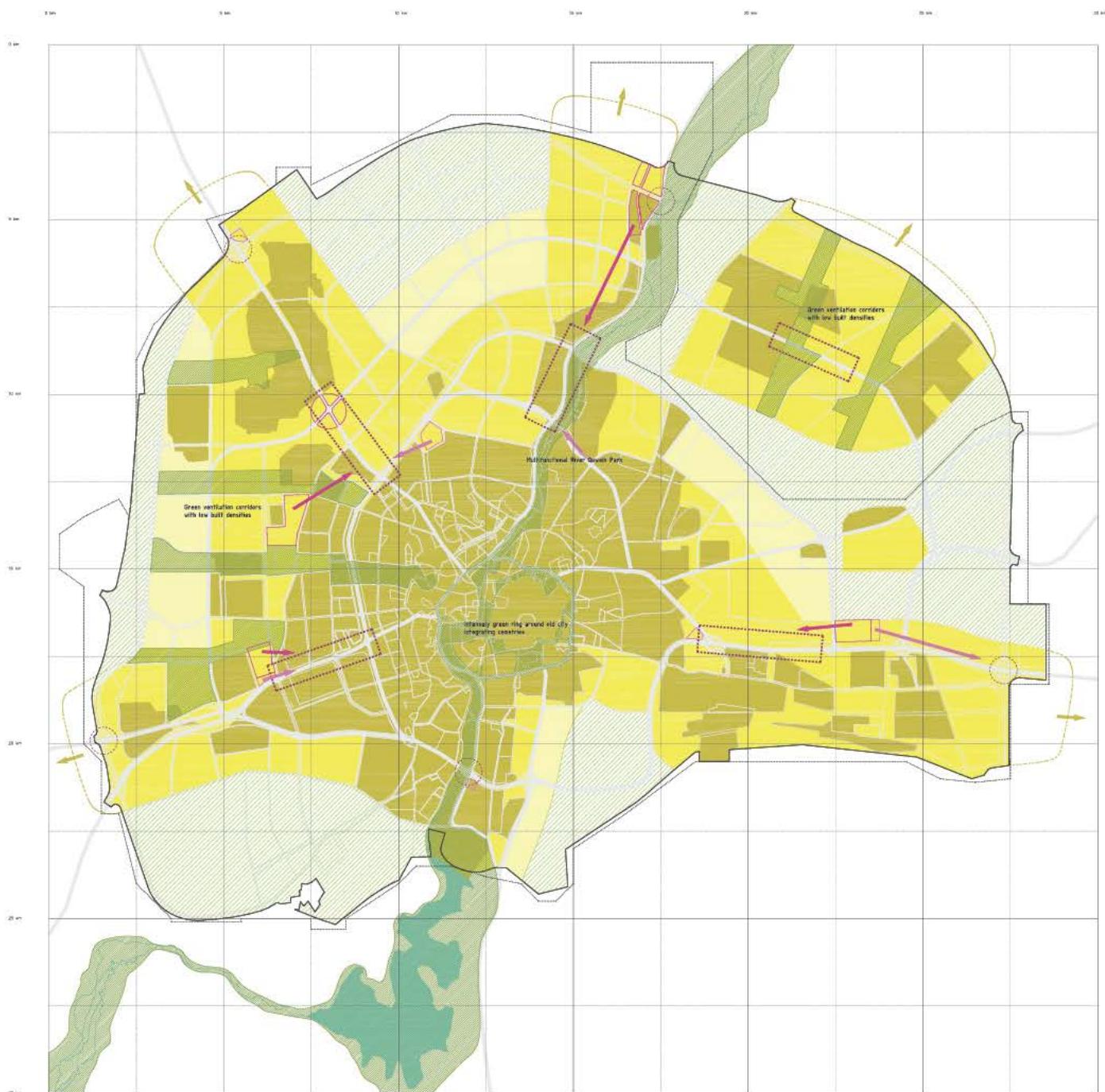


3.2.21 VINEYARDS AND ORCHARDS, 1:230.000

Existing agricultural areas with potential for combined productive and leisure functions.

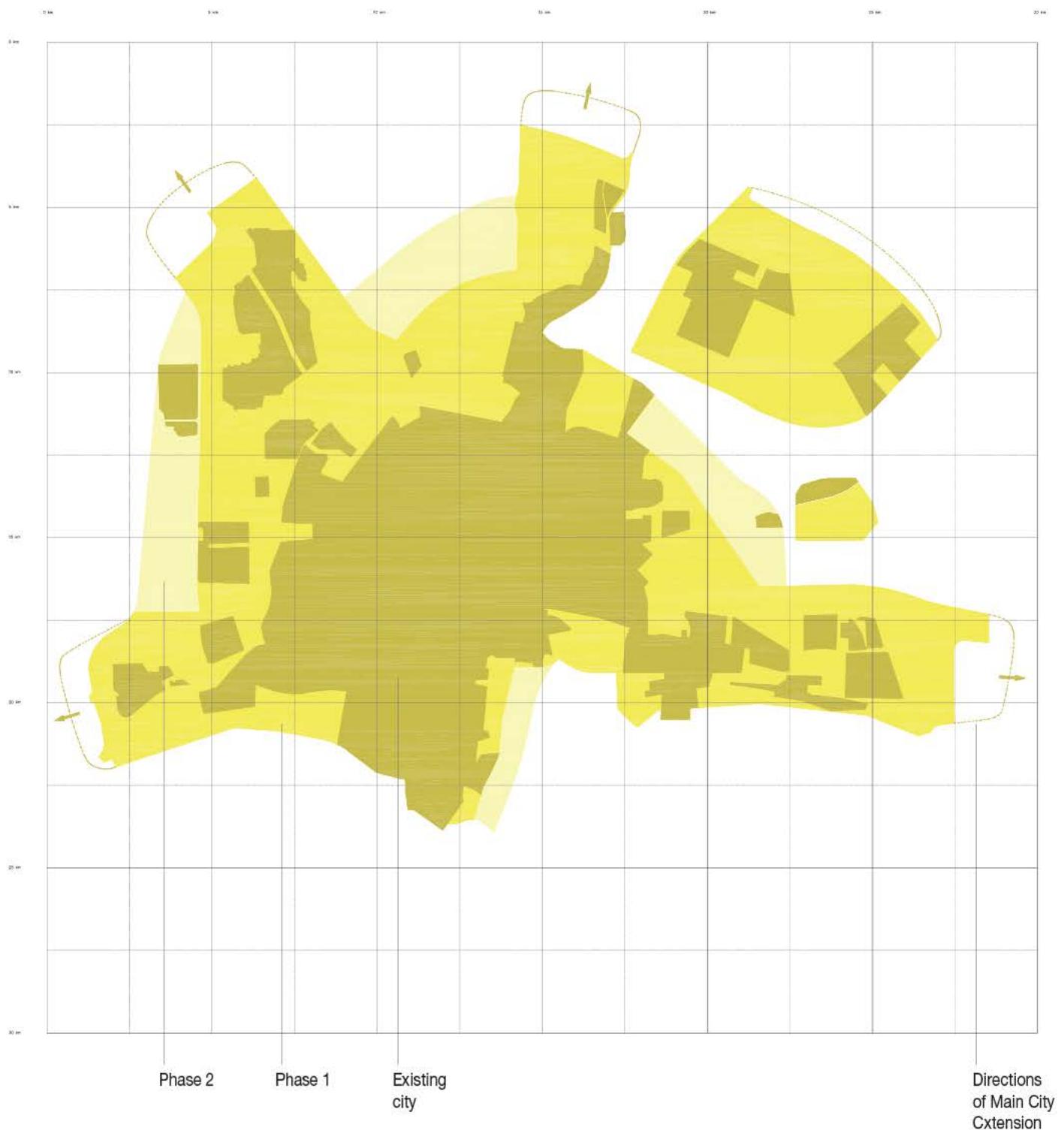
3.3. Recommendations for Masterplan Revision, Layer by Layer

- 3.3.1 Recommendations for Masterplan Revision Plan
- 3.3.2 Phasing
- 3.3.3 Space reservation
- 3.3.4 Main boulevards
- 3.3.5 Accessible Centres
- 3.3.6 Green character areas



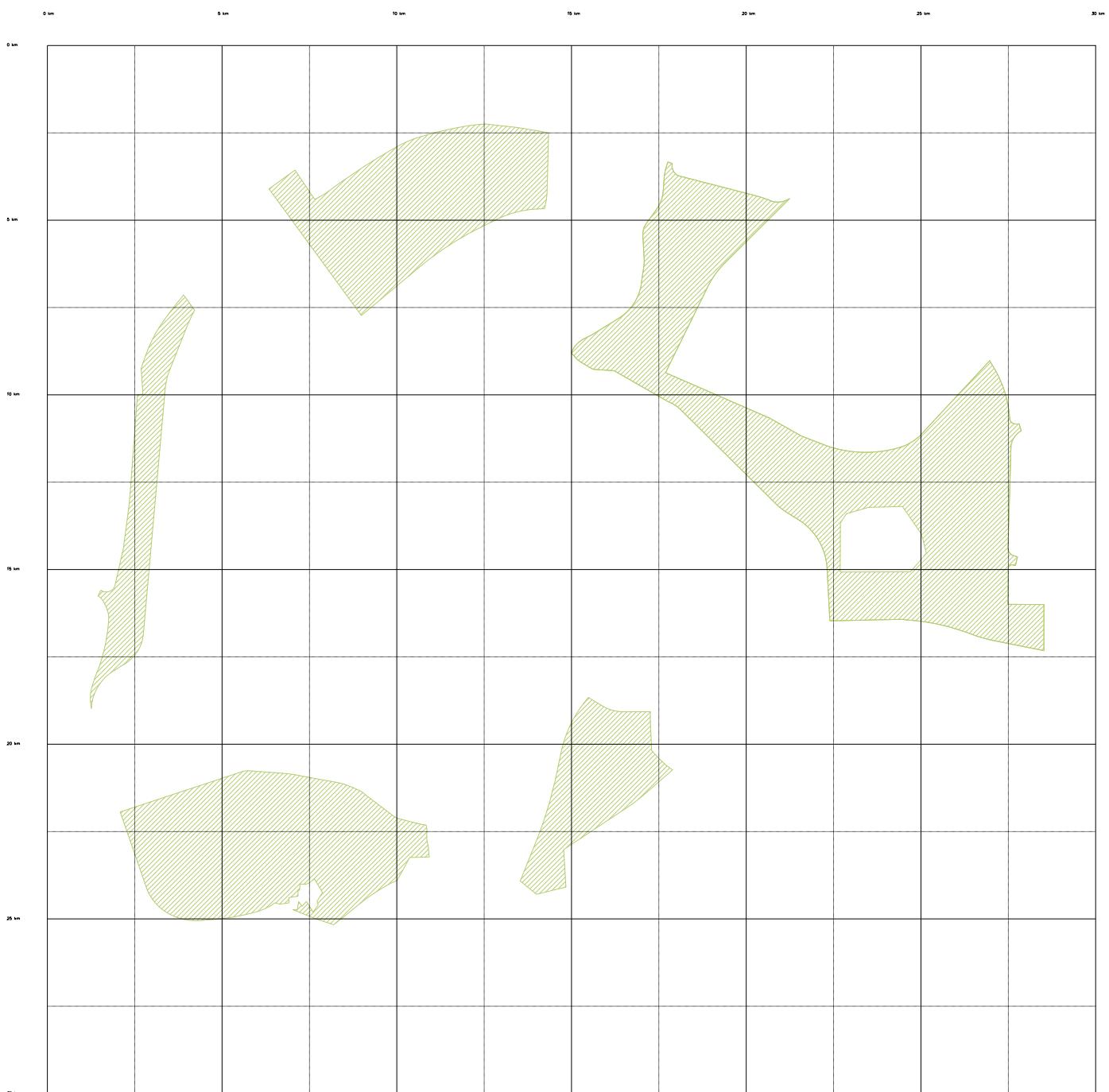
3.3.1 RECOMMENDATIONS FOR MASTERPLAN REVISION PLAN, 1:230.000

A set of recommended Master Plan amendments (see chapter 2.8 p. 87ff).



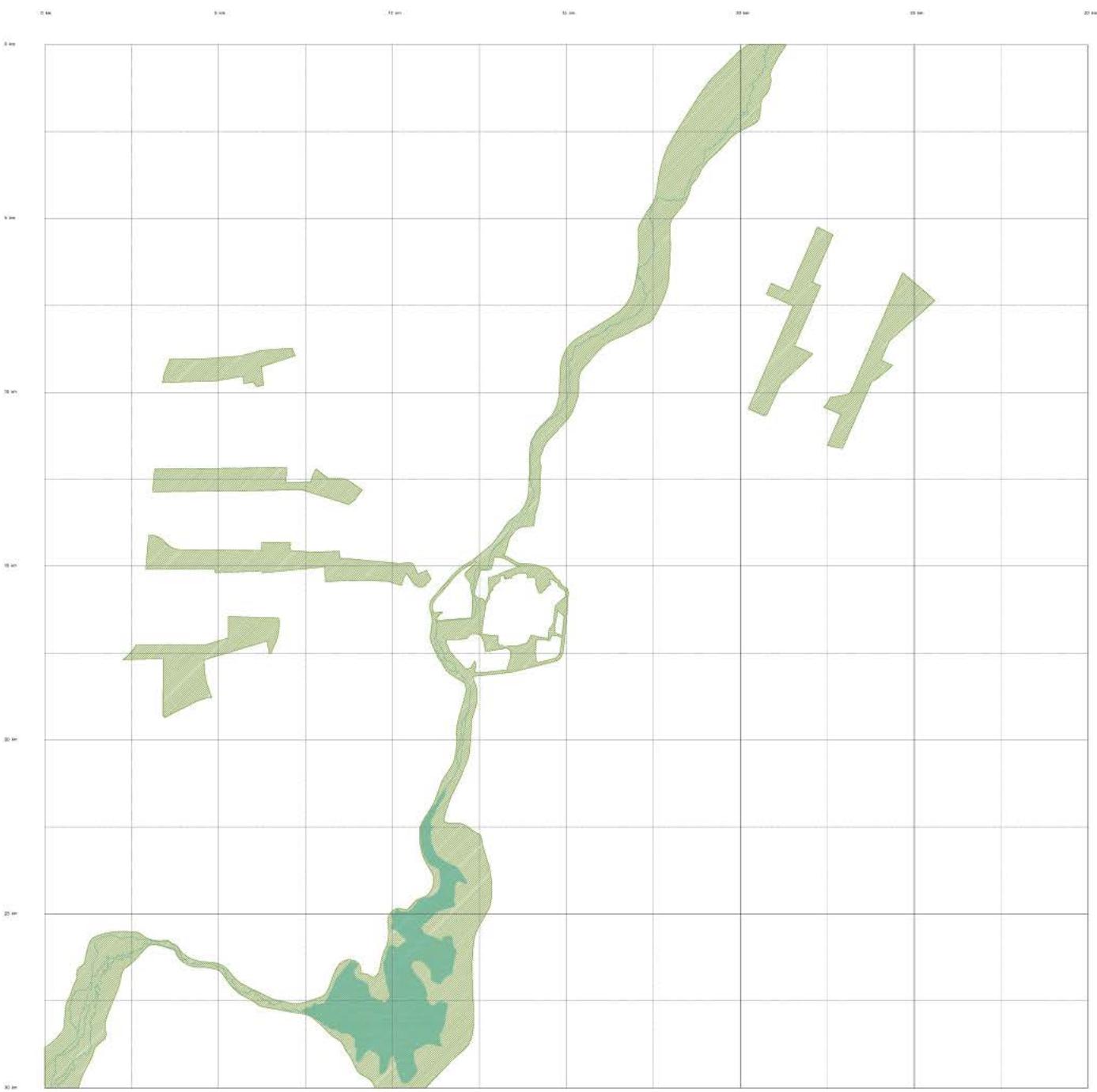
3.3.2 PHASING, 1:230.000

Stepped development and reserved areas for flexible, guided city growth.



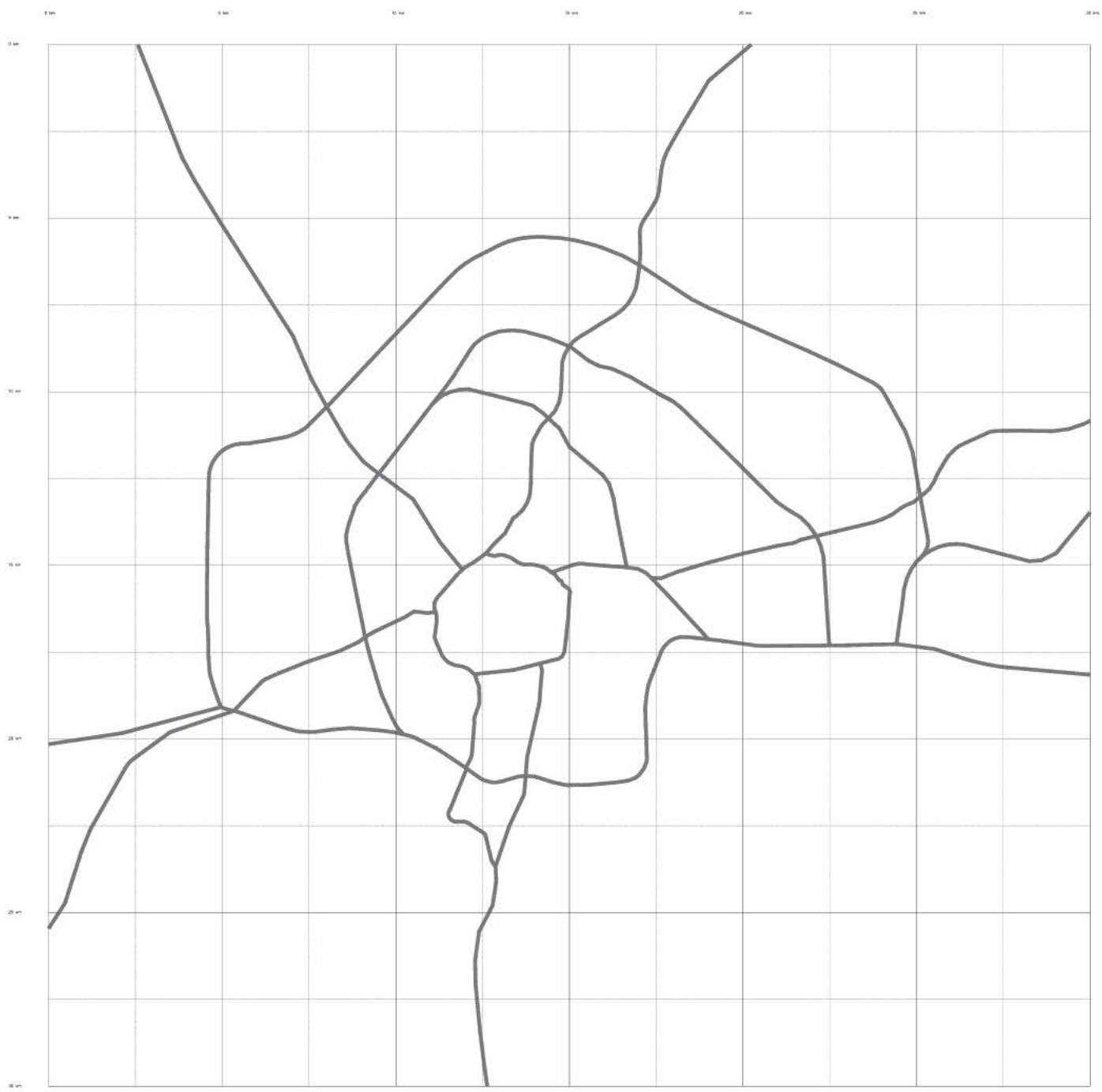
3.3.3 SPACE RESERVATION, 1:230.000

The natural and ecologic quality and productivity of surrounding open or agricultural spaces within the Master Plan area are exempt from building activity.



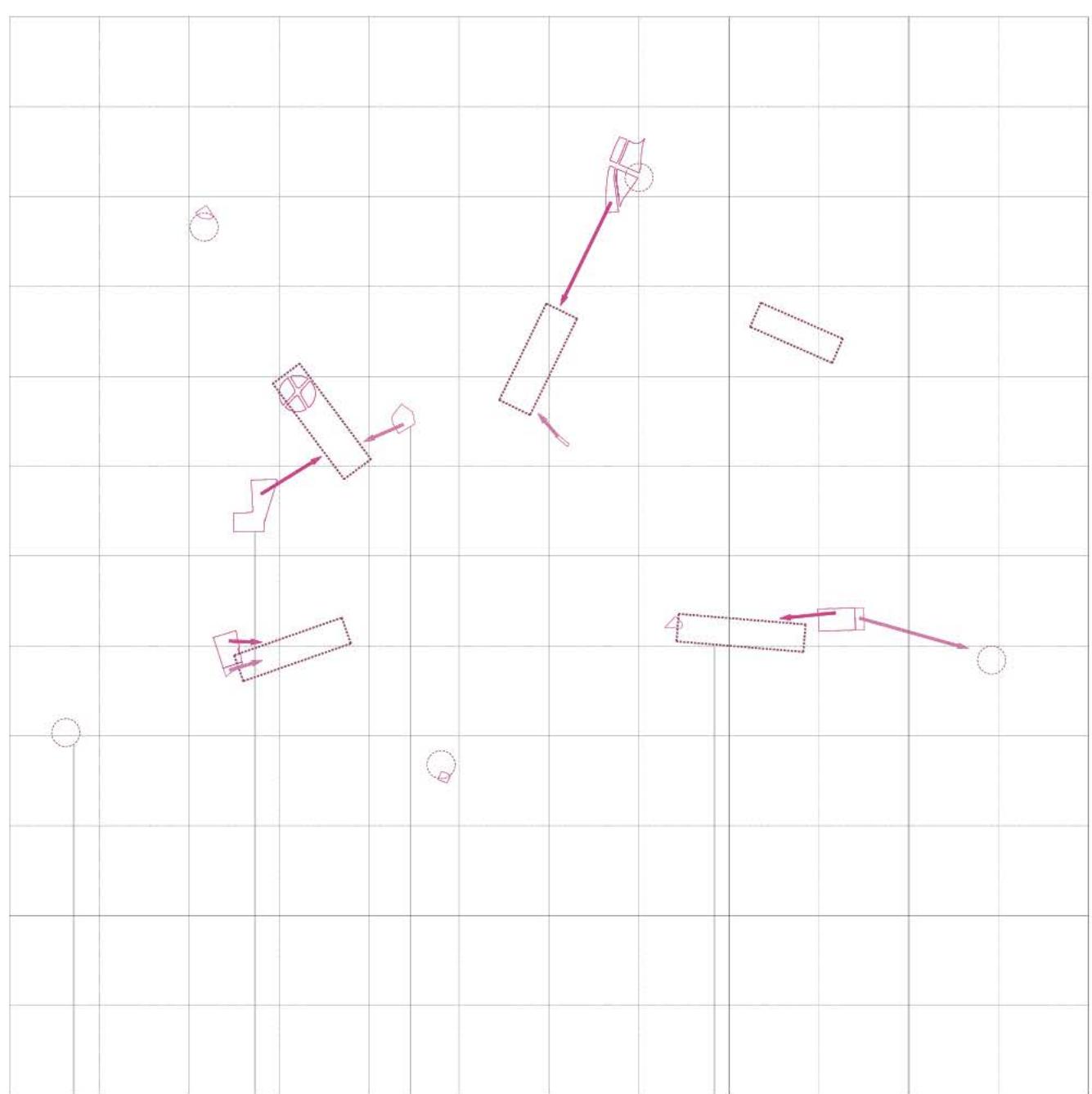
3.3.4 GREEN CHARACTER AREAS, 1:230.000

A set of green corridors and the River Kweik Park mitigate the lack of green space in the city, improve ventilation and air quality and lay the ground for an integral green network.



3.3.5 MAIN BOULEVARDS, 1:230.000

Where possible, highways are transformed into urban boulevards.



Proposed Strategic
Locations for
Future Subcentres

Subcentres
of Masterplan
2010

External Bus
Stations of
Masterplan 2010

Proposed
Zones for new
and accessible
Subcentres.

3.3.6 ACCESSIBLE CENTRES, 1:230.000

Infrastructural hubs are located in direct proximity to planned subcentres.

3.4. Bibliography & Image credits

- CITIES ALLIANCE. 2006. *Guide to City Development Strategies: Improving Urban Performance*. Washington: The Cities Alliance.
- HERRLE, Peter et al. for SYRIAN-GERMAN TECHNICAL COOPERATION GTZ. 2005. *Old City of Aleppo: Conservation and Development Strategy*. Berlin, Aleppo: GTZ.
- RABENAU, Burkhard von for SYRIAN-GERMAN TECHNICAL COOPERATION GTZ. 2009. Municipality of Aleppo: Draft LED Assessment. Damascus, Columbus: GTZ.
- SYRIAN-GERMAN TECHNICAL COOPERATION GTZ. 2009. *Memorandum on Sustainable Urban Development in Syria, Draft September 28th, Damascus*: GTZ.
- TAMBURELLI, Pier Paolo; ZANDERIGO, Andrea. 2008. Restructuring Aleppo: The Grey City. Rotterdam: Berlage Institute.
- UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO); BIANCA, Stefano et al. 1980. The Conservation of the Old City of Aleppo. Paris: UNESCO.
- UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP), Regional Bureau for Arab States. 2009. *Arab Human Development Report 2009 – Challenges to Human Security in the Arab Countries*. New York: United Nations Publications.
- WAKELY, Peter et al. SYRIAN-GERMAN TECHNICAL COOPERATION GTZ. 2009. Informal Settlements in Aleppo: Rapid Profiles of all Informal Settlements in Aleppo. Aleppo: GTZ.

All images are produced by and under copyright of Überbau Architecture & Urbanism, except if indicated differently. For any publication of this report the authorisation of the image's authors is required, except for the ones produced by Überbau Architecture & Urbanism.

3.5. Acknowledgements

We would like to thank the people who enabled and supported us in creating this report. Firstly, we are grateful for the support of the Municipality of Aleppo, in particular Mayor **Dr. Maan Chibli**. Without his backing and support this effort would have not been possible.

We would also like to thank the gtz (Gesellschaft für Technische Zusammenarbeit) who commissioned us in the first place and took all efforts to support us during our field missions. Of special importance were **Dr. Thomas Pritzkat**, Project Manager of the Aleppo Urban Development Project of gtz Aleppo and unswerving captain of the project steering it through all uncertainties, and our direct contact person **Mahmoud Ramadan**, local coordinator for gtz, expert on local policies and together with Thomas Pritzkat head of the Technical Coordination Unit of Aleppo's City



Final presentation with project team (Masin Majd Kayme, 2009)

Development Strategy. We are also deeply appreciative for the support of **Hilmar von Lojewski**, Head of the Sustainable Urban Development program in Syria of gtz. Thank you for offering a young team this great opportunity.

Without our local partner and UDP-consultant **Prof. Dr. Lamis Herby** — by now Dean of the Faculty of Architecture of the University of Aleppo — we could have never developed an understanding of the situation and processes in Aleppo. We are very thankful for the support of her and her team at the university. We are grateful to **Farouk Tebbal** (Senior Urban Specialist at the United Nations), who laid out the structure of the undertaking in the brief of the project. We are also very grateful to **Prof. Martin Schirmer** of FH Würzburg, who gave us crucial input during our last visit in Aleppo within the scope of this project.

Our work on the Urban Spatial Development of Aleppo was firmly embedded in the context of the local working groups. This report can only be understood in conjunction with their work. Namely we would like to thank **Ayman Chihabi** (Local Economic Development), **Abed Kawahati** (Urban Service Delivery), **Botros Merjaneh** (Urban Environment), **Bassem Olabi** (Administration & Finance), **Wadah Katmawi**, responsible for the Urban Spatial Development group, and also assistant manager of technical affairs and urban planning and expert for the Municipal Administration Modernisation in Syria venture and **Ibrahim Khouri**, coordinator of the master plan project from GCEC.

We would also especially like to thank **Yaman Razouk** (head of the urban planning section) and **Dalia Mokayed**, responsible for the Informal Settlements group and members of the Urban Spatial Development group. We also learned a lot about the complexities of the informal settlements in Aleppo from **Patrick Wakely** (of DPU-Associates), planning law consultant and foreign expert on informal settlements for the gtz.

We also received valuable help from the side of the municipality of Aleppo through **Ghada Rifai**, Head of Urban Observatory, as well as from **Malak Khamash**, Head of the Department of Expropriation.

We would particularly like to thank **Dr. Maad El Madlaji**, GCEC Director for North-East Syria, for the close cooperation, and **Ulrich Borman** of DED for the support with the map baseline data.

DIPL.-ING. ARCH. ALI SAAD

Ali Saad (*1975) is founding partner of Überbau | Architecture & Urbanism in Berlin. Born in Beirut, Lebanon, he studied architecture and philosophy at the Technische Universität Berlin and the Universitat Politècnica de Barcelona with grants from the German National Academic Foundation (Studienstiftung des deutschen Volkes) and the European Commission. Between 2001-2003 he was part of Urban Catalyst, an EU research project that initiated the temporary re-use of the former East German parliament "Palast der Republik" in 2004. In the same year Ali graduated from the chair of Prof. Kees Christiaanse with his award-winning diploma thesis on the strategic transformation of central Beirut with the highest mark.

Right after graduation Ali became assistant professor at the Institute for Architecture of the Technische Universität Berlin and conducted and published extensive research and teaching on the contemporary transformation of western city models in India, Pakistan, Iran, France and Poland. His academic work was published and exhibited nationally and internationally, in renowned as well as upcoming architectural magazines such as *archplus* or *monu*.

Before founding his office in 2009, Ali gained professional experience at Enric Miralles Benedetta Tagliabue associats in Barcelona, maxwan architects & urbanists in Rotterdam and through own commissions in Berlin. From 2008 to 2009 he was the project leader of "Grand Paris Métropole Douce" at LIN Finn Geipel + Giulia Andi in Berlin, an urban vision on the future of Greater Paris, that was part of the Grand Paris project, initiated by French President Nicolas Sarkozy.

DIPL.-ING. ARCH. THOMAS STELLMACH

Thomas Stellmach (*1975) is founding partner of Überbau | Architecture & Urbanism in Berlin. Born in Freiburg, Germany, he has studied Architecture and Philosophy at FU Berlin, TU Berlin and UPC Barcelona with grants from the European commission. In 2003 he graduated from the chair of Prof. Kees Christiaanse with the highest mark.

He is an experienced urbanist and designer of a wide variety of projects ranging from small scale exhibition and interior design to large scale urban projects. Thomas focuses on design for complex urban situations, where issues conflict and merge. Recent examples of his work are Europe's largest urban design commission, Project A101 in Russia and the supervision of the UK's largest residential development, Barking Riverside in London for the Rotterdam based practice maxwan a&u.

Besides directing his office, he conducts the 'Skill Bill' studio investigating possibilities beyond mixed use at the renowned Berlage Institute and the 'Urban Cookbook' atelier finding recipes for sustainable urbanism at the Academie voor Bouwkunst, both in Rotterdam, and runs the online architecture magazine dysturb.net. He was a guest lecturer on urban design and architecture at the University for Science and Arts in Aleppo. He recently won the prestigious competition for young architects Europan X with an urban plan for the city of Heidelberg in Germany.

ALEPO DIVERSE | OPEN CITY

An Urban Vision for the Year 2025

FINAL REPORT, 05.02.2010

Syrian-German Technical Cooperation GTZ

Sustainable Urban Development Programme UDP

Aleppo Urban Development Project

UBERBAU | Architecture & Urbanism

Ali Saad & Thomas Stellmach GbR

Lobeckstrasse 30 - 35 | 10969 Berlin | Germany

office@uberbau.eu | www.uberbau.eu

Cover image based on Google Earth, 2009

UBERBAU
ALI SAAD | THOMAS STELLMACH | ARCHITECTURE & URBANISM

gtz



This report sketches out an urban vision that reflects the city of Aleppo, its skills, people, mechanisms and potentials, and outlines a conceptual urban framework, in which they can flourish and evolve.

In contrast to the existing masterplan and a dominant culture of over-regulation – that prove to be useless given the overwhelming informality of Aleppo's urban development – it proposes a strategy that accepts the existing forces of the city. Instead of working against them, it instrumentalizes these productive urban mechanisms to secure future qualities and steer urban development.

Through principles of flat administrative hierarchies, participation, phasing, space reservation, layered decentralization, integrated mobility and the introduction of strong public spaces of various scales, it proposes to reorganize the city based on its existing structure and socio-economic potentials. Like this it opens up and diversifies the cities' opportunities for future transformations and growth scenarios. Far from proposing a final state of desirable development, it represents a tool for political debate on the direction Aleppo's future development should take.