Bologna - Kevin Lynch's public spaces analysis
The urban analysis of Kevin Lynch is a subjective view of urban space. In this analysis, the urban user identifies five elements: streets, edges, landmarks, nodes and surfaces, which can be used to analyse, prioritise and better understand the urban space. Through this analysis, an image of the city emerges - often incoherent and diverse, but therefore alive and human - an image created by the people for whom cities were built.
The image shown here is a model created to illustrate the results of Kevin Lynch's analysis of Bologna. The density of streets in the inner city area indicates the formal and functional importance of this space. It can also be seen that the main barriers identified during the analysis are the railway tracks.
It appears that this spatial representation of the analysis conducted provides additional information that would not be as easy to read on a flat drawing. In this case, the density of structural elements within the historic centre is also illustrated by the density of the threads used to create the model.

Bologna - Building Density
The figure and the image of the model show the density of development, calculated as the quotient of the area of buildings and the area of land. These graphs show the degree of building on a plot of land in each borough. In creating the model, the data obtained from each parcel was averaged for each borough and converted in this form to colour and height slices corresponding to the density of development - the higher the density, the higher the slice of model foam.
The resulting model shows that the highest density of development occurred in the historic downtown area, but beyond that, the density of development is relatively uniform along the east-west axis. The southern and northern parts are relatively least built-up.

Bologna - Accessibility Map
The illustrations show the accessibility of urban space divided into spaces with mixed traffic function, pedestrian-friendly traffic, traffic with privileged pedestrian function and green spaces - excluded from wheeled traffic. The first drawing presents the problem at the scale of the whole city, the second at the scale of the historic centre and the third shows the development areas of the city, near the new city office. The drawing at the largest scale best shows the distribution of green spaces throughout the city.
The analysis of the centre of Bologna shows how pedestrian friendly the city centre is. Areas with pedestrian priority or completely excluded from car traffic - such as the Market Square and other urban squares - dominate. There are relatively few green spaces in this area, though.
In contrast, there are significantly more green spaces in the third figure. The Parco di Villa Angeletti area is clearly visible, but it is noticeable that this is not the only green space in this area. In this place, however, the accessibility for pedestrians is much worse, as most of the streets are traffic roads with predominant car traffic.

Aachen - Kevin Lynch's public spaces analysis
The urban analysis of Kevin Lynch is a subjective view of urban space. Lynch distinguishes five elements in his theory: streets, edges, landmarks, nodes, and surfaces, with the help of which urban space can be analyzed, prioritized, and better understood through these procedures. Through this analysis, an image of the city emerges - often incoherent and diverse, but vibrant and human - an image created by the people for whom cities were built.
The Aachen city center that emerges from Lynch's analysis is extremely diverse, but at the same time very clear, with a distinct medieval urban structure. The market square, the RWTH site, large retailers and numerous green spaces are clearly visible as surfaces. There is visible growth of the historic part, staggering the rings - and their buildings form edges. The nodes - marked as cylinders in the drawing - are multi-armed intersections located within the successive rings of development. The railway tracks also forms an edge that stands out clearly in the map of the city center. Landmarks are characteristic buildings such as the cathedral, the Elisenbrunnen pavilion and the RWTH main building.

Aachen - Building Density
Subsequent analyses present the density of development, calculated as the quotient of built-up area and plot area, and show the degree to which the plot is built-up. The data thus prepared were quantified and overlaid on the map in a grid with a mesh size of approximately 100 ha. Each box of the grid was assigned a corresponding averaged development density, represented by

Bologna,
Kevin Lynch Analysis Model

Bologna,
Building Density Map

Bologna,
Building Density Model

colours (in the flat scheme) and by colours and bar heights (in the 3d scheme). A physical model was also created based on the diagrams presented. Posts of appropriate height (for dense development 20cm, for medium development 10cm, for loose development 7cm) were cut out and placed on a base with a mesh size of 2.5cm. The Aachen development density diagram further shows the process of creating the mock-up.
Using a grid with such large fields (as opposed to the grid in the previous figures, which had a field size of approximately 7.8 ha or 19 ha) gives a less fragmented picture and more averaged information, but as a result tells us more about neighbourhoods rather than town blocks.
In the case of Aachen, these analyses show that the city has a distinct centre with high-density residential development and that the local centres present in the city have much lower densities than the centre itself.

Aachen - Apartments per Hectar
The number of dwellings per hectare is shown here in the form of a schematic and a 3d diagram. The city was divided into a grid with a mesh size of 19 hectares. Each area was then assigned an averaged number of dwellings per gross hectare. The next step was to extract the values in the z-axis, resulting in a 3d diagram. This form of data visualisation allows one to better visualise and understand the structure and characteristics of a particular city. Conducting analysis using the same method and based on the same grid for different cities also allows for comparison between cities. Such a comparison allows specific data to be abstracted and presented without irrelevant data, the presence of which in the diagram could cloud perception and thus hinder comparative analysis. Comparing different spatial data within a city also yields good results. For example, population and housing density, real estate prices, access to green spaces, etc. can be presented in the same way - analyses compared in this way allow the search for correlations and relationships between individual factors.

Aachen,
Kevin Lynch analysis model

Aachen,
Building Density Map

Aachen,
Apartments per Hectar Map

In the case of Aachen, we see a clearly developed city centre with the highest number of dwellings per hectare and several local centres. We also note areas where there is no or negligible development. According to this analysis, the city of Aachen can therefore be considered a compact city with a strongly developed centre.

Aachen - Accessibility Map
These three drawings show the accessibility of the space divided into spaces accessible on foot and by bicycles and cars. At two different scales, green areas and public squares are indicated, allowing us to see the distribution of these spaces within the city structure.
The figure clearly shows that firstly, a large area is occupied by spaces that are only available for pedestrians and cyclists, which makes the city centre a friendly, safe and probably very lively place. Secondly, the streets outside the city centre are multifunctional - they connect car traffic with pedestrian, public and bicycle traffic, which makes it possible to maintain the balance between the different types of traffic and also to provide convenient access to the central zone without the use of private motorised transport.
Observation of the road network shows that the closer you get to the city centre, the more difficult it becomes to get around by car. This structure encourages people to leave their cars outside the city centre and walk or use public transport within the city centre. This organic method of traffic flow management seems to be an effective and good solution.

Public open spaces dedicated for transport (roads, streets)
pedestrian friendly public open spaces (still open to all transport)
public open spaces for pedestrians (squares, plazas, alleys)
Green open spaces (parks, woods, crop fields, other)

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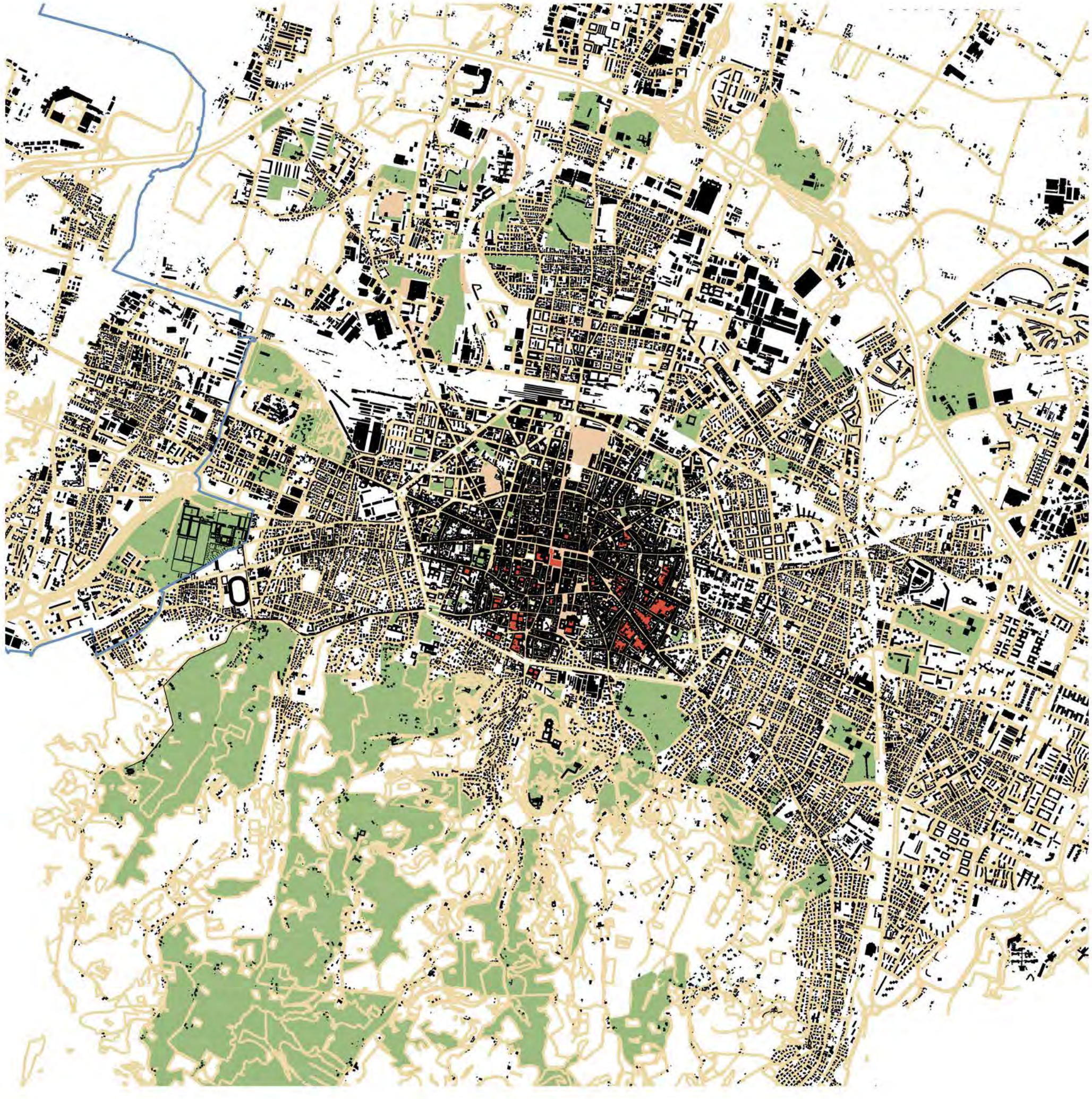
III. Accessibilities
Pedestrian Friendly Public Spaces. Mapping with Models

Bologna, accessibility map
scale 1:33.333 (original scale 1:10.000, plan size 90x90cm)



III. Accessibilities
Pedestrian Friendly Public Spaces. Mapping with Models

Bologna, city center, accessibility map
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

III. Accessibilities
Pedestrian Friendly Public Spaces. Mapping with Models

Bologna, Bolognina, accessibility map
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

III. Accessibilities
Pedestrian Friendly Public Spaces. Mapping with Models

Aachen, accessibility map
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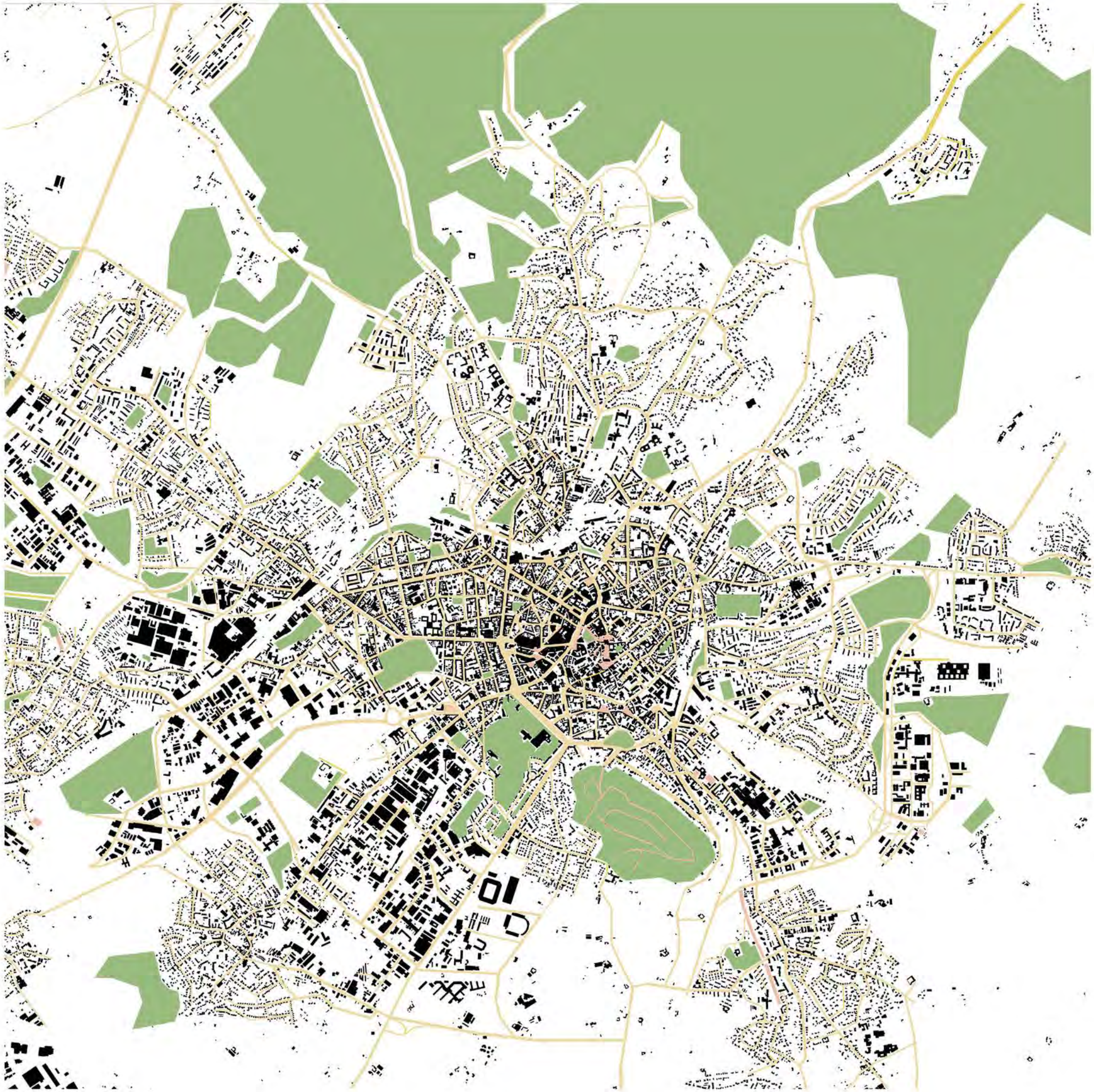


III. Accessibilities
Pedestrian Friendly Public Spaces. Mapping with Models

Aachen, city center, accessibility map
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

III. Accessibilities
Pedestrian Friendly Public Spaces. Mapping with Models

Aachen, Driescher Hof, accessibility map
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

IV. Compact City

Densification Strategies of the Built Space

Enrico Prandi and Paolo Strina

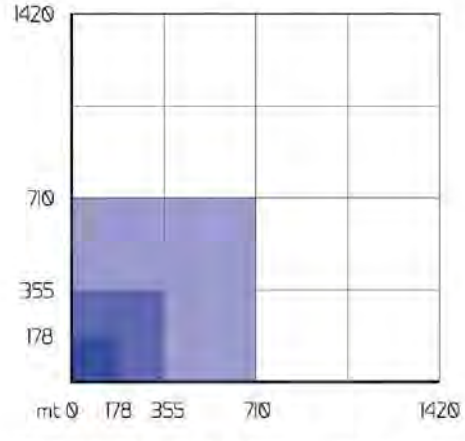
The contemporary city must rethink itself in order to a regeneration of its built body. The compact city is the model to tend to as the only antidote to the extension of the urban form perpetuated until today, the main cause of the organic crisis of the European city and the land consumption phenomenon. At the base of the compact city there is a principle of economics concerning morphological and typological aspects, the relationship between the urban facts and the use of space. This economy is still legible within a precis urban portion that can be defined a merged city, the part of a city where physical continuity exists between its components. The development of the contemporary city has depended heavily on the so-called phenomenon of the peripheralization of historical city centers that originated from the advent of the nineteenth-century train stations. The city has therefore expanded by configuring urban areas that can be traced back to specific temporal thresholds, from garden cities to the fragmentation of the current extreme suburbs where the void space predominates over the full space. In this action framework, the SPINNER 2013 research, Design the built. New integrated quality models for the compact city, currently under revision, has experimented an intervention methodology on the merged city, opposed to the diffuse city, based on the densification technique of the spatial resource through the new urban centralities typologies. The anatomical analysis of the merged city, in respect of a transcalar vision, reveals a structure made up of centrality fields underlying potentially transformable spatiality that differ from the generic empty space by degree of accessibility, usability and visibility. The result is a polycentric city in which the new imaginable urban centralities, contextualised with respect to the project sites and the urban traditions of comparison, contribute to strengthening its structure, strengthening its public facilities and reshaping its form.

Panel I. The urban form
Scale 1:20.000 (1:66.666)

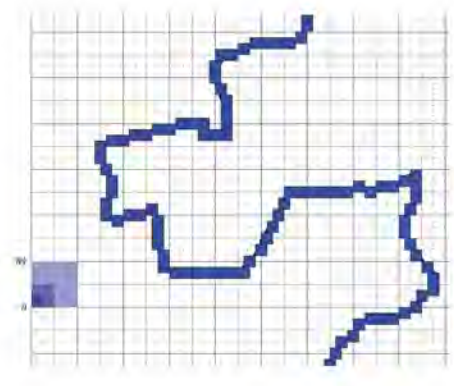
The city is defined by a legal borderline. Within this perimeter, two urban entities coexist: the merged city, in which a physical and functional continuity exist between the parts that compose it, and the widespread city that can be defined as an urbanized countryside. The merged city is still formally recognizable to the point that it can be rationally surrounded by modules and submodules set up on a 710x710 mt grid, reminiscent of the centurial mesh that generated the typical Roman foundation cities. The perimeter is instrumental to the identification and quantification of the available spatial resource within the merged city: empty space (covered surface without volumes and not covered surface), full space (covered surface with volumes), hybrid space (consolidated voids).

The graphic representation brings out the considerable presence of empty space within the merged city. This requirement is considered sufficient to assume the merged city as an ideal field for the experimentation of a reasoned and controlled densification of spaces suggested and deducible from an urban analysis of increasingly detailed scales.

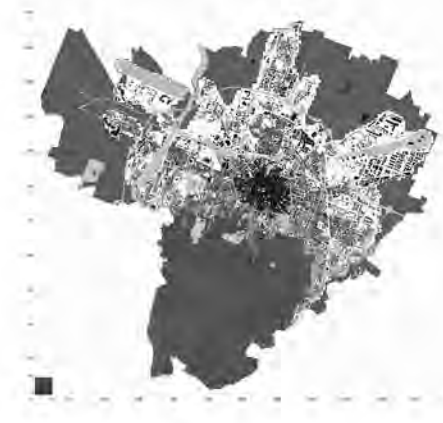
The empirical identification of the merged city



The centurial pixel as an instrument for measuring and profiling the merged city



The rationalization of the merged city



The merged city in the case study of Bologna

Panel II. The polycentric city
Scale 1:10.000 (1:33.333)

Within the merged city, a public city and a private city coexist. The first is composed of the functional endowments that qualify public life. They are real centrality factors that generate, as a function of their proximity relationship within a radius of no more than 600 meters, so-called centrality fields. Each field can assume a different urban role (metropolitan, urban and neighborhood) depending on the type of centrality factors that compose it and the flows it engages.

Centrality factors
Centrality fields

The derivative of the mapping is a polycentric city in which each centrality field is defined by boundary conditions dependent on morphological discontinuities, infrastructural breaks, functional divergences. Polycentrism is the basic characteristic of the contemporary city on which urban development tending towards the compact city must be based. Between each centrality field is interposed an intermediate fabric, binding between them.

Panel III. Consolidated centrality / Panel IV. Centrality in power
Scale 1:2.000 (1:6.666)

Within the centrality fields there are persistent centrality spaces on the voids with a high usability, accessibility and visibility. These central spaces contain centrality in power or consolidated centrality. Centrality means an urban composition of architectures that conform the public space according to the principle of polyfunctionality and quality.

Space of centrality

Within the historical center, the maximum example of a compact matrix city, consolidated centralities dominate such as Piazza Maggiore in Bologna or the Katschhof in Aachen. These consolidated centralities are demonstrative of how the space conformed according to the logic of compactness can be reworked for projects in spaces of centrality in power, as in the case of the Ex Mercato Ortofrutticolo in Bologna, or the Driescher Hof in Aachen, both vast and currently not conformed.

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The areas of the merged city and the centrality factors

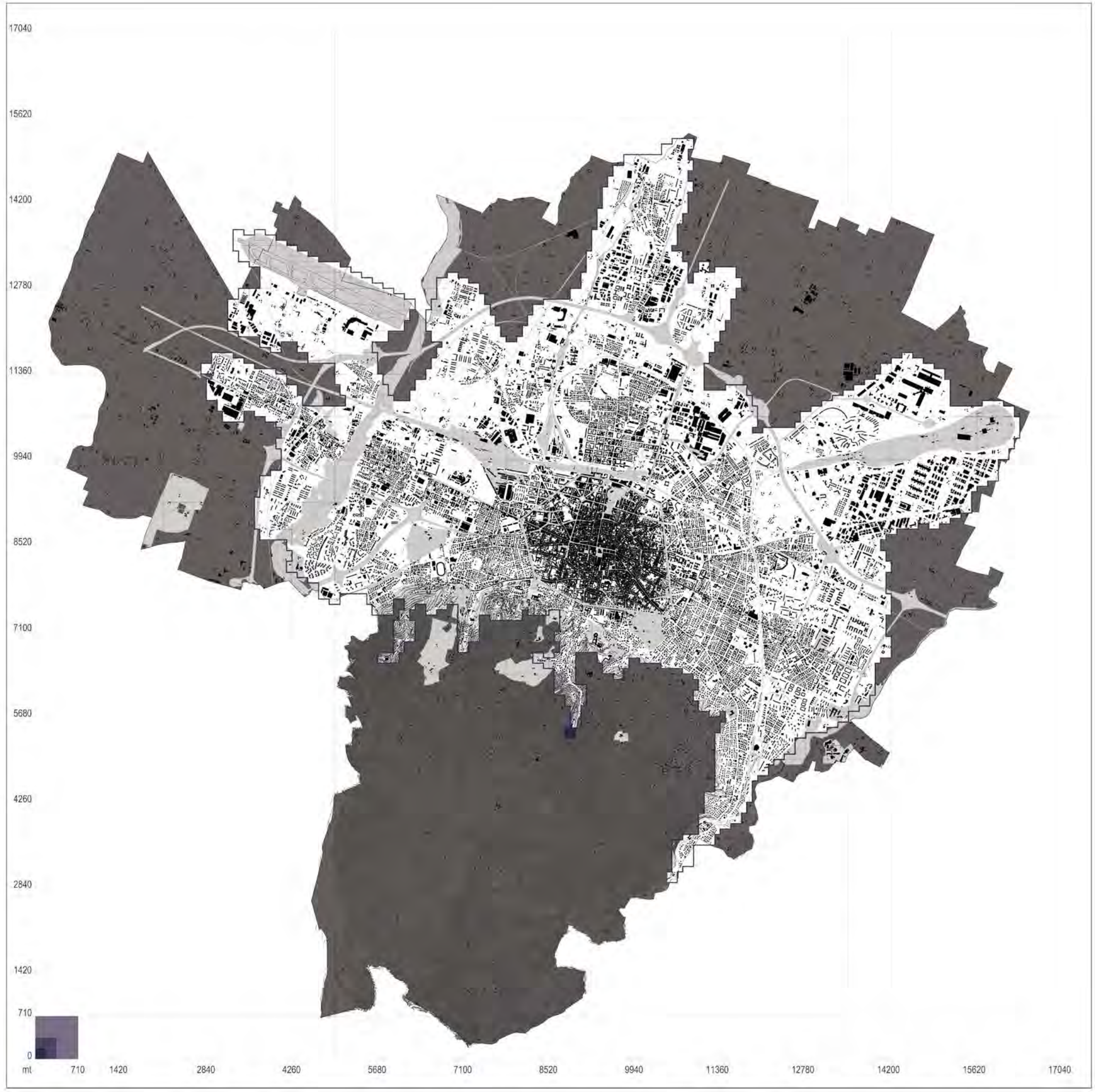
The relational systems among the centrality factors (cluster and poli-cluster)

The profiling of the centrality fields

The space of centrality within the centrality fields

IV. Compact City
Densification Strategies of the Built Space

Bologna, the urban form
scale 1:66.666 (original scale 1:20.000, plan size 90x90cm)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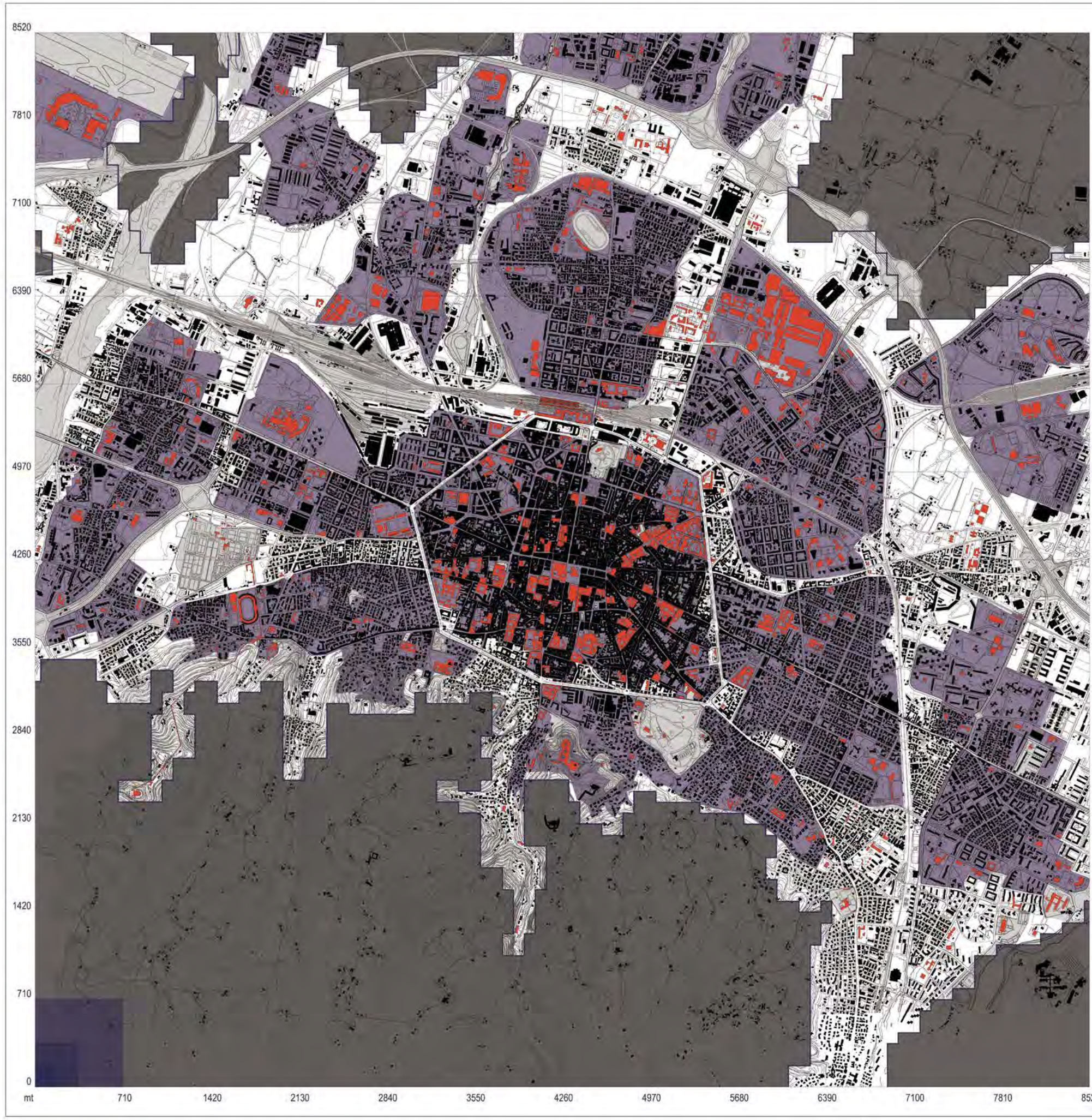
IV. Compact City
Densification Strategies of the Built Space

Bologna, the polycentric city
scale 1:33.333 (original scale 1:10.000, plan size 90x90cm)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IV. Compact City
Densification Strategies of the Built Space

Bologna, city center, consolidated centrality
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)


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IV. Compact City
Densification Strategies of the Built Space

Bologna, Bolognina, centrality in power
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)


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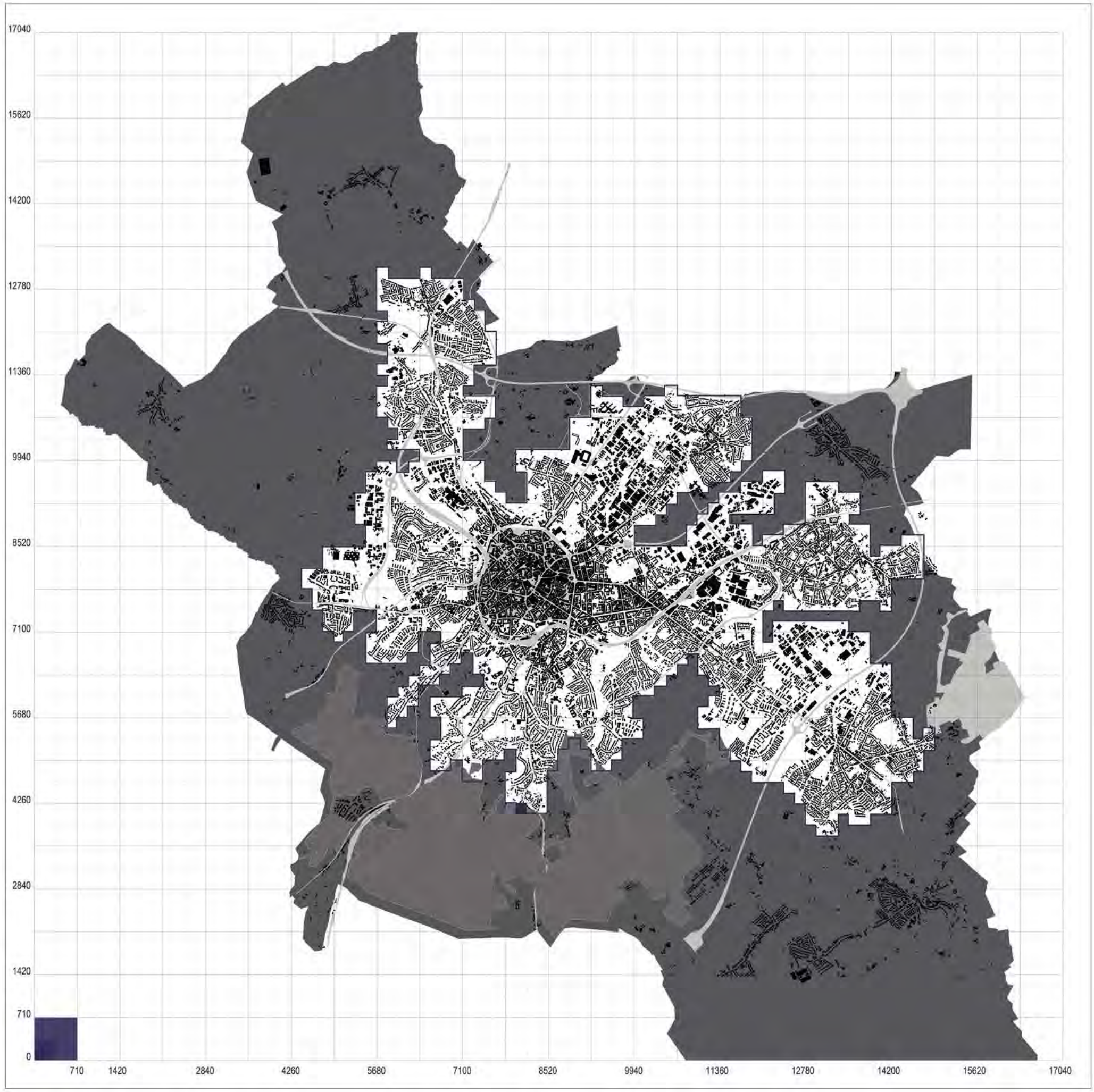
IV. Compact City
Densification Strategies of the Built Space

Aachen, the urban form
scale 1:66.666 (original scale 1:20.000, plan size 90x90cm)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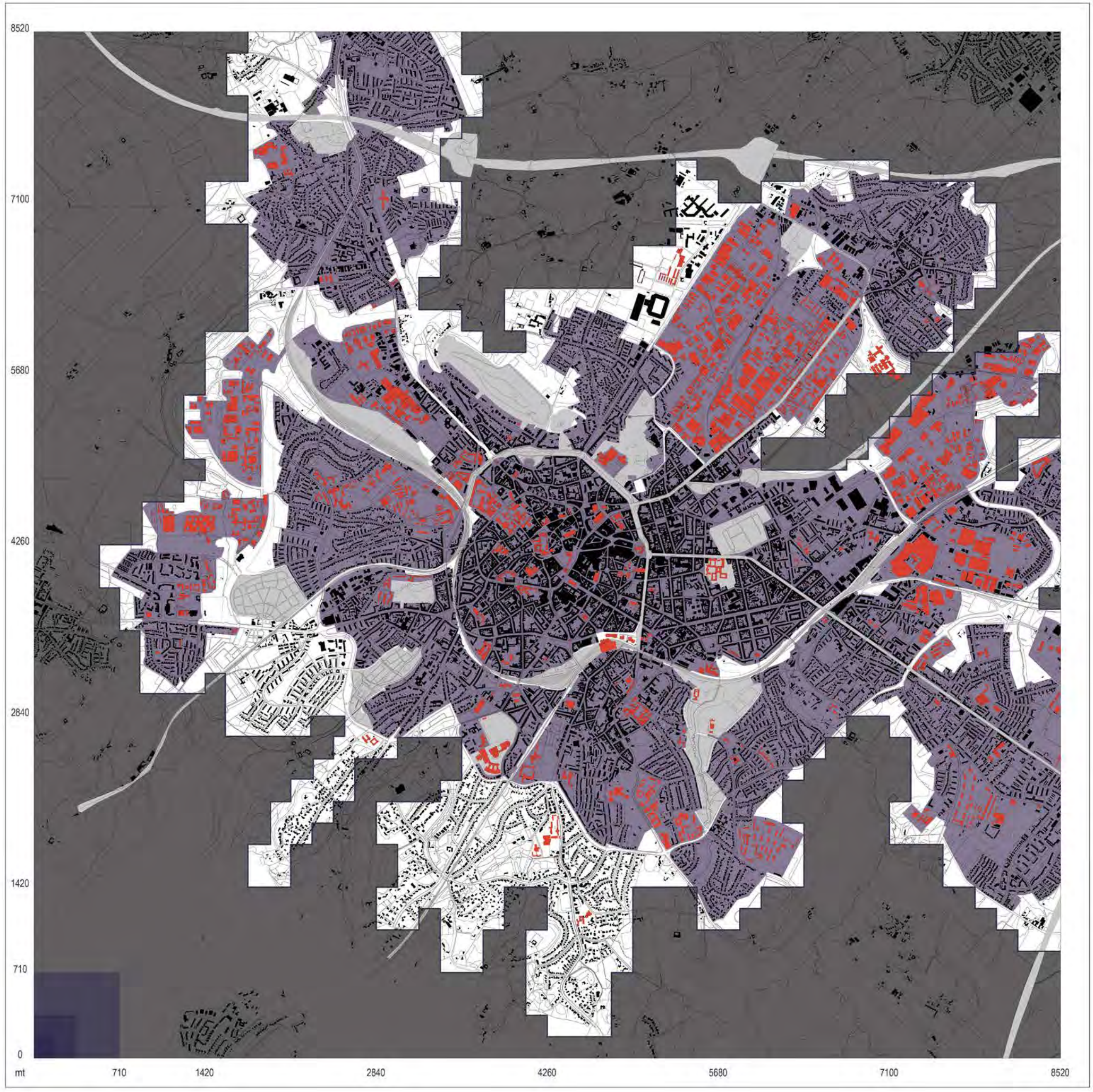
IV. Compact City
Densification Strategies of the Built Space

Aachen, the polycentric city
scale 1:33.333 (original scale 1:10.000, plan size 90x90cm)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IV. Compact City
Densification Strategies of the Built Space

Aachen, city center, consolidated centrality
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)


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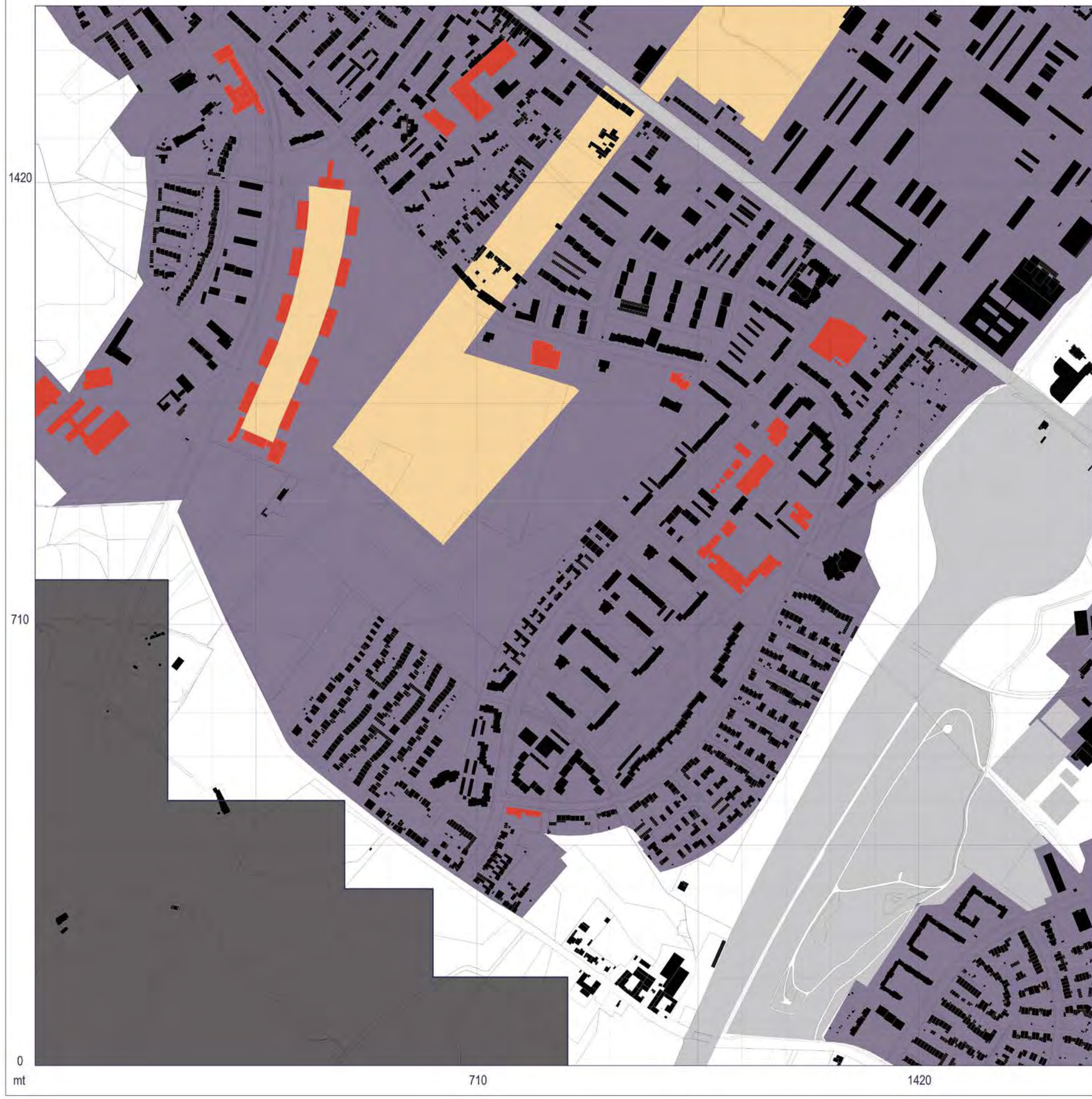
IV. Compact City
Densification Strategies of the Built Space

Aachen, Driescher Hof, centrality in power
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)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V. City Nature
The Natural Space as Urban Structure
Pierre-Antoine Sahuc

The objective of this note is to show the interest of cartography in the pedagogy of a School of Architecture, to see how it can contribute to renewing the analysis and the understanding of the territory, and finally to develop a reflexive mode on the tools and the methods to be applied.Our approach focuses on a specific type of public space, the urban natural space. Much more than the result of a simple visual approach to the project, the natural public space is an urban material which is the foundation of a design approach of the city and the territory in resonance with ecological issues and contemporary societal requirements. The reality challenges deeply the methodology, theory, and practice of the design. Working with reality means to consider how people can dwell this world, and to elaborate another way to think the man inside this materiality. To think about the role of natural spaces in cities puts in the forefront the design of the ground: a ground not reduced to its surface, but which includes its basement and its identity as a living environment. These different aspects constitute structural materials for urban and territorial projects.To map the urban natural spaces allows to prepare the students to the challenges of tomorrow related to the Urban Design. Not only describe them, but problematise them first at a local scale, in terms of lack or weakness, potentiality or opportunity, and second at a global scale of a contemporary general problem in relation with the transformation of human living conditions. Both scales are to be present in the mapping, providing a “territory portrait”.

The explorations on the cities of Bologna and Aachen.
The presented drawings are a cartographic description of the current state of the natural space in the territory of the municipalities of Bologna and Aachen. These maps, produced after an investigation phase, are here one of the restitutions of the analysis work of groups of students, based on the perception of natural spaces in two European cities. They are exploratory, experimental in their approach and formalisation. They are intended to be colourful, multilayered canvases, exacerbating the recognised qualities of a landscape.
The different scales of representations – 1:20.000, 1:10.000, 1:2.000 – allow to understand the quality and the distribution of natural spaces. The drawings are a support to appreciate the different situations from the countryside to the city centre. They also open to reflexions on the capacity of the Contemporary City to develop more resilience in front of Climate Change, and to propose alternative shapes and organizations in the Urban Design.
The Panels shows the dimension and qualities of natural spaces in the territories of Bologna and Aachen. We do not identify land uses, but different shapes that built typical landscapes, as woods and calanques, orchards and vineyards, parks, gardens and lawns, lower grasslands and fields, and also water ways or retentions.

Panel I. The Territory
Scale 1:20.000
The Panel I present the territory of the municipalities of Bologna and Aachen. It identifies morphologies and landscapes, but shows in the same time the different levels of rationalization of the agricultural plain, from the roman centuriatio to the most recent drainage system, and of the hills, where agriculture and breeding are mixed with forest spaces and eroded gullies. We can observe how the green and blue networks constitute the main elements of structuring of the territory, the fund for urbanization processes.

Panel II. The City
Scale 1:10.000
The Panel II presents the armature of natural spaces from the countryside to the city center. The diversity appears evident as well as the connexions among water and vegetal spaces. It shows the penetration in the natural territory by disseminated forms of urbanization, and the progressive consumption of agricultural land. The panel allows to imagine a different urban structure built as an ecological network of various natural spaces, both public and private. It shows how the city outside the city center is built and displays the relevant presence of unbuilt spaces, which have a great incidence on the contemporary city. These unbuilt spaces can be considered as a resource for the social and ecological functioning as well as for the landscape of the city.

Panel III. The Historical City
Scale 1:2.000
The Panel III and IV raise the qualities of the ground level and of its unbuilt spaces in a part of the city center and in a contemporary quartier in both cities analysed. In the Panel III, relative to the ancient parts of the cities, we can consider the continuity of the public spaces, identified by the mineral grounds, result of a complex historical stratification, and where the natural spaces are limited by private gardens, courtyards or boulevards.

Panel IV. The Contemporary City
Scale 1:2.000
The panel IV, representing two more recent quartier in each city (Bolognina in Bologna, and Driescher Hof in Aachen), shows the consistency and the conflict between existing but abandoned buildings and infrastructures, and a great number of undesigned and unbuilt surfaces. These last spaces could be thought as natural spaces belonging to a continuous network of analogous natural spaces, that might constitute a condition to grow the resilience of our cities.

Bologna

Water network

Waterways and water retentions

Network of natural areas

Forested areas
Orchards, vineyards
Parks, gardens, lawns
Fields, grasslands, marches
Unbuilt areas
Trees

Others

Buildings
Not built, infrastructure

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Aachen

Water network

Waterways and water retentions

Network of natural areas

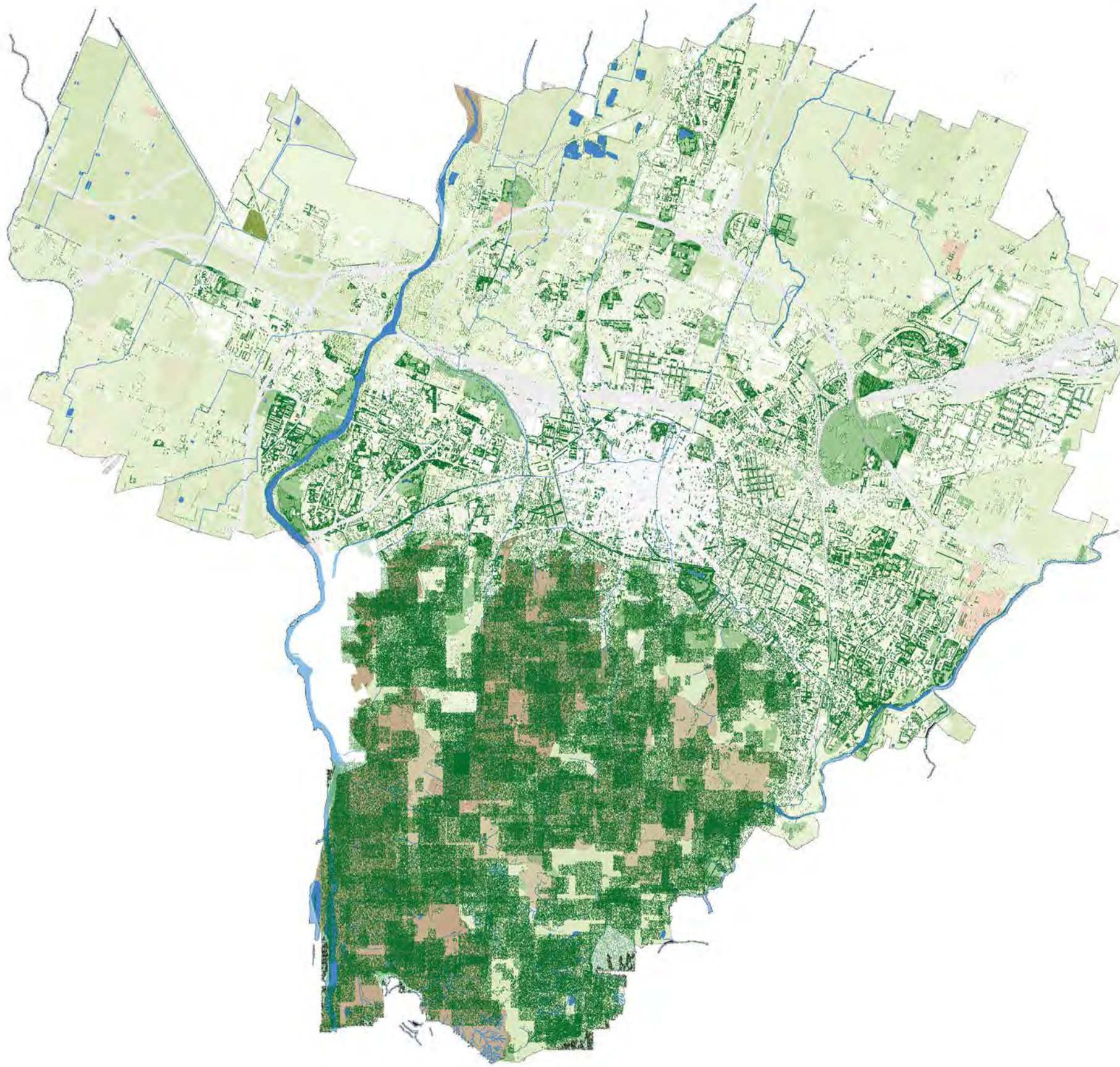
Forested areas
Orchards, vineyards
Parks, gardens, lawns
Fields, grasslands, marches
Trees

Others

Buildings
Not built, infrastructure

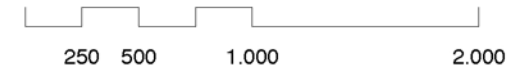
V. City Nature
The Natural Space as Urban Structure

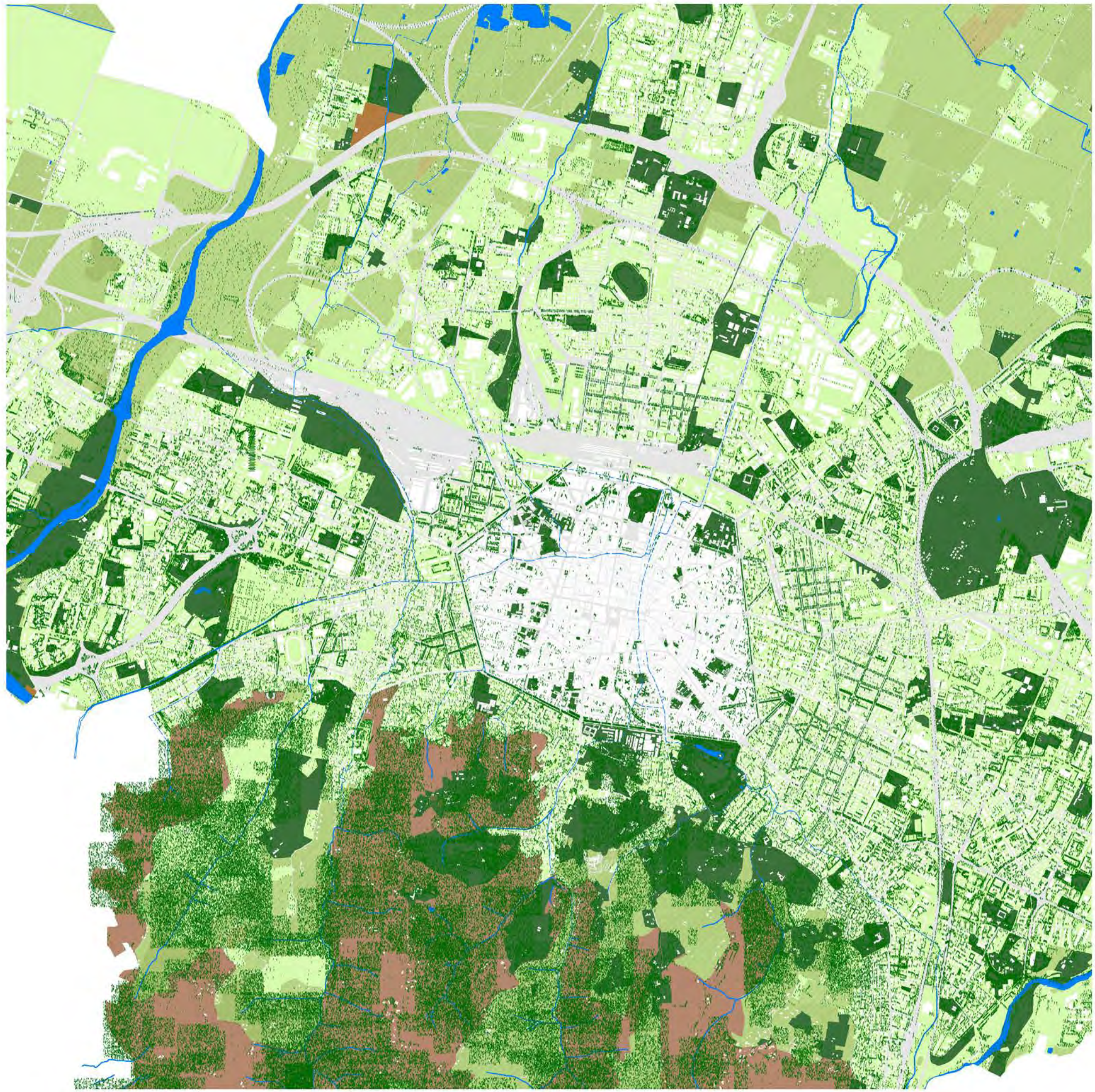
Bologna. The Territory
scale 1:66.666 (original scale 1:20.000, plan size 90x90cm)



V. City Nature
The Natural Space as Urban Structure

Bologna. The City
scale 1:33.333 (original scale 1:10.000, plan size 90x90cm)





V. City Nature
The Natural Space as Urban Structure

Bologna. The Historical City
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

V. City Nature
The Natural Space as Urban Structure

Bologna. The Contemporary City: Bolognina
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

V. City Nature
The Natural Space as Urban Structure

Aachen. The Territory
scale 1:66.666 (original scale 1:20.000, plan size 90x90cm)

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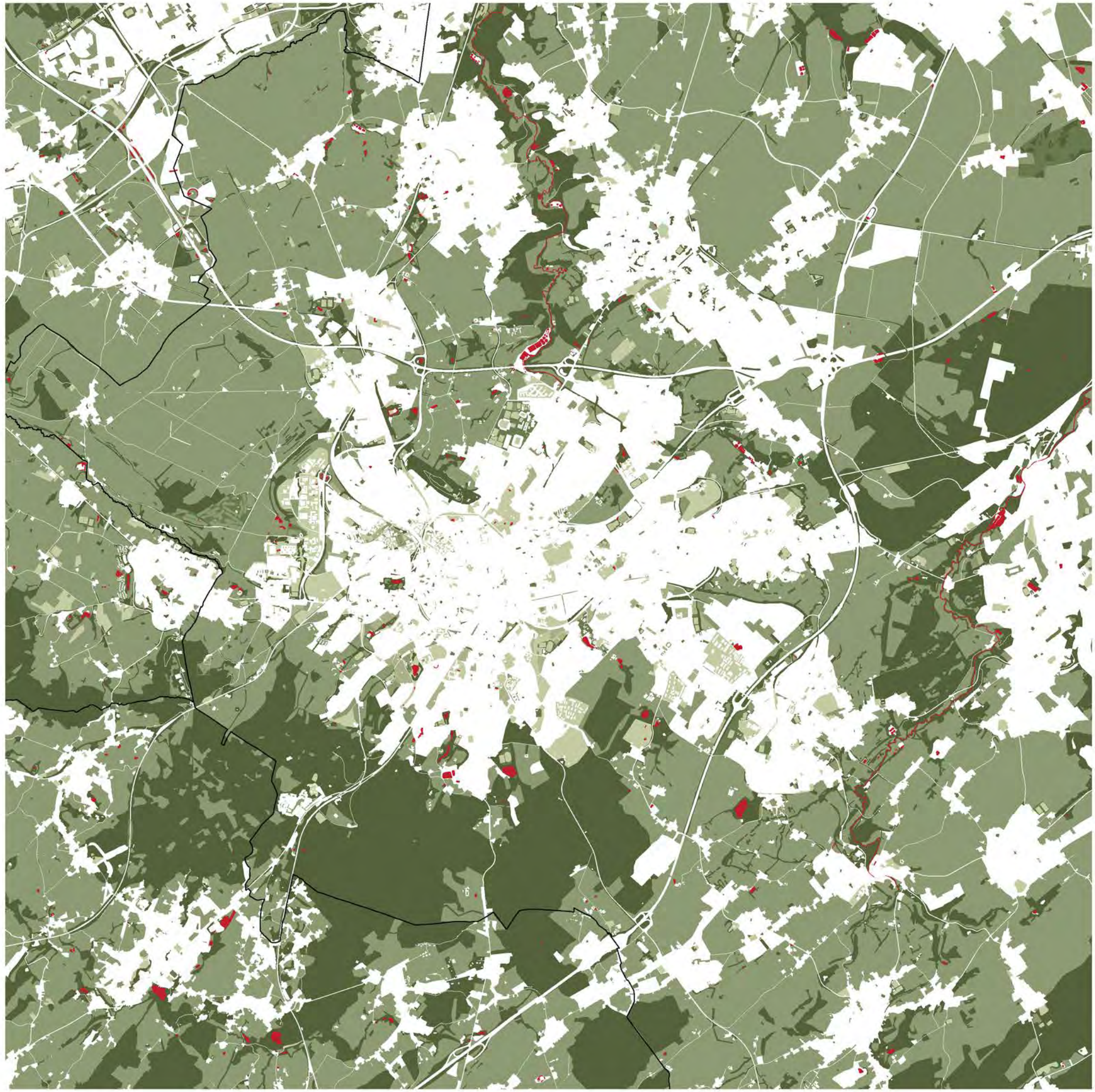

V. City Nature
The Natural Space as Urban Structure

Aachen. The City
scale 1:33.333 (original scale 1:10.000, plan size 90x90cm)

V. City Nature
The Natural Space as Urban Structure

Aachen. The Historical City
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

V. City Nature
The Natural Space as Urban Structure

Aachen. The Contemporary City: Driescher Hof
scale 1:6.666 (original scale 1:2.000, plan size 90x90cm)

Epilogue

Mapping the City

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The European city, in its generality and specificity, embodies the history of our civilization. This is an only apparent contradiction: the cities of our continent are all the same because they have always been built in a close relationship, on the one hand, with the place of settlement – the forms of the geography – and, on the other hand, because they represent, in their structure and characters, the societies that have inhabited them – the forms of the history. In The Architecture of the City, Aldo Rossi defines the architecture and the city "[...] the fixed scene of the humankind history, full of feelings, of generations, of public events, private tragedies, of new and ancient facts" and, recalling Lévi-Strauss, "human thing par excellence"[1]. Therefore, the forms of the city contains life and represent it: then, the knowledge of these forms, as architects, is the condition – certainly necessary even if, perhaps, not sufficient – to wisely continue the collective project of the architecture of the city and to sign a distance from an attitude, unfortunately very widespread today, of producing architecture – and building architectures – similar to new objects juxtaposed with others that remain incapable not only of establishing new relationships but also of interpreting the pre-existing orders and are unable, in this way, unable, to use Massimo Cacciari's words, to donate places[2].

Therefore, it is necessary to define the disciplinary tools to be used to know, with a 'vocation' to the project, this complex synchronic artifact that is the city, to study its constitutive elements and the systems of relationships that exist, in it, between the different scales. This question about the city as the place of the project has accompanied the work of Uwe Schröder for a very long time, that the German architect, professor at the RWTH Rheinisch-Westfälische Technische Hochschule in Aachen, has dedicated to the study of many Italian cities – Naples , Parma, Milan, Catania, Bari, Venice and others – but also to the elaboration of a theory of the phenomenological reading of urban space that found its first, significant, systematization in the work about Aachen contained in the publication of 2015 Pardié. Konzept für eine Stadt nach dem Zeitregime der Moderne / A Concept for a City after the Time Regime of Modernity[3].

Schröder's reflection focuses on a concept of space as a foundational value of architecture and maker of the form that defines it. The figure of the city – built through history – is fixed on its background – the geographical form – in the Schwarzplan, also showing the historical evolution of the settlement in its most representative moments of urban ideas attributable to a defined culture of inhabiting. But the knowledge of the city cannot end in this reconstruction of the 'figure on its background' because the city is certainly a formal construction, a product of a collective reason, but it is also made up of spaces in which bodies move and live. For this reason, Schröder proposed a new analytical tool to accompany those derived from a more consolidated, over time, tradition. The Rotblauplan is the map that identifies and classifies the spaces of the city, distinguishing them between 'warm' and 'cold'. The warm spaces have characters of interior space and are not only those of the architectural interior but also the spaces between the buildings or inside them when they can interpreter as collective places. The cold spaces have characters of exterior space and are those of nature or wide open inside the city without architectural boundaries. This very powerful analytical tool is able to cross different scales of representation, but it does it in a more interesting way than the Schwarzplan, for example, can do in the passage from 1.25.000 to 1:5.000 scale. In fact, if with the scales of the figure-background plan there is a sort of improvement of the magnifying glass, the red-blue plan is able to define a sort of augmented reality in its capability of adding information and focusing on the typological structure of the urban fabric. Talking about typology – in its indissoluble relationship with urban morphology – certainly refers to the tradition of Italian urban studies, of a procedural matrix, of the theories elaborated by Gianfranco Caniggia and, first, by Saverio Muratori. However, the righter reference of the work on the spatiality at the typological scale is rather here to the 'Enlightenment' and precisely to the Pianta di Roma of 1748 by Giovanni Battista Nolli and to the Mappa topografica della città di Napoli e de' suoi contorni by Giovanni Carafa, duke of Noja of 1775. In these extraordinary representations of the form of the city – sometimes only designed as in the case of Albergo dei Poveri by Ferdinando Fuga in Naples, drawn in its never realized version with five courtyards – the poché technique identifies closed spaces while the hatching technique identifies the architectural elements with a certain degree of openness and a mediating role between the inside and the outside, such as arcades, porticos or entrance halls, that underline the typological order of the relevant buildings in the overall structure of the city.

Mapping the city, therefore, in view of its adequate modification, does not mean merely observing it to find data – more or less big –, flows, exchanges (as in some efficiency hypotheses à-la "Space syntax" unable to say anything about the nature of forms and spaces of the city of man). Mapping the city has to mean building an explicit and verifiable analytical toolbox capable of investigate the physical reality in order to prepare and build, using the words of Ernesto Nathan Rogers, "a world built through real instruments for real goals" to "think concretely of a better society"[4]. In other words, building an Atlas cannot be reduced to a mere taxonomic description

of what exists but has to become a tool able to modify while observes and to observe while modifies, equipping devices, detecting contradictions and announcing new possibilities, new and unprecedented structures of sense. An Atlas "supports", not only mythologically, the world of the possible, starting with a systematic that classifies and lists facts, phenomena, forms according to an agreed code that offers itself to intelligible understanding and hermeneutic re-understanding as a starting point: as an incipit, an archè (the beginning) that, however, also contains a potential telos (the end), a potential pro-jectus thrown towards its operability. The world gives itself to our understanding, re-understanding, only if it is possible to represent it, only if it is possible to draw it. As Johann Wolfgang von Goethe stated "What I have not drawn, I have not seen". But it is necessary to have a Theoria capable of penetrating the phenomena, the data that are offered to our perception, to draw, to intentionally observe and to be able to describe deeply a city. Observing without interpretative categories is a distracted observation, a short-sighted or clouded look. The construction of an Atlas able to support the "possible necessary" – a good expression by Vittorio Gregotti[5] – which straightens the reality – what is crooked following Jacques Lacan – presupposes an observation that does not only look and observe but moves and produces: presupposes the capability of seeing. As Italo Calvino said: "In order to see a city, it is not enough to keep your eyes open. You need first to discard what prevents you from seeing it, all the received ideas and the preconceived images that continue to clutter the field of view and the ability to understand. Then, it is necessary to know how to simplify, to reduce to the essential the huge number of elements that the city puts under the eyes of the beholder every second, and to connect the scattered fragments in an analytical and at the same time unitary drawing, like the diagram of a machine, from which you can understand how it works..."[6].

Building this analytical and unitary drawing is precisely the task of the Atlas, of the Mapping that has been realized in this precious volume.
This Atlas, more and more in a refined way, compares two cities – Aachen and Bologna – revealing unsuspected analogies and fertile differences. The Mapping starts with formal analyzes of extreme objectivity and immediacy that sample, by difference and comparison, the sedimented and built parts of the Altestadt on the one hand, and on the other hand, parts of the discontinuous peri-urban areas where the void becomes a more powerful figure but awaiting an order, a structure and new relationships. Then, synthetic drawings hold together (always in the double sampling), through the aforementioned technique of the pochè, public spaces, monuments, interior spaces dedicated to a common use. The phenomenological analysis, as anticipated, is added to these interested in a morphological definition, in order to name and distinguish the spaces of interior and exterior spatiality. This is an investigation, both diachronic and synchronic, which, more than the first "objective" analysis, contains within itself the germ of the transformability: the clue and the condition of possibility of modification. This intrinsic poietic character should not lead to think of an intuited and approximate construction: rather, it is a careful survey that starts from regular distances of the percept (altimetry, profiling, structure of margins and thresholds), measuring by means of the bodies the quality of the urban spaces as it is possible to do for the architectural space without invoking mysterious and unattainable "atmospheres". Further thematizations follow, capable of capturing the quantitative/qualitative aspects of the perception of the urban image on the assumptions of the Lynchian theories, investigating the pedestrian accessibility of the public spaces and possible densification strategies. A powerful investigation of the orographic and natural structures of the City Nature or, in another words, of a desirable Greenville ends the Atlas. In this interpretation at different scales, the natural space re-becomes visible urban structure – a recognizable and not hidden support-place of the relationships between the parts – significantly both in the historical city and in the city in extension, in the city of openness. These spaces of the human life, and for the life, at the same time distinguish and innervate the urban parts making them recognizable. Again with Calvino's words, they allow to represent, as the ancients "[…] the spirit of the city […] evoking the names of the gods who had presided over its foundation: names that represent the personifications of vital attitudes of human behavior and had to guarantee the profound vocation of the city, or personifications of environmental elements – a stream, a soil structure, a type of vegetation – that had to guarantee its persistence as an image through all the subsequent transformations, as an aesthetic form but also as an emblem of an ideal society. A city can go through disasters and middle ages, see different lineages succeed in its houses, see its houses change stone by stone, but it must, at the right moment, in different forms, rediscover its gods[7]".
This Atlas realizes, with claritas, reason and passion, this necessary aspiration.

[1] A. Rossi [1966], The Architecture of the City, The MIT Press, Cambridge, Massachusetts, and London, England 1982.
[2] M. Cacciari, La città, Pazzini editore, Villa Verucchio (Rimini) 2004.
[3] U. Schröder, Pardié. Konzept für eine Stadt nach dem Zeitregime der Moderne A Concept for a City after the Time Regime of Modernity, Verlag der Buchhandlung Walther König, Köln 2015.
[4] E.N. Rogers, Utopia della realtà, in «Casabella-Continuità» n. 25, 1962.
[5] V. Gregotti, Il possibile necessario, Bompiani, Milano 2014.
[6] I. Calvino, Gli dèi della città, in Id., Una pietra sopra, Mondadori, Milano 1995.
[7] Ibidem.