

NEXT TIRANA

MANAGING QUALITY OVER GROWTH

PROF. THOMAS AUER
with
VISITING PROFESSOR GJERGJ BAKALLBASHI



NEXT TIRANA

MANAGING QUALITY OVER GROWTH

TOWARDS COOL(ER) CITIES

by [JONATHAN NATANIAN](#)

With almost 70% of global population projected to live in cities by 2050 [1], as well as the major role cities play as both energy consumers and carbon emitters [2], it is of no surprise that the future of urban design is becoming one of the biggest design challenges of our time.

(1) United Nations. (2018). *2018 revision of world urbanization prospects*

(2) International Energy Agency. (2016). *Energy Technology Perspectives 2016: Towards Sustainable Urban Energy Systems*. OECD.

(3) Cole, R. J. (2012). Transitioning from green to regenerative design. *Building Research & Information*, 40(1), 39-53

(4) Naboni, E., Natanian, J., Brizzi, G., Florio, P., Chokhachian, A., Galanos, T., & Rastogi, P. (2019). A digital workflow to quantify regenerative urban design in the context of a changing climate. *Renewable and Sustainable Energy Reviews*, 113, 109255.

(5) Givoni, B. (1994). Urban design for hot humid regions. *Renewable energy*, 5(5-8), 1047-1053.

Recently it is also becoming clearer that resources efficiency is only one aspect in a bigger picture; health and wellbeing, social cohesion, circular economy and local heritage are just few considerations in a growing list of parameters that urban planners are expected to address [3]. To help quantify these performance indicators, new tools and metrics are emerging, mostly in research, capitalizing on recent developments in Building Information Modelling (BIM), Geographic Information System (GIS) and parametric computational design methods, and offer a seamless flow of data and analysis which open new possibilities for performance driven urban decision making [4]. Despite these advancements, the long-awaited tipping point where actual design decisions will be simultaneously informed by data is still far from sight, and arguably a considerable gap exists between theory and practice in performance driven urban design.

Dense urban areas in hot regions which are expected to exponentially grow in the next few decades are at the heart of this overwhelming challenge, being both part of the problem and the solution [5]. Despite the low applicability of environmental performance considerations in practice, especially at the urban scale, new standards keep emerging (e.g. LEED, ZEB, WELL etc.), setting higher performative targets while disregarding the common urban design practices which are in most cases far behind. This distinct gap between the urgent need for urban transformation and the existing stagnant urban design tradition can be regarded as a rare opportunity for innovation, from which new forward-thinking design approaches will emerge.

The role of academia in this transformation of urban design into its NEXT phase (be it responsive, generative or regenerative) is critical. The immediate intersection between design and engineering which exists in academia has the unfulfilled potential to set a new paradigm, in which quantitative and qualitative approaches can mix, and must mix, to answer to the contemporary multilayered urban challenges. This potential was explored by the design studio entitled 'NEXT Tirana' reported here through innovative design approaches developed by the »

students during the winter semester of 2019/20. The theme of achieving urban quality over the process of growth or densification served as an important reference point in which the intersection between the qualitative and quantitative was debated along the semester long project.

Tirana, the capital city of Albania, a Mediterranean city in transformation, can be regarded as an extreme example of rapid urbanization in almost chaotic circumstances; The Dom-Ino house model developed by Le Corbusier in 1914 as a promise for an effective future of urban mass production, receives a new meaning in Tirana (figure 1) of uncertainty - where flashy new buildings designed by top-architects stand in complete contrast to deteriorating, half-finished “Dom-Ino” structures across the city. Chapter 2 by Gjergj Bakallbashi elaborates on these circumstances and hints towards the main themes around which the current spatial negotiation is taking place and shaping up the city. These themes were studied by the students along the semester and used to formulate design proposals for three selected sites in Tirana, following a research-based design methodology described by Dr. Sandra Persiani in chapter 3. The four group projects described in chapters 4-7 demonstrate different urban design approaches which resonate the historical, climatic, social and spatial site specific and urban characteristics of Tirana and open up a new reading of the city that help set an alternative to the existing ongoing urban design schemes for the city.

This book concludes with an open ended discussion on what’s next; it raises questions about the role of data in the design process, the role of architects as data users in the process of their work, the extents to which we can ensure quality in dense scenarios and about the need to quantify quality. On the verge of a data revolution where designers are expected to think and produce differently to create smart adaptive and regenerative building and cities, these topics are likely to become an integral part of the architectural discourse in near future.



DOM-INO STRUCTURES

Half-finished structures can be seen all around Tirana, highlighting the contrast brought by the rapid urbanisation process.

TOWARDS A COMPASS TO NAVIGATE THE TERRITORY *of* DENSITY *and* QUALITY

by GJERGJ BAKALLBASHI

Architects today need to navigate their way in an intricate web of information that contains in it anything from Technical Building Info to Political Scenarios to history of the built environment, to mention a few.

Let's imagine that instead of thinking of this web of information as a large chaotic space, we can think of it as a virtual geography that we need to navigate, using a so-to-speak multi dimensional compass. A group of students made up of two Germans, two Albanians, one Portuguese and one Brazilian, one Indonesian, two Chinese and a Turkish, land in a city little known to them and they are asked to 'understand' and 'propose' architectural concepts for sites loaded with layers of information. Aside from their own individual perceptions and observations, they have to communicate clearly with each other and agree on the directions they have to move toward in this territory, uncharted by them before.

In *Next Tirana* we undertook to explore the territory of Tirana by looking at the relation between density and quality. The premise of the studio was to look for opportunities to maintain, recover or develop those qualities that have been overlooked as the process of densification is taking over the undeveloped areas of city.

Densification is a strong buzzword these days because it somehow is linked closely to urban sustainability of the built environment. In the case of Tirana, it is regulated via Urban Regulatory Plans, which prescribe FAR, Land Coverage, Distribution of Functions. As such it is a Top-Down process, that imposes on the territory of the city and beyond parameters of development.

These zoning regulations of the city are silent when it comes to urban shading, urban cooling and ventilation, thermal performance.



TIRANA FROM ABOVE

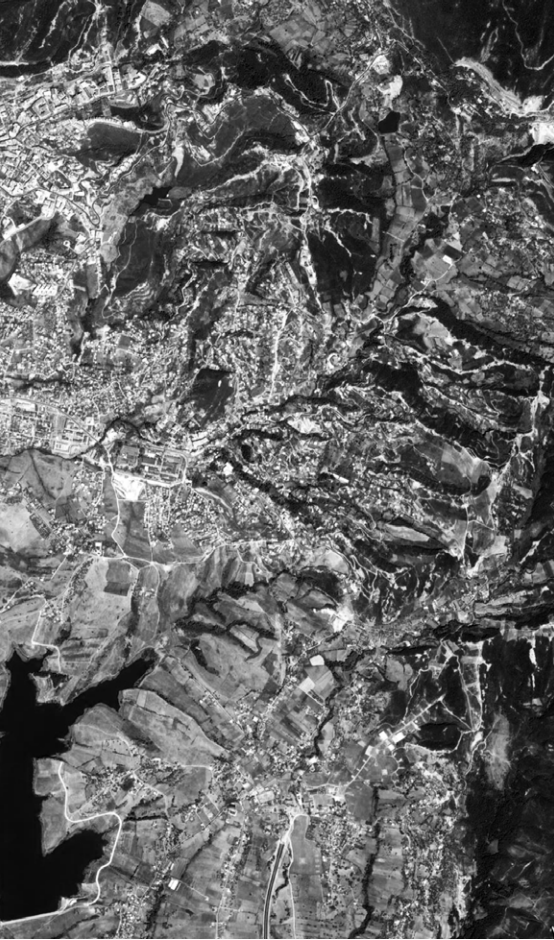
Tirana's visible historic core at the centre and its radial growing pattern. The points of interests and project sites are shown on pages 30 to 33.

Three areas of the city were chosen: The New Boulevard, as is known in Tirana, a 600 ha area of former railway yards, The Student City, and the former industrial area, known as Dinamo.

These three large sites in the city were considered as good study cases to think the question of density versus quality, or of density and quality, and to provide a multi-layered understanding where the question of finding a bearing – and using the metaphorical compass – becomes inevitable.

Because of their size at the city scale, these sites show very clearly the tension between top-down and bottom – up dynamics of urban planning. The current planning process is built on the premise that the territory of the city is one of many parcels of land to be developed. FAR-s are assigned and each parcel gets its own development parameters. In the mean time, the bottom-up part of the process is missing. Local specifics, climate considerations, are often overlooked.

For example the proximity of Student City to an area that has been 'filled' with informal structures – albeit of decent quality – but of relatively low FAR, invites one to redefine the boundaries of the proposal area and think of a kind of larger impact, at city scale. This rethinking on the one hand takes the pressure off densification inside drawn boundaries. On the other hand it allows for the phenomena of temperature variations and microclimatic behavior to be explored according to their natural limits, like topography, densely greened areas, water bodies, noise barriers, prevalent wind channels. This kind of semi-real possibility to rethink the process of planning, opens up the bottom-up line of thinking about the site.



The planning process for the student city quarters is ongoing. There was an international competition held about the future of the site. As the original requirements of the competition brief have had to be revised, the winning proposal of 5 years ago was no longer viable. The process is lingering – there is a Pause/Play dynamic that opens the possibility of revising the approach to the densification of the area. So Time Forward and Time Backward becomes a tangible dimension that informs the thinking of the students toward the site.

The student city site, like the other two, has a distinct architectural and urban quality. It is built in the 70-s and today is one of the areas in the city where the open, unbuilt territory far exceeds the built footprint. According to common practice, the unbuilt presents the most straightforward way to densify the quarter. The two student groups took to question this accepted practice and pursued to very different strategies.

One was to improve the quality of the existing quarter by adding a series of light structures which increase shading and cooling, while combining these with functions that a student city benefits greatly from: large and small study corners, library areas, start-up laboratories, play areas. This soft approach was complemented by isolated, high density new structures to accommodate the need for more student housing.

The other strategy was to look at the student city quarter as part of the larger city fabric and rethink the existing zoning. As such new student housing was proposed to be developed in the areas adjacent to Student City while keeping the area open and developing it to look more like the great park next to it rather than fill it with new construction. In this approach the Student City becomes more of a classical university campus, dominated by the landscape rather than building. The issue of density is dealt by revising the parameters of the adjacent areas. By looking at the configuration of Tirana prior to the starting of the fast densification process, the proposal re-establishes the green character of the area as one of the surrounding green hills of Tirana, rather than of a densely built neighborhood. The thinking process, driven by taking close and pragmatic consideration of qualities that increase comfort across different scales, amounts to interdisciplinary thinking. Urban geography, urban planning, urban design, landscape and architecture are fluidly connected, albeit at a general level. In the other two sites, both former industrial sites, traffic patterns, historical heritage, social dynamics, temporary and permanent architecture were other axis of thinking, made evident by the original site visits and consecutive mapping exercises.

THE ACTORS

the STUDIO TEAM & STUDENTS

The Chair for Building Technology and Climate Responsive Design teaches and researches the development of energy-efficient technologies and strategies to achieve maximum environmental quality in the interior and the exterior built environment, while minimizing the use of resources. The holistic design approaches adopted involve an expertise on indoor microclimate regulation, the analysis of user flows and overall energy efficiency of the built system.



THOMAS AUER,

PROFESSOR

Professor Auer studied process engineering at the University of Stuttgart. Since then he has dealt extensively with issues relating to the energy efficiency and user comfort of buildings within the framework of his role at Transsolar Energietechnik GmbH. Between 2001 and 2008 Professor Auer had a teaching assignment at Yale University. Subsequently he held visiting professorship positions at the University of Kassel, the École Spéciale d'Architecture in Paris, the University of Sassari (Università degli Studi di Sassari) in Italy and Ryerson University in Toronto, Canada. He has been a professor at TUM since 2014.



GJERGJ BAKALLBASHI,

GUEST PROFESSOR

Gjergj Bakallbashi holds a Masters Degree in Architecture from the Graduate School of Design, at Harvard University, March 2006. Upon graduating he worked for the offices of Scott Cohen Architects, and Kyu Sung Woo Architects in Cambridge, MA. He curated the first Albanian Pavillion at the Venice Bienale, 2010. Until 2017 he was Director of Urban Planning and Architecture at the Municipality of Tirana. In charge of an office of 40 architects, engineers and planners, he directed work ranging from public space to urban design projects at various scales. Currently he is practicing as part of the collaborative VIZA Architects he founded in Tirana. The current work focuses on residential projects, from a two family residential project to a redevelopment of a former industrial area in the city of Tirana.



DAVID SELJE, TUTOR

David earned his BSc degree from the University of Stuttgart in 2014 and his MA degree from the Technical University of Munich in 2017. After finishing his studies, he started working as a research associate at TUM, while working in several architectural design offices. He is currently practicing architecture in LBGO Architects in Munich.



SANDRA PERSIANI, TUTOR

Sandra holds a PhD in Environmental Design (2016) and a master in Architecture (2009) from the University Rome La Sapienza. She has been a researcher at NTU in Singapore and is since 2019 a Postdoc in Munich with a TUM Foundation Fellowship. Her research focuses on adaptive and biomimetic solutions in the built environment.



JONATHAN NATANIAN, TUTOR

Jonathan acquired both his architectural degree and practical experience in Israel before earning his master's degree at the AA in London. Since 2018 Jonathan works as a research associate at TUM, where he is currently pursuing his PhD under a DAAD scholarship. In his research Jonathan is developing a digital approach to harmonize energy and environmental quality at the urban scale.



BILGE KOBAS, TUTOR

Bilge has her BSc degree from Istanbul Technical University (ITU, 2008) and her MSc degrees from ITU (2011) and AA School of Architecture (2012) with TUBITAK and British Council&HSBC scholarships, respectively. Since 2019, she is a PhD student and a researcher at TUM with a DAAD research grant. Her research focus is data-driven design practices in an urban scale.



ALESSANDRA BATTISTI, GUEST CRITIC

Alessandra Battisti is an architect and Professor in Environmental Design and Technology of Architecture at the Faculty of Architecture of "La Sapienza" University of Rome, where she is also Head of the Master's programme in "Landscape Architecture" since 2016 and in Master's programme in "Architecture-Urban Regeneration" since 2020.



CHRISTIAN GOLDBACH, GUEST CRITIC

Christian Goldbach started his career as a carpenter between 1996-1999 in Germany and Australia. He received his diploma in architecture from University of Stuttgart in 2004. Christian started working in Behnisch Architekten in 2004 and was a project leader until 2013. Since 2014, he is managing LBGO Architects and he has been a guest lecturer at TUM.



MERVE BIYIK, 24

Istanbul Technical University,
Turkey



LAJZ ÇAPALIKU, 24

TU München,
Albania



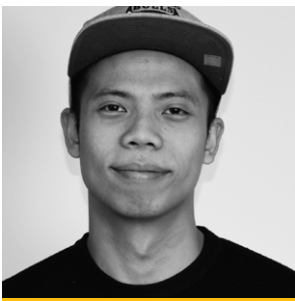
FLORIAN KRAFT, 29

TU München,
Germany



EMA KRAKOVSKÁ, 22

CTU Prague,
Slovakia



PRAYUDI SUDIARTO, 25

TU München,
Indonesia



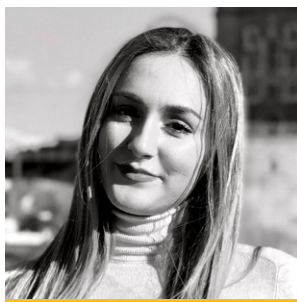
JIAN YANG, 26

TU München,
China



**STUDIO TEAM DURING THE
EXCURSION**

Photo by Ema Krakovská



JULIA MECORAPAJ, 23

TU München,
Albania



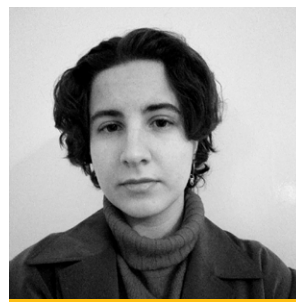
MENGLI PI, 23

University of Melbourne,
Australia



EDUARDA POUBEL, 22

FA Lisboa,
Brazil



BÁRBARA SALAZAR, 22

FAUP,
Portugal



THE STUDIO

the COURSE AND TEACHING PROCESS

The main goal of *Next Tirana* is to address, through the work of student groups, specific problematic urban contexts in Tirana: the student city, the former industrial area and the former railway yard. These case studies provide interesting and diverse contexts of high urban complexity as well as a strong potential to create a strong local identity.

The projects are set to provide a critical analysis and spark a debate on the definition and the measure of quality within an urban context, discussing whether quality can grow alongside densification.

Transition explores the potential of combining a rule-based urban planning method together with the qualities of a spontaneously generated urban growth. By designing an urban transition over a 30-year time lapse, the project aims to generate an evolving urban quality and sense of local identity, while achieving densification in time.

Dinamo suggests the galvanization of a broader urban area through the design of a complex and interrelated diversity of urban functions, typologies and morphologies. It presents itself not as a single design solution, but as a method of applying a catalogue of combinations on multiple layers.

Park Trilogy searches for answers to the isolated student city outside the boundaries of the area, looking at a very large impact zone. The intervention radicalizes the urban characters of the area by emptying, re-greening and re-functionalizing the core while densifying, redefining and reconnecting its boundaries with the surroundings.

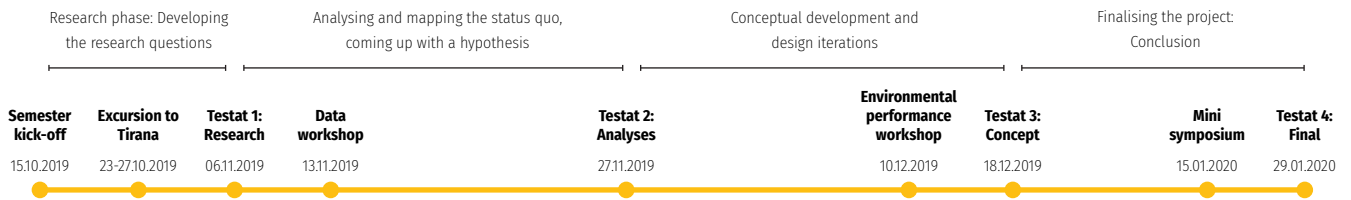
Red Work transforms the lack of connections towards and within the student city into a major urban sign. A red organic network is inserted in the urban landscape as a character of strong identity, introducing services and facilities while re-functionalizing the existing built environment.

THE TEACHING PROCESS

For the development of this studio, a scientific deductive process was adopted as the underlying method to teach the students a working procedure to identify a relevant design idea and support it with strong arguments.

The projects are developed as a team-based work, on interrelated topics researched parallelly, encouraging the sharing and crossbreeding of ideas and information between the research groups throughout the semester.

The design process was subdivided in 4+1 phases of project development supported by two data-driven intermediate input phases.



DESIGN CHARETTE

Aim of the charette was to allow the students to analyze and process their intuitive feelings and first impressions about the city of Tirana, a kick-off exercise was held during the excursion. The conceptual output of this early creative stage was also kept as a comparison during the later design stages.

The students were grouped in four groups of 2 to 3 persons and assigned one chosen project area. They were given 24 hours to work together and prepare a five minutes presentation analyzing the broader urban context. As a summary, they were asked to express in two different images a utopian and a dystopian vision of the urban areas, projected 30 years in the future.

The resulting images developed were commented together with the students and posted on the wall of the students' working studio in Munich.

CLOUD PAVILION IN TIRANA

Photo by Ema Krakovská,
taken during the excursion





DYSTOPIA

Collage by Mengli Pi and
Merve Biyik

"DOES TIRANA HAVE ENOUGH GREEN SPACE FOR PEOPLE?"

Collage by Bárbara Salazar,
Ema Krakovská and Jian Yang



TESTAT 1 – THE RESEARCH

The research phase aimed to allow the students to become familiar with the overall topic, its multiplicity and complexity. The former design charette groups were asked to continue working together during this phase researching the State of Art, and analyze the information from different sources through classification and comparison. Each group was asked to choose one of the four research topics given, where each group member would focus on one subtopic.

Topic 1. Density, Typology and Metrics

- What is considered dense? Study of the existing metrics, the cultural differences in perception of density, density contextualized with geography and timeframe.
- How does density affect urban environmental performance? Study of environmental performance in relation to quality of life, infrastructure and cultural trends.
- Can dense fabrics adapt to change? Study of the functional, infrastructural, typological and identity-related aspects.

Topic 2. Culture, Heritage and the existing Built Environment

- What makes the identity of a place? Addressing of specific characters as the social structure, the heritage, history and design expression.
- Can dense fabrics adapt to change? How much can these transform without losing their identity? Addressing of functional, infrastructural, typological and identity-related aspects.
- How to densify the existing fabric? Study of massing precedents, smart solutions, reusing and recycling vs demolishing solutions.

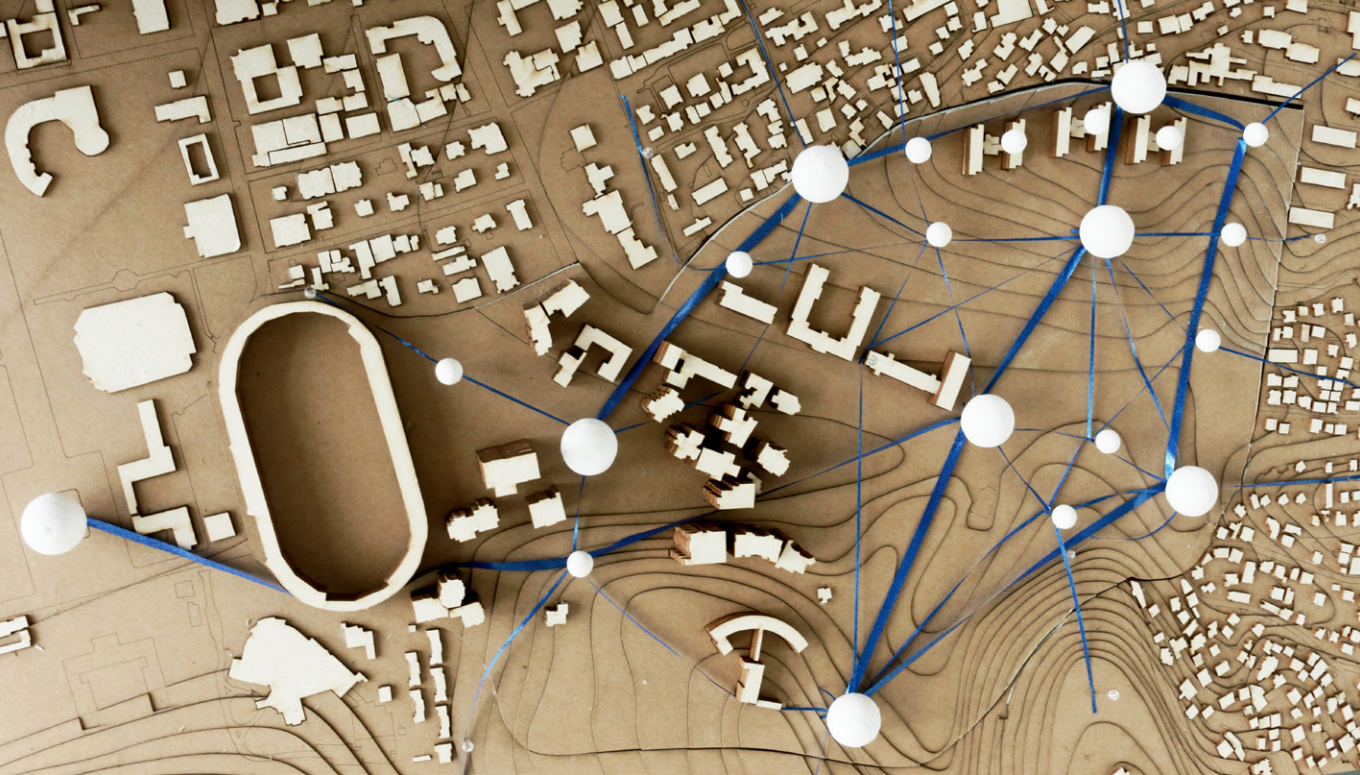
Topic 3. Mobility and Infrastructure

- How does density affect the nervous system of a city? Study of urban complexities, cultural trends, choices of mobility, mobility time scales and consequences.
- Perception of the urban space while in movement. Studies of urban walkability, bikeability, urban massing, diversity of cityscapes, scales and proportions.
- How does the infrastructure impact the environment? Insights on air and acoustic pollution, perceived urban quality, energy prices, potentials of requalification in underprivileged areas

Topic 4. Livability, Urban Circularity and Environmental Quality

- How to define quality of outdoor spaces? Analysis of metrics, urban psychology, outdoor comfort perception.
- How can we live sustainably in the future? Insights on lifestyle choices, waste processing, resource efficiency, urban farming, cradle to cradle processes, balance of built vs natural environment.
- Emergent performance in systems of buildings vs individual solutions

The students presented the contents of their research by summarizing the State of Art and identifying research gaps to further focus on in the successive tasks. The outcomes were presented to the class in form of a beamer presentation and printed on A3 panels that were posted on the wall of the students' studio space to serve as common knowledge database, to be shared by all groups.



WORKING MODELS

By Merve Biyik and Mengli Pi



WORKING MODELS

By Eduarda Barbosa Poubel,
Lajz Capaliku and Florian Kraft

INTERMEDIATE INPUT – DATA MINING AS A TOOL FOR DATA-DRIVEN DESIGN

The students were introduced to new digital methods of sourcing design-relevant information on the city and territorial scale on which to base the development of their design concepts.

TESTAT 2 – THE SITE ANALYSIS

Aim of the site analysis was applying the acquired data mining tools to understand the strengths and weaknesses of the selected urban contexts and formulate a problem statement to address in the next design stages.

The former design charrette groups were split, and the students reorganized in completely new groups mixing students with different knowledge background acquired in the research phase.

The new groups were asked to map data in four different categories:

1. Public transportation (daily passengers, bus lines on the same routes, etc.) via sources such as Moovitapp, Google Maps, Open Street Maps,
2. Alternative transportation (walking, running, biking paths) via sources such as Strava, MapMyRide, Wikilocs,
3. Points of Interest (leisure as cafés, restaurants, bars; shopping; education and culture buildings and centers as schools, universities, libraries, art galleries, etc.; sports and tourism as hotels, hostels, etc.) via sources such as Tripadvisor, Google Maps, Foursquare, Open Street Maps,
4. Natural structure (green areas, water bodies, topography, etc.) via sources such as Copernicus, GIS file retrieved from City of Tirana.

The results of the analysis were summarized and presented through a beamer presentation. The students were asked to formulate, on the basis of their analysis a problem statement contextualized to each specific area.

TESTAT 3 – THE CONCEPT

The aim of this phase was to answer the problem statement from the previous phase by translating the concept into a preliminary massing.

Each student group was asked to suggest one design concept that would answer the issues identified in the previous research phases, specifically addressing the problem statement. The students were encouraged to work with rough physical models in scale 1:2000 / 1:1000 to visualize the solution and develop alternatives and variations.

The four concepts were presented in form of a beamer presentation, supported by the working models used in the design phase.

INTERMEDIATE INPUT – ENVIRONMENTAL SIMULATIONS AS A TOOL FOR DATA-DRIVEN DESIGN

The students were introduced to the use of simulation tools for optimizing the massing and distribution of urban landscapes according to the local environmental conditions. The students were then asked to further develop their design concepts according to the acquired optimized solutions.

TESTAT 4 – THE FINAL DESIGN

The final design of each group consisted of a summary of the main relevant aspects achieved in each phase of the design, including a selection of the relevant State of Art, the identification of a specific problem, the formulation of a hypothesis and the consequent development of a design proposal that aims to solve the problem.

**GROUP DINAMO
PRESENTING AT THE FINAL
TESTAT**



RESEARCH-

How much is considered dense?
How does density affect urban environmental
performance?
Can dense fabrics adapt to change?

DENSITY, TYPOLOGY AND METRICS

BY
Merve Biyik
Alina Götz
Bárbara Salazar

What makes the identity of a place?
How to densify the existing fabric?
How much can these transform without
losing their identity?

CULTURE, HERITAGE AND THE EXISTING BUILT ENVIRONMENT

BY
Lajz Capaliku
Ema Krakovská

GROUPS

How does density affect the nervous system
of a city?
How does the infrastructure impact the
environment?
How does the infrastructure adapt?

MOBILITY AND INFRASTRUCTURE

BY

Eduarda Barbosa Poubel
Prayudi Sudiarjo
Jian Yang

How to define quality of outdoor spaces?
What will sustainability mean in the
future?
Emergent performance in systems of
buildings vs individual solutions

LIVABILITY, URBAN CIRCULARITY AND ENVIRONMENTAL QUALITY

BY

Florian Kraft
Julia Mecorapaj
Mengli Pi

DENSITY, TYPOLOGY *and* METRICS

HOW TO DEFINE WHAT IS DENSE?

by MERVE BIYIK, ALINA GÖTZ & BÁRBARA SALAZAR

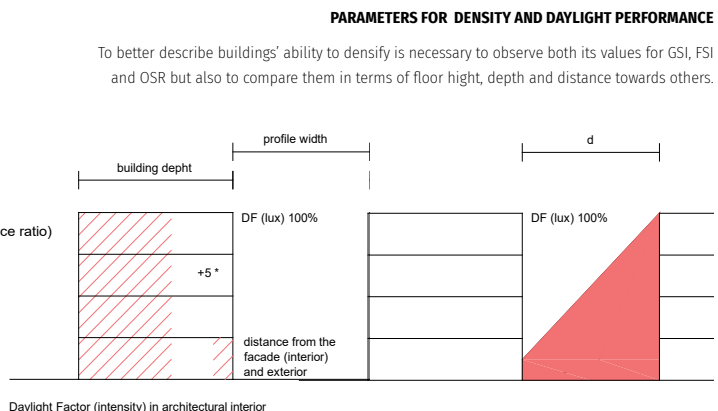
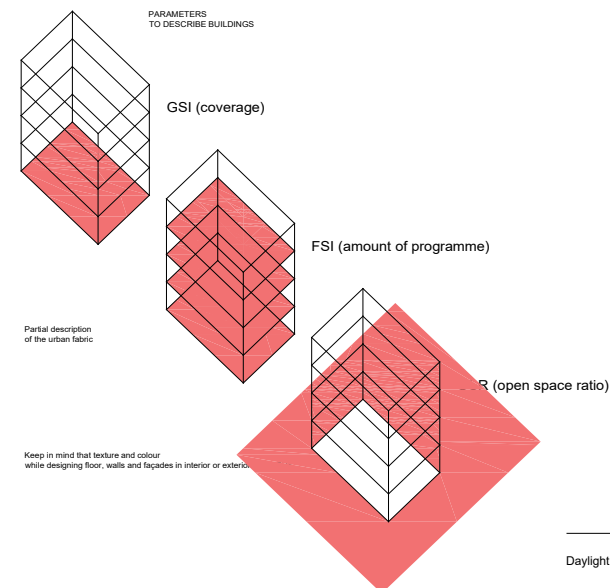
Density has many definitions and measurements. Each measurement describes density from a different perspective and each measurement is used to plan for a specific set of needs **(1)**. Although each value provides some specific information about a place, they cannot complete a picture of density alone. One can say that are several parameters about density concerned with the morphology, demography and social conditions of a place that have to be considered. Therefore, is here represented the most commonly used parameters with some additional ones to compare different districts in different cities.

It can be either positive and negative. Similar levels of density and still, the desirable quality of living varies. By itself, density does not

necessarily generate stress. A desirable density varies depending on the activities, cultures, ages, educational backgrounds, etc.

That way is very important as designers to observe the data but also the different forms to achieve the same performances, to chose what solutions are better to achieve a sustainable density. It is also relevant to distinguish certain myths about how to build density. The same density values can be achieved or even increased in other solutions by varying just one of the values (FSI, GSI, OSR) and keeping the others constant, etc. On the comparison density scheme, six different axes reveal different parameters that help to portrait parcels in different cities and countries (each represented in a specific color). According to Density Atlas, the environmental quality of these kinds of districts is shaped by its architecture and the architecture of surrounding buildings. Only an efficient way of design can guarantee light and air quality for each unit in the building and prevent the unpleasant and crowded feeling **(2)**.

(1) What is Density? (2011). Retrieved February 4, 2020, from <http://densityatlas.org/understanding/> reference source, Chicago Style, mind the styling.



To conclude, high levels of density normally affect a larger area given the high levels of resources/activities that are in need so is always necessary to study consumption in the urban region as a whole. Sometimes it is not the population affecting our perception of density. That is why when we look at cities like Tirana, where is still not very

dense compared to other cities like Munich is, it still faces a lot more problems. It can be explained by the lack of infrastructure that does not sustainably support density and causes too much stress, especially in areas close to the center where people have lower income and don't have a public structure that can support their good living conditions.

FAR



Floor area ratio

DU



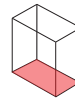
Dwelling density

POP



Population density

GSI



Site coverage

H



Number of floors

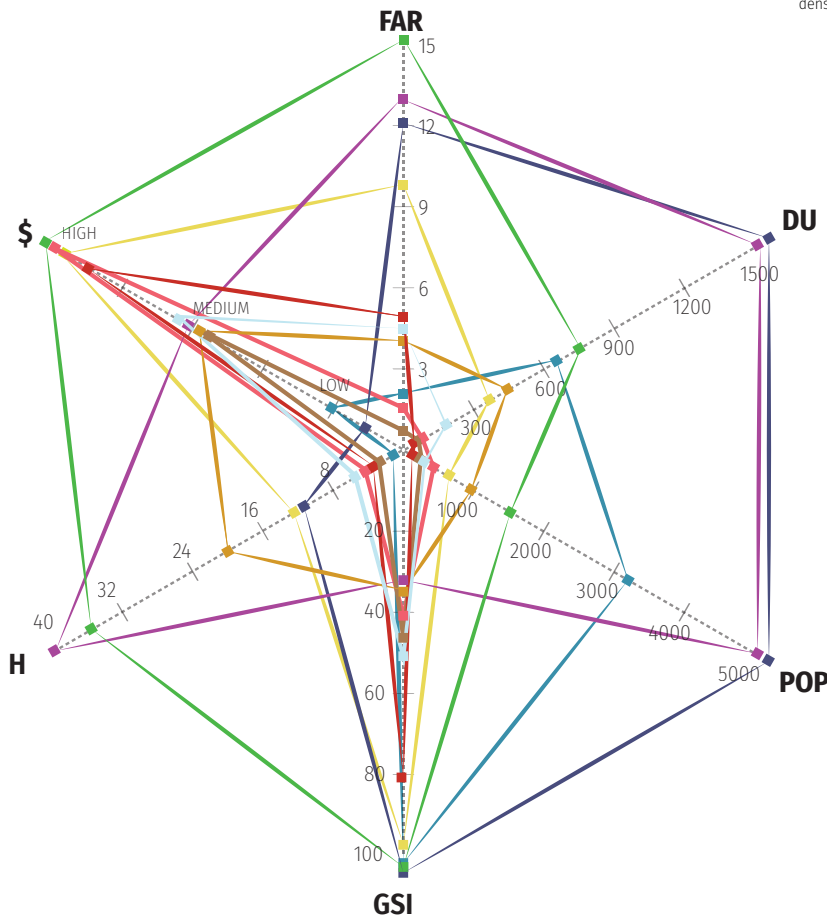
\$



Income level

COMPARISON DENSITY SCHEME

Different cities are here compared using the already explained dwelling density (DU), population density (POP), number of floors (H), and income level (S). e.g



CULTURE, HERITAGE *and* THE EXISTING

HOW TO DENSIFY WITHOUT LOSING THE IDENTITY OF A PLACE?

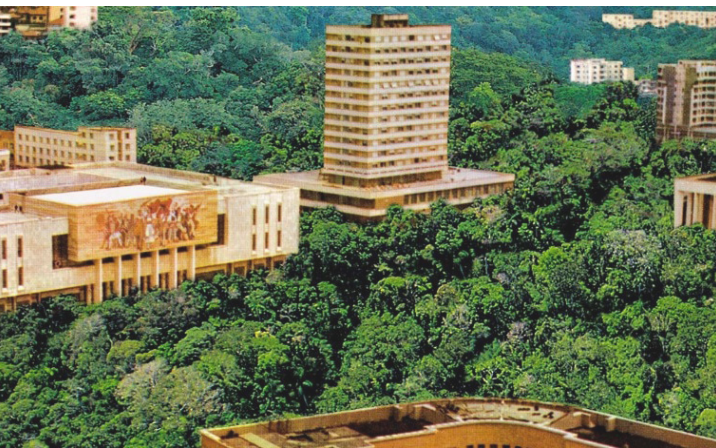
by LAJZ CAPALIKU & EMA KRAKOVSKÁ

Can dense fabrics adapt to change and how much can it transform without losing its identity?

We can densify or adapt the urban fabric in different aspects by changing its structural form or functions and purposes. Nevertheless, we should keep in mind that these material changes could also have positive or negative effects on the demographic composition of the site.

Throughout the history, there have been different ways how to bring development or contemporary adaption to existing cities.

The more notable radical changes in their material structure like Haussmannisation of Paris where product of absolutist regimes that can not be realistic in our modern society democratic regimes. Smart and sustainable solutions are required instead. Developments in the infrastructure of the site may also often be harmful for its existing social structure. Those interventions are likely to rise the prices and bring the negative effect of gentrification. Planners and city policy makers should



KREUZBERG IN BERLIN

An example of gentrified quartier.

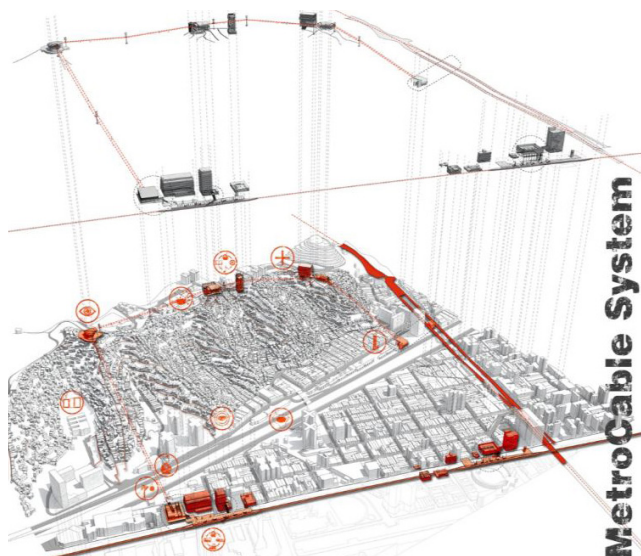


TIRANA WITHOUT CARS

An utopia of change in the urban texture. Image by Bert Theis, *Tirana pa makina*, 2003.

METRO CABLE

Intervention in Caracas, Venezuela. Setting up of a cable car system instead of the construction of a road network, that would require the removal of up to one-third of homes. Project and image by Urban Think Tank.



FUNCTIONAL MIXTURE, PRAÇA DE LISBOA

Mixture of different functions like: living, working, caring, leisure, shopping, educating in a close spatial-constructural neighbourhood.

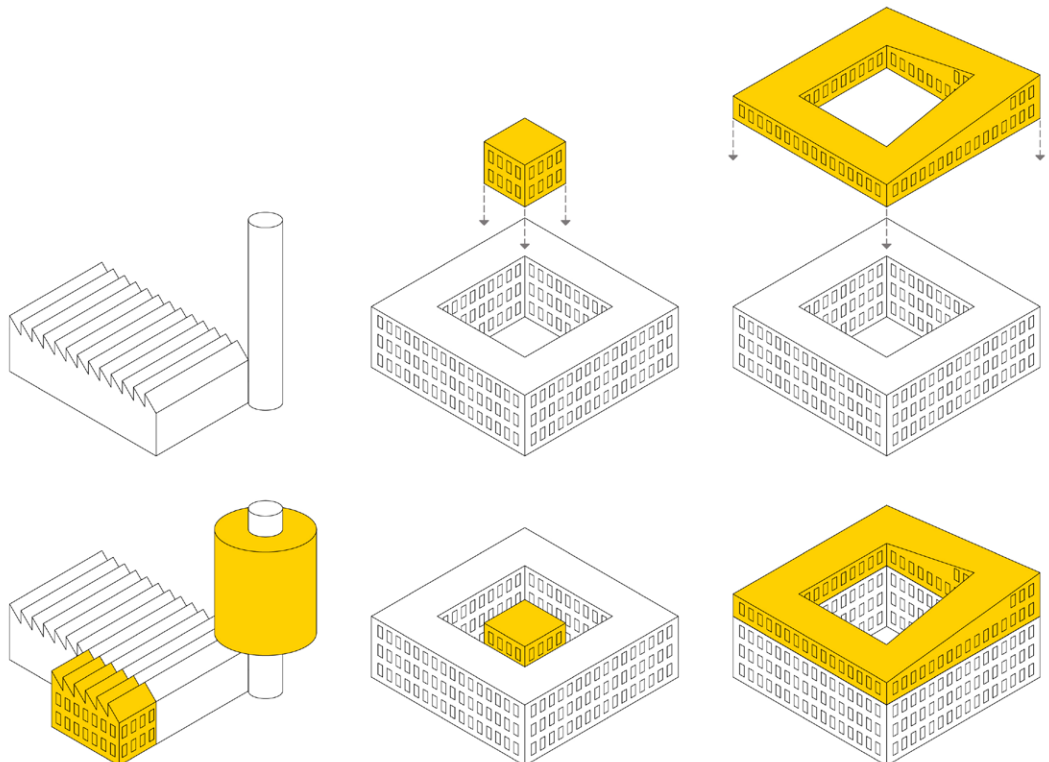
come up with changes that support the economical development of the site that would sink the unemployment rate and its negative social effects. Many European cities already do have policies that protect the social mixture of the quarters. In the physical sense, changes and interventions in urban structure should aim on offering an efficient climate comfort that would challenge the climate changes and the crisis of resource exploitation. By respecting those principles, we can open the way to sustainable changes that would still be able to preserve the identity of the given site.



HOW DO WE DENSIFY THE EXISTING FABRIC?

Building methods to densify the existing urban structure:

1. Depending on the urban pattern, in many European cities that consist on housing blocks, we could build in the inner courtyards of the block.
2. We can grow vertically by stocking up the existing buildings or low structures by still preserving their prior use.
3. Changing the use of the structures that don't bear their prior use anymore. Good examples are abandoned industrial areas.
4. Structures with mixes use. Combination of public and private spaces in an efficient way.



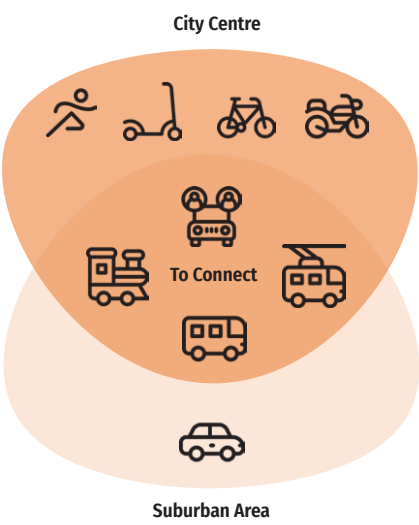
MOBILITY *and* INFRASTRUCTURE

HOW DOES DENSITY AFFECT THE NERVOUS SYSTEM OF A CITY?

by [EDUARDA BARBOSA POUBEL](#), [PRAYUDI SUDIARTO](#) & [JIAN YANG](#)

From a historical perspective, Tirana’s transportation development can be roughly divided into three stages. From 1944 until 1990, while under communism the city did not develop good public transport systems, no urban rail infrastructure, and poor road. Since the fall of communism in 1990 the capital has experienced a population explosion and a complete transformation. Now, the population within the City’s administrative borders is about 650,000. Tirana’s density is high compared to other European capitals.

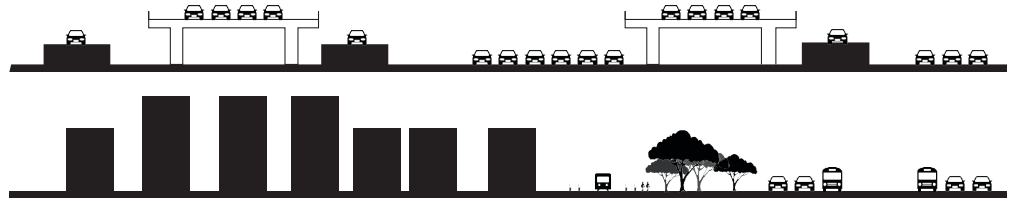
Many parts of the country are directly connected to the capital by national roads. Thus, the SH1 leads from the Montenegrin border via Shkodra, Lezha and Fushë-Kruja to Tirana and is thus part of the nationally important north-south axis. Currently, the SH3 is being upgraded to the A3 motorway, which connects Tirana with Elbasan and continues as the Pan-European Corridor VIII connection to the northern Macedonian border and Korça also allows to Greece. The A3 was in the summer of 2017 apart from a short section at least on a lane passable. An extension from Elbasan via Berat to Tepelena in southern Albania is planned.



WHERE THINGS BELONG TO

The study about the conventional and alternatives transportation model to determine the suitable range and area of transportation in the city.

	CONVENTIONAL				ALTERNATIVES				
MOBILITY	●●●	●●○	●●○	●●●	●○○	●●○	●●●	●●○	●●●
RANGE	●●●	●●●	●●●	●●●	●○○	●●○	●●●	●●○	●●●
PARKING	●●●	●	●	●	●	●○○	●○○	●○○	●●○
POLLUTION	●●●	●●○	●○○	●○○	●	●	●●○	●	●●○
ENERGY	●●●	●●○	●○○	●○○	●	●	●○○	●○○	●●○
COST	●●●	●○○	●○○	●●○	●	●	●○○	●○○	●●○



DALLAS, USA

Shown are road network footprints of the city Dallas that goes through the downtown with its sections as it is now and the proposal that suggest a ring transportation network.



The car culture as a status symbol that was a trend in the late 90s after the dictatorship led to the purchase of many low European emission standard vehicles from west Europe due to low costs. Tirana's air quality is now choked from these vehicles. This obliged us architects and engineers to appale and consider the climate through a smart design that help to reduce CO2 Emission footprints by working with the nature that are given.

In a more attentive look on the topic mobility and infrastructure, we come across a city's transportation network not only as a mean of mobility, but also as a way to shape the urban mass and influence how people experience the space. In order to analyze that, a comparative study between 4 cities was made, them being: Dallas (USA), Fes el Bali (Morocco), Munich (Germany) and Tirana (Albania). Furthermore, some speculation on effective solutions to turn these cities livelier and more efficient were made, with the addition of cycle paths and underground parking for example. In order to illustrate that, city plans and diagrammatic sections of a street in each of the study cases were shown.

THE FALL OF COMMUNISM

After this moment the city experienced an explotion of population and a huge amount of transformation almost in every aspects.



CYCLING

Bicycles were already used in Tirana for a quite long time, but left behind at some point. If there were more bike-lanes, we believe people will use them, helping the city decrease the amount of air pollution.



LIVABILITY, CIRCULARITY *and* QUALITY

HOW TO DEFINE QUALITY OF OUTDOOR SPACES?

by [FLORIAN KRAFT](#), [JULIA MECORAPAJ](#) & [MENGLI PI](#)

URBAN AGRICULTURE

Urban agriculture exists within urban boundaries and includes the cultivation of vacant lots and open spaces. Urban agriculture produce a large variety of food and non-food products directly to urban farmers and residents.

Intensive urbanization has led to the loss of arable land. Population growth and land-use changes have also contributed to rising urban poverty rates, relative food- insecurity, and unemployment; along with a growing demand for local food production, and the design of sustainable cities.

CRADLE TO CRADLE PROCESS

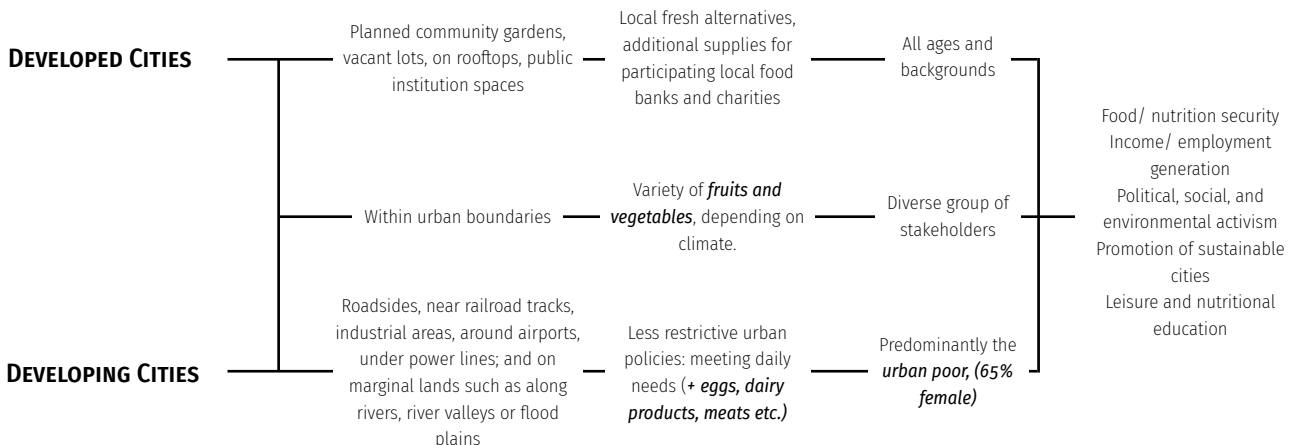
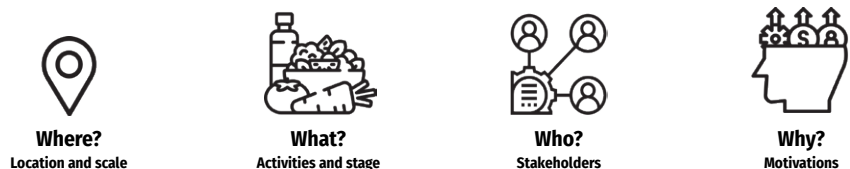
Instead of the cradle to grave linear paradigm that we used now, A cradle to cradle paradigm was proposed. Cradle to cradle process means waste = food, everything is regarded as either “biological nutrients” or “technical nutrients”. Biological nutrients are biodegradable and can re-enter the ecological system easily again. Technical nutrients are to be up-cycled over and over again to produced new products.

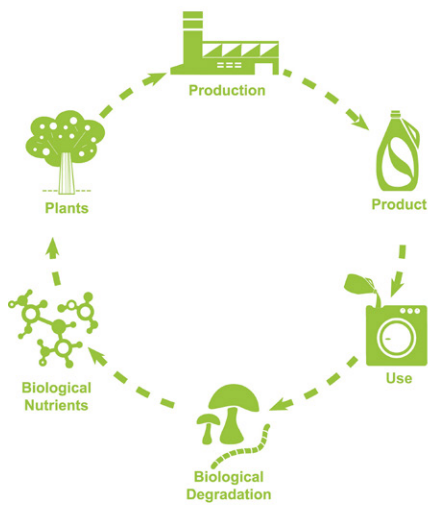
ENVIRONMENTAL QUALITY

At a city scale the number of factors of influence diversifies. In addition to the radiation, wind and modifying factors such as roughness and direction impact the analysis. According to that the climatic conditions compared to the rural area and throughout the city can change drastically.

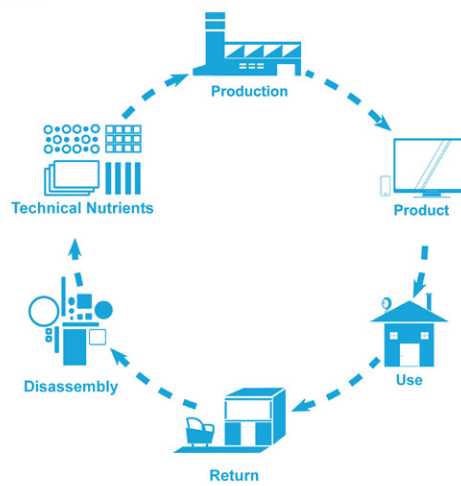
WHAT IS URBAN FARMING?

The most important questions we should answer in order to understand urban farming and how are they applied in different situations.





Biological Cycle
Consumption Products



Technical Cycle
Service Products

CIRCULAR ECONOMY- CRADLE TO CRADLE

The circular economy is an economic system that use the resources in a closed loop that aims at eliminating the concept of waste that we need to dispose at the end.

SCALES FOR EVALUATION

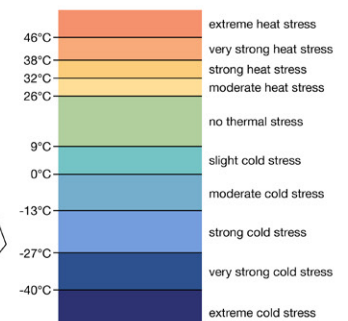
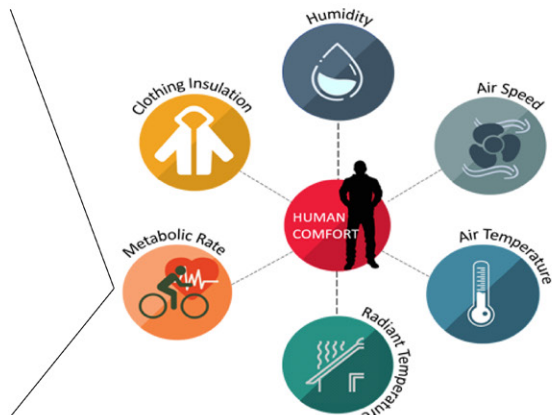
To be able to asses the quality of the urban environment one has to be familiar with the basic metrics and thoughts involved. As subdivision the world, city, neighbourhood and street scale were chosen.



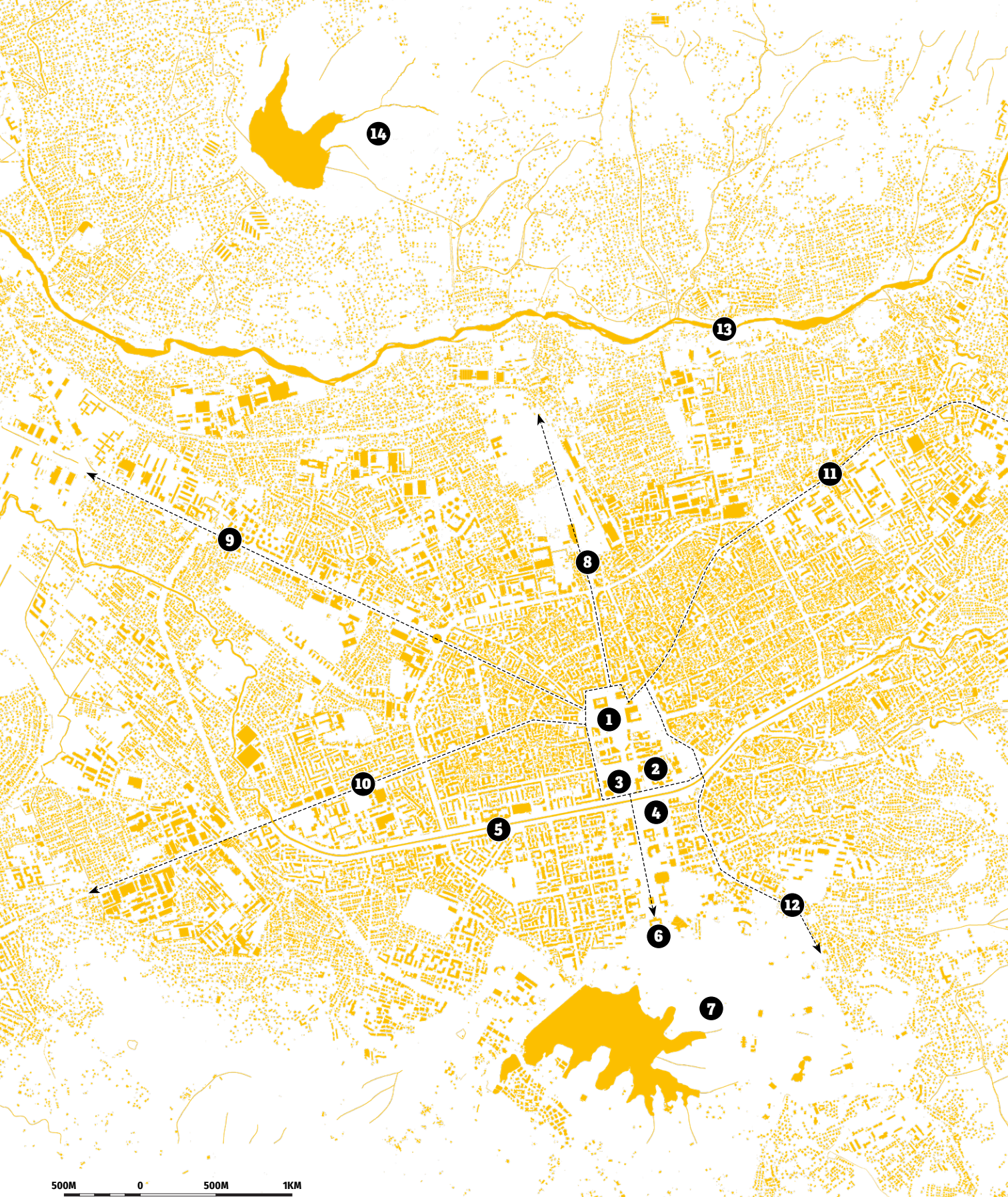
CIRCLE OF HUMAN COMFORT

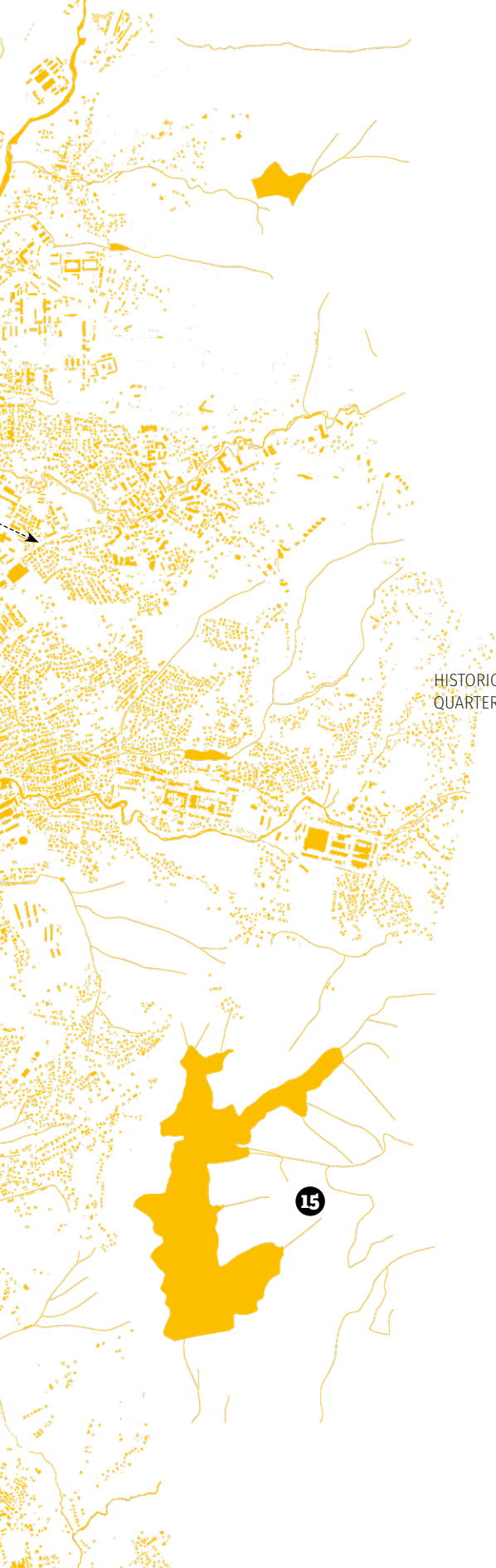
While the Universal Thermal Climate Index UTCI gives a very good summary of the climatic circumstances, factors like expectation, adaptation or cultural background have a huge impact on the comfort of people.

METABOLIC RATES		
1 MET = 60 W/m ²	1 MET Sitting	1.1 MET Typing
1.2 MET Driving	2 MET Cooking	3 MET Cleaning
4 MET Tennis	6-7 MET Hiking	8 MET Running



UTCI equivalent temperature

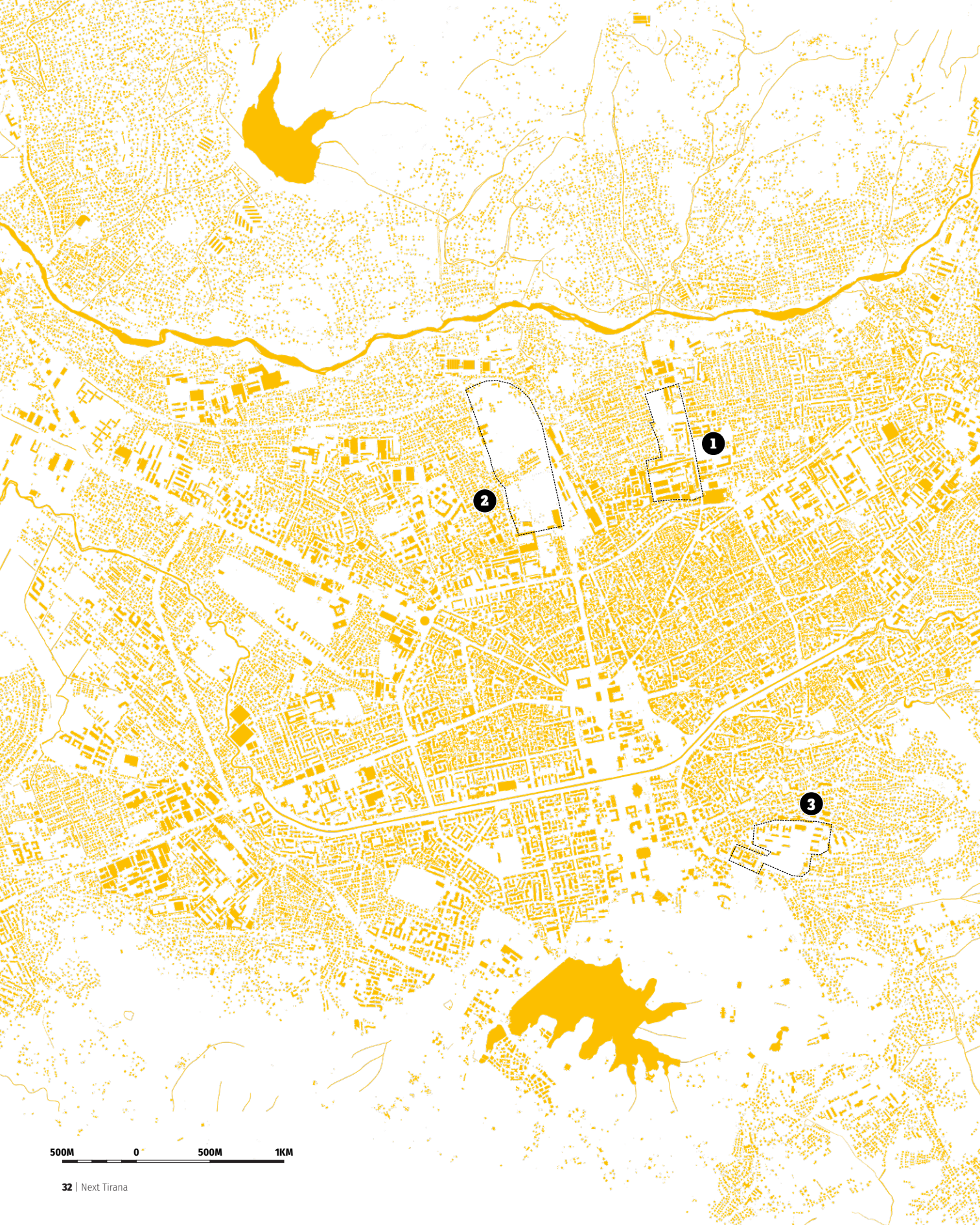




THE CONTEXT

WHAT DOES TIRANA LOOK LIKE?

- 1** Skanderbeg Square & National History Museum
Sheshi Skënderbej & Muzeu Historik Kombëtar
- 2** National Arts Gallery & The Cloud
Galeria Kombëtare e Arteve & Reja
- 3** Park Rinia
Parku Rinia
- 4** Pyramid of Tirana
Piramida
- 5** Lana River
Lumi i Lanes
- 6** Mother Teresa Square
Sheshi Nënë Tereza
- 7** Grand Park of Tirana
Parku i Madh Kodrat e Liqenit
- 8** New Boulevard Tirana
- 9** Durrës Street, towards Industrial Zone
Rruga e Durrësit
- 10** Kavaja Street, towards Kombinat
Rruga e Kavajes
- 11** Dibra Street, towards Kinostudio
Rruga e Dibrës
- 12** Elbasan Street
Rruga e Elbasanit
- 13** Tirana River
Lumi i Tiranës
- 14** Paskuqan Park
Parku i Paskuqanit
- 15** Park of Farka Artificial Lake
Parku i Liqenit Artificial të Farkës



PROJECT SITES

CITY UNDER TRANSFORMATION

1 THE NEW BOULEVARD

The New Boulevard of Tirana, or is a 1,6 km-long boulevard project that starts from the former railway station, linking the city with the Lana River Park, and with the 'Big Ring' highway of Tirana. The surrounding area used to be undeveloped and totally abandoned. Currently the first phase of the boulevard has been completed and in use, while the rest is expected to be finished in 2021.

2 INDUSTRIAL AREA: DINAMO

Dinamo is an area strongly associated with the industry, a name known and used among the locals until this day. The current situation consists of mainly informal market and industrial structures with a strong presence of people and their every-day interactions.

3 THE STUDENT CITY

This area accommodates the majority of public university students and serves as a shelter to the greater part of the society that will build tomorrow's Albania. This campus was the site of one of the most important pages of Albanian modern history – the student protests that precipitated the fall of the communist regime, which "stewed" in this environment; today the campus has been degraded and been 'invaded' by informality.







TRANSITION

BY

Julia Mecorapaj
Prayudi Sudiarto

DESIGN PROPOSALS

DINAMO

BY

Ema Krakovská
Bárbara Salazar
Jian Yang

PARK TRILOGY

BY

Merve Biyik
Mengli Pi

RED WORK

BY

Eduarda Barbosa Poubel
Lajz Capaliku
Florian Kraft

TRANSITION

A TIME-FRAME JOURNEY

by JULIA MECORAPAJ & PRAYUDI SUDIARTO

The project aims to connect, develop and bring life and qualities in human and urban scale. In a city with a growing rhythm like Tirana's, transition periods play an important role. In order to accomplish our vision, we have to embrace the complexity of the existing situation and give priority to life, identity and culture.

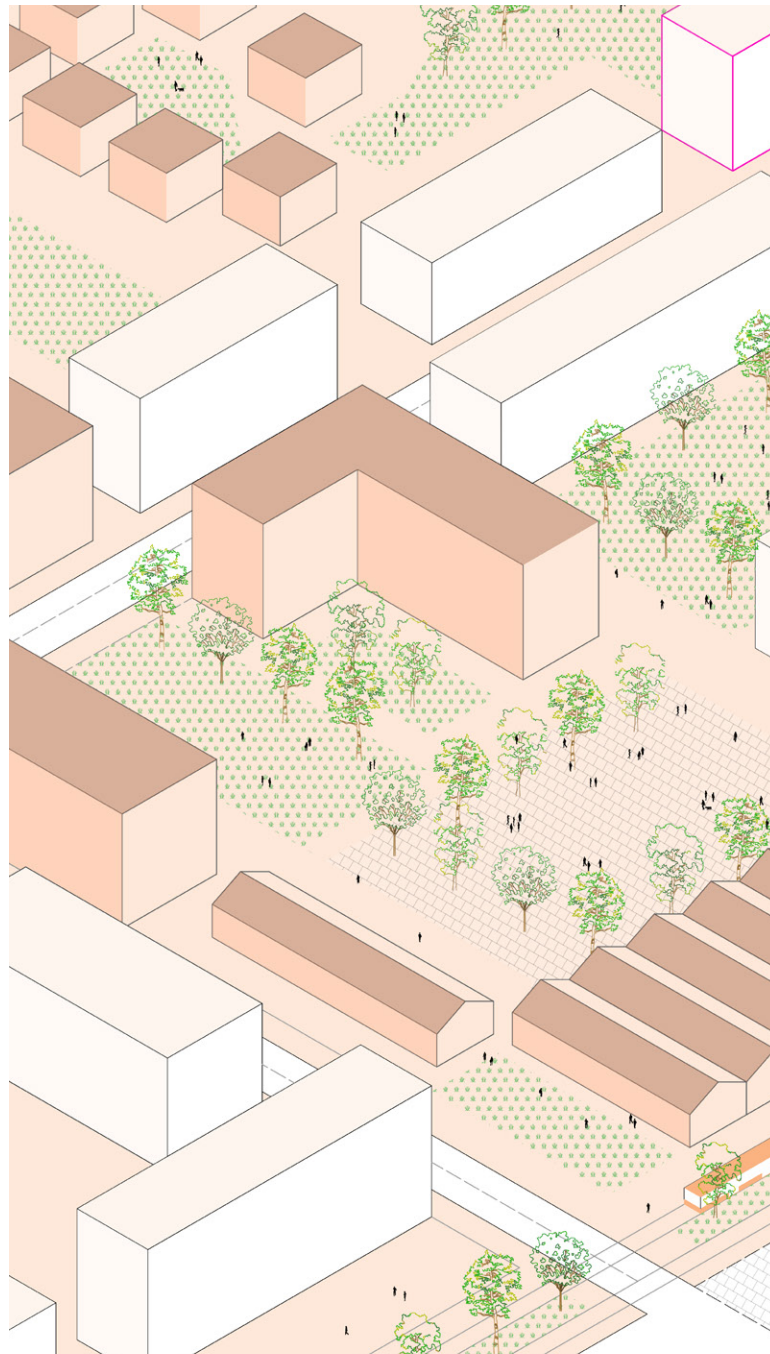
RESEARCH QUESTIONS

The dimensions of the site raised the question of where and what should we begin with. The first idea that came to mind after the different research topics was how to connect, to develop, and to bring life into the site over time.

We analysed that most of the functions in our site are residential, some of them are mixed-use and residential, but mostly the site is being defined by informal settlements. Nevertheless, we found that there are some interesting functions that could be a trigger or a magnet for this project, such as the industrial area on the south east side and sport centre on the north part of the plot. The questions that we raised at this points are:

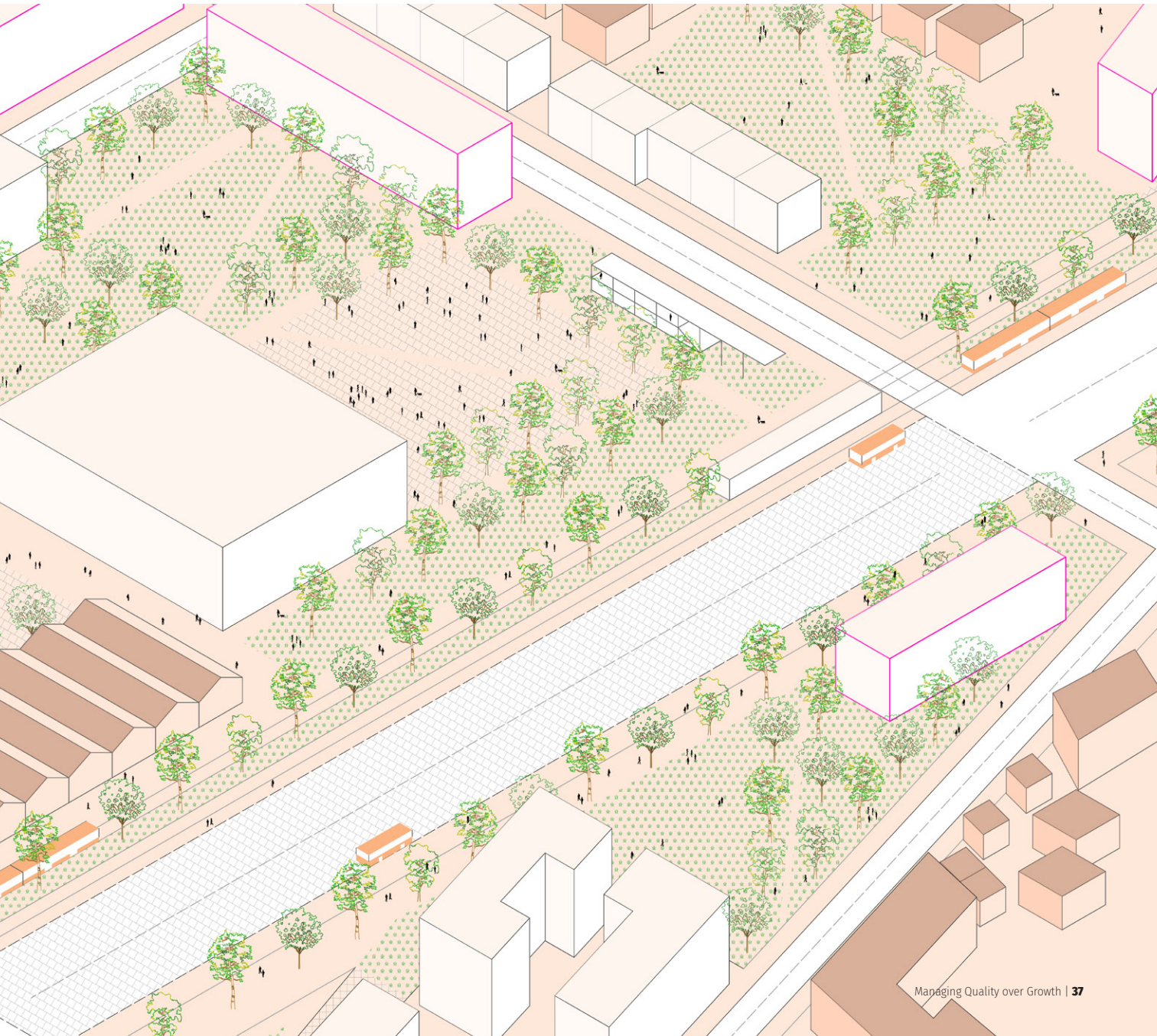
1. What are the steps to enhance the quality of the existing functions and at the same time introduce the missing ones?
2. What language of connection would be more suitable?

At first impression, it seems that the city of Tirana lacks on identity because throughout the history, there always has been always a powerful influence from outside that decided the rules. But at the same time, identity and culture for the people of Tirana are two very delicate subjects, as Albanians are very protective of their values, manners and especially their memories. This only meant one certain thing: culture and identity should be a main guideline.



NEW CULTURAL CENTRE

A conceptual axonometry of our vision for the new cultural centre by the boulevard



Air pollution is one of the main problem that Tirana is facing at the moment. The car culture is a strong status symbol in Tirana's lifestyle which makes it a sensitive topic to deal with. Therefore, our next challenge was to improve public transportation and find methods that could question the existing mindset. The construction of the new boulevard destroyed the main train station of Tirana. The railway system was thereby shortened and is now accessible only in the northern part of our site.

Another key topic of the research was greenery and urban farming and how to implement both of them in our project. The city lacks in green public spaces, while the culture of "enjoying outdoors" is very strong in Albania. On the other hand, looking at the informal settlements we noticed that people do appreciate their own garden where they also practice urban farming.

Therefore we concluded that plan we need to address regarding green spaces should be more specific, in terms of what qualities and characteristics these green spaces should have and how to address them to the right community.

HYPOTHESIS

The New Boulevard stands monumentally on site, but is lacking the ability to connect the existing functions. Therefore we integrate the cultural guideline as a tool to bring the site together. Some studies of city fabrics, function schemes and the surroundings would help us also to determine a suitable solution for each area including all the qualities that they need. To tackle this, we introduced another diagonal axis that crosses the new Boulevard and achieves a connections between 3 focus points on the south, middle and the north side of the plot, which also serve as a guideline to activate the whole area equally.

ANALYSIS

One of the first problems we acknowledged was how to connect our site with the rest of the city. At the beginning it started off as an exercise of "drawing lines" and comparing different results. We also worked with some study models while taking in consideration the existing city fabric surrounding the site, such as the industrial area, the new residential area, the informal settlements and the existing sport centre. In order to dig a little deeper we experimented by applying other city fabrics (such as those of Paris – Champs Elysées, Barcelona – La Rambla and Copenhagen – Nørrebro) to our site in terms of connectivity, axis and quality of public spaces. The results showed that although the dimensions of the site give us freedom to play, the existing situation cannot be ignored.

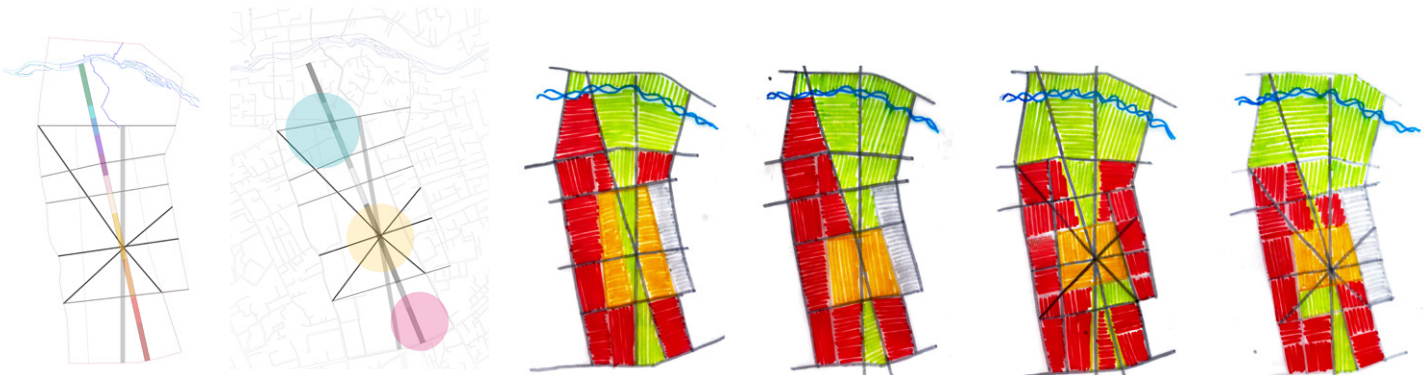
In the end, we embraced a multi-axiality which consists of visual axis and would contribute to a poly-centric Tirana with the new cultural centre as the meeting point, but at the same time to the development of neighbourhoods in a smaller scale. The most important addition is the diagonal axis which crosses the boulevard. Starting with the industrial area, proceeding with the new cultural centre and ending with the national sports centre by the river this axis becomes an experience or how we called it: "a cultural corridor". Part of the identity and culture of the locals is enjoying outdoor spaces and activities, which the city is lacking. Therefore, we believe that poly-centric Tirana doesn't just need multiple city centres, but more walkable streets, leading to more pocket parks and squares and visually connecting important locations.

STUDIES

(1) Working with multi-axiality and visual connections

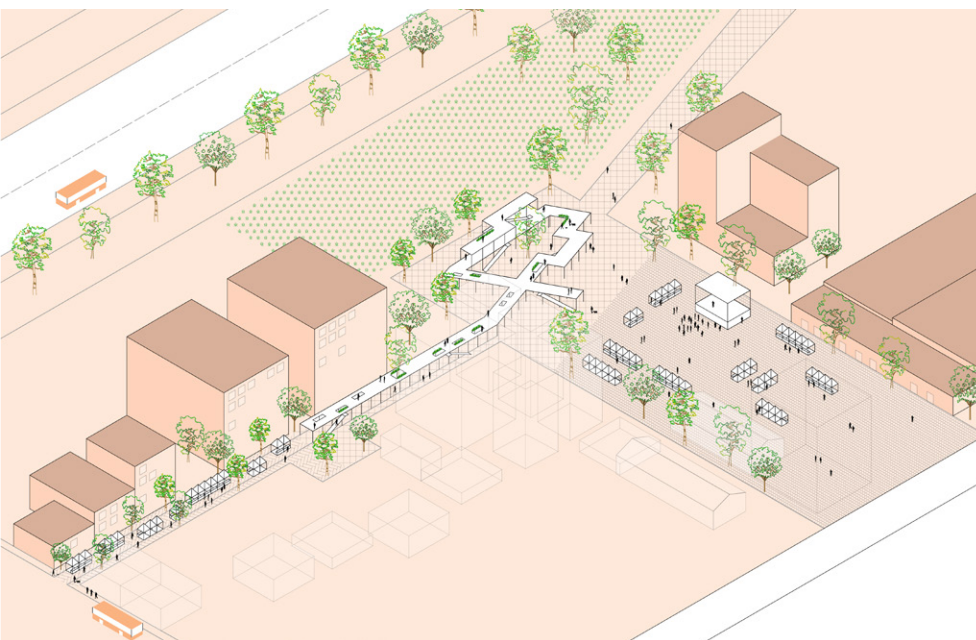
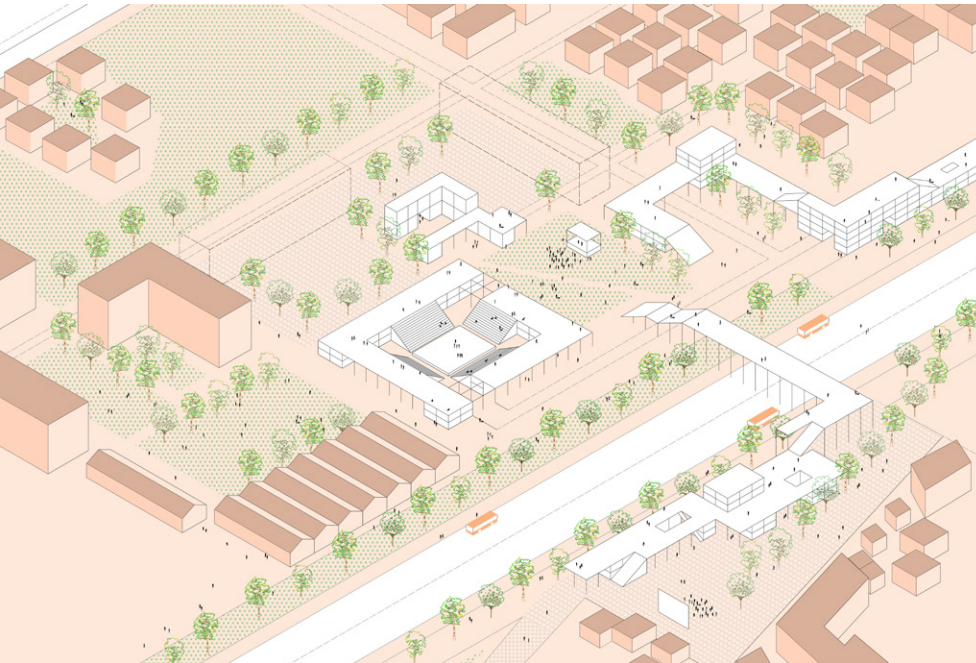
(2) 3 focus points on the cultural corridor

(3-6) 4 study sketches to determine the city fabric functions.



TEMPORARY ARCHITECTURE

Dismantle-able temporary structures as a tool to bring life and enhance functions on site.



CONCEPT

The second challenge we had to embrace while trying to jump in scale and implement our ideas was time. While dealing with such dimensions, it was obvious to us that all the changes aren't going to happen in one day. Therefore, time became a fundamental aspect of the project. At first, we differed between short and long-term development which we further on divided into 5 main stages of development.

Stage I

As Jan Gehl has said: "First life, then spaces, then buildings." We looked at the existing industrial area as a crucial starting point. Two main measures were taken in this stage with the main purpose of bringing life into the site:

First step is rehabilitation and revitalization of the existing buildings and public spaces. Then the application of temporary architecture as a tool in order to bring life into the site. While being on site and at the same time having followed the development of the new boulevard, we noticed that although not finished yet, it was frequently being used by people due to the greenery and bike paths. The goal for this first development stage is to enhance these qualities by using temporary architecture. Functions such as street market, fairs, open air theatre, sports venue etc. would be incorporated and along with that green densification would follow. These measures are to be applied in three areas: the industrial

STAGES

REVITALIZE

of abandoned industrial areas and "rusty" existing buildings. Giving attentions and redefine the functions.

THE NEW CULTURAL CENTRE

a new polycentre that offers cultural qualities to bring people together with theater, libraries, workshops, co-working and public spaces.

CULTURAL CORRIDOR

a guideline to bring life with dismantable and reusable temporary structure for short term development by defining the functions and to "reserve" the areas.

RECREATE

replacing informal settlements with mixed-use social housing to achive green qualities and ideal densities on the sites.

DENSIFY

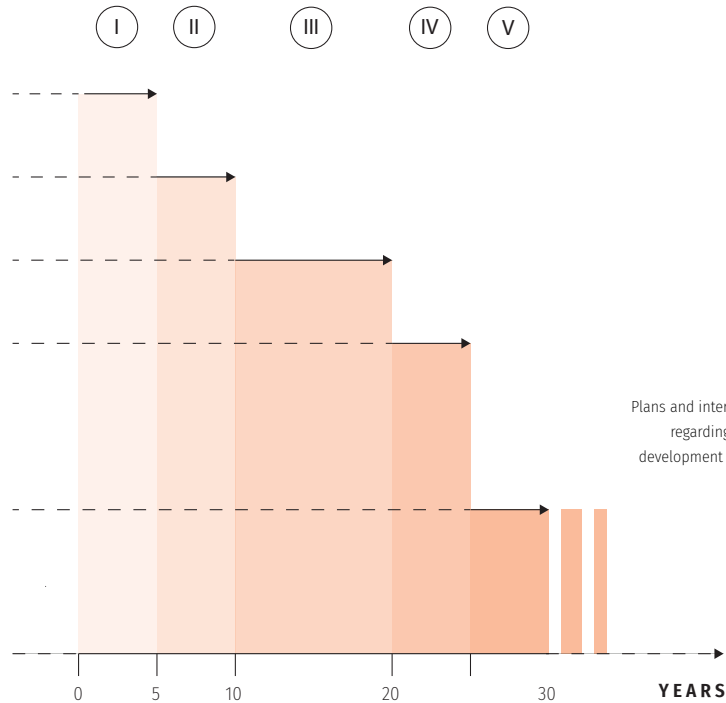
the temporary structures define the functions and needs on the area that help to densify particular areas with its necessities.

PARKS & GREENARY

public spaces like sport parks, pocket parks, and green areas by the river provide residents new playground and lungs for the city.

TRANSPORT

new bus lines, tram and new train station on the end of the boulevard offer more connectivity for the inhabitants to daily commute.



TIME FRAME JOURNEY
Plans and interventions explained in more detail regarding their connection to each of the 5 development stages over a time frame diagram.

area, the future cultural centre and the northern vacant lot. Meanwhile 5-7 storey mixed-use buildings start growing roots along the boulevard on its southern part.

Dealing with informality: Before we jump to the second stage, we must confront one of the main problems of the site and of Tirana in general: dealing with informality. Basically, we are dealing with two types of informality on site. On the west and east of the site, this has somewhat become an identity of the surroundings. Three to four storey high housing, with a growth varying from structured to organic have taken over. Although it is said that informality has ruined Tirana, it is the reality we have to face nowadays and partly, you could think that there is something more comforting and human-scale-like in it while compared to the many "elephants" around the city. This kind of informality has also continued to grow near the "future cultural centre" and we believe that it worth protecting and integrating into our time frame development.

Meanwhile, the second type of informality are the settlements by the river where the situation is even more chaotic, illegal and difficult to deal with. Perhaps one of the worst downsides of it, is that the Tirana river has lost its natural qualities and become a kind of "dumpster" and inaccessible by the whole city. Here we foresee a rehabilitation of the natural habitat as an emergency.

Stage II

As we start the interventions south to north, in this second stage the industrial area is rehabilitated and the new public square that connects with the market canopy is finished. Constructions begin for the new theatre. Next to the new cultural centre, the abandoned storage hall is being rehabilitated and transformed into a cinema with a public square in front of it that would bring the neighbourhood together. Meanwhile the cultural corridor starts to be defined by the pocket squares/ parks, new mixed-use buildings 5-7 storey high with the first two floors being of public use and the densification in greenery that connects it to the boulevard.

Along "Jordan Misja street", which has a mainly residential character, construction for new residential blocks with a maximum 4-5 storeys and a fragmented character, while trying to adapt to informal housing, begin. At the same time, intervention starts at the existing sports park to turn it into the national sports park in order to offer more facilities and activities. To reinstate the natural habitat by the river, trees are being planted alongside of it.



STAGES OF TRANSITION

These axonometric perspectives illustrate the time frame development that is described in the respective stages.

Stage III

By the third stage, the new theatre is ready for use. Other important public buildings (library, university facilities, museum etc.) are completing the new centre. Infrastructure and streets are defined. The main idea of this new centre is to offer a place for everyone: the neighbourhood, the surroundings and the whole city. The solitary buildings implemented in a park create an ensemble, which makes this new centre the perfect place where culture and nature merge and people can enjoy out- and – indoor activities. From the centre to the surrounding neighbourhoods you can notice the influence and the generosity spreading in open public spaces and parks. As the fourth ring of the city is crossing our site, the cultural corridor spreads from the new cultural centre, connects with the informal housing and continues into what was the vacant slot.

If we want to reinstate the natural habitat by the river, a plan has to be followed regarding the informal settlements. Not only the lifestyle, but also the conditions are in desperate need of improvement. As we have seen in many examples in other countries, tearing down informal settlements is always a difficult decision, because as bad as the conditions might be, we are dealing with also tearing down a part of people's memories and identity. Our plan to avoid this, is to replace them with social housing and offer those people a healthier and safer lifestyle while saving the location. Two main concepts are to be applied:

1. By the national sports park we densify with social housing, more precisely three new mixed-use residential blocks. Its known that where there is sport, there is a new community. This situation would offer a better lifestyle and more jobs.
2. On the east side, south of the new river park, we apply the concept of a super block of social housing with community gardening as a main theme. Albanians are very familiar with the idea of urban farming and one of the main reasons it is so popular is because people try to fulfil their own needs, especially low-income families. That is why mixing social housing with urban farming would help the actual situation. As these measures start to be implemented, the densification of the river park continues.

GREEN AREAS

On the left is shown the proposal green area in comparison to the existing green areas in Tirana. The middle image illustrates the green typologies and image on the right shows the final master plan , result of a 30 year time frame journey.



Stage IV

In this stage we are dealing with different neighbourhood scales on the site.

The cultural axis is being defined. Blocks with 5-8 storeys mixed with courtyards and openings create a lively situation. The main decision in this stage was how to deal with the vacant slot on the left of the cultural axis, which up until now was being saved and protected from intervention. As we mapped the green areas in Tirana, it is almost unbelievable how the city is lacking public green spaces. With the new river park, we are creating a sort of balance in the city with the southern lake part, but is it enough? The development of our site has had green areas a main focus all along, whether it was pocket parks, green belts or big parks we try to offer something not only for the site. That is why, while facing the decision of what to do with a vacant slot, we decided to transform it into an ecological park. This would offer a unique experience as it is directly connected to the cultural





TRANSITION

Abstract sketches of the five development stages, focusing on the relationship between green spaces and their qualities, public spaces and densification.

corridor, the cultural centre and the fourth ring. In contrast with the river park that is becoming very forest like, the eco park would offer an urban experience and both are contributing to green spaces in the city and most importantly to biodiversity. The eco park would consist of different experiences in term of greenery and public use such as: dense shaded paths and park, public squares with workshop facilities, picnic areas, playgrounds for children and adults, a rainwater canal etc. A focus is given at this point to where the boulevard meets the informal neighbourhood and the new social housing block on the east. Playgrounds for children, education and nursery facilities are the main focus of these interventions.

As we are getting closer to the finish line, the tram line that connects Skanderbeg square it has been continued up until the new cultural centre and we plan an extension of it up until the river. So it connects people from the city centre to the new train station and the sport area even to the 5th ring.

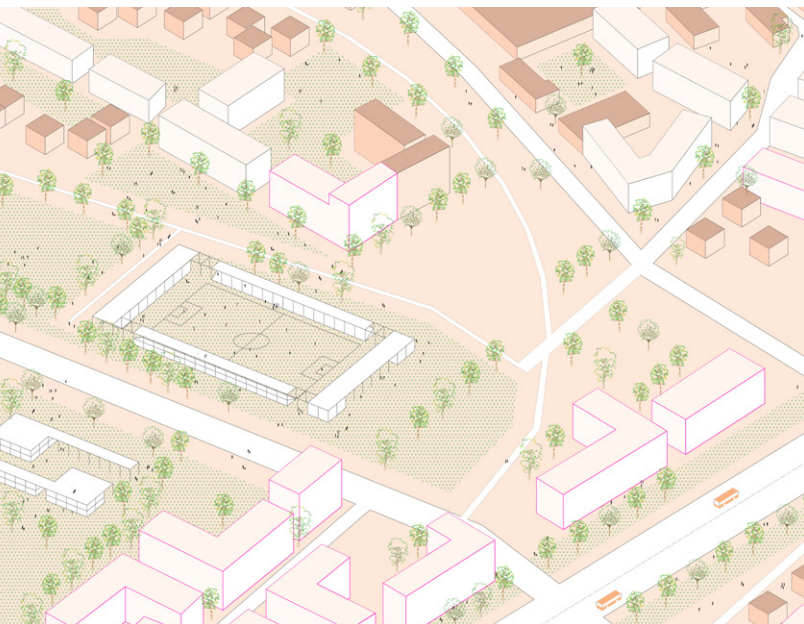
Railway connection

Like we mentioned in the research part, one the strongest memories that identifies our site is the railway system that would cross where the new boulevard now does. The city wants to bring the railway system out of Tirana, but we believe that this decision is not right. The railway system should be protected and rehabilitated.

Stage V

We begin this stage with the construction of the new train station. We choose this point as a crucial one as it connects at the same time to the cultural corridor and the cultural centre, the national sports park, the river park and the eco park. This would bring the whole site together and with the tram line being finished, the new bus system of the city, it would make public transport more efficient and climate friendly.

The fifth stage is also the last stage, where we are presuming that everything went according to the plan and the guidelines were followed. To summarize the five stages we prepared a time frame diagram where the main guidelines are explained.



TEMPORARY STRUCTURE FOR SPORTS

This architectural intervention with a sport theme is to make people aware that the old sport area on the north side nearby are being revitalized and being a magnet to this part of the city.

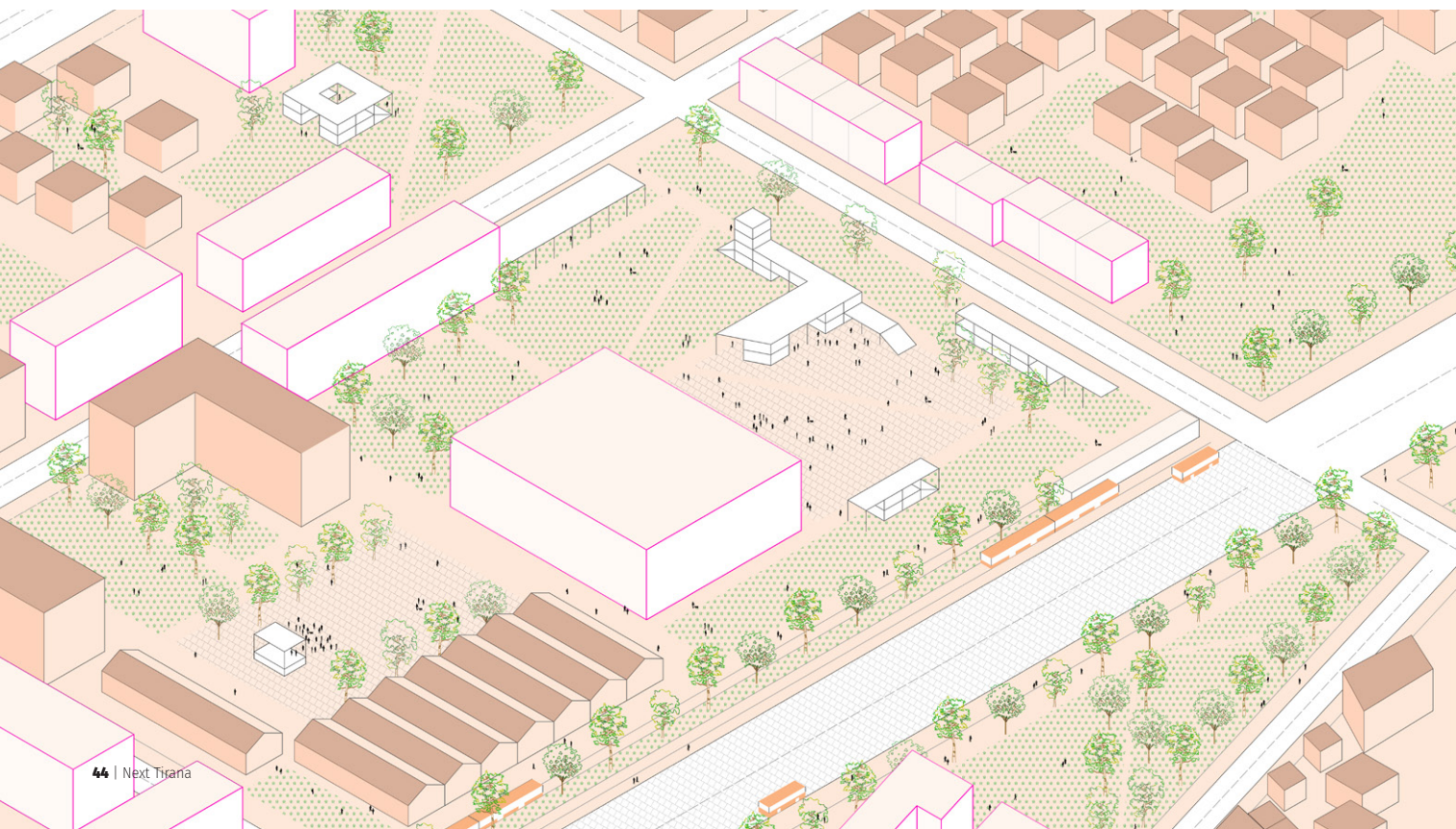
CONCLUSION

As we took a different approach in trying to solve the issue of densifying with quality, we also, jumped into a journey in time. By taking the development step by step, we stumbled upon decisions and solutions that we otherwise wouldn't have considered.

Looking back at the different results, we can't help but think the other possible scenarios that could have taken place if at a certain point we would have taken another road. In the end we believe that this approach was necessary make us think deeper. We are not only dealing with the problem of densification in our site, we are dealing with a system of complex problems that Tirana is facing due to its complex history and selfish decisions. For that reason, we believe that at the right time, it is important to be able to press the pause button, rethink the decisions and take things step by step.

THE NEW CULTURE CENTRE

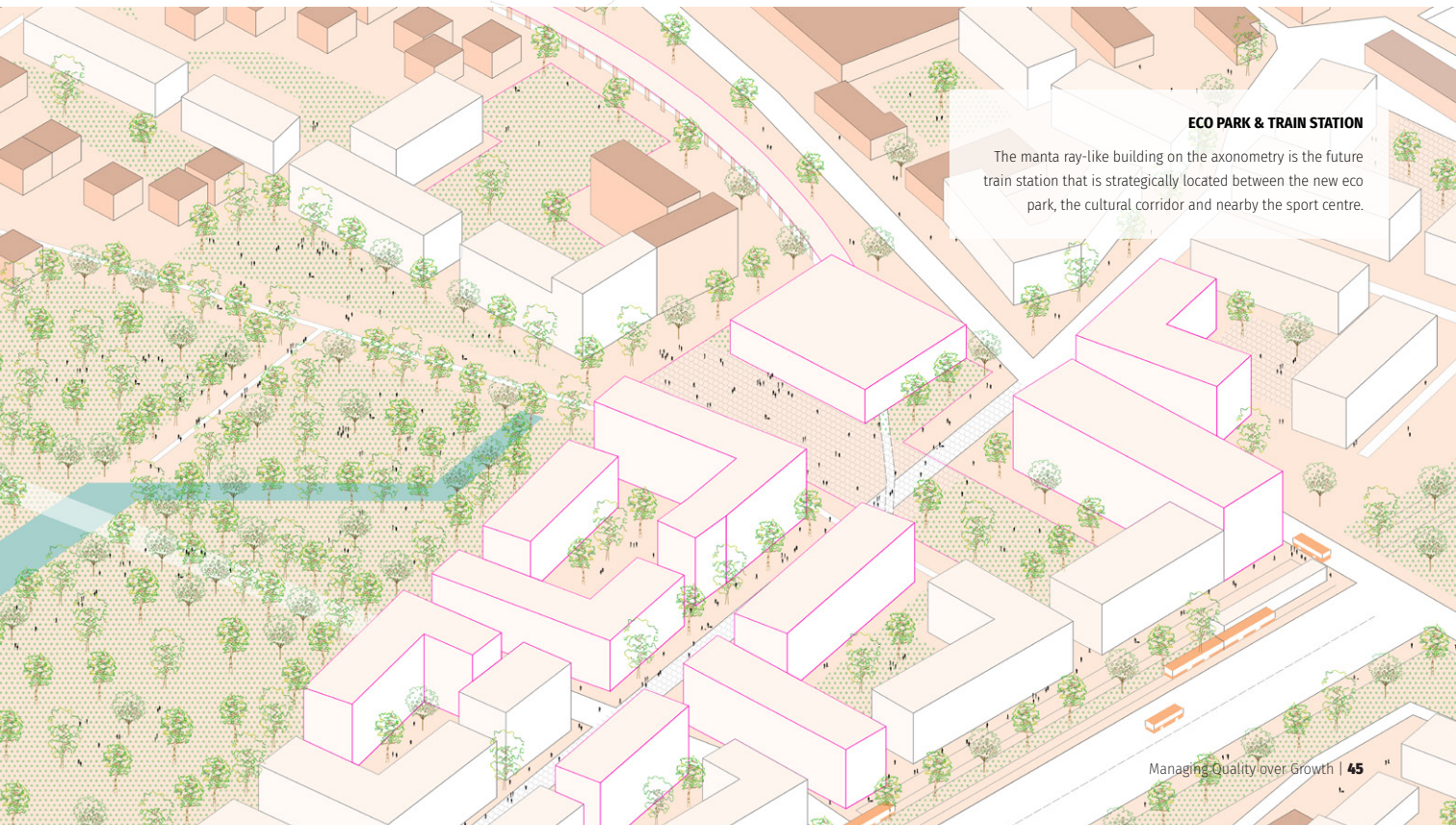
The new cultural centre, fully functional and supported by the new tram system that has been finished up to this point





STAGE V

A piece of Tirana with the right density and the right quality for its inhabitants and the whole city.



ECO PARK & TRAIN STATION

The manta ray-like building on the axonometry is the future train station that is strategically located between the new eco park, the cultural corridor and nearby the sport centre.

DINAMO

A SLICE OF TIRANA

by BÁRBARA SALAZAR, EMA KRAKOVSKÁ & YANG JIAN

Dinamo is a slice of Tirana, an urban reform, a strategy for the city. Its green public areas arise and connect, portraying a new way of bringing the city back to the people. Originally a decadent industrial area, the project emerges from the architecture without architects, listening to the diversity and plurality of identities appearing throughout the site.

RESEARCH QUESTIONS

While the overarching research question was how to build the future of Tirana while densifying with comfort, following research questions derived from the initial phases of the studio were particularly focused on how to map and analyse the data from the pre-existing fabric and how to develop a scheme to activate and connect the public spaces through greenery.

ANALYSIS

Tirana is built between the mountains, a powerful natural surrounding that one can sense and see across the entire city. Its presence dominates the public realm and forms the identity of Tirana as an ever-present landmark.

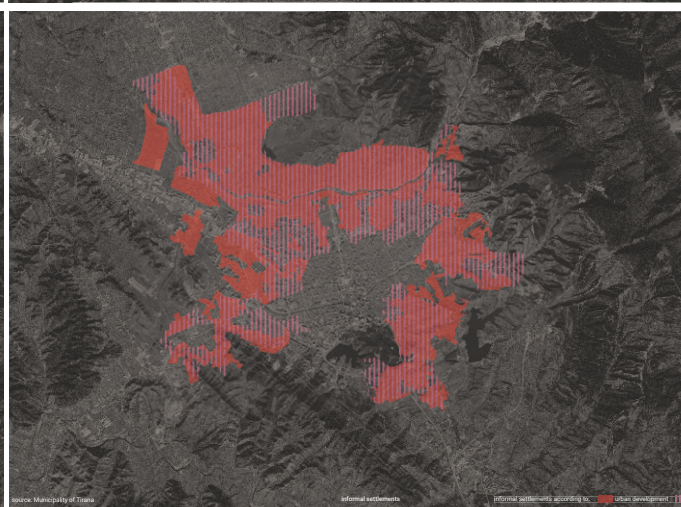
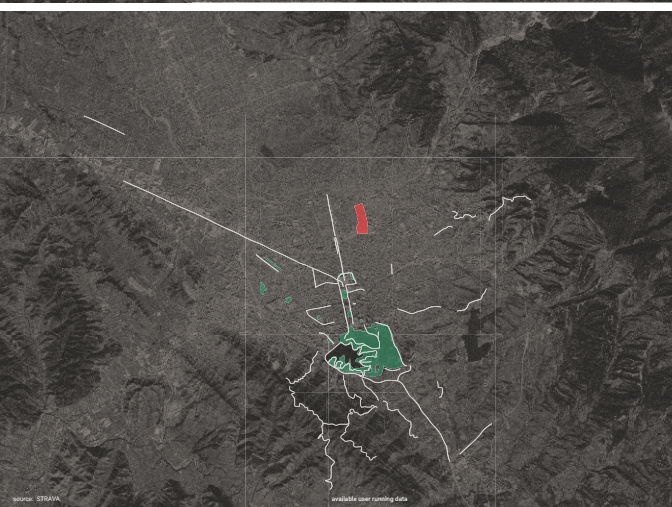
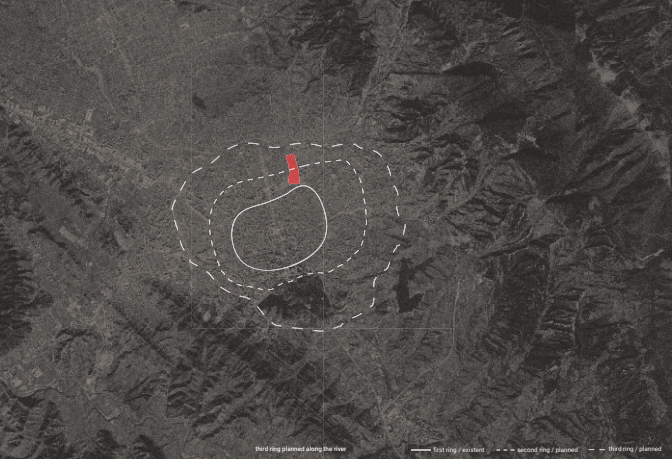
The current road system in Tirana suggests a radial structure with Skanderbeg Square being the main plaza and the centre of the system. Apart from its importance as a traffic node, it is home to a variety of cultural buildings and other public institutions, enforcing this central character. The site is located on the north area right after the first ring and it shows a potential to be strongly connected to the dense centre, as suggested by the existent road – Rruga 5 Maji. Moreover, its relevance keeps growing with the plan for a new network. A second ring crossing our site offers a special opportunity for densification of the area and a good connection to other parts of the city in the west-east orientation.



PROPOSAL ILLUSTRATIONS

Each image portrays a part of Dinamo, a slice composed by different characters and functions, connected through greenery and public spaces.





ANALYSIS SCHEMES

The first image shows possible future rings, with the second one crossing the site of Dinamo. Following is a scheme describing various faces of Tirana. The first image on the second row portrays the user data from the STRAVA app and their correlation to green spaces. The last image is a map of informal settlements.

However, looking at the map of Tirana's informal settlements, one can see the variety of urban fabrics that surround Dinamo today. With heterogeneous housing and different layers of history, it lacks a formal structure that can endorse this new scenario and the upcoming flow of people. Greenery is a crucial ingredient for a good living quality in all cities, not to mention Tirana, where the sun is the predominant factor throughout the year. As a result of greenery mapping, one can see an evident scarcity of green spaces on the north part of the city. The situation seems even worse when looking only at the publicly accessible ones.

People are naturally drawn to the south, due to the Grand Park of Tirana being one of the few green recreational spots in the city. Likewise, the available data on running and cycling from users of STRAVA portrays a complete lack of these activities around Dinamo, giving us an opportunity for change, a special moment within the city. However, to offer a new area and address these problems, we have to take into consideration the many faces that Tirana already has. How can the proposal complement them?

Dinamo is an area strongly associated with the industry, a name known and used among the locals until this day. The current situation consists of mainly informal market and industrial structures with a strong presence of people and their every-day interactions. The process of understanding the importance of the site was driven by studying different movements and their relation to the neighbouring hotspots - the upcoming boulevard, hospital and market. In addition, analysing the existing urban fabric surrounding Dinamo helped us to see the important references people used when constructing their informal settlements. To give an illustration, the northern part uses the river as the main focus point, while the middle part orients itself towards the mountains. Architecture without architects.

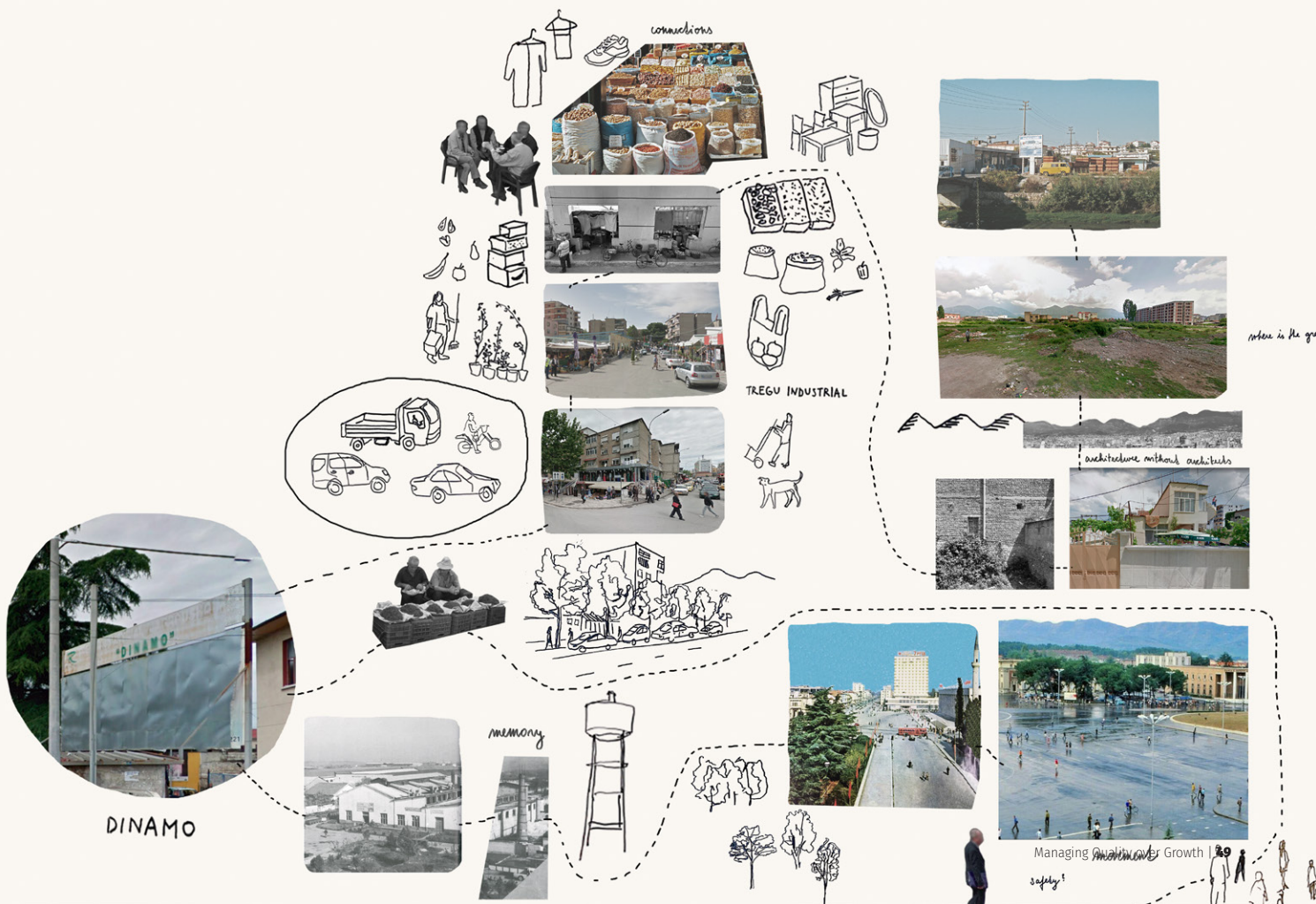
HYPOTHESIS

Tirana suffers from a desperate scarcity of green and safe public spaces, not serving the needs of its inhabitants. As a result, we feel the potential of Dinamo as a unique chance to reform urban space, allowing for movement and connections that are currently treated without sufficient analysis or not considered at all.

To achieve so, a deep understanding of the existing fabrics that surround the site, in all its forms, scales and programme is crucial. Furthermore, using Dinamo as an experiment, we establish a set of rules, a strategy that could be applied to other parts of Tirana faced with the same challenges and opportunities, to recover the city piece by piece.

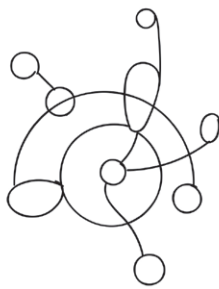
IDENTITY OF DINAMO

This image shows a multitude of characters and informality on the given site, dealing with an industrial past and its current market identity.

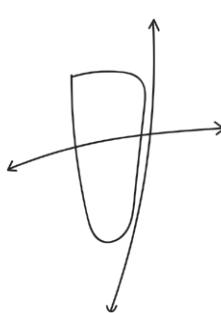




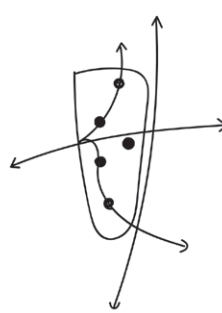
Dinamo is a part of a pre-existent urban fabric. A slice of Tirana, a special moment within the city.



A generator of change, an example on how to build the future of Tirana



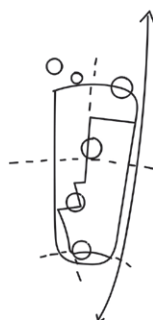
The newcoming ring splits the site into a northern and a southern part.



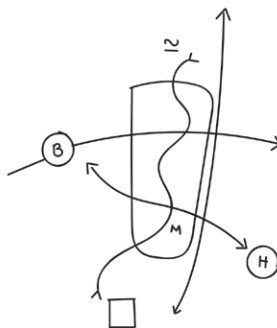
We should create hotspots, public spaces, to guarantee the connection between them and generate new infrastructure.



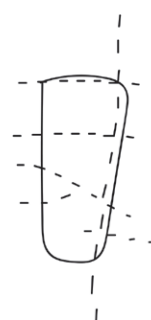
The diversity of the slice includes many scales and many functions, it is crucial to think about the borders.



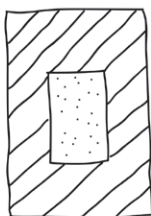
Not as limits, rather as blenders that can integrate the pre-existing fabric with the upcoming density.



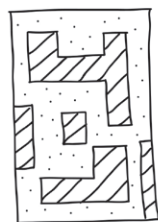
People cross it every day. Towards the hospital, the market, the industry, the city center, the boulevard, ...



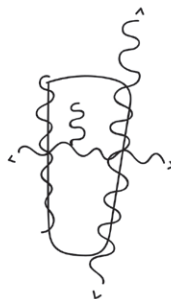
They leave traces, showing us that each part is subjected to different movements and needs.



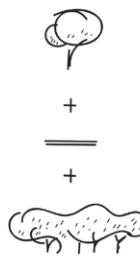
Park in the city



City in a park



The greenery is applied on a larger scale as green links in the main axes.



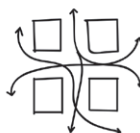
On a smaller scale as buffer zones, between functions and pocket gardens across the housing.



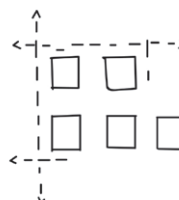
Existing typologies



New typologies



Walking quality between buildings is key for lively roads.



It is necessary to bring the cars out of the pedestrian areas.

STRATEGY

Schemes on the left are a set of rules used to analyse and design the proposal of Dinamo. They could serve as a strategy for future developments in other parts of Tirana.



CONCEPT

Our proposal aims to build on this memory, keeping the existent social connections while proposing a transformation to bring out the lost potential of the site. Greenery, connection and typology are the three main interests and tools, with which we want to target the challenges Tirana and Dinamo face. The lack of public greenery in Tirana is alarming. Therefore we decided to think of it on multiple levels, as to set an example for future developments, demonstrating greenery on two different scales. Firstly, the main existing road, connecting the site to the centre is designed as a green link, with an extended sidewalk, bicycle paths and public transportation stops. It operates as a connection to all parts of Dinamo, stretching from the main south crossroad up until the river on the north, housing services and public institutions.

Secondly, the inner part of Dinamo uses more fragmented pocket gardens, spread between the housing blocks, serving its residents as well as other inhabitants of the city. The absence of cars and the smaller scale of these gardens create a sense of safety that is often lacking in the public realm of Tirana. We want to prove how great public spaces can be and how necessary they are for the everyday life of each individual. The proposed park in the middle part of Dinamo provides a large recreational space, using denser greenery mixed with sports fields and pavilions, offering activities that are currently absent in this part of the city. Finally, the agriculture on the north, producing natural goods for the surrounding cafes close to the river portrays what could be the future of these smaller city areas working as a system and bringing production and consumption closer together. A planned green link across the river will close this concept and help to bring people from the north part of the site to Dinamo.



GREENERY ON MULTIPLE LEVELS

Greenery is a motif connecting the whole project, using different types and scales, e.g. pocket gardens, buffer zones, green avenues etc.

The connection is a crucial theme for our project. Not only in the way we design the connections of various parts of Dinamo but also how we integrate the system within the existing fabric. By using movement mapping, we propose a scheme of main and secondary roads, creating spacious car-free areas. The pedestrian flow across our site reflects itself in the various urban forms. The southern part works as a node, housing educational facilities, industry and the main market building in a relatively unrestricted way. That is due to the necessity for movement in all directions, from the ring to the north part, from the boulevard to the hospital just to name a few. Following the market on the north is a residential area consisting of a fragmented grid fabric. It is rotated to follow the orientation of the informal housing and blend the connection with the proposal. Furthermore, the clash of boundaries and scales is treated using buffer zones of greenery. The area around the new ring is designed to host public functions and a higher office building, creating a landmark of Dinamo. The housing adjacent to the main park orientates itself towards the mountains, replicating the system of the original fabric and following an optimal typology for Tirana's climate. To link the entire system, hotspots in the form of public outdoor plazas and buildings are designed and spread out across the site.



MAIN TRAFFIC INTERSECTIONS AND ROADS

Creating car-free areas and marking the main intersections.

We believe that new typologies and mixed-function buildings are necessary for densification and sustainability of future cities. As a result, Dinamo aims for a heterogeneous plan, combining industry, education, residences and services, considering not a site, but rather a system that benefits from its complexity. The project takes into consideration the functions of the buildings and how they relate to the public. To preserve the liveliness of the area, the housing development is activated by a ground floor of services and small shops.

The market building on the south embodies the idea of mixed-functions and serves as a trademark of Dinamo, accommodating the former sellers and inhabitants in a pavilion-like structure. With an open ground floor, allowing for movement and using greenery on different levels, the market hall demonstrates a future vision.

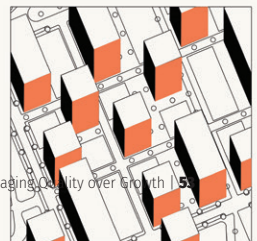
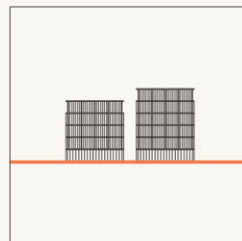
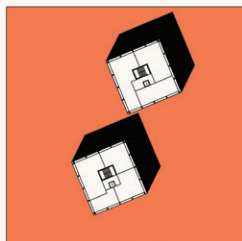
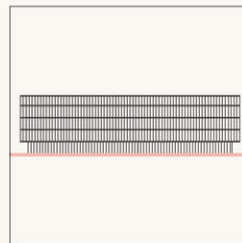
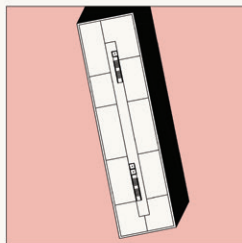
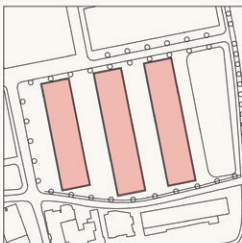
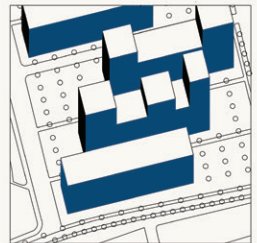
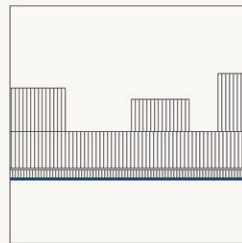
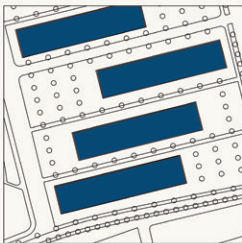
CONCLUSION

This study and proposal show different ways of designing denser cities while sustaining the quality of the lived space, especially movement. The current trend of fast development and densification often lacks the sensitivity that is crucial for existing urban areas like Dinamo. Cities can be designed and adjusted by taking into account the contrast of scales and the coexistence of interventions. Tirana is still developing its identity, with Dinamo responding to the lack of planning and public infrastructure that is needed. By offering a strategy, Dinamo suggests tools for an urban recovery, applicable to other informal areas in Tirana, a trigger for an urban change. Dinamo is a slice of Tirana, a place where the green public areas emerge and connect, showing that even a site built mainly by informal settlements and activities can be a core area to public space and infrastructure rehabilitation.

However, looking at the map of Tirana's informal settlements, one can see the variety of urban fabrics that surround Dinamo today. With heterogeneous housing and different layers of history, it lacks a formal structure that can endorse this new scenario and the upcoming flow of people.

TYPOLGY CATALOGUE

Dealing with the existing fabric and its clashes, different housing typologies emerged.



PARK TRILOGY

RECLAIMING PUBLIC SPACE THROUGH DENSIFICATION

by [MERVE BIYIK](#) & [MENGLI PI](#)

Student City Park Trilogy aims to provide a better-quality urban environment for the residents in an around to student city by creating a network of mix-use nodes and a trilogy of parks, which offer diversity and promotes interaction.

RESEARCH QUESTIONS

We frame our research question as “what is missing in student city to be a quality urban environment for the residents?”. As we proceeded further with our research, in both a broader context and at a local scale, we had reached the conclusion that the student city is in lack of public services, public recreational space, facilities for students and new professionals because of the low-density unregulated urban sprawl.

HYPOTHESIS

If regulated densification is implemented as a pilot project in student city , to provide the lacking elements identified previously, then this strategy would be widely acknowledged and could be adapted in other parts of the city. We intend to set up student city as a local centre with regulated developments and plenty of public recreational space, in order to propagate more regulated developments in the immediate surroundings, acting as catalyst for the changes for the area.



PARK TRILOGY

Park Trilogy and all the proposed programs involved



ANALYSIS & MAPPING

The first step of our project is to research and analyse our site and the broad context of Tirana. After our visit to Tirana, we have found that the central green land is so misused and the student city is congested by unregulated developments that weaken the strength of public space.

Furthermore, we did more research in terms of the urban fabric, circulation, points of interest etc. As we have found in our research and mapping, the site of student city is situated in a area of isolation.

There are two strong physical boundaries existing in the Tirana urban fabric. One is the river running through the city centre and another one is the highway running between the student city and the grand park of Tirana, which is a crucial part of Tirana's public recreational space. These two boundaries had separated the student city from the grand park of Tirana and city centre, posing a apparent segregation of urban textures.

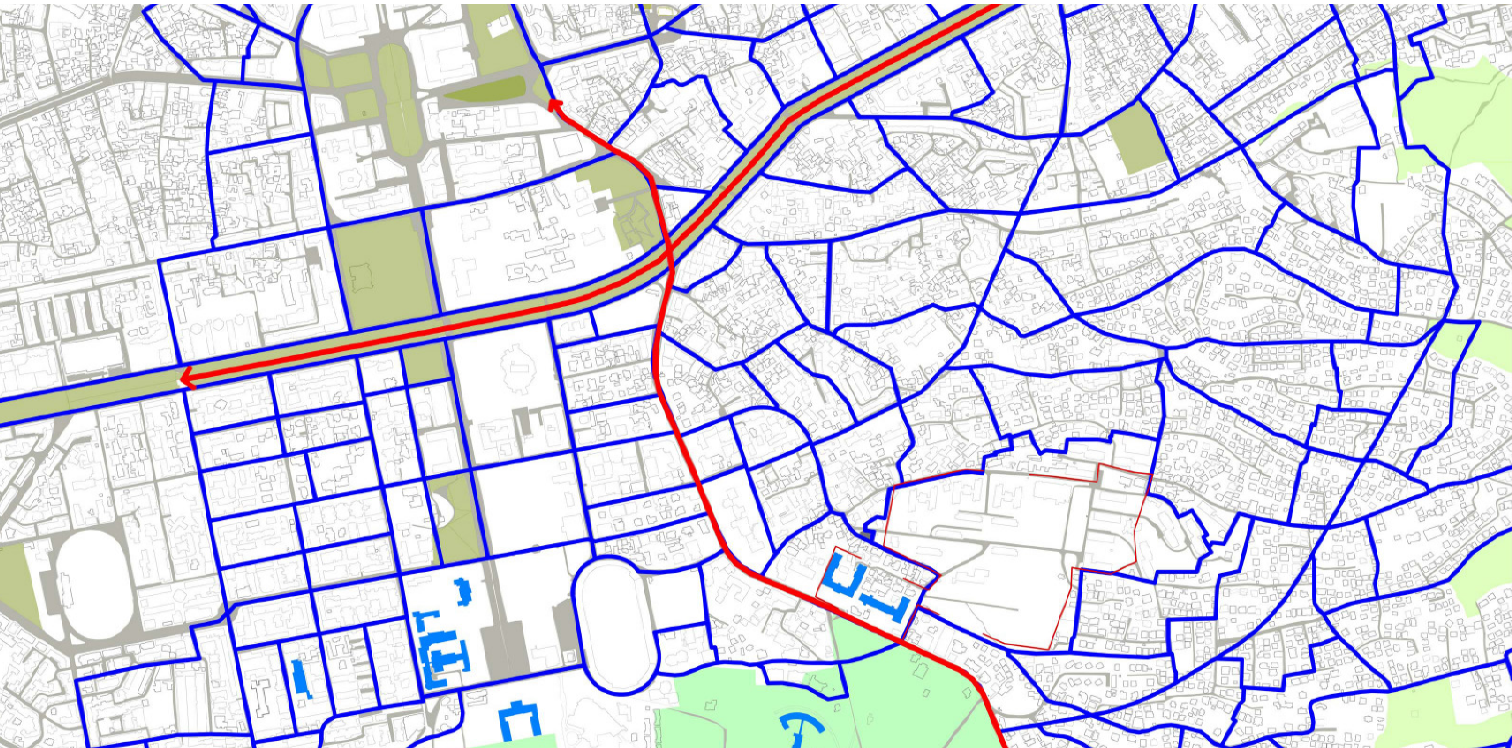
In our mapping of walking and cycling frequencies and concentrations of services, we had found this isolation even more prominent. The walking tracks and cycling tracks are mostly located on the west side of the highway and end with the highway. There are no activity recorded on the student city side at all. In addition, all the points of interests and services are concentrated on the west side of the highway as well, where the urban fabric is much more regulated. Therefore, there is a severe lack of public services in the student city area.

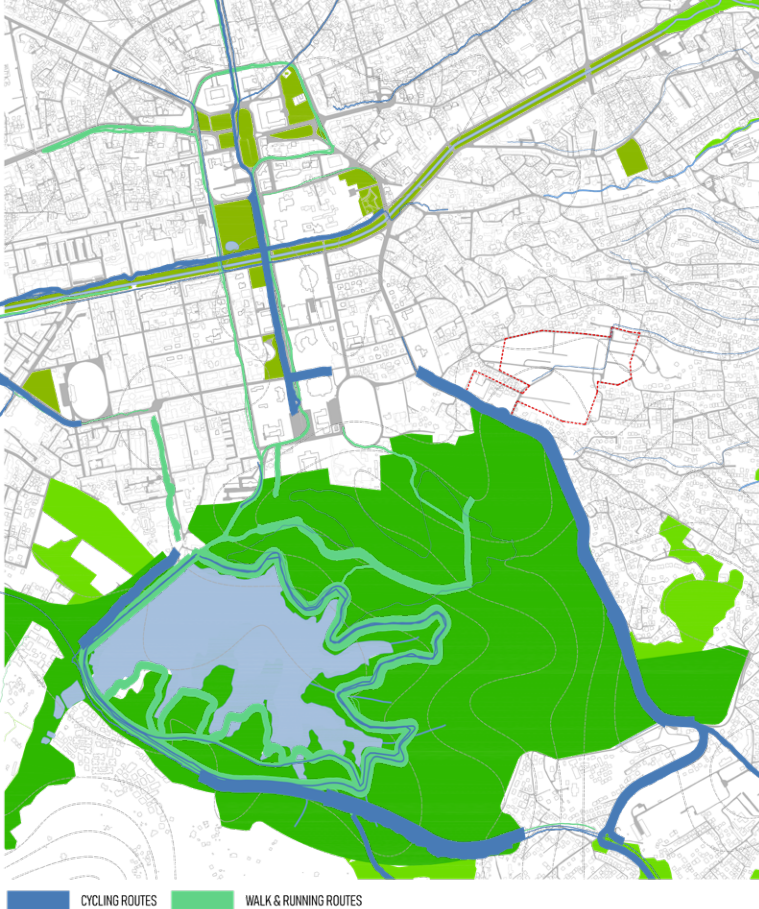
DENSIFICATION STRATEGY

Since we identified that the unregulated urban sprawl is one of the main obstacles for the student city to have a better quality urban environment with sufficient services, we took the approach of demolishing the central sprawl and student dorms in poor conditions in order to provide a vitalised central public recreational area. Meanwhile, the demolished parts are complimented by densifying around the site with integrated services. This approach is believed to amplifies the quality of every part of the scheme.

URBAN TEXTURE MAPPING

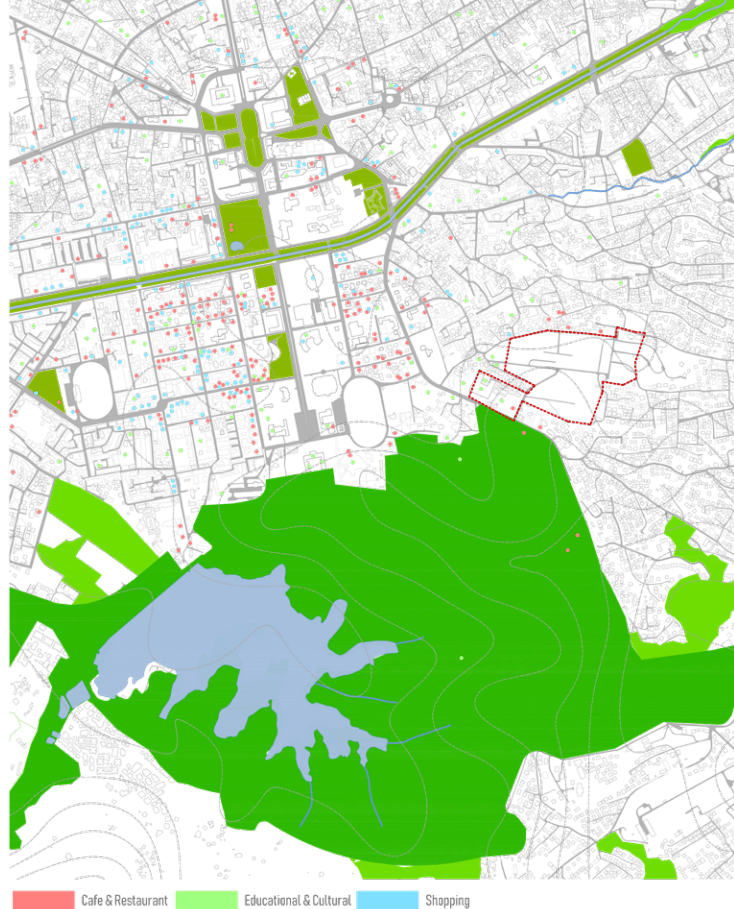
Two strong physical boundaries are found during our investigation, one of them is the highway coming between the student city site and the grand park of Tirana.





WALKING+CYCLING & SERVICES

The frequency of tracks used by Strava users in Tirana and the concentration of services in Tirana.



DEMOLITION DIAGRAM

Our strategy of demolition to promote new possibility of densification is to demolished the central unregulated urban sprawl and student dorms in poor conditions.



CENTRALISED PARKLAND

After demolition the central area could be transformed into a central parkland that serves the users around the park as public recreational space.



CONCEPT

Since the demolition of the unregulated urban sprawl had brought the project to a new position. The idea of integrating the characteristic of adjacent park and business district into student city area was achieved.

After redefining the central area of the student city as the new park, the parameter of the park had been extended to the whole student city site to put all the programs on the site into a park context. Furthermore, to overcome the strong physical boundary between the student city and the grand park of Tirana, the park characteristic was extended across the road. The area between Air Albania stadium and student city park has been proposed to be the business park of Tirana because of its existing business characteristics. The three parks, student city park, and the existing grand park of Tirana, can be seen as three separate parks with their own distinctive characteristics as well as a whole park because of their close physically and programmatic connections, thus the Park Trilogy.

Besides the student city park as a new space for public recreational activities to happen, there are also community infrastructures such as health centre and sports field and a cultural centre being implemented into the park, which serve both the neighbourhood and the student community. To continue the recreational characteristic of the student city park, an amphitheatre and a pavilion for public events are proposed in the existing grand park of Tirana.

The public recreational spaces are implemented to the full extent in our proposal. On the other hand, the services are missing are incorporated into the densified programs around the site, where the neighbourhood and the student community interacts. The service programs act as a platform for the local community to interact and bind. As our densified residential buildings and services are only implemented around the student city site, we have taken the opportunity to make the three parks completely car-free and vehicles can only go along the commercial street around the site.

In addition, for the student community living in student city, it has been noted that students living here only consider a place to sleep instead of a place to live. A big part of the students live is their study, which further morphs into a career. However, with such fragmented lifestyle, it would be hard for students to utilise their knowledge, expertise and transition smoothly into their professional life after graduation. Therefore, a student centre and intelligence hub are proposed to provide space for students to not only collaborate and study but moreover, to tap into the professional world as they approach the end of their study. The intelligence hub is separated into building A and B, situated on the two sides of the main road connected to the new business park. The hub aims at providing co-working spaces, professional events and workshops and is equipped with affordable residential cluster and subsidised office buildings for aspiring new professionals.

CONCEPT DIAGRAM

After identifying the programs in the zone of interest, as our final concept, the characteristics of these programs are integrated in this buffer zone forming a complex whole.





3D MASTER PLAN

The 3D master plan illustrates the interventions' relationship with the topography and the urban context.



ZOOM-IN OF STUDENT DORM

As we proposed addition parts to the existing student dormitories, the new student dormitories are transformed into a new courtyard typology.



ZOOM-IN OF CULTURAL CENTRE

The cultural centre and the lake front square presents as the centre piece of the student city park, being camouflaged as part of the landscape.



ZOOM-IN OF INTELLIGENCE HUB

The intelligence hub aims at providing co-working spaces, professional events and workshops and is equipped with affordable residential cluster and subsidised office buildings for aspiring new professionals.

CONCLUSION

To conclude, introducing the characteristics of city centre and the city park to the student city and creating axes from the student city to the city centre and the city park helped us to reconnect our site and the urban context.

To answer our question “what is missing in student city to be a quality urban environment for the residents?”, we have overcome the existing physical boundaries such as the highway by creating the park trilogy and human scale connections between these parks.

We used a more proper land use strategy to have sufficient public recreational space and public services while densifying; preserved the cultural identity of the student city; introduced infrastructure for alternative transportation methods; integrated sufficient social and commercial functions into the student city to meet local community's needs; improved the living condition of the students by providing privacy and communal functions; proposed a mix-use intelligence hub for student and new professionals to utilise their knowledge and skills.

As the densification in Tirana progresses over the next a few decades, this strategy of densifying in order to provide quality urban environment could be referenced a pilot projects that takes a human-centric design approach.



PERSPECTIVE TOWARDS STUDENT CITY PARK

This perspective shows the view from the main bridge towards the centre of the student city park, with the cultural centre, lake and lush vegetations.



PERSPECTIVE TOWARDS BUSINESS ACCESS

This perspective is the view from the main bridge next to the intelligence hub towards the business park and the main road, portraying a developed commercial district.

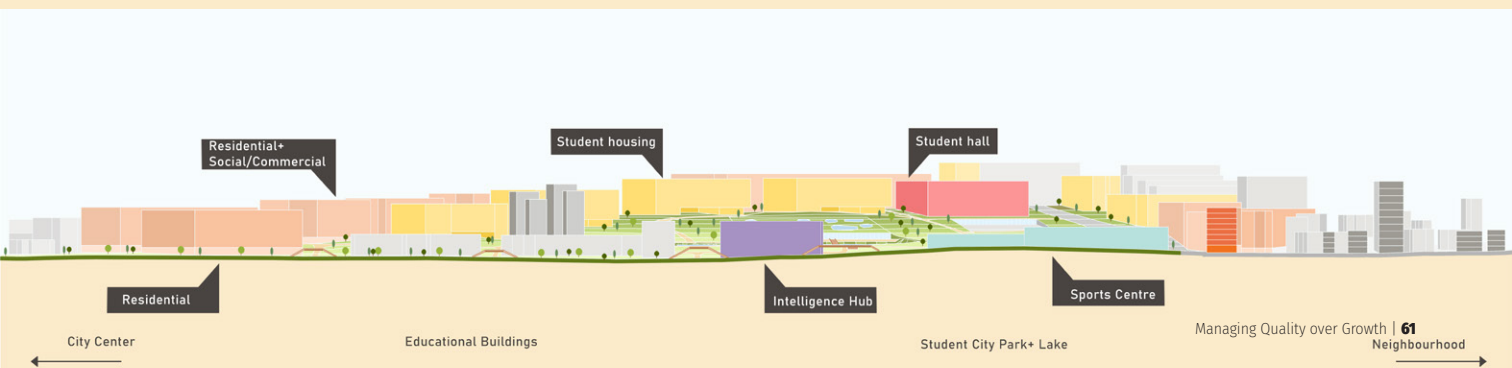
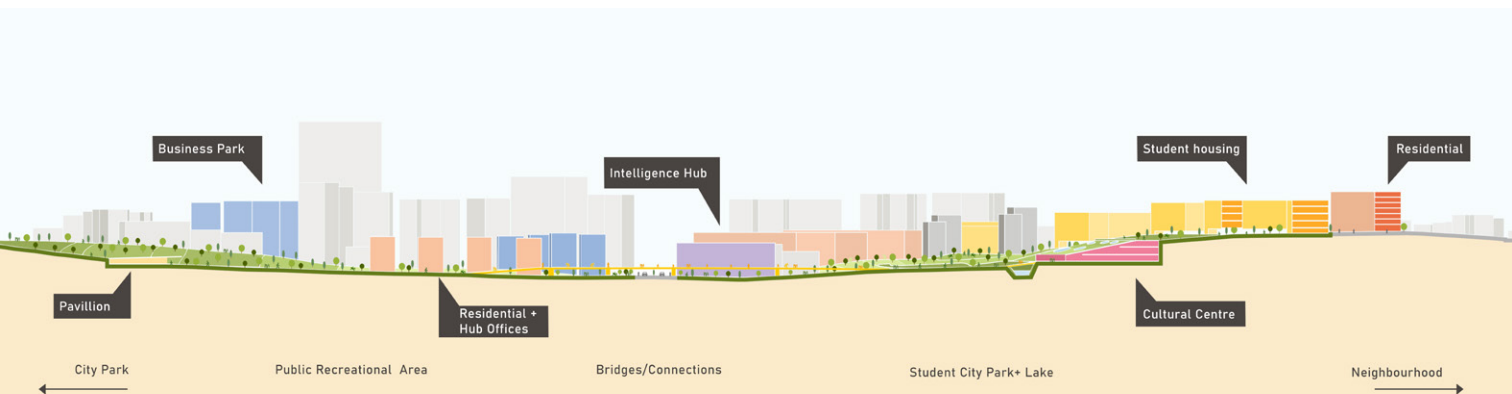


MASTER PLAN

The master plan shows all the proposed programs and the relationship among three parks and the connection strategy in-between.

SECTIONS

Two sections are cut, southwest - northeast through the main bridge and north west - southeast through the main road.



REDWORK

CREATING IDENTITY THROUGH A LANDMARK

by [LAJZ ÇAPALIKU](#), [FLORIAN KRAFT](#) & [EDUARDA POUBEL](#)

Being neglected for several decades, the Student City current configuration does not address the student's contemporary requirements and has been transformed into a marginalized area of the capital. Redwork comes as a simple and low-imprint intervention that re-evaluates the potentialities of the site in order to create a beneficial co-existence between all the parties.

RESEARCH QUESTIONS

Student City is seen nowadays as a low reputation and neglected area in the eyes of Tirana's citizens. The main reason that led to this stigma is the lack of investment done by the state to maintain or re-qualify the area. Although its proximity to many of Tirana's faculties, the precarity of the buildings and lack of offered services have turned the promise of a Student City into a dormitory-only zone, with its only attraction being the low-cost rents for students who cannot afford a higher living standard. With this in mind, our main concern along the project was to reconnect students with the site and create an inviting area for the whole capital.



MULTIFUNCTIONAL STRUCTURE

View of the new structure, flowing into the existing refurbished buildings and incorporating diverse functions such as: leisure, library, sport and power generation



NEW CENTER IN THE CITY

1. Private and public universities
2. Polycentric system
3. Establishing Student City as a new center

ANALYSIS

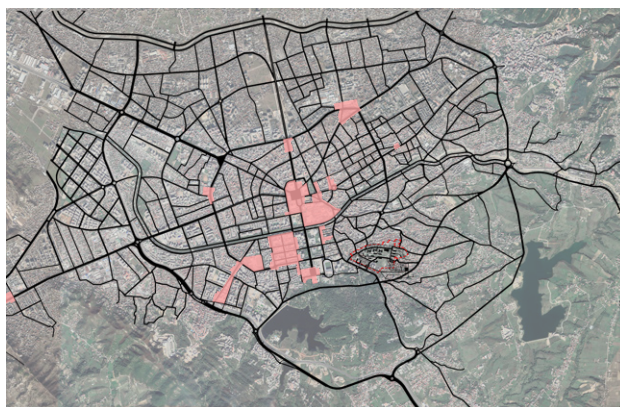
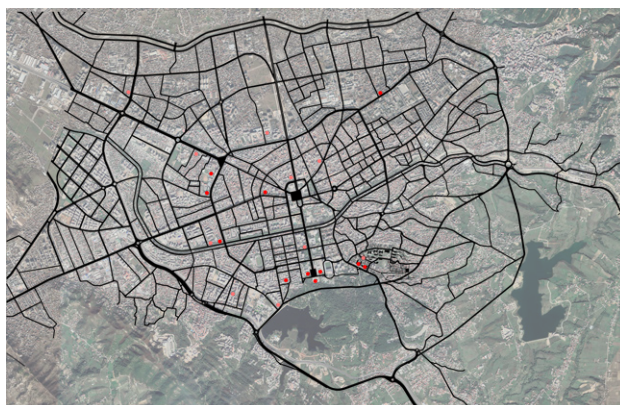
Our research analysis was based on mapping in two different scales: firstly, regarding the whole city and later with a more focused look on the area and its surroundings. Also, regarding this phase, the obtained data can be divided in three major aspects: climate, transportation and daily activities. The accumulated climate data was important when analysing existing structures in the site, and whether their current format address the environmental comfort issues in the city of Tirana. Moving into transportation, the understanding of the public transportation network helped us map the main access points in the city and shape the intervention accordingly. And lastly, by mapping the activities it was possible to identify the deficiencies in the site and other centers spread throughout the city, having Redwork as a response to this analysis. In summary, the obtained data during this phase helped us structure the intervention in a more efficient yet sufficient way.

HYPOTHESIS

By proposing a low-imprint structure in the site and its surroundings, it is possible to preserve the current modernist urban tissue while inserting a variety of new functions. This simple yet effective intervention can increase the overall quality of the Student City, attracting non-resident students to the area and creating a new hub that compensates for the absent activities in other parts of the capital.

SITE

After the analysis regarding the city scale, we zoomed in a city-quartier scale. What firstly stands out is the contrast between the modernist urban tissue of the Student City and the dense, organic urban fabric that surrounds it. Student City, 25 Ha large and situated on a slope, was planned and build in the late '60s by the communist regime as a residential site for the students of the University of Tirana. Its modernist plan was characterized by solitary buildings spread throughout the greenery, close to Tirana's Great Park on the west, rural areas in the

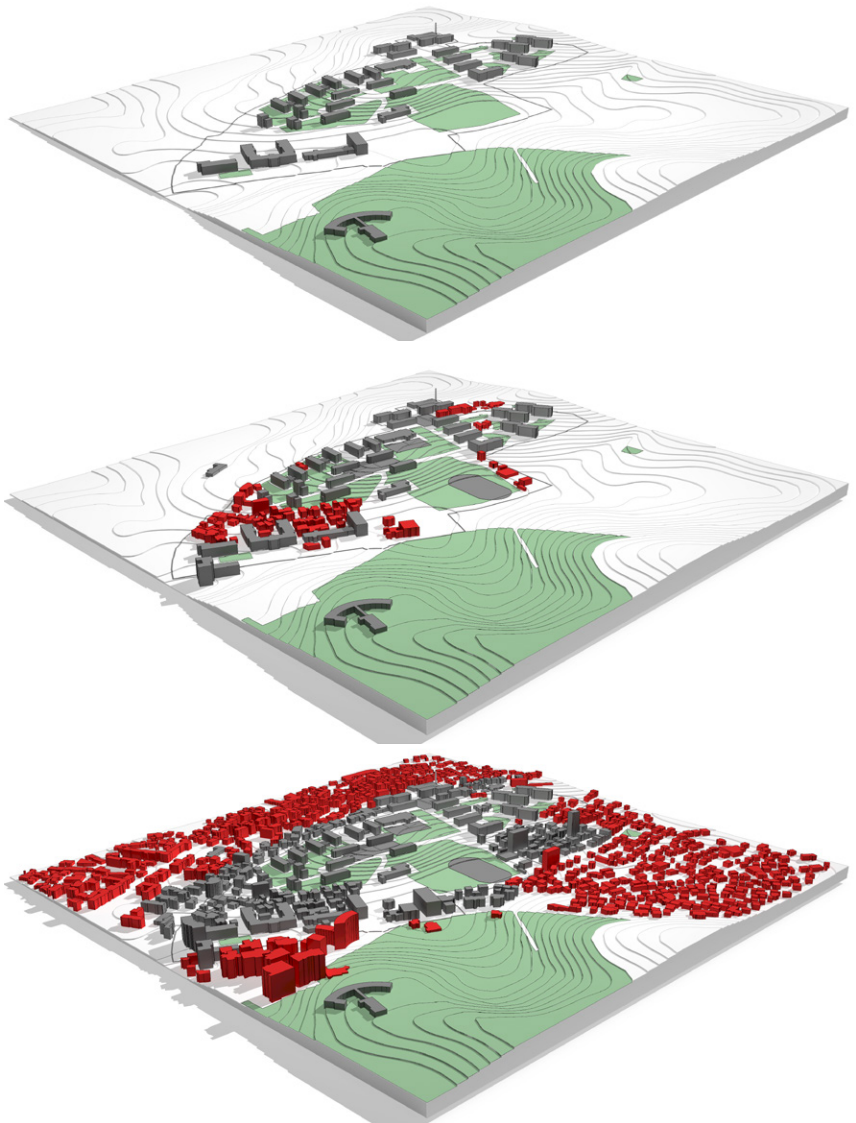


south and east and a mix of 5 story communist architecture flats and 1-2 story dwellings. Some of the first demonstrations that led to the downfall of the regime started in the Student City, which gives the site historical value. The change of the political and economic system in the early '90s brought drastic alterations in the composition of the site and its surroundings. The site (6,7 Ha) and its southern border were occupied by informal dwellings and in the northern and western area, high-rises started being constructed. This transition period was also characterized by a lack of investment done by the state to which Student City belongs. This led to a decrease of willingness among students to live there, although their number increased exponentially due to the liberalization of the university sector. The twenty dorms house nowadays approximately 5300 Student in 2424 rooms. Apart from the dorms and some residential facilities, for instance the Canteen and Library, five educational buildings (Faculties of Economic Science, Philology, Geology and a private university) define the south-west border of the site and offer a big potential for its future development.

OVERVIEW OF THE STUDENT

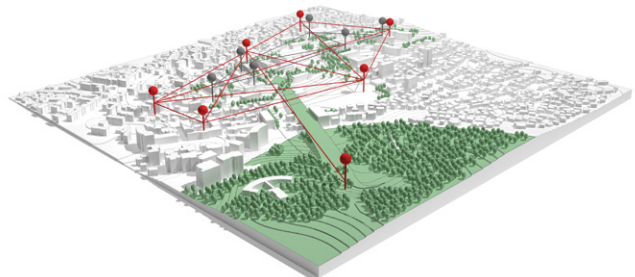
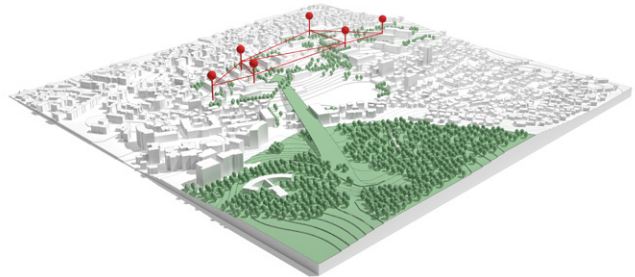
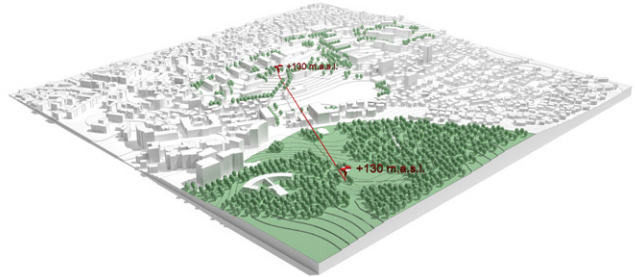
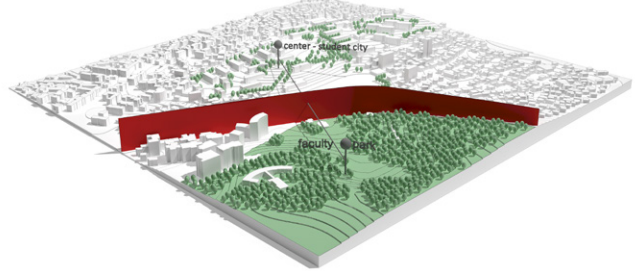
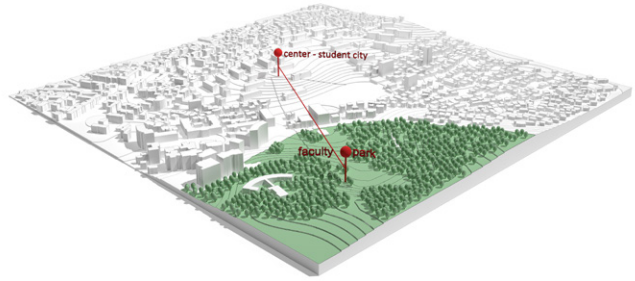
CITY

1. Originally planned structures
2. Informal settlements
3. Neighbourhood



FIRST APPROACH TO THE NEW STRUCTURE

1. Defining the epicenter of the site and the access to the park
2. Problem: high-traffic road as barrier
3. Analysing the topography
4. Establishing a green connection between the two areas
5. Creating a network in-between the dorms
6. Expanding the network to the other hotspot and main access points of the site



CONCEPT

Our main goal is to re-evaluate the potential offered by the Student City to Tirana and the 67.000 current students spread throughout public and private facilities, by upgrading the site to today's standards and offering more than just a dormitory-area. In order to do so, our intervention started by identifying the focal points of the site, such as dorms, faculties and the Great Park as well as the access points to the surroundings. After identifying them, it was possible to elaborate a connection in between those points, by creating a network that will be the trace of our structure. The intervention is divided in three main branches:

- Densification and refurbishment of the existing buildings according to the required living and climate comfort standards: incorporating balconies in the south and north façades and solar panels both horizontal and vertically
- Addition of a variety of functions that the Student City is lacking, from which the whole population can benefit, while preserving its architectonic identity as unique in the densified city. We first identify the functions that are going to be added and their required space area, and then spread these functions along the site according to the needed area.
- Creating a direct barrier-free connection to the Great Park and the Faculty of Geology, nowadays interrupted by an important car traffic arteria, by taking advantage of the topography.

STRUCTURE

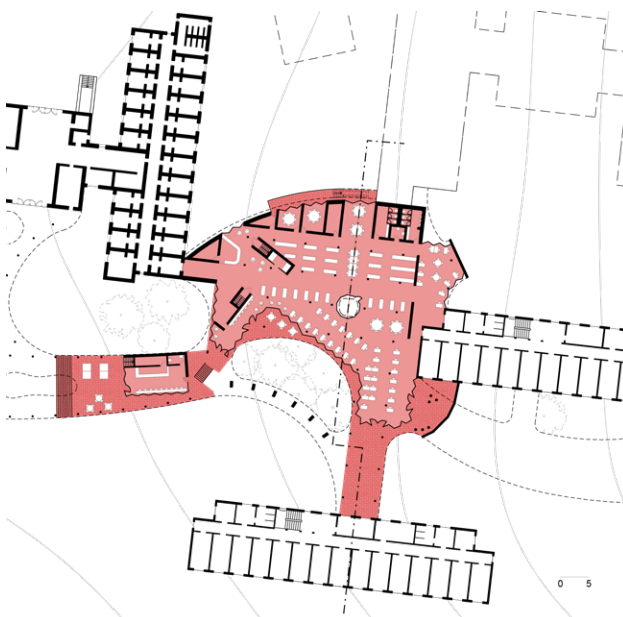
Our serpentine structure flows in the topography of the site and plays with the third dimension by creating spaces and therefore incorporating the functions such as libraries, educational spaces, markets, co-working and start-ups, gastronomy and other utilities. The starting points of our structure are various: the Great Park with the bridge connection, the northern street where the Student City meets the surroundings or the educational area in the south. The structure takes different shapes and heights as it goes next to, through and over existing buildings incorporating and re-evaluating them. One example is the former heat plant, that would be transformed into a multi-level art space and offering sufficient shading. As the structures meet each other, they create squares where we combine different uses and turn them into focal points of the site. In various cases the structure also integrates the informal dwellings, not in an arbitrary manner but by embracing or integrating them with a certain use that opens the way to a beneficial co-existence.

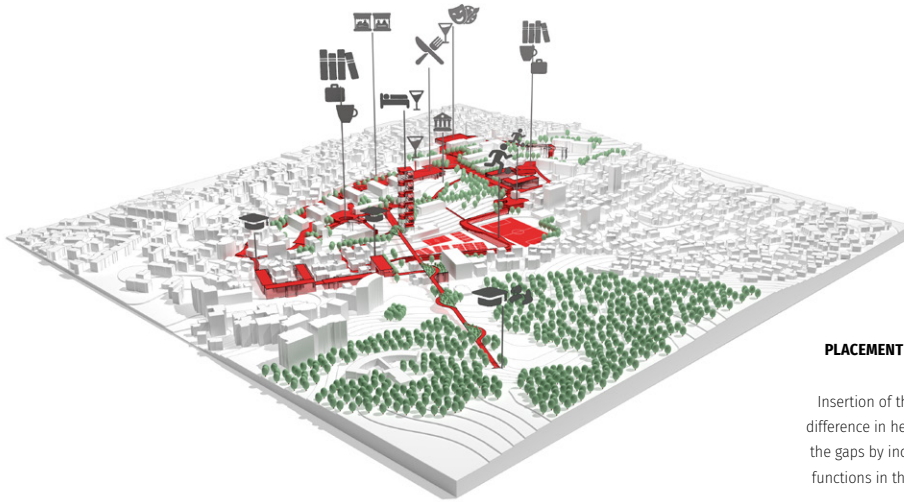
Another main intervention is the 110m high tower, that offers living space for more than 700 students on 30 stories. Condensing the footprint into a high rise respects the logic of the unique urban fabric of solitary building. This new landmark supports the identity of the new Student City while fitting into the context of the city itself – with its new high-rises shaping Tirana's face.

The structure would be presented with the color red, as a way to emphasize the contrast between old and new and give the Student City a new identity, along with its upcoming importance for the city of Tirana.

DETAIL OF THE STRUCTURE BETWEEN DORMS

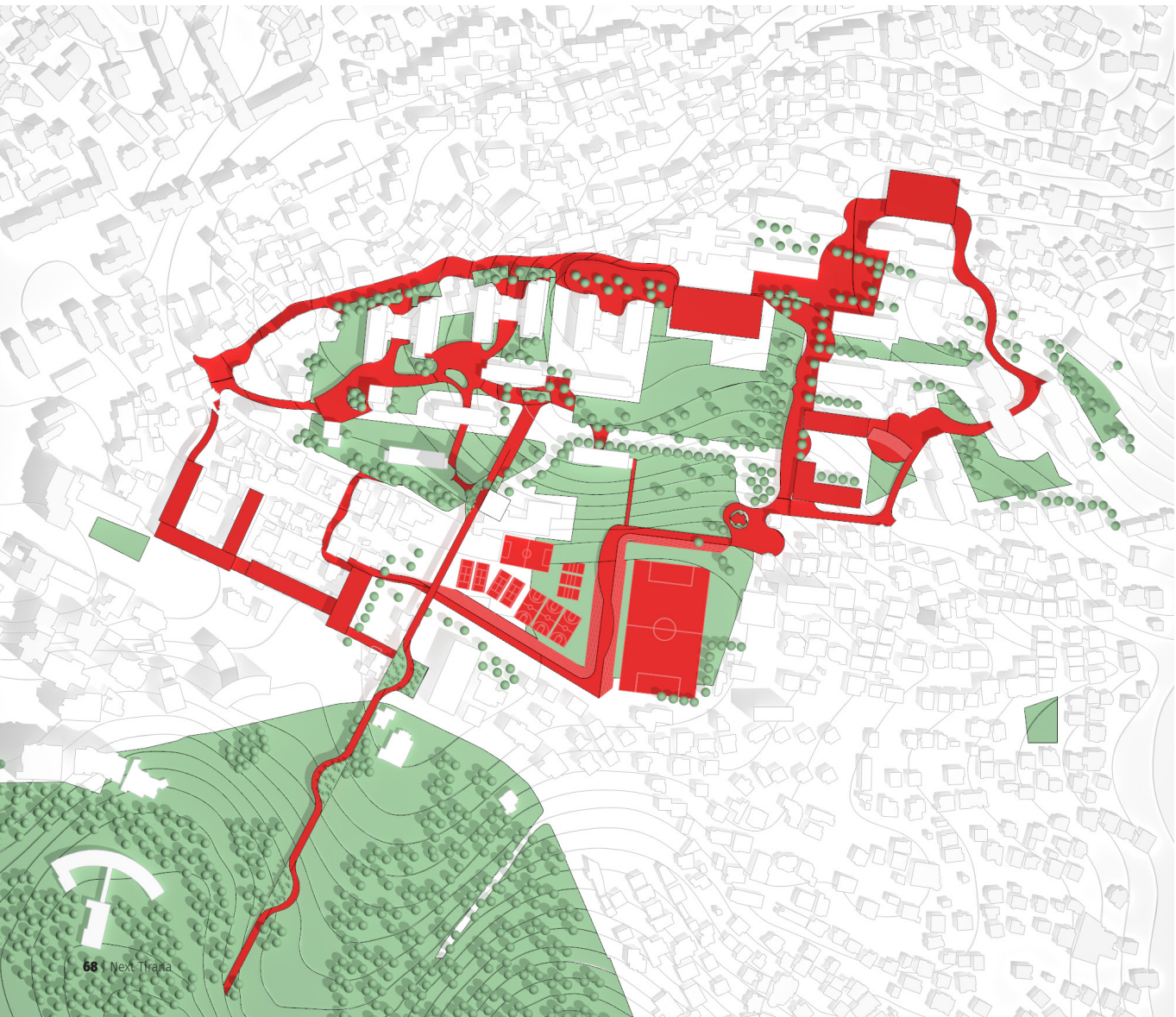
1. Ground floor incorporating a learning center with a cafe and surrounded by greenery
2. Top of the structure forming a square that connects 3 dormitory-buildings and their respective communal rooms where leisure activities take place





**PLACEMENT OF THE STRUCTURE IN THE
EXISTING STUDENT CITY**

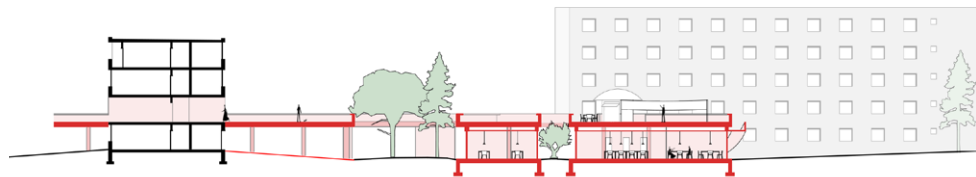
Insertion of the proposal considering the difference in height along the site as it fills the gaps by incorporating current missing functions in the area and in the city scale.



CONCLUSION

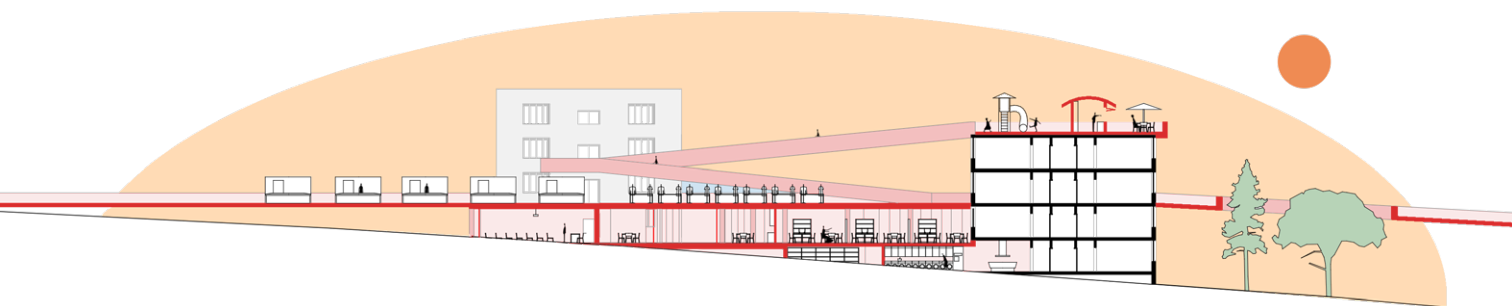
By implementing a low-imprint intervention, the proposal is able to address environmental comfort issues, by providing shaded paths along the site, at the same time it preserves the architectural configuration of the site and creates a symbiosis with the informal settlements. Also, the structure addresses the current needs of students by incorporating required functions and provide a direct connection to the park, one of the only green public areas in the city. The tower, along with the structure itself, works as catalyzer for future densification, still one of the main concerns in the city of Tirana, while providing quality for this future process.

Within that, Redwork can turn the Student City into a popular and innovative place for the student community, as well as citizens of all generations.



A CLOSER LOOK INTO THE STRUCTURE

1. Cutting through the square between dorms
2. Cutting through the market area
3. Cut of the meeting point between 3 different height levels of the structure







ROUND TABLE DISCUSSION

with [THOMAS AUER](#), [GJERGJ BAKALLBASHI](#), [ALESSANDRA BATTISTI](#) & [THE STUDIO TEAM](#)

A round table discussion after the final presentations with professors, tutors and students.

Bilge Kobas: I would like to start this roundtable discussion with the reason we chose to focus on this topic. Let's talk about the challenges we are facing with cities and how we tackled these issues in the context of the studio this semester.

Gjergj Bakallbashi: The thing that Tirana has offered to the conversation of Cities, which the Chair has tackled also in previous studios, is this very fast sense of densification and lack of awareness of the opportunities that one misses along the way. While the conversation has always been focused on the issue heritage vs. new development, I think the new layer that Tirana offers is this idea of quality as described in the parameters that all the four projects have covered. Quality of the ground floor, environmental comfort – which is not something that should be taken lightly –, connectivity, and the balance between green, civic, and built space. That's where I see the added value of taking Tirana on as an experiment and as a place for speculation.

Thomas Auer: As Gjergj mentioned, we have had a couple of studios dealing with the question of cities. So why do we deal with the topic of cities? There are couple of reasons.

One reason we see is, obviously, climate change and that cities need to adapt to different climate conditions. If we go back in history, particularly the early 20th century and after second world war when we got the car, it changed the quality of our cities. Now we are at a point where we can, and where we have to, rethink it all. This is a potential we want to explore at the Chair, and that's why we love to have these studios on a city scale.

We are also at a point where we find more data to better understand the fabric of the cities or how people use the spaces. We believe that in education it's very important that we, as architects, get deeper into data analysis, data mining, data visualisation and understanding data in order to make informed decisions.

And then there are issues like migration. Not only migration into Europe but also within Germany. Within European cities, we see movement going towards the cities. It might change at some point, but until today we put a lot of pressure on our cities, and with that, the rural areas dissolve more and more – which is a problem in itself. That's another problem which would also be interesting to consider for a studio.

...we are at a point, where we find more data to better understand the fabric of the cities or how people use the spaces. We believe that in education it's very important, that we as architects get deeper into data analysis, data mining, data visualisation and understanding data in order to make informed decisions. ”



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Mario Cucinella Architects unveils its ...
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Gallery of Finalists for the Masterplan ...
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skyline with a 3D map ...
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Tirana Masterplan - Albanian Housing ...
e-architect.co.uk



WAN Awards: Tirana Mixed Use Building ...
worldarchitecturenews.com



TID Tower - Wikipedia
de.wikipedia.org



Archaea Tower - by Arc...
pinterest.com



The Tirana Pyramid | Architectuul
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LOST ARCHITECTURE, THE PYRAMID OF ...
archello.com



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TID Tower Tirana: Buildin...
e-architect.co.uk



Tirana Architecture, a photo from ...
treearth.com



MVRDV - Toptani Shopping
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COOP HIMMELB(L)AU ...
e-architect.co.uk



Palace of Culture of Tirana - Wikipedia
en.wikipedia.org



Mario Cucinella Archite...
floornature.com



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51n4e.com



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"TIRANA ARCHITECTURE"

A search on Google Images shows what "Tirana Architecture" looks like. Image above is showing the first results for the search query, in March 2020.

However, we looked at the cities and started talking about densification. How can we densify and still have this kind of transition? And when talking to Gjergj about what's going on in Tirana, we recognized that they are ahead of what needs to happen here [in Munich – Ed.] as well in terms of densification. We also recognized that densification happened in Tirana to an extent where it started to become problematic. In this studio, we talked about how we can densify and maintain quality and getting this transformation right. As we noticed densification is over the top already, suddenly the question of quality became much more important. That's why I think this was a very valuable studio and very interesting city to look at, with four very interesting projects that came out of it.

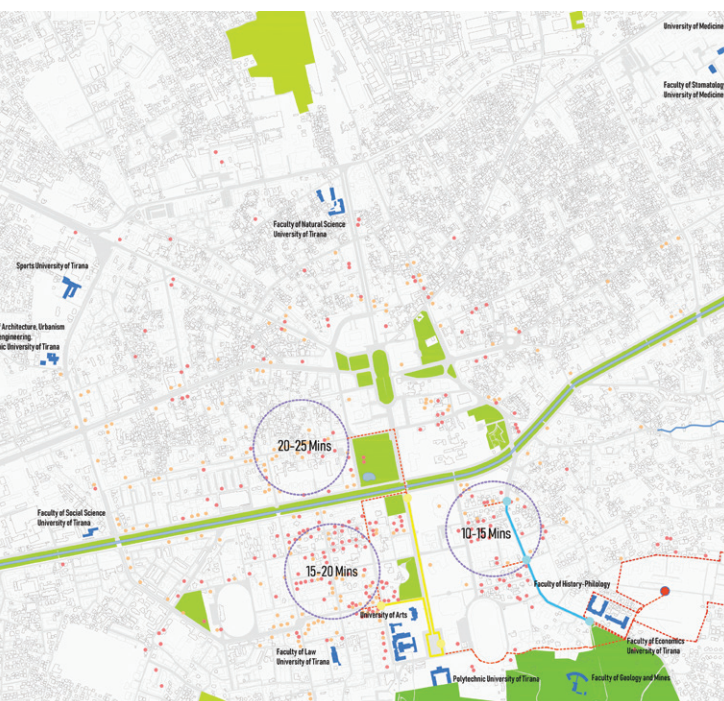
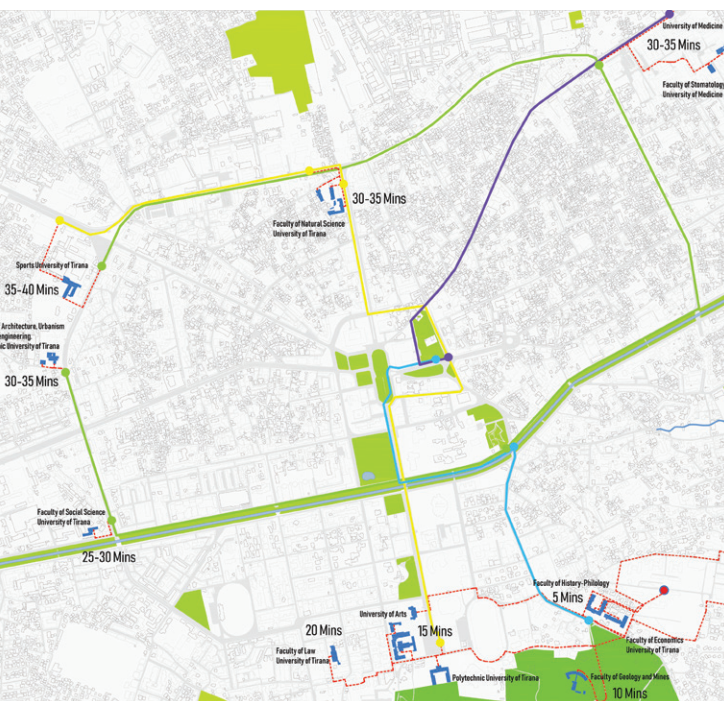
Jonathan Natanian: I think one of the most overwhelming things in Tirana is the chase for shiny architecture, which creates a huge contrast that you don't see in many places. So you ask yourself 'I need to densify, but is this necessarily the right way to do that?'. We see these towers popping up arbitrarily across the city, with the existing low-rises between them, with the social contrast and the environmental consequences it creates. I think one of the aims of the Studio was how to give architects tools to think differently. We thought this kind of process can create different combinations and most of all, a more human centered approach, which is where we want to get. Next thing is also to use data tools to meet the current situation and offer alternatives to this kind of crazy growth, which is happening right now. I think Tirana was a very good case study to test this on.

ACCESSIBILITY OF PLACES

Top: Higher education institutions and their accessibility during the day by public transportation.

Bottom: Cafes, restaurants and bars - accessible during the nighttime.

Data from Moovitapp and Google Places, images by team [Park Triology](#).



Bilge Kobas: Since we're talking about quality... for me quality can be such a vague term. At the Chair we know how to deal with numbers, but how do we deal with quality? Can we quantify it? Can we measure it? How do we define quality in cities in means of global or local scales?

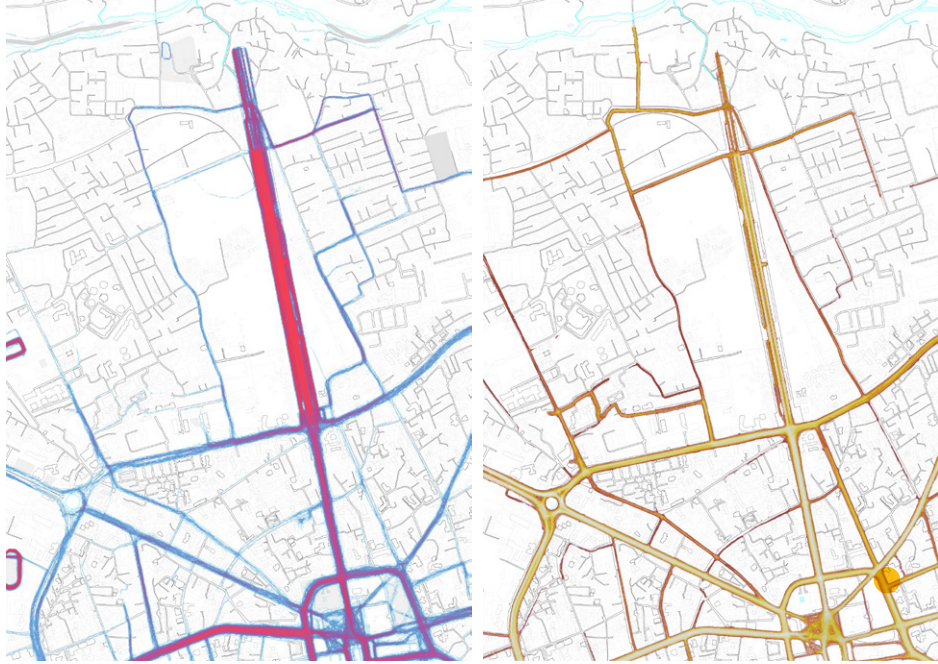
Alessandra Battisti: Last year, I was invited to Barcelona, to the most beautiful workshop I have ever been to. The task was to create a new vision for the city's famous Rambla, which is a beautiful place! My students asked me why they had to redesign a space that is already perfectly working. I told them that for that space to be a success in the future, we have to re-envision it today. I find this kind of approach very interesting and I think that the people that are involved in architectural processes need to envision a viable future, not only the present. Climate change offers us an opportunity to think differently, and as architecture schools, we have to put our students in a position that questions these approaches so they can find their own new ways. It is not only about densifying, but about changing a city through new visions.

Thomas Auer: I agree, I think architecture was always a promise of a better future. That was always the purpose, or at least one of the things that architecture had claimed, and always failed. Every period has its own challenges and the answer – or the vision – has always been a response to those challenges, trying to solve them. Only, 50 years later, we realize we were stupid. But that doesn't matter! In the middle of the 20th century the car was that exact promise for the future and the cities adapted to this challenge. So we designed these big road axes. When we look back now, we realize we were talking about a car friendly city and how wrong that was! Or the Athens Charter, aiming to reduce commuting times by locating industrial zones close to residential ones but never considering the high emissions and terrible air quality in the industrial areas of the time. It was simply never a challenge to be answered. Now we look back and realize we screwed up. And I'm pretty sure no matter what kind of vision we are going to come up with, people in the future will still criticize how short-sighted we were.

MEANS OF MOBILITY

Walking&running (left) and biking (right)
routes around the project site.

Data from Strava, images by team [Transition](#).



“ ***What is the metric that distinguishes between good and bad? That’s a discussion we have almost every day and we still don’t have an answer. And that’s the hope we put in data, that with data we can tell what works and what doesn’t work.*** ”

I think the promise we make in architecture is mainly to give answers. And we don't have these answers yet. You raised this very critical question of what the metric is that distinguishes between good and bad. That's a discussion we have almost every day, and that's the hope we put in **data**: that with data, we can tell what works and what doesn't. Let's take mobility as an example, more specifically cars. The car industry as well as the retailers are a lobby, a lobby for car traffic. The people walking, the ones using a park, they are no lobby, and as such have no voice. So the question is, can we give them a voice through data? Can we use data to figure out what's a good threshold for daylight in the public realm, wind, thermal comfort, acoustics, and so on? Where's this line between good and bad? We don't have the answer, so that's what we work for every day. And these studios are very helpful to do this, one could say we misuse the students' time to better understand our context. Of course, I hope it's also beneficial to the students, but the studios are definitely a little bit experimental and speculative, to help us to better understand the visions and promises for the future.

Gjergi Bakallbashi: If I can add to that – These four projects and the ones of the other studios are assimilations. They surpass the ability of a computer to just do numerical simulations. There is a huge number of metrics and factors that you produce in terms of your proposals, that address issues of quality, that the computer cannot possibly do.

Thomas Auer: I would say: of course we can model everything and we can get numbers of everything. The bigger problem we have is the interpretation of this data. This is where we fail and where we struggle. Our question has to be: where do we still need to find answers; and this data that we get out of answering those questions, what does it mean? The point is, solely producing data is meaningless unless we are able to give it meaning. We have data from which we can extract information. From information we get knowledge, and from that knowledge you create wisdom. But so far, we are mostly just creating data.

David Selje: I think it's also critical to understand the city in that many layers, with all its influences. Harvesting knowledge seems very complicated because there are so many parameters that are not given.

TIRANA CITY PLANS THROUGHOUT YEARS

Right: Existing situation vs regulatory plans from 1917 to 1957

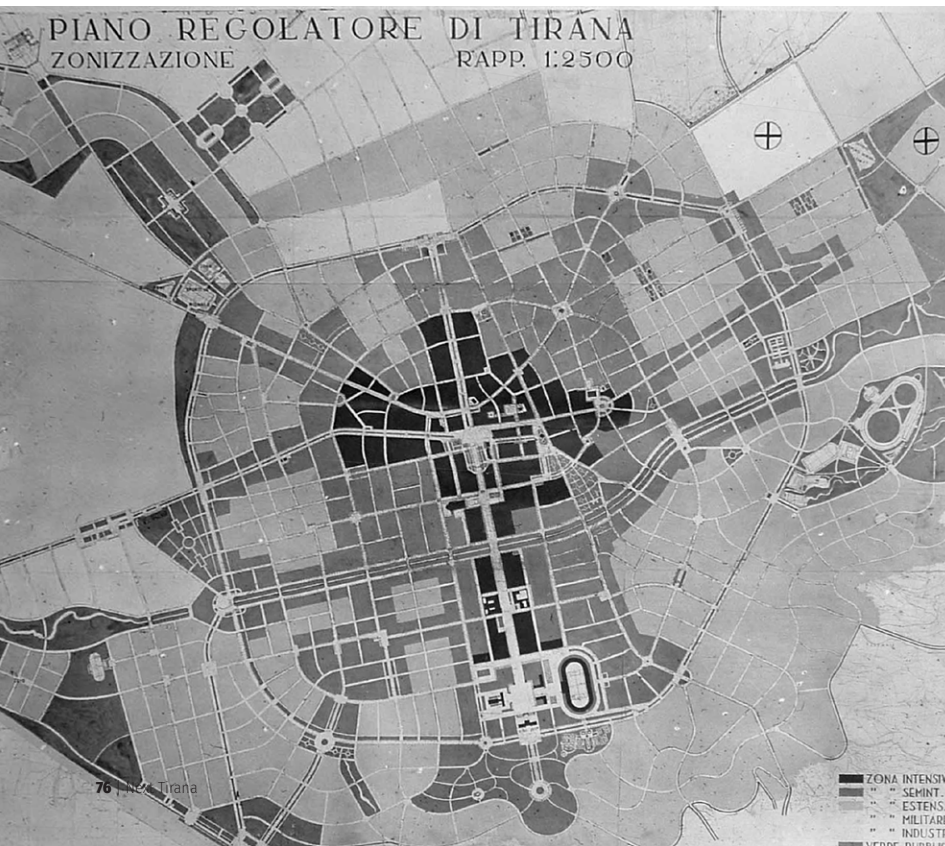
Bottom left: Tirana zoning plan in 1939.

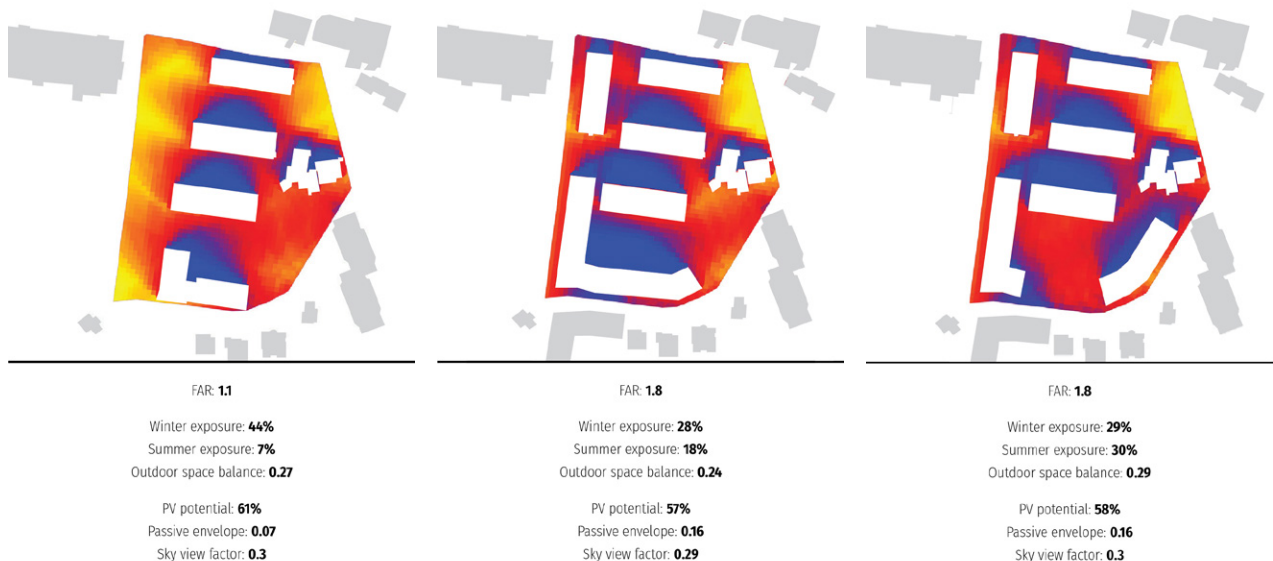
Images taken from presentations made during the "Tirana Workshop: Bringing the city together", organised by a group of PhD candidates and young academics of the School of Architectural Engineering of National Technical University of Athens and supported by U-Polis, International School of Architecture and Urban Development Policies University, Tirana in 2009 and 2010.

Thomas Auer: And that's the beauty of cities, they're such a complex system. It's not easy, but everybody can do easy!

Jonathan Natanian: It was very interesting to contemplate on where tools get fed into the architecture to create new workflows. As we want to strive towards informed design, one could say this studio was like the test run for this environmental parametric workflow that we try to apply. And we can see how hard it is to create this mind shift from traditional thinking in urban design, even for students who are engaged, who want to study and learn new things and also to master these tools. It is also hard to understand how to put these tools into practice and how to make them inform your decision-making. So even though we had most of the metrics, it was still hard to implement them.

Gjergj Bakallbashi: Unfortunately however, these calculations that you suggest are almost absent in the landscape or the context of Tirana. Up to this day, a lot of planning decisions are still made on the basis of distances that come from property boundaries and road sections, and the components you are dealing with are only few of many small steps. Considering that you have





CONSIDERING ENVIRONMENTAL PERFORMANCE FOR MASSING STRATEGY

Results of initial trials before setting a massing strategy, using a Grasshopper workflow which includes a series of environmental simulations.

Image by team [Park Trilogy](#).

a whole city that is planned without these type of conversations, it's not an easy to change to make, and to build that innovative. For example, the New Boulevard, one of the project areas in the studio, is a vision of two million square meters of construction and those simulations that we are talking about right now are completely missing in the process. The office that is doing the planning knows that they will only complicate things if these topics were included. So they turn to regulations, follow the city code and the appropriate distances, knowing those will be approved without complications. The human comfort thereby is completely missing.

Florian Kraft (student): But isn't that what we see happening all the time? We [Architects – Ed.] take an already proven concept – like a certain courtyard typology that worked in a similar climate – and implement it somewhere else, not considering doing location-related simulations first? We look at nice references and try to adapt those to the new site, since they already worked somewhere else.

Bilge Kobas: That's the traditional way of designing. But how do we define *nice* as reference? I think that's the difference that data driven design is offering us. Sometimes your experience as a professional may be proven wrong or insufficient because now you can simulate different parameters and you can take different datasets into account. I think that's the beauty of it, that knowledge from data, if you can extract it, can inform you to make, well, "better" decisions.

Sandra Persiani: I guess you can argue both. Of course taking data into account is important but again if you only analyze data it becomes a very analytical mathematical point of view: the data is only going to tell you whatever that amount of data can tell you. The good thing of learning to be an architect is that you get a great baggage of knowledge that we are probably not even conscious about. We can still tell what quality is, even though we can't measure it. Then of course it is also highly individual, but we do have some kind of internal metrics to this even though we cannot put it into words. The risk of only looking at data is that you look at a limited set which only gives you partial answers and if you use it as a full answer you will miss many things.

***So, if you use only data
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about breaking systems
in order to create
atmosphere, but you
can only break a system
that you understand. ”***

Thomas Auer: We have intuition. Good architects have good intuition.

Bilge Kobas: I completely agree but still, looking at things through data forces you to rethink what your initial reflex is, so I think you should do both. You should listen to your intuition but then test it with the data and mix both.

Thomas Auer: Absolutely, I totally agree because I think the problem is that data doesn't provide an atmosphere. So, if you use data as a simple tool to develop a master plan or buildings, every single building and street will look the same. The grid would be totally homogeneous. That's what architects tend to argue for. What I argue against that is, architecture is about breaking systems in order to create atmosphere, but you can only break a system that you understand. And this is where we fall short in what we are doing. We break on intuition, and sometimes people are right. Good architects distinguish themselves from others because they have a better intuition. But sometimes they're wrong too.



way of gaining understanding without any illusion of working scientifically or ambition to do so. If Architecture Studio had done this, it would have seen that Tirana is not a boulevard designed and constructed by the fascists, it would not have cooperated with the mayor's swollen ego, and it would not have allowed itself to be trapped into developing a plan intended to be realised over the next 30 years.

Who in heaven's name still believes in a 30-year plan? It would not have lent itself to encouraging some flashy high-rise to be put up in the city centre, which can only lead to the gradual abandonment of the plan when it turns out that the phallic buildings will never have the misty transparency suggested by the images drawn by Architecture Studio.

If the people that Architecture Studio put on the project had walked until the tendons connecting their feet to their legs were inflamed and the endless breathing in of clouds of exhaust fumes from the Mercedes

had brought about a state of trance, they would have seen that the city of Tirana is no longer limited to the territory of Tirana - and had not been for a long time - but extends out to Durrës, Kruja and Elbasan. In Kruja they would have seen how it was historically destined to fall into the clutches of tourism, but on the way they would also have seen the identical rows of furniture shops with the great metallic-grey garage doors and the gleaming white pits in the countryside where lime is slaked, and they would have seen how well the informal public transport works. In Durrës they would have seen high-rises developed with a view of the sea, with restaurants and cafes, and how little this differed from the sit-

Who in heaven's name still believes in a 30-year plan?

uation on the Belgian coast, and perhaps the word leisure would have occurred to them. And on the road from Tirana to Elbasan they could have enjoyed the view and the fresh air on the climb, almost a thousand metres up. They could have seen the surrounding snow-capped peaks, but would also have seen how often the view is occupied by all sorts of strange, new, disproportionately large buildings, garishly coloured and exaggeratedly decorated. In this way a picture of Tirana would have emerged as a complete city, with tourism, industry and areas of natural beauty, and of course with informal buildings spread all over the place.

A VISION FOR TIRANA 2030 VS SCEPTICISM FOR LONG-TERM PROPOSALS

Previous page: Image from Stefano Boeri Architetti, illustrating a vision for Tirana in 2030. The master planning project is commissioned by the Ministry of Urban Development with Municipality of Tirana in 2015. In the designer's words, the scheme is a proposal suggesting "a model for a new balance between city and nature".

Above: A critical article by architect Wim Cuyvers, titled "Tirana — Mercedes, Houses and Rubbish". A point the article makes, that most of the proposed master plans "trap themselves" into developing a plan that will be realised in the next 30 years.

One of the projects of the studio, [Transition](#), deals with this and focuses on designing the transition into the future rather than illustrating a single snapshot that will happen 30 years from today.

Bilge Kobas: On top of all the complexities we have been talking about, I want to throw in another layer — time: What you design right now will be built in maybe 20 years, and for a completely different generation. You initially said that we always do something that responds to the challenges we face but then, 50 years later, we look back and what we did doesn't seem that smart anymore. These studios are also simulations for the future, deriving from the current problems that we are facing – so what can we learn for the future? What do we expect from the architects of the new generation?

[Gjergj Bakallbashi](#): One thing we learn from the studio is, it's hard to talk about the future.

The premise for all 4 projects of the studio was the plan for the city titled "Tirana 2030", which anticipates a vision for the city and what it will look like in 10 years. I think a lot of this conversation about the future is driven by planning exercises where you consider planning, urban design, architecture and landscape altogether. What I find interesting about the studio is that it melts the differences and starts to look at metrics as a way of redefining this kind of very bureaucratic approach.

Thomas Auer: It's always impossible to predict the future. I talked with an architect doing her PhD in architectural history about the first potable water system built in Berlin - which dates back to the late 19th century. She mentioned that if you overlay the master plan of the potable water system they did in the 1880s, you can still see the fabric of the city of today. So with infrastructure, we make decisions which will remain forever! Buildings come and go, generations come and go, but the infrastructure doesn't. We need to be aware of that. There are many different layers in time.

Think about the smartphone. Despite the fact that it changed our life, Sony announced that they believe that ten years from now there will be no more smartphones – I don't know what the alternative is, and we might not even be able to imagine a world without smartphones – but my point is, you can see how quickly our life is changing and at the same time, we make decisions in urban planning which last forever.

We are constantly trying to find good solutions to this kind of systems that can tell us something about the future. So what have we learned here? I think within this studio, I have learned a few very important things. People in Germany are scared about density and I've always said densification is a big chance. But now I started to recognize with Tirana, that densification doesn't work forever. It offers a chance in places like Munich and in other European cities, but it can't go on forever.

The other thing I learned from Tirana, discussing about tearing down whole districts in order to fulfil our vision, is that I think we have to be more sensitive in the transformation of our cities. Especially when we talk about the transition of our European cities, we have to recognize the qualities which are already there. Instead instead of tearing down an existing layer we should think of how to add another one. It's adaptation, piece by piece, it's intervention, piece by piece, to create better cities and I think that's something we can learn from Tirana.

David Selje: I find it very interesting, when we talk about the infrastructure which lasts forever or buildings with a life-cycle of a 100 years and more. Their time scales aren't even comparable to the evolution of the smartphone and technology. So maybe it's less about viewing the building as an individual piece, but more about how we think in strategies of being flexible while preserving and creating new spaces.

Jonathan Natanian: Everyone is talking about the 4th industrial revolution, where digitalization and data is going to change everything, and we have the feeling that we are at that tipping point where everything is about to change.

Thomas Auer: ...except the potable water system!

Jonathan Natanian: But at the end of the day, we talk about how to balance between this data which feeds our simulations while the time frames simultaneously become denser and denser. If it was monthly before, now its hourly. And every second we are fed with new information. The question is, and I think the studio started dealing with this, how will this change the way we, but also how policy makers see the process? Because in a way, they construct the grid which the architects later fill in. Architects still cling to their intuition, while data scientists and environmental engineers are convinced of the idea that we can put numbers on everything. The current situation is that there is a complete gap between designers, architects and environmental engineers in the building industry and I think one of the things we try to do here is to bring them together.

...when we talk about the infrastructure which last forever and buildings with a life-cycle of a 100 years and less, their time scales aren't comparable. ... So maybe it's more about how we think in strategies of being flexible while preserving and creating new spaces. ”

“ ***We need to rely on intuition and data combined, and not on either way only or we end up stupid and primitive.*** ”

Thomas Auer: Yes, we need to rely on intuition and data combined, and not on either way only or we end up stupid and primitive.

On a governance level, I think we would be able to implement it if we had the answer. If you ask me what should go into policies, I'd say “better cities, happier people”. Unfortunately, it's very hard to really nail it down because it can backfire. We need to find these thresholds and metrics that distinguish between what is good and what's bad. And it's not that this is not being done, we do intensive modelling for the city of Cologne right now and naturally they want to know everything, but many of those numbers are meaningless. So the problem we have is: we try to give them all the numbers, and the administration later on uses those numbers as a defence against complaints. In some aspects, like concerning access to light, we think we can be really accurate, but in other aspects, like for microclimate, it's really hard.

Gjergj Bakallbashi: Right, unfortunately what also often happens in planning – at least in the context of Tirana – is that, the administrations deal with a whole set of decisions that come before the architecture, and then expect the architect to make the solution look good. In this studio, the students recognized that the look of a building is not the most important aspect of the project, and that there is a whole other set of decisions that come before that. The architect alone cannot save the day.

Thomas Auer: In the early 2000s we started believing that star architects were able to create gravity to a city, everybody was talking about the Bilbao effect. But if we look closer at something like that, we can see that is was a whole region undergoing a lot of change: that one building just happened to be a part of that. There is no way we can use one building to change the whole region, it's just naive to think so. Therefore, I really liked that in the student's works none of them believed in this flashy architecture. No-one felt like doing a twisted tower of 400m, believing that one big gesture will change Tirana and I think that's a very rational understanding.

We have to be critical about what and how we are doing things. Especially in architecture, we talk a lot about the beauty of places. I don't want to say places have to be ugly, but aesthetics is only one aspect and our world is much more complex than that, and sometimes in education we miss that chance to tell the students to be critical about what we are doing. Every research we do here at the Chair, and every student work, helps us understand and learn from these answers.

I hope that you enjoyed being part of contributing to this research in understanding the complexity and issues of design, outside of the context of aesthetics. I want to thank everybody for the valuable contribution: I want to thank Alessandra for being part of this discussion and final critics today. I also want to thank Gjergj for being our guest this whole semester and teaching us about Tirana.



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